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PHASE II LIMITED SUBSURFACE
SOIL INVESTIGATION (PHASE B) REPORT
SPINNAKER COATING, LLC EA-6 AND OFFSITE AREAS
518 EAST WATER STREET
TROY, MIAMI COUNTY, OHIO 45373

PROJECT NUMBER: 084-20

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The Contractor, MAKSolve, hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under contract project number 084-20 is complete, accurate, and complies with all requirements of the contract project.

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List of Acronyms

bgs	below ground surface
COC	Chemical of Concern
DPT	Direct-Push Technology
DQO	Data Quality Objectives
ETCA	East Troy Contaminated Aquifer
ft	feet
GPR	Ground Penetrating Radar
HASP	Health and Safety Plan
LSI	Limited Subsurface Investigation
ID	Identification
IDW	Investigation-Derived Waste
µg/kg	micrograms per kilogram
mg/L	milligrams per liter
OEPA	Ohio Environmental Protection Agency
PCE	Perchloroethylene
PID	Photo-Ionization Detector
PRG	Preliminary Remediation Goal
QC	Quality Control
RAO	Remedial Action Objective
TCE	Trichloroethylene
TCLP	Toxicity Characteristic Leaching Procedure
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
VAP	Voluntary Action Program
VOC	Volatile Organic Compound
WP	Work Plan

1.0 INTRODUCTION

1.1 Site Description

As completion of a Phase II Limited Subsurface Soil Investigation (LSI) for Spinnaker Coating, LLC ("Spinnaker"), subject property, MAKSolve submits this *Phase II Limited Subsurface Soil Investigation Phase B Report* (Phase B LSI report) for the Exposure Area 6 (EA-6; Site) at Spinnaker. Spinnaker is located at 518 East Water Street in Troy, Miami County, Ohio 45373. An excerpt of the United States Geological Survey (USGS) 7.5-Minute Topographic Map (1961 Troy, Ohio) shows the location of the subject property (Figure 1). MAKSolve completed initial soil sampling at the subject property on March 25th and 26th, 2020, as a first "phase" (Phase A) of the LSI. The following Phase B LSI report details the subsequent work (August 24th through September 2nd, 2020) that was completed to mitigate the soil contamination identified during Phase A of the LSI.

1.2 Site History

As part of the East Troy Contaminated Aquifer (ETCA) Superfund Site, EA-6 is an area of contamination previously identified by the United States Environmental Protection Agency (US EPA) Region 5 as an area requiring environmental action to address present contamination. According to the US EPA, EA-6 was defined as an area located under the asphalt-covered portion of the western parking lot at Spinnaker, was rectangular in shape, and encompassed approximately 3,175 square feet of surface area. The primary chemicals of concern (COCs) identified in subject property soils include trichloroethylene (TCE) and tetrachloroethylene (PCE), COCs for which respective Preliminary Remediation Goals (PRGs) in soils were developed in order to achieve US EPA and Ohio Environmental Protection Agency (Ohio EPA) Remedial Action Objectives (RAOs) for the ETCA. Specifically, US EPA determined the PRGs to be 34 micrograms per kilogram (µg/kg) and 44 µg/kg, respectively, for TCE and PCE in soils. From its investigation and subsequent feasibility study of potential remedial cleanup alternatives for subject property soils, US EPA determined the remedy for EA-6 to be Excavation and Off-site Disposal. However, it was unknown if portions of EA-6 soils may, potentially, be considered hazardous. Additionally, the nature and extent of the potential off-site presence of soil contamination had not been adequately determined.

1.3 Conceptual Site Model of Subsurface Soil Contamination

In March 2020, MAKSolve performed the Phase A LSI as an initial assessment of subsurface TCE and PCE contamination at EA-6. A Site map (Figure 2) illustrates the approximate boundaries of the EA-6, as defined by the soil boring/sample locations selected for the Phase A LSI. Based on laboratory analytical results for the soil samples collected from these Phase A locations, subsurface TCE and PCE soil contamination was identified at the subject property, and a

conceptual site model (CSM) was developed to illustrate (1) the lateral and vertical extents of TCE and PCE in soils, as well as (2) how the individual TCE and PCE soil concentrations compared to the established, respective PRGs for TCE and PCE (Figure 3).

Phase A LSI analytical soil data suggested that the lateral and vertical extents of soil TCE and PCE contamination appeared to be confined to an area that is approximately half of the original EA-6 footprint, the boundaries, of which, were previously defined by US EPA. The highest concentrations (source area) of TCE and PCE contamination identified in soil at EA-6 proper were located in soils near boring/sample locations MSB-1 and MSB-13 (see Figure 3). However, as depicted, the data model also suggested the potential presence of soil contamination offsite and beyond the boundaries of the EA-6 proper, and at concentrations potentially exceeding the established, respective PRGs. Using these Phase A LSI data, the extent/volume estimate of soils (EA-6 proper) requiring excavation and disposal, as originally defined by US EPA, was revised and decreased from 980 cubic yards (yd^3) to 775 yd^3. However, when considering the extent and volume of off-site impacted soils, a second revised estimate of approximately 1,500 yd^3 was considered.

With respect to total contaminant concentrations, Phase A soil samples collected at EA-6 were also characterized based on their respective analytical toxicity characteristics. The toxicity characteristic leaching procedure (TCLP) analysis of specifically selected samples (those with highest COC total concentrations) showed that subject property soils are not considered hazardous. This information was necessary in planning the excavation and disposal of contaminated soils, subsequently, completed as Phase B of the LSI.

1.4 Limited Subsurface Investigation (Phase B)

To address the presence of elevated TCE and PCE concentrations (i.e., concentrations above respective PRGs) identified onsite (EA-6), as well as the potential presence of TCE and PCE in off-site soils, MAKSolve completed the recent Phase B LSI, from August 24th, 2020 through September 2nd, 2020. The purpose of the Phase B activity was to perform a step-wise excavation of selected areas onsite (EA-6) and offsite, immediately west and north of the original EA-6 footprint. For soils onsite and offsite, the respective area-volume excavation measurements are provided for each individual excavation area, which are depicted as separately colored excavation polygons in Figure 4. Upon reaching the target excavation depth for each excavation polygon, confirmation soil samples were collected (side walls and excavation terminus/floors) and submitted for expedited (24-hour “rush”) laboratory soil analysis of TCE and PCE. Confirmation soil sample locations are shown in Figure 5. Daily analytical results of confirmation soil sample analysis helped to “guide” the daily excavation efforts, by verifying that potential concentrations of TCE and/or PCE in remaining soils do not exceed the respective Site PRGs.

As described in the May 14th, 2020 *Phase II Limited Subsurface Soil Investigation (Phase B) Work Plan* (Phase B LSI WP), the focus of the Phase B LSI was to address soils identified and scoped for excavation and disposal, including both (1) soils identified onsite during the Phase A LSI at EA-6 proper, as well as (2) potentially contaminated soils located offsite and immediately adjacent to EA-6, as is suggested by Phase A investigation data and the resultant CSM. Specifically, the goals of the proposed Phase B LSI were to:

- Investigate and define potential off-site PCE and TCE soil contamination to the immediate west and north of EA-6, via organized, step-wise excavation and sampling activities;
- Excavate soil PCE and TCE contamination onsite (EA-6) and offsite (immediately west and north of EA-6) to the estimated lateral and vertical extents suggested by the CSM, and collect and compare confirmation soil sample analytical results against respective PRGs; and
- Transport all contaminated soils identified and excavated, both onsite at EA-6 and at locations identified offsite to the immediate west and north of EA-6, to an approved off-site facility for disposal.

All soil samples collected as part of Phase B activities were submitted to Pace Analytical, an analytical laboratory that is certified with Ohio EPA for analysis of the site COCs. Laboratory analytical results for the Phase B confirmation soil samples were compared to the respective Site PRGs. Section 3.0 of this Phase B LSI report provides further detail regarding soil excavation activities and confirmation sampling methodologies and results, subsequent soil disposal and backfill volumes, and subject property restoration work upon completion of the Phase B LSI field effort.

1.5 Standard of Care

Environmental services by MAKSolve were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. These services were also performed in accordance with the accepted scope of work, as described in the Phase B LSI WP, and as reflected in the initial project proposal. MAKSolve makes no warranties, either express or implied, regarding the findings, conclusions, or recommendations. MAKSolve does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of deliverables and final project reports.

1.6 Additional Scope Limitations

Findings, conclusions, and recommendations resulting from environmental services performed by MAKSolve are based upon information derived from the on-site activities and other services performed under this scope of work on the dates performed. Site conditions are subject to change over time. Certain indicators of the presence of hazardous substances, petroleum

products, or other constituents may have been latent, inaccessible, unobservable, non-detectable, or may not have been present at the time that MAKSolve performed said services. As such, MAKSolve cannot represent that the subject property contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during the Phase II Limited Subsurface Soil Investigation Phase B activity, as well as during previous activities completed to date. Subsurface conditions may vary from those encountered at specific boring/sample locations or during other surveys, tests, assessments, investigations, or exploratory services. Therefore, the data, interpretations, findings, and recommendations presented by MAKSolve are based solely on data obtained at the time of the field activities performed, and are to be considered within the scope of the services presented.

1.7 Reliance

MAKSolve understands that the subject property is to be transferred and potentially redeveloped in a commercial and/or residential capacity. Previous investigation activities, data and conclusions, and the LSI Phase B work presented in this report have been prepared for the exclusive use of Dinsmore & Shohl, LLP, on behalf of Spinnaker, as the end user of this information. Any other authorization of use, or reliance by, any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Dinsmore & Shohl, LLP, on behalf of Spinnaker, and MAKSolve. MAKSolve reserves that, for each of our clients, any unauthorized distribution or reuse of MAKSolve-produced documents and materials is at the sole risk of said client. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions, and limitations stated in the proposal, report, and any terms and conditions stated by MAKSolve. The limitation of liability defined in the terms and conditions is the aggregate limit of MAKSolve's liability to the client and all relying parties, unless otherwise agreed in writing.

1.8 Data Quality Objectives

Data Quality Objectives (DQOs) are goals for the quality of data needed to satisfy the objective of the project. DQO goals define the most appropriate type of data to collect, the appropriate conditions for data collection, and specify the quantity and quality of data needed for decision making. DQOs depend on the end use of the data that will be generated by the project activities. Data from soil sampling activities performed during the Phase B LSI have been gathered with the objective of evaluating the risk to human health and the environment due to the potential presence of identified COCs, TCE and PCE in Site soils. MAKSolve contracted with Pace Analytical to require a Level IV DQO analytical package for the soil samples collected onsite and offsite during the Phase B LSI activity. A Level IV analytical data package is a comprehensive report that allows a data validator to evaluate analytical data and determine its usability, including analytical data results, quality control, and sample handling information. These data quality standards help provide a data validator definitive guidance in areas such as

blanks, calibration standards, and instrument performance checks, and aid the reviewer in making subjective judgements regarding the use of data that is potentially affected by site conditions. Specific sampling and analysis activities are described below in Section 3.0.

1.9 Analytical Quality Objectives

Although the LSI is not being conducted under the Ohio EPA Voluntary Action Program (VAP), MAKSolve has contracted with a VAP-certified analytical laboratory (i.e., Pace Analytical) in order to meet certain analytical quality objectives. Analytical quality objectives are also established to ensure that the laboratory analyses will achieve laboratory detection limits equal to, or more stringent than, most environmental standards used in environmental assessments.

2.0 BACKGROUND (PHASE A LSI)

On March 25th and 26th, 2020, MAKSolve completed an initial subsurface soil investigation (Phase A LSI) of EA-6 at Spinnaker. The work was completed to assess EA-6 contamination previously investigated and identified by US EPA for excavation and off-site disposal and the selected site-specific remedy for cleanup. As such, and in accordance with the selected US EPA cleanup remedy, data from the LSI Phase A were used to evaluate the lateral and vertical extents of total volatile organic compound (VOC) concentrations in subsurface soils beneath the EA-6 boundaries and immediately beyond.

MAKSolve subcontracted FORE Testing/Drilling, Inc. to advance 26 soil borings across the property, during March 25 and 26, 2020. Each soil boring was advanced with a truck-mounted Geoprobe™ drilling rig and associated tooling using direct-push technology (DPT). This technology relies on the weight of the drilling rig and a pneumatic hammer to drive or push a decontaminated stainless-steel split spoon into the soil. The spoon is approximately 1.5 inches (outer diameter) by 36 inches long. When drilling through more resistant materials, the pneumatic hammer was frequently used to assists in penetration and retrieval of soil. Drilling and soil sample collection proceeded to specific, pre-determined depths, based on the hydrogeological data collected during previous investigation work conducted at the site by US EPA. During the Phase A LSI, refusal near ground surface forced drilling activities to be abandoned at some locations; such locations were offset and restarted in order for drilling to continue and soil sampling completed.

Subsurface soils were continuously collected in 3-foot sections, via the split-spoon sampler, at each boring location, from ground surface to depths ranging from approximately 10 feet to 18 feet below ground surface (bgs). Soil sample intervals were retrieved via a 3-foot-long stainless steel sampler, equipped with a new/dedicated 3-foot-long inner, acetate sample liner for each retrieved soil sample interval. Upon retrieval, soil samples were logged (lithologic and geologic

description) at 2-foot intervals by a MAKSolve geologist and field screened for VOCs using a photoionization detector (PID), equipped with a 10.6-eV lamp. Two soil samples per boring location were submitted for analysis, with each sample selected from the depth intervals that exhibited the highest VOC concentrations, based on the recorded field PID readings. The soil samples were collected and placed into the appropriate laboratory-provided glass sample containers. If insufficient soil volume was recovered for sample target interval (i.e., soil depth interval exhibiting the highest field PID readings), two soil depth intervals from the overall soil boring were combined to provide a "composite" sample: soils from the sample target interval were combined with soils from a depth interval exhibiting the second-highest field PID readings.

Each soil sample consisted of two unpreserved, 4-ounce glass jars, two unpreserved and three pre-preserved 40-milliliter glass vials. Soil collected and containerized in each 40-milliliter glass vial consisted of 5-gram aliquots and were collected in general accordance with US EPA Method 5035. All 52 Site soil samples were stored on ice inside of a dedicated field sample cooler, and maintained at 4ºC until final submittal to ALS Analytical Laboratory in Cincinnati, Ohio for laboratory analysis of soil VOCs via Test Method 8260. A Chain of Custody was maintained throughout the soil sampling investigation, from collection to laboratory submittal.

Among the 26 LSI soil borings advanced across the subject property, MAKSolve achieved an approximate coverage area that is comparable to the original EA-6 footprint, as originally defined by US EPA. From this comparative evaluation, MAKSolve was able to refine the estimated total volume of contaminated soils required for removal, and to evaluate the percentage of such soils that would be defined as "hazardous waste." All boring logs are provided in Appendix B of the May 14th, 2020 Phase B LSI WP and include geological descriptions and other field data for each of the 26 soil borings that were advanced at EA-6 during the Phase A LSI.

A total of 52 in-situ subsurface soil samples were collected from among the 26 soil boring locations and were submitted for laboratory analysis of soil VOCs. Laboratory analysis indicated the presence of VOCs among the 52 LSI soil samples collected at EA-6. As part of the Phase A LSI, soil analytical data were compared and evaluated with respect to the PRGs that have been determined by USEPA (Table 1). As stated previously, for TCE and PCE concentrations in soil, US EPA determined the PRGs to be 34 µg/kg and 44 µg/kg, respectively. In particular, soil samples collected during the Phase A LSI showed TCE and PCE present at concentrations that exceed respective laboratory method detection limits (27 samples) and/or respective PRGs (25 samples). Of the 25 samples with constituent PCE and/or TCE concentrations exceeding the respective PRGs, 14 of those 25 samples were submitted for additional VOC laboratory analysis utilizing the TCLP. The samples selected were generally those reporting the highest total PCE/TCE concentrations. Of these 14 TCLP samples, sample MSB-1 (2'-4') and sample MSB-12 (2'-4') contained TCE concentrations of 0.17 milligrams per liter (mg/L) and 0.15 mg/L,

respectively (Table 2). However, none of the 14 samples contained TCE or PCE at concentrations that exceeded their respective maximum concentration for the toxicity characteristic, per 40 CFR 261.24, of 0.5 mg/L for TCE and 0.7 mg/L for PCE.

As such, none of the 14 TCLP soil samples were considered to be hazardous waste and were considered representative of Site soils; as such, these data were used to determine that soils excavated from the EA-6 are not to be considered hazardous and may be transported for off-site disposal at an appropriate landfill facility. The complete laboratory soil analytical report for Phase A LSI soil samples is provided as Appendix C in the May 14th, 2020 Phase B LSI WP.

To assist in visualizing and defining the extent of TCE and PCE contamination detected in soils during the Phase A LSI, MAKSolve developed a conceptual area, or footprint, of contamination by mapping individual Phase A soil sample PCE and TCE analytical results across the Site (see Figure 3). In general, as part of developing a CSM, isoconcentration lines are extrapolated, which are depicted as contour lines that represent levels of equal concentration of soil contamination. When the extent of contamination is unknown, or can be estimated, isoconcentration lines are drawn as interpolated lines, or "dashed" lines, by convention. The isoconcentration lines shown at the subject property boundaries in Figure 3 were developed and presented as estimates (i.e., dashed lines) of the lateral and vertical extents of soil contamination. These estimated isoconcentrations were drawn through visual interpolation, as based on the point concentrations of soil contamination/data of the samples collected during the Phase A LSI.

From this evaluation and development of the CSM, the area with the highest PCE and TCE concentrations, in what is considered to be the "source" area at the Site, was considered to be located at and immediately surrounding soil boring location MSB-1. Soil PCE and TCE concentrations were identified in samples collected at depths ranging from approximately 2 feet bgs to 8 feet bgs. These findings are comparable to that of the previous investigation, by US EPA, at EA-6.

From these Phase A LSI data, Site TCE and PCE soil contamination was considered to be located, predominantly, in the central and northern portions of the EA-6. The data further suggested that this contamination may also be present offsite, outside the boundaries of the EA-6, specifically, to the west and north. As such, off-site investigation (to the west and north) was proposed (i.e., Phase B of this LSI), in order to define more completely the apparent greater extent of soil TCE and PCE contamination above respective PRGs, as associated with EA-6.

3.0 FIELD ACTIVITIES (PHASE B LSI)

3.1 Utility Clearances

As with the Phase A LSI, MAKSolve began Phase B LSI activities by contacting the Ohio Utility Protection Service (OUPS) to request identification of underground utilities at the work site. This included both on-site and off-site areas planned for soil excavation work. In addition, a power pole, owned and operated by Dayton Power and Light (DP&L), located within the source area of contamination, was identified for removal prior to the start of any excavation activities. Between July 17th and August 10th, 2020, MAKSolve and Spinnaker corresponded with Constance Holbert, Senior Design Technician at DP&L, and Mark Winger, DP&L Project Manager for the Troy, Ohio area, to plan to coordinate removal of the power pole in question. The pole was subsequently removed on August 10th, 2020, and the Phase B LSI began on August 24th, 2020. On completion of Phase B LSI activities, Spinnaker is coordinating with DP&L to reinstall the power pole and associated adjacent power lines that had been dropped to allow the Phase B LSI excavation and soil sampling activities to be completed.

Prior to the start of work, MAKSolve ensured that the appropriate health and safety precautions were assessed. MAKSolve prepared a Site-specific Health and Safety Plan (HASP) and provided it to all on-site participants (Spinnaker, subcontractors, MAKSolve field geologists, etc.) to read and confirm understanding of the Site-specific concerns. In addition, prior to the start of excavation activities each day, MAKSolve ensured that all on-site participants wore the appropriate level of personal protective equipment (PPE) and had a clear understanding of the work activities being performed each day.

3.2 Scope of Work

Excavation Polygons — Soils were identified, excavated, and sampled based on the CSM of soil contamination developed from the results Phase A LSI (see Figure 3). Designated areas of on-site and off-site soils were distinguished as separate, color-coded excavation polygons and were removed (excavated) in an organized fashion (see Figure 4). Excavation polygon depths between 6 feet and 10 feet were based on model data that showed elevated soil TCE and PCE concentrations at depths ranging from 2 to 8 feet bgs (see Figure 3).

Excavation Depths — Phase A subsurface hydrogeological data indicated groundwater (i.e., potentiometric surface or “water table”) is present at approximately 8 to 10 feet bgs across the subject property and surrounding areas offsite. As part of the larger ETCA, known groundwater contamination beneath EA-6 and the surrounding vicinity is being addressed separately by US EPA and is not part of this LSI conducted by MAKSolve. As such, to address TCE and PCE contamination in soil media, solely, and avoid the inherent seasonal variability in the

potentiometric surface (i.e., vertical fluctuation and potential subsequent creation of a groundwater "smear zone" of contamination in the subsurface) beneath the property, all on-site and off-site soil excavations were completed to a maximum depth of approximately 10 feet bgs.

Excavation Volumes — Soils excavation volumes onsite and offsite were estimated and organized according to designated, colored polygons: Blue Polygon A (166 yd^3) and B (222 yd^3), Brown Polygon (775 yd^3), Green Polygon (67 yd^3), Yellow Polygon A (98 yd^3) and B (43 yd^3), and Red Polygon (127 yd^3) (see Figure 4). As discussed in Section 1.0, the original volume estimate for EA-6 proper (980 yd^3) was decreased to 775 yd^3, represented by the Brown Polygon in Figure 4. Recorded excavated and disposed soil volumes are consistent with this original estimate for EA-6. Further, an additional, approximately, 100 yd^3 of soil was excavated from across Blue Polygon (A) and (B), to address exceedances in specific confirmation soil samples that were collected. Together, with the original estimated volumes for soil in the on-site portions of Blue Polygons (A) and (B), an additional, approximately, 400 yd^3 of soils were excavated. This excavated, approximately, 400 yd^3 from on-site and north and northwest of EA-6 proper is supplementary to the excavation of EA-6 proper, and addresses soil contamination potentially present, as suggested by the Phase A conceptual Site model data (see Figure 3). Recorded excavated and disposed soil volumes are consistent with these estimates.

MAKSolve partnered with a local contractor, Disposal Solutions, to complete the soil excavation and proper disposal for the EA-6 and offsite areas. A MAKSolve geologist oversaw the removal/excavation and confirmatory soil sampling. All excavated on-site and off-site soils were transported by Disposal Solutions for disposal offsite at the St. Paris Landfill in Richmond, Indiana, an approved landfill disposal facility. Excavation of on-site and off-site excavation polygons were completed to the lateral and vertical extents, as directed and determined (i.e., comparison to respective Site PRGs) by the concurrent confirmatory soil samples collected from each excavation polygon (side walls and terminal depth/floor). Each excavation polygon area was subsequently backfilled with aggregate limestone, finished to grade, and restored to the conditions that existed prior to the Phase B LSI, at each respective location.

Excavation Progress, Sampling, and Preliminary Analytical Data — Throughout soil excavation activities, a MAKSolve geologist monitored the progress of each excavation, including excavation depth and dimension. These data helped to ensure the correct target excavation depths were reached, that confirmatory soil samples could be collected, and that the required and sufficient removal of contaminated soils (below PRGs) could be completed. Soil samples were collected and submitted each day via hand delivery (i.e., on-site courier) to Pace Analytical Laboratory, located in Englewood, Ohio, for 24-hour laboratory analysis of soil VOCs using US EPA Method 8260. This time-sensitive analysis provided MAKSolve with preliminary soil analytical results within 24 hours of sample collection and helped to "guide" excavation

activities, laterally and vertically, in the confirmation sampling and removal of impacted soils among the EA-6 and offsite excavation polygon areas. A total of 5 days were required to complete both on-site and off-site excavation activities, including all confirmatory soil sampling and laboratory analysis.

Once the predetermined target depth was reached at each excavation polygon, soil was collected for sample laboratory analysis. All soils for confirmation sampling were retrieved by the excavation contractor, at the direction of the MAKSolve geologist onsite. A "grab" sample of soil was obtained via the on-site excavation machinery, or manually, via a standard shovel. For each sample, the MAKSolve geologist used a separate, new, unpreserved, laboratory-provided glass sample jar to scoop a portion of excavated, untouched soil (i.e., soil that has not touched the surface of the track hoe bucket, or shovel surface) into the sample jar. Because additional sampling equipment was not required (e.g., spoon, pick, or other sampling device), which would require cleaning/decontamination between sample collections, the equipment decontamination procedures, and collection of laboratory equipment blank samples, were not needed/performed.

The MAKSolve geologist also collected a concurrent portion of each collected soil sample (i.e., a duplicate representative aliquot of the same "grab" soil sample), that was retained, sealed within a plastic bag to allow for volatilization, and later field screened with a PID to measure the corresponding concentration of soil VOCs. Throughout the Phase B LSI excavation process, field PID measurements were recorded with each respectively collected confirmation soil sample to help the MAKSolve geologist manage the excavation and, ultimately, to confirm that impacted soils had been removed from each excavation area. All soils utilized for PID screenings were later discarded with the excavated soils for disposal.

Confirmation soil samples were collected and labeled with a sample identification (ID) using specific nomenclature, similar to that presented in the May 14th, 2020 Phase B LSI WP (see Table 3). Each confirmation soil sample ID included information specific to the excavation polygon area from which it was collected, the depth at which it was collected, the type of confirmation soil sample (side wall, or excavation bottom/floor), and the sample ID matrix code (primary or QC sample). A total of 42 confirmation soil samples were submitted for laboratory soil analysis per US EPA Method 8260 for VOCs. The soil samples consisted of discrete soils collected from (1) the side walls of each of the excavations and (2) the bottom/centers of each of the excavations. All selected soil samples were submitted to Pace Analytical for laboratory soil VOC analysis. Following collection, all samples were maintained on ice (to 4°C) inside of a dedicated field sample cooler, until final release and submittal to Pace Analytical each day. Separate chains of custody were maintained each day, throughout the Phase B LSI, to track each sample from collection to laboratory submittal, and are available as part of the laboratory analytical data reports provided in Appendix B.

3.3 Soil Excavations and Confirmatory Soil Sampling

Phase B LSI excavation and field activities began on August 24th, 2020 and were completed on September 2, 2020. On-site and off-site confirmation soil samples were organized and identified according to their respective individual excavation polygon areas (see Figure 5). Excavation activities were conducted in an organized fashion to remove soils, and collect confirmation soil samples, at each designated excavation polygon area, as described below. For convenience, a quick reference table is presented immediately below to show the field location ID (see Figure 5) and corresponding chain-of-custody soil sample ID for each confirmation soil sample that was submitted to Pace Analytical. Each day's activities are documented in the photograph log provided as Appendix A.

Confirmation Sample Field ID	Confirmation Sample Lab ID
1	BLA6WWSS
2	BLA6WNSS
3	BLA6WESS
4	BLA6WSSS
5	BLA6PBSS
6	BLB6WNSS
7	BLB6WESS
8	BLB6WSSS
9	BLB6PBWSS
10	BLB6PBESS
11	BR8WE1SS
12	BR8WE1SD
13	BR8PB1SS
14	BR8WE2SS
15	BR8PB2SS
16	BR8PB3SM
17	BR8PB3SS
18	BR8WSSS
19	YL10WESS
20	YL10WESD
21	YL10PB1SS
22	YL10PB1SM
23	YL10WS1SS
24	YL8WNSS
25	YL10PB2SS
26	YL10PB2SD
27	YL10WS2SS
28	RD8PB1SS
29	RD8WESS

Confirmation Sample Field ID	Confirmation Sample Lab ID
30	RD8PB2SS
31	RD8WSSS
32	RD8WWSS
33	GR6WSSS
34	GR6WWSS
35	GR6PBSS
36	GR6PBSM
Resample 2	082820R2
Resample 6	0825R6
Resample 7	0825R7
Resample 8	0825R8
Resample 9	0825R9
Resample 10	0825R10
Resample 14	082720R14

BLUE POLYGON EXCAVATION AREAS (A) AND (B) — Excavation of the Blue Polygon (A) excavation area began at 0815 on August 24th, 2020. By 0900, excavation of Blue Polygon (A) to 6 feet bgs was nearly complete. Excavation of the Blue Polygon (B) excavation area was progressing by 0935. Ambient PID monitoring during the excavation work showed measurements of 0.0 parts per million (ppm) VOCs.

Confirmation soil sampling began on August 24th, 2020 at 1220 with the collection of the first soil sample at field location #1 (sample ID BLA6WWSS) and the last soil sample at field location #8 (sample ID BLB6WSSS) at 1244. A total of 9 confirmation soil samples were collected for laboratory analysis among Blue Polygons (A) and (B); corresponding PID soil VOC measurements (concentrations and recorded times) are shown below for each field sample location:

Field Location #1: 0.5 ppm at 1335
Field Location #2: 1.0 ppm at 1336
Field Location #3: 0.9 ppm at 1337
Field Location #5: 1.3 ppm at 1338
Field Location #9: 0.7 ppm at 1340
Field Location #6: 0.9 ppm at 1341
Field Location #10: 1.3 ppm at 1342
Field Location #7: 1.8 ppm at 1343
Field Location #8: 1.9 ppm at 1344

The confirmation soil sample for Field Location #4 could not be collected until August 26th, 2020, once excavation offsite and adjacent to excavation of the Green Polygon area (discussed below) could begin. The corresponding PID soil VOC measurement (concentration and recorded time) for soil collected from Field Location #4 is shown below:

Field Location #4: 0.8 ppm at 1230 on August 26, 2020

Of the 10 confirmation soil sample locations sampled on August 24th, 2020 among Blue Polygons (A) and (B) excavation areas, 6 (Field Location #s 2, 6, 7, 8, 9, and 10) contained TCE and/or PCE at concentrations above the respective PRGs (Table 4). An additional 2 feet of soils were removed (to a total excavation depth of 8 feet bgs) across the bottoms of Blue Polygons (A) and (B), and 5 locations (Field Location #s 6, 7, 8, 9, and 10) of the 6 exceedance sample locations were resampled on August 25th, 2020. Field Location #2 would be resampled later, on August 28th, 2020, as the location had been covered by soil during excavation activities/progress. With the resampling of each of the six locations, the resultant TCE and/or PCE concentrations were below respective PRGs.

Corresponding PID soil VOC measurements (concentrations and recorded times) are shown below for each resampled Field Location (#s 2, 6, 7, 8, 9, and 10):

Resampled Field Location #2: 0.2 ppm at 1011 on August 28th, 2020
Resampled Field Location #6: 0.3 ppm at 1531 on August 25th, 2020
Resampled Field Location #7: 0.2 ppm at 1532 on August 25th, 2020
Resampled Field Location #8: 0.1 ppm at 1533 on August 25th, 2020
Resampled Field Location #9: 0.0 ppm at 1534 on August 25th, 2020
Resampled Field Location #10: 0.0 ppm at 1535 on August 25th, 2020

It is noted that preliminary analytical results for TCE and PCE in soil collected from Field Location #5 (sample ID BLA6PBSS) were below respective PRGs, at 31.0 µg/kg and 29.5 µg/kg, respectively (see Table 4), and excavation work was guided based on these data (i.e., no further excavation, as soil TCE and PCE concentrations were satisfactory); however, the final laboratory analytical report shows the final, data-validated soil concentrations of TCE and PCE in soil sample BLA6PBSS to be 37.6 µg/kg and 35.8 µg/kg, respectively. The TCE exceedance (37.6 µg/kg) is not considered significant, but is an exceedance of the respective PRG for TCE (34 µg/kg). All final data-validated analytical data reports for the Phase B LSI were completed and provided by Pace Analytical to MAKSolve on September 11th, 2020.

BROWN POLYGON EXCAVATION AREA — Excavation of the Brown Polygon excavation area was completed on August 24th, 2020 to a total depth of 8 feet bgs. By 1400, excavation progress was moving southward toward East Water Street. Confirmation soil sampling began on August 25th, 2020 at 0726 with the collection of soil at field location #13 (sample ID BR8PB1SS) and the last soil sample at field location #18 (sample ID BR8WSSS) at 1435. A total of 8 confirmation soil samples were collected for laboratory analysis from the Brown Polygon excavation area on August 25th, 2020. Corresponding PID soil VOC measurements (concentrations and recorded times) are shown below for each field sample location:

Field Location #11: 7.4 ppm at 1120
Field Location #12: 8.7 ppm at 1123
Field Location #13: 5.8 ppm at 0920
Field Location #14: 4.8 ppm at 1125
Field Location #15: 6.4 ppm at 1124
Field Location #16: 7.2 ppm at 1451
Field Location #17: 3.3 ppm at 1453
Field Location #18: 2.3 ppm at 1454

Of the 8 confirmation soil sample locations in the Brown Polygon excavation area, only one sample, collected from Field Location #14 (sample ID BR8WE2SS) contained TCE at a concentration above the respective PRG (see Table 4). Additional excavation was performed, subsequently, surrounding Field Location #14, and the location was resampled on August 27, 2020; the resultant TCE concentration was nondetect. The corresponding PID soil VOC measurement (concentration and recorded time) for soil collected from Field Location #14 on August 27th, 2020 was 0.0 ppm at 1050.

GREEN POLYGON EXCAVATION AREA — The Green Polygon excavation area lies completely within the backyard of the residential property that is located immediately adjacent and west of Spinnaker and EA-6. Excavation of the Green Polygon excavation area began on August 26th, 2020, following completion of the portion of the Blue Polygon (A) excavation area that extends offsite and southward into the off-site, immediately adjacent residential property. Excavation was completed to a final depth of 6 feet bgs, and a total of 4 confirmation soil samples were collected from the Green Polygon excavation area on August 26th, 2020. The corresponding PID soil VOC measurements (concentrations and recorded times) are shown below for each Green Polygon excavation area field sample location:

Field Location #34: 0.8 ppm at 1231
Field Location #33: 0.7 ppm at 1233
Field Location #35: 0.3 ppm at 1232
Field Location #36: 0.0 ppm at 1234

Field Location #4 (confirmation soil sample ID BLA6WSSS) was identified as a Blue Polygon (A) sample location, but its placement shared a common boundary (side wall) with the Green Polygon excavation area. As such, Field Location #4 was sampled concurrent with Green Polygon excavation area Field Location #s 33, 34, 35, and 36 on August 26th, 2020. All 4

confirmation soil sample locations in the Green Polygon excavation area were nondetect for TCE and PCE in soil (see Table 4).

YELLOW POLYGON EXCAVATION AREAS (A) AND (B) — The Yellow Polygon (A) and (B) excavation areas are located partially onsite, within the EA-6, and partially within the backyard of the residential property that is located immediately adjacent and west of Spinnaker and EA-6. Excavation began on August 26th, 2020 and extended through August 27th, 2020, reaching a final depth of 10 feet bgs in each of the Yellow Polygon (A) and (B) excavation areas.

A total of 8 confirmation soil samples were collected for laboratory analysis from Yellow Polygon (A) and (B) excavation areas on August 27, 2020. One confirmation sample (Field Location #24; lab sample ID YL8WNSS) was sampled the day prior, on August 26th, 2020, as its placement shared a common boundary (side wall) with the Blue Polygon (A) excavation area. As such, Field Location #24 was sampled at midpoint depth of 8 feet bgs and, following the completion of the Green Polygon, Blue Polygon (A), and Yellow Polygon (A) excavation areas.

Corresponding PID soil VOC measurements (concentrations and recorded times) are shown below for each field sample location in the Yellow Polygon (A) and (B) excavation areas:

Field Location #24: 2.7 ppm at 1321 on August 26th, 2020
Field Location #19: 0.0 ppm at 1309 on August 27th, 2020
Field Location #20: 0.0 ppm at 1310 on August 27th, 2020
Field Location #21: 0.0 ppm at 1310 on August 27th, 2020
Field Location #22: 0.0 ppm at 1313 on August 27th, 2020
Field Location #23: 0.0 ppm at 1314 on August 27th, 2020
Field Location #25: 0.0 ppm at 1311 on August 27th, 2020
Field Location #26: 0.0 ppm at 1312 on August 27th, 2020
Field Location #27: 0.0 ppm at 1315 on August 27th, 2020

All 9 confirmation soil sample locations in the Yellow Polygon (A) and (B) excavation areas were nondetect for TCE and PCE in soil (see Table 4).

RED POLYGON EXCAVATION AREA — Excavation of the Red Polygon excavation area began on August 27th, 2020 and was completed the same day, to a final depth of 8 feet bgs. The Red Polygon excavation area is located offsite and between Spinnaker and the residential property that is located immediately adjacent and west of Spinnaker and EA-6. The entire footprint of the Red Polygon excavation area lies on property owned by the City of Troy. Through discussion and coordination among Spinnaker, MAKSolve, and the City of Troy, an access agreement was established that allowed off-site soil excavation activities to be performed, commensurate with the Phase B LSI excavation onsite at EA-6 and the other, adjacent off-site excavation areas (i.e., Blue Polygon (A), Green Polygon, and Yellow Polygon (A) excavation areas).

A total of 5 confirmation soil samples were collected for laboratory analysis from the Red Polygon excavation area on August 27th, 2020. Corresponding PID soil VOC measurements (concentrations and recorded times) are shown below for each field sample location in the Red Polygon excavation area:

Field Location #28: 0.3 ppm at 1134 on August 27th, 2020
Field Location #29: 1.1 ppm at 1135 on August 27th, 2020
Field Location #30: 0.6 ppm at 1136 on August 27th, 2020
Field Location #31: 0.5 ppm at 1138 on August 27th, 2020
Field Location #32: 0.6 ppm at 1137 on August 27th, 2020

All 5 confirmation soil sample locations in the Red Polygon excavation area were nondetect for TCE and PCE in soil (see Table 4).

3.3.1 Field Quality Control

Field quality control (QC) samples were collected at specific frequencies throughout the Phase B LSI in order to document the validity of the generated data. Analysis of QC samples can reveal information about sampling technique, laboratory instrument capability, possible sources of cross contamination, precision of the results, and difficulties with the sample matrix. The following field QC samples are described in detail in see Table 3 and were collected during the Phase B LSI and analyzed by Pace Analytical Laboratory along with the primary confirmation soil samples collected among the five proposed excavation areas:

- Soil Sample Duplicate – Soil collected at the same location depth and time as the primary confirmation soil sample.
- Matrix Spike and Matrix Spike Duplicate – Soil collected at the same location depth and time as the primary confirmation soil sample. Soil aliquots are collected and separately containerized for the Matrix Spike (MS) sample and the Matrix Spike Duplicate (MSD) sample. Together, the MS and MSD samples are "spiked" in the laboratory with known concentrations of representative analytes of interest (before sample preparation and analysis). This is designed to provide precision and accuracy information about the effect of each sample matrix on the sample preparation and the measurement methodology.

As discussed previously, although "blank" samples were planned, they were not collected during the Phase B LSI field effort, as they were not necessary. Blank samples are intended to validate the decontamination process of sampling equipment in the field; however, because soil samples were collected using the glass sample collection jar, itself, formal sampling equipment/apparatus was not needed and, therefore, no equipment decontamination was performed. The samples originally intended for "blank" collections were, instead, deemed best

used for those Field Locations that required resampling due to exceedances identified in the initial samples (e.g., Field Location #2 sample ID BLA6WNSS on August 24th, 2020 exceeded soil TCE and PCE PRGs and, thus, required resampling as sample ID 082820R2 on August 28th, 2020).

3.3.2 Summary of Excavation and Confirmation Sampling Activities

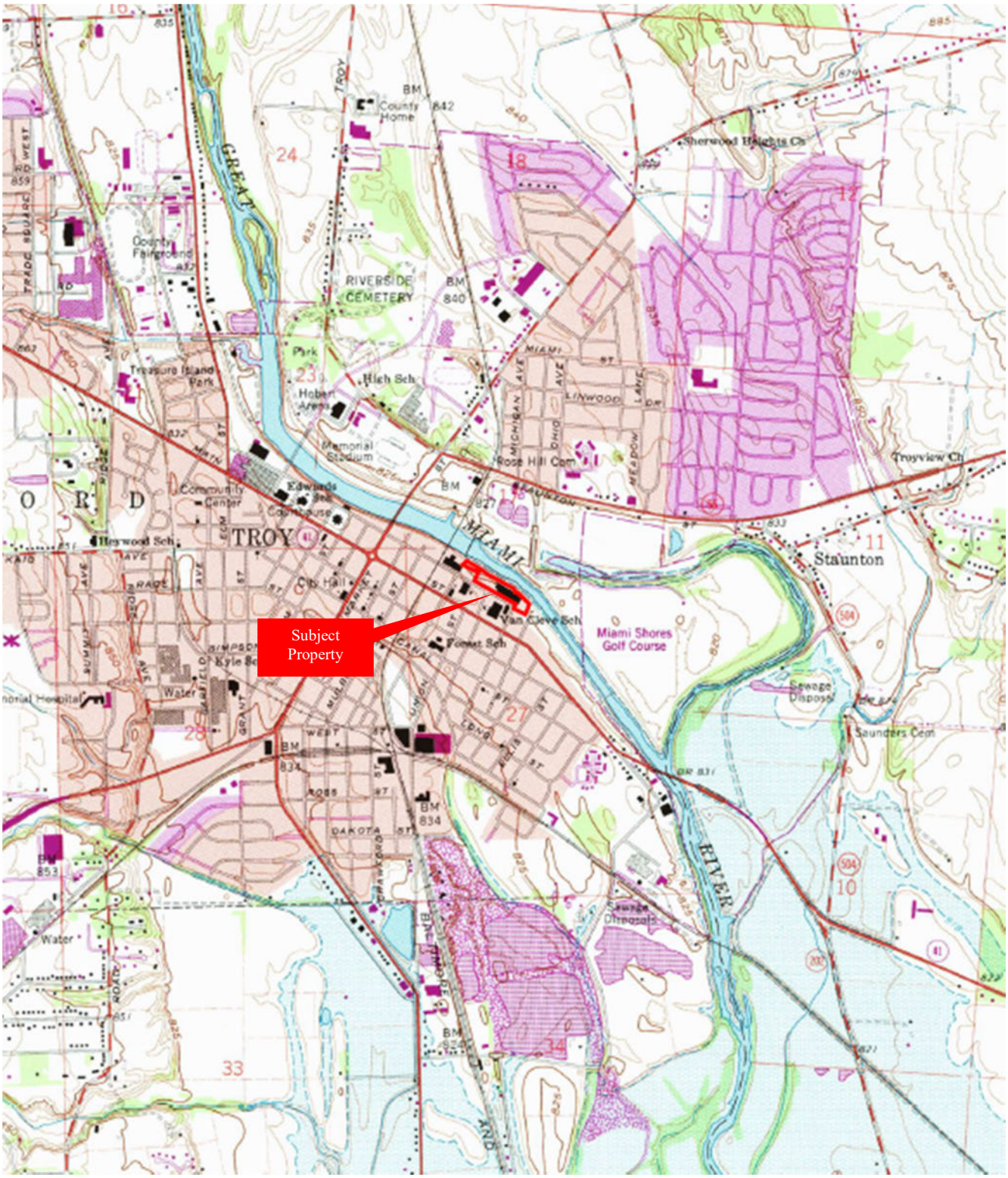
Of the 1,500 yd^3 (2,250 tons) of soil estimated (onsite and offsite), the total actual volume of soils excavated (onsite and offsite) and disposed was 1,480 yd^3 (2,219.32 tons). Upon completion of each "polygon excavation area" (see Figure 4) and confirmation soil sampling, all excavation areas were backfilled with clean, crushed limestone gravel obtained from Barrett Paving Materials in Ludlow Falls, Miami County, Ohio. In the on-site areas (EA-6 and Spinnaker's northern parking lot areas), the backfilled excavations were also topped with a surficial few inches mixture of crushed asphalt and gravel. The additional crushed asphalt component is used to provide increased drainage to the backfilled material. Offsite, in the area of the residential backyard, and in the area of the access road, west and immediately adjacent to EA-6, the excavation areas were also backfilled with the crushed limestone gravel. Of the 1,900 yd^3 (2,565 tons) of backfill estimated (onsite and offsite), the total actual volume of backfill installed was 1,654 yd^3 (2,480.29 tons). The truck manifest/logs for both soil excavation/disposal and backfill are provided as Appendix C.

Located between the EA-6 and immediately adjacent access road to the west, the property boundary fenceline was initially removed to facilitate excavation of the areas along the property boundary. Upon completion of the Phase B LSI excavations and sampling, Spinnaker is coordinating the reinstallation of the fenceline, as well as the reinstallation of the DP&L power pole at the corner of the property boundary and fenceline. In addition, and with written (email, August 24th, 2020) authorization from the off-site property owner, Non-Responsive Spinnaker provided for the removal of four large trees that were located offsite and in the areas of the excavations. One tree was located at the corner of the fenceline/property boundary between Spinnaker/EA-6 and the off-site residential property (backyard). Three of the trees were located closer to the residential home and immediately adjacent to the access road that runs from East Water Street, and northward along the property boundary. To facilitate progress of the off-site excavations, a local contractor was retained to remove the trees simultaneous with Phase B LSI activities, so as not to delay excavation and sampling efforts. The remaining tree stumps from the three trees in the vicinity of the access road, and adjacent to the residential home, were ground in place and not removed, due to concern that removal may potentially compromise the foundation/basement of the adjacent residential property/house.

Based on (1) the observations during the on-site and off-site excavations, (2) the confirmation soil sampling and analysis performed across the EA-6 and off-site excavation areas, and (3) the removal (to maximum depths of 6 to 10 feet bgs) of subsurface soils from the source area/EA-6 and surrounding on-site and off-site areas, Spinnaker has addressed the subsurface soil

contamination at EA-6 and, additionally, areas of subsurface soil contamination that were apparent in the off-site vicinity of EA-6. MAKSolve believes that the excavation, sampling, and disposal of these on-site and off-site soils, completed as Phase B of the LSI, satisfies the soil remedial alternative (S-2) originally identified by US EPA for the EA-6 proper.

FIGURES



Source	Date	Revision	Project
USGS	1961	NA	084-20

Phase II Limited Subsurface Soil Investigation Phase B Report

Figure 1
Troy, Ohio 7.5-Minute Topographic Map

MAK Solve

Spinnaker Coating
518 East Water Street
Troy, Ohio 45373

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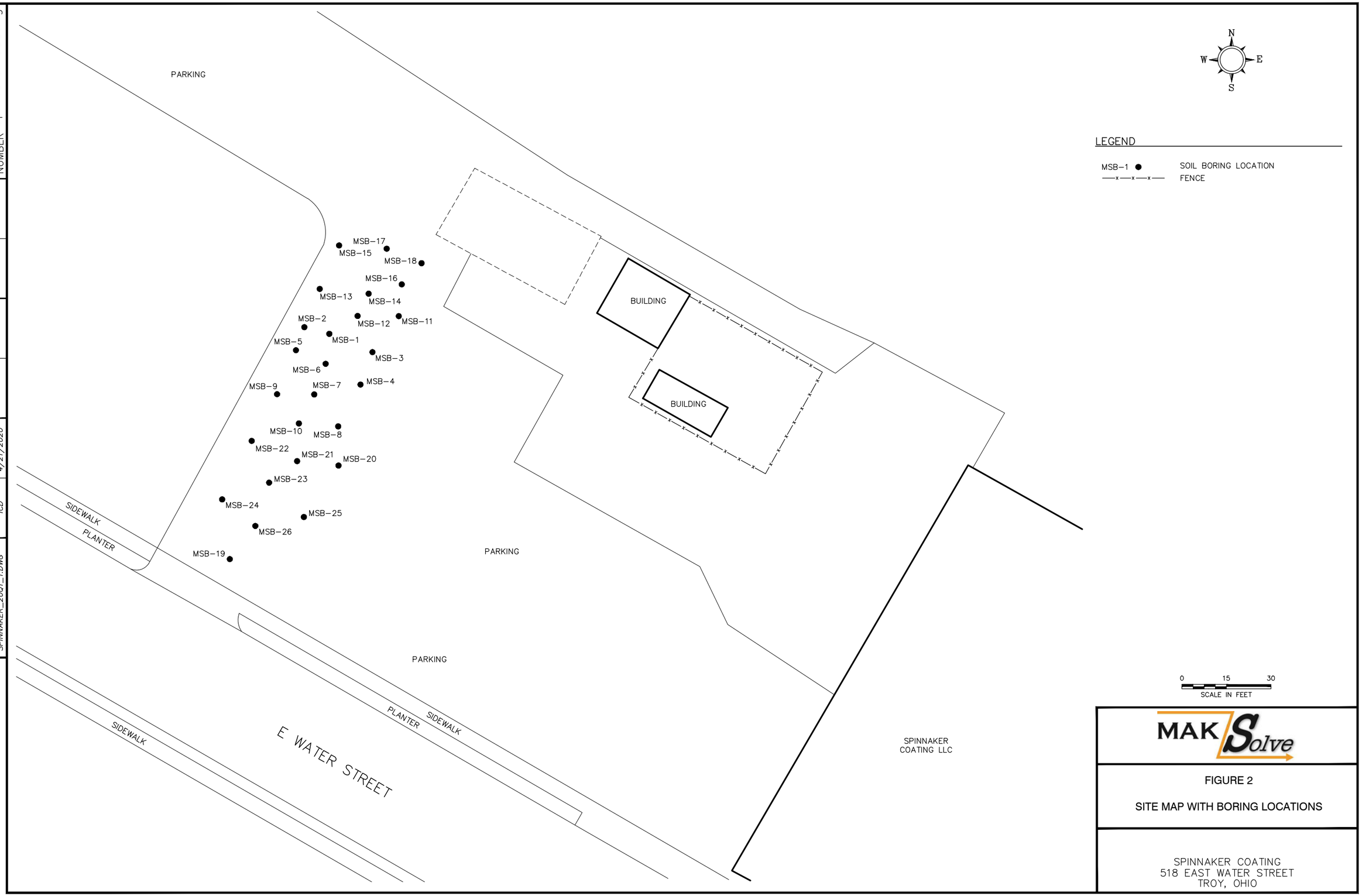


PROJECT NUMBER Spinnaker Coating

APPROVED BY

CHECKED BY

DRAWN BY ICD 4/21/2020

FILENAME SPINNAKER_2001_1.DWG

MAK Solve

FIGURE 2

SITE MAP WITH BORING LOCATIONS

SPINNAKER COATING
518 EAST WATER STREET
TROY, OHIO

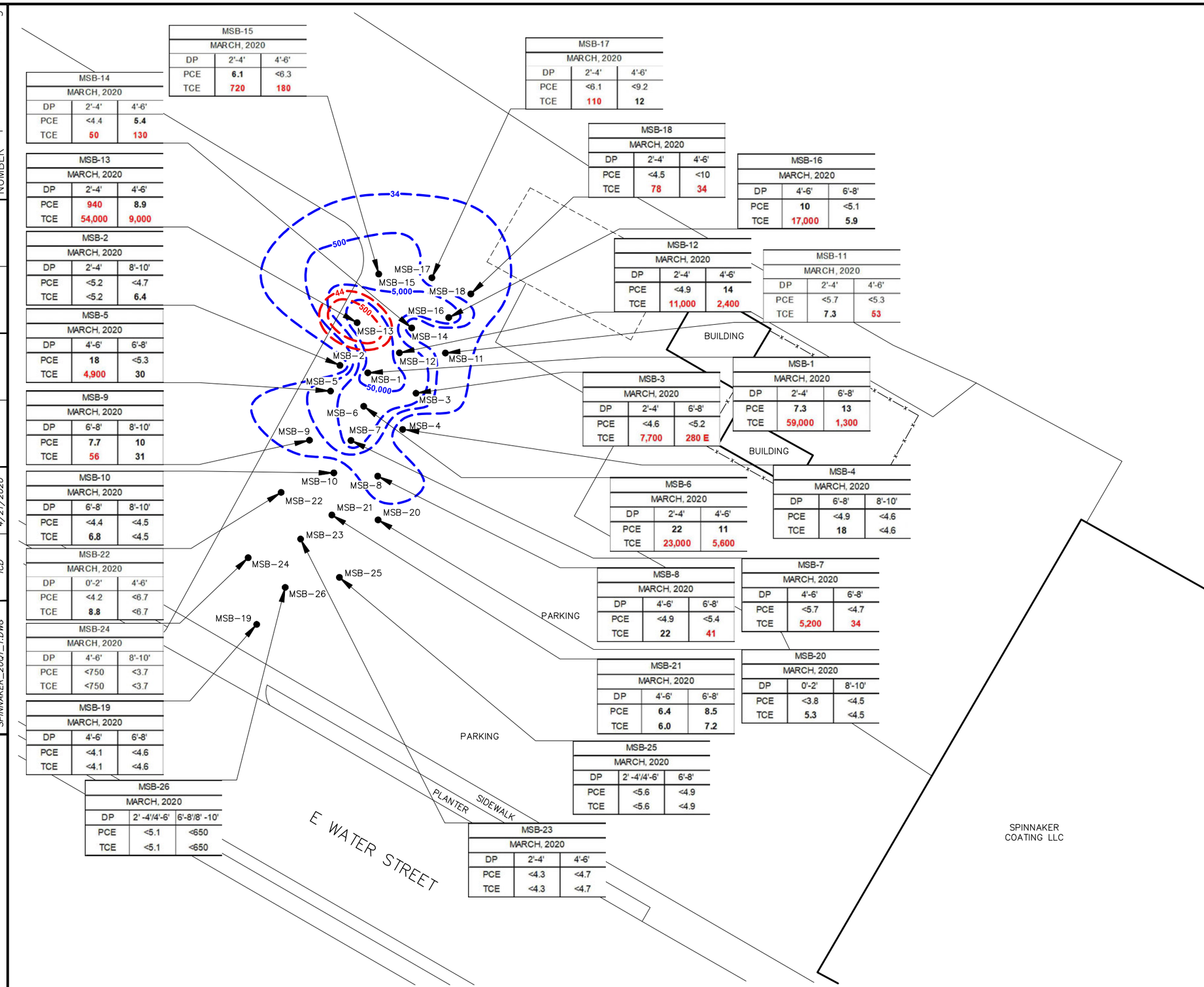
PROJECT NUMBER Spinnaker Coating

APPROVED BY

CHECKED BY

DRAWN BY ICD 4/21/2020

FILENAME SPINNAKER_2001_1.DWG



MSB-15		
MARCH, 2020		
DP	2'-4'	4'-6'
PCE	**6.1**	<6.3
TCE	**720**	**180**

MSB-14		
MARCH, 2020		
DP	2'-4'	4'-6'
PCE	<4.4	**5.4**
TCE	**50**	**130**

MSB-13		
MARCH, 2020		
DP	2'-4'	4'-6'
PCE	**940**	**8.9**
TCE	**54,000**	**9,000**

MSB-2		
MARCH, 2020		
DP	2'-4'	8'-10'
PCE	<5.2	<4.7
TCE	<5.2	**6.4**

MSB-5		
MARCH, 2020		
DP	4'-6'	6'-8'
PCE	**18**	<5.3
TCE	**4,900**	**30**

MSB-9		
MARCH, 2020		
DP	6'-8'	8'-10'
PCE	**7.7**	**10**
TCE	**56**	**31**

MSB-10		
MARCH, 2020		
DP	6'-8'	8'-10'
PCE	<4.4	<4.5
TCE	**6.8**	<4.5

MSB-22		
MARCH, 2020		
DP	0'-2'	4'-6'
PCE	<4.2	<6.7
TCE	**8.8**	<6.7

MSB-24		
MARCH, 2020		
DP	4'-6'	8'-10'
PCE	<750	<3.7
TCE	<750	<3.7

MSB-19		
MARCH, 2020		
DP	4'-6'	6'-8'
PCE	<4.1	<4.6
TCE	<4.1	<4.6

MSB-26		
MARCH, 2020		
DP	2' -4'/4'-6'	6'-8'/8' -10'
PCE	<5.1	<650
TCE	<5.1	<650

MSB-17		
MARCH, 2020		
DP	2'-4'	4'-6'
PCE	<6.1	<9.2
TCE	**110**	**12**

MSB-18		
MARCH, 2020		
DP	2'-4'	4'-6'
PCE	<4.5	<10
TCE	**78**	**34**

MSB-16		
MARCH, 2020		
DP	4'-6'	6'-8'
PCE	**10**	<5.1
TCE	**17,000**	**5.9**

MSB-12		
MARCH, 2020		
DP	2'-4'	4'-6'
PCE	<4.9	**14**
TCE	**11,000**	**2,400**

MSB-11		
MARCH, 2020		
DP	2'-4'	4'-6'
PCE	<5.7	<5.3
TCE	**7.3**	**53**

MSB-3		
MARCH, 2020		
DP	2'-4'	6'-8'
PCE	<4.6	<5.2
TCE	**7,700**	**280 E**

MSB-1		
MARCH, 2020		
DP	2'-4'	6'-8'
PCE	**7.3**	**13**
TCE	**59,000**	**1,300**

MSB-6		
MARCH, 2020		
DP	2'-4'	4'-6'
PCE	**22**	**11**
TCE	**23,000**	**5,600**

MSB-4		
MARCH, 2020		
DP	6'-8'	8'-10'
PCE	<4.9	<4.6
TCE	**18**	<4.6

MSB-8		
MARCH, 2020		
DP	4'-6'	6'-8'
PCE	<4.9	<5.4
TCE	**22**	**41**

MSB-7		
MARCH, 2020		
DP	4'-6'	6'-8'
PCE	<5.7	<4.7
TCE	**5,200**	**34**

MSB-21		
MARCH, 2020		
DP	4'-6'	6'-8'
PCE	**6.4**	**8.5**
TCE	**6.0**	**7.2**

MSB-20		
MARCH, 2020		
DP	0'-2'	8'-10'
PCE	<3.8	<4.5
TCE	**5.3**	<4.5

MSB-25		
MARCH, 2020		
DP	2' -4'/4'-6'	6'-8'
PCE	<5.6	<4.9
TCE	<5.6	<4.9

MSB-23		
MARCH, 2020		
DP	2'-4'	4'-6'
PCE	<4.3	<4.7
TCE	<4.3	<4.7

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LEGEND

MSB–1 ●	SOIL BORING LOCATION
—x—x—x—	FENCE
500 — — —	PCE ISOCONCENTRATION LINE (µg/kg)
500 — — —	TCE ISOCONCENTRATION LINE (µg/kg)
TCE	TRICHLOROETHENE (µg/kg)
PCE	TETRACHLOROETHENE (µg/kg)
µg/kg	MICROGRAMS PER KILOGRAM
<	NOT DETECTED ABOVE LIMIT NOTED
DP	SAMPLE DEPTH (FEET)

BOLD VALUE INDICATES THE DETECTED CONCENTRATION EXCEEDS THE RESPECTIVE REPORTING LIMIT

RED BOLD VALUE INDICATES THE DETECTED CONCENTRATION EXCEEDS THE REMEDIAL ACTION OBJECTIVE

0 15 30
SCALE IN FEET

MAK Solve

Figure 3
ISOCONCENTRATION MAP
(TCE AND PCE)

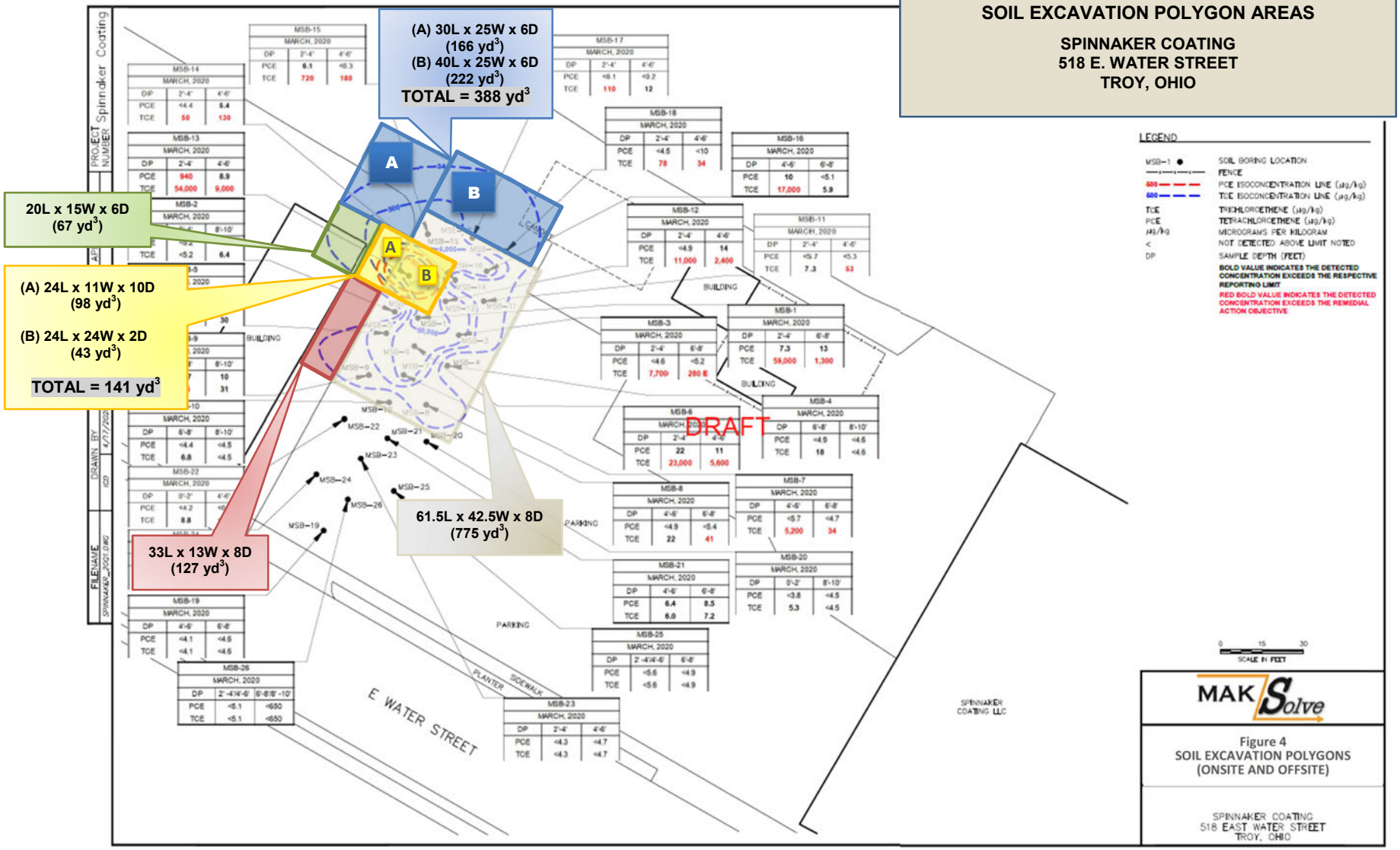
SPINNAKER COATING
518 EAST WATER STREET
TROY, OHIO

GREY AREA (onsite) SOILS ≈ 775 yd^3
BLUE AREA (offsite) SOILS ≈ 388 yd^3
GREEN AREA (offsite) SOILS ≈ 67 yd^3
YELLOW AREA (onsite/offsite) SOILS ≈ 141 yd^3
RED AREA (offsite) SOILS ≈ 127 yd^3

TOTAL SOILS VOLUME (ONSITE+OFFSITE) EXCAVATION ≈ 1,500 yd^3

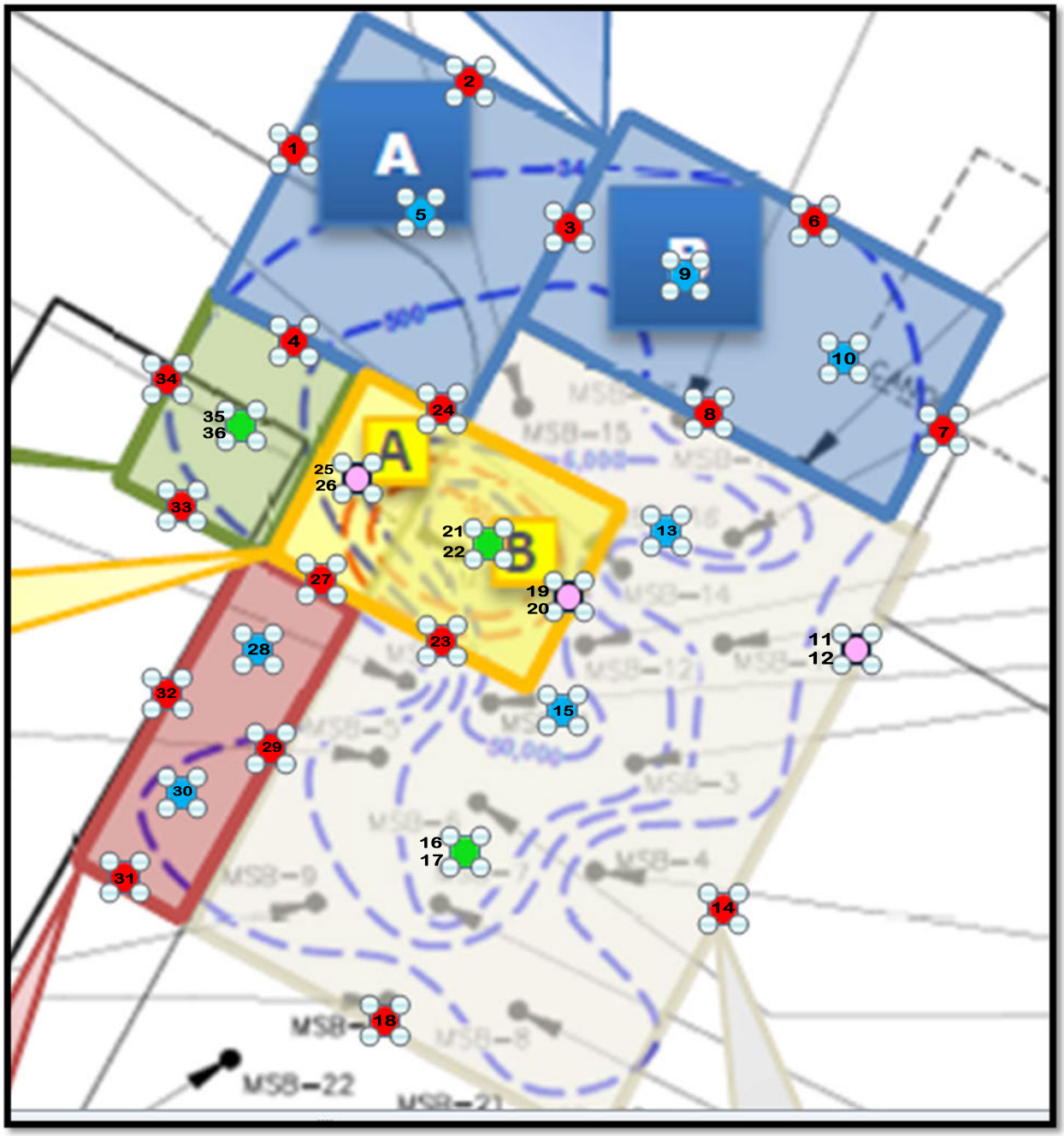
PHASE B LIMITED SUBSURFACE SOIL INVESTIGATION SOIL EXCAVATION POLYGON AREAS

SPINNAKER COATING
518 E. WATER STREET
TROY, OHIO



EXCAVATION SOIL SAMPLE TYPE/LOCATION

WALL | BOTTOM | MS/MSD | DUPLICATE



Phase II Limited Subsurface Soil Investigation Phase B Report	Figure 5 Excavation Polygons and Associated Confirmation Soil Samples

MAK Solve

Spinnaker Coating
518 East Water Street
Troy, Ohio 45373

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TABLES

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS
PHASE A LSI (MARCH 25 AND 26, 2020)
EA-6 SPINNAKER COATING
TROY, OHIO

ANALYTE	RESULT REPORTED TO	REMEDIAL ACTION OBJECTIVE	UNITS	SOIL SAMPLE LOCATION AND DEPTH INTERVAL						
				MSB-1* (2-4ft)	MSB-1* (6-8ft)	MSB-2 (2-4ft)	MSB-2 (8-10ft)	MSB-3* (2-4ft)	MSB-3 (6-8ft)	MSB-4 (6-8ft)
Tetrachloroethene	RL	44	ug/Kg	**7.3**	**13**	<5.2	<4.7	<4.6	<5.2	<4.9
Trichloroethene	RL	34	ug/Kg	**59000**	**1300**	<5.2	**6.4**	**7700**	**280 E**	**18**

ANALYTE	RESULT REPORTED TO	REMEDIAL ACTION OBJECTIVE	UNITS	SOIL SAMPLE LOCATION AND DEPTH INTERVAL						
				MSB-4 (8-10ft)	MSB-5* (4-6ft)	MSB-5 (6-8ft)	MSB-6* (2-4ft)	MSB-6 (4-6ft)	MSB-7 (4-6ft)	MSB-7 (6-8ft)
Tetrachloroethene	RL	44	ug/Kg	<4.6	**18**	<5.3	**22**	**11**	<5.7	<4.7
Trichloroethene	RL	34	ug/Kg	<4.6	**4900**	**30**	**23000**	**5600**	**5200**	**34**

ANALYTE	RESULT REPORTED TO	REMEDIAL ACTION OBJECTIVE	UNITS	SOIL SAMPLE LOCATION AND DEPTH INTERVAL						
				MSB-8 (4-6ft)	MSB-8 (6-8ft)	MSB-9* (6-8ft)	MSB-9 (8-10ft)	MSB-10 (6-8ft)	MSB-10 (8-10ft)	MSB-11 (2-4ft)
Tetrachloroethene	RL	44	ug/Kg	<4.9	<5.4	**7.7**	**10**	<4.4	<4.5	<5.7
Trichloroethene	RL	34	ug/Kg	**22**	**41**	**56**	**31**	**6.8**	<4.5	**7.3**

ANALYTE	RESULT REPORTED TO	REMEDIAL ACTION OBJECTIVE	UNITS	SOIL SAMPLE LOCATION AND DEPTH INTERVAL						
				MSB-11 (4-6ft)	MSB-12* (2-4ft)	MSB-12 (4-6ft)	MSB-13* (2-4ft)	MSB-13* (4-6ft)	MSB-14 (2-4ft)	MSB-14* (4-6ft)
Tetrachloroethene	RL	44	ug/Kg	<5.3	<4.9	**14**	**940**	**8.9**	<4.4	**5.4**
Trichloroethene	RL	34	ug/Kg	**53**	**11000**	**2400**	**54000**	**9000**	**50**	**130**

ANALYTE	RESULT REPORTED TO	REMEDIAL ACTION OBJECTIVE	UNITS	SOIL SAMPLE LOCATION AND DEPTH INTERVAL						
				MSB-15* (2-4ft)	MSB-15 (4-6ft)	MSB-16* (4-6ft)	MSB-16 (6-8ft)	MSB-17 (2-4ft)	MSB-17 (4-6ft)	MSB-18 (2-4ft)
Tetrachloroethene	RL	44	ug/Kg	**6.1**	<6.3	**10**	<5.1	<6.1	<9.2	<4.5
Trichloroethene	RL	34	ug/Kg	**720**	**180**	**17000**	**5.9**	**110**	**12**	**78**

ANALYTE	RESULT REPORTED TO	REMEDIAL ACTION OBJECTIVE	UNITS	SOIL SAMPLE LOCATION AND DEPTH INTERVAL						
				MSB-18 (4-6ft)	MSB-19 (4-6ft)	MSB-19 (6-8ft)	MSB-20 (0-2ft)	MSB-20 (8-10ft)	MSB-21 (4-6ft)	MSB-21 (6-8ft)
Tetrachloroethene	RL	44	ug/Kg	<10	<4.1	<4.6	<3.8	<4.5	**6.4**	**8.5**
Trichloroethene	RL	34	ug/Kg	**34**	<4.1	<4.6	**5.3**	<4.5	**6.0**	**7.2**

ANALYTE	RESULT REPORTED TO	REMEDIAL ACTION OBJECTIVE	UNITS	SOIL SAMPLE LOCATION AND DEPTH INTERVAL						
				MSB-22 (0-2ft)	MSB-22 (4-6ft)	MSB-23 (2-4ft)	MSB-23 (4-6ft)	MSB-24 (4-6ft)	MSB-24 (8-10ft)	MSB-25 (2-4/4-6ft)
Tetrachloroethene	RL	44	ug/Kg	<4.2	<6.7	<4.3	<4.7	<6.0	<3.7	<5.6
Trichloroethene	RL	34	ug/Kg	**8.8**	<6.7	<4.3	<4.7	<6.0	<3.7	<5.6

ANALYTE	RESULT REPORTED TO	REMEDIAL ACTION OBJECTIVE	UNITS	SOIL SAMPLE LOCATION AND DEPTH INTERVAL		
				MSB-25 (6-8ft)	MSB-26 (2-4/4-6ft)	MSB-26 (6-8/8-10ft)
Tetrachloroethene	RL	44	ug/Kg	<4.9	<5.1	<5.2
Trichloroethene	RL	34	ug/Kg	<4.9	<5.1	<5.2

Notes:

*** = See Table 2 for respective Maximum Concentration of Contaminants for the Toxicity Characteristic Leaching Procedure (TCLP)**

Bolded = Detected at a concentration that exceeds the respective reporting limit.

Bolded and Orange = Detected at a concentration exceeding the remedial action objective.

TABLE 2
ANALYTICAL SOIL SAMPLES
MAXIMUM CONCENTRATIONS OF CONTAMINANTS FOR THE TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP)
PHASE A LIMITED SUBSURFACE INVESTIGATION EA-6
SPINNAKER COATING
TROY, OHIO

ANALYTE	REPORTING LIMIT	MAXIMUM REGULATORY CONCENTRATION OF CONTAMINANTS FOR THE TOXICITY CHARACTERISTIC LEACHING PROCEDURE	UNITS	SOIL SAMPLE LOCATION AND DEPTH INTERVAL					
				MSB-1* (2-4ft)	MSB-1* (6-8ft)	MSB-3* (2-4ft)	MSB-5* (4-6ft)	MSB-6* (2-4ft)	MSB-9* (6-8ft)
Tetrachloroethene	0.10	0.7	mg/L	ND	ND	ND	ND	ND	ND
Trichloroethene	0.10	0.5	mg/L	**0.17**	ND	ND	ND	ND	ND

ANALYTE	REPORTING LIMIT	MAXIMUM REGULATORY CONCENTRATION OF CONTAMINANTS FOR THE TOXICITY CHARACTERISTIC LEACHING PROCEDURE	UNITS	SOIL SAMPLE LOCATION AND DEPTH INTERVAL					
				MSB-12* (2-4ft)	MSB-13* (2-4ft)	MSB-13* (4-6ft)	MSB-14* (4-6ft)	MSB-15* (2-4ft)	MSB-16* (4-6ft)
Tetrachloroethene	0.10	0.7	mg/L	ND	ND	ND	ND	ND	ND
Trichloroethene	0.10	0.5	mg/L	**0.15**	ND	ND	ND	ND	ND

Notes:

RL = Laboratory Analytical Method Reporting Limit

ND = Not Detected at a concentration that exceeds the respective RL.

Bolded = Detected at a concentration that exceeds the respective RL.

TABLE 3
ANALYTICAL SOIL SAMPLES AND QUALITY CONTROL
PHASE B LIMITED SUBSURFACE INVESTIGATION
EA-6 AND OFFSITE AREAS
SPINNAKER COATING
TROY, OHIO

Sample	Sample Identification (ID) Matrix Code	Description and Purpose	Sample Collection Frequency
Excavation Pit Soil Sample	SS	Soil samples will be collected at final target depths as soil from each excavation pit is removed; samples will include a composite of the four walls and a sample collected at pit bottom. A total of 30 primary soil samples will be collected from all excavations during the Phase B LSI.	Total 30 (approx. 4 per day)
Excavation Pit Soil Sample Duplicate	SD	Soil sample duplicates are soil samples collected at the same time as the initial, primary soil sample. Duplicate samples are used to assess the precision of the sample collection process. All duplicate soil sample will be assigned an ID number such that they cannot be identified (blind duplicate) as duplicate samples by laboratory personnel performing the analysis.	1 per 10
MS/MSD	SM	An MS sample is an aliquot of sample fortified (spiked) in the laboratory with known concentrations of representative analytes of interest (before sample preparation and analysis). The spiked sample analysis is designed to provide precision and accuracy information about the effect of each sample matrix on the sample preparation and the measurement methodology. When this is performed in duplicate as a matrix spikes duplicate (MSD), a second aliquot of the sample is spiked with identical concentrations of target analytes. The MSD data are used to verify the results of the MS and to evaluate the analytical precision of the spiked samples.	1 per 10
Field Blanks	FB	A field blank is a sample of analyte-free deionized water that is poured into the sample container in the field, preserved, and delivered to the laboratory with the primary field samples. Field blanks are created/prepared in the field by the site geologist. The purpose of a field blank is to assess potential contamination from field conditions during site sampling activities.	1 per 20
Equipment Blanks	EB	An equipment blank is a sample of analyte-free deionized water that is collected from sampling equipment that has been thoroughly decontaminated. The purpose of an equipment blank is to check for the existence of any possible residual contamination that may be remaining on sampling equipment. Equipment blanks are analyzed by the laboratory for the same parameters as the primary field samples and provide information as to the effectiveness of the equipment decontamination process and potential cross-contamination during sampling tasks.	1 per 20

Components of Sample ID Nomenclature — Sample ID: XX-##-TT-MM

Component	Component Description	Example Sample IDs
XX	Refers to the excavation (pit) location from which the soil sample is collected (see Appendix D of this report, *Proposed Soil Excavation Onsite and Offsite Areas*). **GY = GREY AREA BL = BLUE AREA GR = GREEN AREA YL = YELLOW AREA RD = RED AREA**	**YL10PBSS** *Soil collected from yellow excavation pit, at 10ft bgs, sample collected at pit bottom, is a primary soil sample* **GY06CWSD** *Sample collected from grey excavation pit, at 6ft bgs, collected as wall composite sample, and is a duplicate soil sample.* **GY06CWEB** *Equipment blank sample collected following collection of wall composite soil samples from grey excavation pit at 6ft bgs.*
##	Refers to the depth of excavation (pit) and from which primary soil sample is collected, whether composite sample or pit bottom.	
TT	Refers to the sample type. For field and equiment blanks, sample type is denoted as water. For soil, two soil samples will be collected from each step-wide excavation (pit) as site soil excavation work proceeds. As directed by the on-site field geologist, two soil samples will be collected from an excavation (pit): soil will be collected from each of the four side walls of the excavation (pit) and composited as one sample; soil collected at the bottom of the excavation (pit) will be designated as the second sample. The two samples will be identified according to the following nomenclature: **WB = water blank sample CW = composite walls sample PB = pit bottom sample**	
MM	Refers to the Sample ID Matrix Code, described above in this table and includes both primary confirmation samples and QC samples. **SS = primary soil sample SD = duplicate soil sample SM = MS/MSD soil sample** **FB = field blank EB = equipment blank**	

TABLE 4
CONFIRMATORY SOIL SAMPLE LABORATORY ANALYTICAL RESULTS — VOLATILE ORGANIC COMPOUNDS
EXCAVATION POLYGONS (ONSITE AND OFFSITE) — PHASE B LSI (AUGUST 24 - SEPTEMBER 2, 2020)
SPINNAKER COATING (TROY, OHIO)

ANALYTE	RESULT REPORTED TO	REMEDIAL ACTION OBJECTIVE	UNITS	BLUE EXCAVATION POLYGON (A) SAMPLE RESULTS									
				FIELD ID: #1 SAMPLE ID: BLA6WWSS DATE/TIME: 082420/1220 SAMPLE DEPTH: 6 ft bgs	FIELD ID: #2 SAMPLE ID: BLA6WNSS DATE/TIME: 082420/1223 DEPTH: 6 ft bgs	FIELD ID: #2R (Resample) SAMPLE ID: 082820R2 DATE/TIME: 082820/1003 DEPTH: 8 ft bgs	FIELD ID: #3 SAMPLE ID: BLA6WESS DATE/TIME: 052420/1226 DEPTH: 6 ft bgs	FIELD ID: #4 SAMPLE ID: BLA6WSSS DATE/TIME: 082620/1143 DEPTH: 6 ft bgs	FIELD ID: #5 SAMPLE ID: BLA6PBSS DATE/TIME: 082420/1231 DEPTH: 6 ft bgs				
Trichloroethene	RL	34	ug/Kg	3.4J	**217**	14.7J	ND	ND	**37.6 (31.0)**				
Tetrachloroethene	RL	44	ug/Kg	5.5J	**55.7**	25.1J	ND	ND	**35.8 (29.5)**				

ANALYTE	RESULT REPORTED TO	REMEDIAL ACTION OBJECTIVE	UNITS	BLUE EXCAVATION POLYGON (B) SAMPLE RESULTS									
				FIELD ID: #6 SAMPLE ID: BLB6WNSS DATE/TIME: 082420/1237 DEPTH: 6 ft bgs	FIELD ID: #6R (Resample) SAMPLE ID: 0825R6 DATE/TIME: 082520/1507 DEPTH: 8 ft bgs	FIELD ID: #7 SAMPLE ID: BLB6WESS DATE/TIME: 082420/1242 DEPTH: 6 ft bgs	FIELD ID: #7R (Resample) SAMPLE ID: 0825R7 DATE/TIME: 082520/1509 DEPTH: 8 ft bgs	FIELD ID: #8 SAMPLE ID: BLB6WSSS DATE/TIME: 082420/1244 DEPTH: 6 ft bgs	FIELD ID: #8R (Resample) SAMPLE ID: 0825R8 DATE/TIME: 082520/1515 DEPTH: 8 ft bgs	FIELD ID: #9 SAMPLE ID: BLB6PBWSS DATE/TIME: 082420/1234 DEPTH: 6 ft bgs	FIELD ID: #9R (Resample) SAMPLE ID: 0825R9 DATE/TIME: 082520/1517 DEPTH: 8 ft bgs	FIELD ID: #10 SAMPLE ID: BLB6PBESS DATE/TIME: 082420/1240 DEPTH: 6 ft bgs	FIELD ID: #10R (Resample) SAMPLE ID: 0825R10 DATE/TIME: 082520/1520 DEPTH: 8 ft bgs
Trichloroethene	RL	34	ug/Kg	**215 (97.4)**	4.9J	**455 (350)**	ND	**454 (361)**	18.4J	**97.2 (72.9)**	**30.3**	**138 (102)**	15.1J
Tetrachloroethene	RL	44	ug/Kg	**122 (172)**	19.5J	**80.8 (62.1)**	7.6J	25.5J (20.2J)	ND	**34.5 (25.8)**	ND	**96.8 (71.5)**	19.9J

ANALYTE	RESULT REPORTED TO	REMEDIAL ACTION OBJECTIVE	UNITS	BROWN EXCAVATION POLYGON SAMPLE RESULTS									
				FIELD ID: #11 SAMPLE ID: BR8WE1SS DATE/TIME: 082520/1002 DEPTH: 8 ft bgs	FIELD ID: #12 SAMPLE ID: BR8WE1SD DATE/TIME: 082520/1002 DEPTH: 8 ft bgs	FIELD ID: #13 SAMPLE ID: BR8PB1SS DATE/TIME: 082520/0726 DEPTH: 8 ft bgs	FIELD ID: #14 SAMPLE ID: BR8WE2SS DATE/TIME: 082520/1231 DEPTH: 8 ft bgs	FIELD ID: #14R (Resample) SAMPLE ID: 082720R14 DATE/TIME: 082720/1055 DEPTH: 8 ft bgs	FIELD ID: #15 SAMPLE ID: BR8PB2SS DATE/TIME: 082520/1108 DEPTH: 8 ft bgs	FIELD ID: #16 SAMPLE ID: BR8PB3SM DATE/TIME: 082520/1430 DEPTH: 8 ft bgs	FIELD ID: #17 SAMPLE ID: BR8PB3SS DATE/TIME: 082520/1433 DEPTH: 8 ft bgs	FIELD ID: #18 SAMPLE ID: BR8WSSS DATE/TIME: 082520/1435 DEPTH: 8 ft bgs	
Trichloroethene	RL	34	ug/Kg	5.5J	ND	ND	**134 (106)**	ND	26.0J	8.4J	8.2J	ND	
Tetrachloroethene	RL	44	ug/Kg	ND	ND	4.0J	ND (ND)	ND	9.6J	ND	ND	ND	

ANALYTE	RESULT REPORTED TO	REMEDIAL ACTION OBJECTIVE	UNITS	GREEN EXCAVATION POLYGON SAMPLE RESULTS									
				FIELD ID: #33 SAMPLE ID: GR6WSSS DATE/TIME: 082620/1146 DEPTH: 6 ft bgs	FIELD ID: #34 SAMPLE ID: GR6WWSS DATE/TIME: 082620/1148 DEPTH: 6 ft bgs	FIELD ID: #35 SAMPLE ID: GR6PBSS DATE/TIME: 082620/1149 DEPTH: 6 ft bgs	FIELD ID: #36 SAMPLE ID: GR6PBSM DATE/TIME: 082620/1150 DEPTH: 6 ft bgs						
Trichloroethene	RL	34	ug/Kg	ND	ND	ND	ND						
Tetrachloroethene	RL	44	ug/Kg	ND	ND	ND	ND						

ANALYTE	RESULT REPORTED TO	REMEDIAL ACTION OBJECTIVE	UNITS	YELLOW EXCAVATION POLYGON (A) SAMPLE RESULTS									
				FIELD ID: #24 SAMPLE ID: YL8WNSS DATE/TIME: 082620/1300 DEPTH: 8 ft bgs	FIELD ID: #25 SAMPLE ID: YL10PB2SS DATE/TIME: 082720/1234 DEPTH: 10 ft bgs	FIELD ID: #26 SAMPLE ID: YL10PB2SD DATE/TIME: 082720/1235 DEPTH: 10 ft bgs	FIELD ID: #27 SAMPLE ID: YL10WS2SS DATE/TIME: 082720/1236 DEPTH: 10 ft bgs						
Trichloroethene	RL	34	ug/Kg	16.4J	4.2J	ND	ND						
Tetrachloroethene	RL	44	ug/Kg	ND	ND	ND	ND						

ANALYTE	RESULT REPORTED TO	REMEDIAL ACTION OBJECTIVE	UNITS	YELLOW EXCAVATION POLYGON (B) SAMPLE RESULTS									
				FIELD ID: #19 SAMPLE ID: YL10WESS DATE/TIME: 082720/1230 DEPTH: 10 ft bgs	FIELD ID: #20 SAMPLE ID: YL10WESD DATE/TIME: 082720/1231 DEPTH: 10 ft bgs	FIELD ID: #21 SAMPLE ID: YL10PB1SS DATE/TIME: 082720/1232 DEPTH: 10 ft bgs	FIELD ID: #22 SAMPLE ID: YL10PB1SM DATE/TIME: 082720/1233 DEPTH: 10 ft bgs	FIELD ID: #23 SAMPLE ID: YL10WS1SS DATE/TIME: 082720/1237 DEPTH: 10 ft bgs					
Trichloroethene	RL	34	ug/Kg	4.9J	ND	3.6J	ND	ND					
Tetrachloroethene	RL	44	ug/Kg	11.0J	ND	ND	ND	ND					

ANALYTE	RESULT REPORTED TO	REMEDIAL ACTION OBJECTIVE	UNITS	RED EXCAVATION POLYGON SAMPLE RESULTS									
				FIELD ID: #28 SAMPLE ID: RD8PB1SS DATE/TIME: 082720/1115 DEPTH: 8 ft bgs	FIELD ID: #29 SAMPLE ID: RD8WESS DATE/TIME: 082720/1119 DEPTH: 8 ft bgs	FIELD ID: #30 SAMPLE ID: RD8PB2SS DATE/TIME: 082720/1117 DEPTH: 8 ft bgs	FIELD ID: #31 SAMPLE ID: RD8WSSS DATE/TIME: 082720/1125 DEPTH: 8 ft bgs	FIELD ID: #32 SAMPLE ID: RD8WWSS DATE/TIME: 082720/1122 DEPTH: 8 ft bgs					
Trichloroethene	RL	34	ug/Kg	ND	**31.8**	ND	ND	ND					
Tetrachloroethene	RL	44	ug/Kg	ND	3.3J	ND	21.3J	ND					

Notes:
RL = Reporting Limit; the lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
ND = Not Detected at or above adjusted reporting limit.
bgs = Below Ground Surface

Bolded = Detected at a concentration that exceeds the respective reporting limit
Bolded and Orange = Detected at a concentration exceeding the respective remedial action objective; this exceedance triggered subsequent resampling of the location.
Purple = Preliminary laboratory analytical results indicated sample concentration was below the respective remedial action objective; thus, subsequent resampling was not performed. Final laboratory analytical sample result is shown with the Preliminary laboratory analytical sample result in parenthesis "()".

APPENDIX A

Phase B LSI Field Photograph Log

Project name: SPINNAKER COATING PHASE B LSI SOIL EXCAVATION
Project No.: 084-20
Date Pictures Taken: August 24-September 2, 2020

Photo 1 (DAY 1): 8/24/20 Begin excavation of Blue Polygon (A); view to NW.

Photo 2 (DAY 1): 8/24/20 Begin excavation of Blue Polygon (A); view to W.

Photo 3 (DAY 1): 8/24/20 Trucks await loading of excavated soil; view to SE.

Photo 4 (DAY 1): 8/24/20 Excavating Blue Polygon (A); view to NW.

Photo 5 (DAY 1): 8/24/20 Excavating Blue Polygon (A), residential home (offsite) in background; view to SSE.

Photo 6 (DAY 1): 8/24/20 Excavating Blue Polygon (A) to 6ft; view to E, Spinnaker Coating in background.

Photo 7 (DAY 1): 8/24/20 Excavating Blue Polygon (A), approaching 6ft depth; north wall.

Photo 8 (DAY 1): 8/24/20 Excavating Blue Polygon (A), metal and glass debris at depth.

Photo 9 (DAY 1): 8/24/20 Begin excavation of Blue Polygon (B); moving eastward (to the left); view to S and East Water Street.

Photo 10 (DAY 1): 8/24/20 Excavating Blue Polygon (B), truck #10 soil load; view to WSW.

Photo 11 (DAY 1): 8/24/20 Loading truck #12 during excavation of Blue Polygon (B) to 6ft depth; view to ESE. Inset photo shows the western/adjacent Blue Polygon (A); view to NW.

Photo 12 (DAY 1): 8/24/20 Preparing to collect soil samples from Blue Polygons (A) and (B); soil sample containers, PID for soil volatiles screening, field map showing polygons and sample locations.

Photo 13 (DAY 1): 8/24/20 Excavation progress, moving the excavation southward, within Brown Polygon; view to WSW.

Photo 14 (DAY 1): 8/24/20 PID measuring ambient air quality (volatile organics) at 0.0ppm; view to WSW, Blue Polygons (A) and (B) in background.

Photo 15 (DAY 1): 8/24/20 Day-end progress showing Blue Polygons (A) and (B); view to NW.

Photo 16 (DAY 1): 8/24/20 Day-end progress showing Blue Polygons (A) and (B); view to WNW.

Photo 17 (DAY 1): 8/24/20 Day-end progress showing Brown Polygon; view to WSW.

Photo 18 (DAY 1): 8/24/20 Day-end site excavation progress; view to SE, Spinnaker in background.

Photo 49 (DAY 2): 8/25/20 Moving Brown Polygon excavation toward East Water Street; view to SSW.

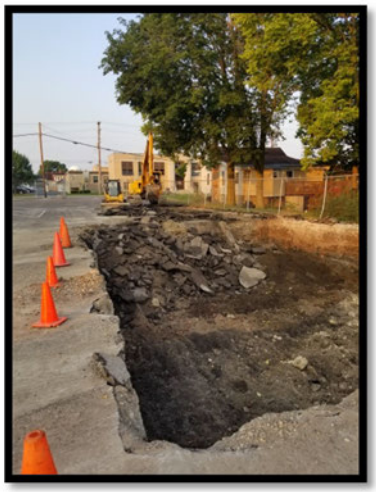

Photo 20 (DAY 2): 8/25/20 Progress of Brown Polygon excavation to 8ft depth; view to SSW.

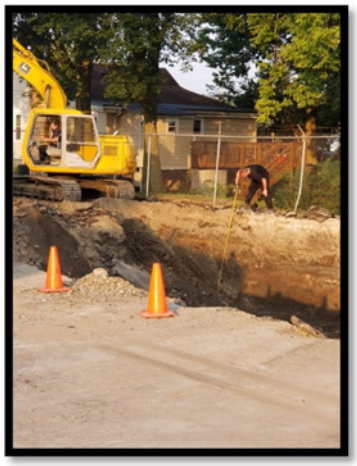

Photo 21 (DAY 2): 8/25/20 Gauging depth of Brown Polygon excavation to 8ft depth; view to SW, offsite/residential home in background.

Photo 22 (DAY 2): 8/25/20 Gauging depth of Brown Polygon excavation to 8ft depth; view to SW, offsite/residential home in background.

Photo 23 (DAY 2): 8/25/20 Tree demo at corner fencepost begins at Non-Responsive

Photo 24 (DAY 2): 8/25/20 Trees in Brown Polygon excavation; beginning demo of front three street trees at Non-Responsive

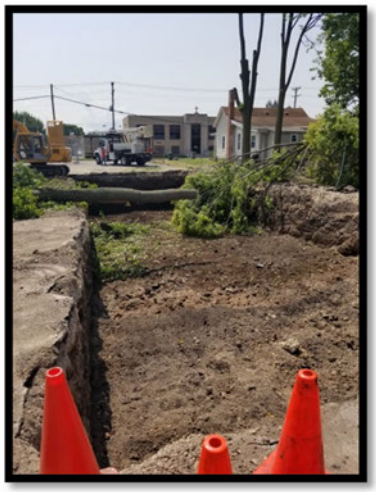

Photo 25 (DAY 2): 8/25/20 Brown Polygon excavation now complete at Non-Responsive East Water Street).

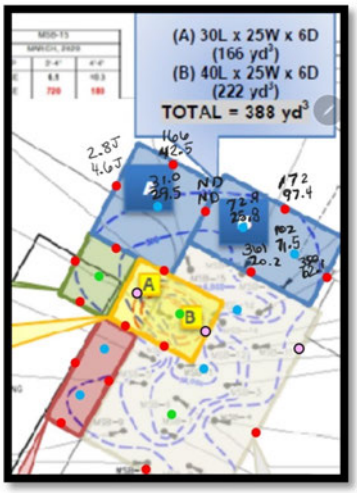

Photo 26 (DAY 2): 8/25/20 Field Map showing initial/preliminary analytical data of soil samples collected in Blue Polygons (A) and (B).

Photo 27 (DAY 2): 8/25/20 An additional 2 feet of soil is excavated (to collect additional samples) from Blue Polygon areas, due to initial sample results in exceedance of site PRGs.

Photo 28 (DAY 2): 8/25/20 Day-end progress, showing tree demo nearly complete, and Brown Polygon excavation complete; view to SW.

Photo 29 (DAY 3): 8/26/20 Removal of corner fencepost, begin excavation of off-site Blue Polygon (A) (residential property); soils simultaneously staged within on-site/Spinnaker Blue Polygon (A) area); view to SW.

Photo 30 (DAY 3): 8/26/20 Continue excavation offsite within off-site Blue Polygon (A); view to SW.

Photo 31 (DAY 3): 8/26/20 Begin excavating Green Polygon (offsite, backyard of residential home) Non-Responsive .

Photo 32 (DAY 3): 8/26/20 Excavating Green Polygon (offsite, backyard of residential home); view to SE.

Photo 33 (DAY 3): 8/26/20 Removal of remaining tree stump at corner property boundary; view to SW.

Photo 34 (DAY 3): 8/26/20 Progress of Green Polygon excavation; view to S.

Photo 35 (DAY 3): 8/26/20 Progress of Green Polygon excavation to 6ft depth; view to S.

Photo 36 (DAY3): 8/26/20 View of completed on-site Brown Polygon (depth 8ft.) and continuing excavation of off-site Green Polygon (depth 6ft.); view to SSW.

Photo 37 (DAY 3): 8/26/20 Soil collected from the Green Polygon excavation and used for field PID screenings to measure the potential presence of volatile organic compounds in site soils.

Photo 38 (DAY 3): 8/26/20 View to Brown Polygon (left), completed Green Polygon (right, at track hoe, out of frame), and beginning excavation of Yellow Polygon excavation (center); view to WSW.

Photo 39 (DAY 3): 8/26/20 Progress of Green and Yellow Polygon excavation areas (center right); view to E.

Photo 40 (DAY 3): 8/26/20 Progress of Green and Yellow Polygon excavation areas (center right), residential home in and East Water Street in background; view to S.

Photo 41 (DAY3): 8/26/20 Completing excavation of Yellow Polygon area (center); view to S.

Photo 42 (DAY 4): 8/27/20 Completing excavation of Red Polygon area (soil staging in Brown Polygon (left); view to S.

Photo 43 (DAY 4): 8/27/20 Completing excavation of Red Polygon area (front left), as shown in Photo 42; view to NE.

Photo 44 (DAY 4): 8/27/20 Loading soil from adjacent Red Polygon excavation area; view to WSW.

Photo 45 (DAY 4): 8/27/20 Loading soil (truck #13 for today) from adjacent Blue Polygon (A) and Green Polygon (residential backyard); view to WSW.

Photo 46 (DAY 4): 8/27/20 Completed excavations of Brown Polygon (foreground), Yellow Polygon (center), and Green Polygon (background); view to WSW.

Photo 47 (DAY 4): 8/27/20 Northern boundary wall of Blue Polygon (A) excavation); view to NW.

Photo 48 (DAY 4): 8/27/20 Southern boundary wall of Brown Polygon, offsite property in background; view to SW.

Photo 49 (DAY 4): 8/27/20 End-of-day continuing to load staged soil from on-site Blue Polygon (A) area; view to SW.

Photo 50 (DAY 5): 8/28/20 Continue clearing and loading staged soil from Blue Polygon (A); view to WNW.

Photo 51 (DAY 5): 8/28/20 On-site/off-site view of all excavation areas complete, except ongoing soil loading at on-site Blue Polygon (A) (right, out of frame); view to SW.

Photo 52 (DAY 5): 8/28/20 Western sidewall of final excavated on-site Blue Polygon (A) area; view to WSW.

Photo 53 (DAY 5): 8/28/20 Northern sidewalls (left) of on-site Blue Polygons (A) and (B), eastern sidewall of on-site Brown Polygon (background); view to ENE.

Photo 54 (DAY 5): 8/28/20 First backfill (gravel) loaded into Blue Polygon (B); view to S toward East Water Street.

Photo 55 (DAY 5): 8/28/20 Continue to backfill (gravel) into Blue Polygon (B); view to ESE.

Photo 56 (DAY 5): 8/28/20 Continue to backfill (gravel) into Blue Polygon (B) and Brown Polygon; view to S.

Photo 57 (DAY 5): 8/28/20 Truck #22 gravel backfill into Brown Polygon excavation area at Non-Responsive

Photo 58 (DAY 5): 8/28/20 End -of-day photo of gravel in Brown Polygon and Blue (B) Polygon excavations; view to S.

Photo 59 (DAY 6): 9/01/20 Begin bracing/placing fence posts along property boundary; view to S.

Photo 60 (DAY 6): 9/01/20 Begin bracing/placing fence posts along property boundary; view to SE.

Photo 61 (DAY 6): 9/01/20 Continue to spread gravel backfill across on-site/Spinnaker excavation areas.

Photo 62 (DAY 6): 9/01/20 Spreading gravel backfill into off-site/residential backyard area; view to SSE.

Photo 63 (DAY 6): 9/01/20 Complete grading gravel today (approx. 35 trucks of backfill deposited); view to SSW.

Photo 64 (DAY 7): 9/02/20 View to S and along property boundary, with reinstallation of fenceline, and access road in background, adjacent to orange safety cones.

Photo 65 (DAY 7): 9/02/20 Gravel-asphalt mix covers surfaces of on-site/Spinnaker excavation areas; view to S.

Photo 66 (DAY 7): 9/02/20 Truck arriving with topsoil backfill for backyard; view to W.

Photo 67 (DAY 7): 9/02/20 Truck arriving with topsoil backfill for backyard; view to WNW.

Photo 68 (DAY 7): 9/02/20 Spreading and grading topsoil backfill for backyard; view to SW.

Photo 69 (DAY 7): 9/02/20 Southern boundary of access road, tree stumps, and residence (left); view to NNW.

Photo 70 (DAY 7): 9/02/20 Spreading, grading, and mounding topsoil in backyard residence; view to S.

Photo 71 (DAY 7): 9/02/20 Spreading, grading, and mounding topsoil in backyard residence; view to S, along fenceline property boundary.

Photo 72 (DAY 7): 9/02/20 Spreading and grading topsoil load #1 within off-site property backyard; view to SSW.

Photo 73 (DAY 7): 9/02/20 Spreading and grading topsoil load #2 within off-site property backyard; view to W.

Photo 74 (DAY 7): 9/02/20 Status of residential backyard, prior to backfill of topsoil, view to N.

Photo 75 (DAY 7): 9/02/20 Status of residential backyard, prior to backfill of topsoil, view to NNE.

Photo 76 (DAY 7): 9/02/20 Access road, southern boundary, adjacent to off-site residence; view to N.

Photo 77 (DAY 7): 9/02/20 Installing remaining orange safety fencing; view to W.

Photo 78 (DAY 7): 9/02/20 Surficial cleanup and sweep; view to S.

Photo 79 (DAY 7): 9/02/20 Tamping surfaces with track hoe as partial compaction; view to SW.

Photo 80 (DAY 7): 9/02/20 Tangential view along southern boundary of Spinnaker Brown Polygon and Red Polygon (access road) excavations; view to W.

Photo 81 (DAY 7): 9/02/20 View of smooth surficial gravel-asphalt mix across site; view to SW.

APPENDIX B

Phase B LSI Laboratory Analytical Data Reports

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 5249143

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

August 28, 2020

John Bowen
MAKSolve, LLC
261 Regency Dr
Dayton, OH 45459

RE: Project: RUSH VOC Soils
Pace Project No.: 5249143

Dear John Bowen:

Enclosed are the analytical results for sample(s) received by the laboratory on August 24, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Dayton

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christina Schneider
christina.schneider@pacelabs.com
(937)832-8242
Project Manager

Enclosures

cc: Barbara McGavern, MAKSolve, LLC

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CERTIFICATIONS

Project:	RUSH VOC Soils
Pace Project No.:	5249143

Pace Analytical Services Dayton

25 Holiday Drive, Englewood, OH 45322
Florida Certification #: E871136
Ohio VAP Certification #: CL0032
Kentucky UST Certification #: 123049
Kentucky Wastewater Certification #: KY98039
Ohio EPA Drinking Water Lab #872

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SAMPLE SUMMARY

Project: RUSH VOC Soils
Pace Project No.: 5249143

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5249143001	**BLA6WWSS**	Solid	08/24/20 12:20	08/24/20 14:35
5249143003	**BLA6WESS**	Solid	08/24/20 12:26	08/24/20 14:35
5249143004	**BLA6PBSS**	Solid	08/24/20 12:31	08/24/20 14:35

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SAMPLE ANALYTE COUNT

Project: RUSH VOC Soils
Pace Project No.: 5249143

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5249143001	**BLA6WWSS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249143003	**BLA6WESS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249143004	**BLA6PBSS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1

PASI-DAY = Pace Analytical Services - Dayton

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249143

Sample: BLA6WWSS **Lab ID: 5249143001** Collected: 08/24/20 12:20 Received: 08/24/20 14:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	296	16.1	1	08/24/20 15:19	08/24/20 17:54	67-64-1	
Acetonitrile	ND	ug/kg	237	11.7	1	08/24/20 15:19	08/24/20 17:54	75-05-8	L1
Acrolein	ND	ug/kg	296	8.7	1	08/24/20 15:19	08/24/20 17:54	107-02-8	
Acrylonitrile	ND	ug/kg	118	1.3	1	08/24/20 15:19	08/24/20 17:54	107-13-1	
Benzene	ND	ug/kg	5.9	0.96	1	08/24/20 15:19	08/24/20 17:54	71-43-2	
Bromobenzene	ND	ug/kg	29.6	0.92	1	08/24/20 15:19	08/24/20 17:54	108-86-1	
Bromochloromethane	ND	ug/kg	29.6	0.73	1	08/24/20 15:19	08/24/20 17:54	74-97-5	
Bromodichloromethane	ND	ug/kg	29.6	0.93	1	08/24/20 15:19	08/24/20 17:54	75-27-4	
Bromoform	ND	ug/kg	29.6	0.71	1	08/24/20 15:19	08/24/20 17:54	75-25-2	
Bromomethane	ND	ug/kg	148	0.93	1	08/24/20 15:19	08/24/20 17:54	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	118	1.7	1	08/24/20 15:19	08/24/20 17:54	78-93-3	
n-Butylbenzene	ND	ug/kg	29.6	1.9	1	08/24/20 15:19	08/24/20 17:54	104-51-8	
sec-Butylbenzene	ND	ug/kg	29.6	1.6	1	08/24/20 15:19	08/24/20 17:54	135-98-8	
tert-Butylbenzene	ND	ug/kg	29.6	1.5	1	08/24/20 15:19	08/24/20 17:54	98-06-6	
Carbon disulfide	ND	ug/kg	118	1.8	1	08/24/20 15:19	08/24/20 17:54	75-15-0	
Carbon tetrachloride	ND	ug/kg	29.6	1.7	1	08/24/20 15:19	08/24/20 17:54	56-23-5	
Chlorobenzene	ND	ug/kg	29.6	0.90	1	08/24/20 15:19	08/24/20 17:54	108-90-7	
Chloroethane	ND	ug/kg	29.6	1.7	1	08/24/20 15:19	08/24/20 17:54	75-00-3	
Chloroform	ND	ug/kg	29.6	1.2	1	08/24/20 15:19	08/24/20 17:54	67-66-3	
Chloromethane	**3.4J**	ug/kg	29.6	0.92	1	08/24/20 15:19	08/24/20 17:54	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	29.6	0.96	1	08/24/20 15:19	08/24/20 17:54	95-49-8	
4-Chlorotoluene	ND	ug/kg	29.6	0.96	1	08/24/20 15:19	08/24/20 17:54	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	59.2	0.95	1	08/24/20 15:19	08/24/20 17:54	96-12-8	
Dibromochloromethane	ND	ug/kg	29.6	0.73	1	08/24/20 15:19	08/24/20 17:54	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	29.6	0.67	1	08/24/20 15:19	08/24/20 17:54	106-93-4	
Dibromomethane	ND	ug/kg	29.6	0.92	1	08/24/20 15:19	08/24/20 17:54	74-95-3	
1,2-Dichlorobenzene	**3.7J**	ug/kg	29.6	0.82	1	08/24/20 15:19	08/24/20 17:54	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	29.6	0.82	1	08/24/20 15:19	08/24/20 17:54	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	29.6	0.68	1	08/24/20 15:19	08/24/20 17:54	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	29.6	2.5	1	08/24/20 15:19	08/24/20 17:54	75-71-8	
1,1-Dichloroethane	ND	ug/kg	29.6	1.2	1	08/24/20 15:19	08/24/20 17:54	75-34-3	
1,2-Dichloroethane	ND	ug/kg	29.6	1.2	1	08/24/20 15:19	08/24/20 17:54	107-06-2	
1,1-Dichloroethene	ND	ug/kg	29.6	2.0	1	08/24/20 15:19	08/24/20 17:54	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	29.6	1.1	1	08/24/20 15:19	08/24/20 17:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	29.6	1.4	1	08/24/20 15:19	08/24/20 17:54	156-60-5	
1,2-Dichloropropane	ND	ug/kg	29.6	0.84	1	08/24/20 15:19	08/24/20 17:54	78-87-5	
1,3-Dichloropropane	ND	ug/kg	29.6	0.75	1	08/24/20 15:19	08/24/20 17:54	142-28-9	
2,2-Dichloropropane	ND	ug/kg	29.6	1.8	1	08/24/20 15:19	08/24/20 17:54	594-20-7	
1,1-Dichloropropene	ND	ug/kg	29.6	1.5	1	08/24/20 15:19	08/24/20 17:54	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	29.6	0.77	1	08/24/20 15:19	08/24/20 17:54	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	29.6	1.0	1	08/24/20 15:19	08/24/20 17:54	10061-02-6	
Ethyl acetate	ND	ug/kg	59.2	2.0	1	08/24/20 15:19	08/24/20 17:54	141-78-6	
Ethylbenzene	ND	ug/kg	29.6	1.4	1	08/24/20 15:19	08/24/20 17:54	100-41-4	
2-Hexanone	ND	ug/kg	118	5.3	1	08/24/20 15:19	08/24/20 17:54	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249143

Sample: BLA6WWSS **Lab ID: 5249143001** Collected: 08/24/20 12:20 Received: 08/24/20 14:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	29.6	1.2	1	08/24/20 15:19	08/24/20 17:54	98-82-8	
p-Isopropyltoluene	ND	ug/kg	29.6	5.9	1	08/24/20 15:19	08/24/20 17:54	99-87-6	
Methylene Chloride	ND	ug/kg	148	1.9	1	08/24/20 15:19	08/24/20 17:54	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	118	3.4	1	08/24/20 15:19	08/24/20 17:54	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	59.2	1.4	1	08/24/20 15:19	08/24/20 17:54	1634-04-4	
Naphthalene	ND	ug/kg	29.6	0.74	1	08/24/20 15:19	08/24/20 17:54	91-20-3	
n-Propylbenzene	ND	ug/kg	29.6	1.3	1	08/24/20 15:19	08/24/20 17:54	103-65-1	
Styrene	ND	ug/kg	29.6	1.1	1	08/24/20 15:19	08/24/20 17:54	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	29.6	0.71	1	08/24/20 15:19	08/24/20 17:54	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	29.6	0.66	1	08/24/20 15:19	08/24/20 17:54	79-34-5	
Tetrachloroethene	**5.5J**	ug/kg	29.6	1.7	1	08/24/20 15:19	08/24/20 17:54	127-18-4	
Toluene	ND	ug/kg	29.6	1.0	1	08/24/20 15:19	08/24/20 17:54	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	29.6	0.69	1	08/24/20 15:19	08/24/20 17:54	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	29.6	0.79	1	08/24/20 15:19	08/24/20 17:54	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	29.6	1.5	1	08/24/20 15:19	08/24/20 17:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	29.6	0.94	1	08/24/20 15:19	08/24/20 17:54	79-00-5	
Trichloroethene	**3.4J**	ug/kg	29.6	1.3	1	08/24/20 15:19	08/24/20 17:54	79-01-6	
Trichlorofluoromethane	ND	ug/kg	29.6	2.1	1	08/24/20 15:19	08/24/20 17:54	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	29.6	1.5	1	08/24/20 15:19	08/24/20 17:54	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	29.6	0.98	1	08/24/20 15:19	08/24/20 17:54	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	29.6	1.1	1	08/24/20 15:19	08/24/20 17:54	108-67-8	
Vinyl acetate	ND	ug/kg	59.2	2.3	1	08/24/20 15:19	08/24/20 17:54	108-05-4	
Vinyl chloride	ND	ug/kg	29.6	2.1	1	08/24/20 15:19	08/24/20 17:54	75-01-4	
Xylene (Total)	ND	ug/kg	59.2	3.1	1	08/24/20 15:19	08/24/20 17:54	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	110	%.	78-126		1	08/24/20 15:19	08/24/20 17:54	1868-53-7	
Toluene-d8 (S)	98	%.	80-120		1	08/24/20 15:19	08/24/20 17:54	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	80-120		1	08/24/20 15:19	08/24/20 17:54	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%.	76-127		1	08/24/20 15:19	08/24/20 17:54	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**16.7**	%	0.10	0.10	1		08/25/20 14:09		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249143

Sample: BLA6WESS **Lab ID: 5249143003** Collected: 08/24/20 12:26 Received: 08/24/20 14:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	376	20.4	1	08/24/20 15:19	08/24/20 18:44	67-64-1	
Acetonitrile	ND	ug/kg	301	14.8	1	08/24/20 15:19	08/24/20 18:44	75-05-8	L1
Acrolein	ND	ug/kg	376	11.1	1	08/24/20 15:19	08/24/20 18:44	107-02-8	
Acrylonitrile	ND	ug/kg	150	1.7	1	08/24/20 15:19	08/24/20 18:44	107-13-1	
Benzene	ND	ug/kg	7.5	1.2	1	08/24/20 15:19	08/24/20 18:44	71-43-2	
Bromobenzene	ND	ug/kg	37.6	1.2	1	08/24/20 15:19	08/24/20 18:44	108-86-1	
Bromochloromethane	ND	ug/kg	37.6	0.92	1	08/24/20 15:19	08/24/20 18:44	74-97-5	
Bromodichloromethane	ND	ug/kg	37.6	1.2	1	08/24/20 15:19	08/24/20 18:44	75-27-4	
Bromoform	ND	ug/kg	37.6	0.91	1	08/24/20 15:19	08/24/20 18:44	75-25-2	
Bromomethane	ND	ug/kg	188	1.2	1	08/24/20 15:19	08/24/20 18:44	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	150	2.1	1	08/24/20 15:19	08/24/20 18:44	78-93-3	
n-Butylbenzene	ND	ug/kg	37.6	2.4	1	08/24/20 15:19	08/24/20 18:44	104-51-8	
sec-Butylbenzene	ND	ug/kg	37.6	2.1	1	08/24/20 15:19	08/24/20 18:44	135-98-8	
tert-Butylbenzene	ND	ug/kg	37.6	1.9	1	08/24/20 15:19	08/24/20 18:44	98-06-6	
Carbon disulfide	ND	ug/kg	150	2.3	1	08/24/20 15:19	08/24/20 18:44	75-15-0	
Carbon tetrachloride	ND	ug/kg	37.6	2.2	1	08/24/20 15:19	08/24/20 18:44	56-23-5	
Chlorobenzene	ND	ug/kg	37.6	1.1	1	08/24/20 15:19	08/24/20 18:44	108-90-7	
Chloroethane	ND	ug/kg	37.6	2.2	1	08/24/20 15:19	08/24/20 18:44	75-00-3	
Chloroform	ND	ug/kg	37.6	1.5	1	08/24/20 15:19	08/24/20 18:44	67-66-3	
Chloromethane	ND	ug/kg	37.6	1.2	1	08/24/20 15:19	08/24/20 18:44	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	37.6	1.2	1	08/24/20 15:19	08/24/20 18:44	95-49-8	
4-Chlorotoluene	ND	ug/kg	37.6	1.2	1	08/24/20 15:19	08/24/20 18:44	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	75.2	1.2	1	08/24/20 15:19	08/24/20 18:44	96-12-8	
Dibromochloromethane	ND	ug/kg	37.6	0.92	1	08/24/20 15:19	08/24/20 18:44	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	37.6	0.85	1	08/24/20 15:19	08/24/20 18:44	106-93-4	
Dibromomethane	ND	ug/kg	37.6	1.2	1	08/24/20 15:19	08/24/20 18:44	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	37.6	1.0	1	08/24/20 15:19	08/24/20 18:44	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	37.6	1.0	1	08/24/20 15:19	08/24/20 18:44	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	37.6	0.86	1	08/24/20 15:19	08/24/20 18:44	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	37.6	3.2	1	08/24/20 15:19	08/24/20 18:44	75-71-8	
1,1-Dichloroethane	ND	ug/kg	37.6	1.6	1	08/24/20 15:19	08/24/20 18:44	75-34-3	
1,2-Dichloroethane	ND	ug/kg	37.6	1.6	1	08/24/20 15:19	08/24/20 18:44	107-06-2	
1,1-Dichloroethene	ND	ug/kg	37.6	2.6	1	08/24/20 15:19	08/24/20 18:44	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	37.6	1.4	1	08/24/20 15:19	08/24/20 18:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	37.6	1.8	1	08/24/20 15:19	08/24/20 18:44	156-60-5	
1,2-Dichloropropane	ND	ug/kg	37.6	1.1	1	08/24/20 15:19	08/24/20 18:44	78-87-5	
1,3-Dichloropropane	ND	ug/kg	37.6	0.95	1	08/24/20 15:19	08/24/20 18:44	142-28-9	
2,2-Dichloropropane	ND	ug/kg	37.6	2.2	1	08/24/20 15:19	08/24/20 18:44	594-20-7	
1,1-Dichloropropene	ND	ug/kg	37.6	1.9	1	08/24/20 15:19	08/24/20 18:44	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	37.6	0.98	1	08/24/20 15:19	08/24/20 18:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	37.6	1.3	1	08/24/20 15:19	08/24/20 18:44	10061-02-6	
Ethyl acetate	ND	ug/kg	75.2	2.5	1	08/24/20 15:19	08/24/20 18:44	141-78-6	
Ethylbenzene	ND	ug/kg	37.6	1.7	1	08/24/20 15:19	08/24/20 18:44	100-41-4	
2-Hexanone	ND	ug/kg	150	6.8	1	08/24/20 15:19	08/24/20 18:44	591-78-6	N2

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249143

Sample: BLA6WESS **Lab ID: 5249143003** Collected: 08/24/20 12:26 Received: 08/24/20 14:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	37.6	1.5	1	08/24/20 15:19	08/24/20 18:44	98-82-8	
p-Isopropyltoluene	ND	ug/kg	37.6	7.5	1	08/24/20 15:19	08/24/20 18:44	99-87-6	
Methylene Chloride	ND	ug/kg	188	2.4	1	08/24/20 15:19	08/24/20 18:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	**106J**	ug/kg	150	4.3	1	08/24/20 15:19	08/24/20 18:44	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	75.2	1.7	1	08/24/20 15:19	08/24/20 18:44	1634-04-4	
Naphthalene	ND	ug/kg	37.6	0.94	1	08/24/20 15:19	08/24/20 18:44	91-20-3	
n-Propylbenzene	ND	ug/kg	37.6	1.6	1	08/24/20 15:19	08/24/20 18:44	103-65-1	
Styrene	ND	ug/kg	37.6	1.4	1	08/24/20 15:19	08/24/20 18:44	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	37.6	0.90	1	08/24/20 15:19	08/24/20 18:44	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	37.6	0.84	1	08/24/20 15:19	08/24/20 18:44	79-34-5	
Tetrachloroethene	ND	ug/kg	37.6	2.2	1	08/24/20 15:19	08/24/20 18:44	127-18-4	
Toluene	ND	ug/kg	37.6	1.3	1	08/24/20 15:19	08/24/20 18:44	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	37.6	0.88	1	08/24/20 15:19	08/24/20 18:44	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	37.6	1.0	1	08/24/20 15:19	08/24/20 18:44	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	37.6	1.9	1	08/24/20 15:19	08/24/20 18:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	37.6	1.2	1	08/24/20 15:19	08/24/20 18:44	79-00-5	
Trichloroethene	ND	ug/kg	37.6	1.7	1	08/24/20 15:19	08/24/20 18:44	79-01-6	
Trichlorofluoromethane	ND	ug/kg	37.6	2.7	1	08/24/20 15:19	08/24/20 18:44	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	37.6	1.9	1	08/24/20 15:19	08/24/20 18:44	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	37.6	1.2	1	08/24/20 15:19	08/24/20 18:44	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	37.6	1.4	1	08/24/20 15:19	08/24/20 18:44	108-67-8	
Vinyl acetate	ND	ug/kg	75.2	2.9	1	08/24/20 15:19	08/24/20 18:44	108-05-4	
Vinyl chloride	ND	ug/kg	37.6	2.7	1	08/24/20 15:19	08/24/20 18:44	75-01-4	
Xylene (Total)	ND	ug/kg	75.2	3.9	1	08/24/20 15:19	08/24/20 18:44	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	111	%.	78-126		1	08/24/20 15:19	08/24/20 18:44	1868-53-7	
Toluene-d8 (S)	97	%.	80-120		1	08/24/20 15:19	08/24/20 18:44	2037-26-5	
4-Bromofluorobenzene (S)	94	%.	80-120		1	08/24/20 15:19	08/24/20 18:44	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%.	76-127		1	08/24/20 15:19	08/24/20 18:44	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**38.9**	%	0.10	0.10	1		08/25/20 14:11		N2

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249143

Sample: BLA6PBSS **Lab ID: 5249143004** Collected: 08/24/20 12:31 Received: 08/24/20 14:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	278	15.1	1	08/24/20 15:19	08/24/20 19:09	67-64-1	
Acetonitrile	ND	ug/kg	223	11.0	1	08/24/20 15:19	08/24/20 19:09	75-05-8	L1
Acrolein	ND	ug/kg	278	8.2	1	08/24/20 15:19	08/24/20 19:09	107-02-8	
Acrylonitrile	ND	ug/kg	111	1.3	1	08/24/20 15:19	08/24/20 19:09	107-13-1	
Benzene	ND	ug/kg	5.6	0.90	1	08/24/20 15:19	08/24/20 19:09	71-43-2	
Bromobenzene	ND	ug/kg	27.8	0.86	1	08/24/20 15:19	08/24/20 19:09	108-86-1	
Bromochloromethane	ND	ug/kg	27.8	0.68	1	08/24/20 15:19	08/24/20 19:09	74-97-5	
Bromodichloromethane	ND	ug/kg	27.8	0.88	1	08/24/20 15:19	08/24/20 19:09	75-27-4	
Bromoform	ND	ug/kg	27.8	0.67	1	08/24/20 15:19	08/24/20 19:09	75-25-2	
Bromomethane	ND	ug/kg	139	0.87	1	08/24/20 15:19	08/24/20 19:09	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	111	1.6	1	08/24/20 15:19	08/24/20 19:09	78-93-3	
n-Butylbenzene	ND	ug/kg	27.8	1.8	1	08/24/20 15:19	08/24/20 19:09	104-51-8	
sec-Butylbenzene	ND	ug/kg	27.8	1.5	1	08/24/20 15:19	08/24/20 19:09	135-98-8	
tert-Butylbenzene	ND	ug/kg	27.8	1.4	1	08/24/20 15:19	08/24/20 19:09	98-06-6	
Carbon disulfide	ND	ug/kg	111	1.7	1	08/24/20 15:19	08/24/20 19:09	75-15-0	
Carbon tetrachloride	ND	ug/kg	27.8	1.6	1	08/24/20 15:19	08/24/20 19:09	56-23-5	
Chlorobenzene	ND	ug/kg	27.8	0.85	1	08/24/20 15:19	08/24/20 19:09	108-90-7	
Chloroethane	ND	ug/kg	27.8	1.6	1	08/24/20 15:19	08/24/20 19:09	75-00-3	
Chloroform	ND	ug/kg	27.8	1.1	1	08/24/20 15:19	08/24/20 19:09	67-66-3	
Chloromethane	ND	ug/kg	27.8	0.87	1	08/24/20 15:19	08/24/20 19:09	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	27.8	0.90	1	08/24/20 15:19	08/24/20 19:09	95-49-8	
4-Chlorotoluene	ND	ug/kg	27.8	0.90	1	08/24/20 15:19	08/24/20 19:09	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	55.6	0.89	1	08/24/20 15:19	08/24/20 19:09	96-12-8	
Dibromochloromethane	ND	ug/kg	27.8	0.68	1	08/24/20 15:19	08/24/20 19:09	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	27.8	0.63	1	08/24/20 15:19	08/24/20 19:09	106-93-4	
Dibromomethane	ND	ug/kg	27.8	0.86	1	08/24/20 15:19	08/24/20 19:09	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	27.8	0.77	1	08/24/20 15:19	08/24/20 19:09	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	27.8	0.77	1	08/24/20 15:19	08/24/20 19:09	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	27.8	0.63	1	08/24/20 15:19	08/24/20 19:09	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	27.8	2.4	1	08/24/20 15:19	08/24/20 19:09	75-71-8	
1,1-Dichloroethane	ND	ug/kg	27.8	1.2	1	08/24/20 15:19	08/24/20 19:09	75-34-3	
1,2-Dichloroethane	ND	ug/kg	27.8	1.2	1	08/24/20 15:19	08/24/20 19:09	107-06-2	
1,1-Dichloroethene	ND	ug/kg	27.8	1.9	1	08/24/20 15:19	08/24/20 19:09	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	27.8	1.0	1	08/24/20 15:19	08/24/20 19:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	27.8	1.3	1	08/24/20 15:19	08/24/20 19:09	156-60-5	
1,2-Dichloropropane	ND	ug/kg	27.8	0.79	1	08/24/20 15:19	08/24/20 19:09	78-87-5	
1,3-Dichloropropane	ND	ug/kg	27.8	0.70	1	08/24/20 15:19	08/24/20 19:09	142-28-9	
2,2-Dichloropropane	ND	ug/kg	27.8	1.7	1	08/24/20 15:19	08/24/20 19:09	594-20-7	
1,1-Dichloropropene	ND	ug/kg	27.8	1.4	1	08/24/20 15:19	08/24/20 19:09	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	27.8	0.72	1	08/24/20 15:19	08/24/20 19:09	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	27.8	0.95	1	08/24/20 15:19	08/24/20 19:09	10061-02-6	
Ethyl acetate	ND	ug/kg	55.6	1.9	1	08/24/20 15:19	08/24/20 19:09	141-78-6	
Ethylbenzene	**4.2J**	ug/kg	27.8	1.3	1	08/24/20 15:19	08/24/20 19:09	100-41-4	
2-Hexanone	ND	ug/kg	111	5.0	1	08/24/20 15:19	08/24/20 19:09	591-78-6	N2

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249143

Sample: BLA6PBSS **Lab ID: 5249143004** Collected: 08/24/20 12:31 Received: 08/24/20 14:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	27.8	1.1	1	08/24/20 15:19	08/24/20 19:09	98-82-8	
p-Isopropyltoluene	ND	ug/kg	27.8	5.6	1	08/24/20 15:19	08/24/20 19:09	99-87-6	
Methylene Chloride	ND	ug/kg	139	1.8	1	08/24/20 15:19	08/24/20 19:09	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	111	3.2	1	08/24/20 15:19	08/24/20 19:09	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	55.6	1.3	1	08/24/20 15:19	08/24/20 19:09	1634-04-4	
Naphthalene	ND	ug/kg	27.8	0.70	1	08/24/20 15:19	08/24/20 19:09	91-20-3	
n-Propylbenzene	ND	ug/kg	27.8	1.2	1	08/24/20 15:19	08/24/20 19:09	103-65-1	
Styrene	ND	ug/kg	27.8	1.1	1	08/24/20 15:19	08/24/20 19:09	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	27.8	0.67	1	08/24/20 15:19	08/24/20 19:09	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	27.8	0.62	1	08/24/20 15:19	08/24/20 19:09	79-34-5	
Tetrachloroethene	**35.8**	ug/kg	27.8	1.6	1	08/24/20 15:19	08/24/20 19:09	127-18-4	
Toluene	**5.9J**	ug/kg	27.8	0.97	1	08/24/20 15:19	08/24/20 19:09	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	27.8	0.65	1	08/24/20 15:19	08/24/20 19:09	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	27.8	0.74	1	08/24/20 15:19	08/24/20 19:09	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	27.8	1.4	1	08/24/20 15:19	08/24/20 19:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	27.8	0.88	1	08/24/20 15:19	08/24/20 19:09	79-00-5	
Trichloroethene	**37.6**	ug/kg	27.8	1.2	1	08/24/20 15:19	08/24/20 19:09	79-01-6	
Trichlorofluoromethane	ND	ug/kg	27.8	2.0	1	08/24/20 15:19	08/24/20 19:09	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	27.8	1.4	1	08/24/20 15:19	08/24/20 19:09	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	27.8	0.92	1	08/24/20 15:19	08/24/20 19:09	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	27.8	1.0	1	08/24/20 15:19	08/24/20 19:09	108-67-8	
Vinyl acetate	ND	ug/kg	55.6	2.2	1	08/24/20 15:19	08/24/20 19:09	108-05-4	
Vinyl chloride	ND	ug/kg	27.8	2.0	1	08/24/20 15:19	08/24/20 19:09	75-01-4	
Xylene (Total)	ND	ug/kg	55.6	2.9	1	08/24/20 15:19	08/24/20 19:09	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	109	%.	78-126		1	08/24/20 15:19	08/24/20 19:09	1868-53-7	
Toluene-d8 (S)	95	%.	80-120		1	08/24/20 15:19	08/24/20 19:09	2037-26-5	
4-Bromofluorobenzene (S)	97	%.	80-120		1	08/24/20 15:19	08/24/20 19:09	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%.	76-127		1	08/24/20 15:19	08/24/20 19:09	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**17.4**	%	0.10	0.10	1		08/25/20 14:13		N2

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249143

QC Batch: 48453
QC Batch Method: EPA 5035A
Analysis Method: EPA 8260B
Analysis Description: 8260B MSV 5035A Med Level
Laboratory: Pace Analytical Services - Dayton
Associated Lab Samples: 5249143001, 5249143003, 5249143004

METHOD BLANK: 203632
Matrix: Solid
Associated Lab Samples: 5249143001, 5249143003, 5249143004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	25.0	0.60	08/24/20 12:53	
1,1,1-Trichloroethane	ug/kg	ND	25.0	1.2	08/24/20 12:53	
1,1,2,2-Tetrachloroethane	ug/kg	ND	25.0	0.56	08/24/20 12:53	
1,1,2-Trichloroethane	ug/kg	ND	25.0	0.80	08/24/20 12:53	
1,1-Dichloroethane	ug/kg	ND	25.0	1.1	08/24/20 12:53	
1,1-Dichloroethene	ug/kg	ND	25.0	1.7	08/24/20 12:53	N2
1,1-Dichloropropene	ug/kg	ND	25.0	1.3	08/24/20 12:53	
1,2,3-Trichlorobenzene	ug/kg	ND	25.0	0.58	08/24/20 12:53	N2
1,2,3-Trichloropropane	ug/kg	ND	25.0	1.3	08/24/20 12:53	
1,2,4-Trichlorobenzene	ug/kg	ND	25.0	0.67	08/24/20 12:53	
1,2,4-Trimethylbenzene	ug/kg	ND	25.0	0.83	08/24/20 12:53	
1,2-Dibromo-3-chloropropane	ug/kg	ND	50.0	0.80	08/24/20 12:53	
1,2-Dibromoethane (EDB)	ug/kg	ND	25.0	0.57	08/24/20 12:53	
1,2-Dichlorobenzene	ug/kg	ND	25.0	0.69	08/24/20 12:53	
1,2-Dichloroethane	ug/kg	ND	25.0	1.0	08/24/20 12:53	
1,2-Dichloropropane	ug/kg	ND	25.0	0.71	08/24/20 12:53	
1,3,5-Trimethylbenzene	ug/kg	ND	25.0	0.92	08/24/20 12:53	
1,3-Dichlorobenzene	ug/kg	ND	25.0	0.69	08/24/20 12:53	
1,3-Dichloropropane	ug/kg	ND	25.0	0.63	08/24/20 12:53	
1,4-Dichlorobenzene	ug/kg	ND	25.0	0.57	08/24/20 12:53	
2,2-Dichloropropane	ug/kg	ND	25.0	1.5	08/24/20 12:53	
2-Butanone (MEK)	ug/kg	ND	100	1.4	08/24/20 12:53	
2-Chlorotoluene	ug/kg	ND	25.0	0.81	08/24/20 12:53	
2-Hexanone	ug/kg	ND	100	4.5	08/24/20 12:53	N2
4-Chlorotoluene	ug/kg	ND	25.0	0.81	08/24/20 12:53	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	100	2.9	08/24/20 12:53	N2
Acetone	ug/kg	ND	250	13.6	08/24/20 12:53	
Acetonitrile	ug/kg	ND	200	9.9	08/24/20 12:53	
Acrolein	ug/kg	ND	250	7.4	08/24/20 12:53	
Acrylonitrile	ug/kg	ND	100	1.1	08/24/20 12:53	
Benzene	ug/kg	ND	5.0	0.81	08/24/20 12:53	
Bromobenzene	ug/kg	ND	25.0	0.78	08/24/20 12:53	
Bromochloromethane	ug/kg	ND	25.0	0.61	08/24/20 12:53	
Bromodichloromethane	ug/kg	ND	25.0	0.79	08/24/20 12:53	
Bromoform	ug/kg	ND	25.0	0.60	08/24/20 12:53	
Bromomethane	ug/kg	ND	125	0.78	08/24/20 12:53	N2
Carbon disulfide	ug/kg	ND	100	1.6	08/24/20 12:53	
Carbon tetrachloride	ug/kg	ND	25.0	1.4	08/24/20 12:53	
Chlorobenzene	ug/kg	ND	25.0	0.76	08/24/20 12:53	
Chloroethane	ug/kg	ND	25.0	1.4	08/24/20 12:53	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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25 Holiday Drive
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QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249143

METHOD BLANK: 203632 Matrix: Solid
Associated Lab Samples: 5249143001, 5249143003, 5249143004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloroform	ug/kg	ND	25.0	1.0	08/24/20 12:53	
Chloromethane	ug/kg	ND	25.0	0.78	08/24/20 12:53	N2
cis-1,2-Dichloroethene	ug/kg	ND	25.0	0.91	08/24/20 12:53	
cis-1,3-Dichloropropene	ug/kg	ND	25.0	0.65	08/24/20 12:53	
Dibromochloromethane	ug/kg	ND	25.0	0.61	08/24/20 12:53	
Dibromomethane	ug/kg	ND	25.0	0.78	08/24/20 12:53	
Dichlorodifluoromethane	ug/kg	ND	25.0	2.1	08/24/20 12:53	
Ethyl acetate	ug/kg	ND	50.0	1.7	08/24/20 12:53	
Ethylbenzene	ug/kg	ND	25.0	1.2	08/24/20 12:53	
Isopropylbenzene (Cumene)	ug/kg	ND	25.0	1.0	08/24/20 12:53	
Methyl-tert-butyl ether	ug/kg	ND	50.0	1.2	08/24/20 12:53	
Methylene Chloride	ug/kg	ND	125	1.6	08/24/20 12:53	
n-Butylbenzene	ug/kg	ND	25.0	1.6	08/24/20 12:53	
n-Propylbenzene	ug/kg	ND	25.0	1.1	08/24/20 12:53	
Naphthalene	ug/kg	ND	25.0	0.63	08/24/20 12:53	
p-Isopropyltoluene	ug/kg	ND	25.0	5.0	08/24/20 12:53	
sec-Butylbenzene	ug/kg	ND	25.0	1.4	08/24/20 12:53	
Styrene	ug/kg	ND	25.0	0.96	08/24/20 12:53	
tert-Butylbenzene	ug/kg	ND	25.0	1.2	08/24/20 12:53	
Tetrachloroethene	ug/kg	ND	25.0	1.4	08/24/20 12:53	
Toluene	ug/kg	ND	25.0	0.87	08/24/20 12:53	
trans-1,2-Dichloroethene	ug/kg	ND	25.0	1.2	08/24/20 12:53	
trans-1,3-Dichloropropene	ug/kg	ND	25.0	0.86	08/24/20 12:53	
Trichloroethene	ug/kg	ND	25.0	1.1	08/24/20 12:53	
Trichlorofluoromethane	ug/kg	ND	25.0	1.8	08/24/20 12:53	
Vinyl acetate	ug/kg	ND	50.0	1.9	08/24/20 12:53	
Vinyl chloride	ug/kg	ND	25.0	1.8	08/24/20 12:53	
Xylene (Total)	ug/kg	ND	50.0	2.6	08/24/20 12:53	
1,2-Dichloroethane-d4 (S)	%.	108	76-127		08/24/20 12:53	
4-Bromofluorobenzene (S)	%.	92	80-120		08/24/20 12:53	
Dibromofluoromethane (S)	%.	110	78-126		08/24/20 12:53	
Toluene-d8 (S)	%.	97	80-120		08/24/20 12:53	

LABORATORY CONTROL SAMPLE: 203633

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	500	507	101	70-130	
1,1,1-Trichloroethane	ug/kg	500	515	103	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	500	517	103	70-130	
1,1,2-Trichloroethane	ug/kg	500	483	97	70-130	
1,1-Dichloroethane	ug/kg	500	500	100	70-130	
1,1-Dichloroethene	ug/kg	500	496	99	70-130	N2
1,1-Dichloropropene	ug/kg	500	488	98	70-130	
1,2,3-Trichlorobenzene	ug/kg	500	440	88	70-130	N2

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249143

LABORATORY CONTROL SAMPLE: 203633

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichloropropane	ug/kg	500	511	102	70-130	
1,2,4-Trichlorobenzene	ug/kg	500	431	86	70-130	
1,2,4-Trimethylbenzene	ug/kg	500	422	84	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	500	439	88	70-130	
1,2-Dibromoethane (EDB)	ug/kg	500	507	101	70-130	
1,2-Dichlorobenzene	ug/kg	500	449	90	70-130	
1,2-Dichloroethane	ug/kg	500	491	98	70-130	
1,2-Dichloropropane	ug/kg	500	497	99	70-130	
1,3,5-Trimethylbenzene	ug/kg	500	490	98	70-130	
1,3-Dichlorobenzene	ug/kg	500	474	95	50-150	
1,3-Dichloropropane	ug/kg	500	497	99	70-130	
1,4-Dichlorobenzene	ug/kg	500	457	91	50-150	
2,2-Dichloropropane	ug/kg	500	505	101	70-130	
2-Butanone (MEK)	ug/kg	1000	1010	101	50-150	
2-Chlorotoluene	ug/kg	500	486	97	70-130	
2-Hexanone	ug/kg	1000	1130	113	50-150	N2
4-Chlorotoluene	ug/kg	500	460	92	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	1000	969	97	70-130	N2
Acetone	ug/kg	1000	1070	107	50-150	
Acetonitrile	ug/kg	1000	1530	153	70-130	L1
Acrolein	ug/kg	1000	897	90	70-130	
Acrylonitrile	ug/kg	1000	1000	100	70-130	
Benzene	ug/kg	500	493	99	70-130	
Bromobenzene	ug/kg	500	500	100	70-130	
Bromochloromethane	ug/kg	500	513	103	70-130	
Bromodichloromethane	ug/kg	500	526	105	70-130	
Bromoform	ug/kg	500	499	100	70-130	
Bromomethane	ug/kg	500	580	116	50-150	N2
Carbon disulfide	ug/kg	500	480	96	70-130	
Carbon tetrachloride	ug/kg	500	534	107	70-130	
Chlorobenzene	ug/kg	500	493	99	70-130	
Chloroethane	ug/kg	500	583	117	50-150	
Chloroform	ug/kg	500	490	98	70-130	
Chloromethane	ug/kg	500	493	99	50-150	N2
cis-1,2-Dichloroethene	ug/kg	500	461	92	70-130	
cis-1,3-Dichloropropene	ug/kg	500	505	101	70-130	
Dibromochloromethane	ug/kg	500	522	104	70-130	
Dibromomethane	ug/kg	500	501	100	70-130	
Dichlorodifluoromethane	ug/kg	500	469	94	50-150	
Ethyl acetate	ug/kg	1000	967	97	70-130	
Ethylbenzene	ug/kg	500	475	95	70-130	
Isopropylbenzene (Cumene)	ug/kg	500	419	84	70-130	
Methyl-tert-butyl ether	ug/kg	500	476	95	70-130	
Methylene Chloride	ug/kg	500	468	94	70-130	
n-Butylbenzene	ug/kg	500	453	91	70-130	
n-Propylbenzene	ug/kg	500	494	99	70-130	
Naphthalene	ug/kg	500	356	71	50-150	

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249143

LABORATORY CONTROL SAMPLE: 203633

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/kg	500	380	76	70-130	
sec-Butylbenzene	ug/kg	500	418	84	70-130	
Styrene	ug/kg	500	412	82	70-130	
tert-Butylbenzene	ug/kg	500	380	76	70-130	
Tetrachloroethene	ug/kg	500	527	105	70-130	
Toluene	ug/kg	500	488	98	70-130	
trans-1,2-Dichloroethene	ug/kg	500	462	92	70-130	
trans-1,3-Dichloropropene	ug/kg	500	506	101	70-130	
Trichloroethene	ug/kg	500	517	103	70-130	
Trichlorofluoromethane	ug/kg	500	483	97	50-150	
Vinyl acetate	ug/kg	500	510	102	70-130	
Vinyl chloride	ug/kg	500	459	92	50-150	
Xylene (Total)	ug/kg	1500	1290	86	70-130	
1,2-Dichloroethane-d4 (S)	%.			95	76-127	
4-Bromofluorobenzene (S)	%.			101	80-120	
Dibromofluoromethane (S)	%.			97	78-126	
Toluene-d8 (S)	%.			98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 203634 203635

Parameter	Units	5249043001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/kg	ND	487	497	522	545	107	110	48-135	4	20	
1,1,1-Trichloroethane	ug/kg	ND	487	497	546	550	112	111	49-123	1	23	
1,1,2,2-Tetrachloroethane	ug/kg	ND	487	497	494	527	101	106	43-135	6	26	
1,1,2-Trichloroethane	ug/kg	ND	487	497	489	499	100	100	52-138	2	21	
1,1-Dichloroethane	ug/kg	ND	487	497	517	516	106	104	61-129	0	20	
1,1-Dichloroethene	ug/kg	ND	487	497	517	526	106	106	41-127	2	28	N2
1,1-Dichloropropene	ug/kg	ND	487	497	513	523	105	105	44-119	2	25	
1,2,3-Trichlorobenzene	ug/kg	ND	487	497	438	488	90	98	10-110	11	30	N2
1,2,3-Trichloropropane	ug/kg	ND	487	497	478	513	98	103	46-128	7	24	
1,2,4-Trichlorobenzene	ug/kg	ND	487	497	429	480	88	97	11-130	11	38	
1,2,4-Trimethylbenzene	ug/kg	ND	487	497	431	468	88	94	24-153	8	25	
1,2-Dibromo-3-chloropropane	ug/kg	ND	487	497	417	499	85	101	30-146	18	26	
1,2-Dibromoethane (EDB)	ug/kg	ND	487	497	488	513	100	103	51-136	5	20	
1,2-Dichlorobenzene	ug/kg	ND	487	497	462	489	94	98	31-137	6	25	
1,2-Dichloroethane	ug/kg	ND	487	497	508	507	104	102	65-124	0	20	
1,2-Dichloropropane	ug/kg	ND	487	497	519	528	106	106	64-124	2	20	
1,3,5-Trimethylbenzene	ug/kg	ND	487	497	477	528	98	106	31-140	10	24	
1,3-Dichlorobenzene	ug/kg	ND	487	497	488	526	100	106	30-136	7	25	
1,3-Dichloropropane	ug/kg	ND	487	497	530	539	109	109	57-127	2	21	
1,4-Dichlorobenzene	ug/kg	ND	487	497	465	505	95	102	36-131	8	24	
2,2-Dichloropropane	ug/kg	ND	487	497	483	504	99	101	45-124	4	17	
2-Butanone (MEK)	ug/kg	ND	976	992	992	995	102	100	35-149	0	22	

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REPORT OF LABORATORY ANALYSIS

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249143

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 203634 203635

Parameter	Units	5249043001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2-Chlorotoluene	ug/kg	ND	487	497	491	503	101	101	37-129	2	24	
2-Hexanone	ug/kg	ND	976	992	1050	1100	108	111	34-134	5	23	N2
4-Chlorotoluene	ug/kg	ND	487	497	452	488	93	98	32-131	8	23	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	976	992	893	941	92	95	49-137	5	24	N2
Acetone	ug/kg	ND	976	992	1040	1070	106	108	12-177	3	34	
Acetonitrile	ug/kg	ND	976	992	1500	1480	153	149	41-152	1	38	M0
Acrolein	ug/kg	ND	976	992	875	918	90	92	10-200	5	48	
Acrylonitrile	ug/kg	ND	976	992	923	1090	95	110	54-136	17	26	
Benzene	ug/kg	ND	487	497	517	531	106	107	61-122	3	20	
Bromobenzene	ug/kg	ND	487	497	524	546	107	110	38-133	4	21	
Bromochloromethane	ug/kg	ND	487	497	504	490	103	99	70-130	3	19	
Bromodichloromethane	ug/kg	ND	487	497	558	575	114	116	53-131	3	21	
Bromoform	ug/kg	ND	487	497	497	545	102	110	49-127	9	22	
Bromomethane	ug/kg	ND	487	497	613	566	126	114	15-168	8	22	N2
Carbon disulfide	ug/kg	ND	487	497	495	511	102	103	43-118	3	33	
Carbon tetrachloride	ug/kg	ND	487	497	547	562	112	113	39-121	3	23	
Chlorobenzene	ug/kg	ND	487	497	507	525	104	106	46-130	4	21	
Chloroethane	ug/kg	ND	487	497	634	568	130	114	6-154	11	86	
Chloroform	ug/kg	ND	487	497	522	513	107	103	62-128	2	19	
Chloromethane	ug/kg	ND	487	497	526	550	108	111	50-132	4	25	N2
cis-1,2-Dichloroethene	ug/kg	ND	487	497	481	512	99	103	61-127	6	20	
cis-1,3-Dichloropropene	ug/kg	ND	487	497	526	537	108	108	55-125	2	21	
Dibromochloromethane	ug/kg	ND	487	497	535	559	110	113	53-133	4	21	
Dibromomethane	ug/kg	ND	487	497	525	536	108	108	64-127	2	20	
Dichlorodifluoromethane	ug/kg	ND	487	497	466	518	96	104	10-184	10	69	
Ethyl acetate	ug/kg	ND	976	992	930	995	95	100	10-155	7	40	
Ethylbenzene	ug/kg	ND	487	497	482	514	99	104	40-129	7	23	
Isopropylbenzene (Cumene)	ug/kg	ND	487	497	415	443	85	89	42-121	6	24	
Methyl-tert-butyl ether	ug/kg	ND	487	497	478	510	98	103	60-132	6	27	
Methylene Chloride	ug/kg	ND	487	497	503	514	103	103	46-146	2	39	
n-Butylbenzene	ug/kg	ND	487	497	458	504	94	102	20-127	10	29	
n-Propylbenzene	ug/kg	ND	487	497	492	516	101	104	33-126	5	25	
Naphthalene	ug/kg	ND	487	497	341	401	70	81	8-150	16	31	
p-Isopropyltoluene	ug/kg	ND	487	497	392	445	80	90	27-131	13	26	
sec-Butylbenzene	ug/kg	ND	487	497	420	459	86	92	27-130	9	26	
Styrene	ug/kg	ND	487	497	420	457	86	92	41-132	9	22	
tert-Butylbenzene	ug/kg	ND	487	497	392	445	80	90	36-129	13	25	
Tetrachloroethene	ug/kg	ND	487	497	524	552	107	111	36-128	5	23	
Toluene	ug/kg	ND	487	497	509	526	104	106	50-125	3	20	
trans-1,2-Dichloroethene	ug/kg	ND	487	497	472	502	97	101	51-127	6	31	
trans-1,3-Dichloropropene	ug/kg	ND	487	497	526	536	108	108	55-126	2	21	
Trichloroethene	ug/kg	ND	487	497	531	547	109	110	47-132	3	20	
Trichlorofluoromethane	ug/kg	ND	487	497	590	532	121	107	14-140	10	24	
Vinyl acetate	ug/kg	ND	487	497	427	438	88	88	10-127	2	50	

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249143

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 203634 203635

Parameter	Units	5249043001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Vinyl chloride	ug/kg	ND	487	497	448	504	92	101	35-130	12	54	
Xylene (Total)	ug/kg	ND	1460	1490	1330	1400	91	94	70-130	5	32	
1,2-Dichloroethane-d4 (S)	%.						101	102	76-127			
4-Bromofluorobenzene (S)	%.						100	100	80-120			
Dibromofluoromethane (S)	%.						102	96	78-126			
Toluene-d8 (S)	%.						100	100	80-120			

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QUALIFIERS

Project: RUSH VOC Soils
Pace Project No.: 5249143

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

WORKORDER QUALIFIERS

WO: 5249143

[1]	5249143- Report revised to split workorder. Samples 002, 005-009 moved to a new workorder per client request. CFMS 082820

ANALYTE QUALIFIERS

L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

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Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RUSH VOC Soils
Pace Project No.: 5249143

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
5249143001	**BLA6WWSS**	EPA 5035A	48453	EPA 8260B	48554
5249143003	**BLA6WESS**	EPA 5035A	48453	EPA 8260B	48554
5249143004	**BLA6PBSS**	EPA 5035A	48453	EPA 8260B	48554
5249143001	**BLA6WWSS**	ASTM D2216	48589		
5249143003	**BLA6WESS**	ASTM D2216	48589		
5249143004	**BLA6PBSS**	ASTM D2216	48589		

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CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Wor

WO# : 5249143

5249143

ALL SHAD

Company: MAKSolve	Billing Information: 261 Regency Ridge Dr. Dayton, OH 45459
Address: 261 Regency Ridge Drive	
Report To: barb@maksolve.com	Email To: barb@maksolve.com
Copy To: john@maksolve.com	Site Collection Info/Address: Spinnaker
Customer Project Name/Number: Spinnaker Ø84-2Ø	State: OH County/City: Troy Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET
Phone: 3072516465 Email:	Site/Facility ID #:
Collected By (print): Barb McGavern	Purchase Order #: Quote #: 00076550
Collected By (signature): Barb McGavern	Turnaround Date Required: RUSH 8am on 8/25/20
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: ____ [X] Hold: 20 days	Rush: [ ] Same Day [X] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Compliance Monitoring? [ ] Yes [X] No

DW PWS ID #:

DW Location Code:

Immediately Packed on Ice: [X] Yes [ ] No

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis: ____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Ty

U U

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ____

Analyses

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	TCE (826Ø)	PCE (826Ø)
BLA6WWSS	SL	Grab	8/24/20	122Ø					X	X
BLA6WNSS	↓	↓	↓	1223					X	X
BLA6WESS				1226					X	X
BLA6PBSS				1231					X	X
BLB6PBWSS				1234					X	X
BLB6WNSS				1237					X	X
BLB6PBESS				124Ø					X	X
BLB6WESS				1242					X	X
BLB6WSSS	↓	↓	↓	1244					X	X

Collected only one (1) jar per sample.

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signature Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
Cl Strips: ____			
Sample pH Acceptable	Y	N	NA
pH Strips: ____			
Sulfide Present	Y	N	NA
Lead Acetate Strips: ____			

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:

Level 4 data pkg.
RUSH analysis

Type of Ice Used: Wet Blue Dry None

Packing Material Used: Plastic bag

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2519615

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: ____
Cooler 1 Temp Upon Receipt: 17 oC
Cooler 1 Therm Corr. Factor: ____ oC
Cooler 1 Corrected Temp: ____ oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
[signature]	8/24/2020 1433	Matt	8/24 1430
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: ____ of: ____

MSV - FORM II VOA-1
SOLID VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Dayton SDG No.: 5249143 Contract: RUSH VOC Soils

Instrument ID: 52MV02

LAB SAMPLE ID	SAMPLE NAME	12D4	BFB	DIBF	TOL8
203632	203632BLANK	108	92	110	97
203633	203633LCS	95	101	97	98
5249143001	BLA6WWSS	113	96	110	98
5249143003	BLA6WESS	113	94	111	97
5249143004	BLA6PBSS	106	97	109	95

	QC LIMITS
(12D4) = 1,2-Dichloroethane-d4 (S)	(76-127)
(BFB) = 4-Bromofluorobenzene (S)	(80-120)
(DIBF) = Dibromofluoromethane (S)	(78-126)
(TOL8) = Toluene-d8 (S)	(80-120)

* Values outside of QC Limits

MSV - FORM III VOA-1

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Dayton

Date Extracted: 08/24/2020

Instrument: 52MV02

Lab File ID: 082420.B\082420_03B2971.D

Lab Sample ID: 203633LCS

Date Analyzed (1): 08/24/2020

LCS Lot No:

SDG No.: 5249143

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
Acetone	1000	1070	107	50-150
Acetonitrile	1000	1530	153	70-130
Acrolein	1000	897	90	70-130
Acrylonitrile	1000	1000	100	70-130
Benzene	500	493	99	70-130
Bromobenzene	500	500	100	70-130
Bromochloromethane	500	513	103	70-130
Bromodichloromethane	500	526	105	70-130
Bromoform	500	499	100	70-130
Bromomethane	500	580	116	50-150
2-Butanone (MEK)	1000	1010	101	50-150
n-Butylbenzene	500	453	91	70-130
sec-Butylbenzene	500	418	84	70-130
tert-Butylbenzene	500	380	76	70-130
Carbon disulfide	500	480	96	70-130
Carbon tetrachloride	500	534	107	70-130
Chlorobenzene	500	493	99	70-130
Chloroethane	500	583	117	50-150
Chloroform	500	490	98	70-130
Chloromethane	500	493	99	50-150
2-Chlorotoluene	500	486	97	70-130
4-Chlorotoluene	500	460	92	70-130
1,2-Dibromo-3-chloropropane	500	439	88	70-130
Dibromochloromethane	500	522	104	70-130
1,2-Dibromoethane (EDB)	500	507	101	70-130
Dibromomethane	500	501	100	70-130
1,2-Dichlorobenzene	500	449	90	70-130
1,3-Dichlorobenzene	500	474	95	50-150
1,4-Dichlorobenzene	500	457	91	50-150
Dichlorodifluoromethane	500	469	94	50-150
1,1-Dichloroethane	500	500	100	70-130
1,2-Dichloroethane	500	491	98	70-130
1,1-Dichloroethene	500	496	99	70-130
cis-1,2-Dichloroethene	500	461	92	70-130
trans-1,2-Dichloroethene	500	462	92	70-130
1,2-Dichloropropane	500	497	99	70-130
1,3-Dichloropropane	500	497	99	70-130
2,2-Dichloropropane	500	505	101	70-130
1,1-Dichloropropene	500	488	98	70-130
cis-1,3-Dichloropropene	500	505	101	70-130
trans-1,3-Dichloropropene	500	506	101	70-130
Ethyl acetate	1000	967	97	70-130
Ethylbenzene	500	475	95	70-130
2-Hexanone	1000	1130	113	50-150
Isopropylbenzene (Cumene)	500	419	84	70-130
p-Isopropyltoluene	500	380	76	70-130
Methylene Chloride	500	468	94	70-130

MSV - FORM III VOA-2

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Dayton

Lab Sample ID: 203633LCS

Date Extracted: 08/24/2020

Date Analyzed (1): 08/24/2020

Instrument: 52MV02

LCS Lot No:

Lab File ID: 082420.B\082420_03B2971.D

SDG No.: 5249143

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
4-Methyl-2-pentanone (MIBK)	1000	969	97	70-130
Methyl-tert-butyl ether	500	476	95	70-130
Naphthalene	500	356	71	50-150
n-Propylbenzene	500	494	99	70-130
Styrene	500	412	82	70-130
1,1,1,2-Tetrachloroethane	500	507	101	70-130
1,1,2,2-Tetrachloroethane	500	517	103	70-130
Tetrachloroethene	500	527	105	70-130
Toluene	500	488	98	70-130
1,2,3-Trichlorobenzene	500	440	88	70-130
1,2,4-Trichlorobenzene	500	431	86	70-130
1,1,1-Trichloroethane	500	515	103	70-130
1,1,2-Trichloroethane	500	483	97	70-130
Trichloroethene	500	517	103	70-130
Trichlorofluoromethane	500	483	97	50-150
1,2,3-Trichloropropane	500	511	102	70-130
1,2,4-Trimethylbenzene	500	422	84	70-130
1,3,5-Trimethylbenzene	500	490	98	70-130
Vinyl acetate	500	510	102	70-130
Vinyl chloride	500	459	92	50-150
Xylene (Total)	1500	1290	86	70-130

Spike Recovery: 1 out of 68 outside limits.

08/31/2020 10:22

MSV - FORM III VOA-1

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Dayton

Matrix Spike - Sample No: 203634MS

Date Extracted: 08/24/2020

Date Analyzed (1): 08/24/2020

Instrument: 52MV02

Lab File ID: 082420.B\082420_14.D

Parent Sample ID: 5249043001

SDG No.: 5249143

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	487	ND	522	107	48-135
1,1,1-Trichloroethane	487	ND	546	112	49-123
1,1,2,2-Tetrachloroethane	487	ND	494	101	43-135
1,1,2-Trichloroethane	487	ND	489	100	52-138
1,1-Dichloroethane	487	ND	517	106	61-129
1,1-Dichloroethene	487	ND	517	106	41-127
1,1-Dichloropropene	487	ND	513	105	44-119
1,2,3-Trichlorobenzene	487	ND	438	90	10-110
1,2,3-Trichloropropane	487	ND	478	98	46-128
1,2,4-Trichlorobenzene	487	ND	429	88	11-130
1,2,4-Trimethylbenzene	487	ND	431	88	24-153
1,2-Dibromo-3-chloropropane	487	ND	417	85	30-146
1,2-Dibromoethane (EDB)	487	ND	488	100	51-136
1,2-Dichlorobenzene	487	ND	462	94	31-137
1,2-Dichloroethane	487	ND	508	104	65-124
1,2-Dichloropropane	487	ND	519	106	64-124
1,3,5-Trimethylbenzene	487	ND	477	98	31-140
1,3-Dichlorobenzene	487	ND	488	100	30-136
1,3-Dichloropropane	487	ND	530	109	57-127
1,4-Dichlorobenzene	487	ND	465	95	36-131
2,2-Dichloropropane	487	ND	483	99	45-124
2-Butanone (MEK)	976	ND	992	102	35-149
2-Chlorotoluene	487	ND	491	101	37-129
2-Hexanone	976	ND	1050	108	34-134
4-Chlorotoluene	487	ND	452	93	32-131
4-Methyl-2-pentanone (MIBK)	976	ND	893	92	49-137
Acetone	976	ND	1040	106	12-177
Acetonitrile	976	ND	1500	153	41-152
Acrolein	976	ND	875	90	10-200
Acrylonitrile	976	ND	923	95	54-136
Benzene	487	ND	517	106	61-122
Bromobenzene	487	ND	524	107	38-133
Bromochloromethane	487	ND	504	103	70-130
Bromodichloromethane	487	ND	558	114	53-131
Bromoform	487	ND	497	102	49-127
Bromomethane	487	ND	613	126	15-168
Carbon disulfide	487	ND	495	102	43-118
Carbon tetrachloride	487	ND	547	112	39-121
Chlorobenzene	487	ND	507	104	46-130
Chloroethane	487	ND	634	130	6-154
Chloroform	487	ND	522	107	62-128
Chloromethane	487	ND	526	108	50-132
Dibromochloromethane	487	ND	535	110	53-133
Dibromomethane	487	ND	525	108	64-127
Dichlorodifluoromethane	487	ND	466	96	10-184
Ethyl acetate	976	ND	930	95	10-155
Ethylbenzene	487	ND	482	99	40-129

MSV - FORM III VOA-2

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Dayton

Matrix Spike - Sample No: 203634MS

Date Extracted: 08/24/2020

Date Analyzed (1): 08/24/2020

Instrument: 52MV02

Lab File ID: 082420.B\082420_14.D

Parent Sample ID: 5249043001

SDG No.: 5249143

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
Isopropylbenzene (Cumene)	487	ND	415	85	42-121
Methyl-tert-butyl ether	487	ND	478	98	60-132
Methylene Chloride	487	ND	503	103	46-146
Naphthalene	487	ND	341	70	8-150
Styrene	487	ND	420	86	41-132
Tetrachloroethene	487	ND	524	107	36-128
Toluene	487	ND	509	104	50-125
Trichloroethene	487	ND	531	109	47-132
Trichlorofluoromethane	487	ND	590	121	14-140
Vinyl acetate	487	ND	427	88	10-127
Vinyl chloride	487	ND	448	92	35-130
Xylene (Total)	1460	ND	1330	91	70-130
cis-1,2-Dichloroethene	487	ND	481	99	61-127
cis-1,3-Dichloropropene	487	ND	526	108	55-125
n-Butylbenzene	487	ND	458	94	20-127
n-Propylbenzene	487	ND	492	101	33-126
p-Isopropyltoluene	487	ND	392	80	27-131
sec-Butylbenzene	487	ND	420	86	27-130
tert-Butylbenzene	487	ND	392	80	36-129
trans-1,2-Dichloroethene	487	ND	472	97	51-127
trans-1,3-Dichloropropene	487	ND	526	108	55-126

Spike Recovery: 1 out of 68 outside limits.

08/31/2020 10:22

MSV - FORM III VOA-3

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 52MV02 Matrix Spike Duplicate - Sample No: 203635MSD

Lab File ID (2): 082420.B\082420_15.D Date Analyzed (2): 08/24/2020

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
1,1,1,2-Tetrachloroethane	497	545	110	4	0-20	48-135
1,1,1-Trichloroethane	497	550	111	1	0-23	49-123
1,1,2,2-Tetrachloroethane	497	527	106	6	0-26	43-135
1,1,2-Trichloroethane	497	499	100	2	0-21	52-138
1,1-Dichloroethane	497	516	104	0	0-20	61-129
1,1-Dichloroethene	497	526	106	2	0-28	41-127
1,1-Dichloropropene	497	523	105	2	0-25	44-119
1,2,3-Trichlorobenzene	497	488	98	11	0-30	10-110
1,2,3-Trichloropropane	497	513	103	7	0-24	46-128
1,2,4-Trichlorobenzene	497	480	97	11	0-38	11-130
1,2,4-Trimethylbenzene	497	468	94	8	0-25	24-153
1,2-Dibromo-3-chloropropane	497	499	101	18	0-26	30-146
1,2-Dibromoethane (EDB)	497	513	103	5	0-20	51-136
1,2-Dichlorobenzene	497	489	98	6	0-25	31-137
1,2-Dichloroethane	497	507	102	0	0-20	65-124
1,2-Dichloropropane	497	528	106	2	0-20	64-124
1,3,5-Trimethylbenzene	497	528	106	10	0-24	31-140
1,3-Dichlorobenzene	497	526	106	7	0-25	30-136
1,3-Dichloropropane	497	539	109	2	0-21	57-127
1,4-Dichlorobenzene	497	505	102	8	0-24	36-131
2,2-Dichloropropane	497	504	101	4	0-17	45-124
2-Butanone (MEK)	992	995	100	0	0-22	35-149
2-Chlorotoluene	497	503	101	2	0-24	37-129
2-Hexanone	992	1100	111	5	0-23	34-134
4-Chlorotoluene	497	488	98	8	0-23	32-131
4-Methyl-2-pentanone (MIBK)	992	941	95	5	0-24	49-137
Acetone	992	1070	108	3	0-34	12-177
Acetonitrile	992	1480	149	1	0-38	41-152
Acrolein	992	918	92	5	0-48	10-200
Acrylonitrile	992	1090	110	17	0-26	54-136
Benzene	497	531	107	3	0-20	61-122
Bromobenzene	497	546	110	4	0-21	38-133
Bromochloromethane	497	490	99	3	0-19	70-130
Bromodichloromethane	497	575	116	3	0-21	53-131
Bromoform	497	545	110	9	0-22	49-127
Bromomethane	497	566	114	8	0-22	15-168
Carbon disulfide	497	511	103	3	0-33	43-118
Carbon tetrachloride	497	562	113	3	0-23	39-121
Chlorobenzene	497	525	106	4	0-21	46-130
Chloroethane	497	568	114	11	0-86	6-154
Chloroform	497	513	103	2	0-19	62-128
Chloromethane	497	550	111	4	0-25	50-132
Dibromochloromethane	497	559	113	4	0-21	53-133
Dibromomethane	497	536	108	2	0-20	64-127
Dichlorodifluoromethane	497	518	104	10	0-69	10-184
Ethyl acetate	992	995	100	7	0-40	10-155
Ethylbenzene	497	514	104	7	0-23	40-129
Isopropylbenzene (Cumene)	497	443	89	6	0-24	42-121
Methyl-tert-butyl ether	497	510	103	6	0-27	60-132

MSV - FORM III VOA-4

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 52MV02 Matrix Spike Duplicate - Sample No: 203635MSD

Lab File ID (2): 082420.B\082420_15.D Date Analyzed (2): 08/24/2020

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Methylene Chloride	497	514	103	2	0-39	46-146
Naphthalene	497	401	81	16	0-31	8-150
Styrene	497	457	92	9	0-22	41-132
Tetrachloroethene	497	552	111	5	0-23	36-128
Toluene	497	526	106	3	0-20	50-125
Trichloroethene	497	547	110	3	0-20	47-132
Trichlorofluoromethane	497	532	107	10	0-24	14-140
Vinyl acetate	497	438	88	2	0-50	10-127
Vinyl chloride	497	504	101	12	0-54	35-130
Xylene (Total)	1490	1400	94	5	0-32	70-130
cis-1,2-Dichloroethene	497	512	103	6	0-20	61-127
cis-1,3-Dichloropropene	497	537	108	2	0-21	55-125
n-Butylbenzene	497	504	102	10	0-29	20-127
n-Propylbenzene	497	516	104	5	0-25	33-126
p-Isopropyltoluene	497	445	90	13	0-26	27-131
sec-Butylbenzene	497	459	92	9	0-26	27-130
tert-Butylbenzene	497	445	90	13	0-25	36-129
trans-1,2-Dichloroethene	497	502	101	6	0-31	51-127
trans-1,3-Dichloropropene	497	536	108	2	0-21	55-126

RPD: 0 out of 68 outside limits.

Spike Recovery: 0 out of 68 outside limits.

08/31/2020 10:23

SAMPLE NO.

203632BLANK

MSV - FORM IV VOA-1
VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Dayton SDG No.: 5249143 Contract: RUSH VOC Soils

Instrument ID: 52MV02 Matrix: Solid Lab Sample ID: 203632

Lab File ID: 082420.B\082420_06.D Date Analyzed: 08/24/2020 Time:12:53

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
203633LCS	203633	082420.B\082420_03B2971.	08/24/2020 11:37
BLA6WWSS	5249143001	082420.B\082420_18.D	08/24/2020 17:54
BLA6WESS	5249143003	082420.B\082420_20.D	08/24/2020 18:44
BLA6PBSS	5249143004	082420.B\082420_21.D	08/24/2020 19:09

MSV - FORM V VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Dayton SDG No.: 5249143 Contract: RUSH VOC Soils

Lab File ID: 082020.B\082020_01.D BFB Injection Date 08/20/2020

Instrument ID: 52MV02 BFB Injection Time 09:57

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	24.30	
75	30.00 - 60.00% of mass 95	49.31	
95	Mass 95 relative abundance	100.00	
96	5.00 - 9.00% of mass 95	7.36	
173	Less than 2.00% of mass 174	2.18	(1.71)[1]
174	Greater than 50.00% of mass 95	127.30	
175	5.00 - 9.00% of mass 174	8.81	(6.92)[1]
176	95.00 - 101.00% of mass 174	127.12	(99.86)[1]
177	5.00 - 9.00% of mass 176	7.18	(5.65)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1419846CAL1	1419846CAL1	082020.B\082020_03.D	08/20/2020	10:50
1419847CAL2	1419847CAL2	082020.B\082020_04.D	08/20/2020	11:15
1419848CAL3	1419848CAL3	082020.B\082020_05.D	08/20/2020	11:40
1419849CAL4	1419849CAL4	082020.B\082020_06.D	08/20/2020	12:05
1419850CAL5	1419850CAL5	082020.B\082020_07.D	08/20/2020	12:30
1419851CAL6	1419851CAL6	082020.B\082020_08.D	08/20/2020	12:55
1419852CAL7	1419852CAL7	082020.B\082020_09.D	08/20/2020	13:20
1419853CAL8	1419853CAL8	082020.B\082020_10.D	08/20/2020	13:45
1419854CAL9	1419854CAL9	082020.B\082020_11.D	08/20/2020	14:11
1419855CAL10	1419855CAL10	082020.B\082020_12.D	08/20/2020	14:36
1419856CAL11	1419856CAL11	082020.B\082020_13.D	08/20/2020	15:01
1419857CAL12	1419857CAL12	082020.B\082020_14.D	08/20/2020	15:26
1419858ICV	1419858ICV	082020.B\082020_18.D	08/20/2020	17:06

MSV - FORM V VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Dayton SDG No.: 5249143 Contract: RUSH VOC Soils

Lab File ID: 082420.B\082420_03TUNE.D BFB Injection Date 08/24/2020

Instrument ID: 52MV02 BFB Injection Time 11:37

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	23.71	
75	30.00 - 60.00% of mass 95	54.57	
95	Mass 95 relative abundance	100.00	
96	5.00 - 9.00% of mass 95	7.12	
173	Less than 2.00% of mass 174	1.47	(1.19)[1]
174	Greater than 50.00% of mass 95	123.45	
175	5.00 - 9.00% of mass 174	9.82	(7.96)[1]
176	95.00 - 101.00% of mass 174	119.03	(96.42)[1]
177	5.00 - 9.00% of mass 176	8.06	(6.77)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1425578CCV	1425578CCV	082420.B\082420_03.D	08/24/2020	11:37
203633LCS	203633LCS	082420.B\082420_03B2971.D	08/24/2020	11:37
203632BLANK	203632BLANK	082420.B\082420_06.D	08/24/2020	12:53
BLA6WWSS	5249143001	082420.B\082420_18.D	08/24/2020	17:54
BLA6WESS	5249143003	082420.B\082420_20.D	08/24/2020	18:44
BLA6PBSS	5249143004	082420.B\082420_21.D	08/24/2020	19:09

MSV - FORM VIII VOA-1
MSV INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Dayton SDG No.: 5249143 Contract: RUSH VOC Soils

Sample ID : 1425578CCV Date Analyzed: 08/24/2020

Instrument ID: 52MV02 GC Column: Col 1 Time Analyzed: 11:37

Lab File ID: 082420.B\082420_03.D

		AREA CBZ	RT	AREA DCB	RT	AREA DFB	RT	AREA PFB	RT
12 HOUR STD		306781	10.561	201214	12.341	331472	8.317	246006	7.86
UPPER LIMIT		613562	11.061	402428	12.841	662944	8.817	492012	8.36
LOWER LIMIT		153390.5	10.061	100607	11.841	165736	7.817	123003	7.36
LAB SAMPLE ID	SAMPLE NO.								
203632	203632BLANK	247625	10.561	135727	12.341	283983	8.317	200705	7.86
203633	203633LCS	306781	10.561	201214	12.341	331472	8.317	246006	7.86
5249143001	BLA6WWSS	255050	10.561	140303	12.341	295891	8.317	210291	7.86
5249143003	BLA6WESS	266210	10.561	141684	12.341	306492	8.317	211803	7.86
5249143004	BLA6PBSS	258402	10.56	140979	12.341	307256	8.317	215492	7.86

CBZ = Chlorobenzene-D5 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
DFB = 1,4-Difluorobenzene (IS)
PFB = Pentafluorobenzene (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

BLA6WWSS

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/24/2020 14:35
Matrix: Solid SDG No.: 5249143
Date Extracted: 08/24/2020 15:19
Lab Sample ID: 5249143001
Date Analyzed: 08/24/2020 17:54
Lab File ID: 082420.B\082420_18.D
Initial wt/vol: 5.07 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 16.7%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	3.4	J
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	3.7	J
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

BLA6WWSS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/24/2020 14:35
Matrix: Solid SDG No.: 5249143
Date Extracted: 08/24/2020 15:19
Lab Sample ID: 5249143001
Date Analyzed: 08/24/2020 17:54
Lab File ID: 082420.B\082420_18.D
Initial wt/vol: 5.07 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 16.7%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	5.5	J
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	3.4	J
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082420.b\082420_18.D
Lab Smp Id: 5249143001 Client Smp ID: BLA6WWSS
Inj Date : 24-AUG-2020 17:54
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249143001,
Misc Info : 2971,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082420.b\8260BSM_082020.m
Meth Date : 24-Aug-2020 11:57 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	3.537	3.543	(0.450)	2751	0.11557	0.116	
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						(D)
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	24 Acrylonitrile	53	Compound Not Detected.						
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	132839	54.8651	54.9	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						(D)
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	210291	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	24686	56.6764	56.7	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.317	8.317	(1.000)	237	0.11454	0.114	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	295891	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	313631	49.2392	49.2	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	9.725	9.719	(0.921)	324	0.18510	0.185	
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	255050	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.469	(1.086)	100070	47.8079	47.8	
79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	140303	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	514	0.12595	0.126	
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

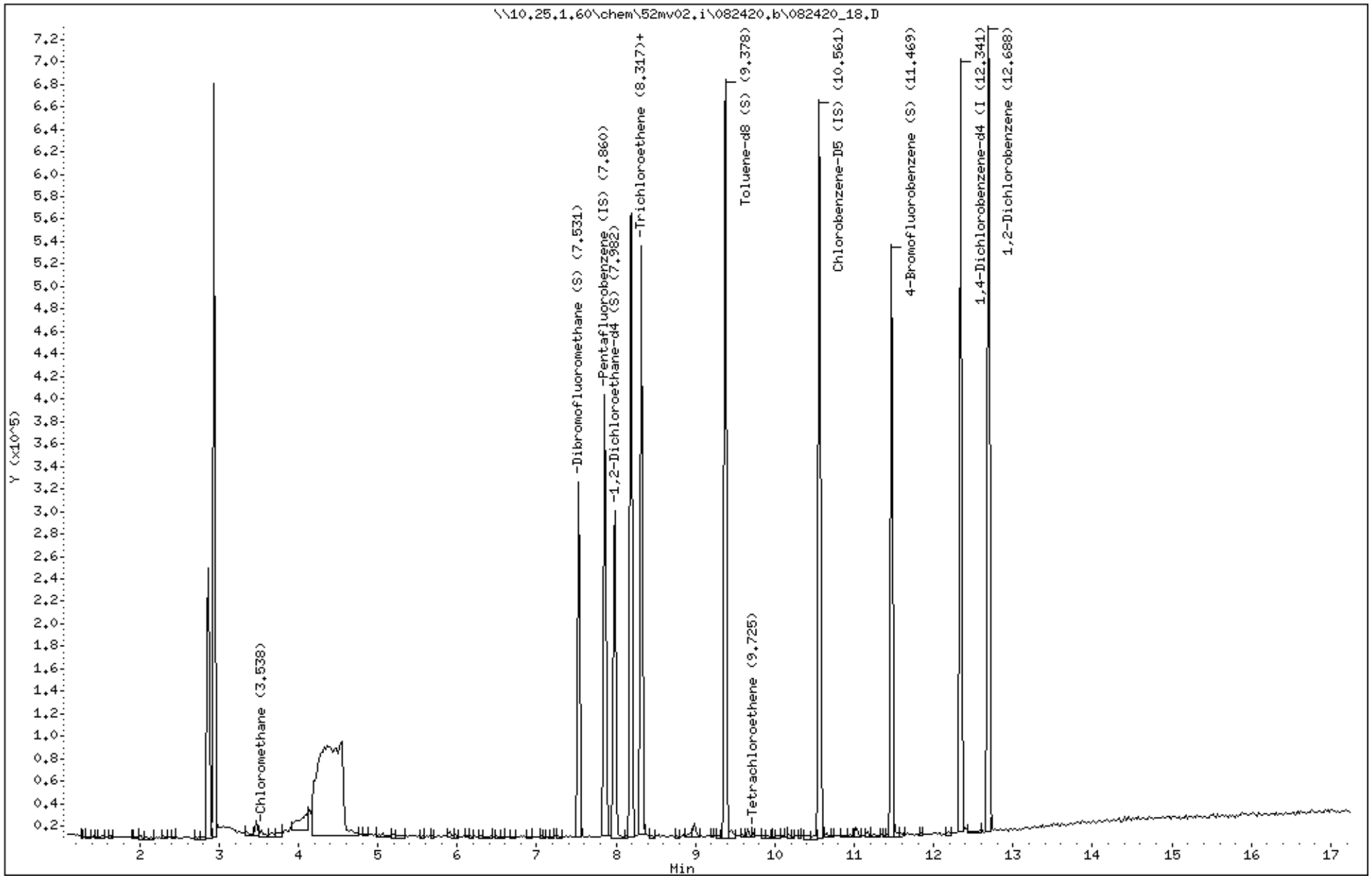
Data File: \\10.25.1.60\chem\52mv02.i\082420.b\082420_18.D
Date : 24-AUG-2020 17:54
Client ID: BLA6WWSS
Sample Info: 5249143001,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082420.b/082420_18.D
Injection Date: 24-AUG-2020 17:54
Instrument: 52mv02.i
Lab Sample ID: 5249143001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

BLA6WESS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/24/2020 14:35
Matrix: Solid SDG No.: 5249143
Date Extracted: 08/24/2020 15:19
Lab Sample ID: 5249143003
Date Analyzed: 08/24/2020 18:44
Lab File ID: 082420.B\082420_20.D
Initial wt/vol: 5.44 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 38.9%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

BLA6WESS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/24/2020 14:35
Matrix: Solid SDG No.: 5249143
Date Extracted: 08/24/2020 15:19
Lab Sample ID: 5249143003
Date Analyzed: 08/24/2020 18:44
Lab File ID: 082420.B\082420_20.D
Initial wt/vol: 5.44 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 38.9%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	106	J
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082420.b\082420_20.D
Lab Smp Id: 5249143003 Client Smp ID: BLA6WESS
Inj Date : 24-AUG-2020 18:44
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249143003,
Misc Info : 2971,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082420.b\8260BSM_082020.m
Meth Date : 24-Aug-2020 11:57 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						(D)
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	24 Acrylonitrile	53	Compound Not Detected.						
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	135371	55.5117	55.5	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	211803	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	24753	56.4246	56.4	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	306492	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	320019	48.5043	48.5	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	9.469	9.603	(1.139)	552	0.21018	0.210	
	60 4-Methyl-2-pentanone (MIBK)	100	9.445	9.664	(1.136)	620	2.82667	2.83	
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	266210	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
$ 78 4-Bromofluorobenzene (S)	95	11.469	11.469	(1.086)	102376	46.8592	46.8	
79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	141684	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

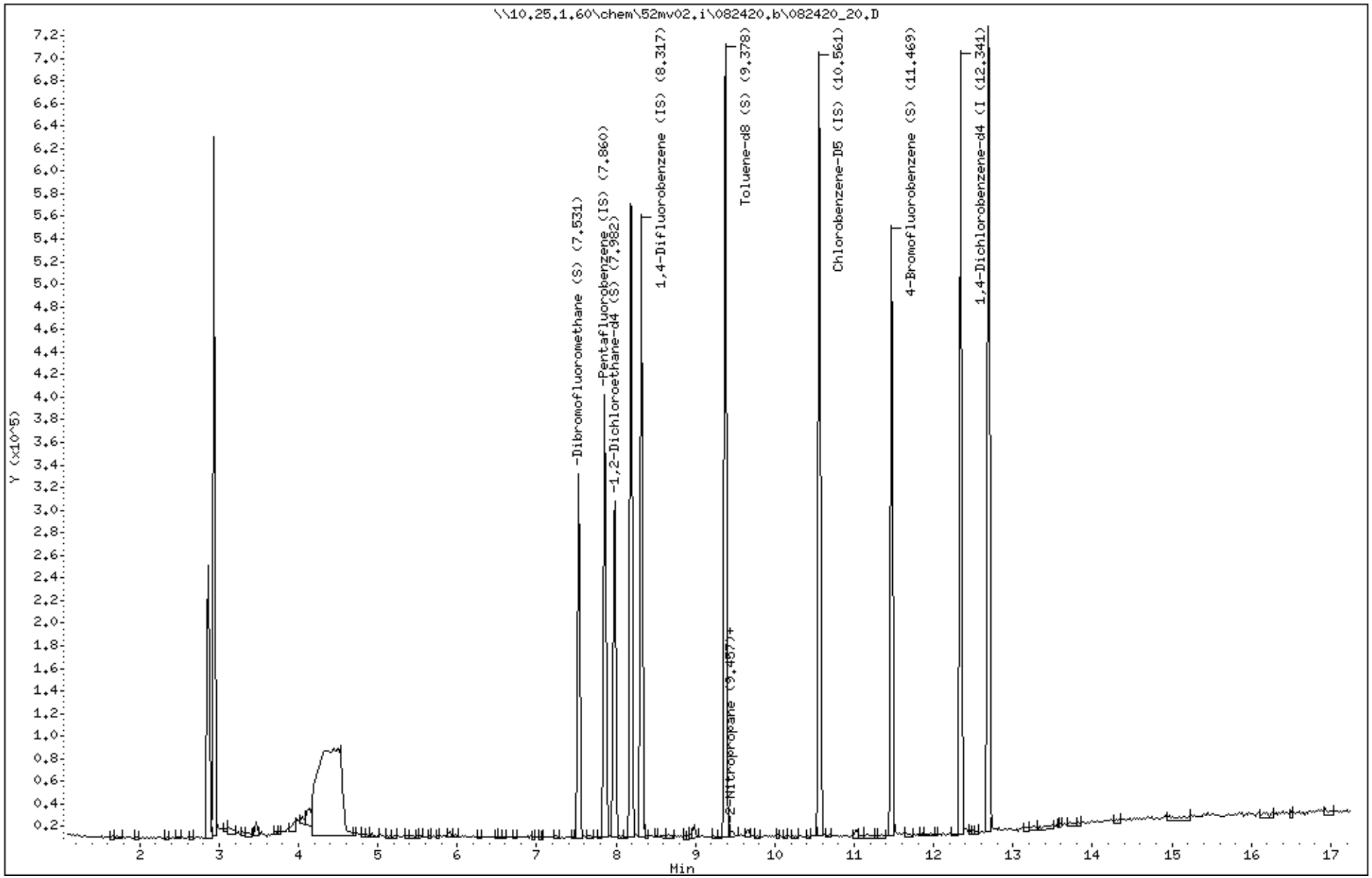
Data File: \\10.25.1.60\chem\52mv02.i\082420.b\082420_20.D
Date : 24-AUG-2020 18:44
Client ID: BLA6WESS
Sample Info: 5249143003,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082420.b/082420_20.D
Injection Date: 24-AUG-2020 18:44
Instrument: 52mv02.i
Lab Sample ID: 5249143003
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

BLA6PBSS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/24/2020 14:35
Matrix: Solid SDG No.: 5249143
Date Extracted: 08/24/2020 15:19
Lab Sample ID: 5249143004
Date Analyzed: 08/24/2020 19:09
Lab File ID: 082420.B\082420_21.D
Initial wt/vol: 5.44 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 17.4%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

BLA6PBSS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/24/2020 14:35
Matrix: Solid SDG No.: 5249143
Date Extracted: 08/24/2020 15:19
Lab Sample ID: 5249143004
Date Analyzed: 08/24/2020 19:09
Lab File ID: 082420.B\082420_21.D
Initial wt/vol: 5.44 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 17.4%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	4.2	J
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	35.8	
108-88-3	Toluene	5.9	J
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	37.6	
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082420.b\082420_21.D
Lab Smp Id: 5249143004 Client Smp ID: BLA6PBSS
Inj Date : 24-AUG-2020 19:09
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249143004,
Misc Info : 2971,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082420.b\8260BSM_082020.m
Meth Date : 24-Aug-2020 11:57 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						(D)
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	24 Acrylonitrile	53	Compound Not Detected.						
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	135615	54.6598	54.6	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						(D)
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	215492	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	23578	52.8261	52.8	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.323	8.317	(1.001)	2903	1.35115	1.35	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	307256	50.0000		
	48 Methylcyclohexane	98	8.310	8.323	(0.999)	538	0.52833	0.528	
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	315362	47.6796	47.7	
	58 Toluene	91	9.420	9.414	(1.133)	1636	0.21353	0.214	
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	2280	1.28564	1.28	
	63 Ethyl methacrylate	69	Compound Not Detected.						
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	10.560	10.554	(1.000)	1030	0.15236	0.152(TM)	WP
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	258402	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	10.657	10.652	(1.009)	1232	0.60935	0.609(TM)	WP
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.469	(1.086)	102540	48.3525	48.4	
79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	140979	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

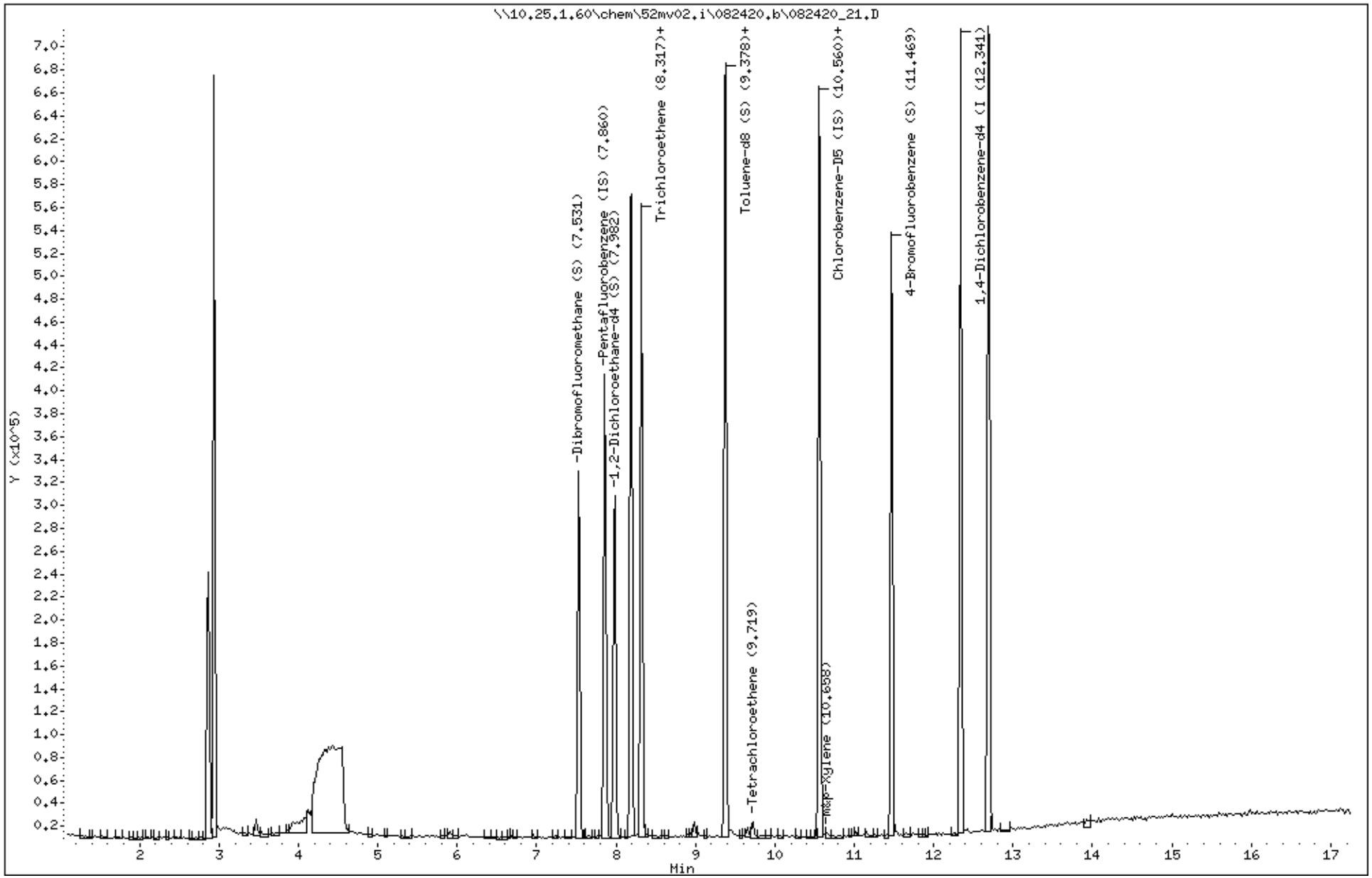
Data File: \\10.25.1.60\chem\52mv02.i\082420.b\082420_21.D
Date : 24-AUG-2020 19:09
Client ID: BLA6PBSS
Sample Info: 5249143004,

Instrument: 52mv02.i

Operator: EAH

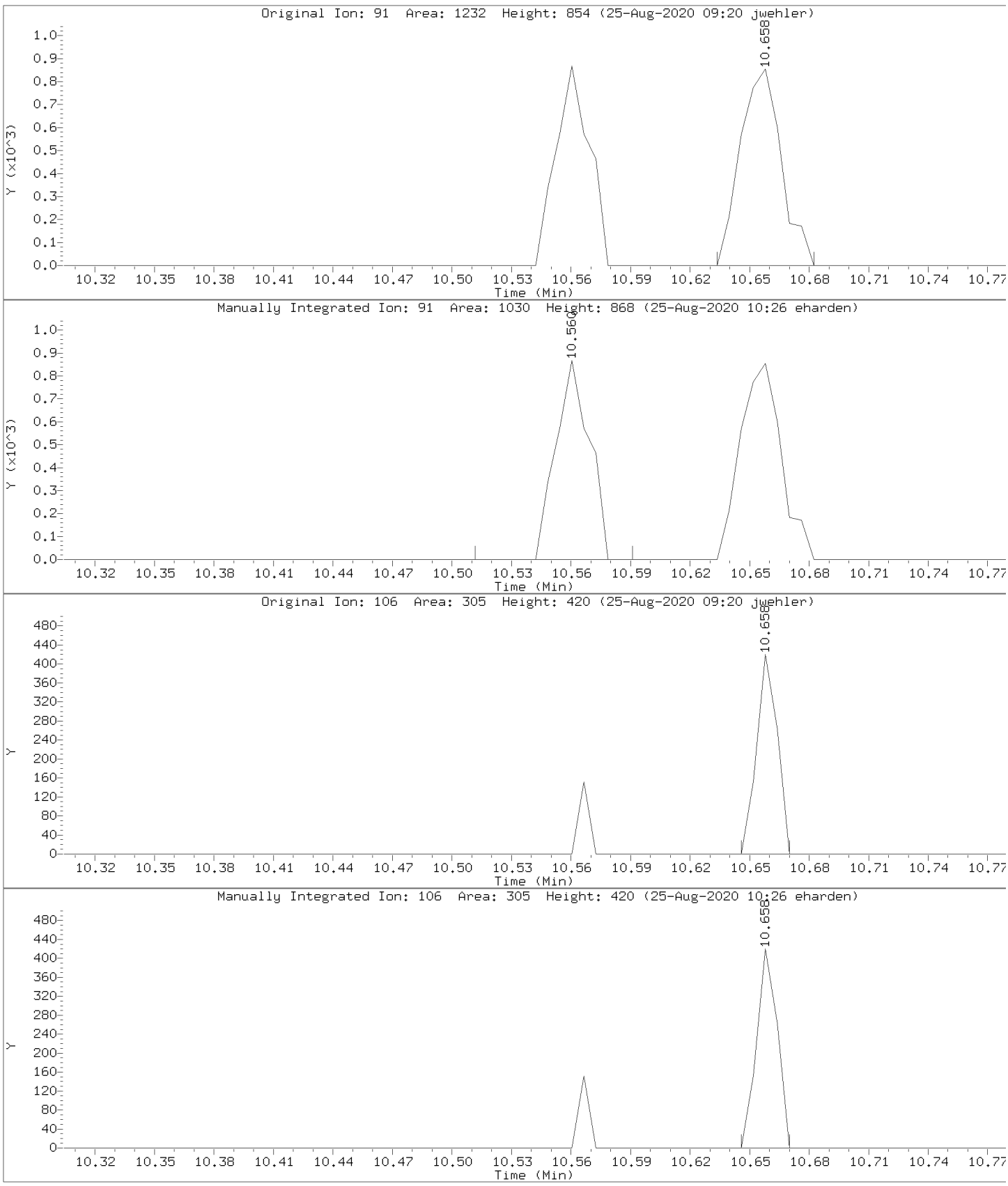
Column phase: RTX-VMS

Column diameter: 0.18



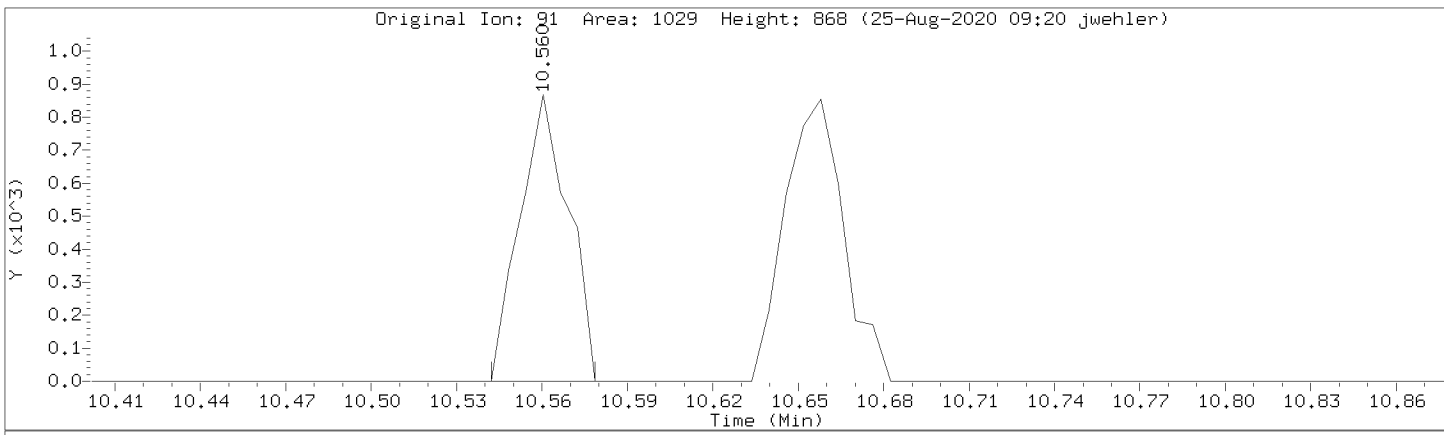
Data File: \\10.25.1.60\chem\52mv02.i\082420.b/082420_21.D
Injection Date: 24-AUG-2020 19:09
Instrument: 52mv02.i
Lab Sample ID: 5249143004

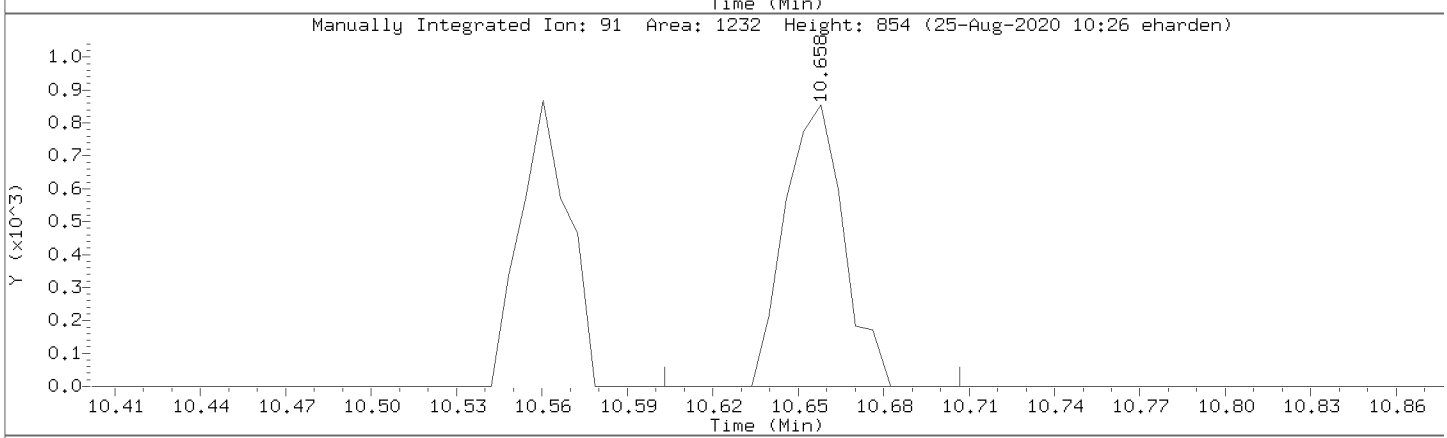
Compound: Ethylbenzene Review Code: WP
CAS Number: 100-41-4

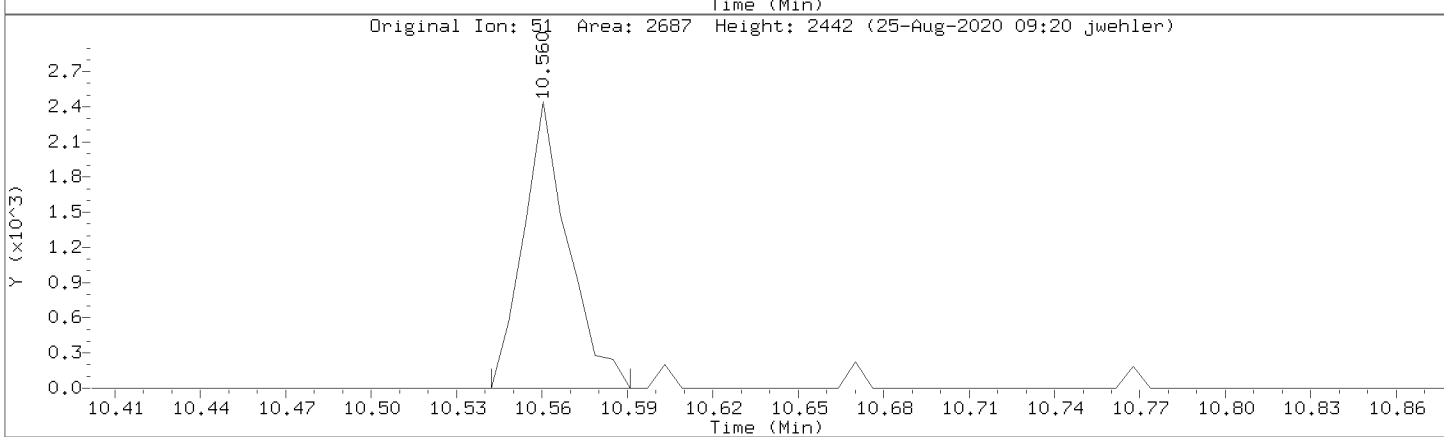


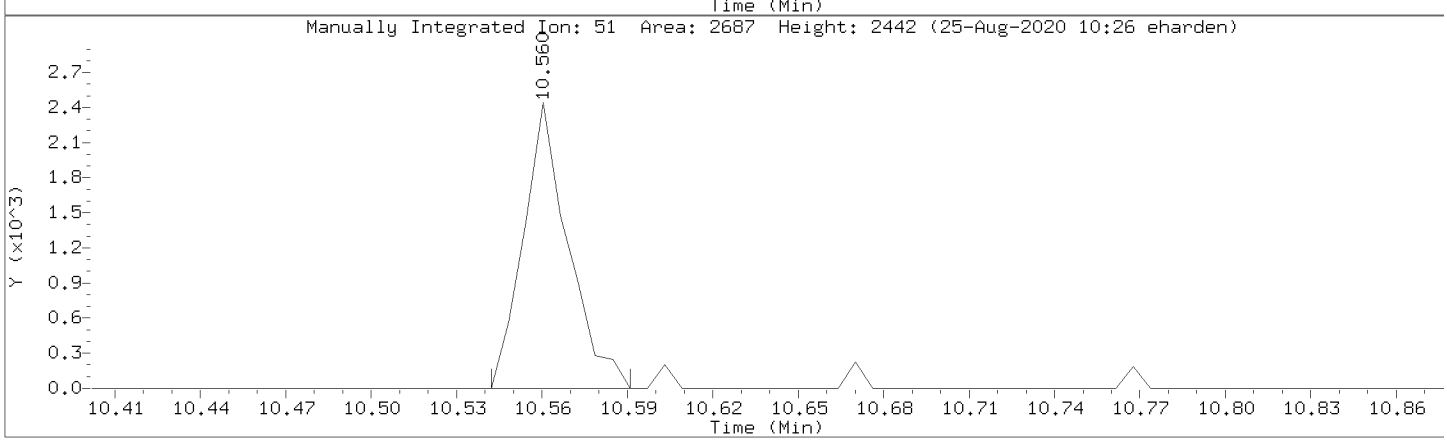
Data File: \\10.25.1.60\chem\52mv02.i\082420.b/082420_21.D
Injection Date: 24-AUG-2020 19:09
Instrument: 52mv02.i
Lab Sample ID: 5249143004

Compound: m&p-Xylene Review Code: WP
CAS Number: 7816-60-0









MSV - FORM VI VOA-1

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249143

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Acetone	Wt Linear			0.62900	0.55994	0.50057	0.45567
Acetonitrile	Wt Linear				0.06914	0.02812	0.03538
Acrolein	Averaged				0.08416	0.06550	0.06663
Acrylonitrile	Averaged			0.21923	0.20463	0.19660	0.17821
Benzene	Averaged	1.47226	1.17470	1.10627	1.43668	1.30598	1.38283
Bromobenzene	Averaged		0.44187	0.42245	0.49777	0.46884	0.54542
Bromochloromethane	Averaged		0.31597	0.30786	0.31639	0.29311	0.30419
Bromodichloromethane	Averaged		0.37292	0.40712	0.57953	0.49521	0.61500
Bromoform	Averaged		0.43514	0.43198	0.48641	0.42825	0.47385
Bromomethane	Wt Linear			1.52273	1.15152	0.76564	0.66086
2-Butanone (MEK)	Averaged			0.50647	0.40123	0.44364	0.43519
n-Butylbenzene	Averaged			1.39216	1.45958	1.44353	1.59712
sec-Butylbenzene	Wt Linear		1.18759	1.24368	1.67899	1.52562	1.84820
tert-Butylbenzene	Wt Linear		1.05533	1.23614	1.25134	1.14366	1.44555
Carbon disulfide	Averaged		1.57701	1.57013	1.73228	1.48016	1.64695
Carbon tetrachloride	Averaged			0.40579	0.50689	0.49562	0.54603
Chlorobenzene	Averaged		1.00310	0.91983	1.08642	0.90944	1.03666
Chloroethane	Wt Linear			0.21117	0.31149	0.17587	0.20642
Chloroform	Averaged		0.91551	1.14590	1.17564	1.07349	1.06717
Chloromethane	Wt Linear		1.70187	1.21534	1.00675	0.83064	0.79315
2-Chlorotoluene	Wt Linear		0.20503	0.23617	0.27463	0.30975	0.37215
4-Chlorotoluene	Wt Linear		0.30194	0.21412	0.30492	0.29219	0.31811
1,2-Dibromo-3-chloropropane	Averaged				0.21563	0.16898	0.14356
Dibromochloromethane	Averaged		0.39061	0.41330	0.50471	0.47639	0.52153
1,2-Dibromoethane (EDB)	Averaged		0.39922	0.39891	0.44521	0.38546	0.43818
Dibromomethane	Averaged		0.30841	0.27910	0.31794	0.30634	0.32971
1,2-Dichlorobenzene	Averaged	1.62186	1.64056	1.43913	1.59814	1.34139	1.48556
1,3-Dichlorobenzene	Averaged	1.46004	1.15332	1.12127	1.39100	1.22471	1.36866
1,4-Dichlorobenzene	Averaged	1.92711	1.64810	1.47102	1.57896	1.41215	1.52701
Dichlorodifluoromethane	Averaged		0.59716	0.66099	0.60136	0.62199	0.59348
1,1-Dichloroethane	Averaged		0.89883	0.86932	1.02064	0.92741	0.97039
1,2-Dichloroethane	Averaged			0.94445	0.99469	0.81825	0.81708
1,1-Dichloroethene	Averaged		0.62480	0.59321	0.74340	0.67088	0.75046
cis-1,2-Dichloroethene	Averaged		0.61860	0.67545	0.71938	0.63203	0.67887

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/31/2020 10:23

MSV - FORM VI VOA-2

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249143

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
trans-1,2-Dichloroethene	Averaged		0.55331	0.47234	0.48357	0.41487	0.49134
1,2-Dichloropropane	Averaged		0.34955	0.36433	0.39290	0.35841	0.38826
1,3-Dichloropropane	Averaged		0.31663	0.43033	0.53682	0.46817	0.51113
2,2-Dichloropropane	Averaged		0.79065	0.80509	0.78585	0.68606	0.73428
1,1-Dichloropropene	Averaged		0.33046	0.35306	0.39409	0.34712	0.40174
cis-1,3-Dichloropropene	Averaged			0.40994	0.46953	0.45855	0.51880
trans-1,3-Dichloropropene	Averaged			0.40977	0.46953	0.45855	0.51319
Ethyl acetate	Averaged		0.62504	0.56797	0.61081	0.52501	0.56996
Ethylbenzene	Averaged		1.16922	1.07603	1.16044	1.13282	1.26091
2-Hexanone	Averaged			0.32992	0.32976	0.36720	0.41358
Isopropylbenzene (Cumene)	Wt Linear		0.73184	0.72215	0.88627	0.85802	1.07692
p-Isopropyltoluene	Wt Linear		1.05533	1.23614	1.25134	1.14366	1.44555
Methylene Chloride	Averaged			0.95867	0.99674	0.81915	0.85680
4-Methyl-2-pentanone (MIBK)	Averaged					0.03167	0.03396
Methyl-tert-butyl ether	Averaged		1.04371	0.98592	1.12170	0.97810	1.03498
Naphthalene	Wt Linear		1.29997	1.18745	1.36631	1.29132	1.36736
n-Propylbenzene	Averaged		1.17895	1.25876	1.48439	1.43680	1.65273
Styrene	Wt Linear		0.51595	0.49065	0.60308	0.57764	0.71624
1,1,1,2-Tetrachloroethane	Averaged		0.39735	0.45216	0.48731	0.40596	0.42534
1,1,2,2-Tetrachloroethane	Averaged			0.55212	0.57143	0.54413	0.58617
Tetrachloroethene	Averaged		0.28810	0.33725	0.33197	0.34833	0.35819
Toluene	Averaged		1.09209	1.19764	1.30569	1.22009	1.30131
1,2,3-Trichlorobenzene	Averaged		0.85249	0.82329	0.83816	0.81429	0.82024
1,2,4-Trichlorobenzene	Averaged			0.89496	0.87936	0.88914	0.92716
1,1,1-Trichloroethane	Averaged		0.51511	0.55802	0.63628	0.56094	0.61942
1,1,2-Trichloroethane	Averaged		0.37160	0.30364	0.37829	0.29572	0.32933
Trichloroethene	Averaged	0.28552	0.31598	0.34344	0.39369	0.32979	0.38287
Trichlorofluoromethane	Averaged			0.48751	0.40869	0.39167	0.37503
1,2,3-Trichloropropane	Averaged	0.67083	0.55786	0.50074	0.60209	0.54758	0.55729
1,2,4-Trimethylbenzene	Wt Linear		1.28216	1.05543	1.25794	1.29529	1.61333
1,3,5-Trimethylbenzene	Averaged			1.28003	1.37323	1.37049	1.59529
Vinyl acetate	Averaged					0.58340	0.90658
Vinyl chloride	Averaged		0.71725	0.64891	0.61115	0.59900	0.56828
m&p-Xylene	Wt Linear	0.80750	0.71388	0.69095	0.86918	0.85161	0.98882

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/31/2020 10:23

MSV - FORM VI VOA-3

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249143

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
o-Xylene	Wt Linear		0.36816	0.33352	0.37551	0.36020	0.41933
4-Bromofluorobenzene (S)	Averaged	0.37583	0.38941	0.39051	0.38275	0.39379	0.40003
Dibromofluoromethane (S)	Averaged	0.62769	0.63739	0.63657	0.62879	0.60966	0.59270
1,2-Dichloroethane-d4 (S)	Averaged	0.11531	0.11871	0.12158	0.11740	0.10453	0.10269
Toluene-d8 (S)	Averaged	1.07880	1.06882	1.06855	1.06786	1.07640	1.08438

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/31/2020 10:23

MSV - FORM VI VOA-4

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249143

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10	CAL11	CAL12
Acetone	Wt Linear	0.41297	0.37566	0.38708	0.38211		
Acetonitrile	Wt Linear	0.03841	0.04679	0.04704	0.04491	0.03970	0.03979
Acrolein	Averaged	0.06891	0.06557	0.07027	0.07036	0.06357	0.06812
Acrylonitrile	Averaged	0.19915	0.17729	0.19776	0.19478	0.15804	0.18702
Benzene	Averaged	1.31989	1.27390	1.26059	1.22497	1.19823	1.18934
Bromobenzene	Averaged	0.53532	0.51542	0.53131	0.52655	0.53912	0.54081
Bromochloromethane	Averaged	0.29998	0.27204	0.26235	0.25826	0.23994	0.24926
Bromodichloromethane	Averaged	0.57885	0.55715	0.54332	0.54171	0.54086	0.53536
Bromoform	Averaged	0.45373	0.43426	0.44389	0.44328	0.46996	0.46892
Bromomethane	Wt Linear	0.57307	0.44908	0.42634	0.42378		
2-Butanone (MEK)	Averaged	0.45432	0.40986	0.43930	0.44055	0.37212	0.38920
n-Butylbenzene	Averaged	1.64990	1.87691	1.98741	1.98878	1.98038	2.04750
sec-Butylbenzene	Wt Linear	2.02276	2.15907	2.27908	2.29075	2.34314	2.41368
tert-Butylbenzene	Wt Linear	1.56217	1.76643	1.88637	1.94028	1.98006	2.04581
Carbon disulfide	Averaged	1.55020	1.42898	1.38821	1.36729	1.28575	1.29953
Carbon tetrachloride	Averaged	0.54343	0.52196	0.51532	0.50192	0.49242	0.50459
Chlorobenzene	Averaged	0.97199	0.93701	0.94485	0.92345	0.94437	0.93402
Chloroethane	Wt Linear	0.17297	0.17535	0.16509	0.15481		
Chloroform	Averaged	1.02572	0.96877	0.93921	0.91532	0.85890	0.86431
Chloromethane	Wt Linear	0.77949	0.73419	0.74763	0.73348	0.67654	0.66670
2-Chlorotoluene	Wt Linear	0.37818	0.37125	0.37579	0.37739	0.38782	0.39117
4-Chlorotoluene	Wt Linear	0.34412	0.37138	0.38926	0.38621	0.39446	0.39306
1,2-Dibromo-3-chloropropane	Averaged	0.14501	0.14799	0.15810	0.15828	0.16380	0.17031
Dibromochloromethane	Averaged	0.49970	0.47857	0.47752	0.47753	0.50069	0.49027
1,2-Dibromoethane (EDB)	Averaged	0.41880	0.39767	0.39462	0.39355	0.40951	0.40529
Dibromomethane	Averaged	0.31359	0.30014	0.28875	0.28214	0.27687	0.27295
1,2-Dichlorobenzene	Averaged	1.38076	1.36447	1.37412	1.37990	1.39095	1.43503
1,3-Dichlorobenzene	Averaged	1.32401	1.33959	1.38908	1.38767	1.38402	1.42750
1,4-Dichlorobenzene	Averaged	1.40109	1.37817	1.41490	1.41231	1.40741	1.44148
Dichlorodifluoromethane	Averaged	0.63941	0.59785	0.61150	0.61837	0.54554	0.54297
1,1-Dichloroethane	Averaged	0.91623	0.87020	0.84971	0.81510	0.77035	0.77571
1,2-Dichloroethane	Averaged	0.78755	0.72382	0.70860	0.69974	0.66582	0.65542
1,1-Dichloroethene	Averaged	0.69997	0.66374	0.66212	0.67660	0.64092	0.65097
cis-1,2-Dichloroethene	Averaged	0.64084	0.63911	0.63898	0.63619	0.61855	0.63882

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/31/2020 10:23

MSV - FORM VI VOA-5

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249143

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10	CAL11	CAL12
trans-1,2-Dichloroethene	Averaged	0.45350	0.42924	0.43177	0.42614	0.40870	0.41864
1,2-Dichloropropane	Averaged	0.38813	0.36744	0.35842	0.34791	0.35389	0.34693
1,3-Dichloropropane	Averaged	0.50225	0.50220	0.50732	0.51074	0.51045	0.50531
2,2-Dichloropropane	Averaged	0.66678	0.63008	0.59855	0.60546	0.58521	0.58171
1,1-Dichloropropene	Averaged	0.41853	0.42140	0.42293	0.42298	0.42154	0.42409
cis-1,3-Dichloropropene	Averaged	0.52492	0.53191	0.54225	0.54657	0.54771	0.54824
trans-1,3-Dichloropropene	Averaged	0.52492	0.53127	0.54126	0.54522	0.54708	0.54754
Ethyl acetate	Averaged	0.56493	0.55790	0.55626	0.54125	0.53408	0.52840
Ethylbenzene	Averaged	1.24337	1.35695	1.44133	1.46916	1.53813	1.54037
2-Hexanone	Averaged	0.43312	0.46856	0.46295	0.47817	0.46940	0.46841
Isopropylbenzene (Cumene)	Wt Linear	1.13672	1.27637	1.35788	1.37491	1.42487	1.44774
p-Isopropyltoluene	Wt Linear	1.56217	1.76643	1.88637	1.94028	1.98006	2.04581
Methylene Chloride	Averaged	0.80589	0.74727	0.73858	0.70291	0.66532	0.67584
4-Methyl-2-pentanone (MIBK)	Averaged	0.03057	0.03726	0.03590	0.03857	0.03908	0.03925
Methyl-tert-butyl ether	Averaged	1.06283	1.08682	1.09285	1.09333	1.03414	1.08647
Naphthalene	Wt Linear	1.41816	1.68396	1.89011	1.96265	2.01139	2.11026
n-Propylbenzene	Averaged	1.60570	1.73759	1.79225	1.79662	1.85505	1.84384
Styrene	Wt Linear	0.77986	0.88210	0.93092	0.93426	0.97298	0.97405
1,1,1,2-Tetrachloroethane	Averaged	0.41282	0.38406	0.38418	0.37132	0.38050	0.38077
1,1,2,2-Tetrachloroethane	Averaged	0.55539	0.51874	0.51464	0.49827	0.50770	0.50090
Tetrachloroethene	Averaged	0.35335	0.34404	0.35038	0.34843	0.35950	0.35515
Toluene	Averaged	1.25999	1.25926	1.26706	1.26351	1.28160	1.26660
1,2,3-Trichlorobenzene	Averaged	0.87483	0.92204	0.98164	0.99100	1.05707	1.09411
1,2,4-Trichlorobenzene	Averaged	0.86786	0.96199	1.06119	1.06390	1.11694	1.18487
1,1,1-Trichloroethane	Averaged	0.60969	0.57373	0.56212	0.55376	0.54652	0.53855
1,1,2-Trichloroethane	Averaged	0.32889	0.30035	0.29535	0.29349	0.29206	0.28701
Trichloroethene	Averaged	0.37458	0.35481	0.34975	0.35403	0.35714	0.35398
Trichlorofluoromethane	Averaged	0.37535	0.34595	0.32841	0.30466		
1,2,3-Trichloropropane	Averaged	0.57805	0.55752	0.54325	0.53642	0.54134	0.51772
1,2,4-Trimethylbenzene	Wt Linear	1.71069	1.86363	1.94154	1.94909	1.94934	2.01891
1,3,5-Trimethylbenzene	Averaged	1.68023	1.75448	1.84643	1.84471	1.84227	1.92279
Vinyl acetate	Averaged	0.90400	0.97338	0.94500	0.89650	0.87287	0.88498
Vinyl chloride	Averaged	0.58640	0.57381	0.57350	0.58579	0.52769	0.53398
m&p-Xylene	Wt Linear	1.06052	1.12895	1.15194	1.14203	1.16909	1.15864

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/31/2020 10:23

MSV - FORM VI VOA-6

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249143

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10	CAL11	CAL12
o-Xylene	Wt Linear	0.42934	0.48412	0.50927	0.53019	0.56736	0.56819
4-Bromofluorobenzene (S)	Averaged	0.41167	0.42397	0.42542	0.43138	0.44972	0.44967
Dibromofluoromethane (S)	Averaged	0.57485	0.54985	0.54466	0.52424	0.47680	0.50490
1,2-Dichloroethane-d4 (S)	Averaged	0.10484	0.09552	0.09525	0.09239	0.08563	0.08890
Toluene-d8 (S)	Averaged	1.08337	1.07913	1.08743	1.07610	1.07934	1.06580

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-7

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249143

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Acetone	Wt Linear		0.99848	0.01374774	0.38153	
Acetonitrile	Wt Linear		0.99061	0.00060749	0.04173	
Acrolein	Averaged	8.73847			0.06923	
Acrylonitrile	Averaged	8.87425			0.19127	
Benzene	Averaged	8.62942			1.27880	
Bromobenzene	Averaged	8.48252			0.50590	
Bromochloromethane	Averaged	9.85318			0.28358	
Bromodichloromethane	Averaged	14.00186			0.52427	
Bromoform	Averaged	4.41496			0.45179	
Bromomethane	Wt Linear		0.99117	0.02722209	0.42450	
2-Butanone (MEK)	Averaged	8.88630			0.42919	
n-Butylbenzene	Averaged	14.94450			1.74233	
sec-Butylbenzene	Wt Linear		0.99752	-0.0235130	2.32577	
tert-Butylbenzene	Wt Linear		0.99539	-0.0212852	1.95174	
Carbon disulfide	Averaged	9.71280			1.48423	
Carbon tetrachloride	Averaged	7.73071			0.50339	
Chlorobenzene	Averaged	5.75373			0.96465	
Chloroethane	Wt Linear		0.99271	0.00289449	0.16240	
Chloroform	Averaged	10.99465			0.99545	
Chloromethane	Wt Linear		0.99766	0.01147544	0.69502	
2-Chlorotoluene	Wt Linear		0.99948	-0.0028441	0.38497	
4-Chlorotoluene	Wt Linear		0.99856	-0.0028784	0.38834	
1,2-Dibromo-3-chloropropane	Averaged	13.38306			0.16352	
Dibromochloromethane	Averaged	8.28025			0.47553	
1,2-Dibromoethane (EDB)	Averaged	4.64138			0.40786	
Dibromomethane	Averaged	6.36753			0.29781	
1,2-Dichlorobenzene	Averaged	7.39530			1.45432	
1,3-Dichlorobenzene	Averaged	8.08472			1.33091	
1,4-Dichlorobenzene	Averaged	10.46018			1.50164	
Dichlorodifluoromethane	Averaged	5.84563			0.60278	
1,1-Dichloroethane	Averaged	8.80603			0.88035	
1,2-Dichloroethane	Averaged	14.72899			0.78154	
1,1-Dichloroethene	Averaged	7.00161			0.67064	
cis-1,2-Dichloroethene	Averaged	4.67942			0.64880	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/31/2020 10:23

MSV - FORM VI VOA-8

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249143

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
trans-1,2-Dichloroethene	Averaged	9.66545			0.45304	
1,2-Dichloropropane	Averaged	4.68693			0.36511	
1,3-Dichloropropane	Averaged	12.73991			0.48194	
2,2-Dichloropropane	Averaged	12.80164			0.67907	
1,1-Dichloropropene	Averaged	8.96428			0.39618	
cis-1,3-Dichloropropene	Averaged	9.32428			0.50984	
trans-1,3-Dichloropropene	Averaged	9.26560			0.50883	
Ethyl acetate	Averaged	5.68883			0.56197	
Ethylbenzene	Averaged	12.90669			1.30807	
2-Hexanone	Averaged	14.03454			0.42211	
Isopropylbenzene (Cumene)	Wt Linear		0.99637	-0.0156127	1.39474	
p-Isopropyltoluene	Wt Linear		0.99539	-0.0212852	1.95174	
Methylene Chloride	Averaged	14.30697			0.79672	
4-Methyl-2-pentanone (MIBK)	Averaged	9.46365			0.03578	
Methyl-tert-butyl ether	Averaged	4.34204			1.05644	
Naphthalene	Wt Linear		0.99209	-0.0210899	1.97334	
n-Propylbenzene	Averaged	14.69415			1.60388	
Styrene	Wt Linear		0.99669	-0.0104898	0.94781	
1,1,1,2-Tetrachloroethane	Averaged	8.73379			0.40743	
1,1,2,2-Tetrachloroethane	Averaged	5.80301			0.53495	
Tetrachloroethene	Averaged	5.85748			0.34315	
Toluene	Averaged	4.82081			1.24680	
1,2,3-Trichlorobenzene	Averaged	11.00536			0.91538	
1,2,4-Trichlorobenzene	Averaged	11.50100			0.98474	
1,1,1-Trichloroethane	Averaged	6.44871			0.57038	
1,1,2-Trichloroethane	Averaged	10.24085			0.31598	
Trichloroethene	Averaged	8.38981			0.34963	
Trichlorofluoromethane	Averaged	14.86295			0.37716	
1,2,3-Trichloropropane	Averaged	7.81870			0.55922	
1,2,4-Trimethylbenzene	Wt Linear		0.99797	-0.0184252	1.95772	
1,3,5-Trimethylbenzene	Averaged	14.19477			1.65100	
Vinyl acetate	Averaged	13.85329			0.87084	
Vinyl chloride	Averaged	8.94064			0.59325	
m&p-Xylene	Wt Linear		0.99877	-0.0092364	1.14911	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/31/2020 10:23

MSV - FORM VI VOA-9

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249143

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
o-Xylene	Wt Linear		0.99470	-0.0052424	0.54262	
4-Bromofluorobenzene (S)	Averaged	6.19963			0.41034	
Dibromofluoromethane (S)	Averaged	9.59315			0.57568	
1,2-Dichloroethane-d4 (S)	Averaged	11.94143			0.10356	
Toluene-d8 (S)	Averaged	0.66305			1.07633	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_03.D
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 20-AUG-2020 10:50
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal1,27237:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 10:50 Cal File: 082020_03.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						(D)
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						(D)
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						(D)
9 1,1-Dichloroethene	61	5.238	5.226	(0.666)	569	0.20000	0.208	
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						(D)
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						(D)
17 Methyl acetate	43	Compound Not Detected.						(D)
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						(D)
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	863	0.20000	0.240	
	24 Acrylonitrile	53	Compound Not Detected.						
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	737	0.20000	0.278(T)	
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						(D)
	29 Cyclohexane	56	Compound Not Detected.						(D)
	30 Chloroform	83	7.372	7.372	(0.938)	932	0.20000	0.236(M)	NI
	31 Ethyl acetate	43	Compound Not Detected.						(D)
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	576	0.20000	0.202	
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	128324	50.0000	54.5	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						(D)
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	204440	50.0000		
	39 Benzene	78	7.878	7.872	(0.947)	1748	0.20000	0.230	
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	23574	50.0000	55.7	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	1197	0.20000	0.364	
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.323	8.317	(1.001)	339	0.20000	0.163	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	296822	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.676	8.670	(1.043)	169	0.20000	0.0956	
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	9.719	9.713	(1.169)	492	0.20000	0.162	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	320213	50.0000	50.1	
	58 Toluene	91	9.420	9.414	(1.133)	1693	0.20000	0.229	
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						(D)
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	10.066	10.060	(1.210)	722	0.20000	0.252	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	477	0.20000	0.225	
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	10.560	10.554	(1.000)	1806	0.20000	0.266	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	259753	50.0000		
	71 Chlorobenzene	112	10.584	10.578	(1.002)	1258	0.20000	0.251	
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	10.657	10.651	(1.009)	1678	0.40000	0.330	
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						(D)
	76 Bromoform	173	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	97623	50.0000	45.8	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)
	80 n-Propylbenzene	91	11.529	11.523	(1.092)	1365	0.20000	0.164	
	81 Bromobenzene	156	11.584	11.578	(1.097)	395	0.20000	0.148	
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
	83 1,3,5-Trimethylbenzene	105	11.657	11.651	(0.945)	1019	0.20000	0.227	
	84 2-Chlorotoluene	126	Compound Not Detected.						(D)
	85 4-Chlorotoluene	126	Compound Not Detected.						(D)
	86 Isopropylbenzene (Cumene)	105	11.218	11.212	(1.062)	845	0.20000	0.141	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	697	0.20000	0.243	
	88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	89 Cyclohexanone	98	Compound Not Detected.						
	90 tert-Butylbenzene	119	Compound Not Detected.						(D)
	91 1,2,4-Trimethylbenzene	105	11.974	11.968	(0.970)	588	0.20000	0.130	
	92 sec-Butylbenzene	105	Compound Not Detected.						
	93 p-Isopropyltoluene	119	12.151	12.145	(0.985)	466	0.20000	0.105	
	94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	794	0.20000	0.221	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	135955	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	1048	0.20000	0.263	
	97 n-Butylbenzene	91	Compound Not Detected.						
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	882	0.20000	0.225	
	99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
	102 Naphthalene	128	Compound Not Detected.						
	103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

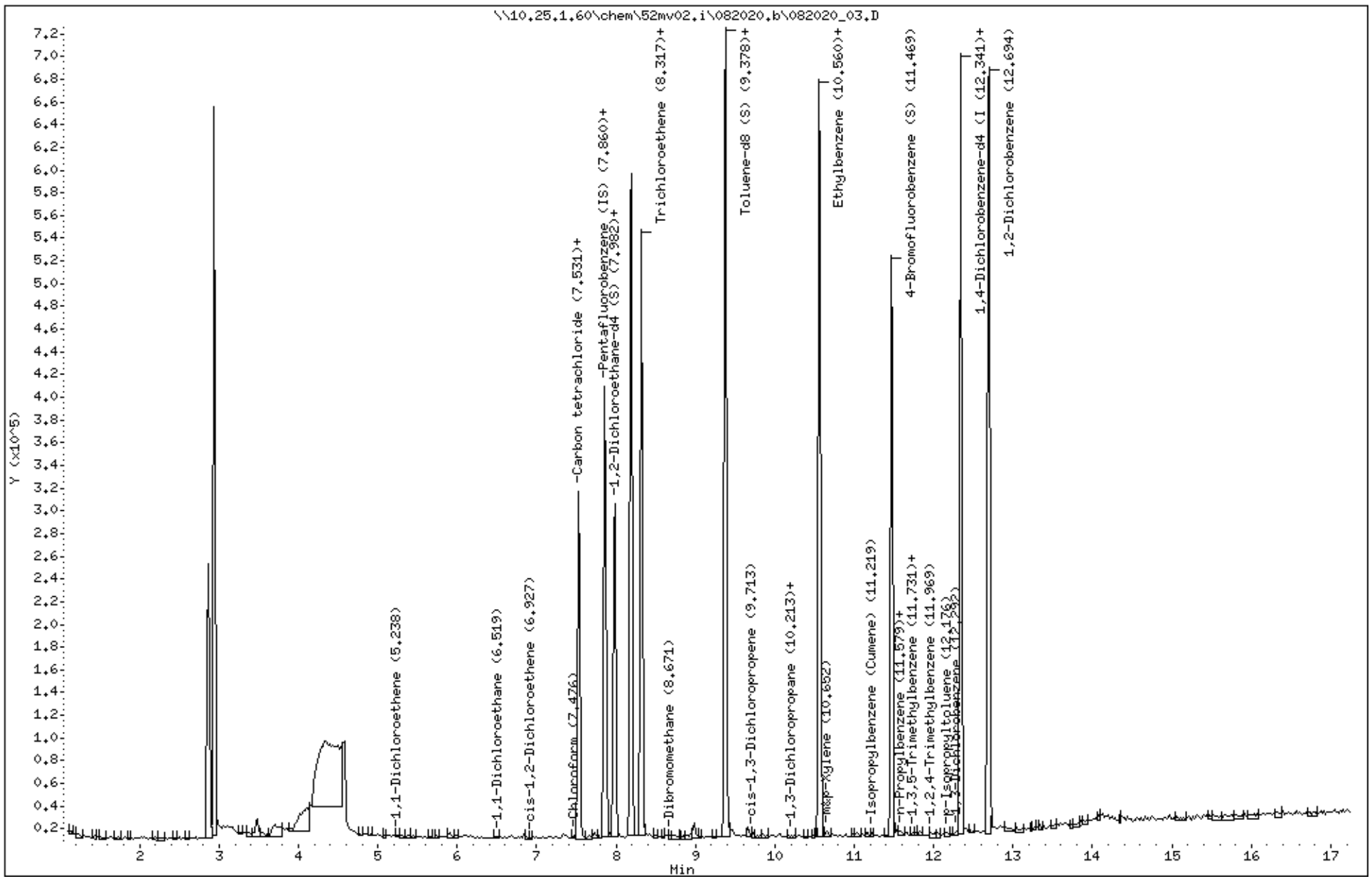
T - Target compound detected outside RT window.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
NI: Indicates that the peak was not integrated at all by the computer software.

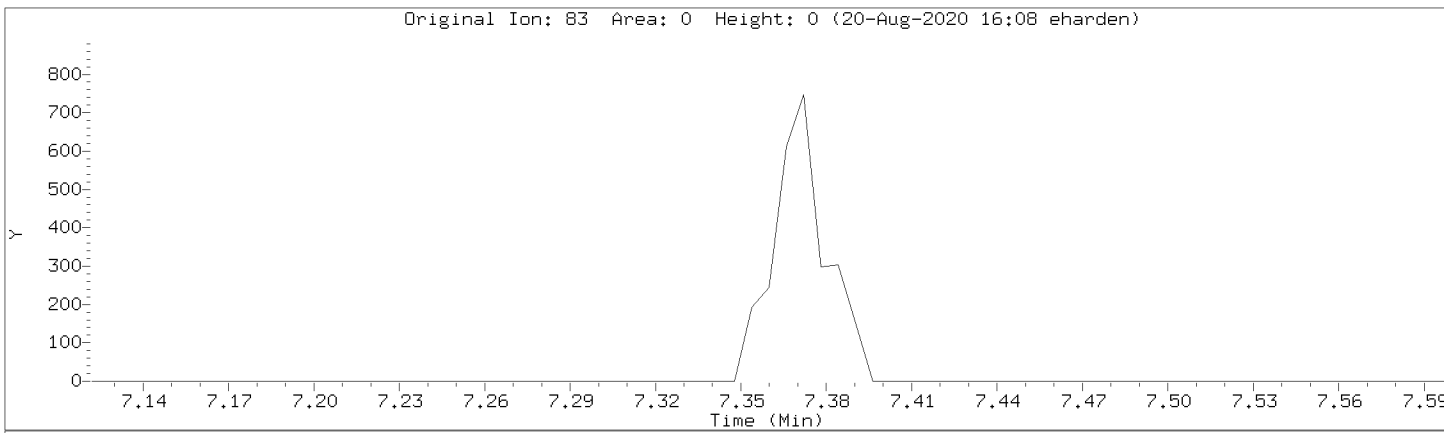
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_03.D
Date : 20-AUG-2020 10:50
Client ID: CAL1
Sample Info: CAL1,27237:1
Purge Volume: 5.0
Column phase: RTX-VMS

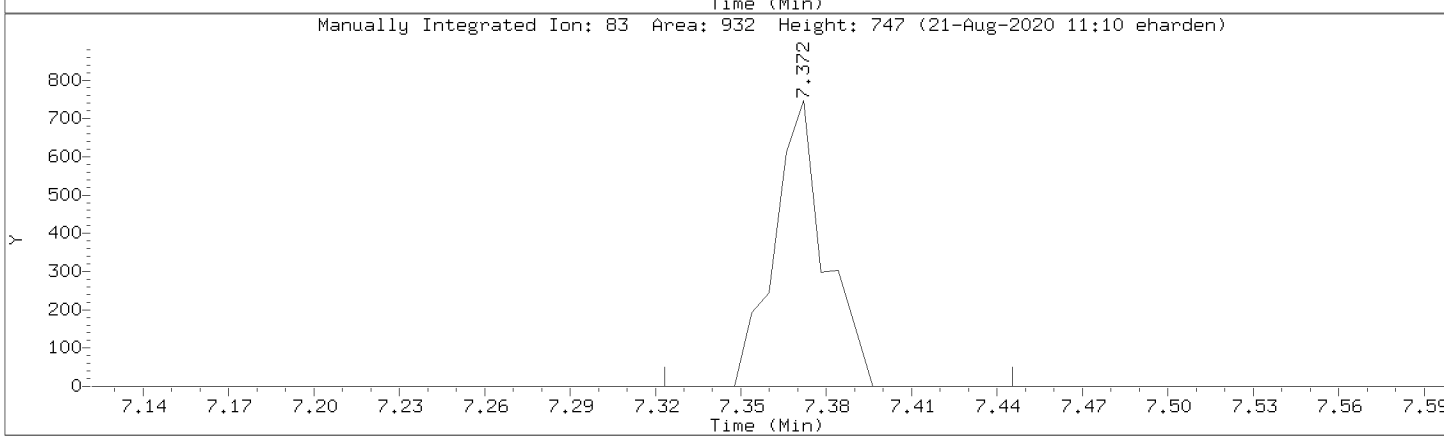
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

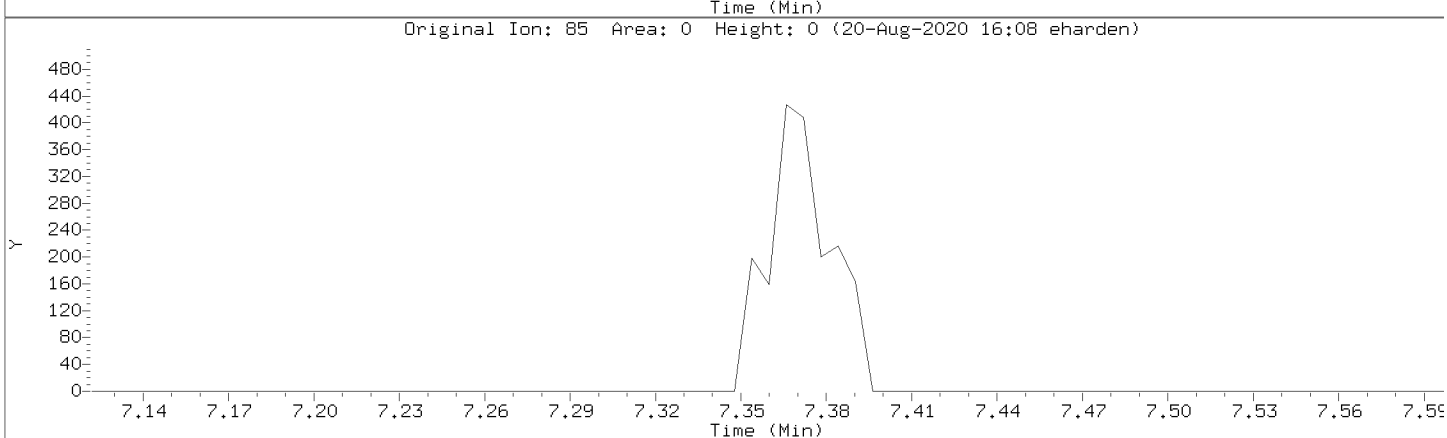


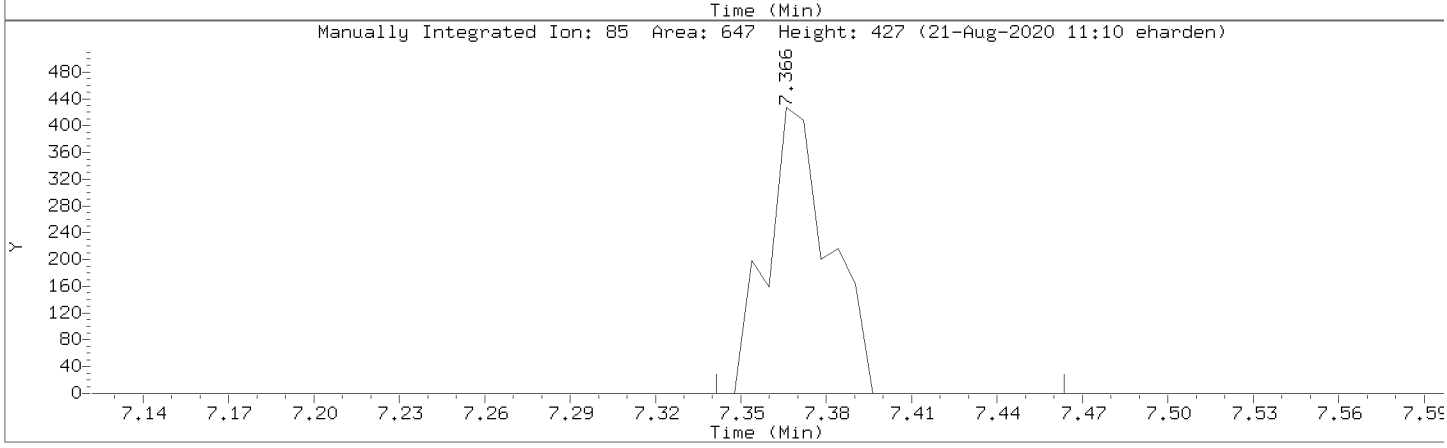
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_03.D
Injection Date: 20-AUG-2020 10:50
Instrument: 52mv02.i
Lab Sample ID: CAL1

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3









Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_04.D
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 20-AUG-2020 11:15
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal2,27238:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 11:15 Cal File: 082020_04.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.226	(0.408)	1253	0.50000	0.745(MH)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	3571	0.50000	1.04	
3 Vinyl chloride	62	3.708	3.702	(0.472)	1505	0.50000	0.604(M)	LT
4 1,3-Butadiene	39	3.708	3.708	(0.472)	1520	0.50000	0.683	
5 Bromomethane	94	4.195	4.195	(0.534)	5381	0.50000	1.82	
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						(D)
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	1311	0.50000	0.466	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	1053	0.50000	0.567(M)	LT
11 Carbon disulfide	76	5.293	5.293	(0.673)	3309	0.50000	0.531	
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						(D)
14 Allyl chloride	76	5.780	5.787	(0.736)	303	0.50000	0.350	
15 Methylene Chloride	49	5.908	5.902	(0.752)	2179	0.50000	0.634(M)	NI
16 Acetone	43	5.988	5.976	(0.762)	5178	1.00000	2.84	
17 Methyl acetate	43	6.073	6.067	(0.773)	3562	1.00000	1.60	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	1161	0.50000	0.611	
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	6.171	6.165	(0.785)	2190	0.50000	0.493(T)	
21 Acetonitrile	41	Compound Not Detected.						
22 Chloroprene	53	6.646	6.640	(0.846)	1072	0.50000	0.397	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	1886	0.50000	0.510	
	24 Acrylonitrile	53	Compound Not Detected.						(D)
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	1298	0.50000	0.477	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	1659	0.50000	0.592(T)	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	663	0.50000	0.557	
	29 Cyclohexane	56	7.335	7.335	(0.882)	767	0.50000	0.308	
	30 Chloroform	83	7.372	7.372	(0.938)	1921	0.50000	0.460(M)	NI
	31 Ethyl acetate	43	7.433	7.433	(0.946)	2623	1.00000	1.11(T)	
	32 Carbon tetrachloride	117	7.518	7.512	(0.904)	765	0.50000	0.262	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	1518	1.00000	2.16	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	133742	50.0000	55.4	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	1565	0.50000	0.452	
	36 2-Butanone (MEK)	43	Compound Not Detected.						(D)
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	1004	0.50000	0.417(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	209828	50.0000		
	39 Benzene	78	7.865	7.872	(0.946)	3569	0.50000	0.459	
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	2101	1.00000	1.15	
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	24908	50.0000	57.3	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	2134	0.50000	0.633	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	1482	0.50000	0.370	
	46 Trichloroethene	130	8.317	8.317	(1.000)	960	0.50000	0.452	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	303821	50.0000		
	48 Methylcyclohexane	98	8.329	8.317	(1.001)	565	0.50000	0.561(M)	LT
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.676	8.670	(1.043)	937	0.50000	0.518	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	1062	0.50000	0.479	
	52 Bromodichloromethane	83	8.774	8.768	(1.055)	1133	0.50000	0.356	
	53 Methyl methacrylate	69	8.835	8.823	(1.062)	345	0.50000	0.308(TH)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	996	0.50000	0.321	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	324729	50.0000	49.6	
	58 Toluene	91	9.420	9.414	(1.133)	3318	0.50000	0.438	
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	996	0.50000	0.315(M)	NI
	62 Tetrachloroethene	164	9.713	9.719	(0.920)	770	0.50000	0.420	
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	1129	0.50000	0.588	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	1044	0.50000	0.411(M)	NI
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	962	0.50000	0.328	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	1067	0.50000	0.489	
	68 2-Hexanone	43	Compound Not Detected.						(D)
	69 Ethylbenzene	91	10.560	10.554	(1.000)	3125	0.50000	0.447	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	267272	50.0000		
	71 Chlorobenzene	112	10.572	10.578	(1.001)	2681	0.50000	0.520	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	1062	0.50000	0.488	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	3816	1.00000	0.730	
	74 o-Xylene	106	10.993	10.993	(1.041)	984	0.50000	0.402	
	75 Styrene	104	11.029	11.029	(1.044)	1379	0.50000	0.337	
	76 Bromoform	173	11.103	11.103	(1.051)	1163	0.50000	0.482(M)	NI

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.231	11.225	(1.063)	1438	0.50000	0.387	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	104078	50.0000	47.4	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)
	80 n-Propylbenzene	91	11.529	11.523	(1.092)	3151	0.50000	0.368	
	81 Bromobenzene	156	11.584	11.578	(1.097)	1181	0.50000	0.431	
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						(D)
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	1752	0.50000	0.364(H)	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	548	0.50000	0.295	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	807	0.50000	0.443	
	86 Isopropylbenzene (Cumene)	105	11.206	11.212	(1.061)	1956	0.50000	0.316	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	1491	0.50000	0.508	
	88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	89 Cyclohexanone	98	Compound Not Detected.						
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	1540	0.50000	0.324	
	91 1,2,4-Trimethylbenzene	105	11.974	11.968	(0.970)	1871	0.50000	0.385	
	92 sec-Butylbenzene	105	12.066	12.060	(0.978)	1733	0.50000	0.300	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	1540	0.50000	0.324	
	94 1,3-Dichlorobenzene	146	12.297	12.291	(0.997)	1683	0.50000	0.437	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	145926	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	2405	0.50000	0.563	
	97 n-Butylbenzene	91	12.480	12.486	(1.011)	1826	0.50000	0.359	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	2394	0.50000	0.570	
	99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	415	0.50000	0.870	
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						(D)
	101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	852	0.50000	0.308	
	102 Naphthalene	128	14.206	14.193	(1.151)	1897	0.50000	0.399(M)	NI
	103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	1244	0.50000	0.466	

QC Flag Legend

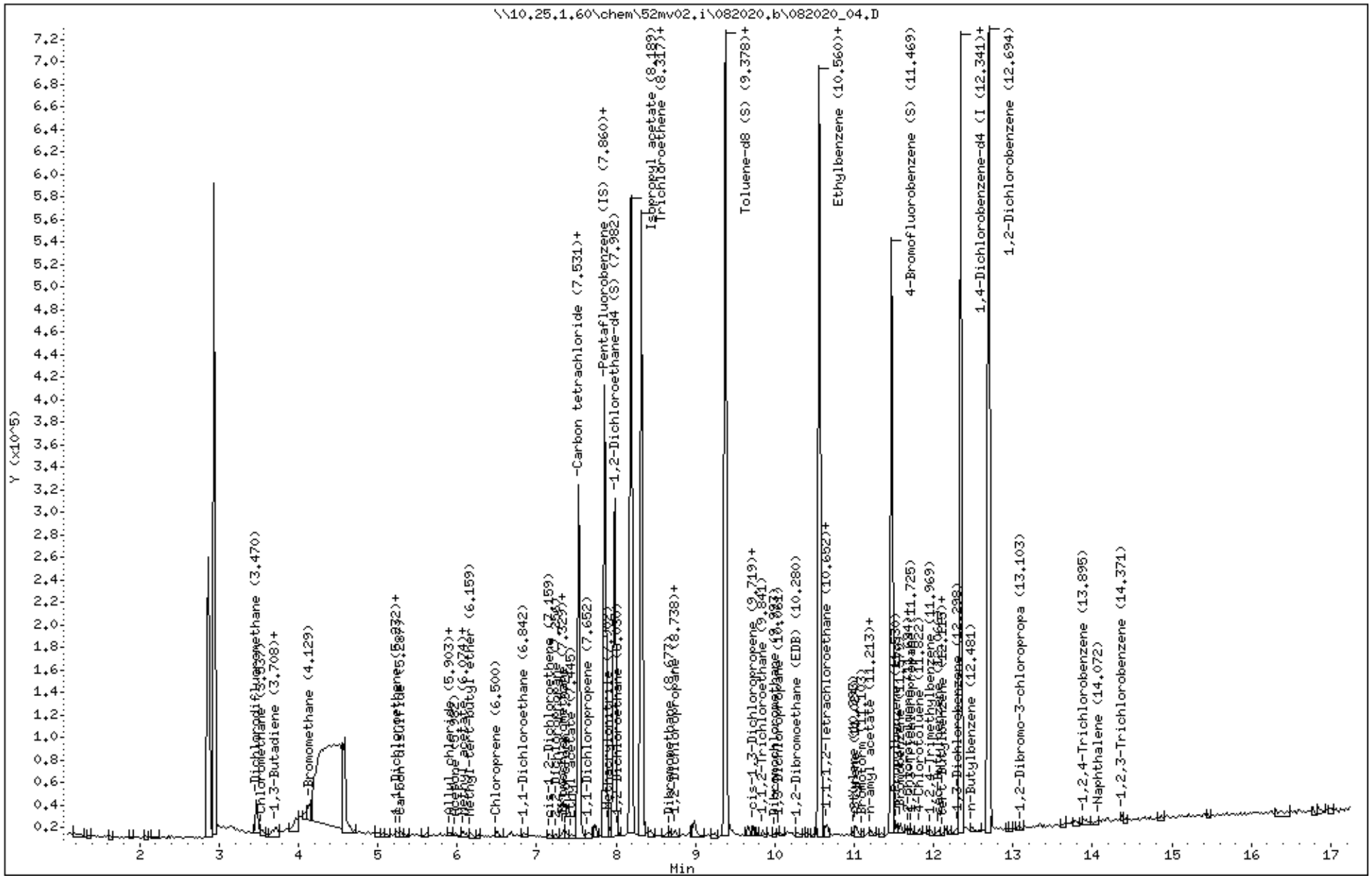
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_04.D
Date : 20-AUG-2020 11:15
Client ID: CAL2
Sample Info: CAL2,27238:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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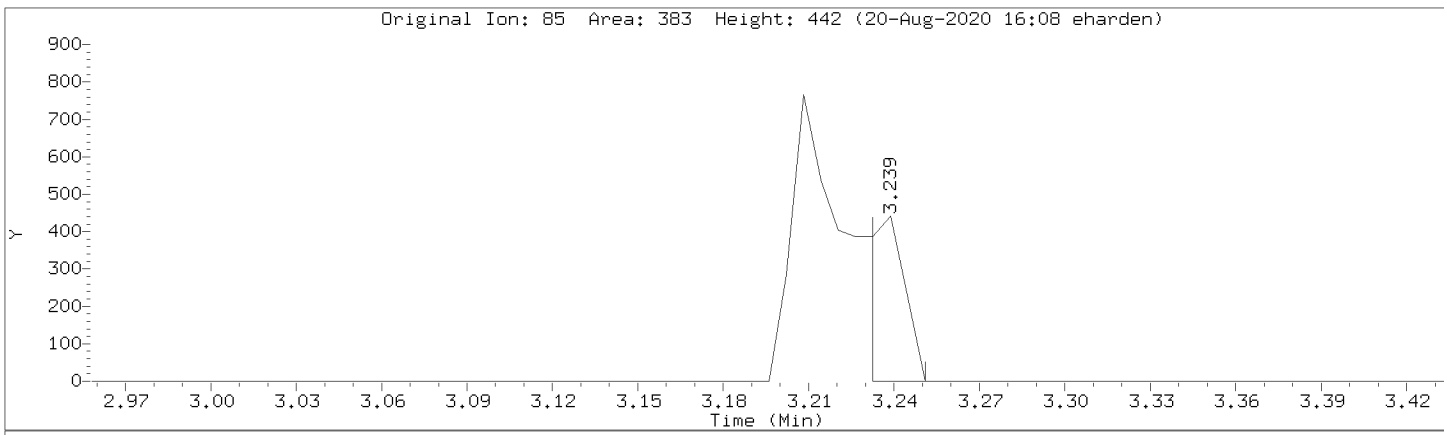
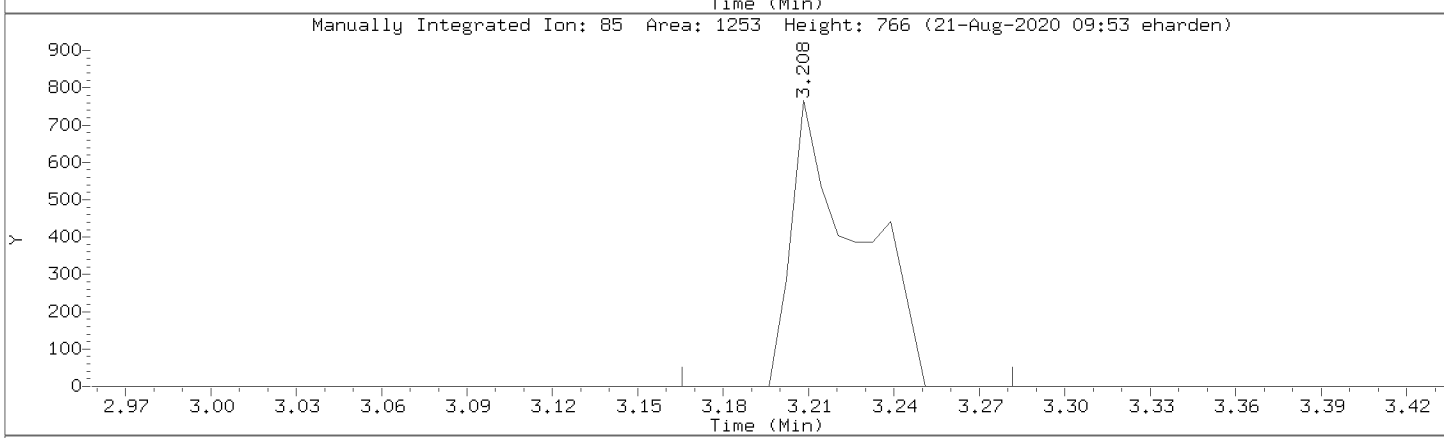
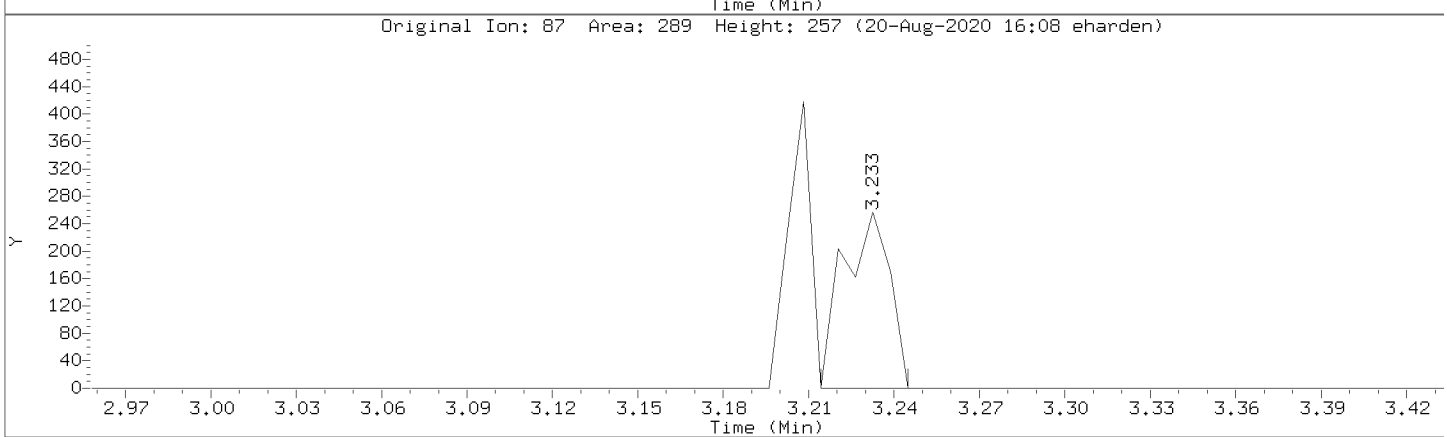
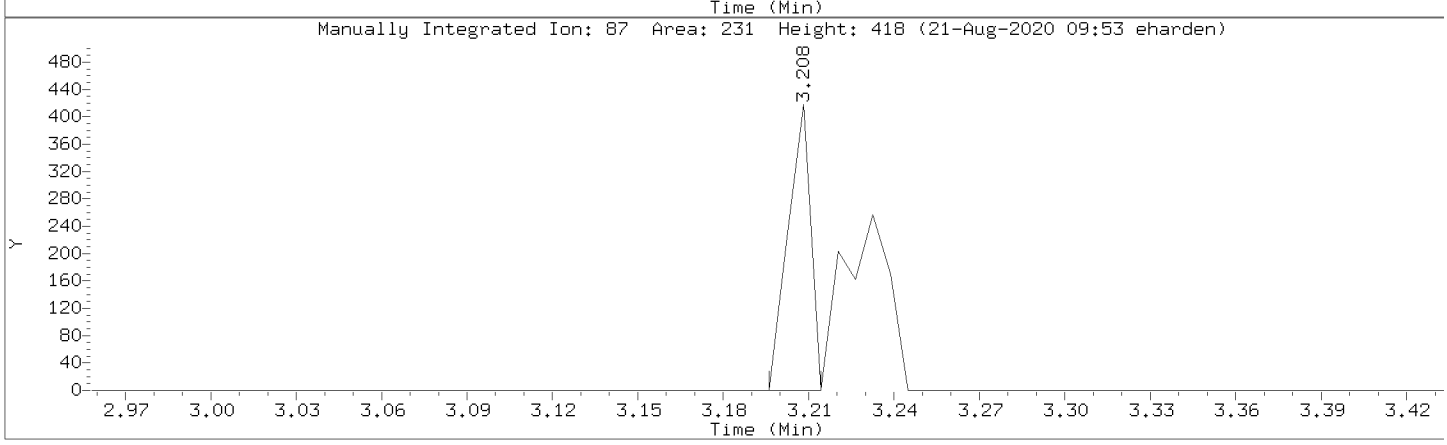
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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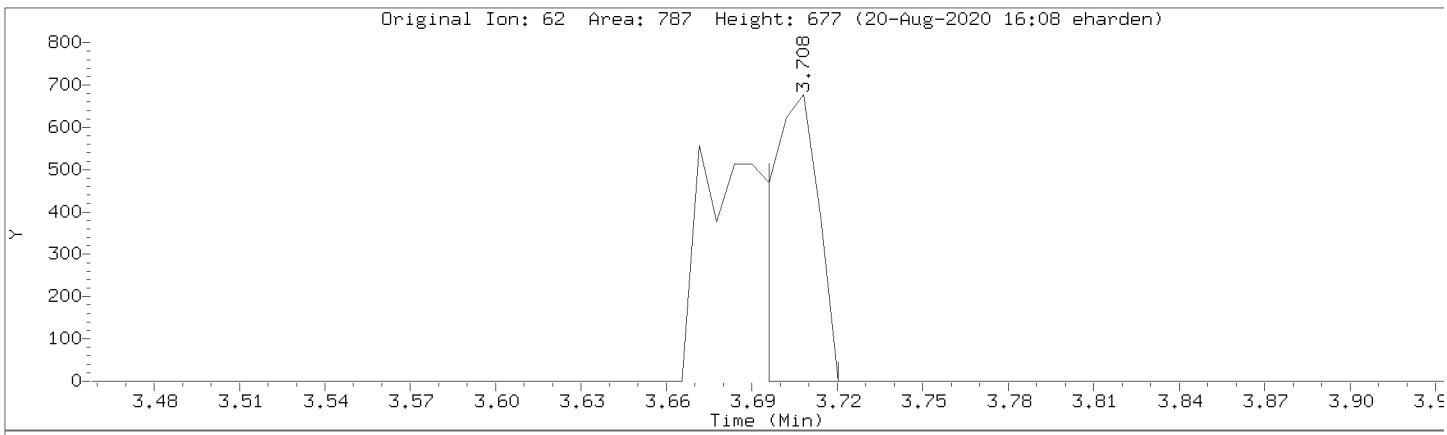
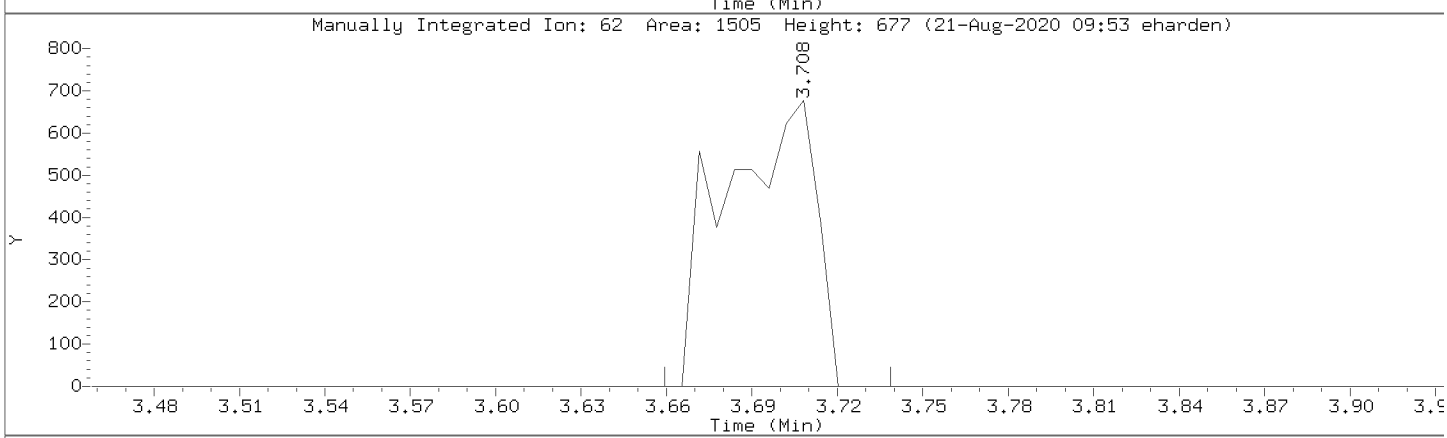
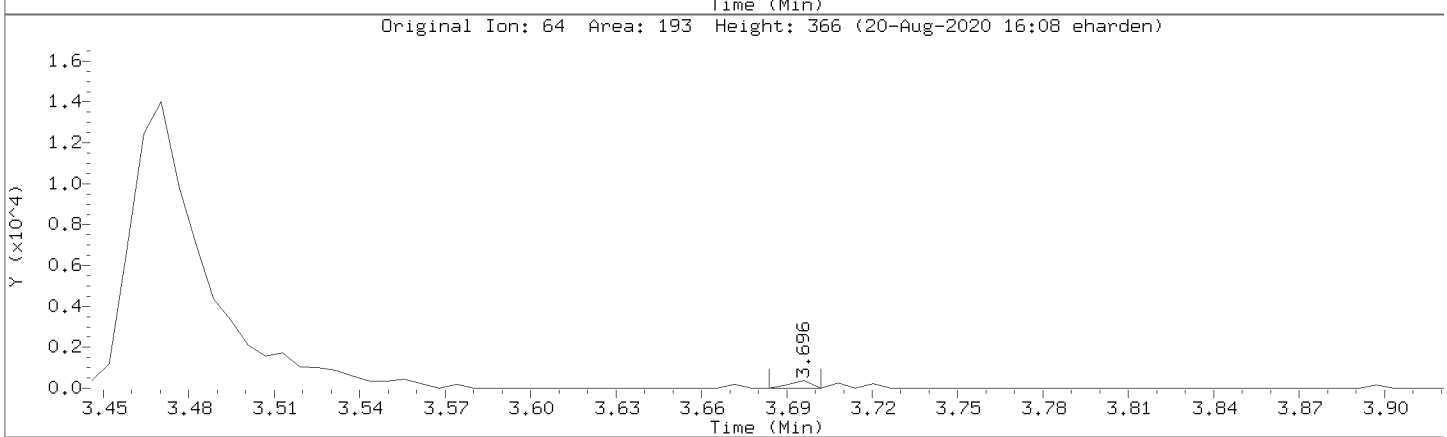
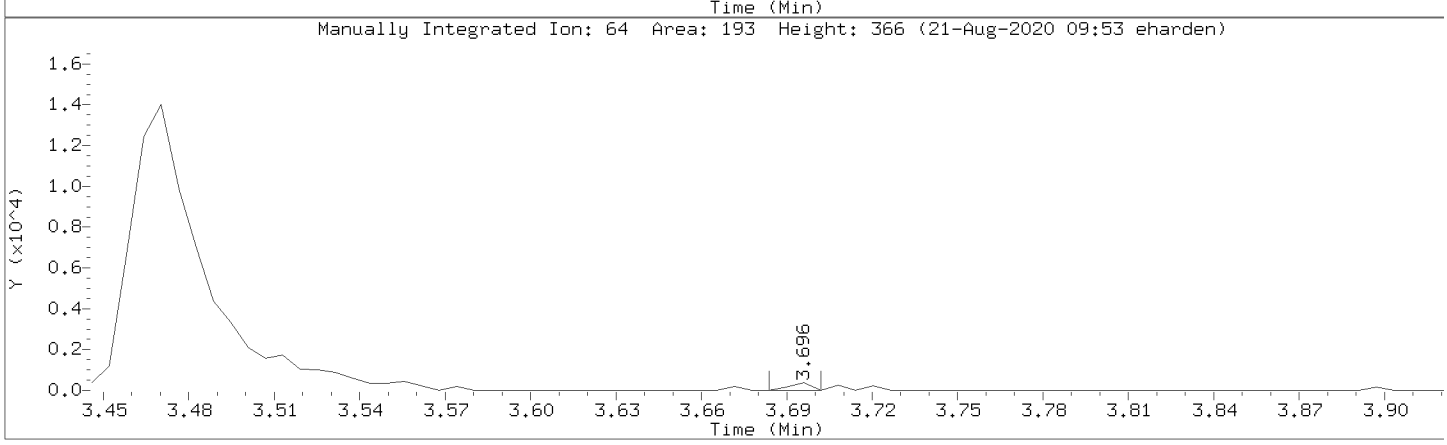
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4









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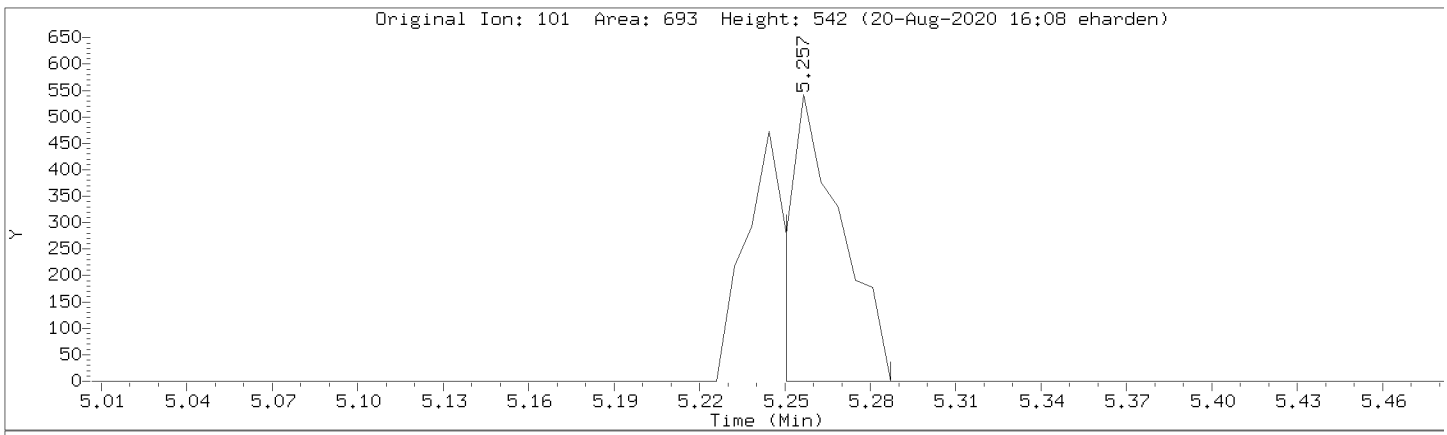
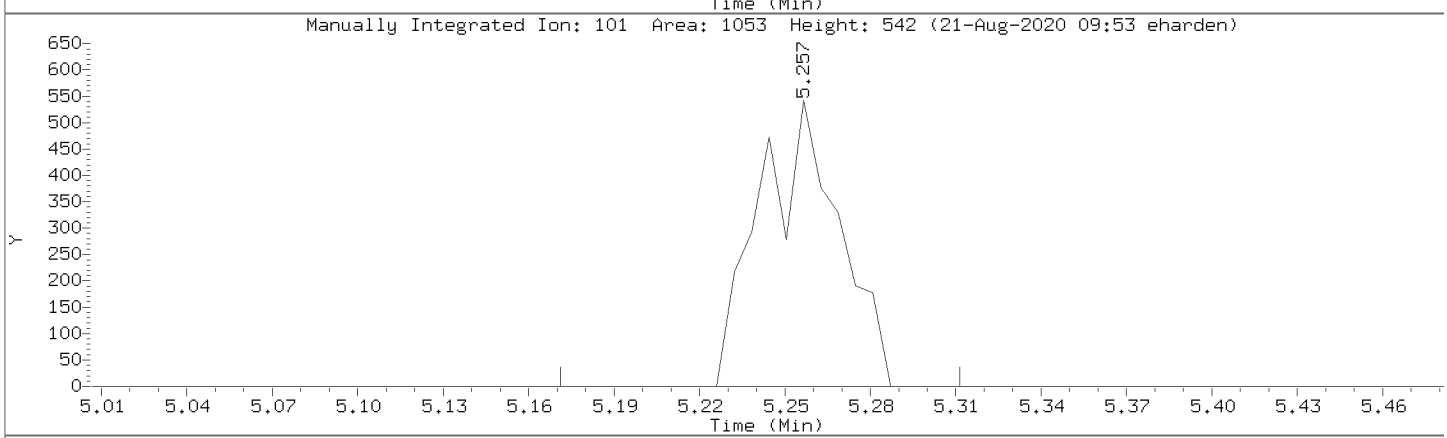
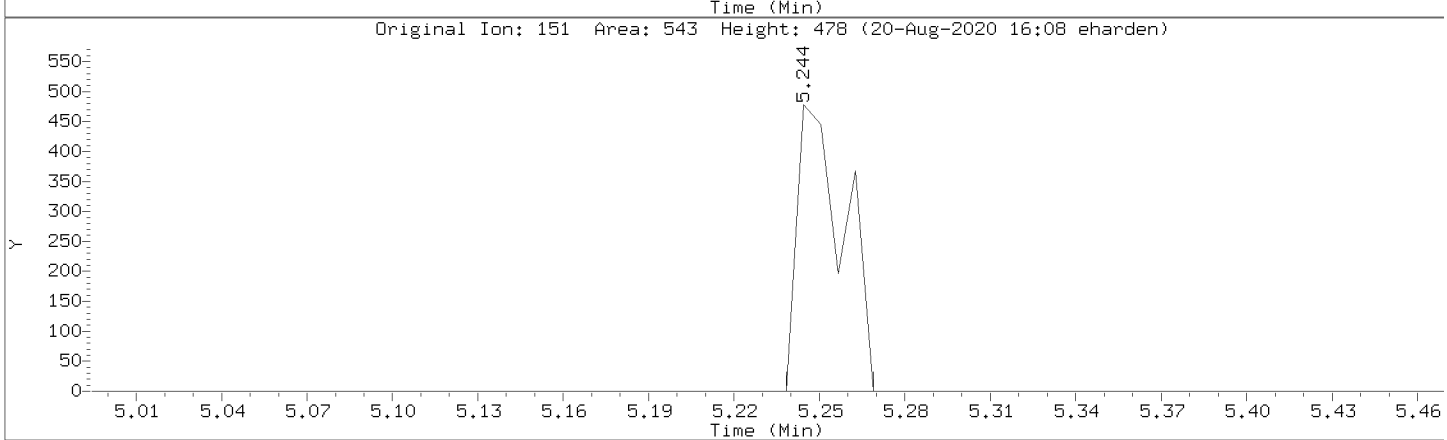
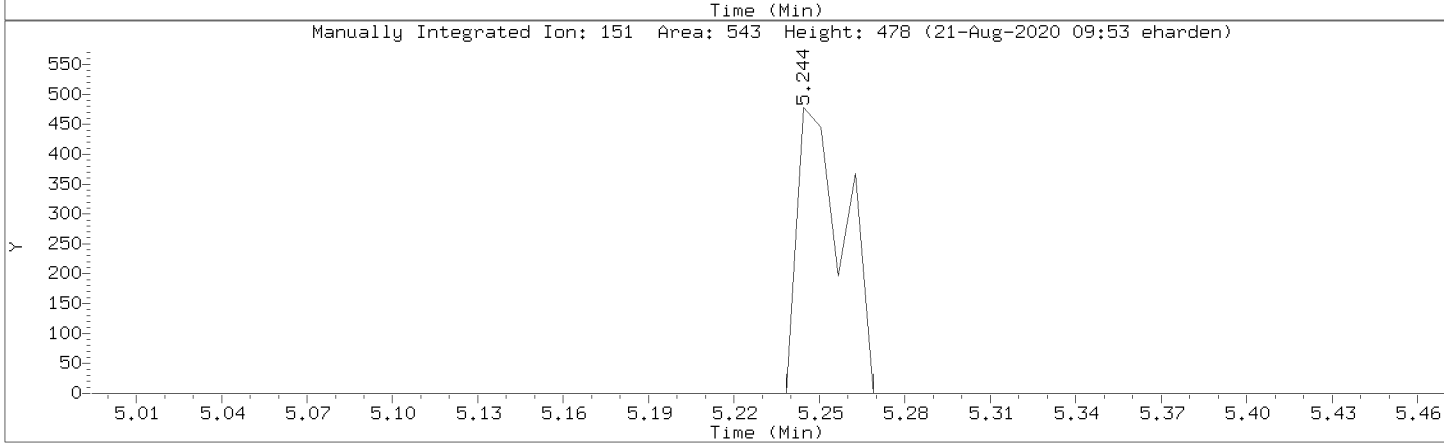
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: 1,1,2-Trichlorotrifluoroethane Review Code: LT
CAS Number: 76-13-1

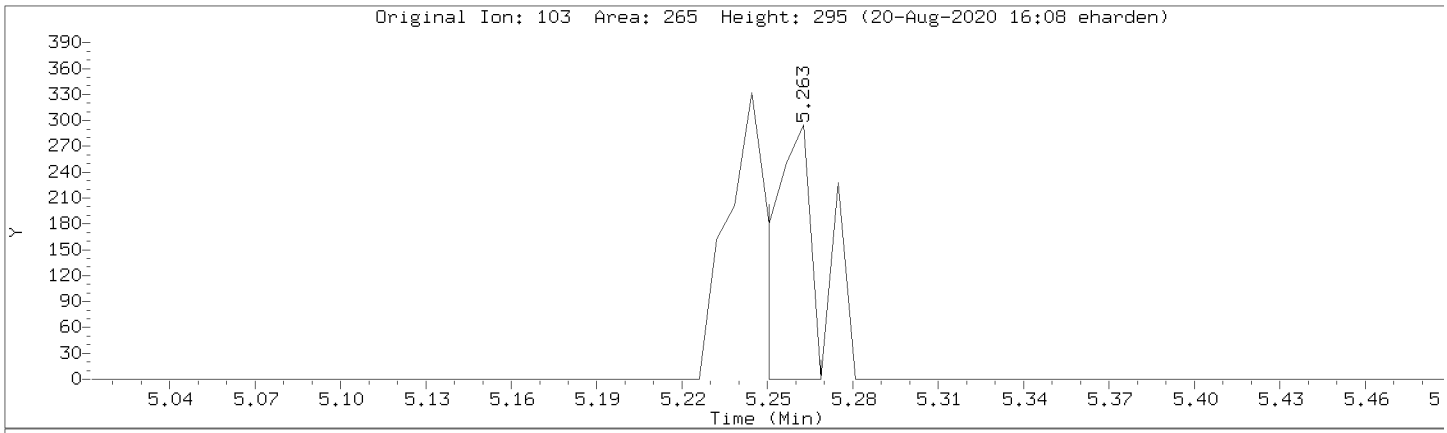


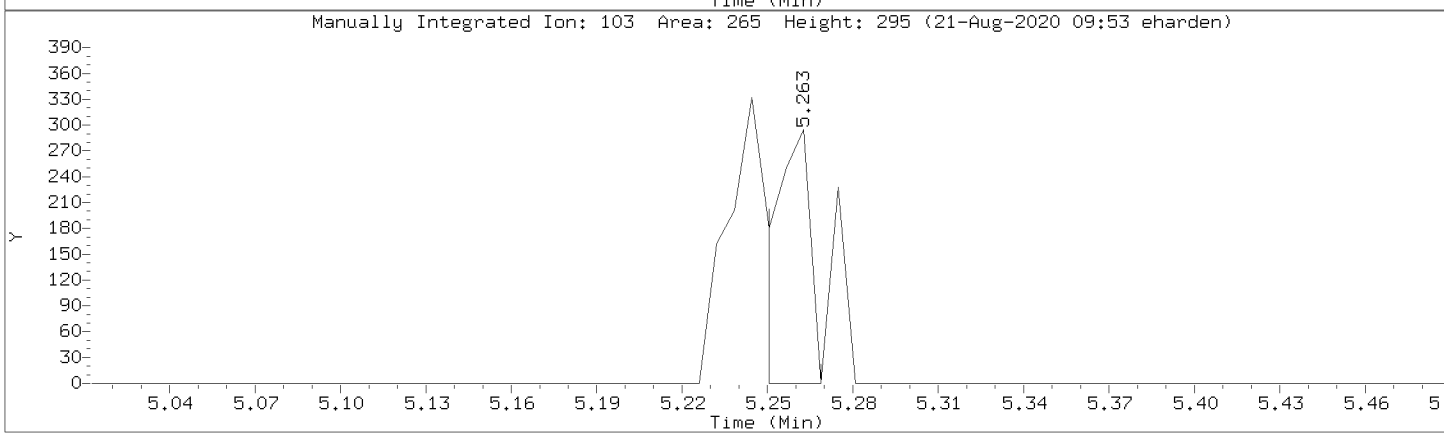






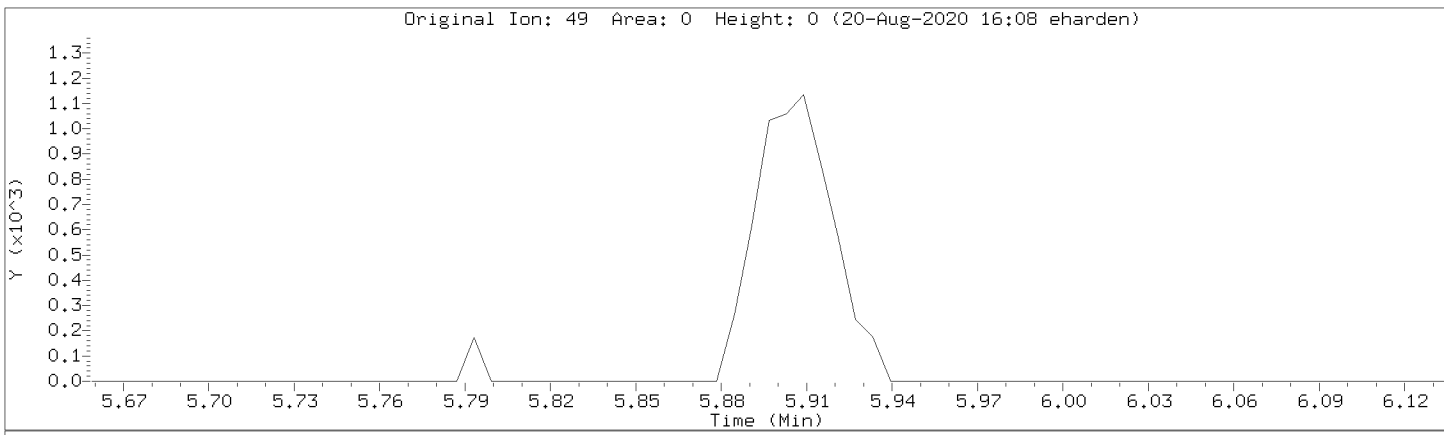
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

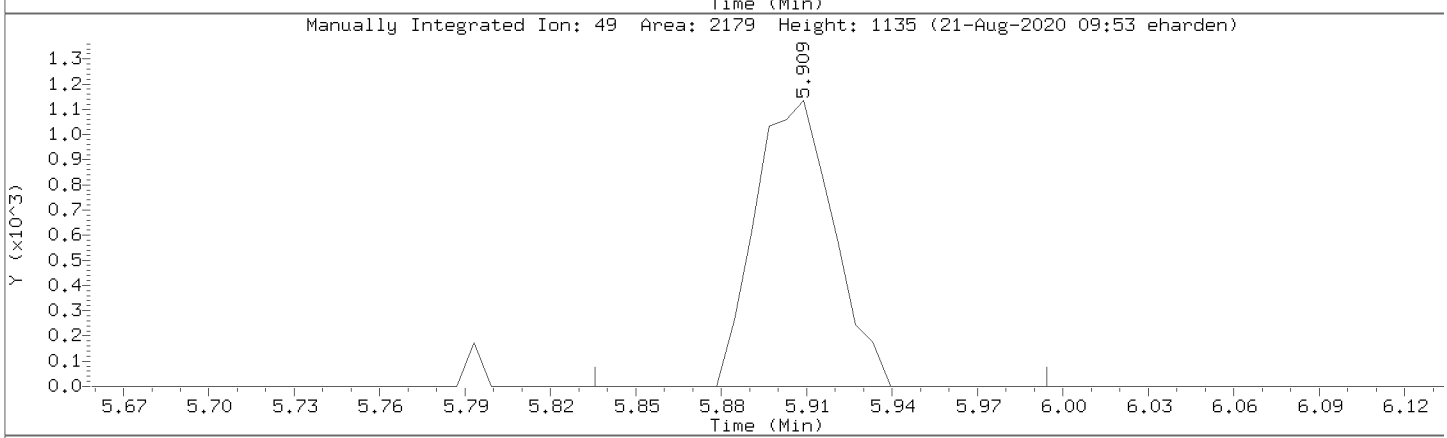


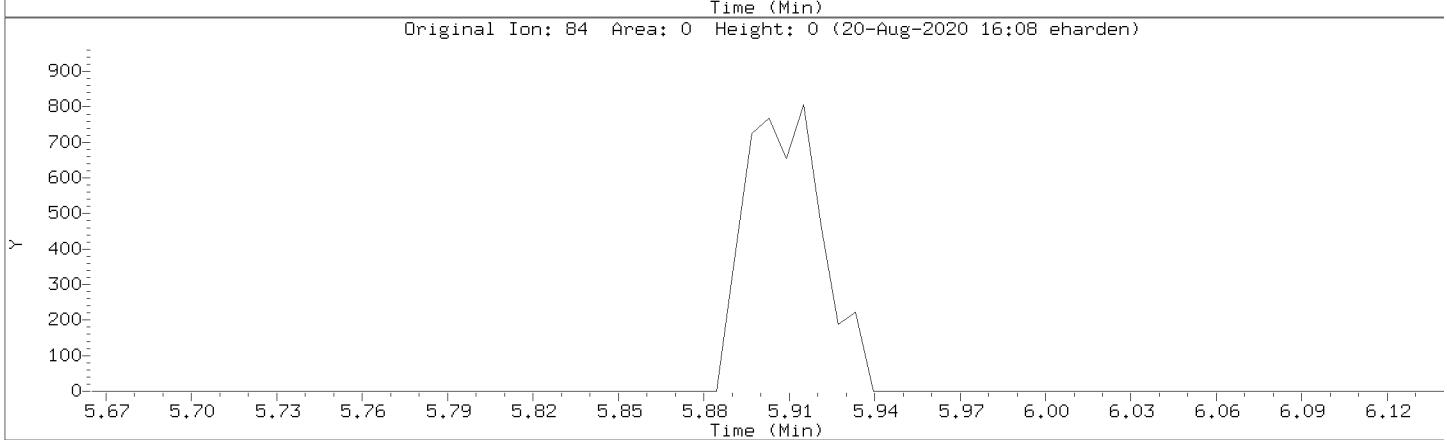


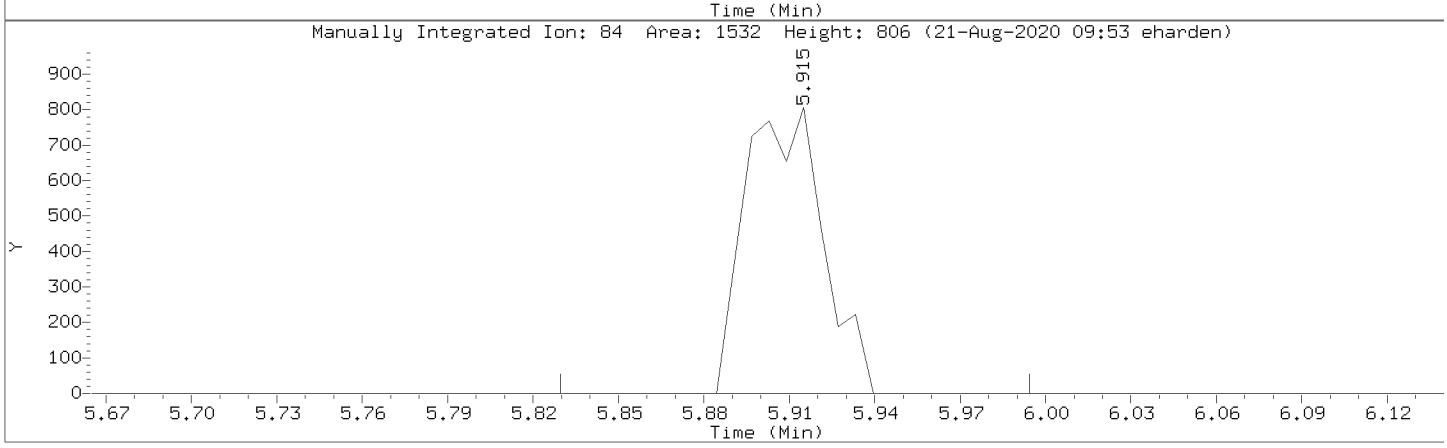
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2

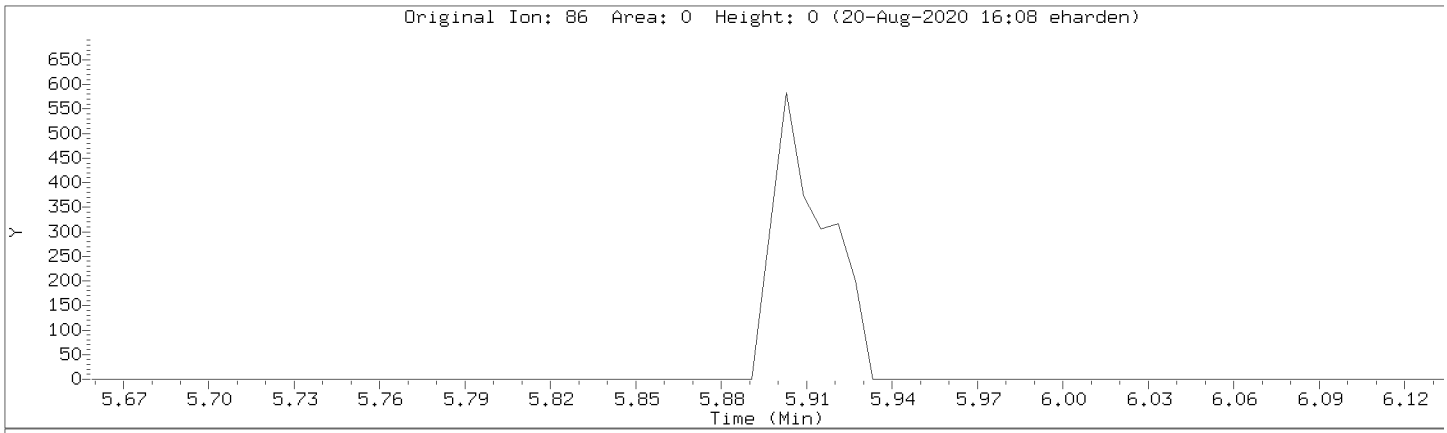


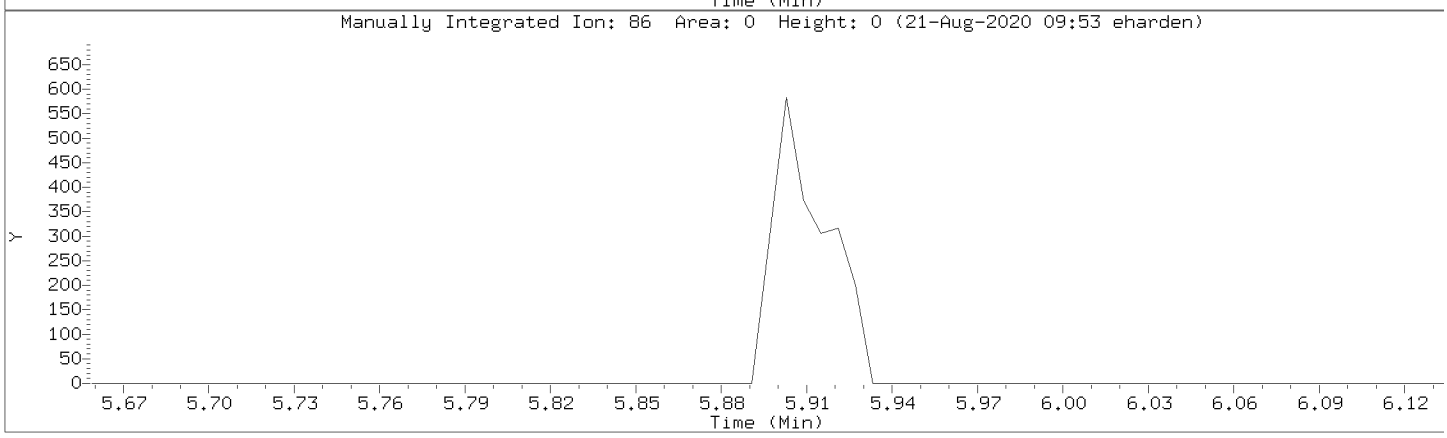






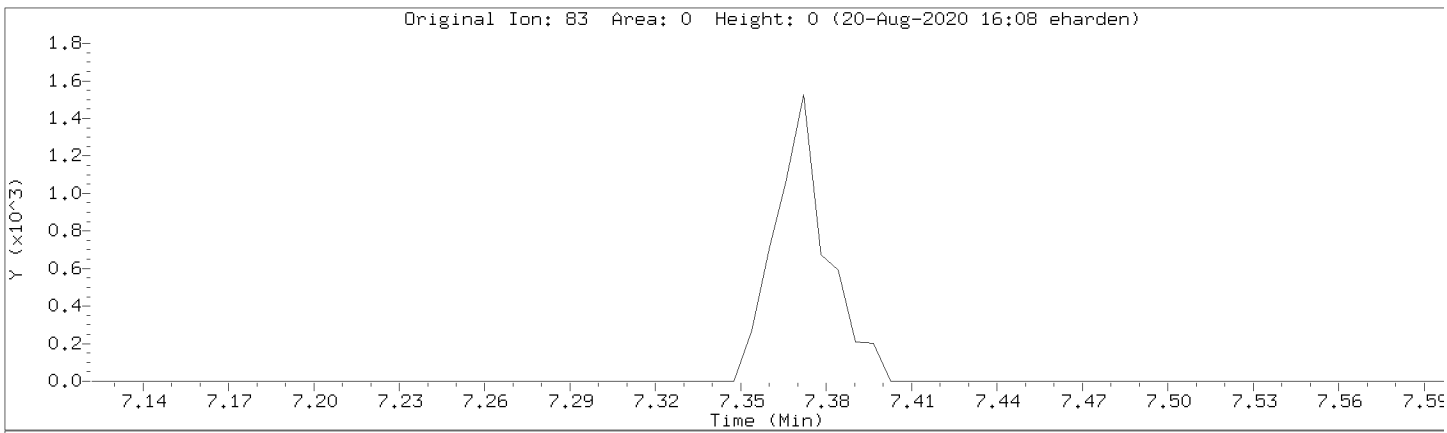
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

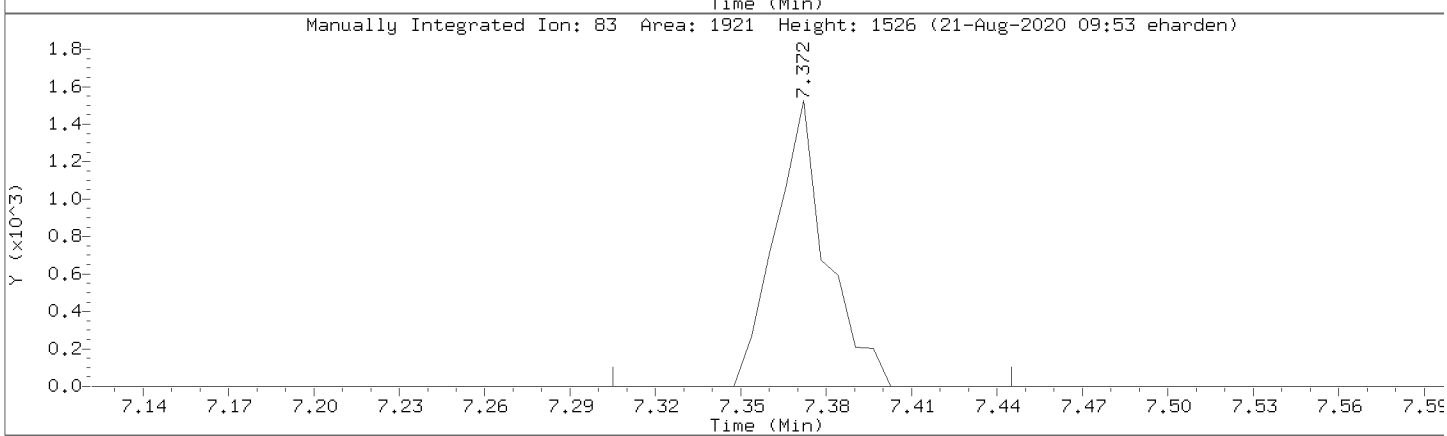


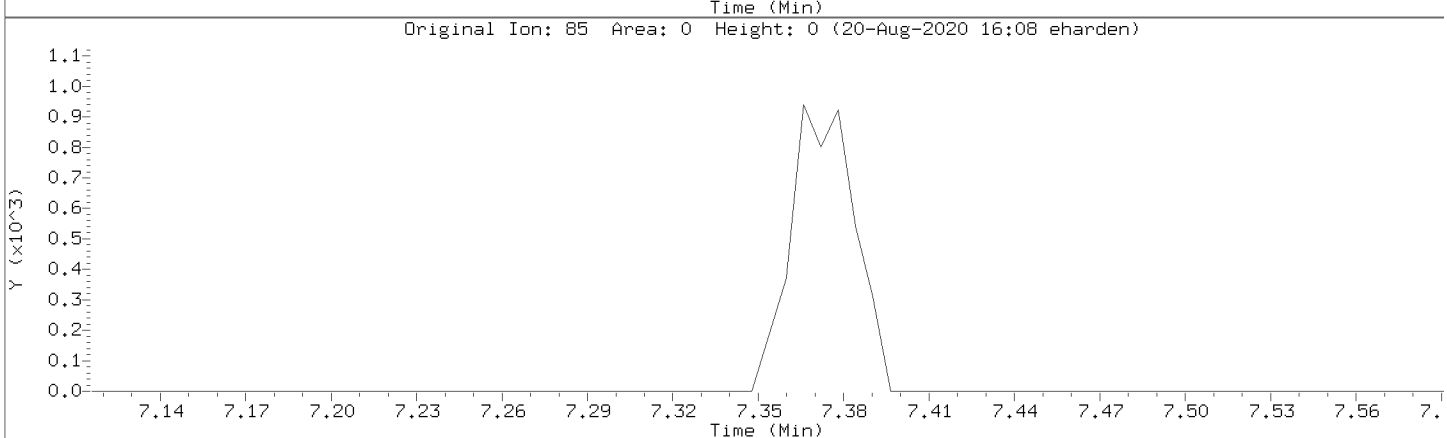


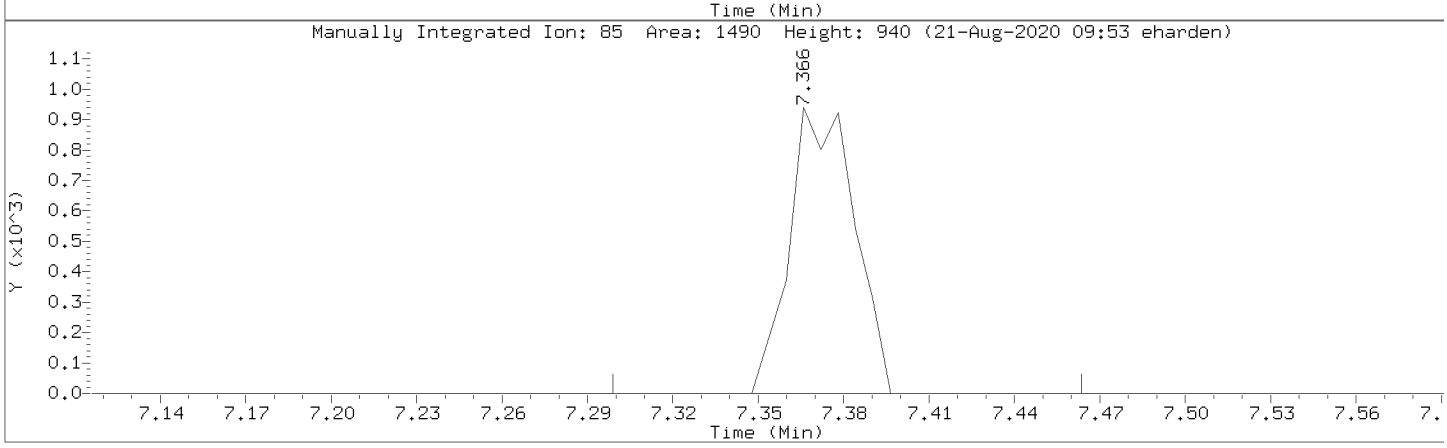
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3



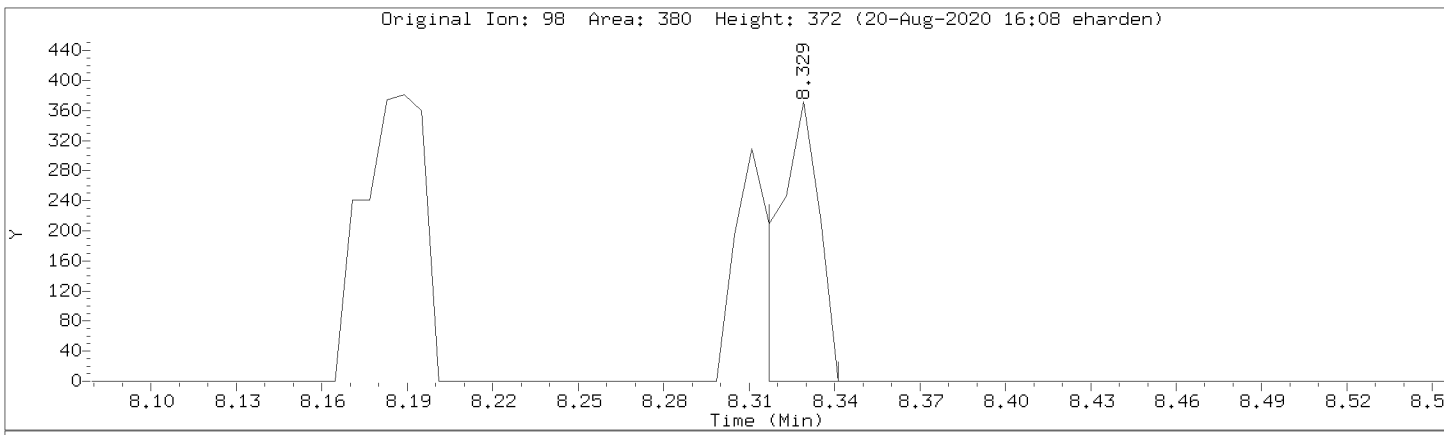


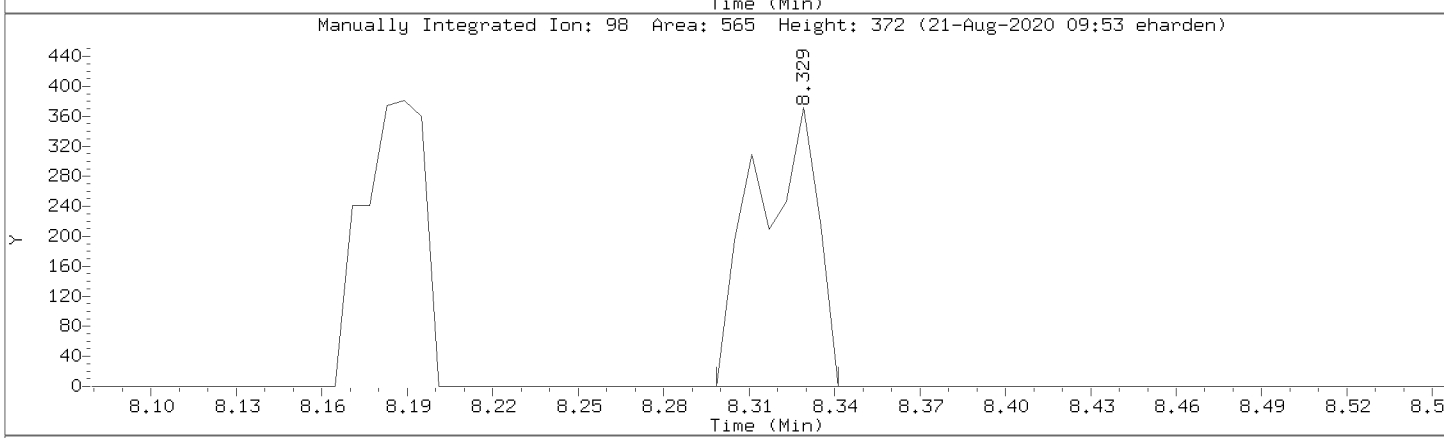


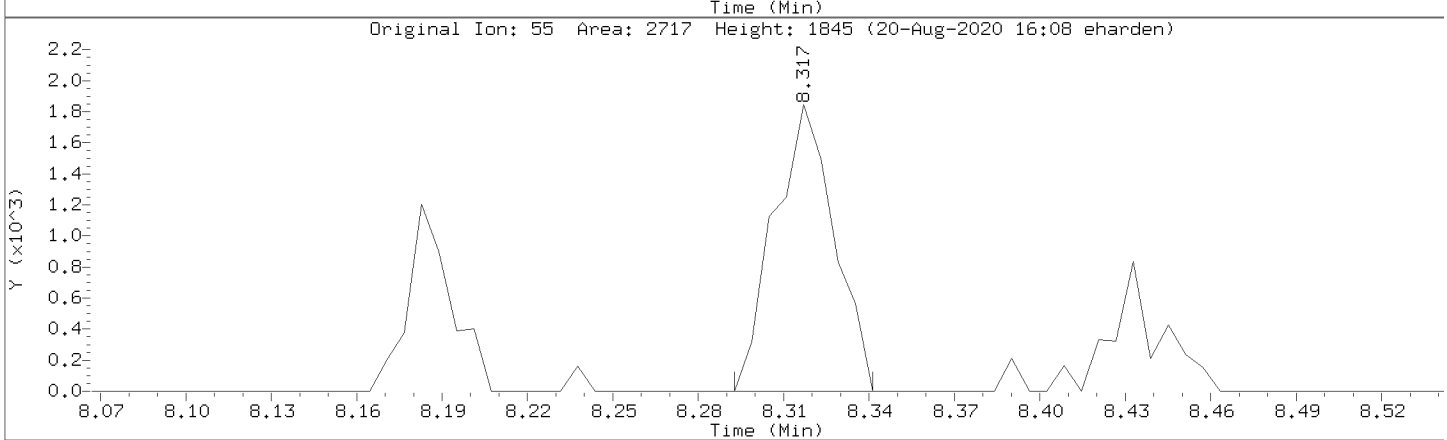


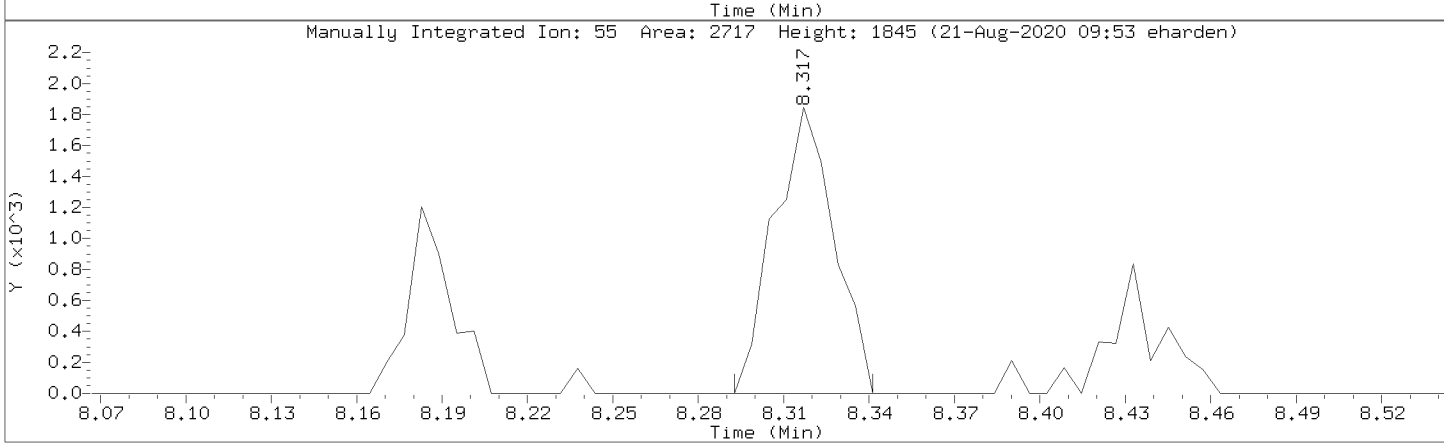
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Methylcyclohexane Review Code: LT
CAS Number: 108-87-2

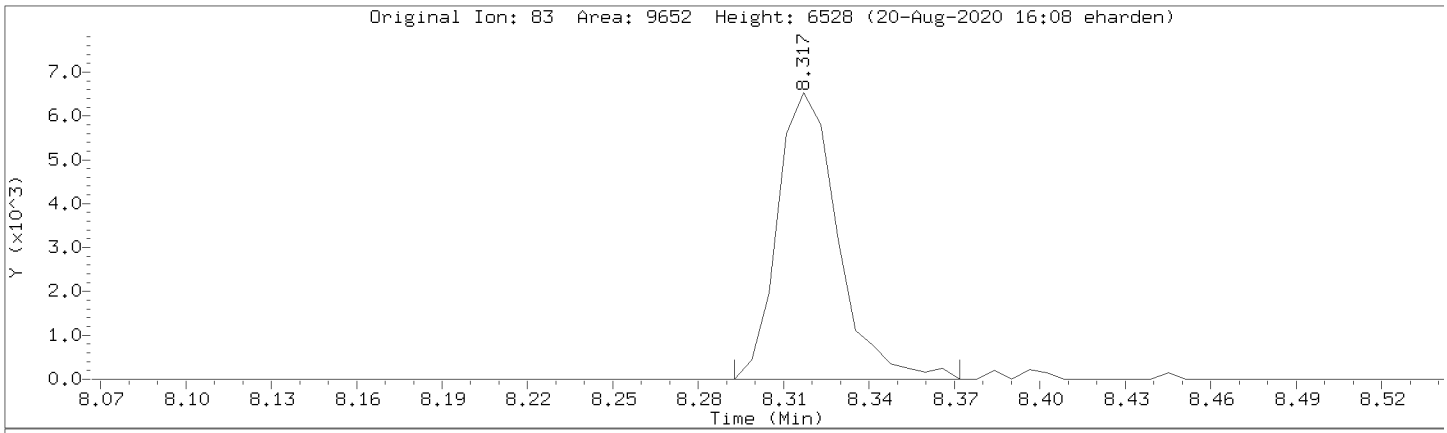


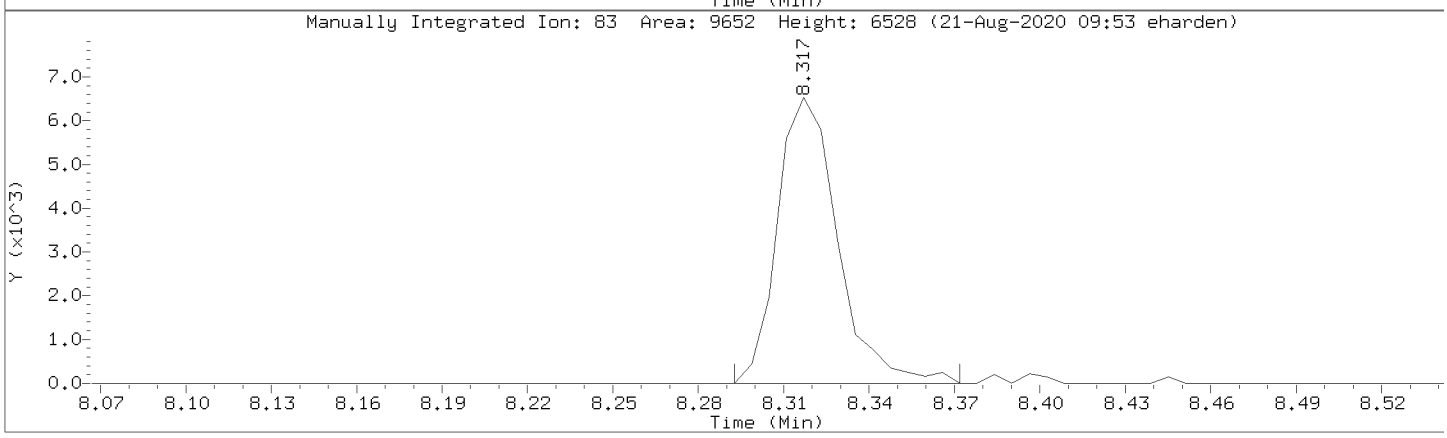






Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2





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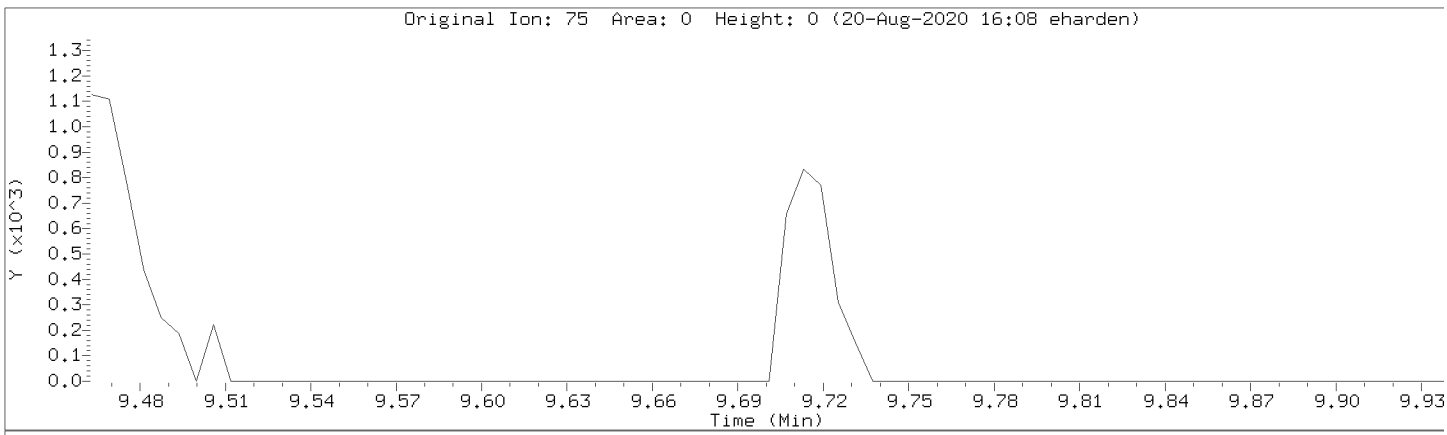
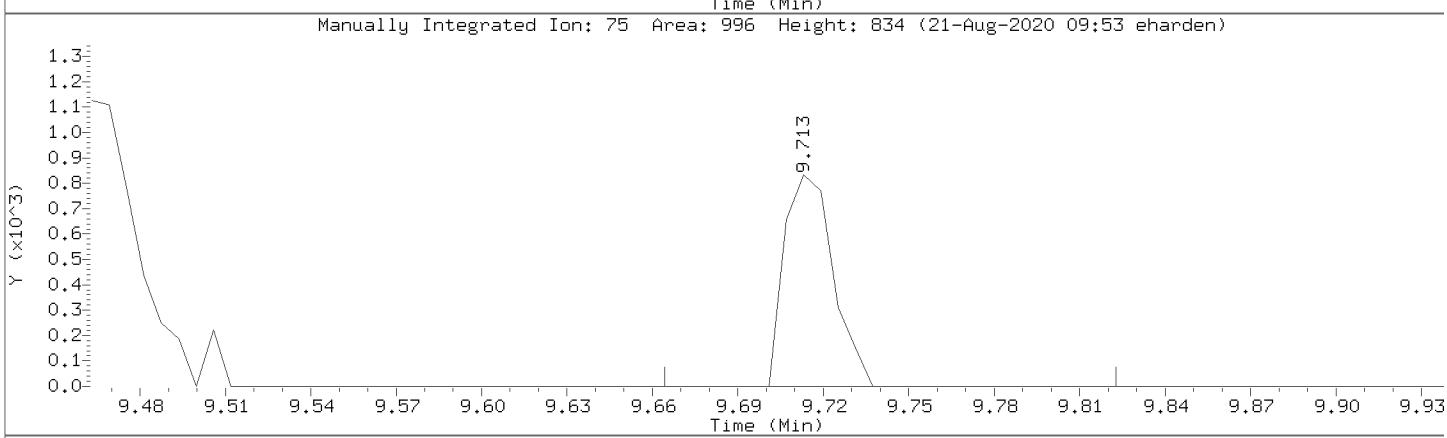
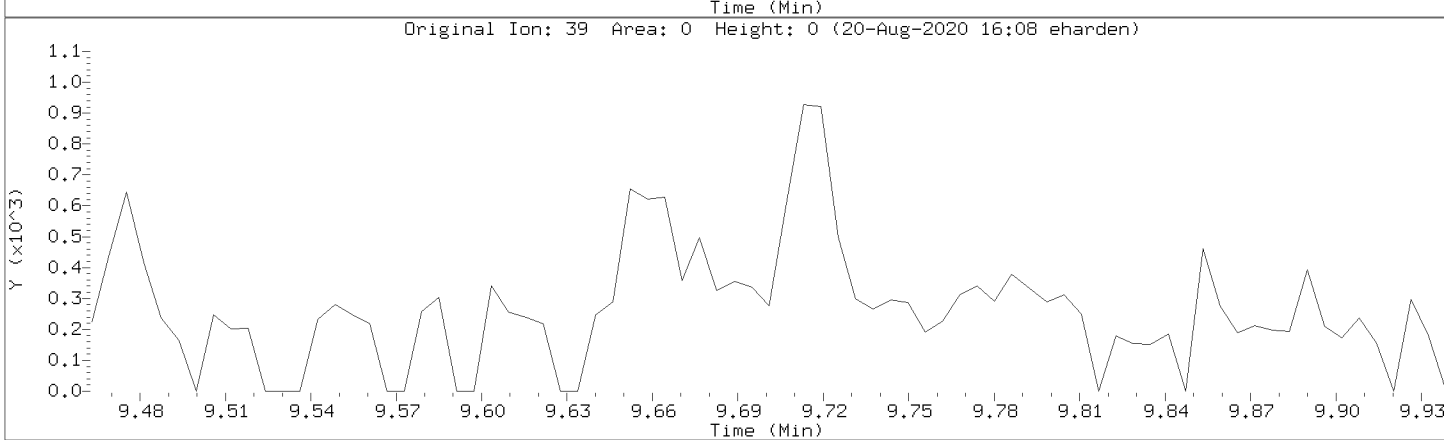
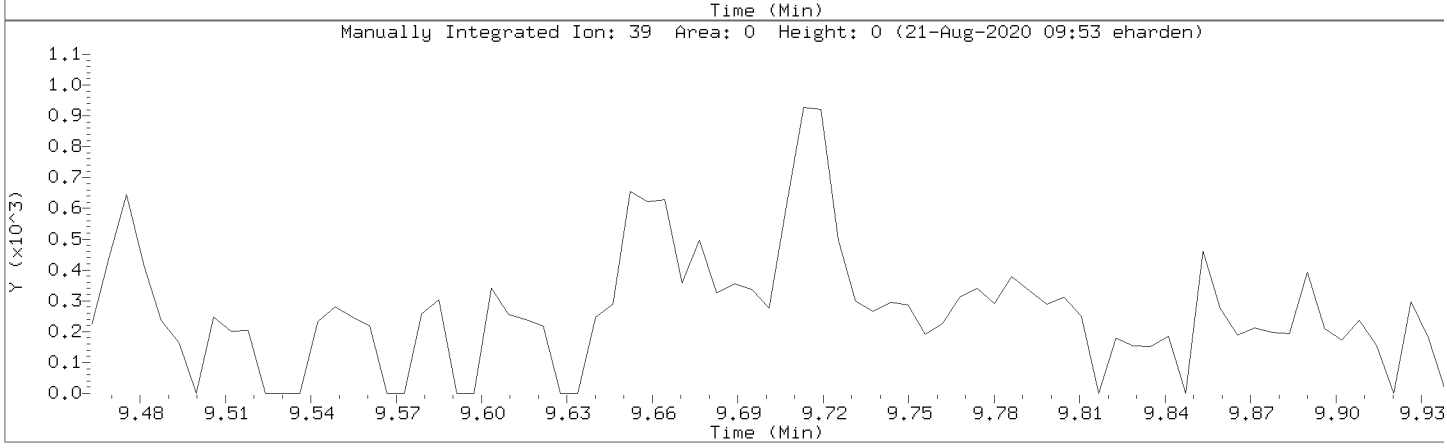
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: trans-1,3-Dichloropropene Review Code: NI
CAS Number: 10061-02-6









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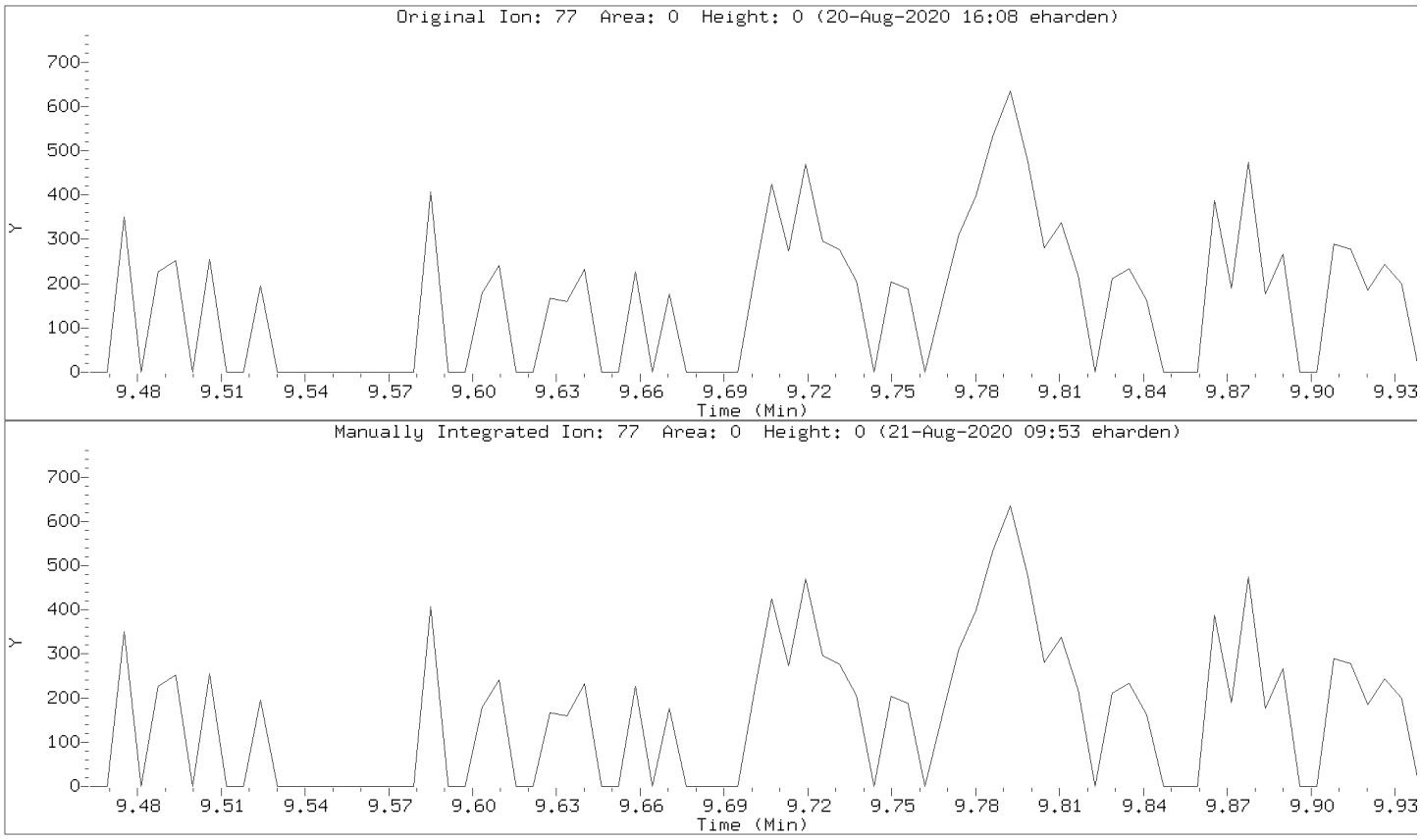
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2



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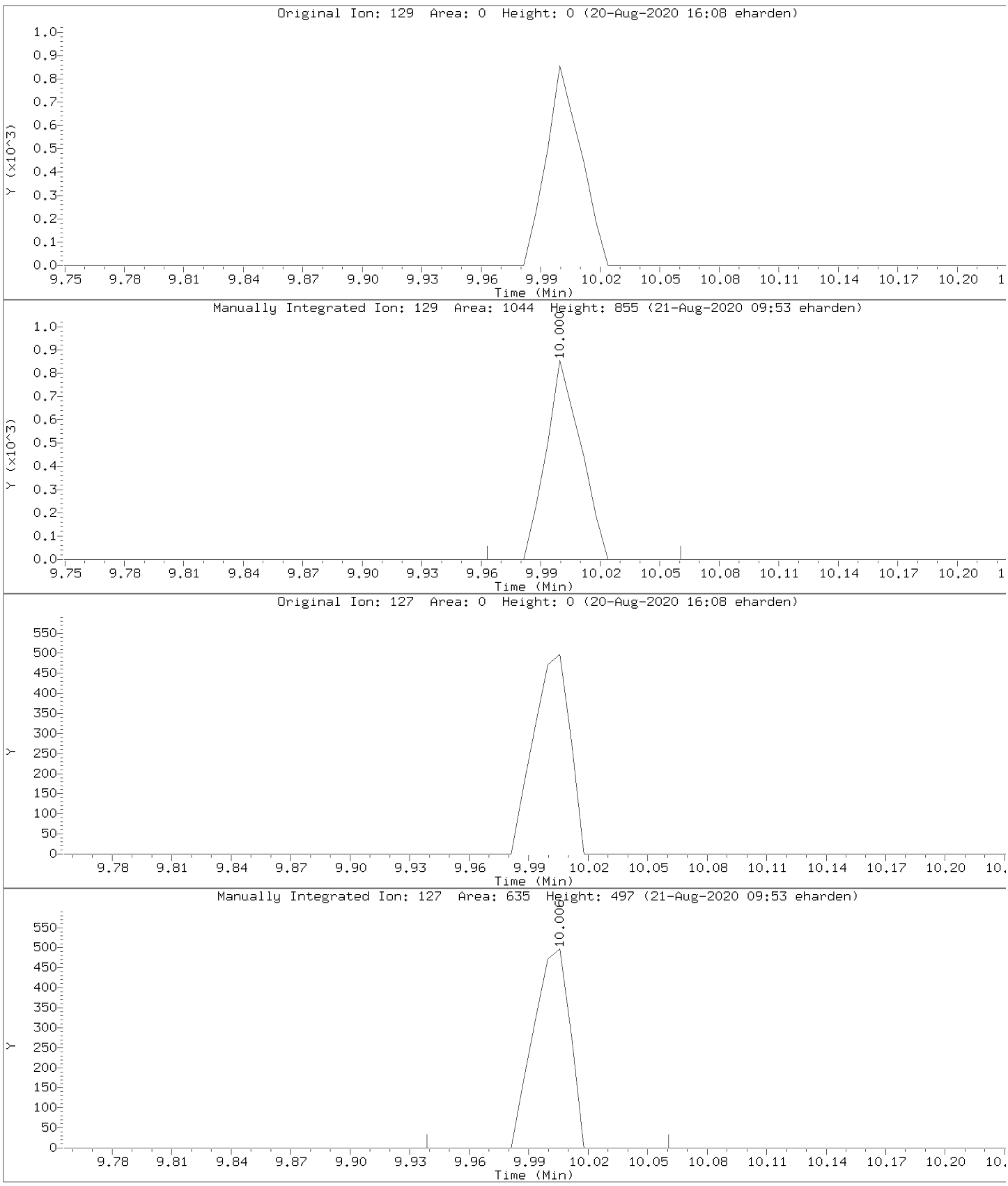
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Dibromochloromethane Review Code: NI
CAS Number: 124-48-1



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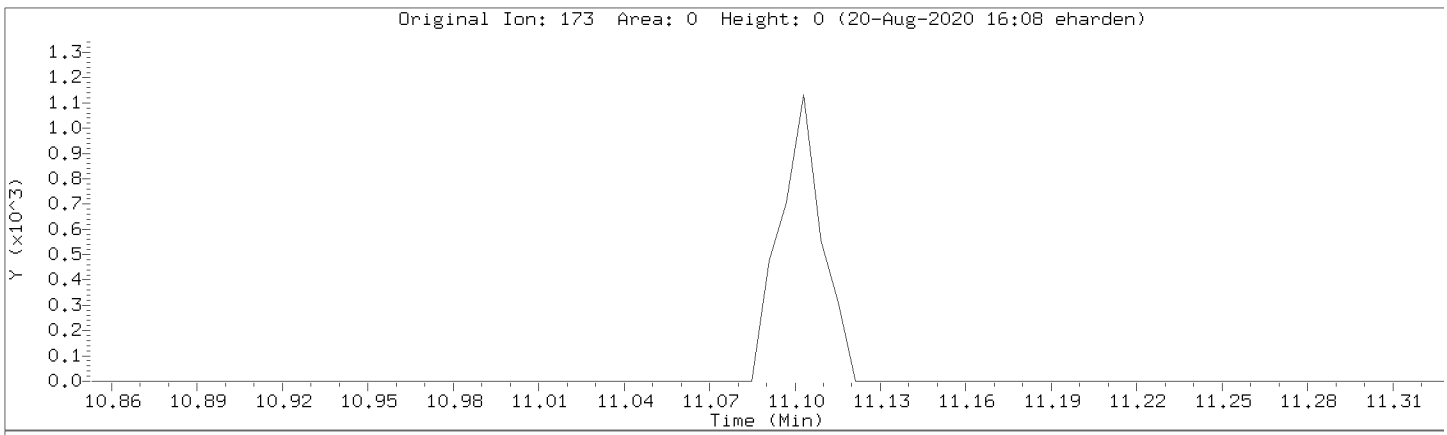
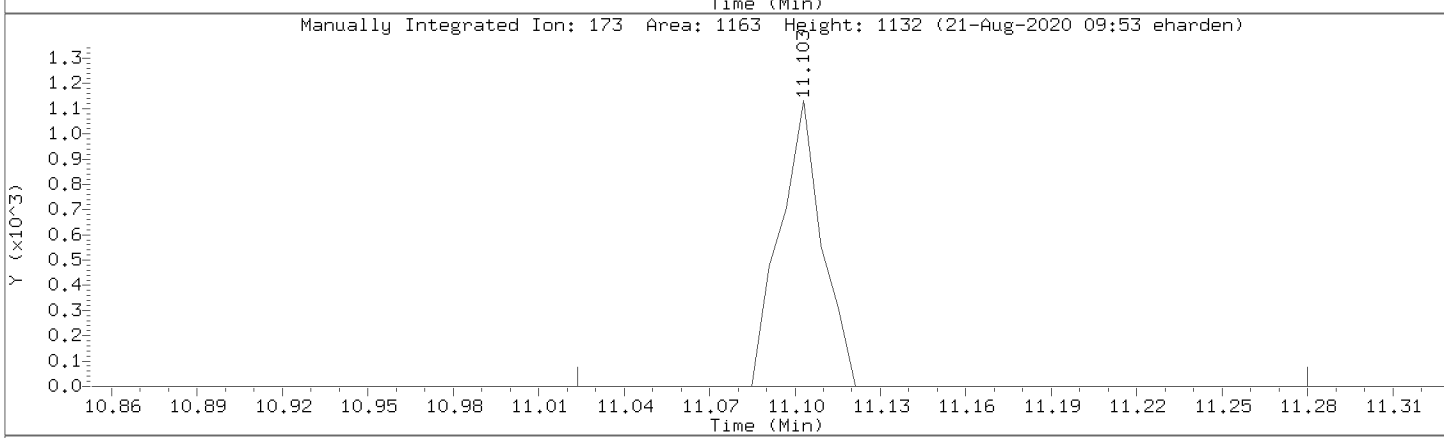
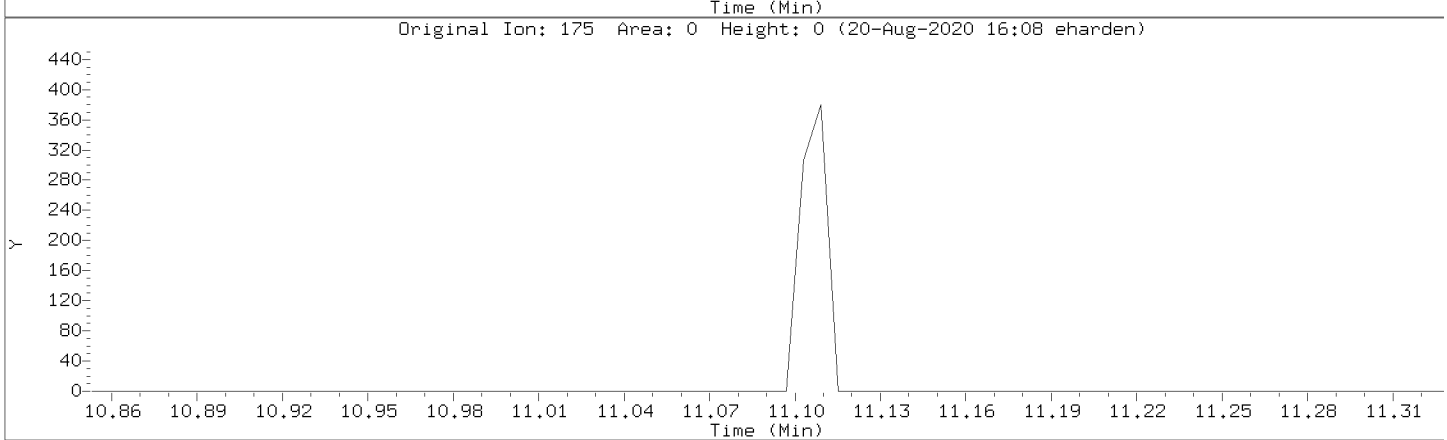
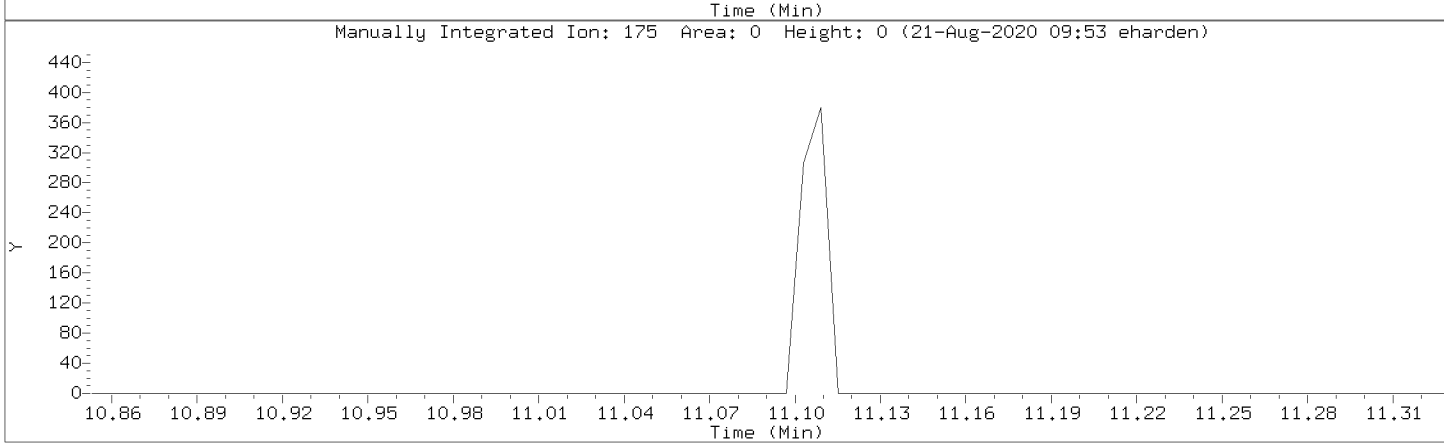
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2









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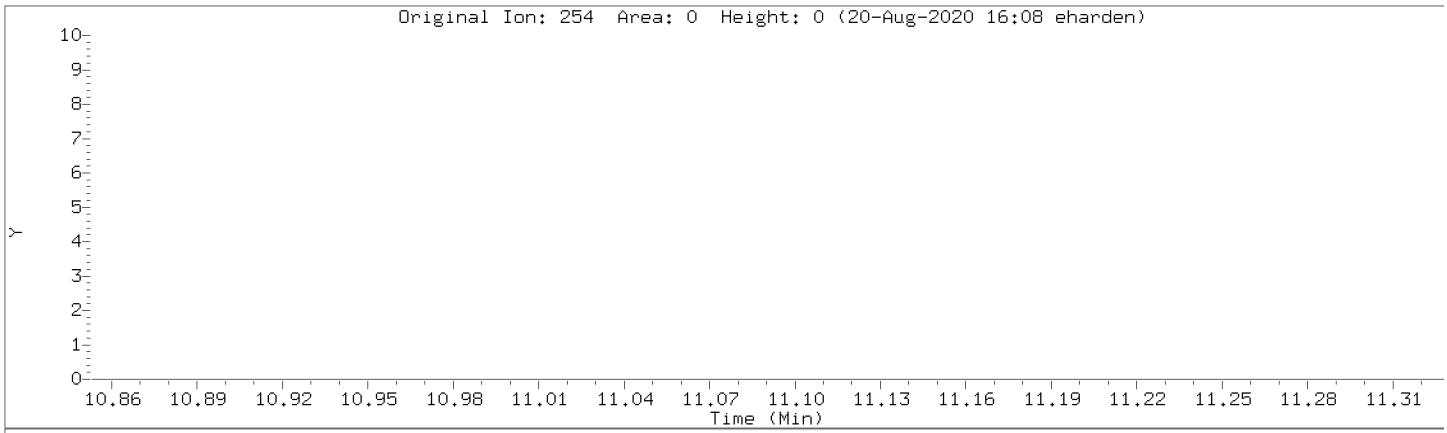
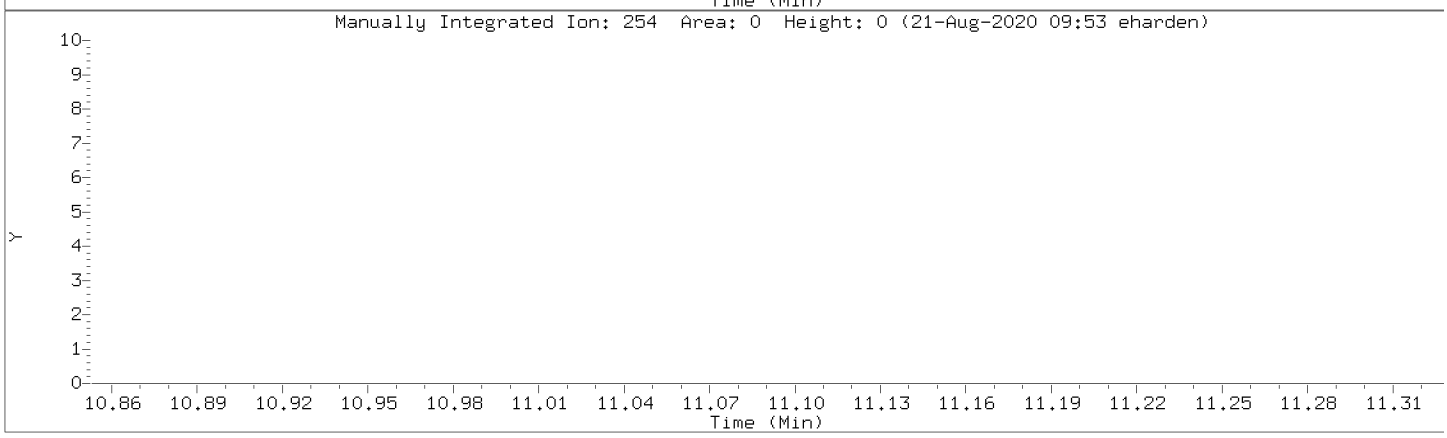
Instrument: 52mv02.i
Lab Sample ID: CAL2





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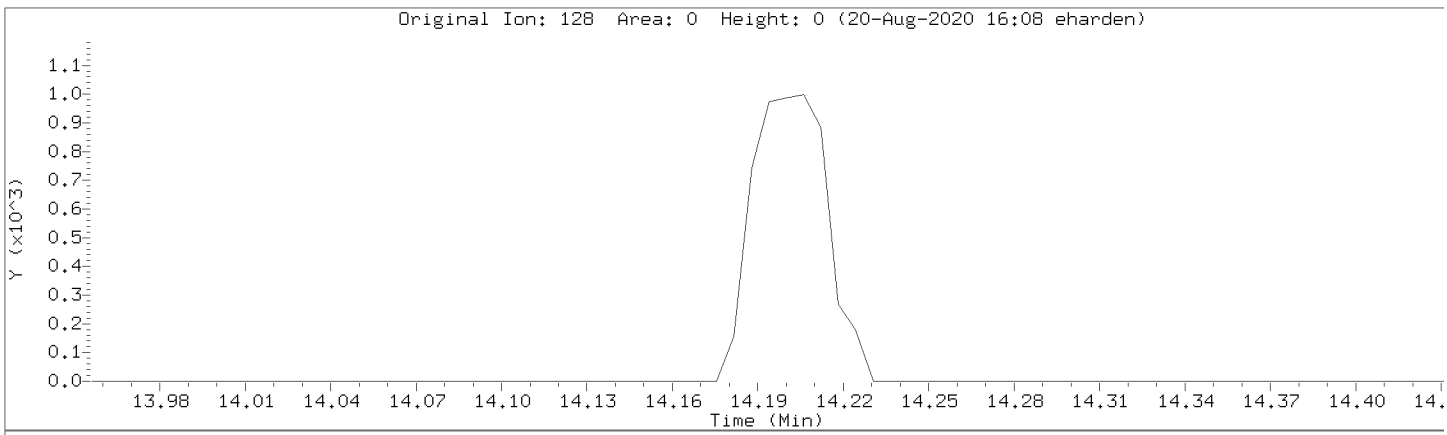
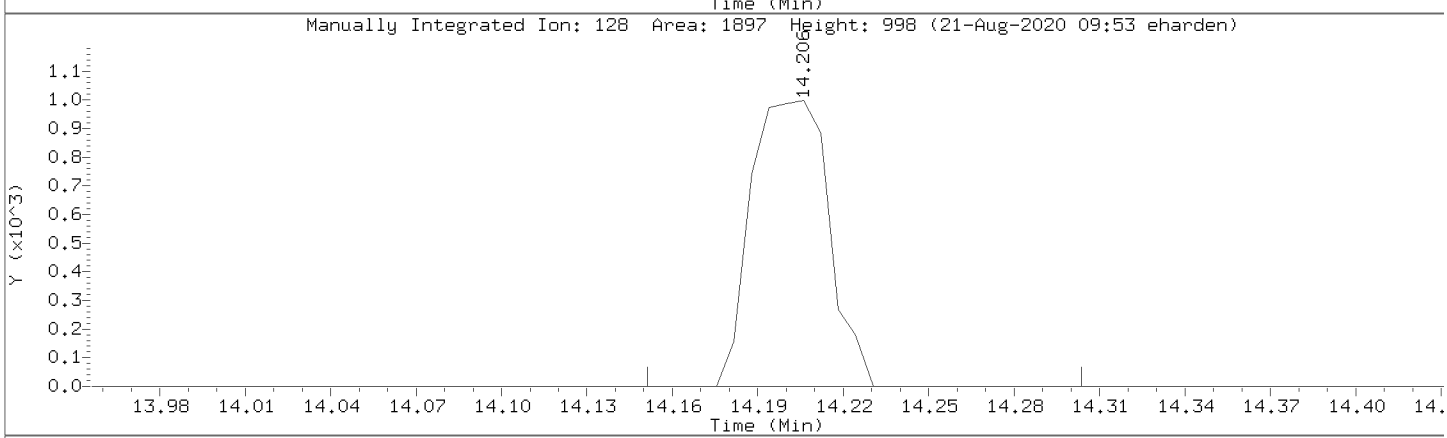
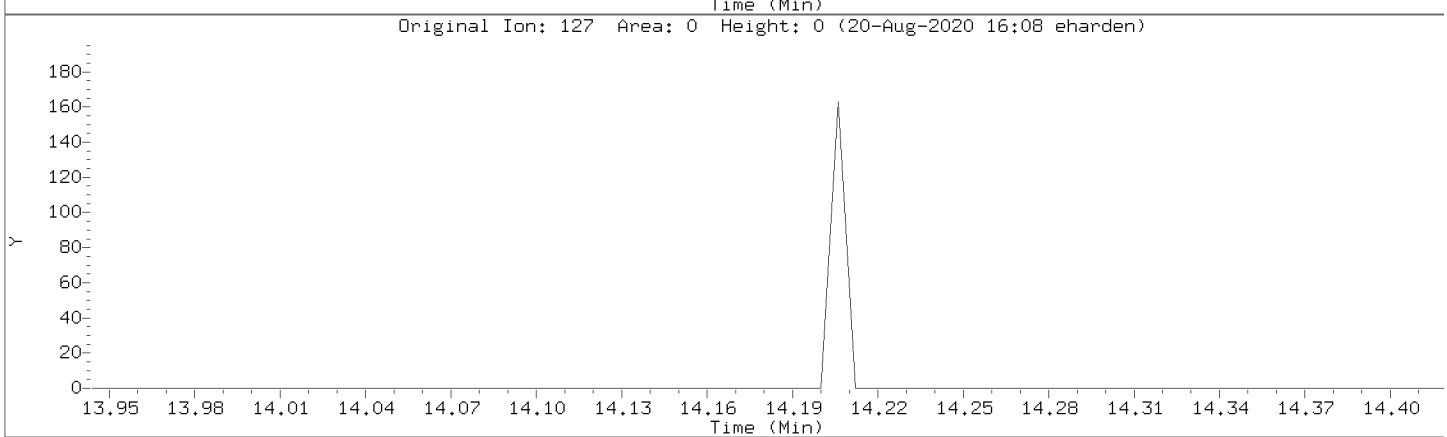
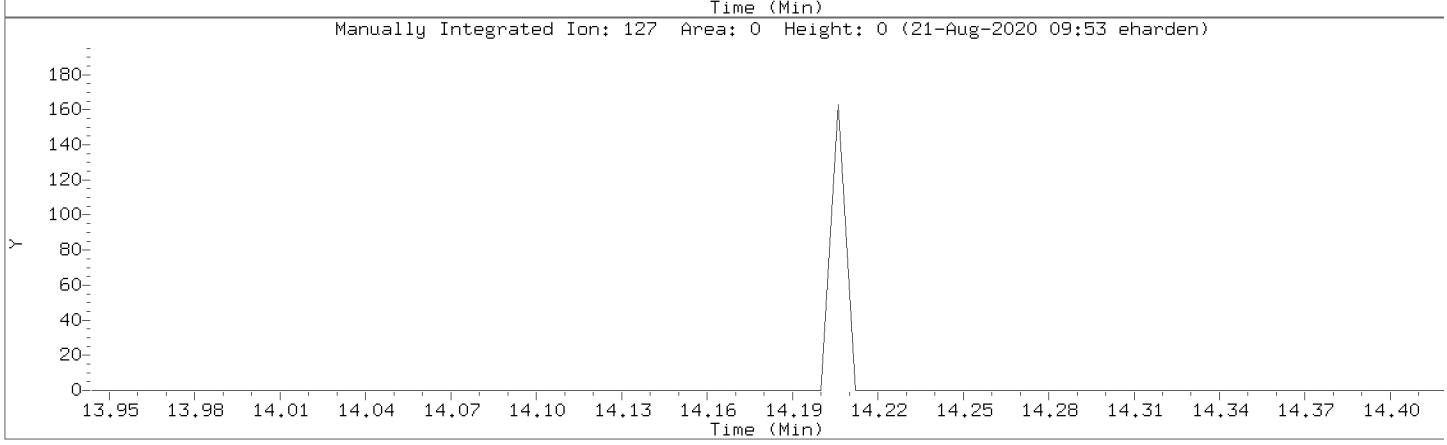
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Naphthalene Review Code: NI
CAS Number: 91-20-3









Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_05.D
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 20-AUG-2020 11:40
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal3,27239:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 11:40 Cal File: 082020_05.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.226	(0.409)	2789	1.00000	1.10(M)	LT
2 Chloromethane	50	3.537	3.543	(0.450)	5128	1.00000	0.923	
3 Vinyl chloride	62	3.696	3.702	(0.470)	2738	1.00000	1.09	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	2410	1.00000	1.08	
5 Bromomethane	94	4.195	4.195	(0.534)	6425	1.00000	0.381	
6 Chloroethane	64	4.360	4.360	(0.555)	891	1.00000	0.409(H)	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	2057	1.00000	1.29	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	810	1.00000	0.924	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	2503	1.00000	0.884	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	1938	1.00000	1.04	
11 Carbon disulfide	76	5.293	5.293	(0.673)	6625	1.00000	1.06	
12 Iodomethane	142	5.433	5.439	(0.691)	1071	1.00000	5.29(M)	NI
13 Acrolein	56	5.671	5.659	(0.722)	662	2.00000	2.27	
14 Allyl chloride	76	5.780	5.787	(0.736)	1021	1.00000	1.17	
15 Methylene Chloride	49	5.908	5.902	(0.752)	4045	1.00000	1.20(M)	NI
16 Acetone	43	5.982	5.976	(0.761)	5308	2.00000	1.50	
17 Methyl acetate	43	6.073	6.067	(0.773)	4622	2.00000	1.59	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	1993	1.00000	1.04	
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	6.158	6.165	(0.784)	4160	1.00000	0.933(T)	
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	6.640	6.640	(0.845)	2223	1.00000	0.834	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	3668	1.00000	0.987	
24 Acrylonitrile	53	6.744	6.738	(0.858)	1850	2.00000	2.29	
25 Vinyl acetate	43	Compound Not Detected.						
26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	2850	1.00000	1.04	
27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	3397	1.00000	1.18	
28 Bromochloromethane	128	7.335	7.335	(0.933)	1299	1.00000	1.08	
29 Cyclohexane	56	7.335	7.335	(0.882)	1942	1.00000	0.757	
30 Chloroform	83	7.378	7.372	(0.939)	4835	1.00000	1.15(M)	NI
31 Ethyl acetate	43	7.439	7.433	(0.946)	4793	2.00000	2.02	
32 Carbon tetrachloride	117	7.506	7.512	(0.902)	2447	1.00000	0.806	
33 Tetrahydrofuran	42	7.536	7.536	(0.959)	2431	2.00000	1.81	
$ 34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	134298	50.0000	55.3	
35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	3365	1.00000	0.978	
36 2-Butanone (MEK)	43	7.634	7.628	(0.971)	4274	2.00000	2.36	
37 1,1-Dichloropropene	75	7.664	7.658	(0.922)	2129	1.00000	0.891(H)	
* 38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	210970	50.0000		
39 Benzene	78	7.872	7.872	(0.946)	6671	1.00000	0.865	
40 Propionitrile	54	Compound Not Detected.						(D)
41 Methacrylonitrile	41	7.902	7.902	(1.005)	3260	2.00000	1.78	
42 Isobutanol	43	Compound Not Detected.						
$ 43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25649	50.0000	58.7	
44 1,2-Dichloroethane	62	8.042	8.036	(1.023)	3985	1.00000	1.21	
45 Isopropyl acetate	43	8.140	8.134	(1.036)	3749	1.00000	0.954	
46 Trichloroethene	130	8.317	8.317	(1.000)	2071	1.00000	0.982	
* 47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	301510	50.0000		
48 Methylcyclohexane	98	8.323	8.317	(1.001)	802	1.00000	0.802	
49 n-Butanol	56	Compound Not Detected.						(D)
50 Dibromomethane	93	8.670	8.670	(1.043)	1683	1.00000	0.937	
51 1,2-Dichloropropane	63	8.743	8.737	(1.051)	2197	1.00000	0.998	
52 Bromodichloromethane	83	8.768	8.768	(1.054)	2455	1.00000	0.776	
53 Methyl methacrylate	69	8.829	8.823	(1.062)	871	1.00000	1.43(TH)	
54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	1689	2.00000	3.22	
56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	2472	1.00000	0.804	
$ 57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	322180	50.0000	49.6	
58 Toluene	91	9.414	9.414	(1.132)	7222	1.00000	0.960	
59 2-Nitropropane	43	9.609	9.603	(1.155)	1386	1.00000	1.35(MH)	LT
60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	2471	1.00000	0.805(M)	NI
62 Tetrachloroethene	164	9.719	9.719	(0.920)	1805	1.00000	0.983	
63 Ethyl methacrylate	69	9.761	9.761	(1.174)	1570	1.00000	0.810(M)	WP
64 1,1,2-Trichloroethane	83	9.841	9.847	(1.183)	1831	1.00000	0.961	
65 Dibromochloromethane	129	9.999	9.999	(0.947)	2212	1.00000	0.869	
66 1,3-Dichloropropane	76	10.066	10.060	(1.210)	2595	1.00000	0.893	
67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	2135	1.00000	0.978	
68 2-Hexanone	43	10.280	10.280	(1.236)	3979	2.00000	1.56	
69 Ethylbenzene	91	10.560	10.554	(1.000)	5759	1.00000	0.823	
* 70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	267604	50.0000		
71 Chlorobenzene	112	10.572	10.578	(1.001)	4923	1.00000	0.954	
72 1,1,1,2-Tetrachloroethane	131	10.603	10.609	(1.004)	2420	1.00000	1.11	
73 m&p-Xylene	91	10.651	10.651	(1.009)	7396	2.00000	1.41	
74 o-Xylene	106	10.987	10.993	(1.040)	1785	1.00000	0.729	
75 Styrene	104	11.036	11.029	(1.045)	2626	1.00000	0.641	
76 Bromoform	173	11.103	11.103	(1.051)	2312	1.00000	0.956(M)	NI

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.231	11.225	(1.063)	2647	1.00000	0.712	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	104502	50.0000	47.6	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	1137	1.00000	1.29	
80 n-Propylbenzene	91	11.529	11.523	(1.092)	6737	1.00000	0.785	
81 Bromobenzene	156	11.584	11.578	(1.097)	2261	1.00000	0.825	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	2955	1.00000	1.03(H)	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	3733	1.00000	0.775	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	1264	1.00000	0.680	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	1146	1.00000	0.628	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	3865	1.00000	0.624	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	2680	1.00000	0.912	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	456	1.00000	0.662(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	3605	1.00000	0.760	
91 1,2,4-Trimethylbenzene	105	11.974	11.968	(0.970)	3078	1.00000	0.634	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	3627	1.00000	0.628	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	3605	1.00000	0.760	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	3270	1.00000	0.850	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	145817	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	4290	1.00000	1.00	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	4060	1.00000	0.799	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	4197	1.00000	1.00	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	659	1.00000	1.38	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	1405	1.00000	1.08	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	2610	1.00000	0.944	
102 Naphthalene	128	14.200	14.193	(1.151)	3463	1.00000	0.729	
103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	2401	1.00000	0.899	

QC Flag Legend

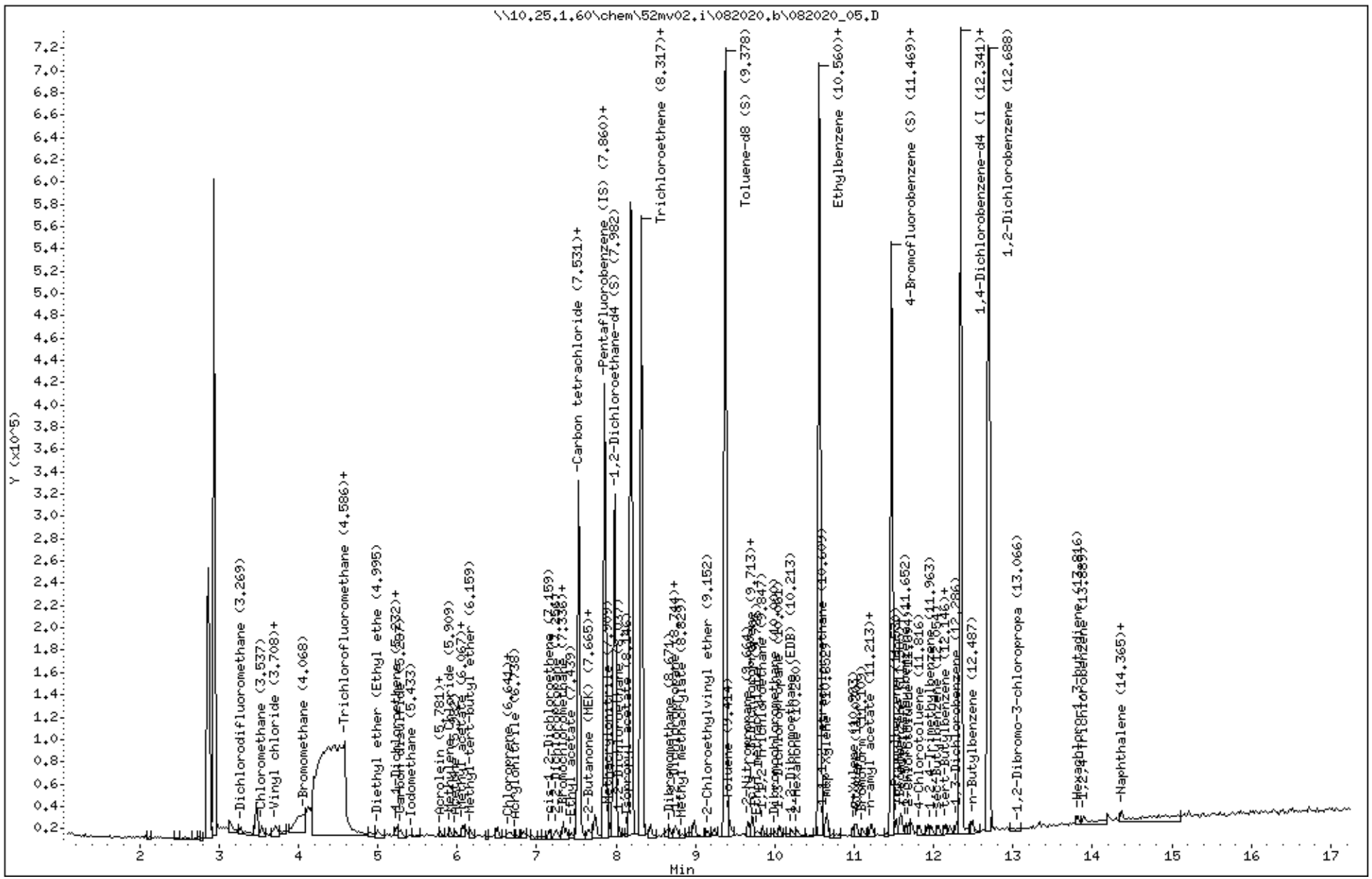
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

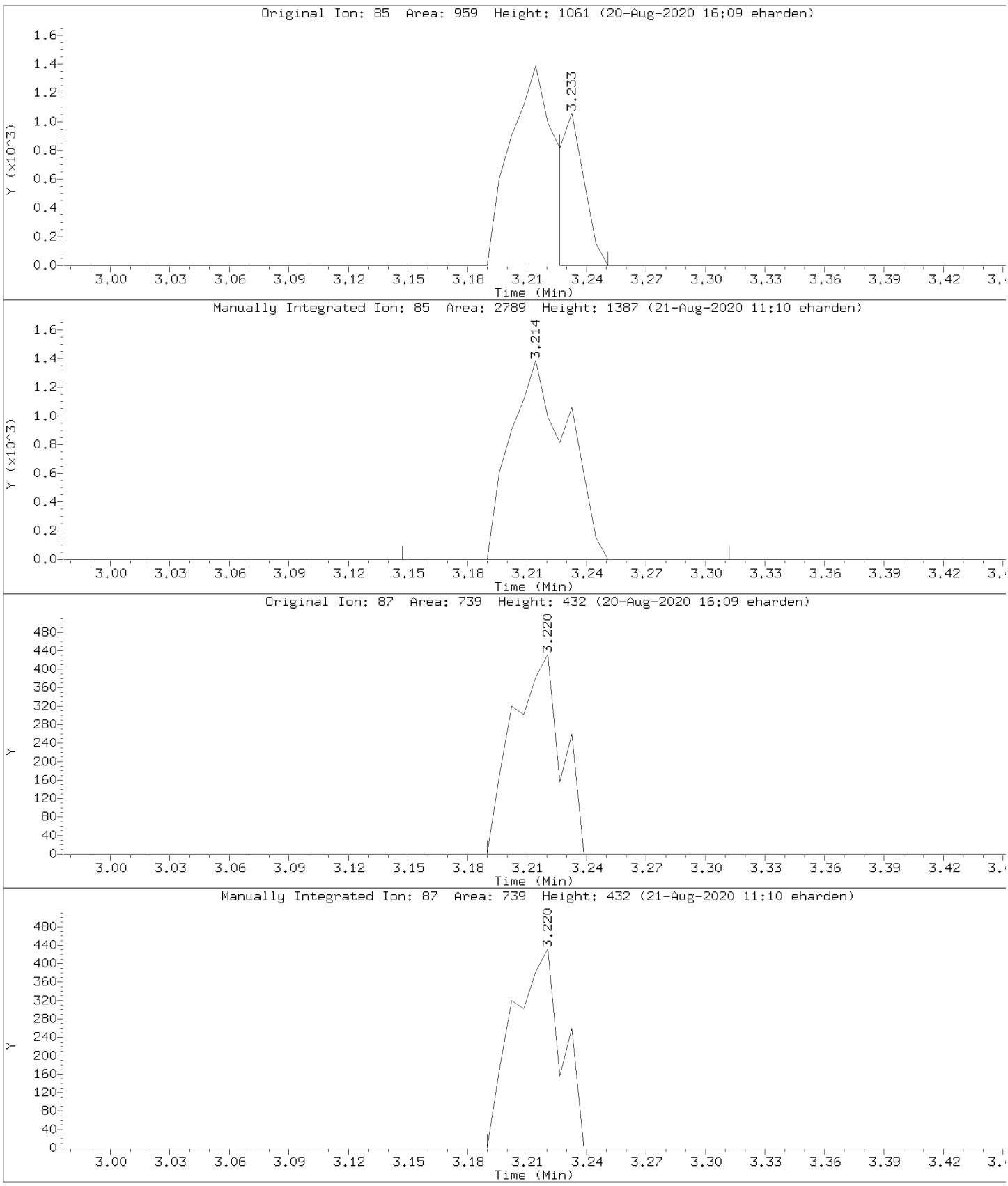
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_05.D
Date : 20-AUG-2020 11:40
Client ID: CAL3
Sample Info: CAL3,27239:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_05.D
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



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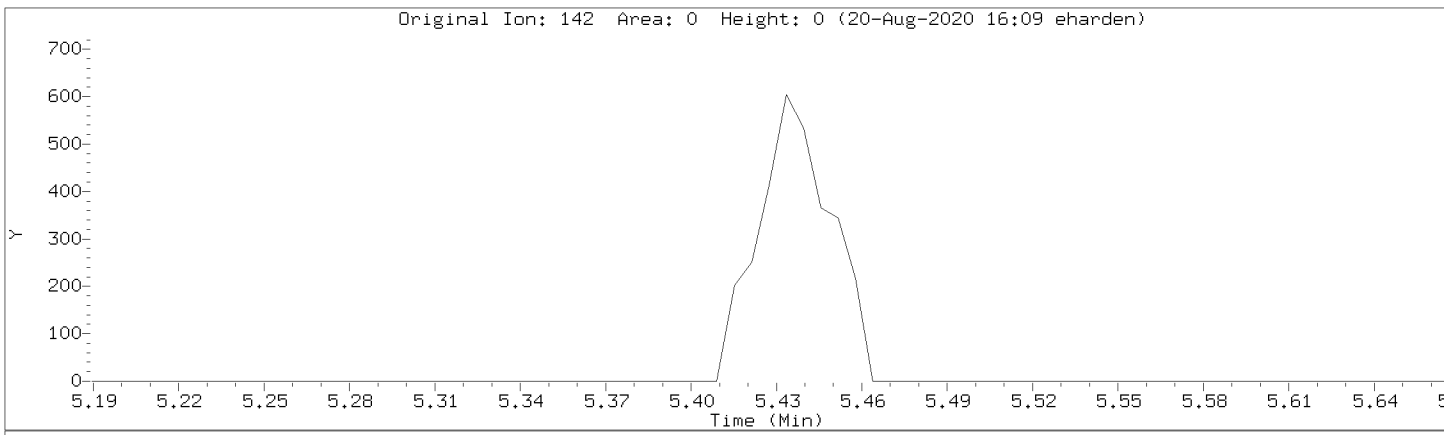
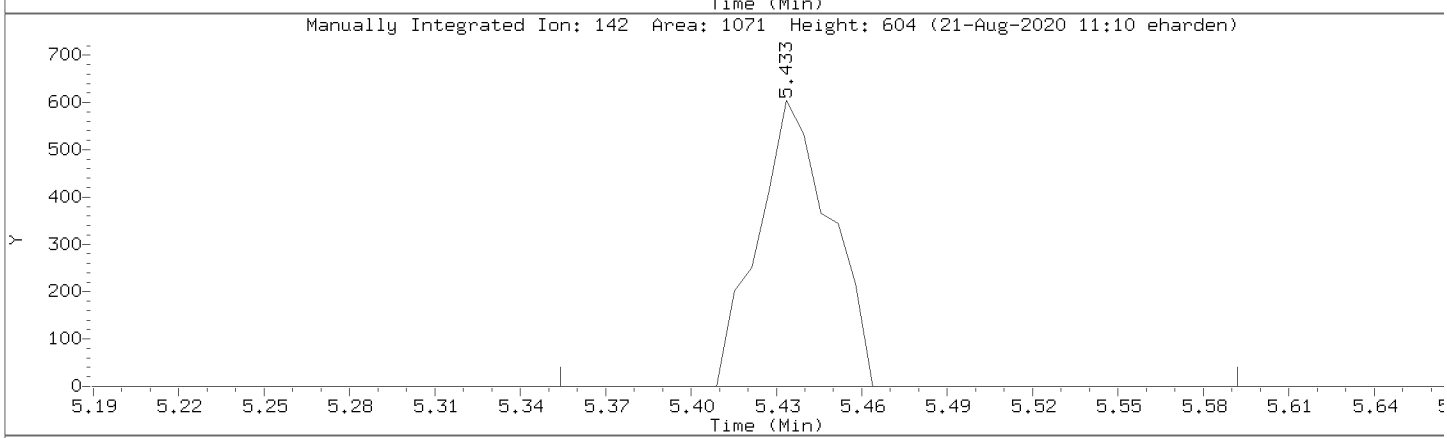
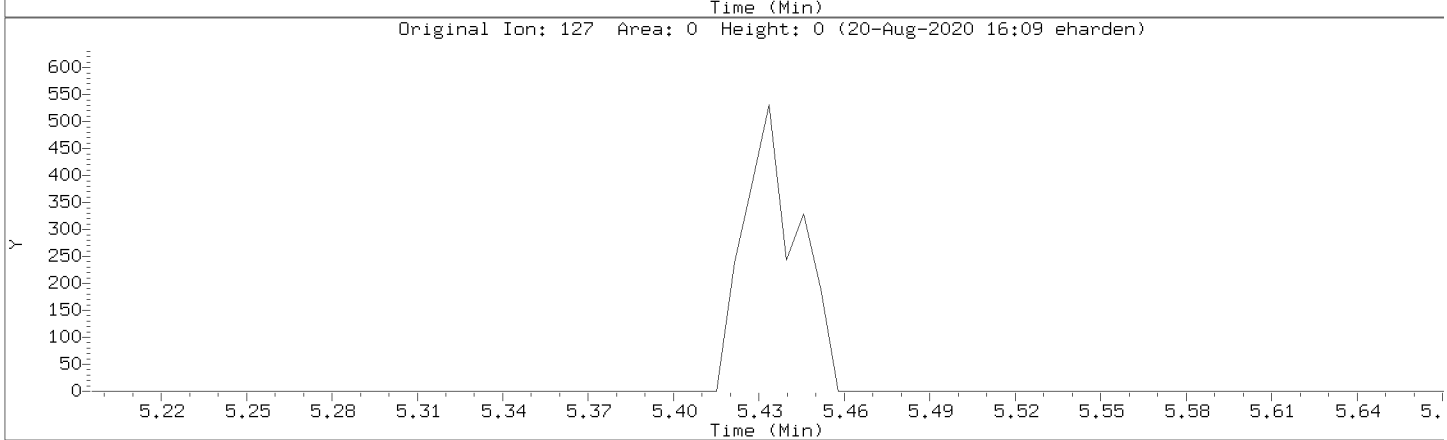
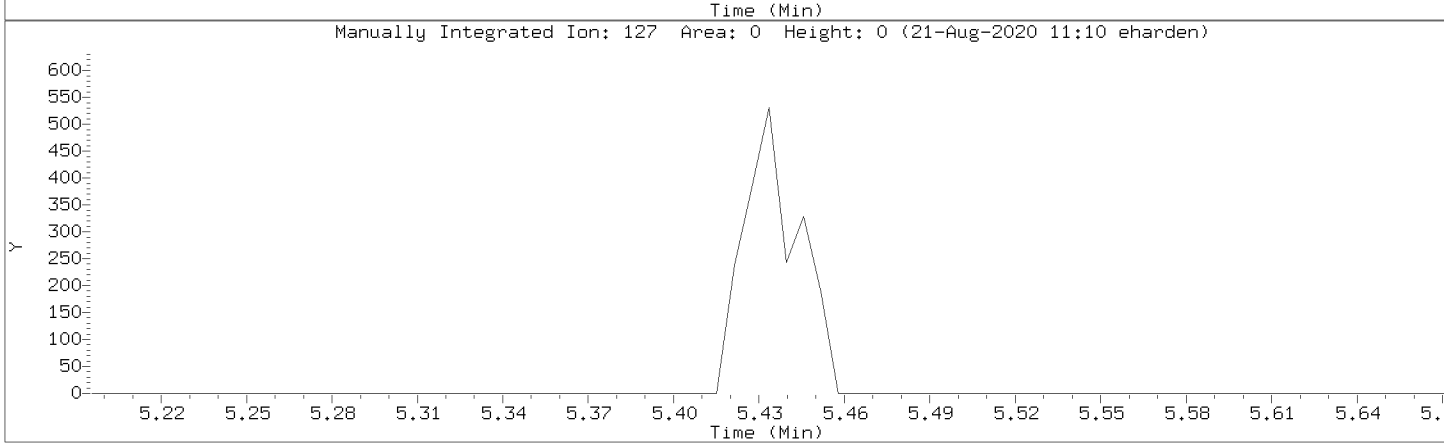
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4









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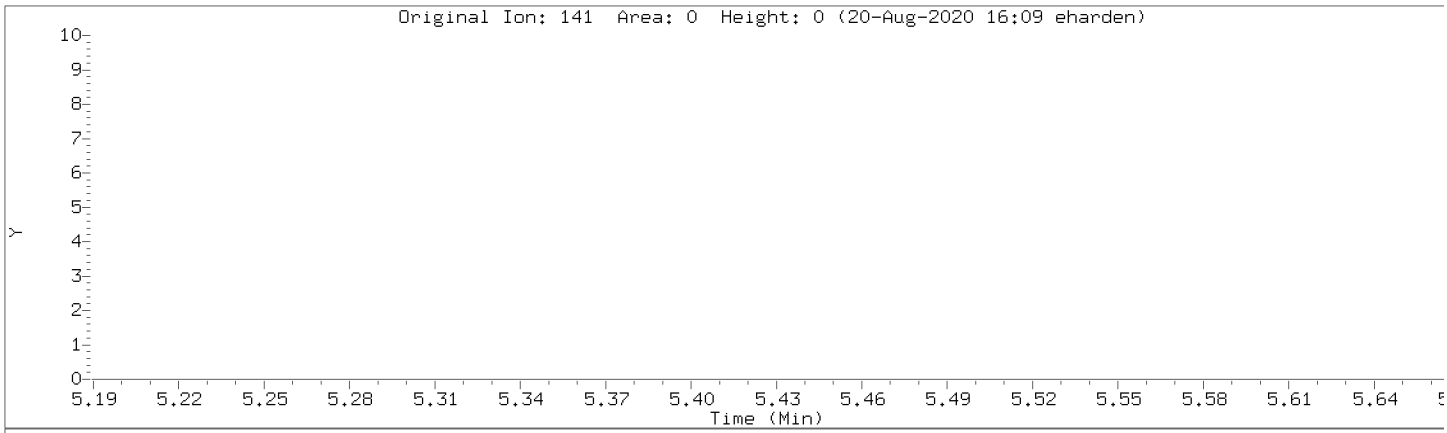
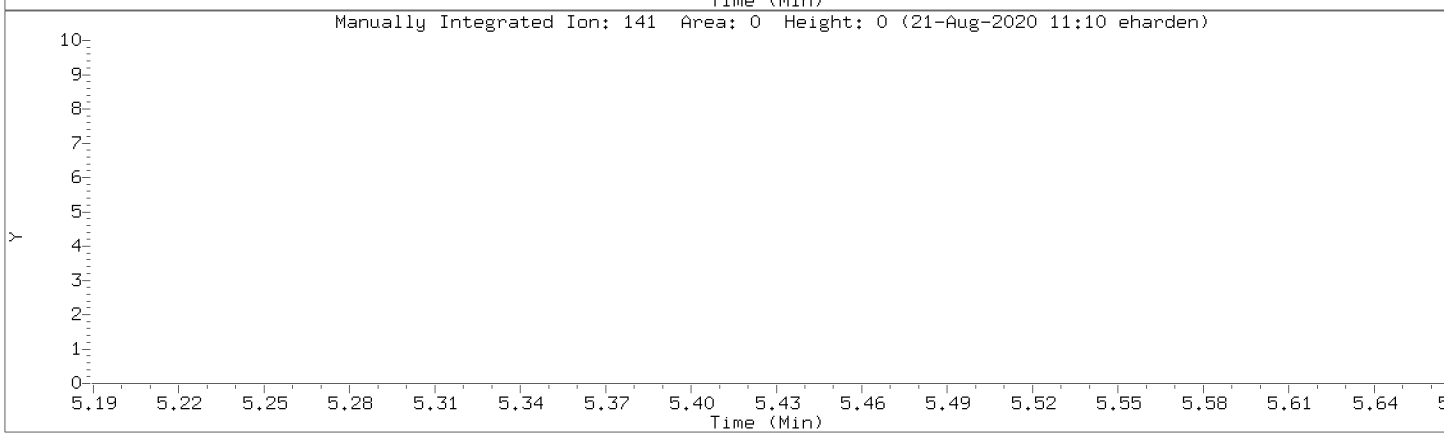
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3





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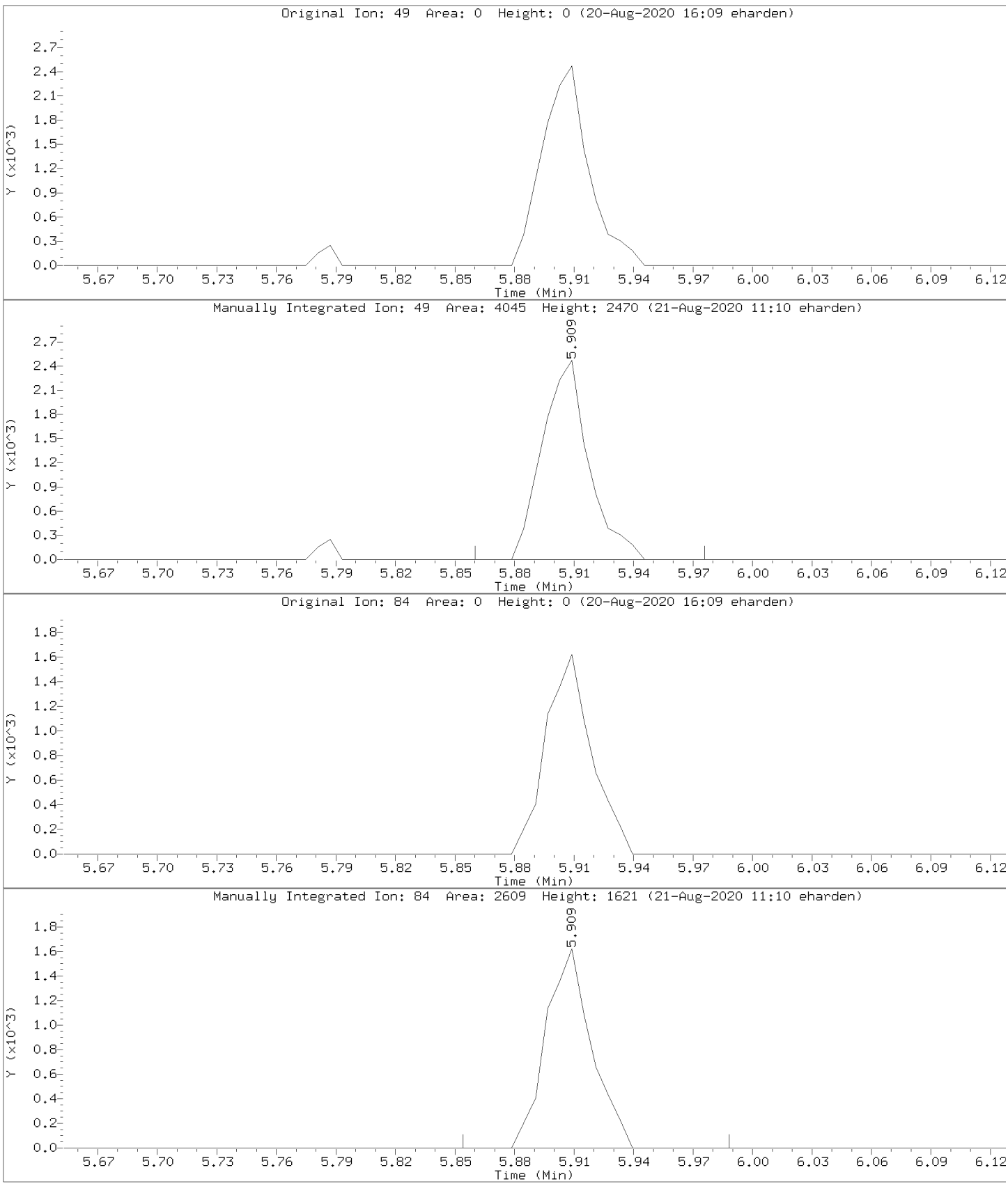
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2



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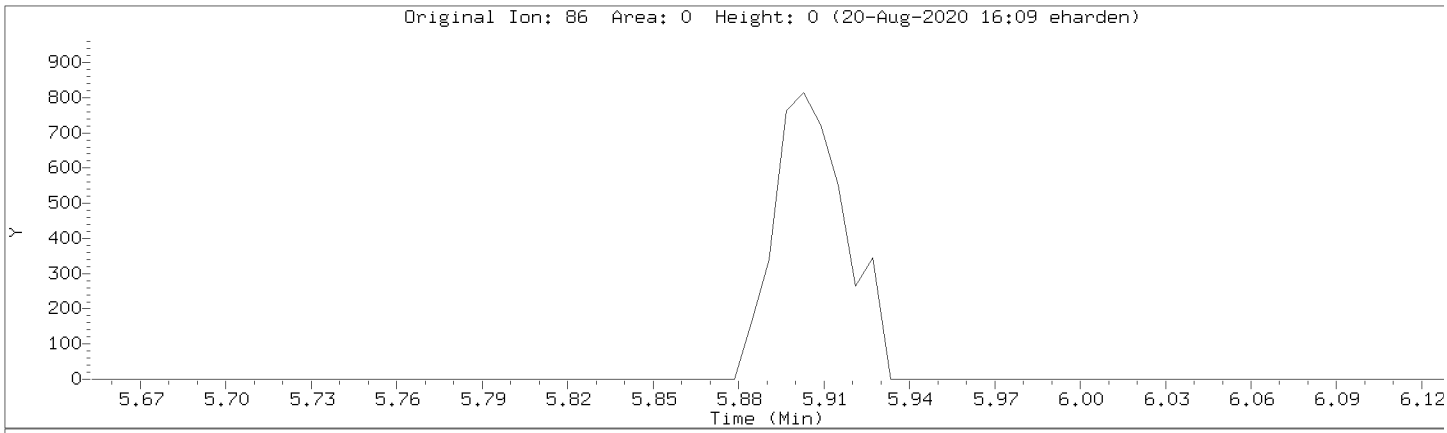
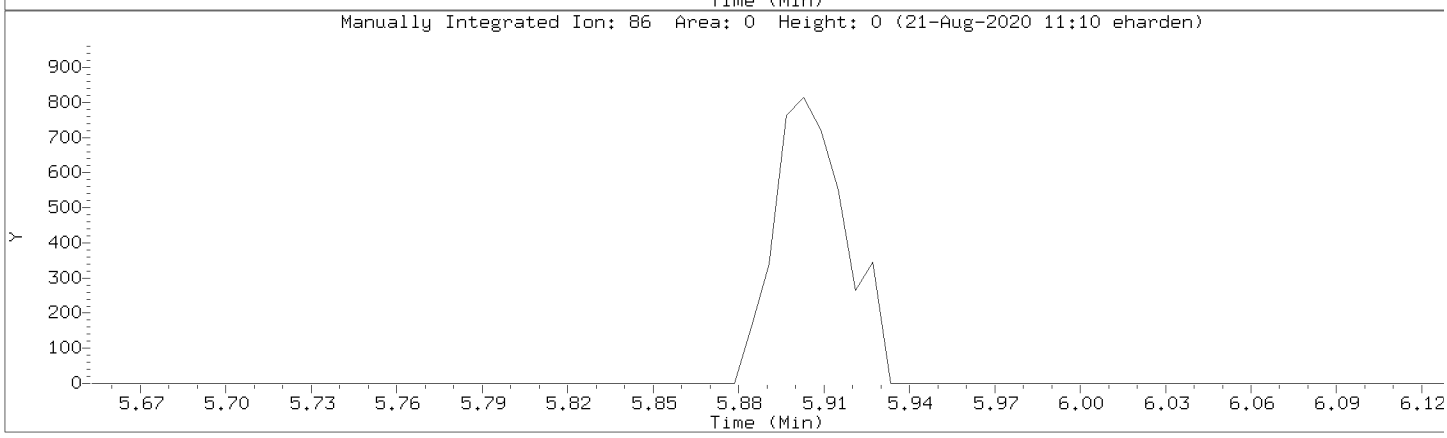
Lab Sample ID: CAL3





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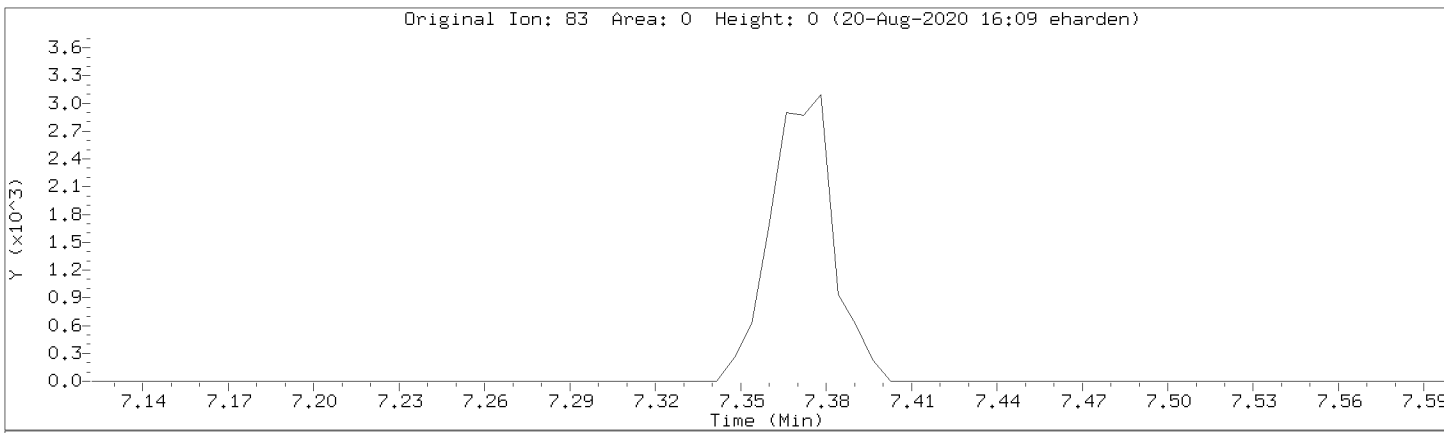
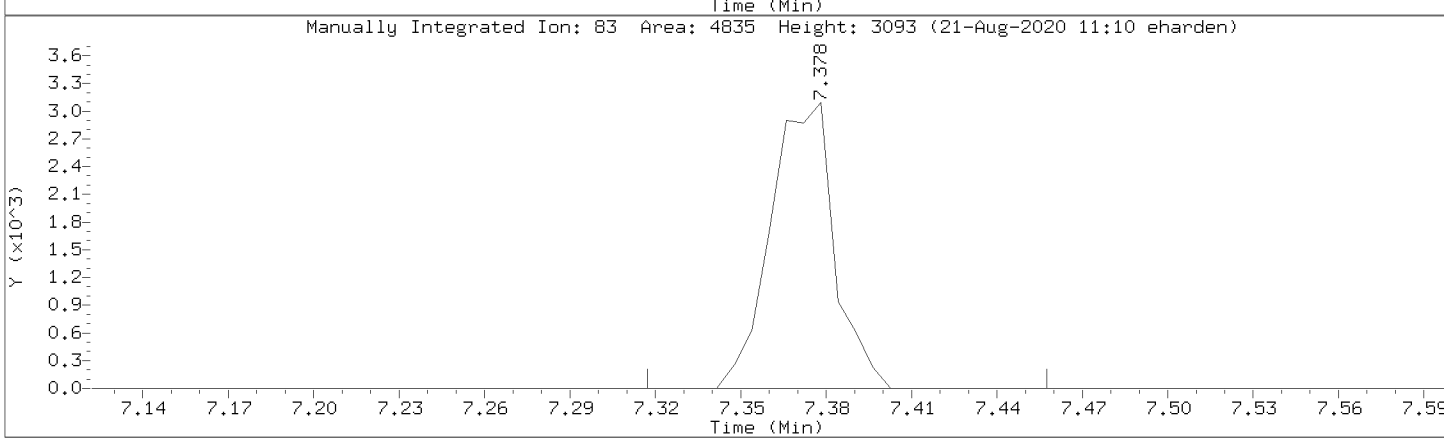
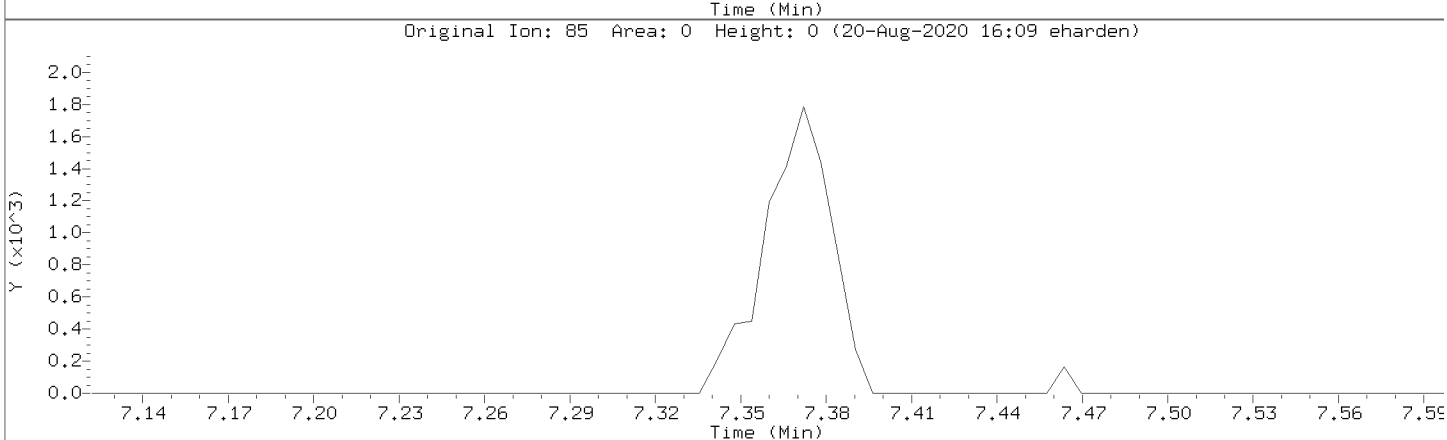
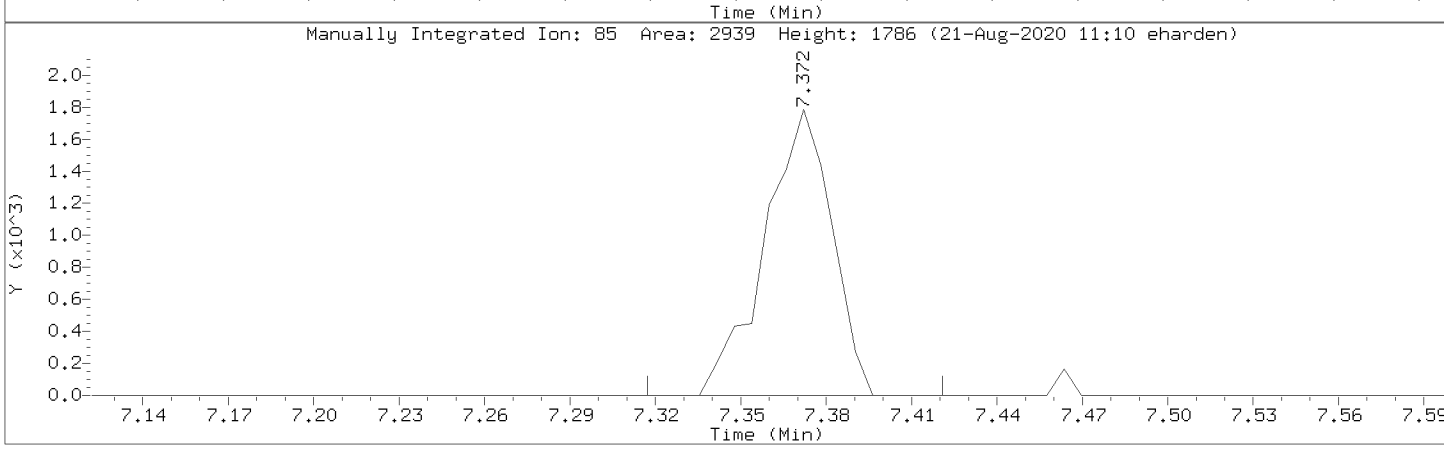
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3









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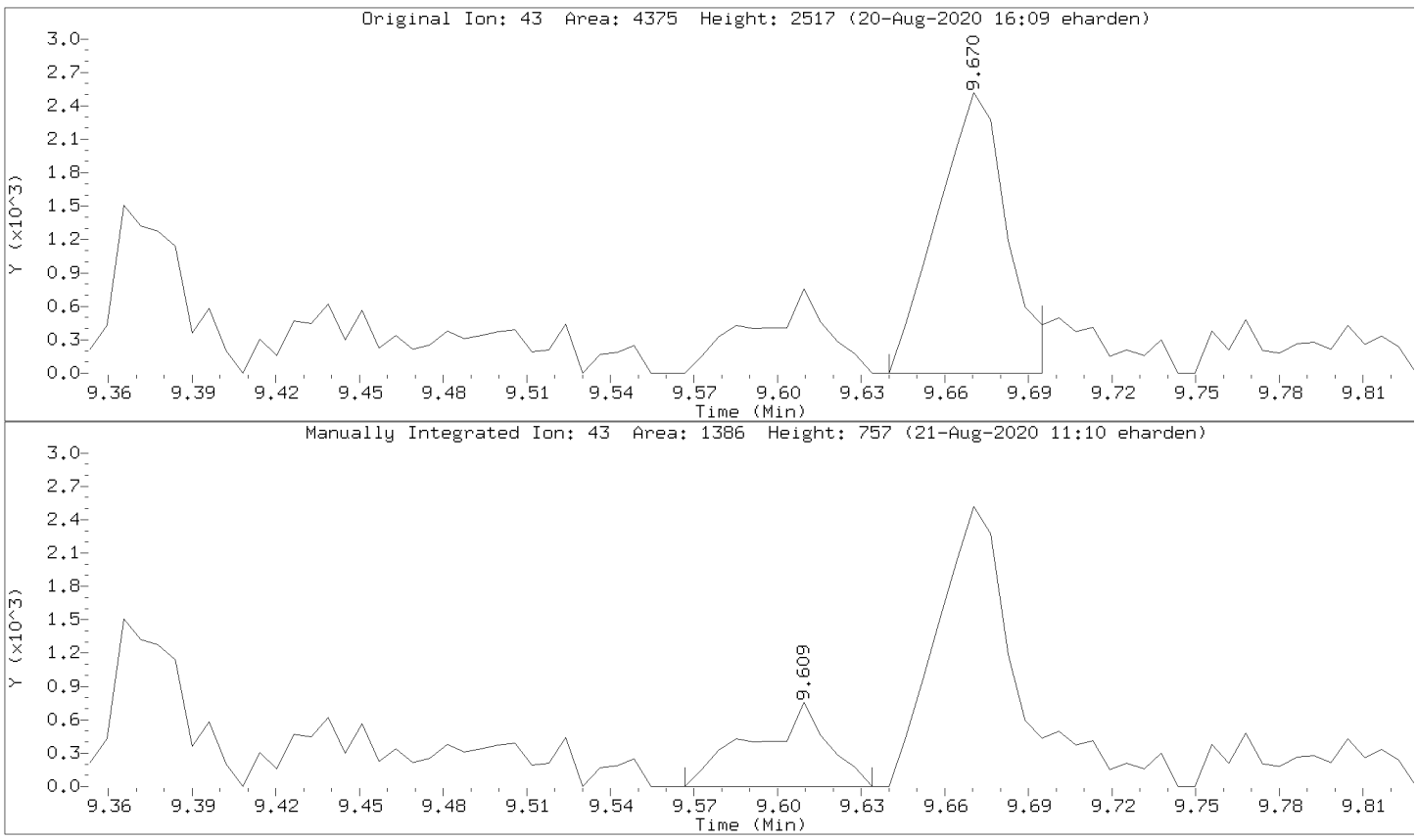
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: 2-Nitropropane Review Code: LT
CAS Number: 79-46-9



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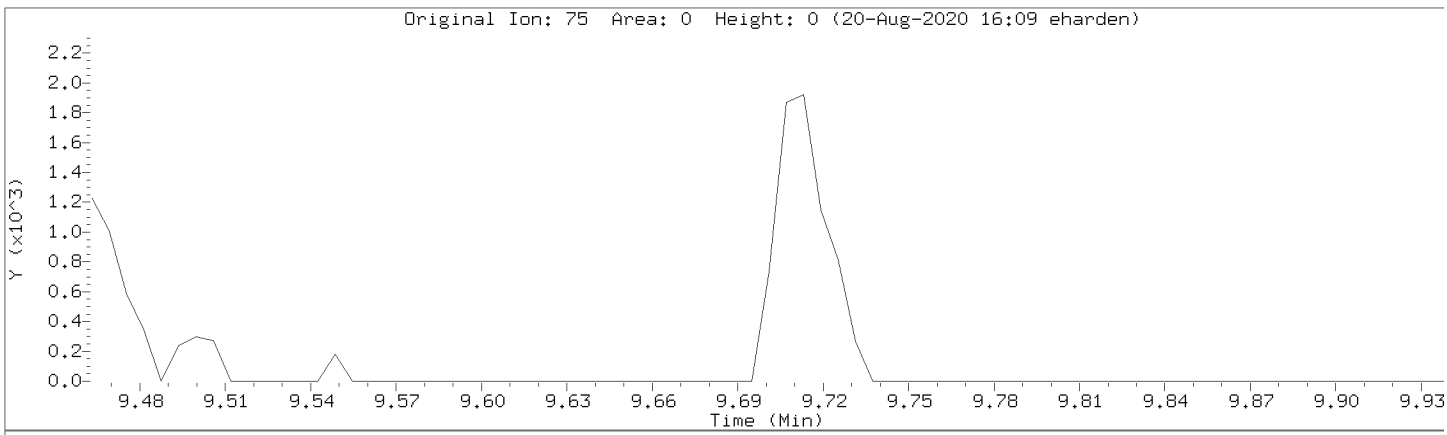
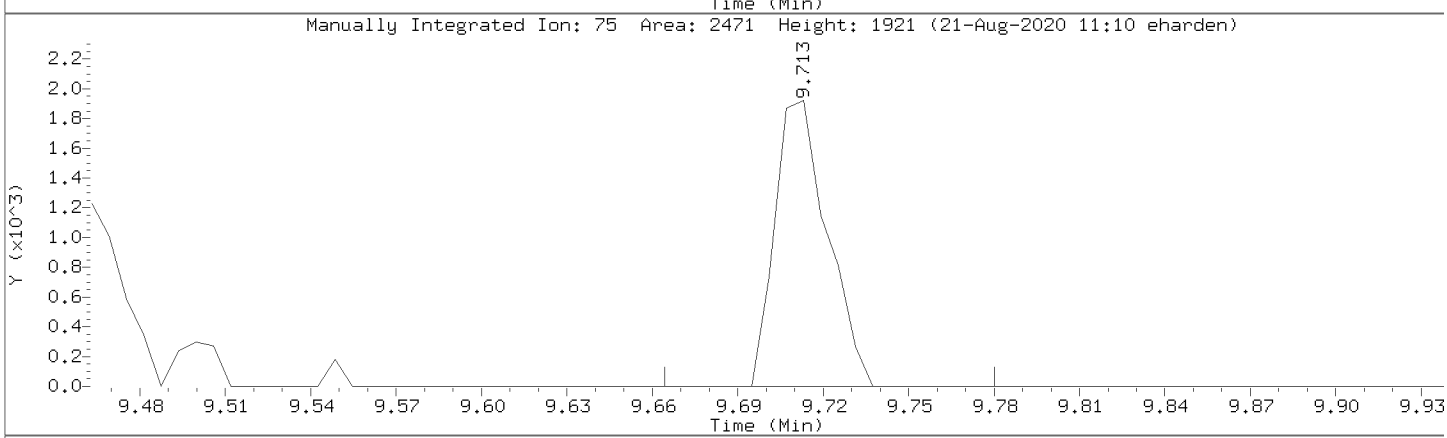
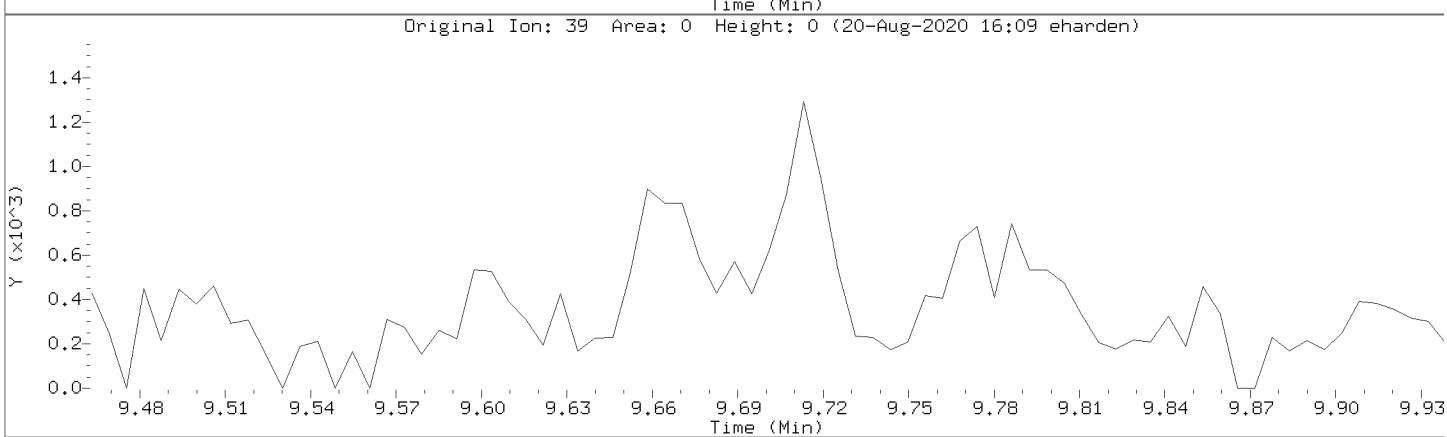
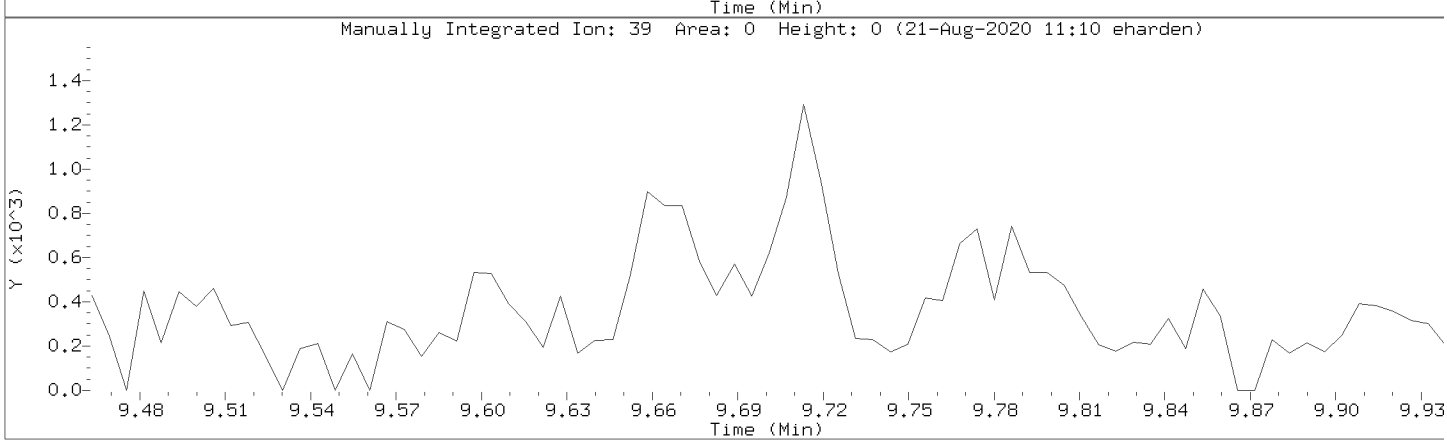
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: trans-1,3-Dichloropropene Review Code: NI
CAS Number: 10061-02-6









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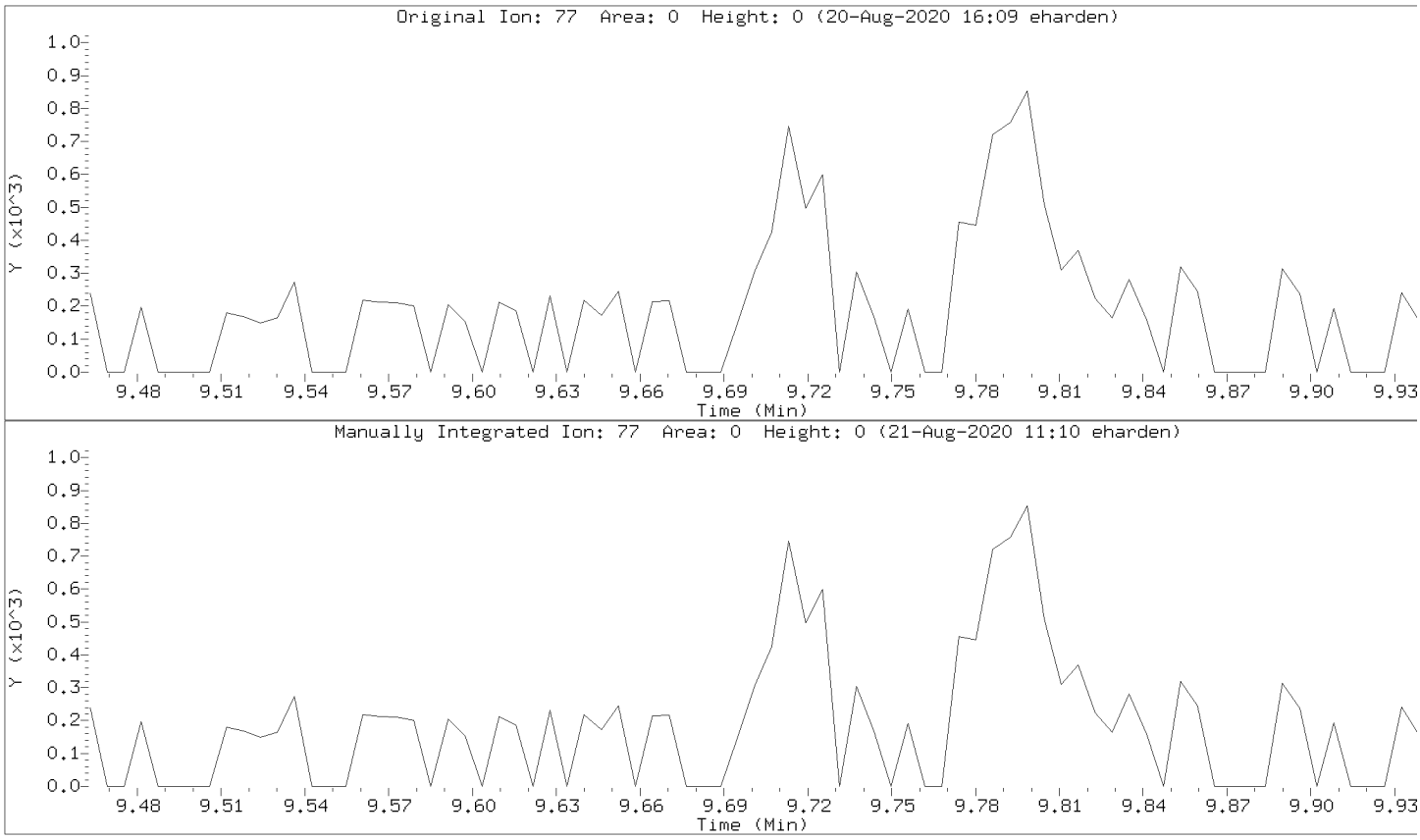
Instrument: 52mv02.i
Lab Sample ID: CAL3



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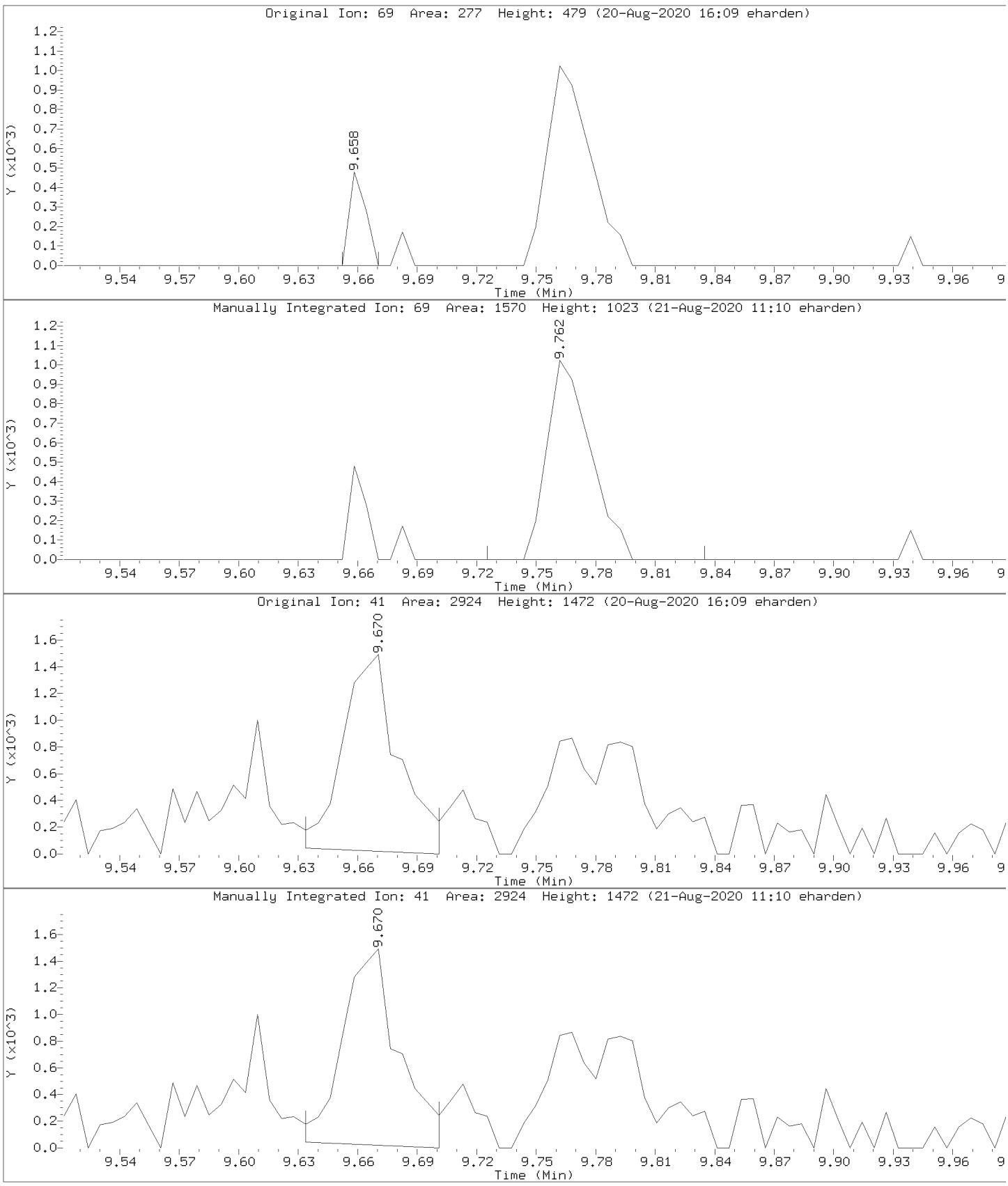
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Ethyl methacrylate Review Code: WP
CAS Number: 97-63-2



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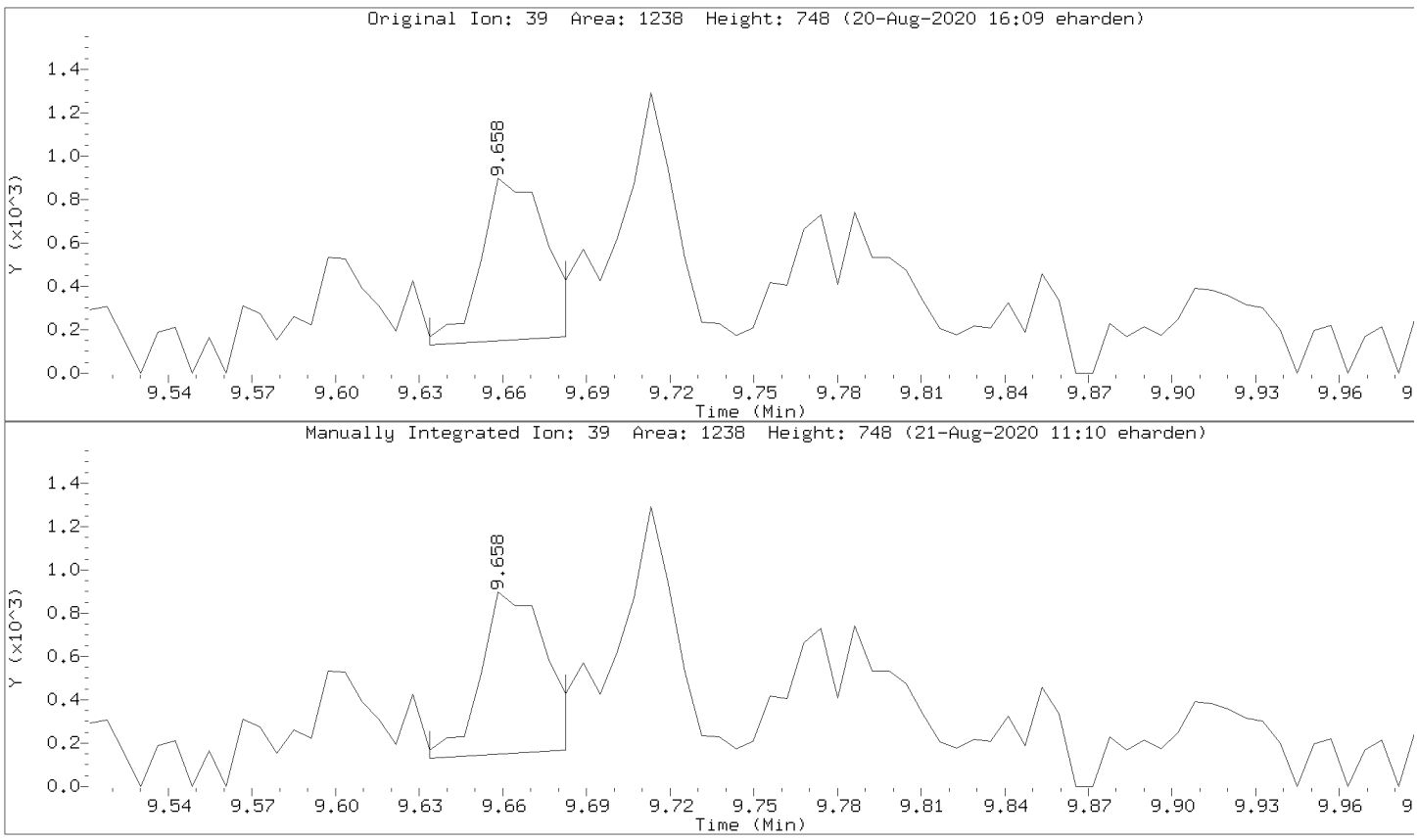
Instrument: 52mv02.i
Lab Sample ID: CAL3



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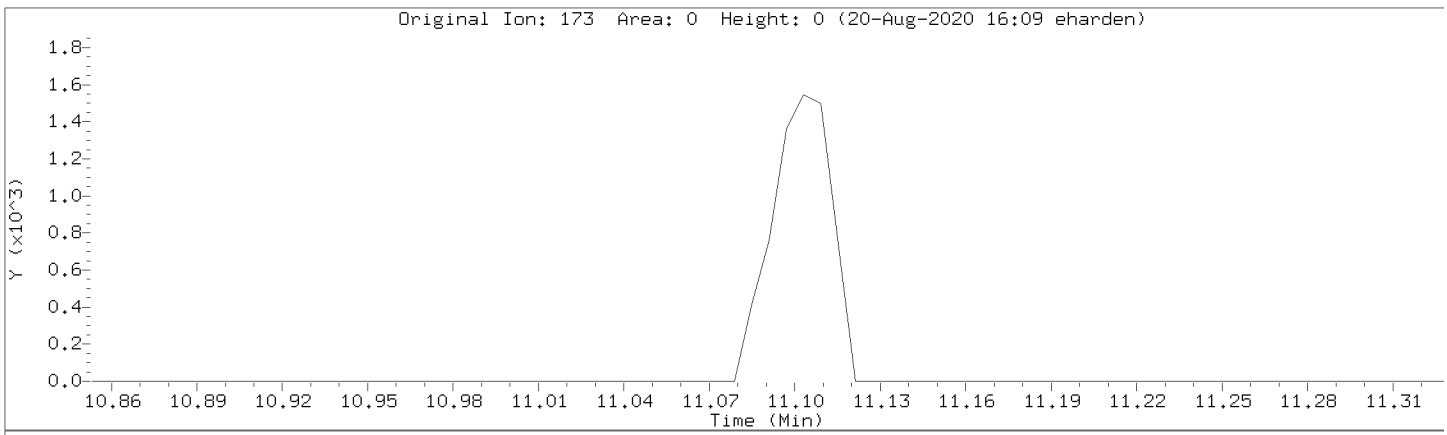
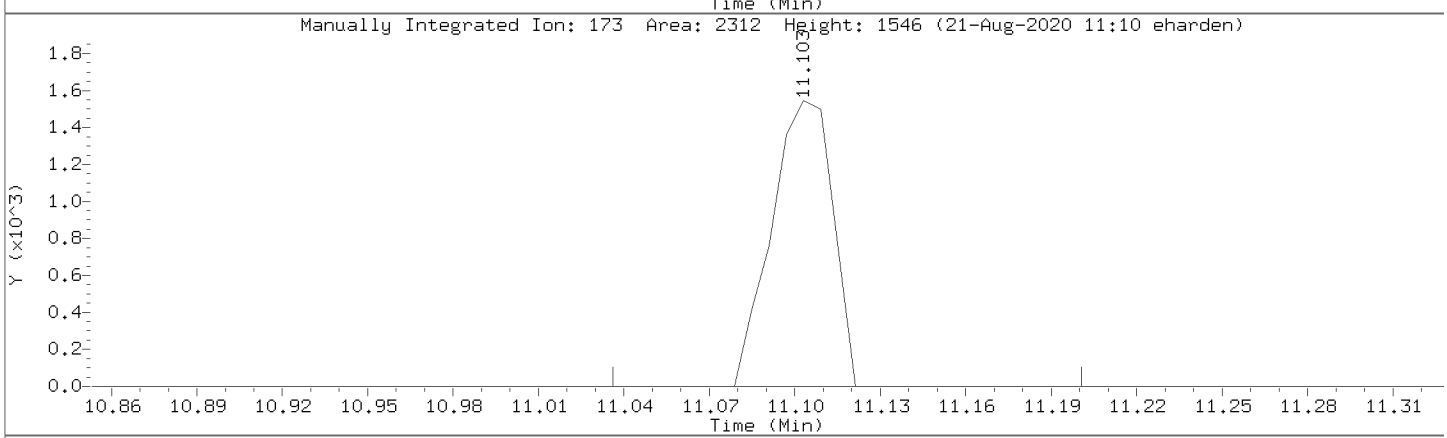
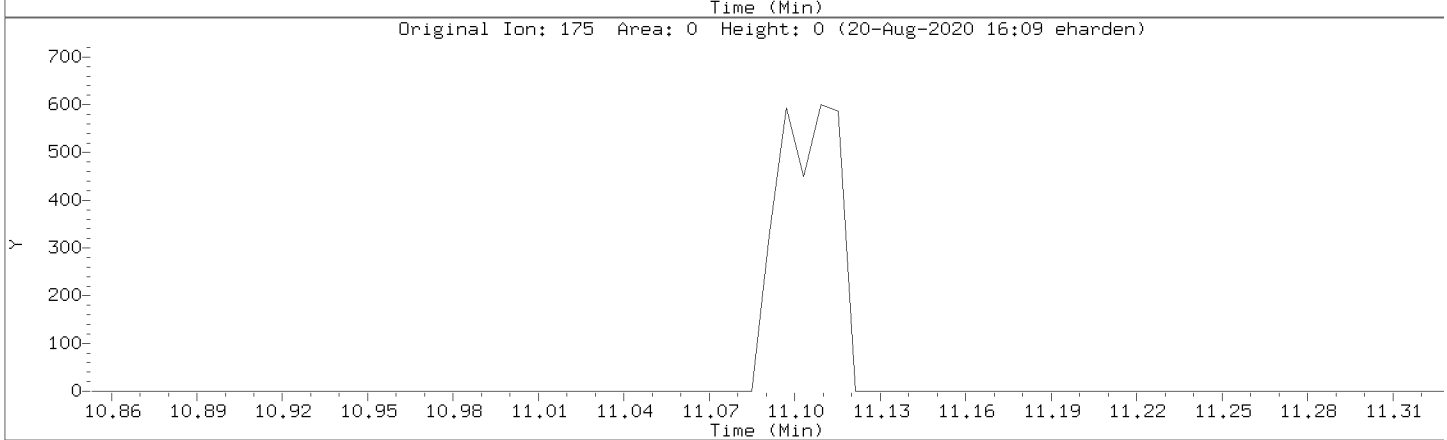
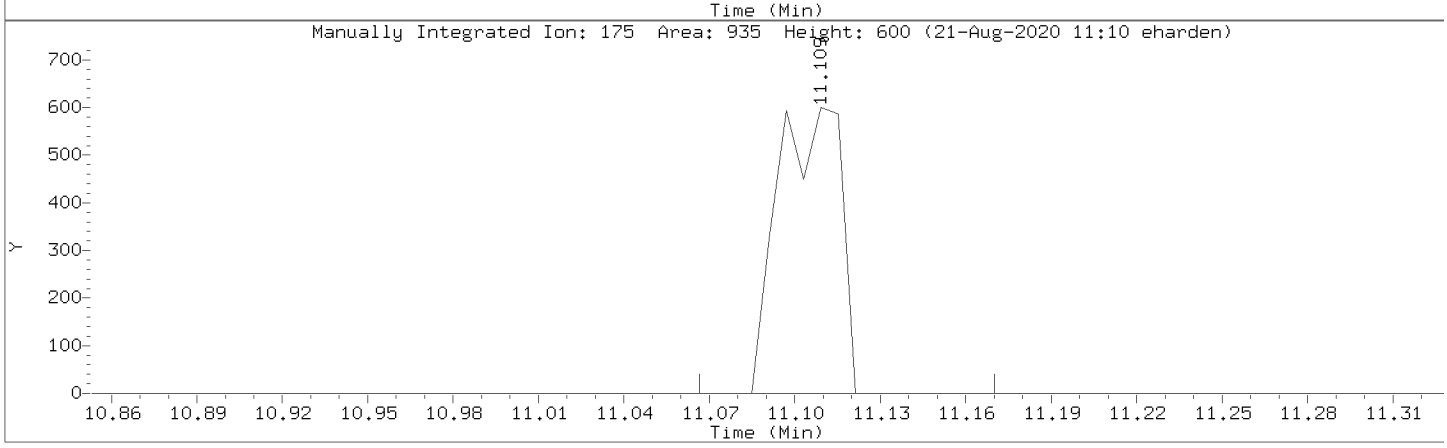
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2









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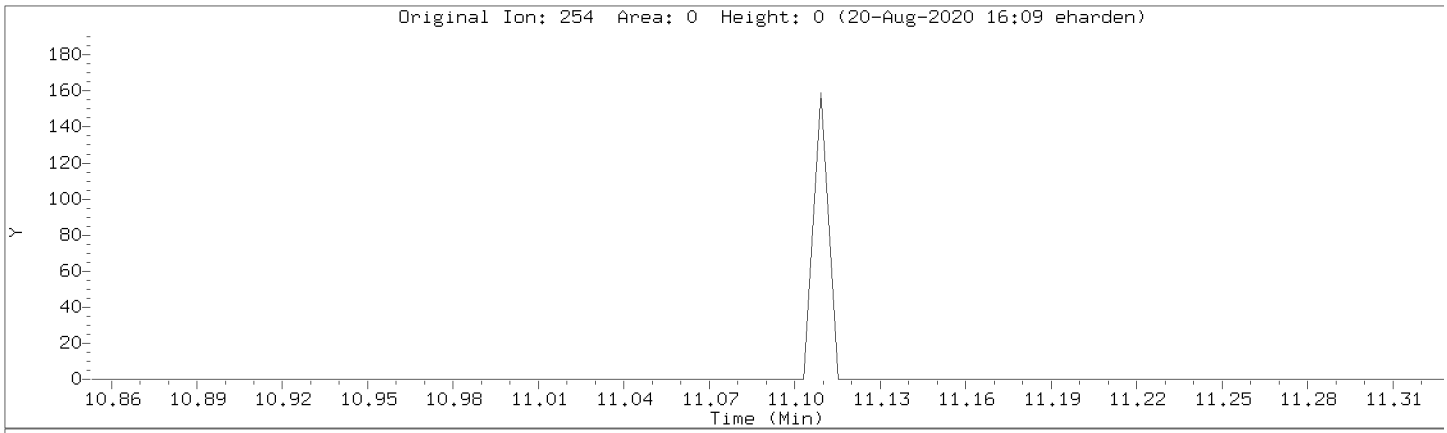

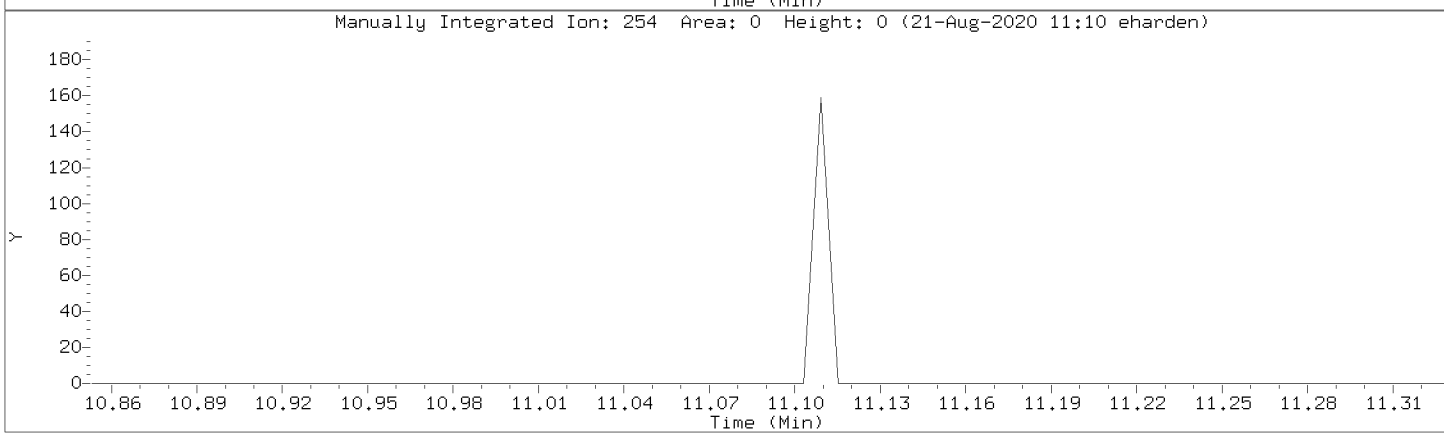

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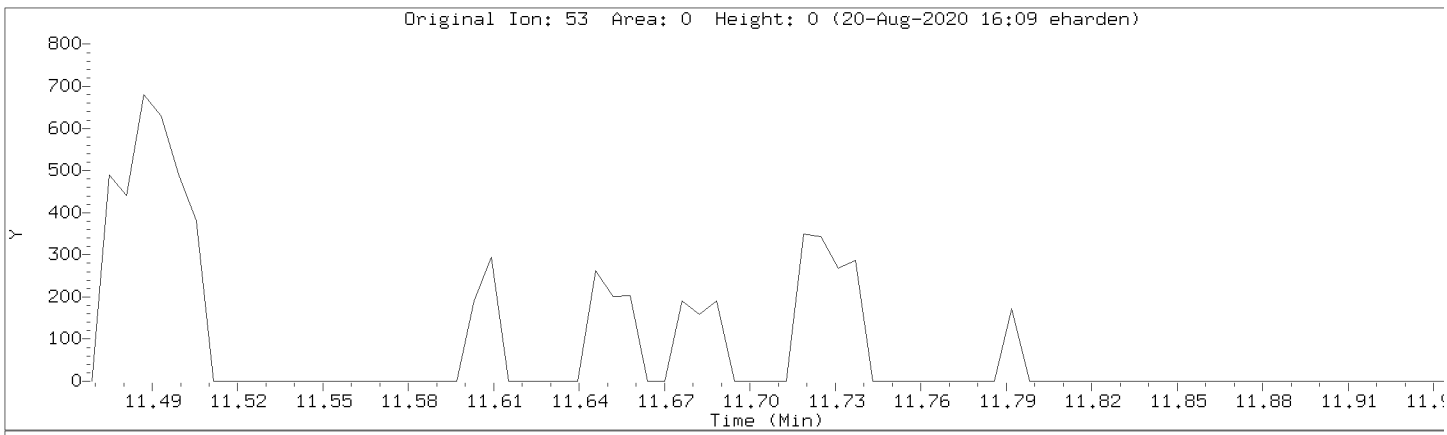
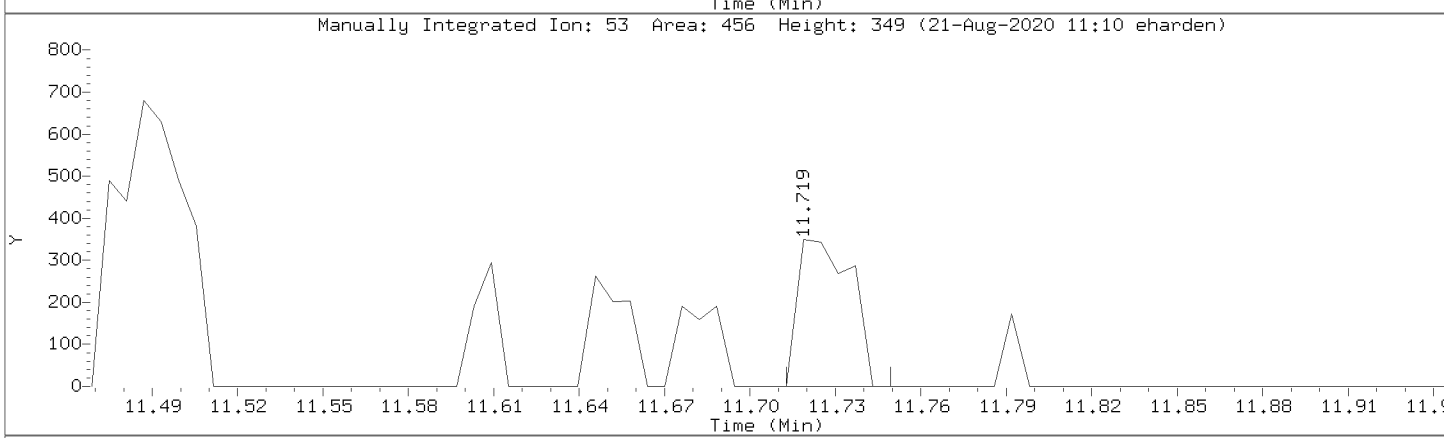
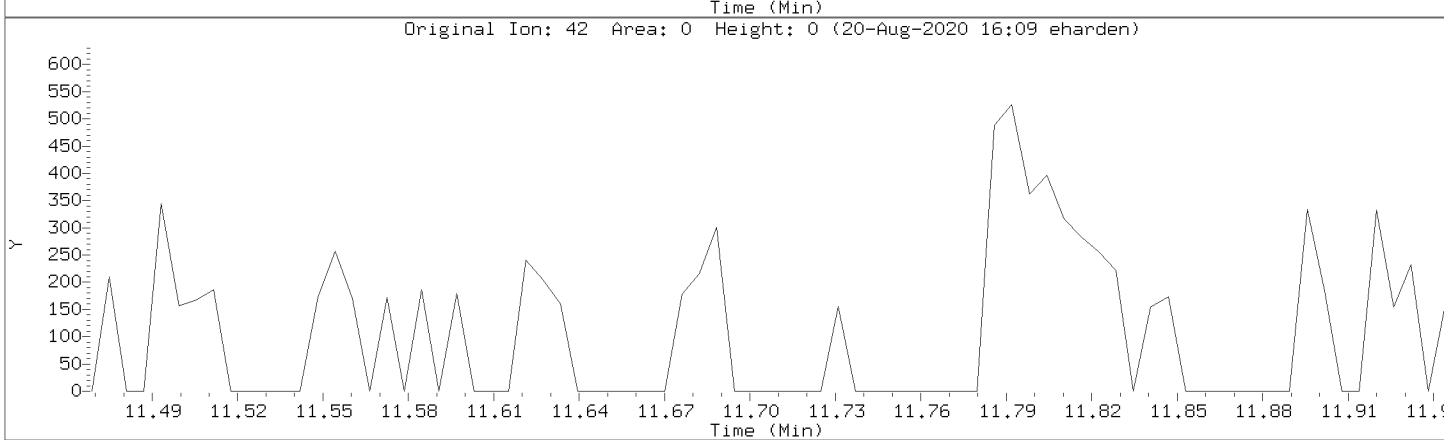
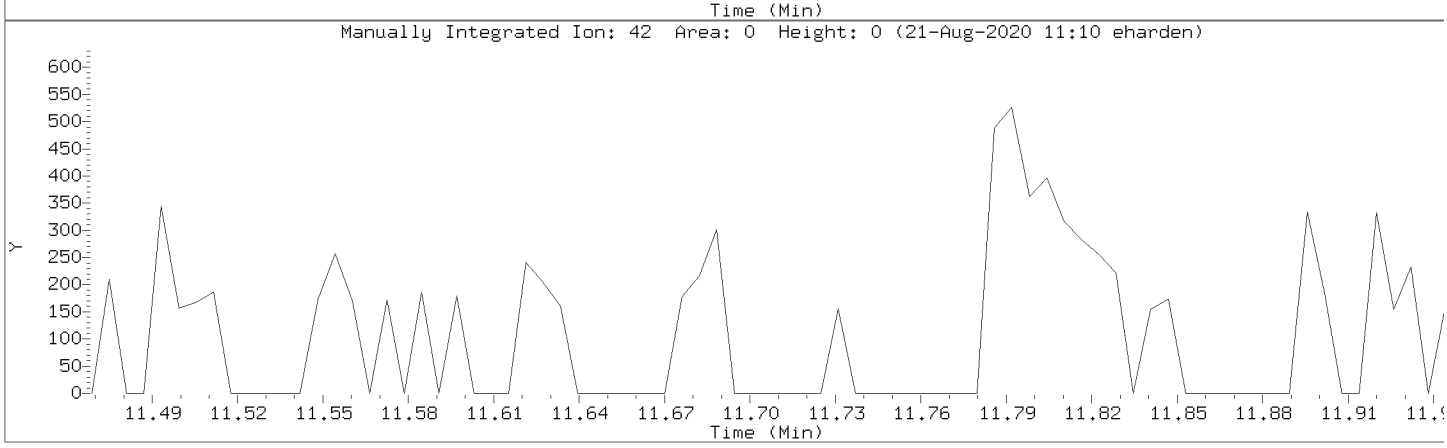
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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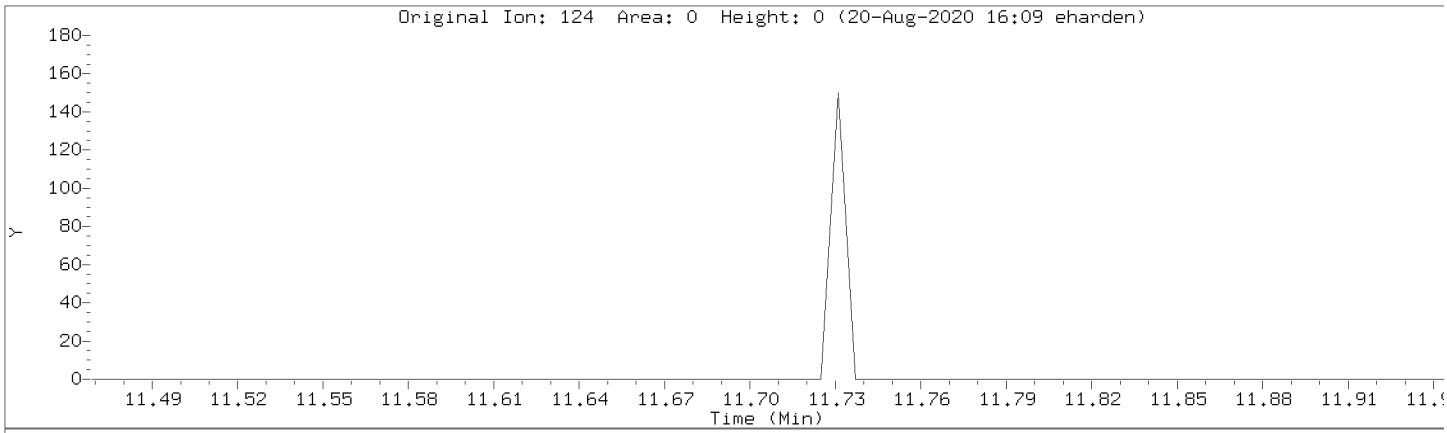
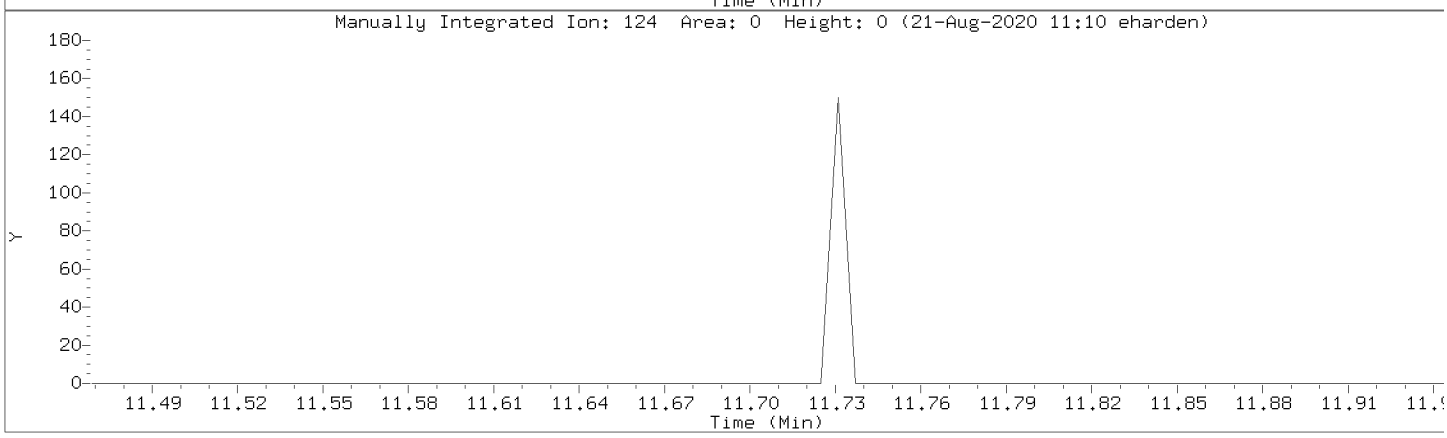
Lab Sample ID: CAL3





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_06.D
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 20-AUG-2020 12:05
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal4,27240:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 12:05 Cal File: 082020_06.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.226	(0.408)	5284	2.00000	2.00	
2 Chloromethane	50	3.537	3.543	(0.450)	8846	2.00000	2.07	
3 Vinyl chloride	62	3.690	3.702	(0.469)	5370	2.00000	2.06	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	4686	2.00000	2.01	
5 Bromomethane	94	4.196	4.195	(0.534)	10118	2.00000	2.22	
6 Chloroethane	64	4.360	4.360	(0.555)	2737	2.00000	2.94	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	3591	2.00000	2.17	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	1948	2.00000	2.13	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	6532	2.00000	2.22	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	4079	2.00000	2.10	
11 Carbon disulfide	76	5.293	5.293	(0.673)	15221	2.00000	2.33	
12 Iodomethane	142	5.433	5.439	(0.691)	1612	2.00000	5.60(M)	NI
13 Acrolein	56	5.671	5.659	(0.722)	1479	4.00000	4.86	
14 Allyl chloride	76	5.787	5.787	(0.736)	2084	2.00000	2.30	
15 Methylene Chloride	49	5.902	5.902	(0.751)	8758	2.00000	2.50(M)	NI
16 Acetone	43	5.976	5.976	(0.760)	9840	4.00000	4.07	
17 Methyl acetate	43	6.073	6.067	(0.773)	8873	4.00000	3.62	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	4249	2.00000	2.13	
19 n-Hexane	86	6.128	6.110	(0.780)	343	2.00000	1.63(M)	LT
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	9856	2.00000	2.12	
21 Acetonitrile	41	6.463	6.463	(0.822)	1215	4.00000	6.91(H)	WP
22 Chloroprene	53	6.640	6.640	(0.845)	5232	2.00000	1.85	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	8968	2.00000	2.32	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	3596	4.00000	4.28	
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	6321	2.00000	2.22	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	6905	2.00000	2.35	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	2780	2.00000	2.23	
	29 Cyclohexane	56	7.341	7.335	(0.883)	4834	2.00000	1.88	
	30 Chloroform	83	7.372	7.372	(0.938)	10330	2.00000	2.36(M)	NI
	31 Ethyl acetate	43	7.439	7.433	(0.946)	10734	4.00000	4.35	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	6350	2.00000	2.11	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	4093	4.00000	5.58	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	138125	50.0000	54.6	
	35 1,1,1-Trichloroethane	97	7.573	7.567	(0.911)	7971	2.00000	2.23	
	36 2-Butanone (MEK)	43	7.634	7.628	(0.971)	7051	4.00000	3.74(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	4937	2.00000	1.99(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	219667	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	17998	2.00000	2.25	
	40 Propionitrile	54	7.896	7.902	(1.005)	1674	4.00000	4.47	
	41 Methacrylonitrile	41	7.908	7.902	(1.006)	8204	4.00000	4.31	
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25790	50.0000	56.7	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	8740	2.00000	2.48	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	8630	2.00000	2.06	
	46 Trichloroethene	130	8.323	8.317	(1.001)	4932	2.00000	2.25	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	313187	50.0000		
	48 Methylcyclohexane	98	8.329	8.317	(1.001)	1819	2.00000	1.75	
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.670	8.670	(1.043)	3983	2.00000	2.14	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	4922	2.00000	2.15	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	7260	2.00000	2.21	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	1992	2.00000	1.72(H)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	9.152	9.146	(1.100)	3154	4.00000	3.14	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	5882	2.00000	1.84	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	334441	50.0000	49.6	
	58 Toluene	91	9.414	9.414	(1.132)	16357	2.00000	2.09	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	1870	2.00000	2.21(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	5882	2.00000	1.81	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	3682	2.00000	1.93	
	63 Ethyl methacrylate	69	9.762	9.761	(1.174)	3660	2.00000	1.82(H)	
	64 1,1,2-Trichloroethane	83	9.841	9.847	(1.183)	4739	2.00000	2.39	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	5598	2.00000	2.12	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	6725	2.00000	2.23	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	4938	2.00000	2.18	
	68 2-Hexanone	43	10.280	10.280	(1.236)	8262	4.00000	3.12	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	12871	2.00000	1.77	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	277286	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	12050	2.00000	2.25	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	5405	2.00000	2.39	
	73 m&p-Xylene	91	10.652	10.651	(1.009)	19281	4.00000	3.56	
	74 o-Xylene	106	10.993	10.993	(1.041)	4165	2.00000	1.64	
	75 Styrene	104	11.030	11.029	(1.044)	6689	2.00000	1.58	
	76 Bromoform	173	11.103	11.103	(1.051)	5395	2.00000	2.15(M)	NI

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.225	11.225	(1.063)	7161	2.00000	1.86	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	106130	50.0000	46.6	
	79 cis-1,4-Dichloro-2-butene	53	11.493	11.487	(1.088)	2265	2.00000	2.49	
	80 n-Propylbenzene	91	11.523	11.523	(1.091)	16464	2.00000	1.85	
	81 Bromobenzene	156	11.578	11.578	(1.096)	5521	2.00000	1.94	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	6338	2.00000	2.14	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	8731	2.00000	1.66	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	3046	2.00000	1.58	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	3382	2.00000	1.79	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	9830	2.00000	1.53	
	87 1,2,3-Trichloropropane	75	11.725	11.724	(1.110)	6678	2.00000	2.19	
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	1815	2.00000	2.54	
	89 Cyclohexanone	98	Compound Not Detected.						(D)
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	7956	2.00000	1.54	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	7998	2.00000	1.51	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	10675	2.00000	1.70	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	7956	2.00000	1.54	
	94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	8844	2.00000	2.11	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	158950	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	10039	2.00000	2.16	
	97 n-Butylbenzene	91	12.487	12.486	(1.012)	9280	2.00000	1.68	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	10161	2.00000	2.22	
	99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	1371	2.00000	2.64	
	100 Hexachloro-1,3-butadiene	225	13.816	13.822	(1.120)	2915	2.00000	2.06	
	101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	5591	2.00000	1.85	
	102 Naphthalene	128	14.194	14.193	(1.150)	8687	2.00000	1.68	
	103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	5329	2.00000	1.83	

QC Flag Legend

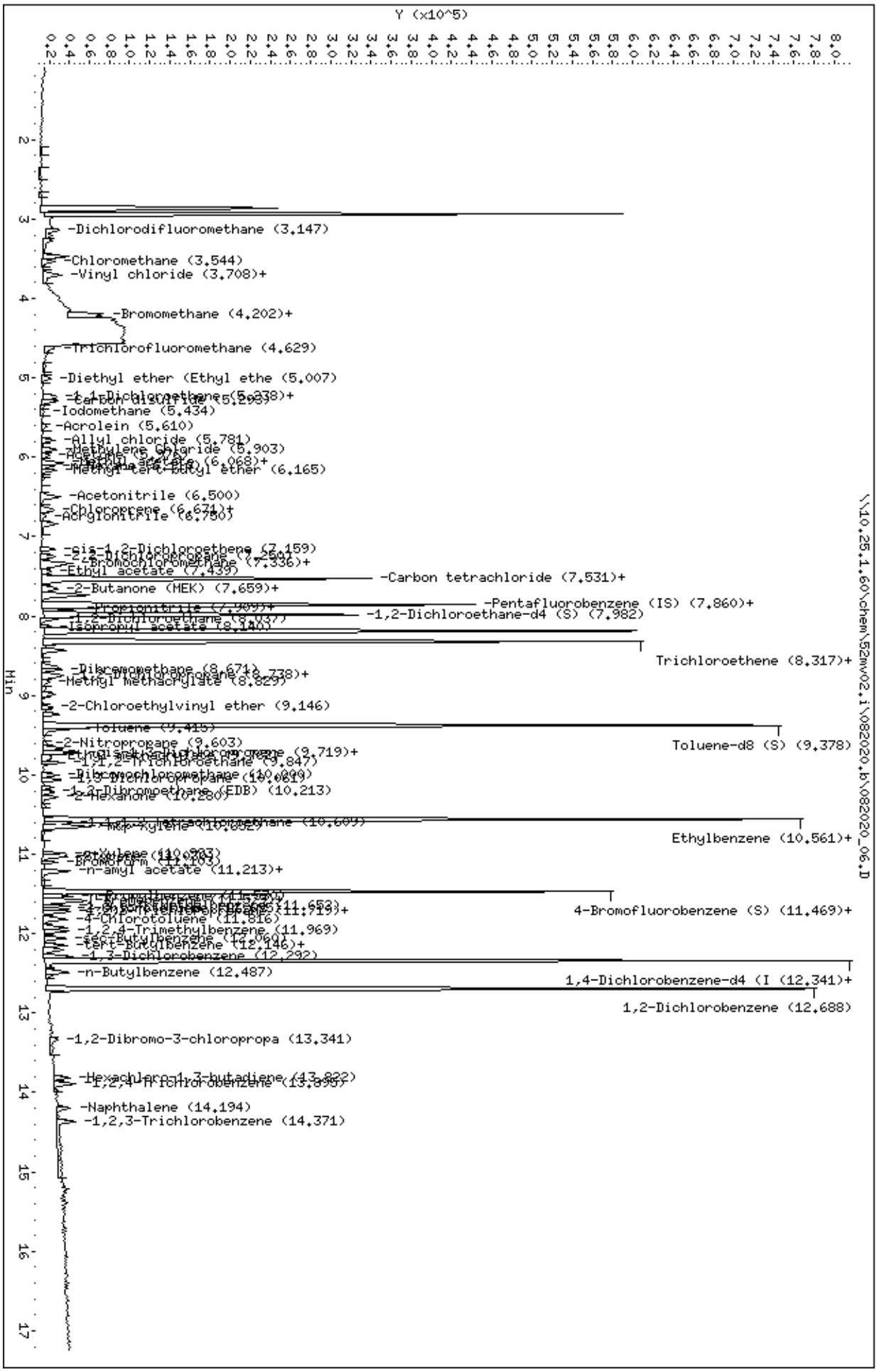
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
NI: Indicates that the peak was not integrated at all by the computer software.
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_06.D
Date : 20-AUG-2020 12:05
Client ID: CAL4
Sample Info: CAL4,27240:1
Purge Volume: 5.0
Column phase: RTX-VMS

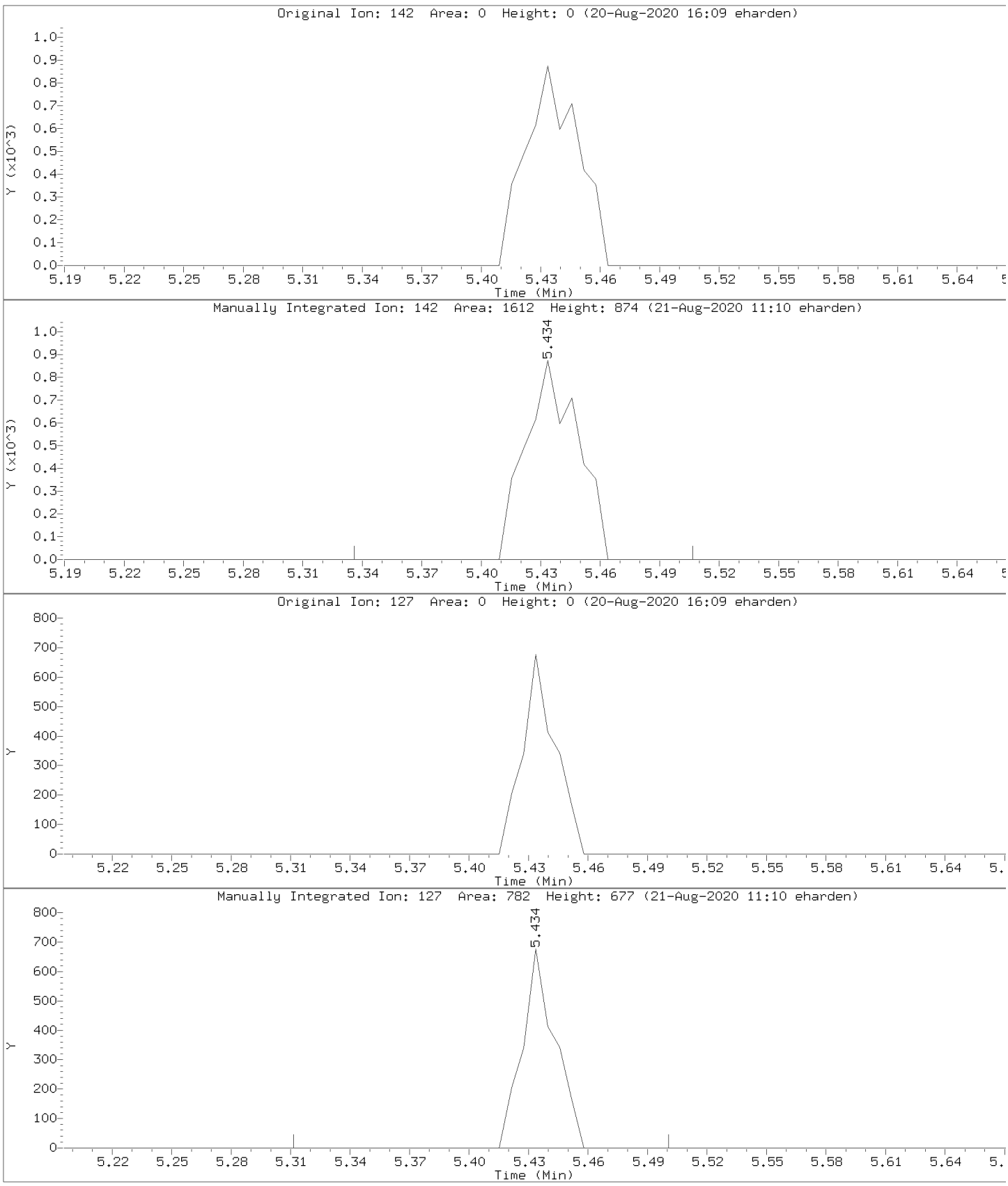
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Page 4

Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_06.D
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4



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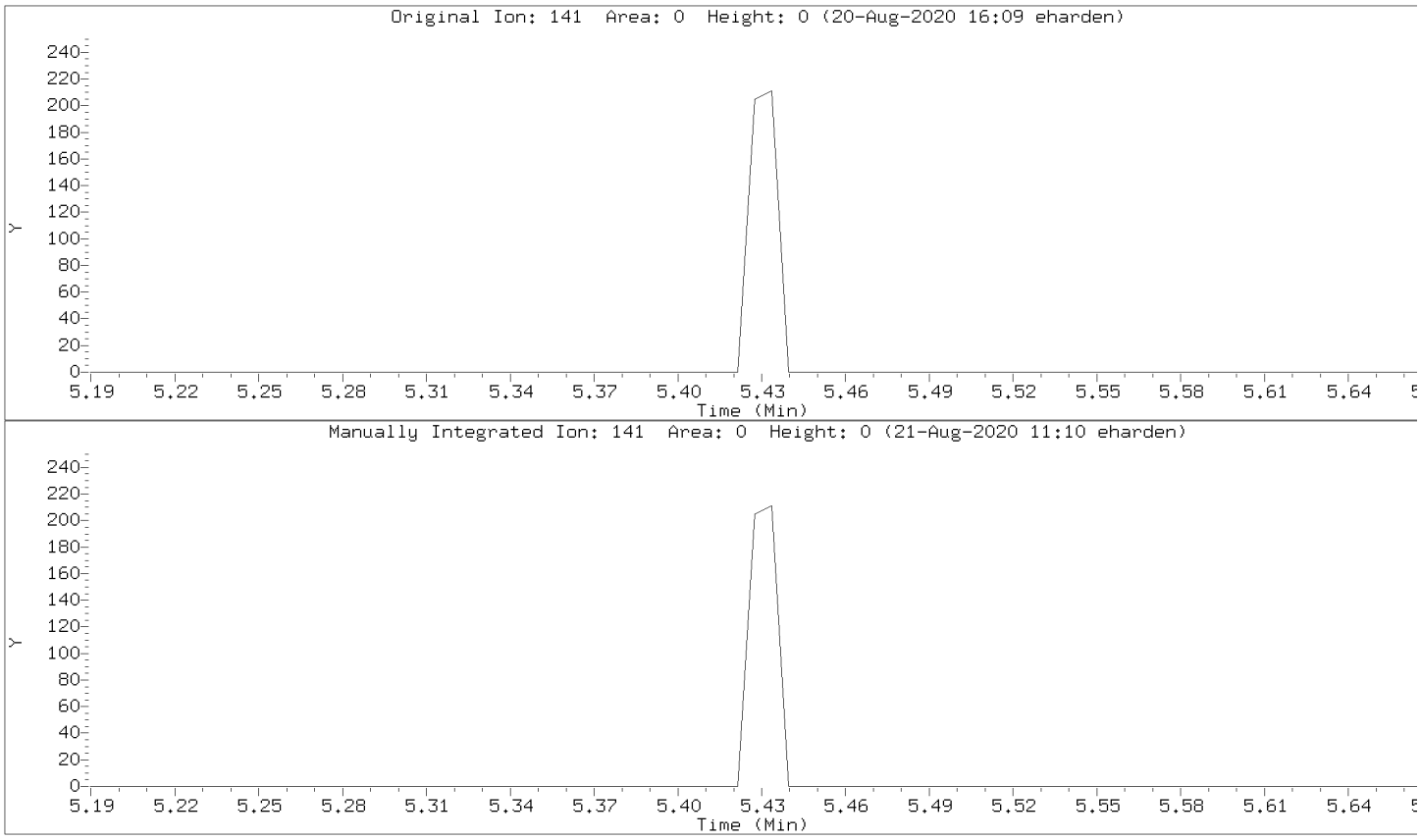
Lab Sample ID: CAL4



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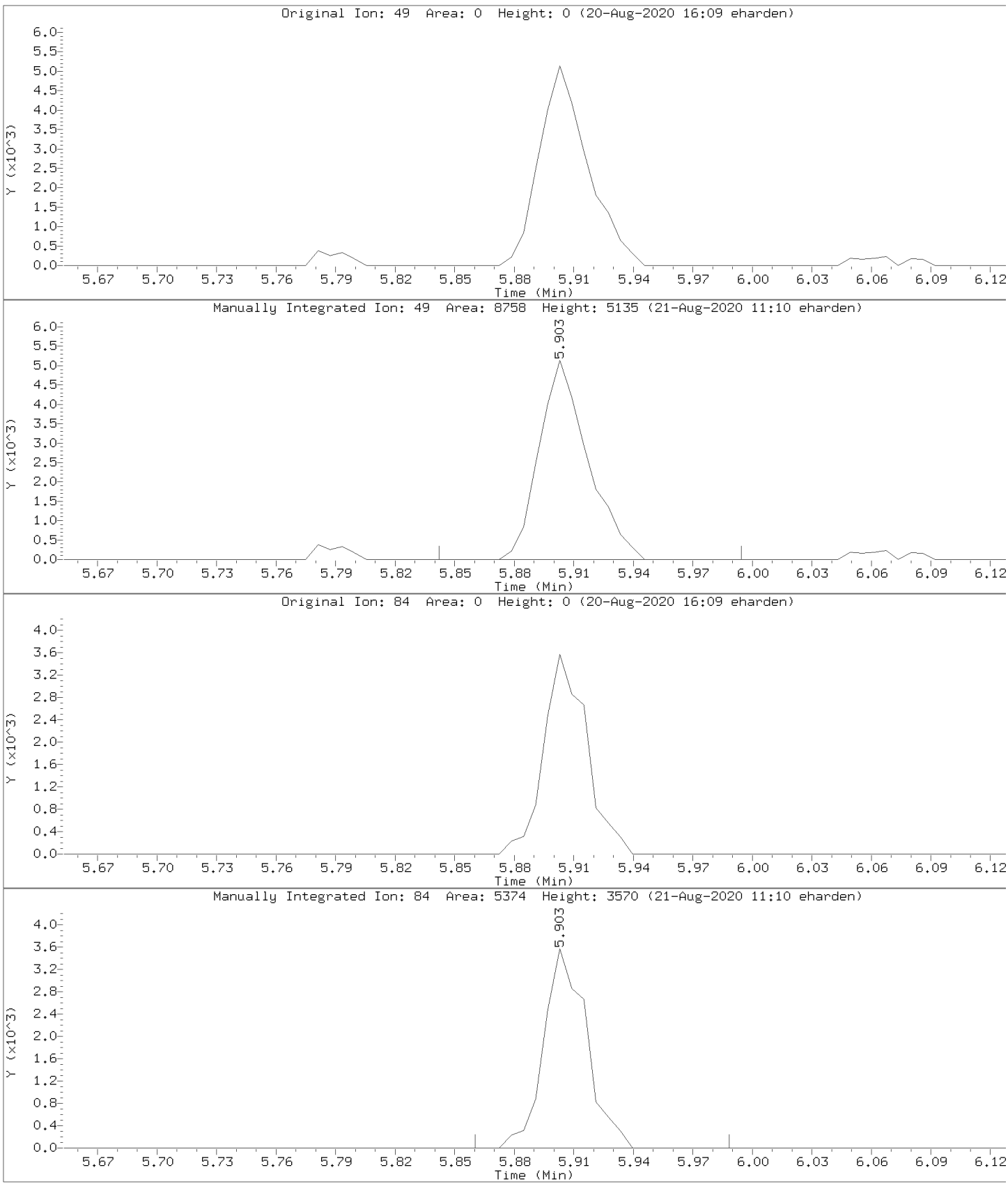
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2



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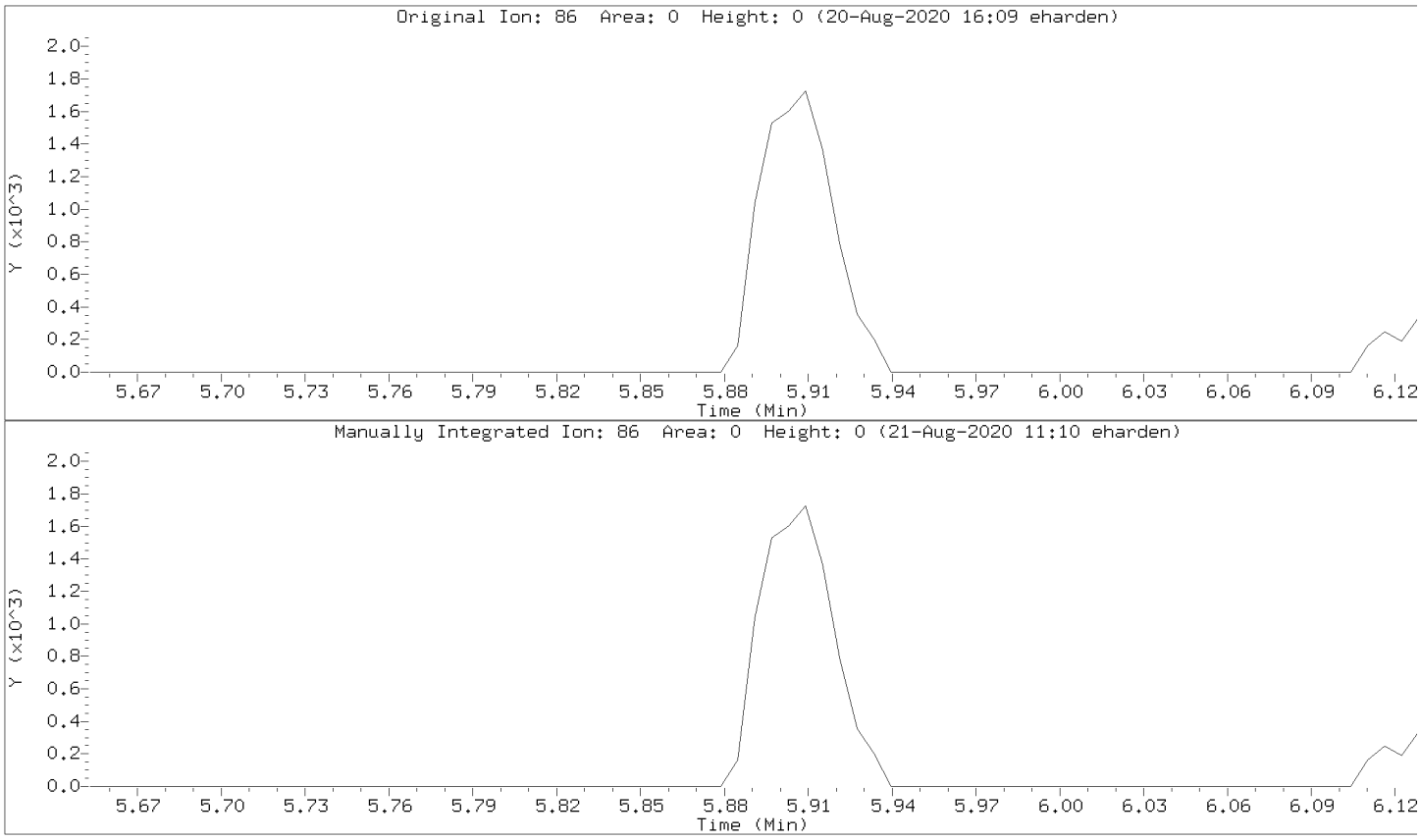
Lab Sample ID: CAL4



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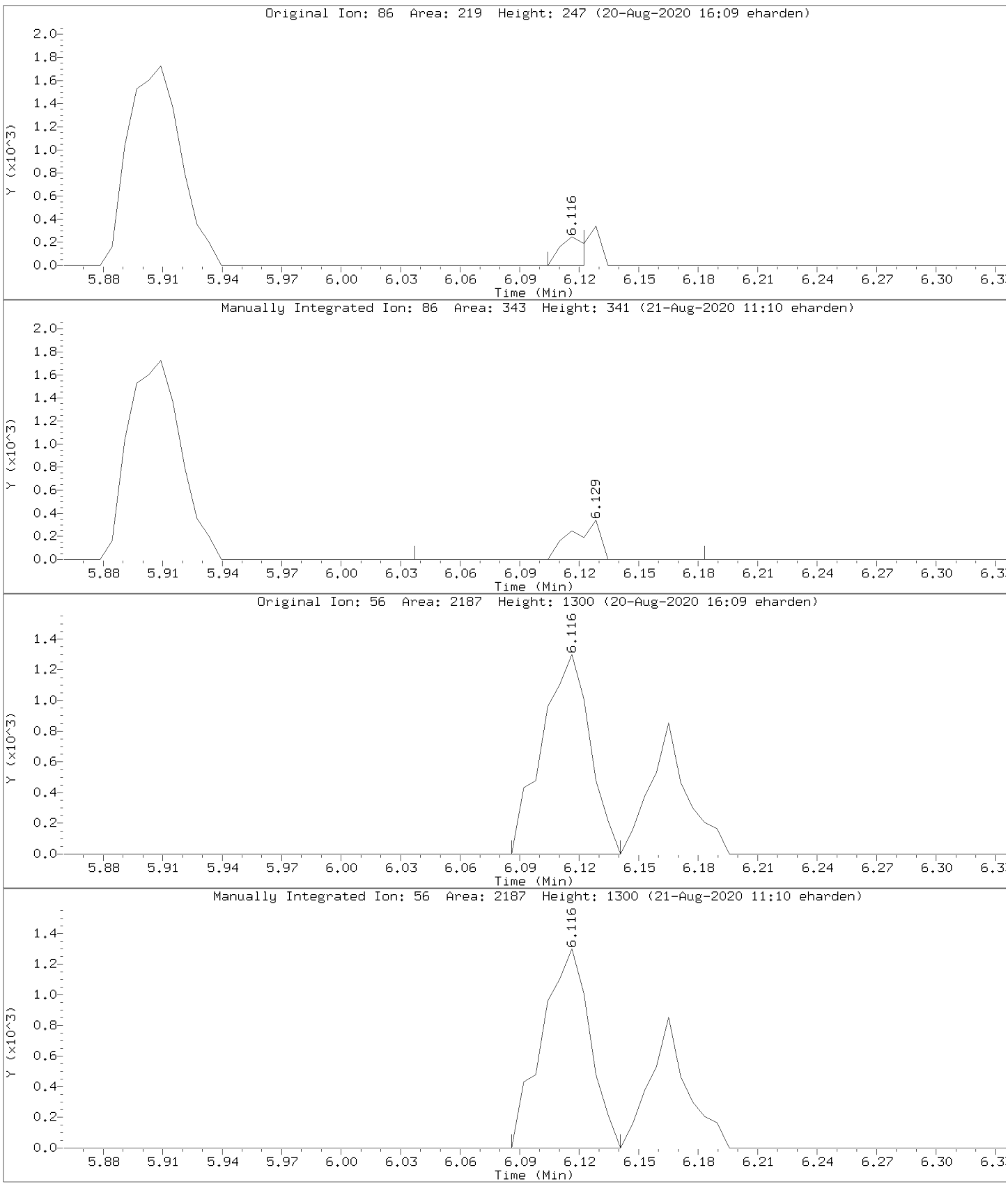
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: n-Hexane Review Code: LT
CAS Number: 110-54-03



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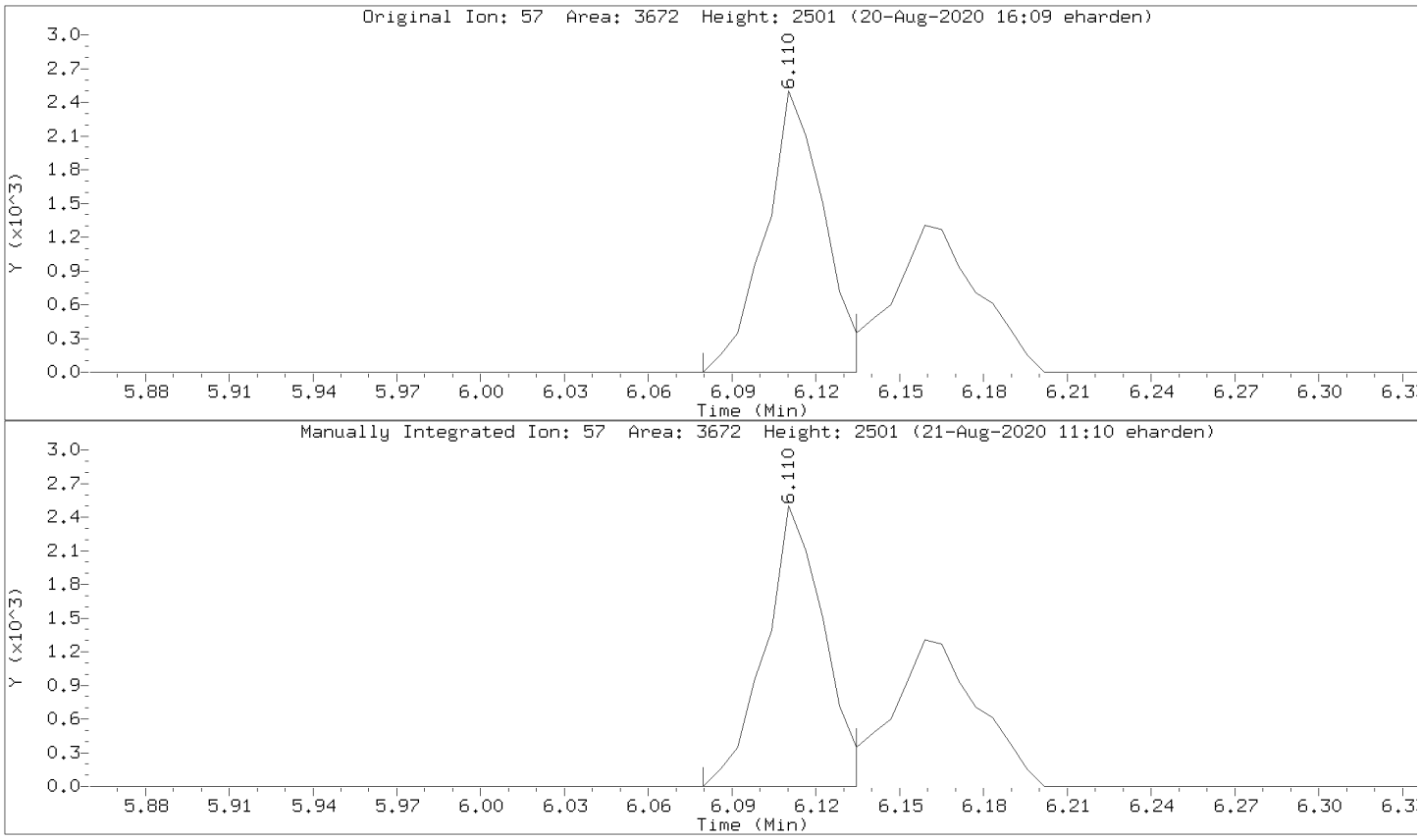

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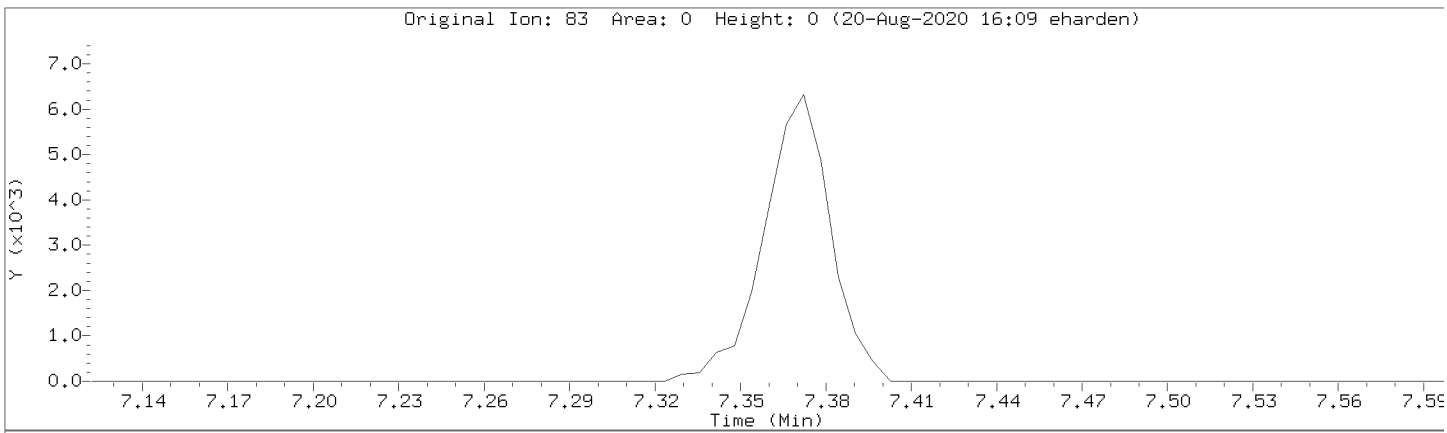
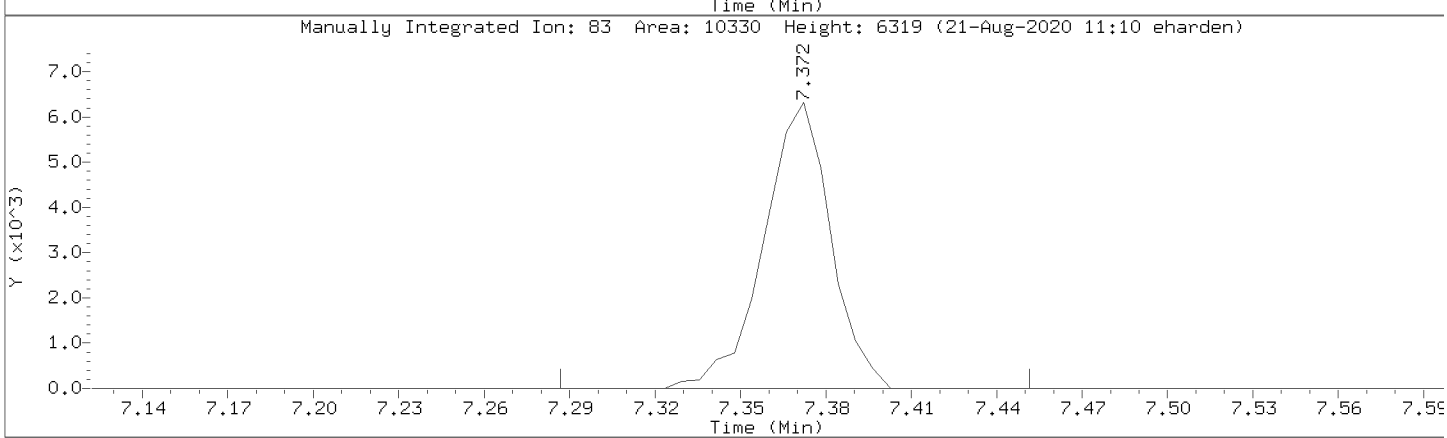
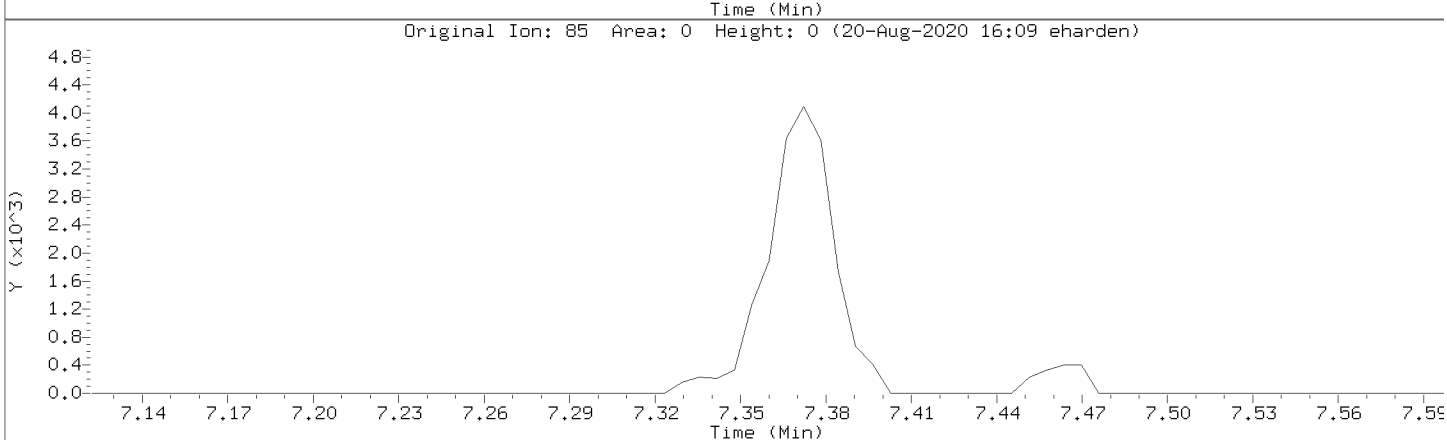
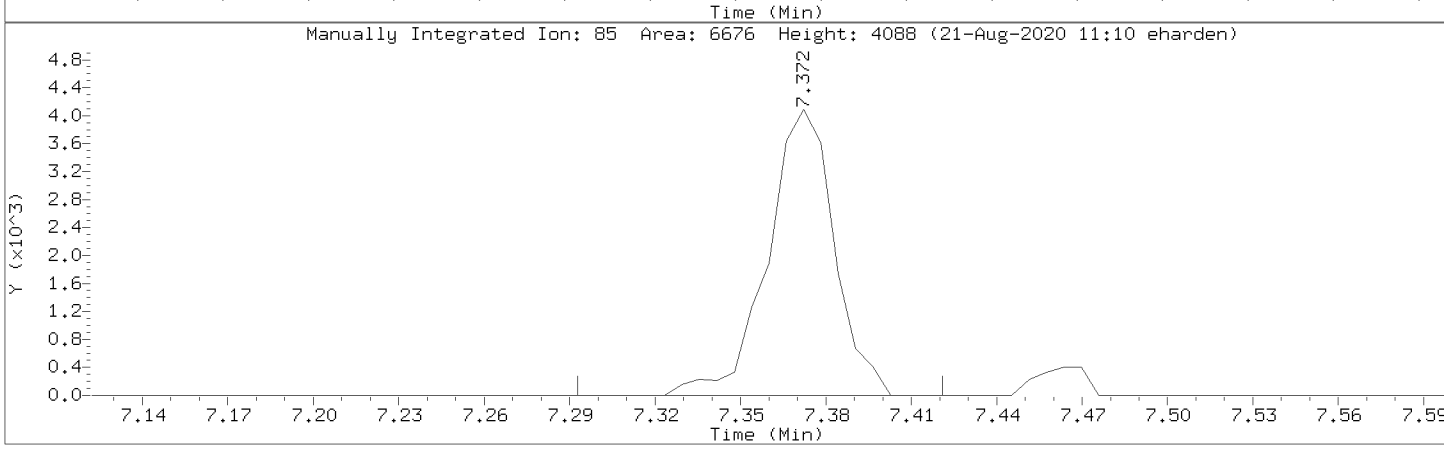
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3









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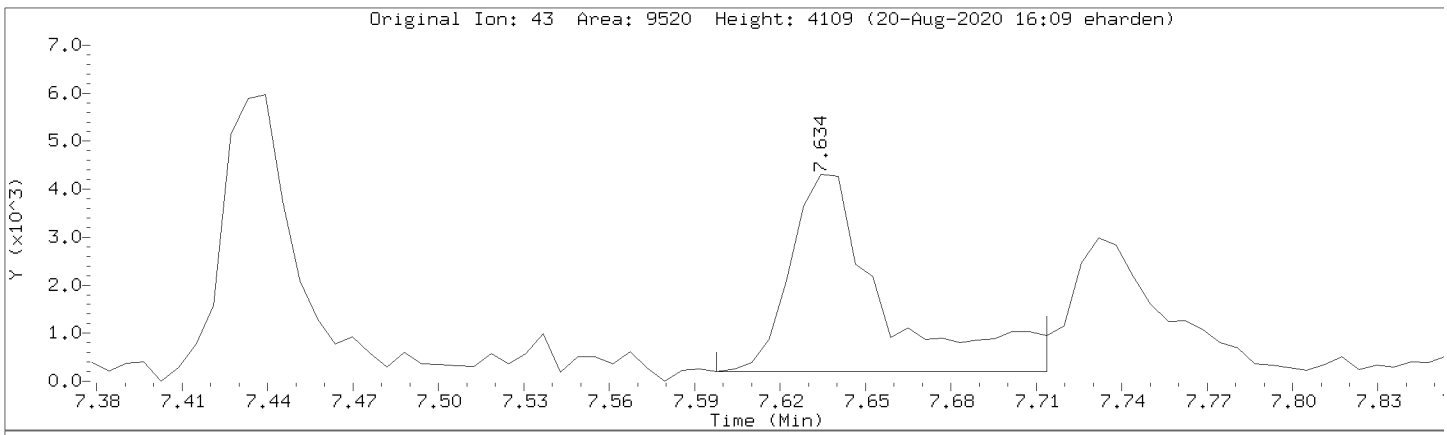
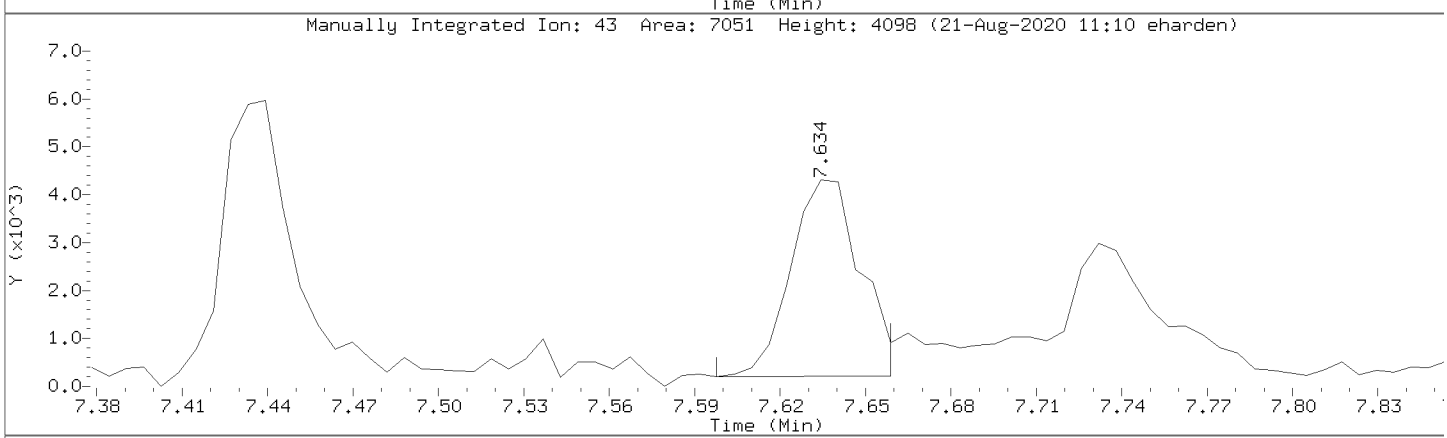
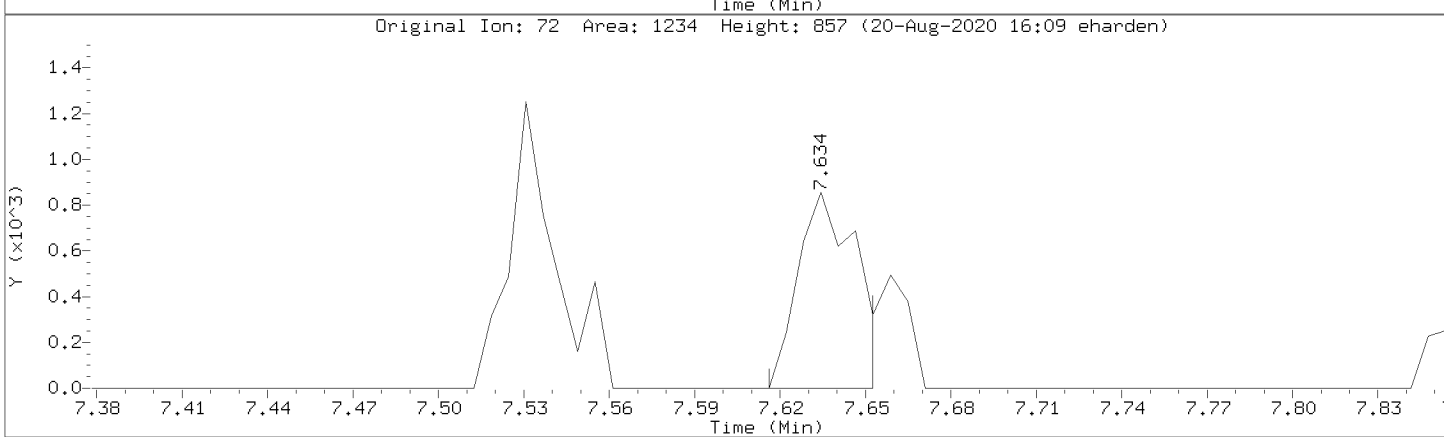
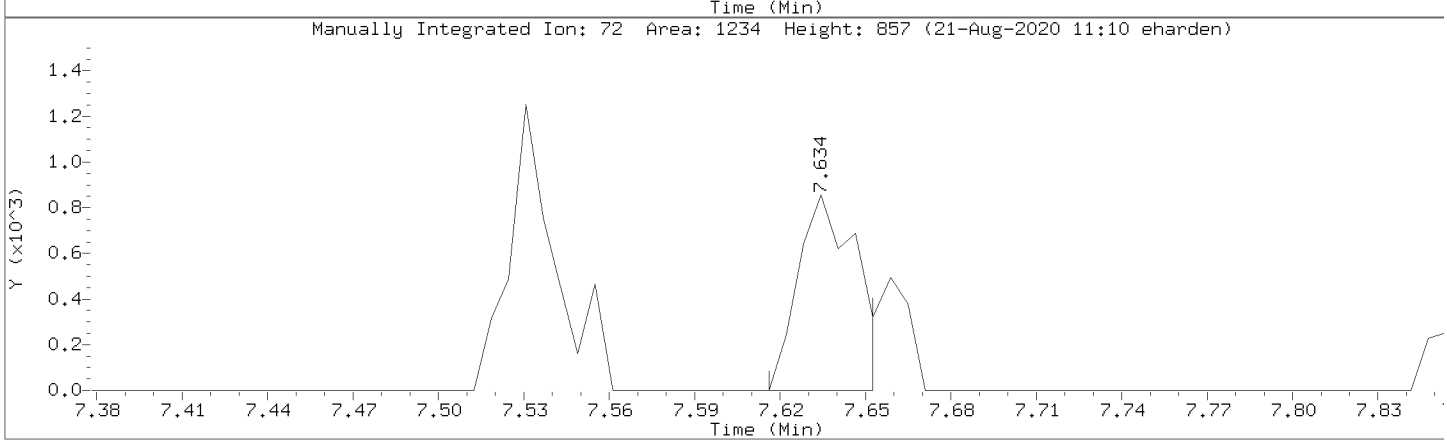
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3









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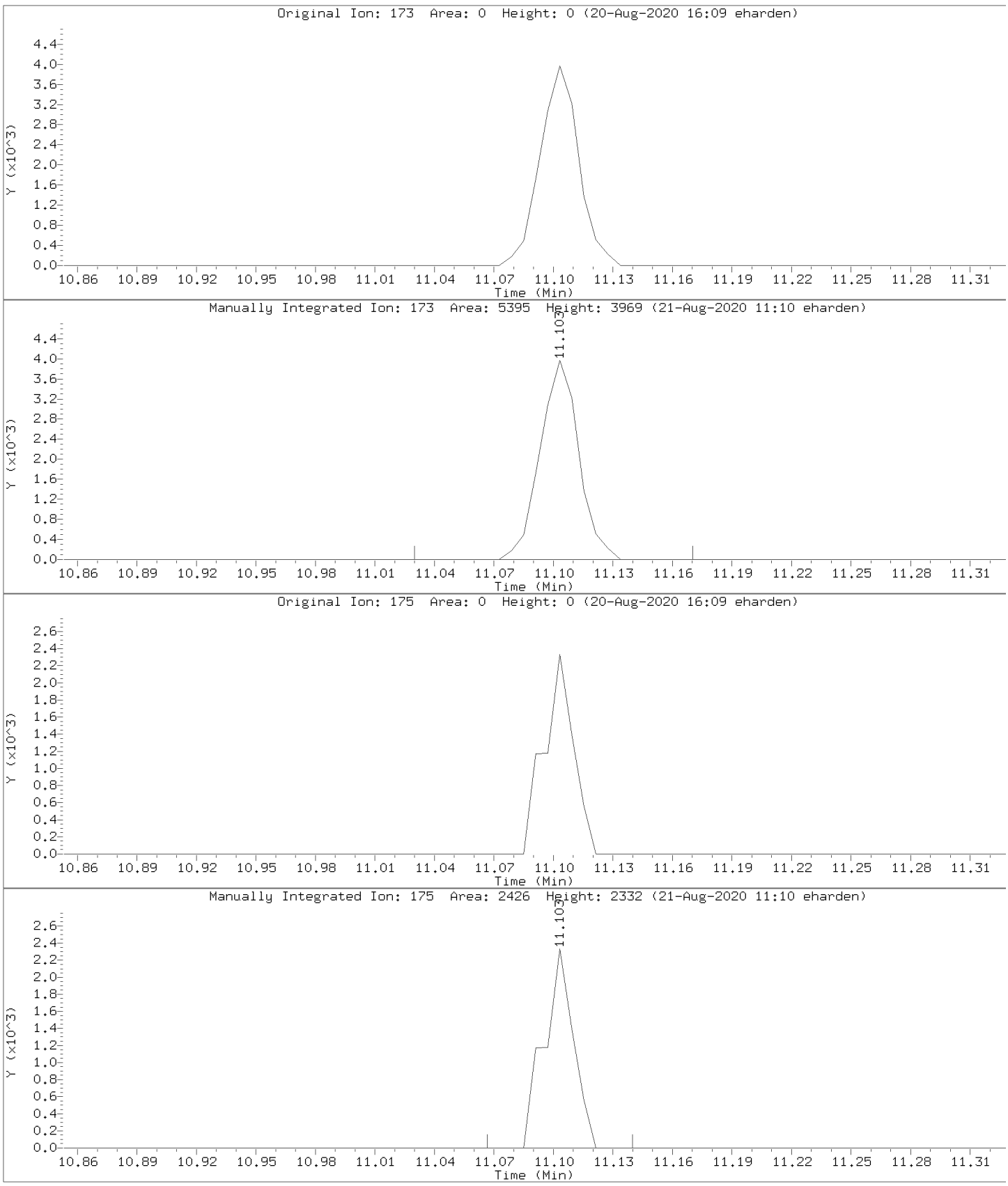
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2



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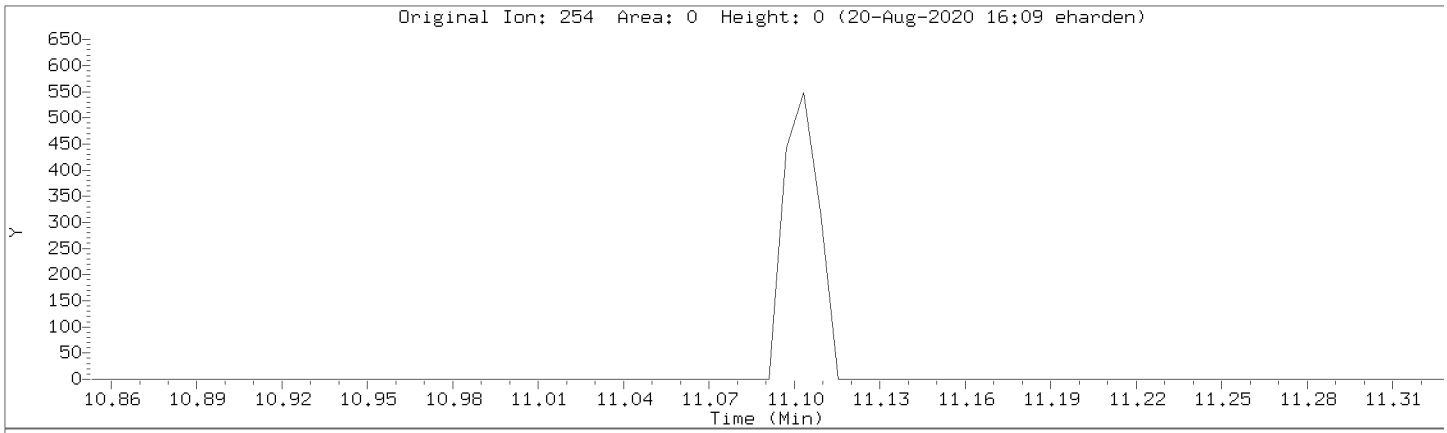
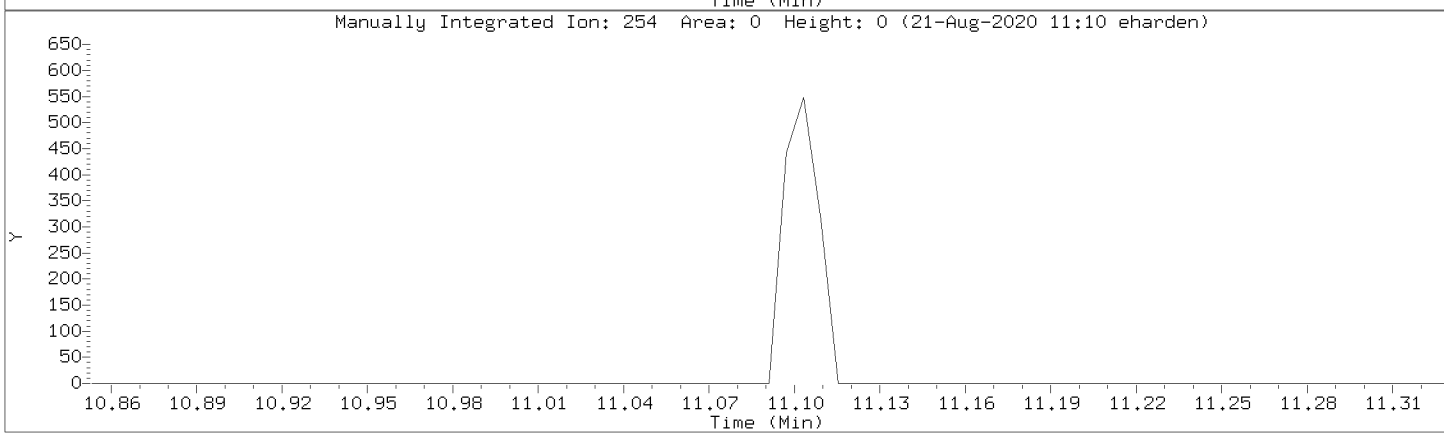
Instrument: 52mv02.i
Lab Sample ID: CAL4





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_07.D
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Inj Date : 20-AUG-2020 12:30
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal5,27241:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 12:30 Cal File: 082020_07.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.226	(0.408)	14553	5.00000	6.57(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	19435	5.00000	5.07	
3 Vinyl chloride	62	3.702	3.702	(0.471)	14015	5.00000	5.05	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	11700	5.00000	4.71	
5 Bromomethane	94	4.195	4.195	(0.534)	17914	5.00000	5.43	
6 Chloroethane	64	4.366	4.360	(0.556)	4115	5.00000	4.60	
7 Trichlorofluoromethane	101	4.525	4.531	(0.576)	9164	5.00000	5.38	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	5183	5.00000	5.33	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	15697	5.00000	5.00	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	11299	5.00000	5.46	
11 Carbon disulfide	76	5.287	5.293	(0.673)	34632	5.00000	4.99	
12 Iodomethane	142	5.433	5.439	(0.691)	3620	5.00000	2.40(M)	NI
13 Acrolein	56	5.665	5.659	(0.721)	3065	10.0000	9.72	
14 Allyl chloride	76	5.787	5.787	(0.736)	4947	5.00000	5.12	
15 Methylene Chloride	49	5.902	5.902	(0.751)	19166	5.00000	5.00(M)	NI
16 Acetone	43	5.976	5.976	(0.760)	23424	10.0000	11.5	
17 Methyl acetate	43	6.073	6.067	(0.773)	24665	10.0000	9.97	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	9707	5.00000	4.58	
19 n-Hexane	86	6.110	6.110	(0.777)	987	5.00000	4.39	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	22885	5.00000	4.62	
21 Acetonitrile	41	6.457	6.463	(0.822)	1316	10.0000	7.03(H)	
22 Chloroprene	53	6.646	6.640	(0.846)	13100	5.00000	4.35	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	21699	5.00000	5.27	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	9200	10.0000	10.3	
	25 Vinyl acetate	43	6.866	6.860	(0.874)	13650	5.00000	3.35(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	14788	5.00000	4.87	
	27 2,2-Dichloropropane	77	7.256	7.250	(0.923)	16052	5.00000	5.14	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	6858	5.00000	5.17	
	29 Cyclohexane	56	7.335	7.335	(0.882)	11423	5.00000	4.31	
	30 Chloroform	83	7.372	7.372	(0.938)	25117	5.00000	5.39	
	31 Ethyl acetate	43	7.433	7.433	(0.946)	24568	10.0000	9.34	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	16017	5.00000	5.16	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	7403	10.0000	9.47	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	142646	50.0000	53.0	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	18128	5.00000	4.92	
	36 2-Butanone (MEK)	43	7.634	7.628	(0.971)	20760	10.0000	10.3(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	11218	5.00000	4.38(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	233975	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	42206	5.00000	5.11	
	40 Propionitrile	54	7.908	7.902	(1.006)	4081	10.0000	10.2	
	41 Methacrylonitrile	41	7.908	7.902	(1.006)	19063	10.0000	9.40	
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	24458	50.0000	50.5	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	19145	5.00000	5.10	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	20765	5.00000	4.65	
	46 Trichloroethene	130	8.323	8.317	(1.001)	10658	5.00000	4.72	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	323174	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	4857	5.00000	4.53	
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.670	8.670	(1.043)	9900	5.00000	5.14	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	11583	5.00000	4.91	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	16004	5.00000	4.72	
	53 Methyl methacrylate	69	8.829	8.823	(1.062)	4271	5.00000	3.58(H)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	7311	10.0000	7.06	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	14819	5.00000	4.50	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	347863	50.0000	50.0	
	58 Toluene	91	9.414	9.414	(1.132)	39430	5.00000	4.89	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	3643	5.00000	4.18(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	2047	10.0000	8.85(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	14819	5.00000	4.41	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	10094	5.00000	5.08	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	8601	5.00000	4.14(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	9557	5.00000	4.68	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	13805	5.00000	5.01	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	15130	5.00000	4.86	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	11170	5.00000	4.72	
	68 2-Hexanone	43	10.280	10.280	(1.236)	23734	10.0000	8.70	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	32827	5.00000	4.33	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	289782	50.0000		
	71 Chlorobenzene	112	10.572	10.578	(1.001)	26354	5.00000	4.71	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	11764	5.00000	4.98	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	49356	10.0000	8.71	
	74 o-Xylene	106	10.993	10.993	(1.041)	10438	5.00000	3.93	
	75 Styrene	104	11.029	11.029	(1.044)	16739	5.00000	3.77	
	76 Bromoform	173	11.103	11.103	(1.051)	12410	5.00000	4.74(M)	NI

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.224	11.225	(1.063)	15978	5.00000	3.97	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	114113	50.0000	48.0	
	79 cis-1,4-Dichloro-2-butene	53	11.493	11.487	(1.088)	4646	5.00000	4.88	
	80 n-Propylbenzene	91	11.529	11.523	(1.092)	41636	5.00000	4.48	
	81 Bromobenzene	156	11.578	11.578	(1.096)	13586	5.00000	4.58	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	15768	5.00000	5.08	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	23455	5.00000	4.15	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	8976	5.00000	4.46	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	8467	5.00000	4.29	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	24864	5.00000	3.71	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	15868	5.00000	4.99	
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	3621	5.00000	4.85(M)	NI
	89 Cyclohexanone	98	Compound Not Detected.						(D)
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	19573	5.00000	3.52	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	22168	5.00000	3.89	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	26110	5.00000	3.85	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	19573	5.00000	3.52	
	94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	20960	5.00000	4.64	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	171143	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	24168	5.00000	4.83	
	97 n-Butylbenzene	91	12.486	12.486	(1.012)	24705	5.00000	4.14	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	22957	5.00000	4.66	
	99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	2892	5.00000	5.17	
	100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	6852	5.00000	4.49	
	101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	15217	5.00000	4.69	
	102 Naphthalene	128	14.200	14.193	(1.151)	22100	5.00000	3.96	
	103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	13936	5.00000	4.45	

QC Flag Legend

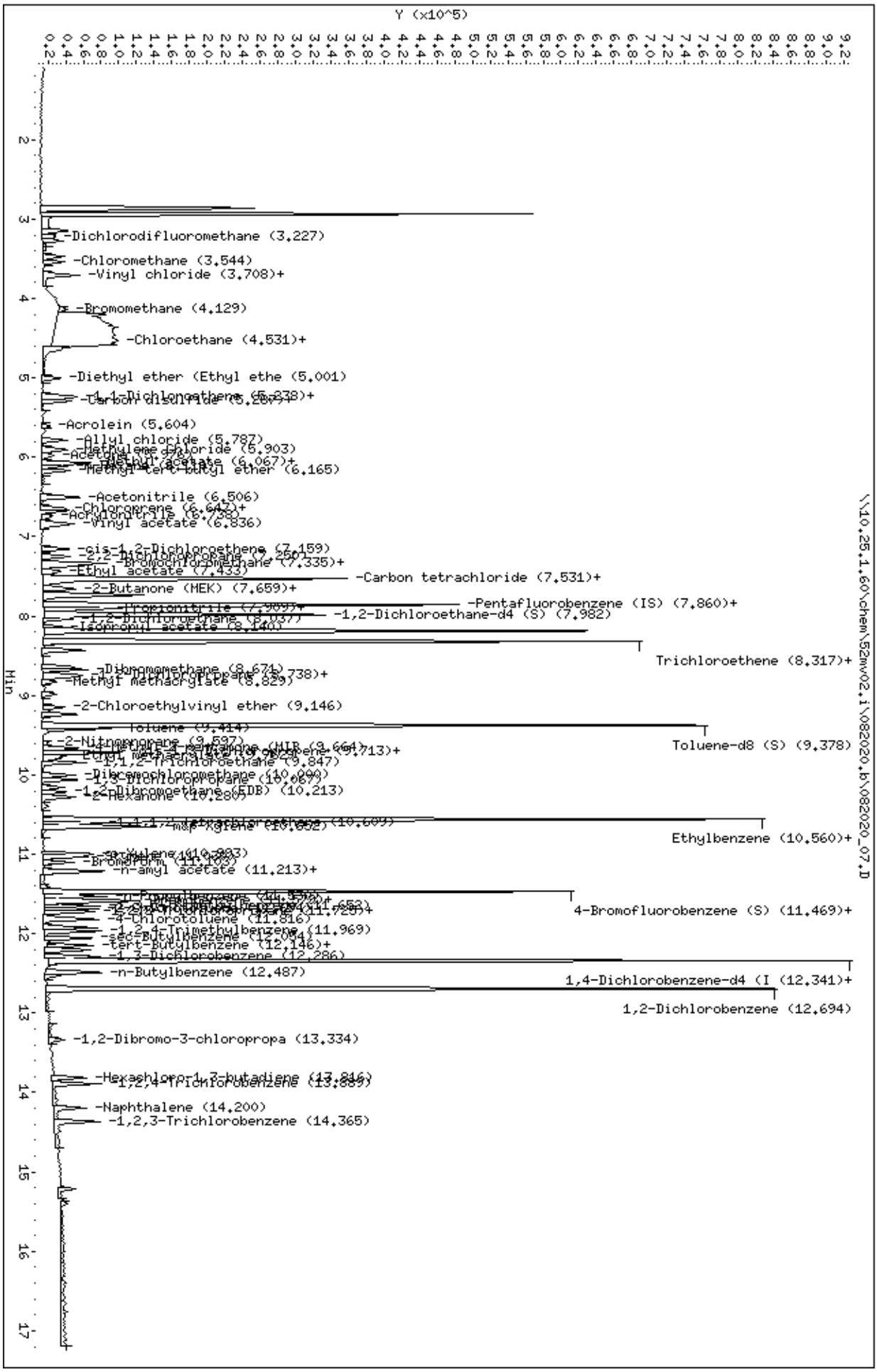
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_07.D
Date : 20-AUG-2020 12:30
Client ID: CAL5
Sample Info: CAL5,27241:1
Purge Volume: 5.0
Column phase: RTX-VMS

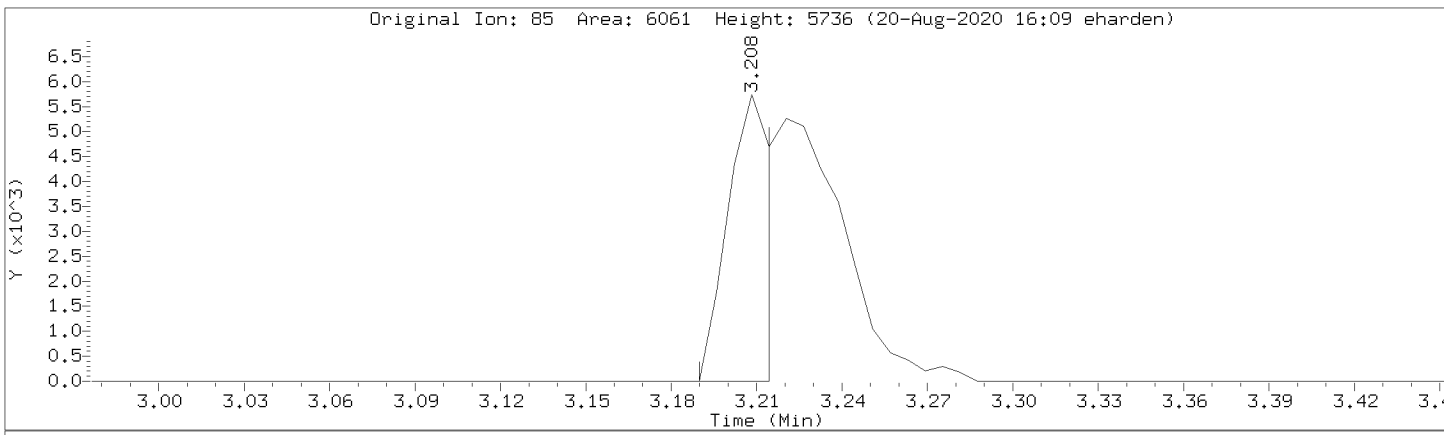
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

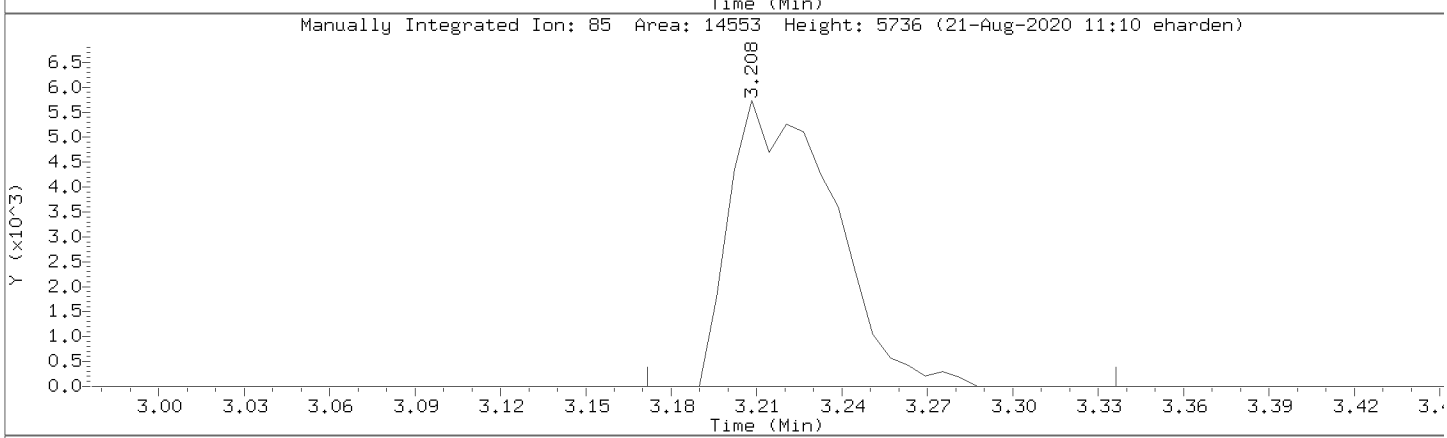


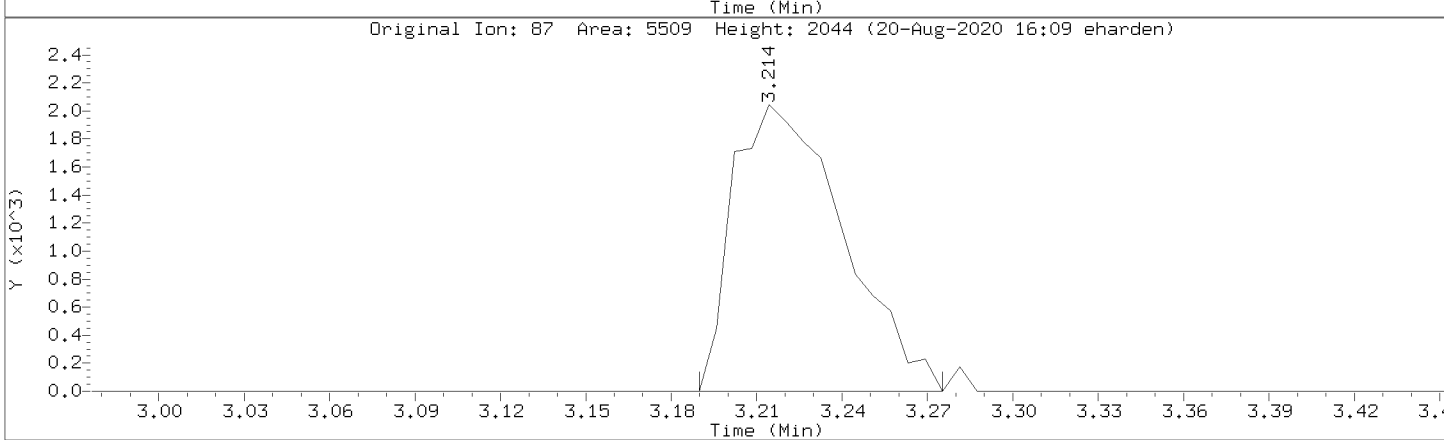
Page 4

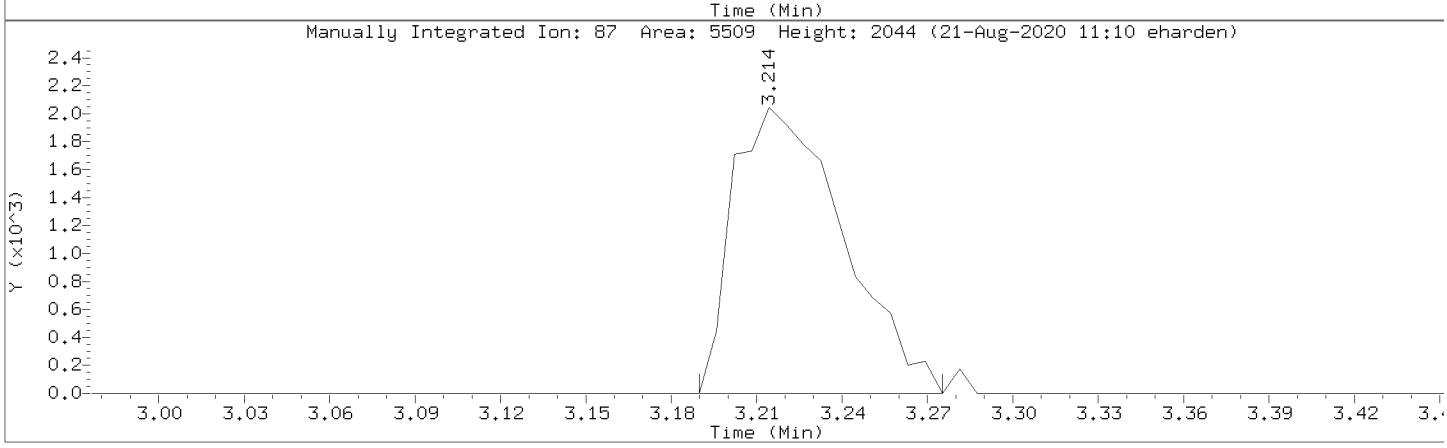
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_07.D
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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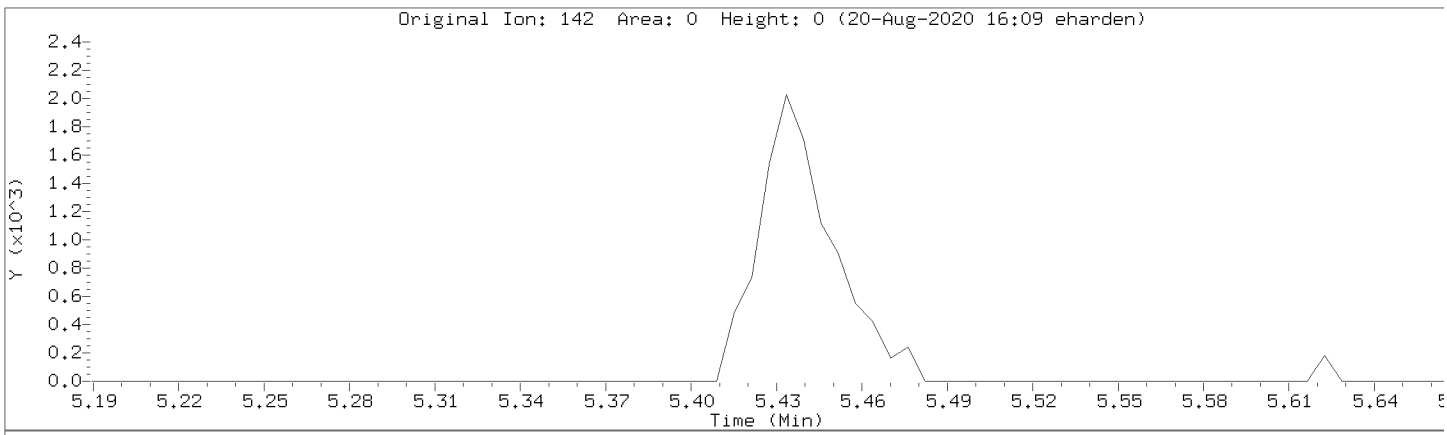
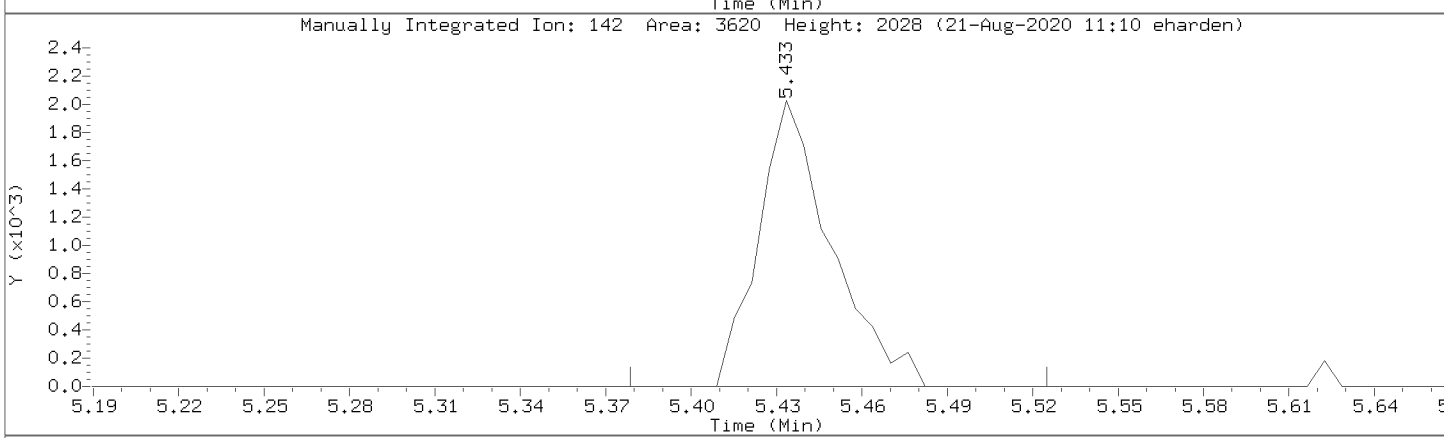
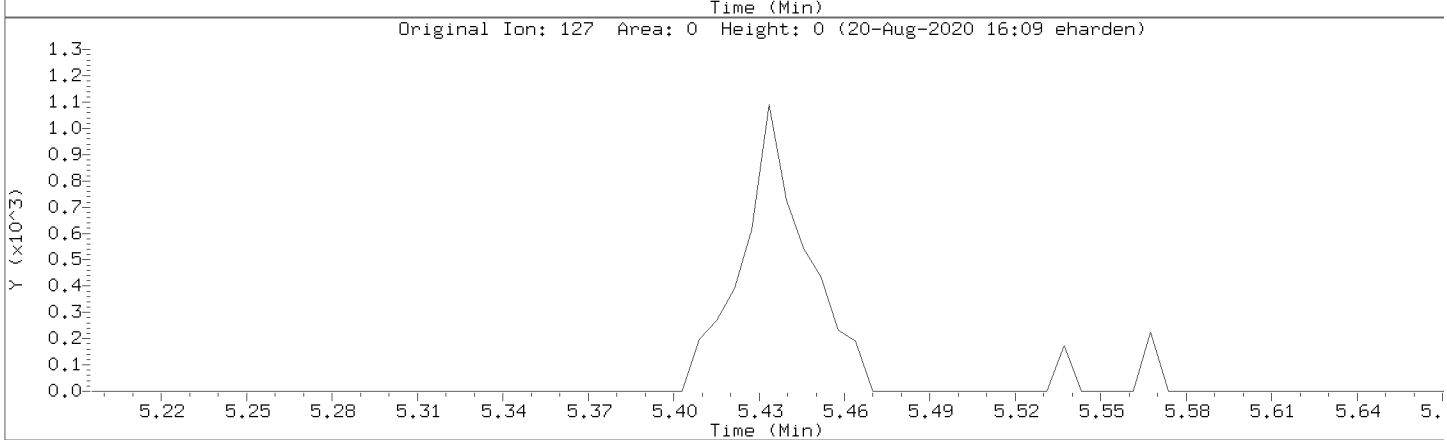
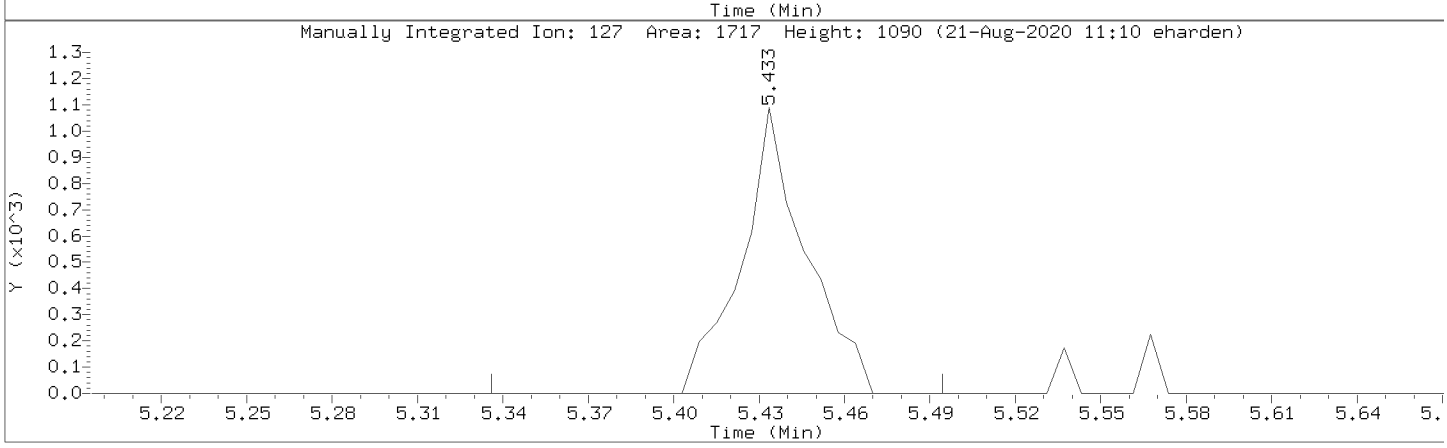
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4









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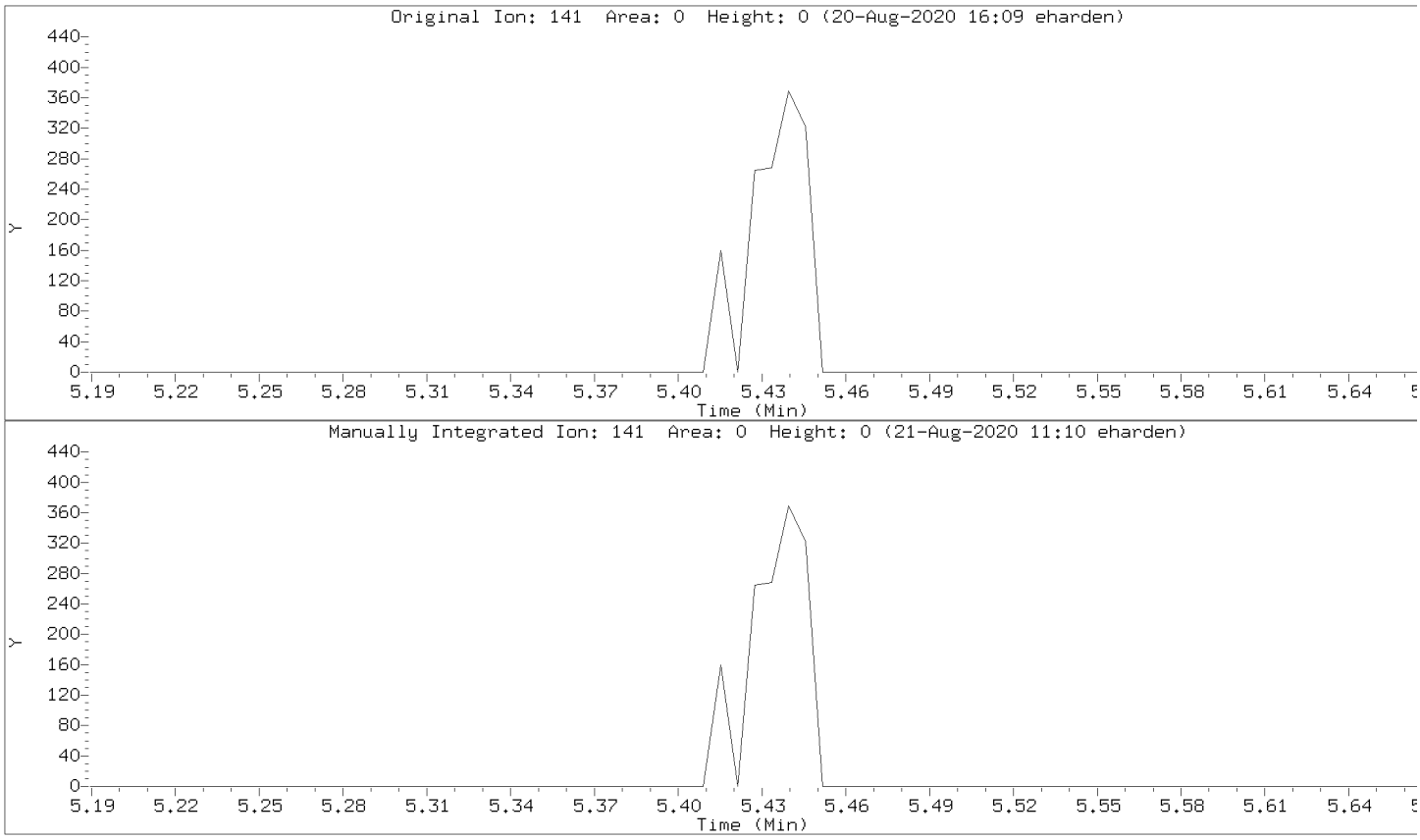
Instrument: 52mv02.i
Lab Sample ID: CAL5



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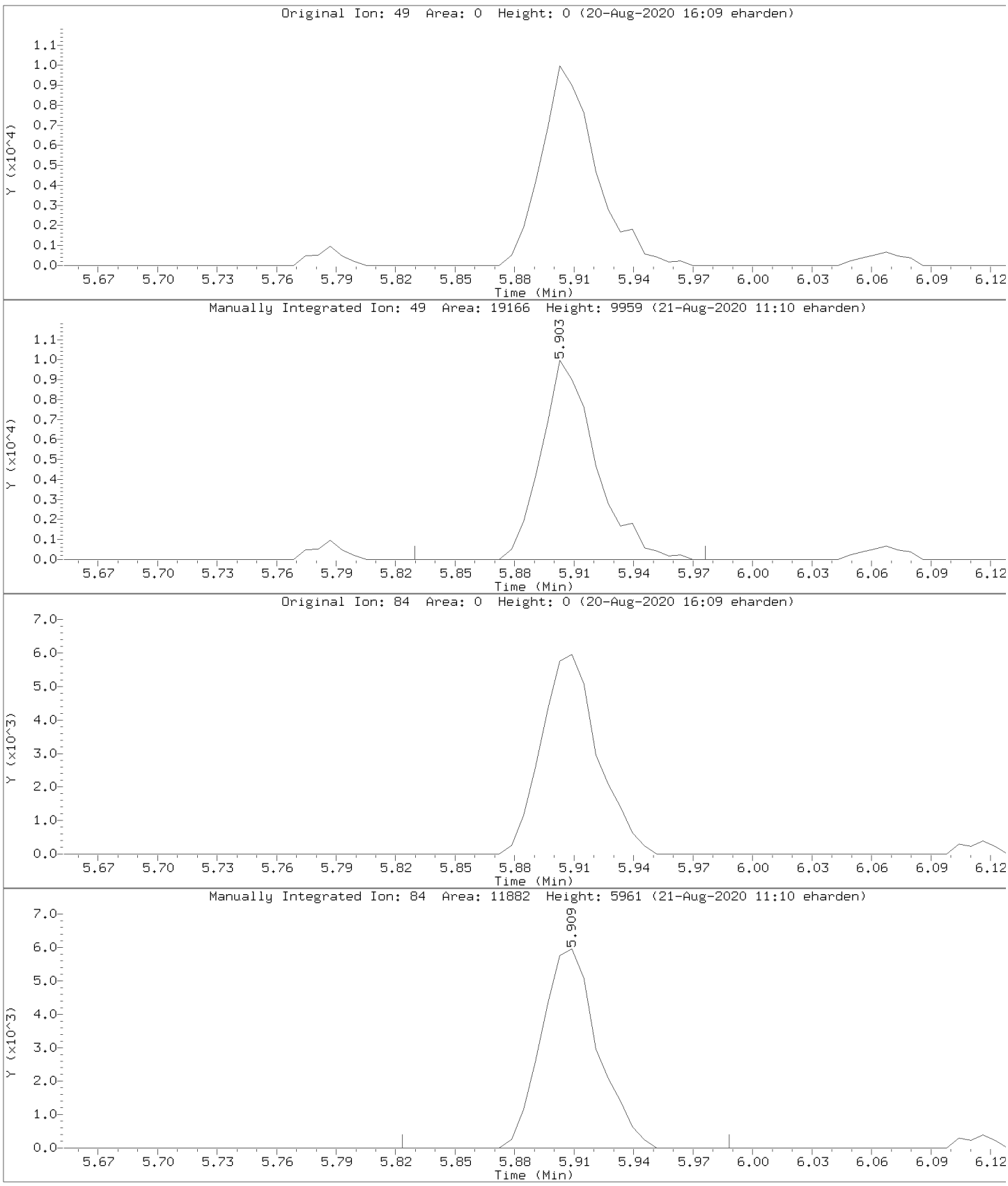
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2



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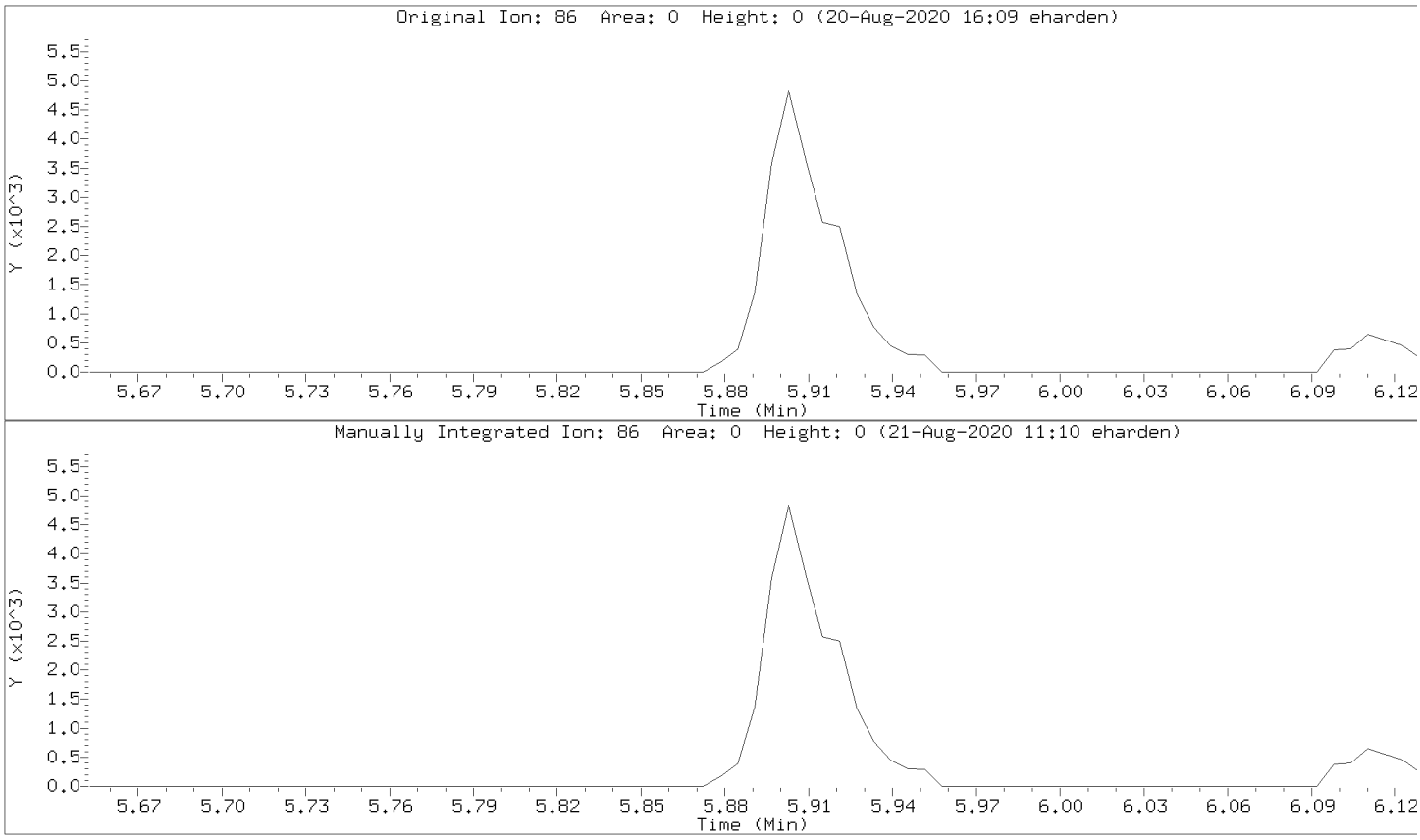
Instrument: 52mv02.i
Lab Sample ID: CAL5



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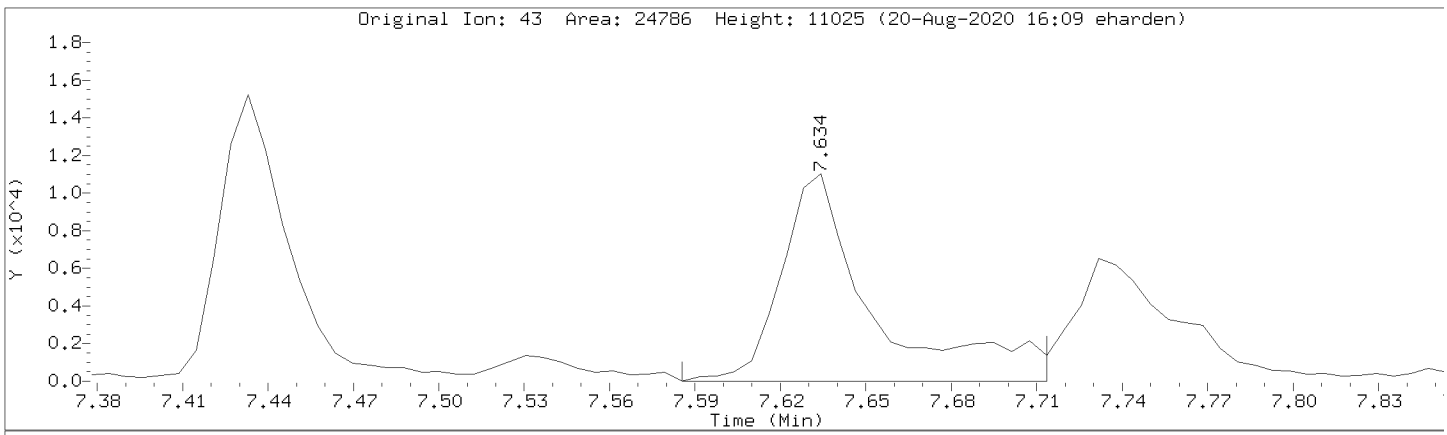
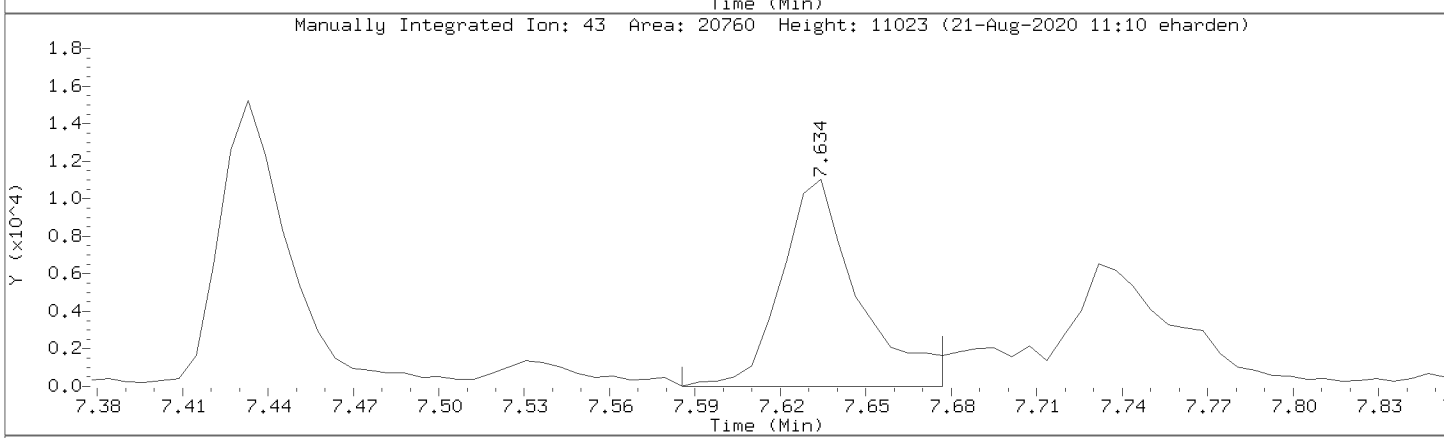
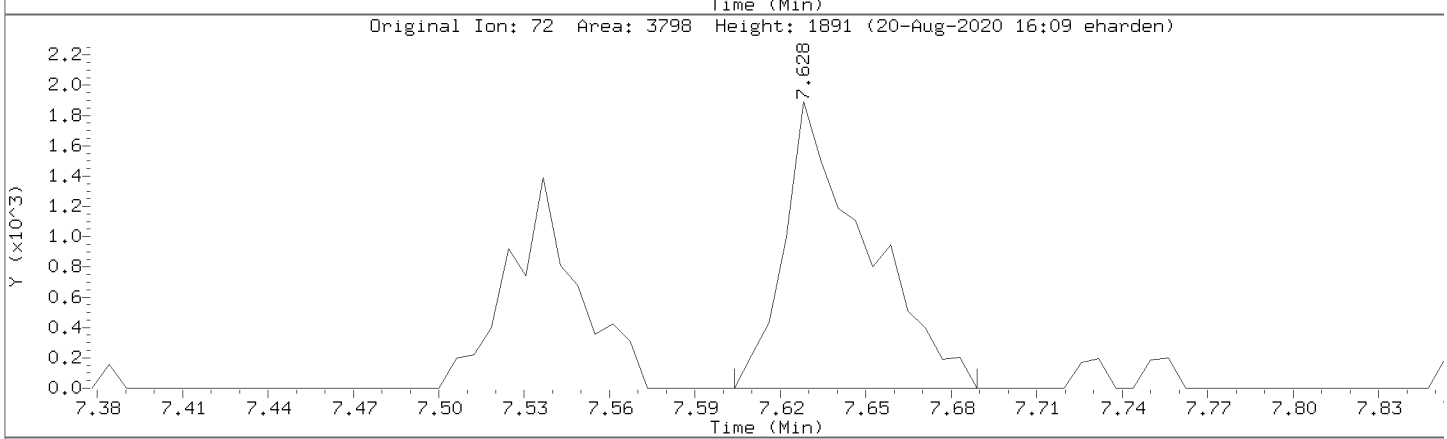
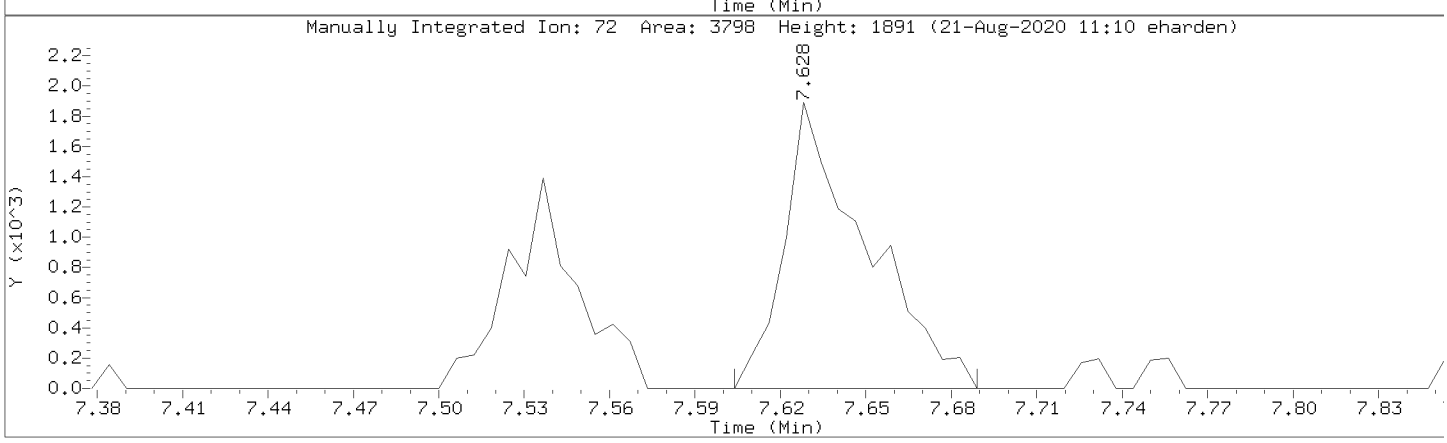
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3









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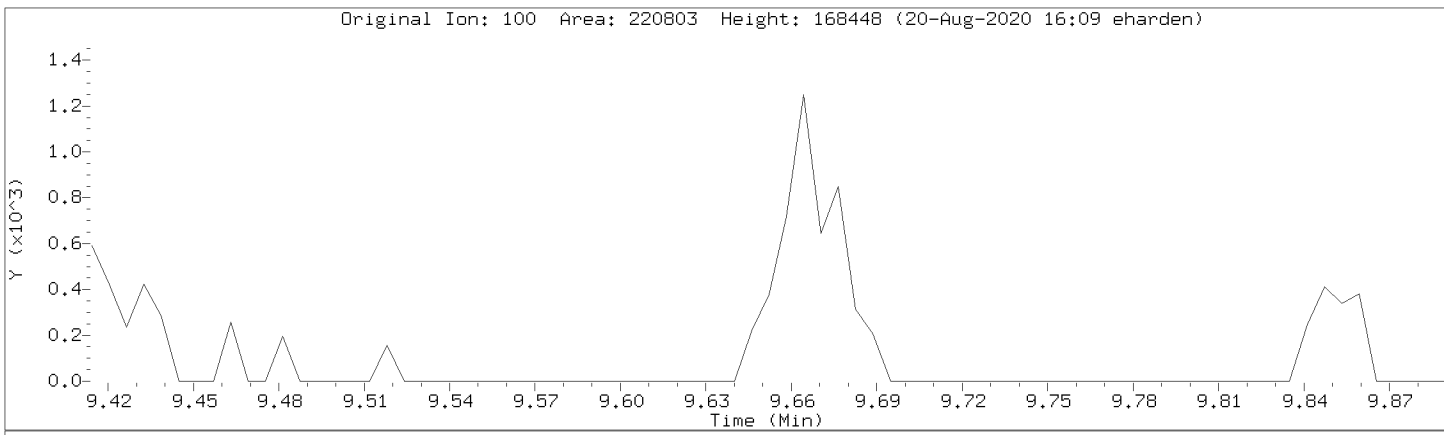
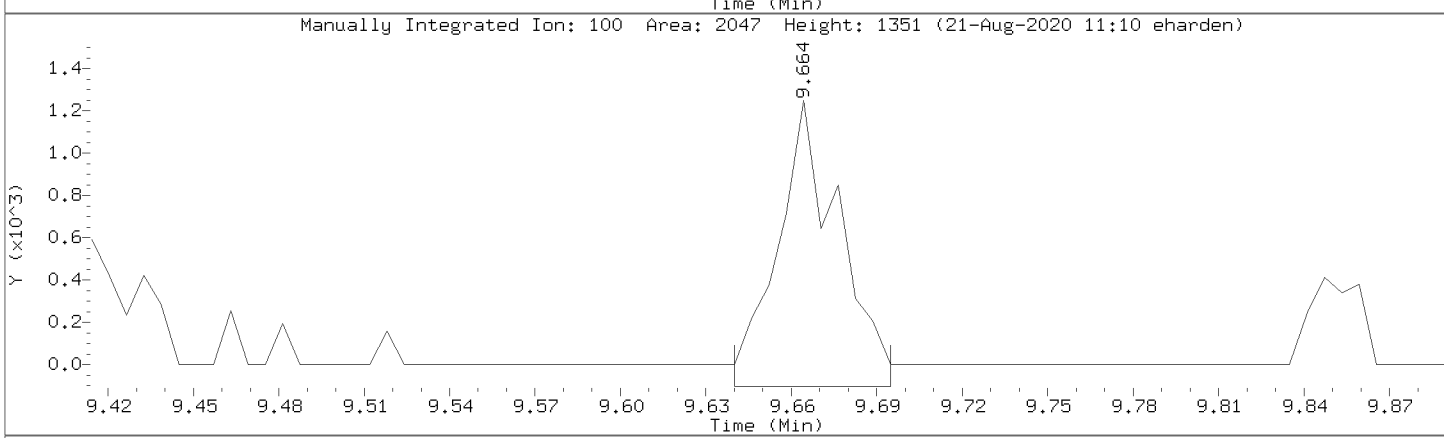
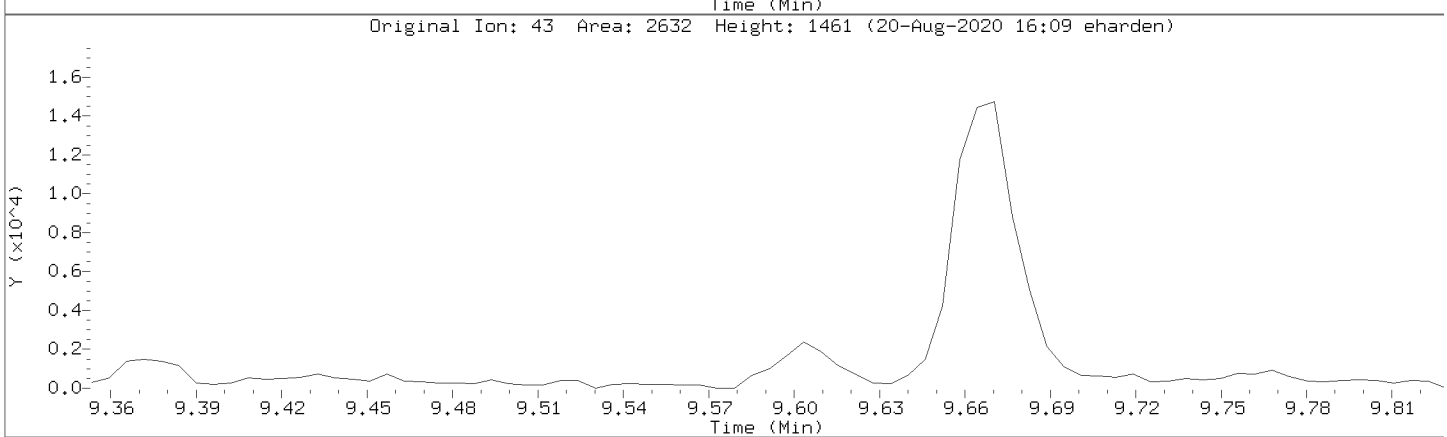
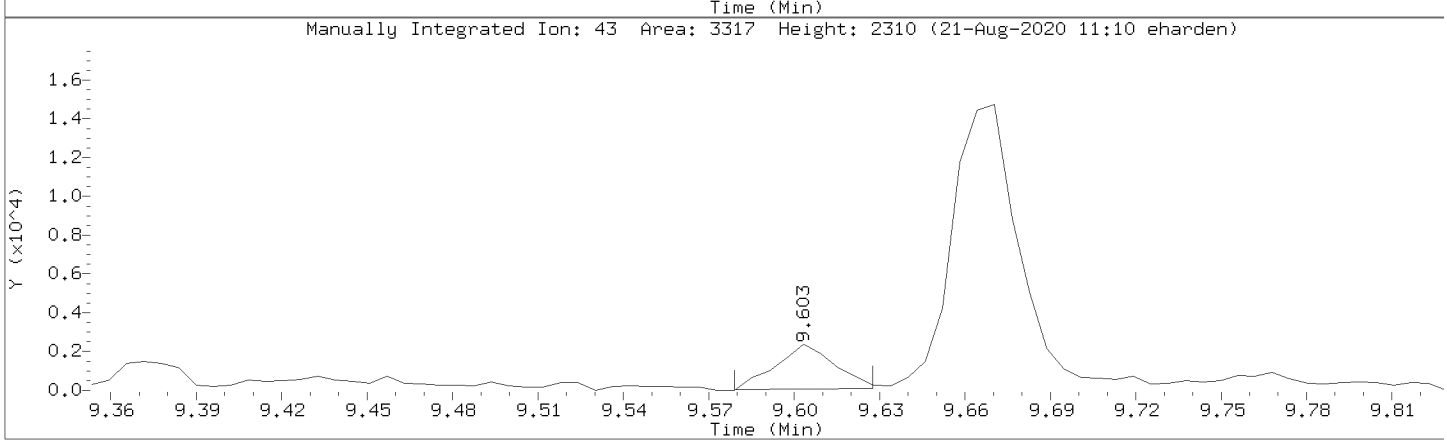
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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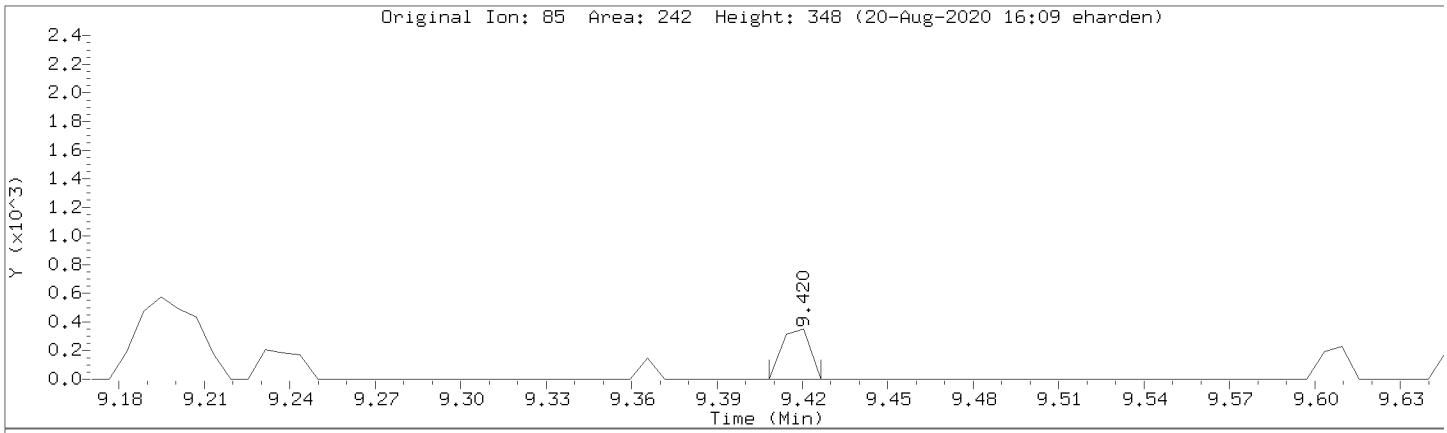
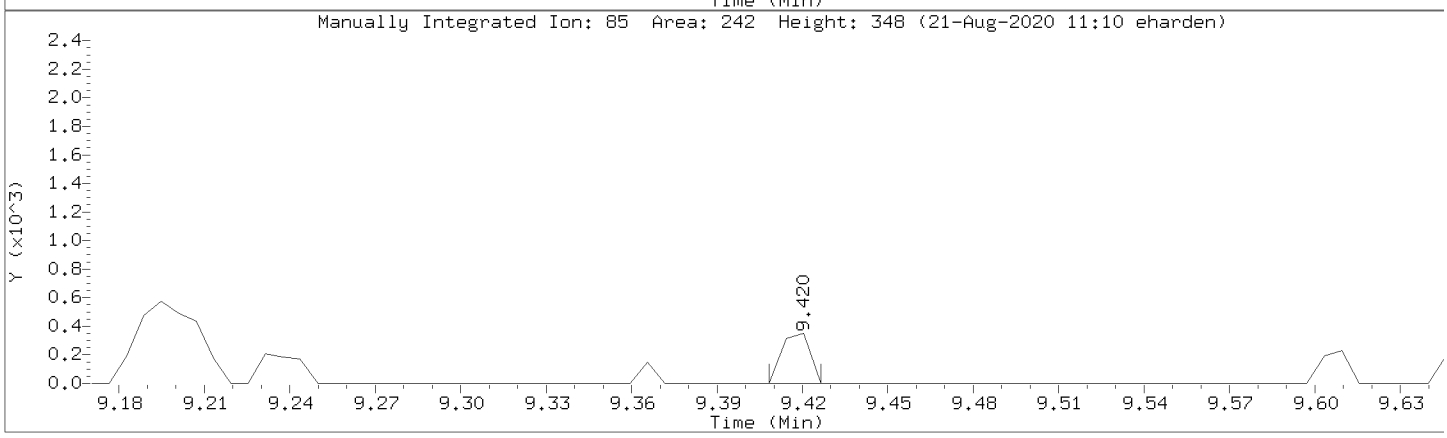
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5





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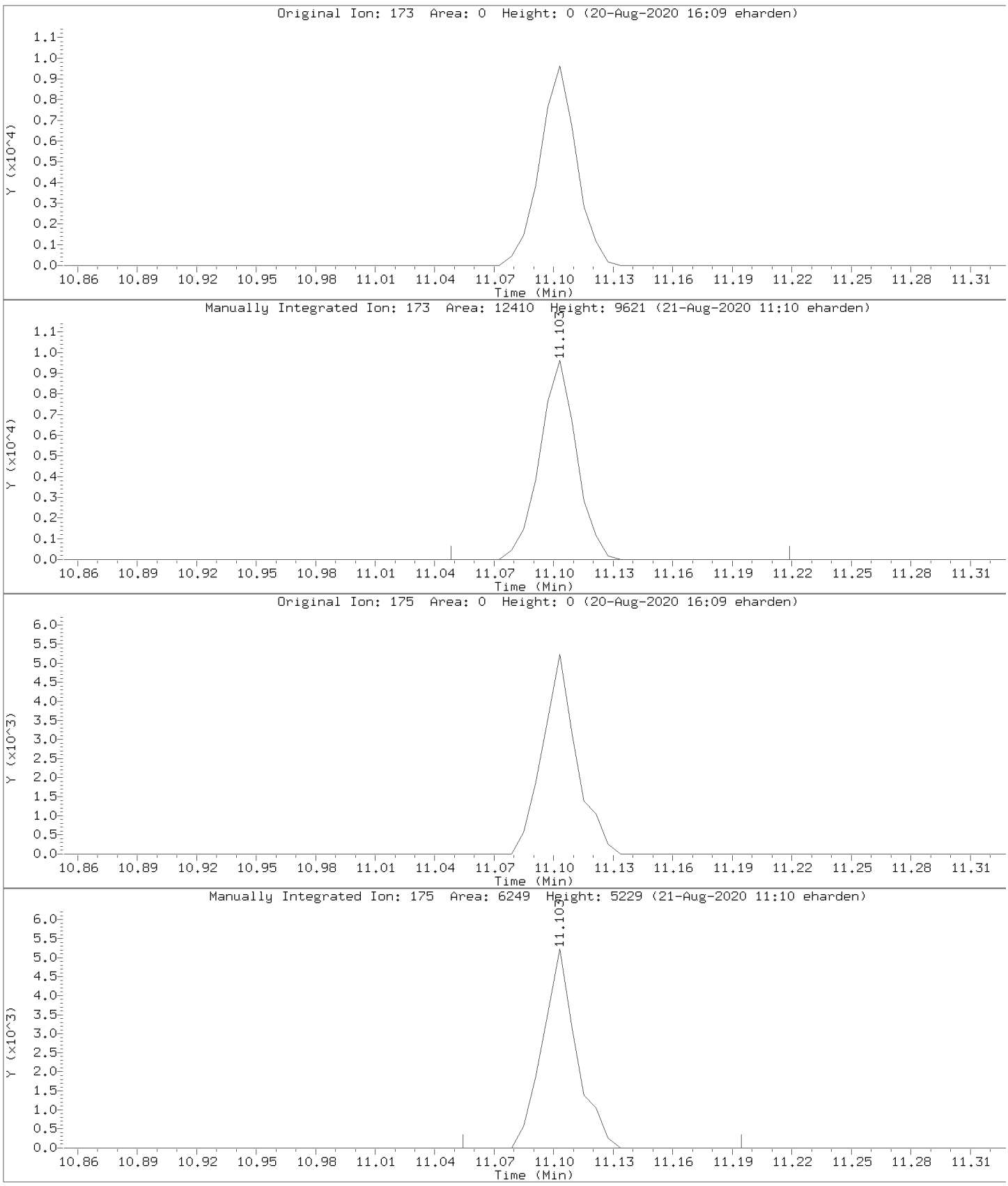
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2



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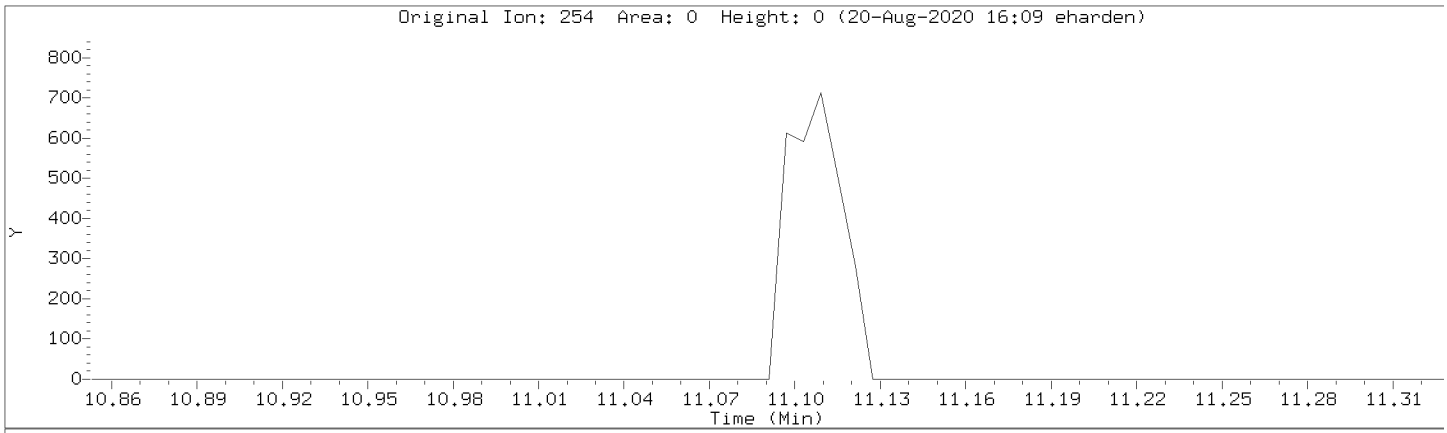
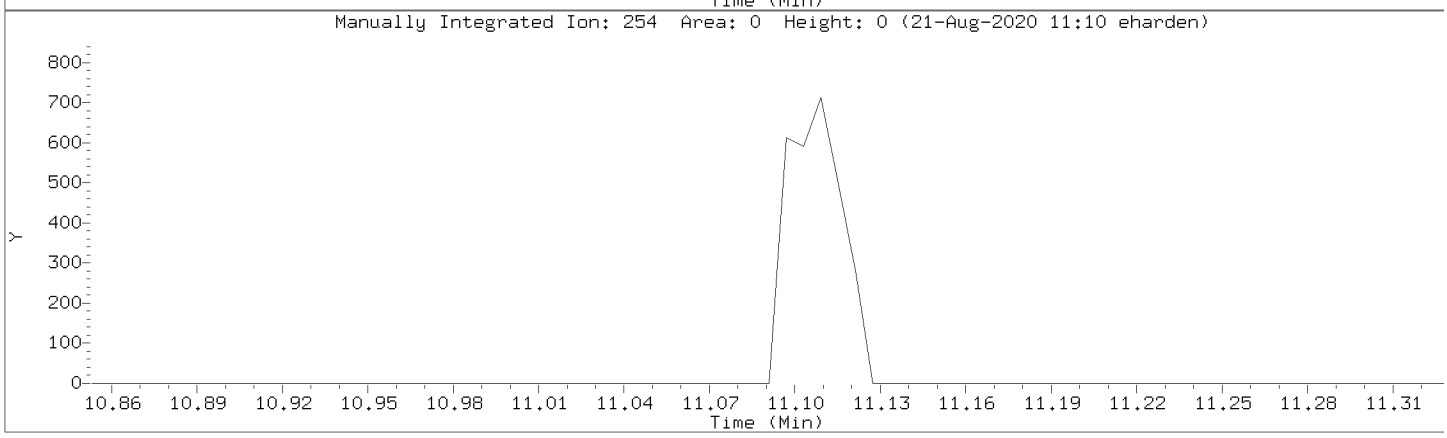
Instrument: 52mv02.i
Lab Sample ID: CAL5





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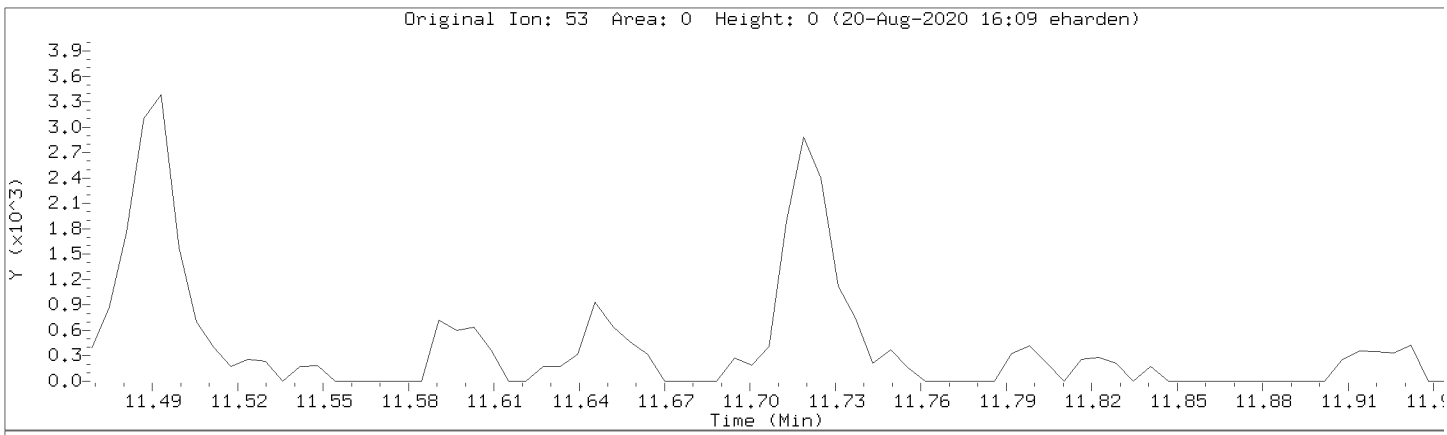
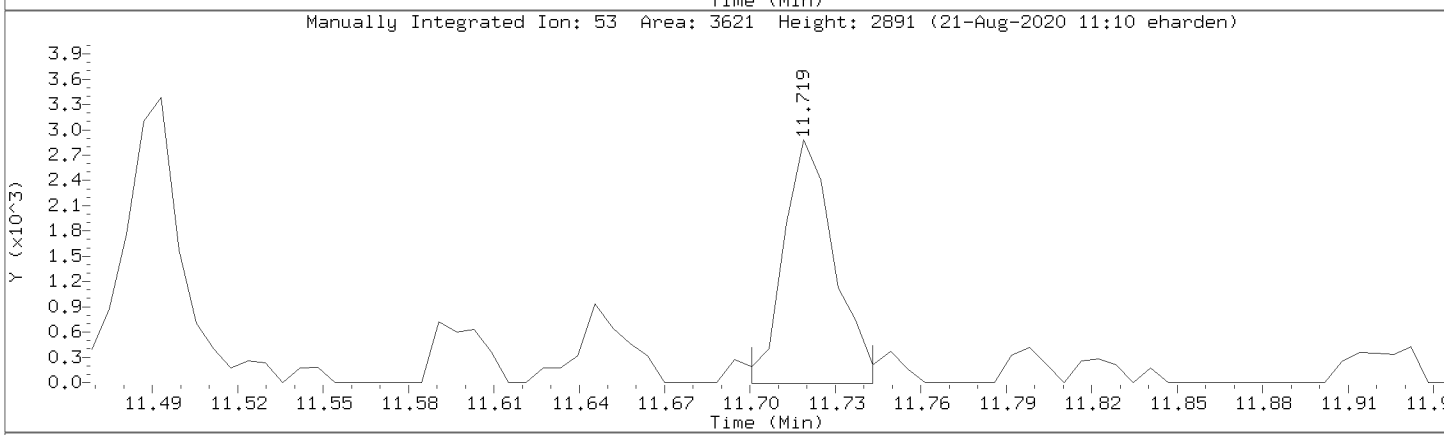
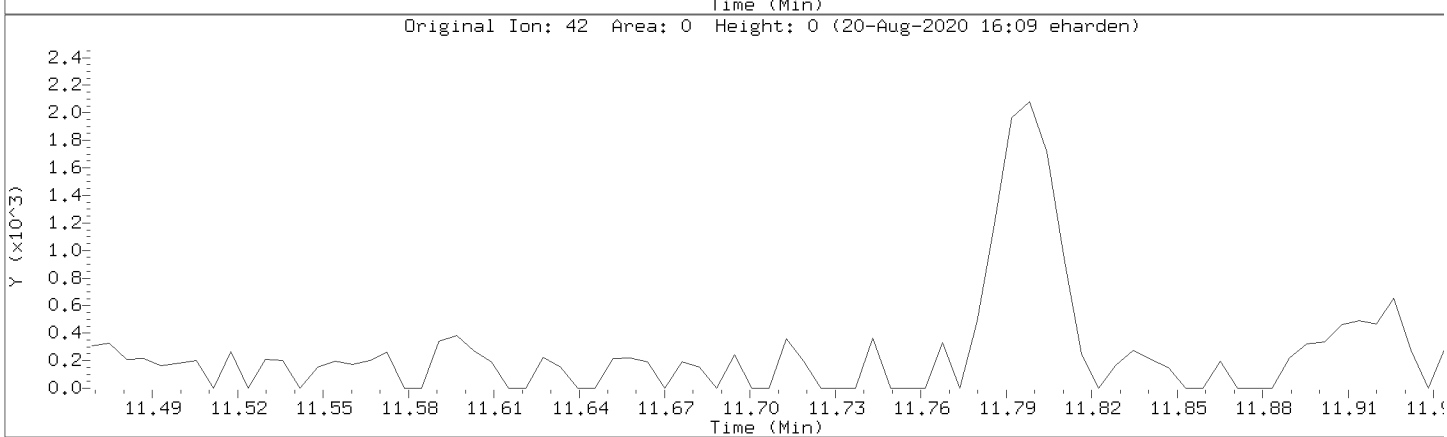
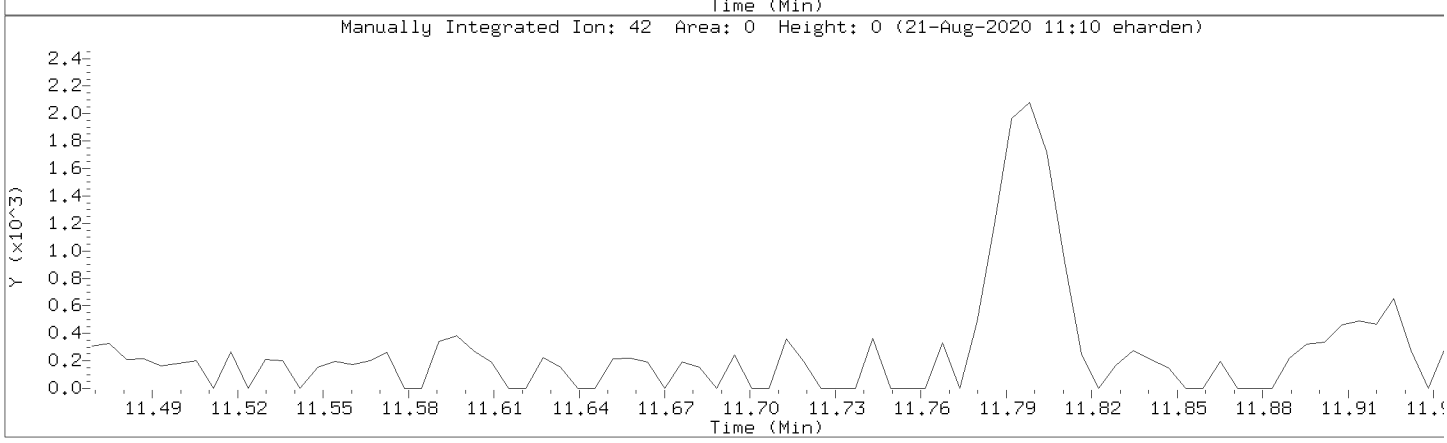
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6

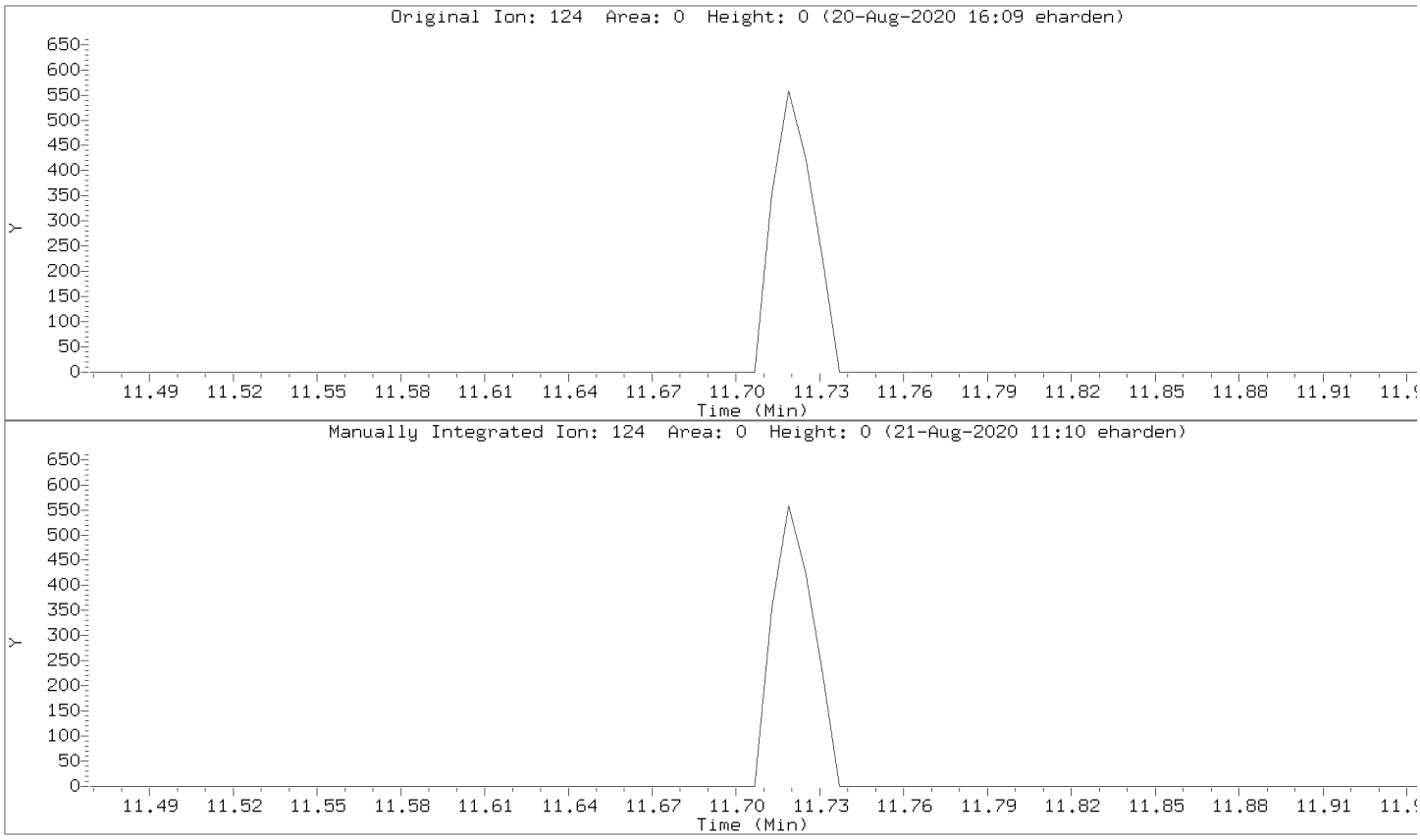








Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_07.D
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_08.D
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 20-AUG-2020 12:55
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal6,27242:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 12:55 Cal File: 082020_08.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.226	(0.409)	29295	10.0000	9.84	
2 Chloromethane	50	3.543	3.543	(0.451)	39151	10.0000	10.6	
3 Vinyl chloride	62	3.689	3.702	(0.469)	28051	10.0000	9.58	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	27387	10.0000	10.4	
5 Bromomethane	94	4.195	4.195	(0.534)	32621	10.0000	12.4	
6 Chloroethane	64	4.360	4.360	(0.555)	10189	10.0000	11.8	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	18512	10.0000	9.94	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	11455	10.0000	11.2	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	37044	10.0000	11.2	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	23374	10.0000	10.7	
11 Carbon disulfide	76	5.293	5.293	(0.673)	81296	10.0000	11.1	
12 Iodomethane	142	5.433	5.439	(0.691)	8958	10.0000	9.59(T)	
13 Acrolein	56	5.659	5.659	(0.720)	6578	20.0000	19.2	
14 Allyl chloride	76	5.780	5.787	(0.736)	10499	10.0000	10.3	
15 Methylene Chloride	49	5.902	5.902	(0.751)	42293	10.0000	10.8(T)	
16 Acetone	43	5.969	5.976	(0.760)	44985	20.0000	22.1	
17 Methyl acetate	43	6.073	6.067	(0.773)	48220	20.0000	20.6	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	24253	10.0000	10.8	
19 n-Hexane	86	6.110	6.110	(0.777)	2234	10.0000	9.43	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	51088	10.0000	9.80	
21 Acetonitrile	41	6.457	6.463	(0.822)	3493	20.0000	16.2(H)	
22 Chloroprene	53	6.640	6.640	(0.845)	30445	10.0000	9.77	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	47900	10.0000	11.0	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	17593	20.0000	18.6	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	44750	10.0000	10.4(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	33510	10.0000	10.5	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	36245	10.0000	10.8	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	15015	10.0000	10.7	
	29 Cyclohexane	56	7.335	7.335	(0.882)	26642	10.0000	9.35	
	30 Chloroform	83	7.372	7.372	(0.938)	52677	10.0000	10.7	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	56268	20.0000	20.3	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	36580	10.0000	10.8	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	14388	20.0000	19.0	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	146283	50.0000	51.5	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	41497	10.0000	10.8	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	42963	20.0000	20.3	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	26914	10.0000	10.1(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	246807	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	92640	10.0000	10.8	
	40 Propionitrile	54	7.890	7.902	(1.004)	9386	20.0000	22.3	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	44057	20.0000	20.6	
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25345	50.0000	49.6	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	40332	10.0000	10.4	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	46853	10.0000	10.2	
	46 Trichloroethene	130	8.323	8.317	(1.001)	25650	10.0000	11.0	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	334966	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	10846	10.0000	9.77	
	49 n-Butanol	56	8.518	8.524	(1.024)	718	20.0000	14.0(MH)	LT
	50 Dibromomethane	93	8.670	8.670	(1.043)	22088	10.0000	11.1	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	26011	10.0000	10.6	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	41201	10.0000	11.7	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	11241	10.0000	8.54(H)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						(D)
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	17674	20.0000	15.5	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	34756	10.0000	10.2	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	363232	50.0000	50.4	
	58 Toluene	91	9.414	9.414	(1.132)	87179	10.0000	10.4	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	8683	10.0000	10.0(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.670	9.664	(1.163)	4550	20.0000	19.0(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	34380	10.0000	10.1	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	22100	10.0000	10.4	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	20969	10.0000	8.39(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	22063	10.0000	10.4	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	32178	10.0000	11.0	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	34242	10.0000	10.6	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	27035	10.0000	10.7	
	68 2-Hexanone	43	10.273	10.280	(1.235)	55414	20.0000	19.6	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	77797	10.0000	9.64	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	308495	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	63961	10.0000	10.7	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	26243	10.0000	10.4	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	122019	20.0000	17.6	
	74 o-Xylene	106	10.993	10.993	(1.041)	25872	10.0000	8.21	
	75 Styrene	104	11.029	11.029	(1.044)	44191	10.0000	8.11	
	76 Bromoform	173	11.103	11.103	(1.051)	29236	10.0000	10.5	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.225	11.225	(1.063)	38823	10.0000	8.40	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	123406	50.0000	48.7	
	79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	9323	10.0000	9.20	
	80 n-Propylbenzene	91	11.523	11.523	(1.091)	101972	10.0000	10.3	
	81 Bromobenzene	156	11.578	11.578	(1.096)	33652	10.0000	10.8	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	36166	10.0000	11.0	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	61206	10.0000	9.66	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	22961	10.0000	10.0	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	19627	10.0000	8.56	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	66445	10.0000	8.28	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	34384	10.0000	9.96(M)	CO
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	7978	10.0000	10.0(M)	NI
	89 Cyclohexanone	98	Compound Not Detected.						
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	55461	10.0000	7.95	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	61898	10.0000	8.71	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	70909	10.0000	8.45	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	55461	10.0000	7.95	
	94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	52511	10.0000	10.3	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	191833	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	58586	10.0000	10.2	
	97 n-Butylbenzene	91	12.486	12.486	(1.012)	61276	10.0000	9.17	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	56996	10.0000	10.2	
	99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	5508	10.0000	8.78	
	100 Hexachloro-1,3-butadiene	225	13.815	13.822	(1.120)	17340	10.0000	10.1	
	101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	35572	10.0000	9.42	
	102 Naphthalene	128	14.193	14.193	(1.150)	52461	10.0000	7.46	
	103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	31470	10.0000	8.96	

QC Flag Legend

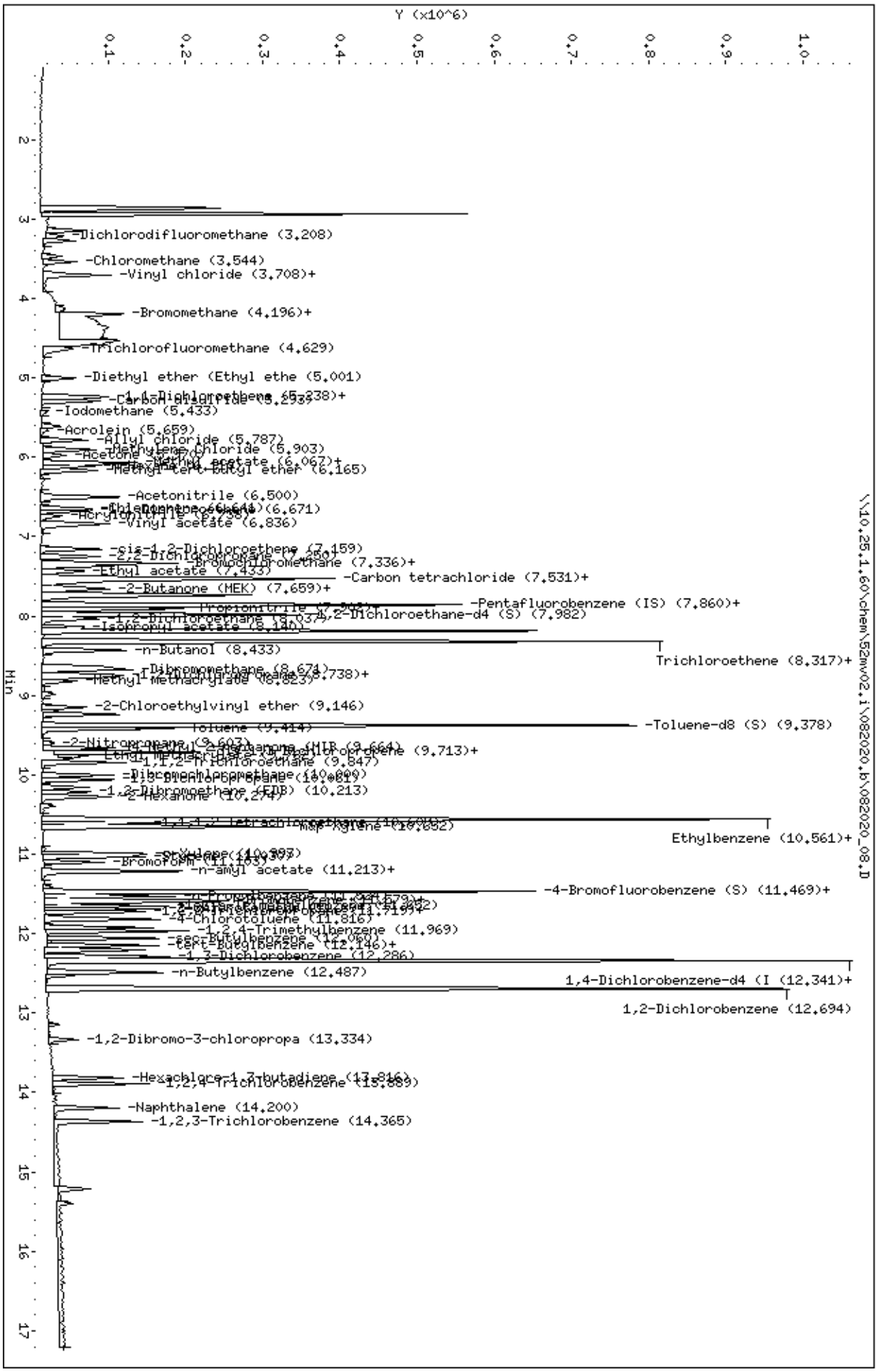
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_08.D
Date : 20-AUG-2020 12:55
Client ID: CAL6
Sample Info: CAL6,27242:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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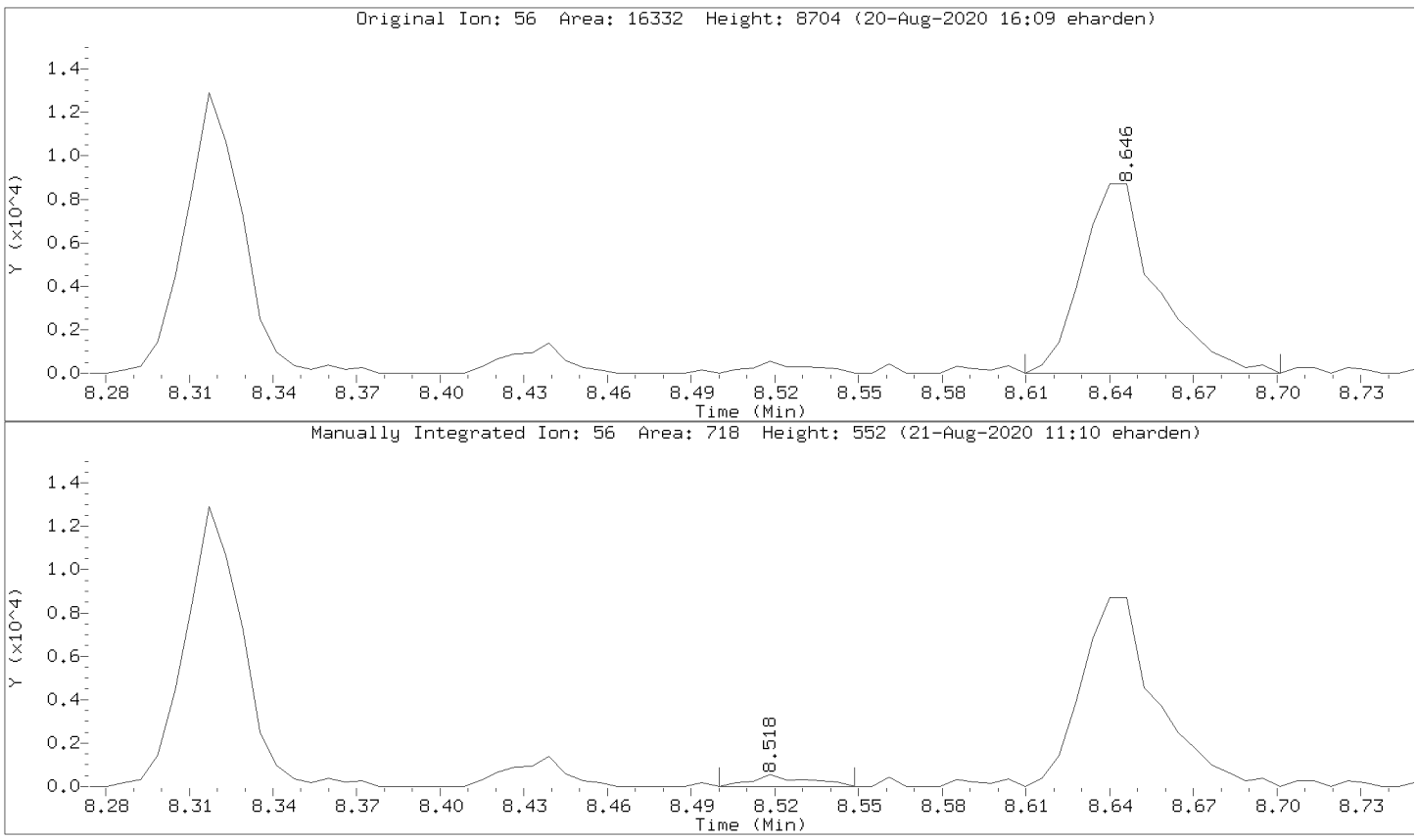
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: n-Butanol Review Code: LT
CAS Number: 71-36-3



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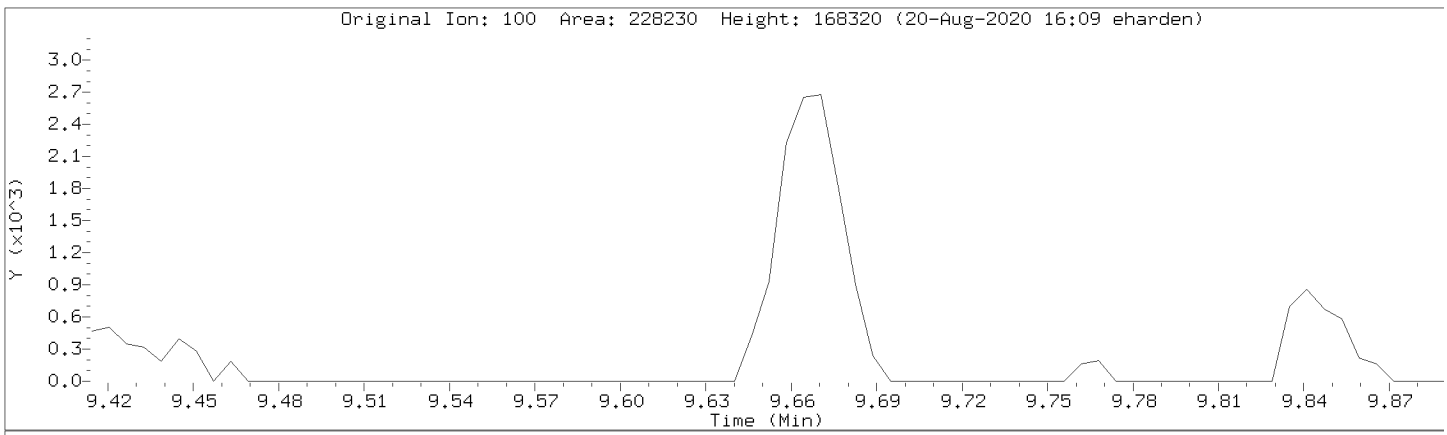
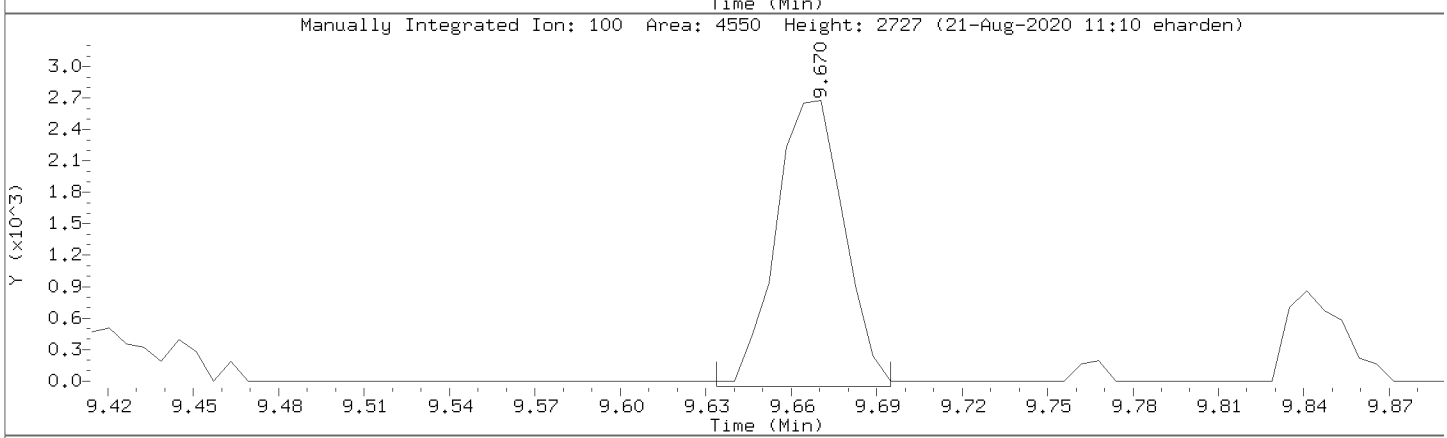
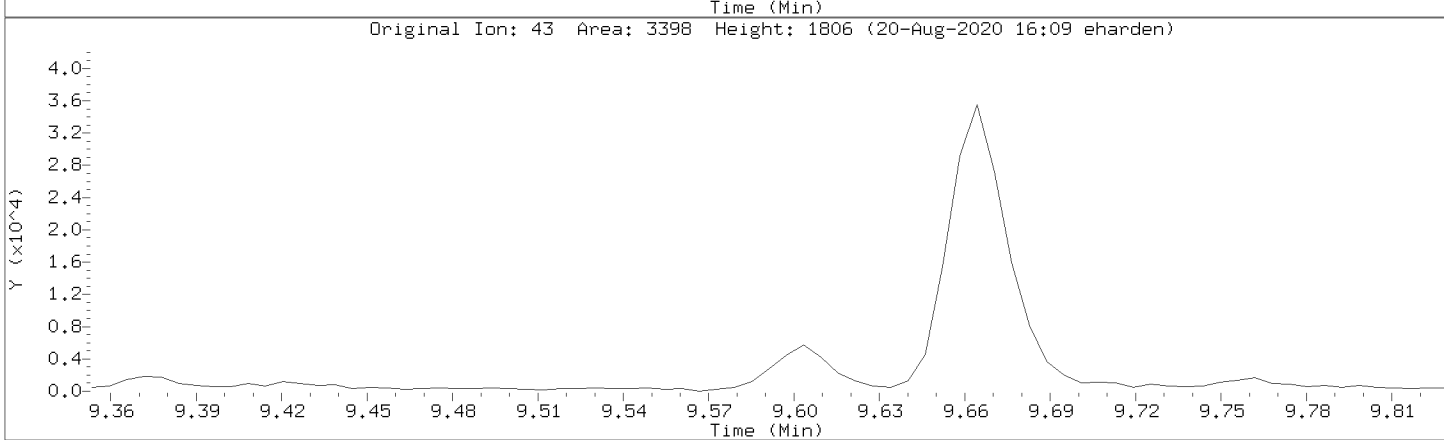
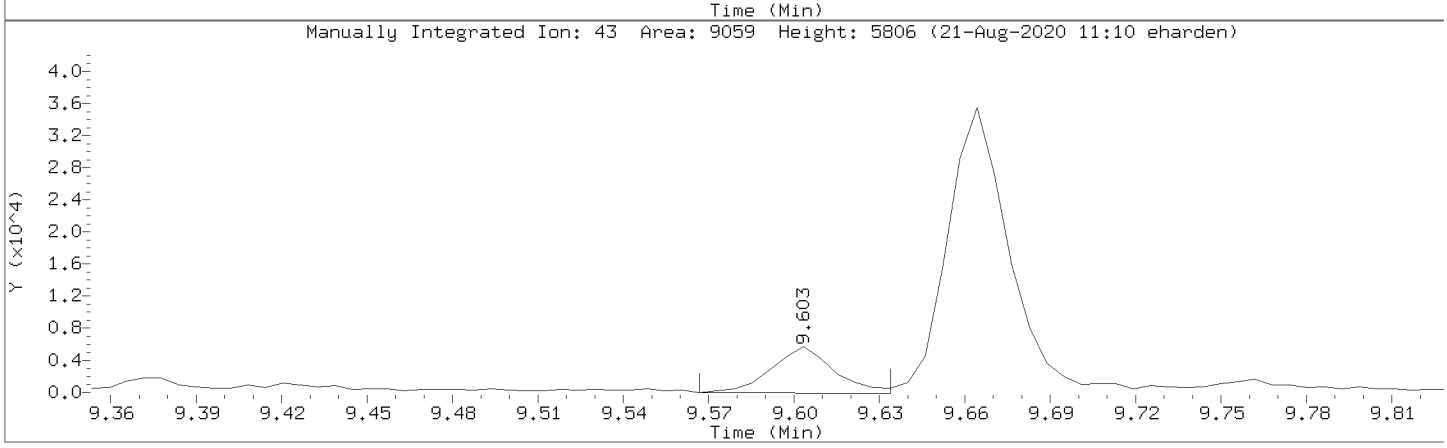
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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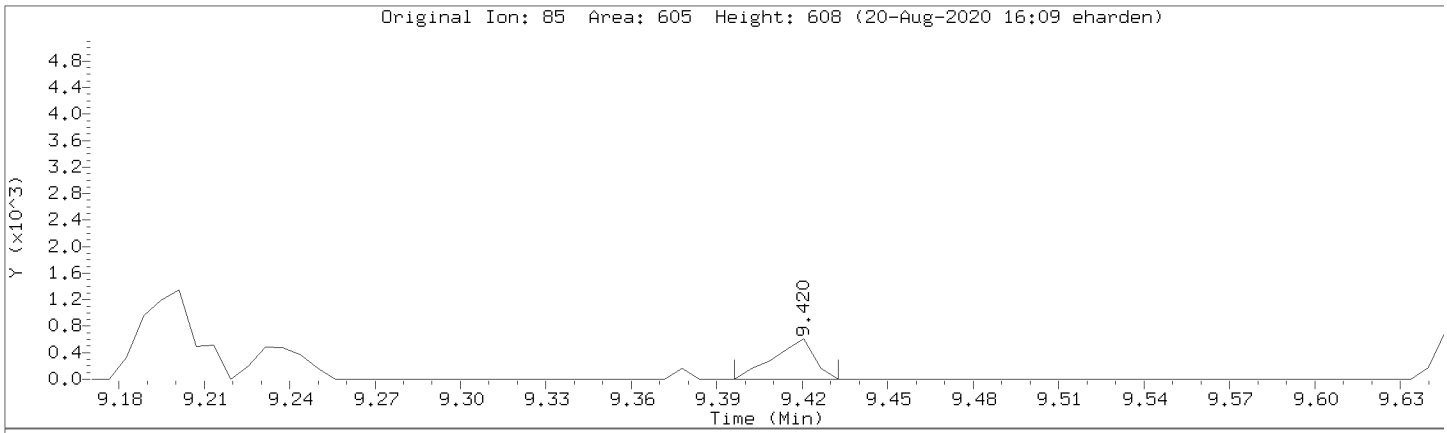
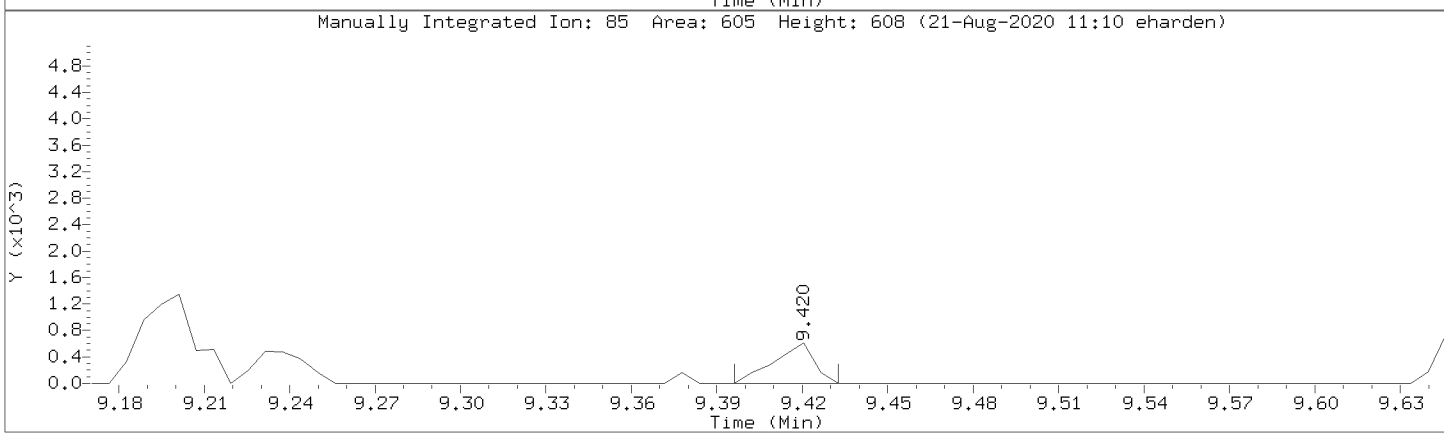
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6





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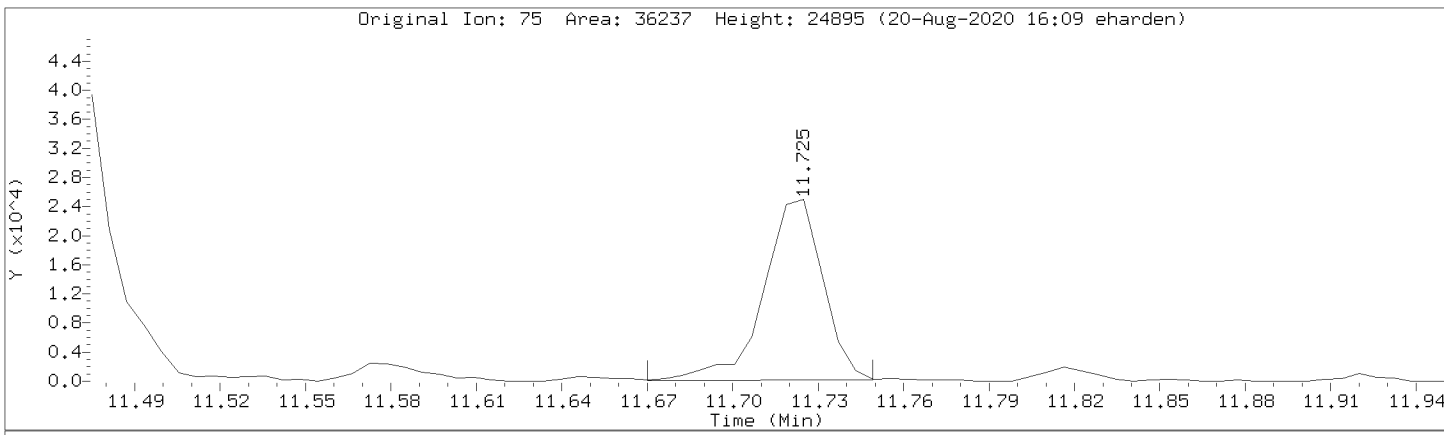
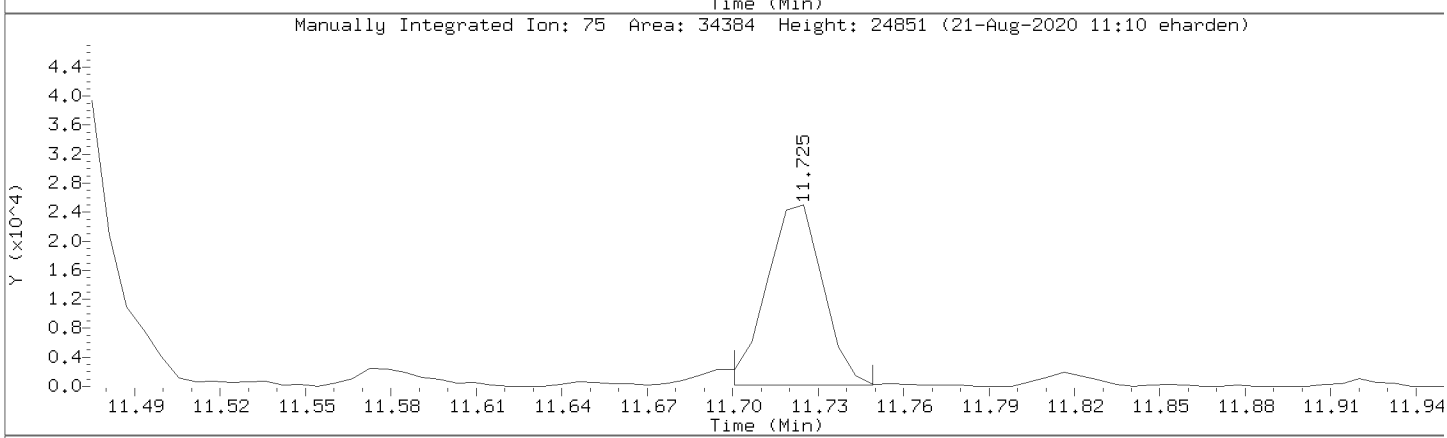
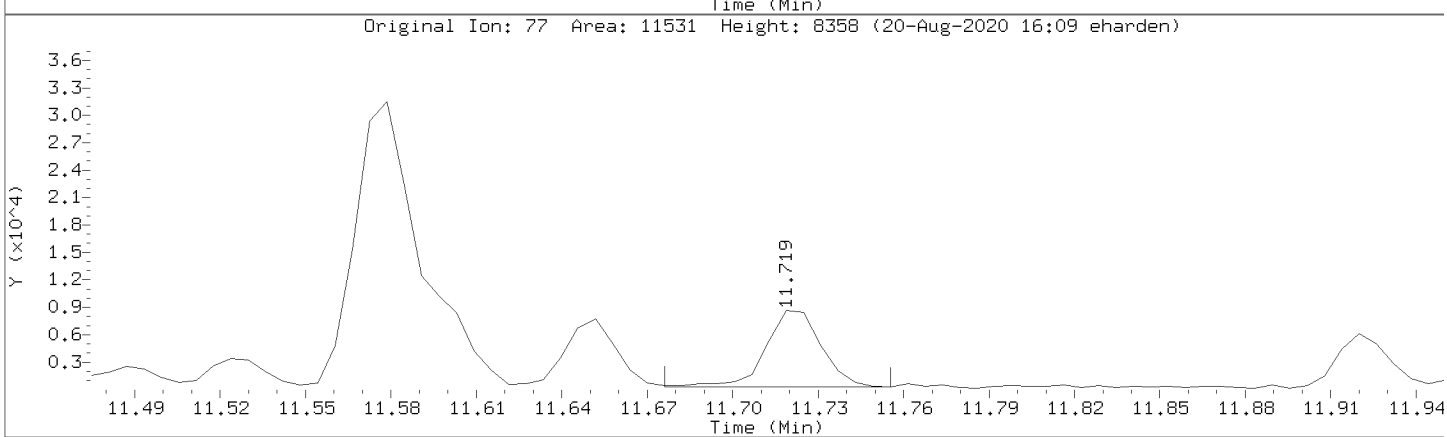
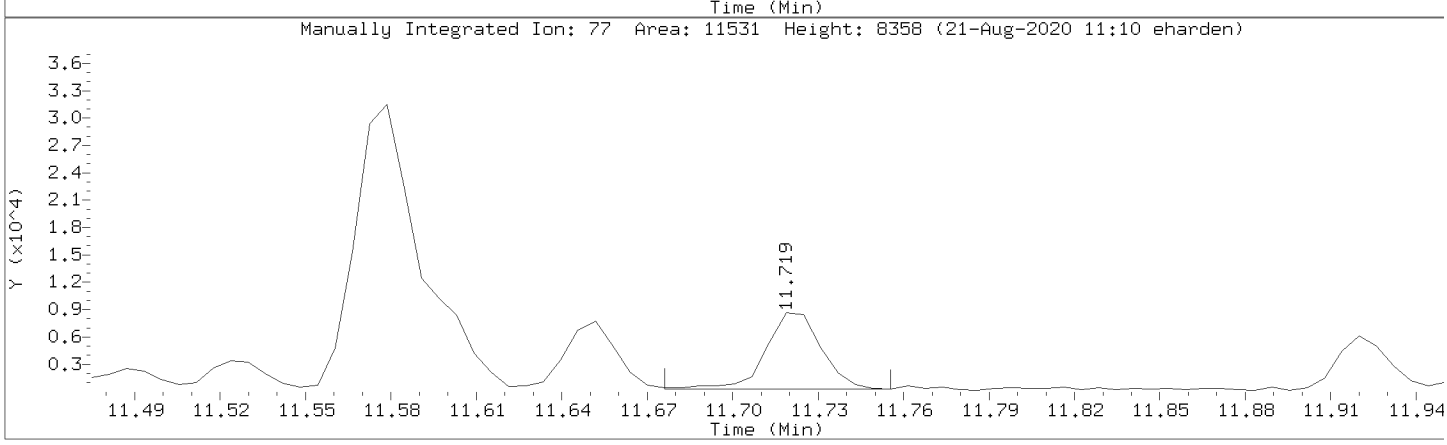
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: 1,2,3-Trichloropropane Review Code: CO
CAS Number: 96-18-4









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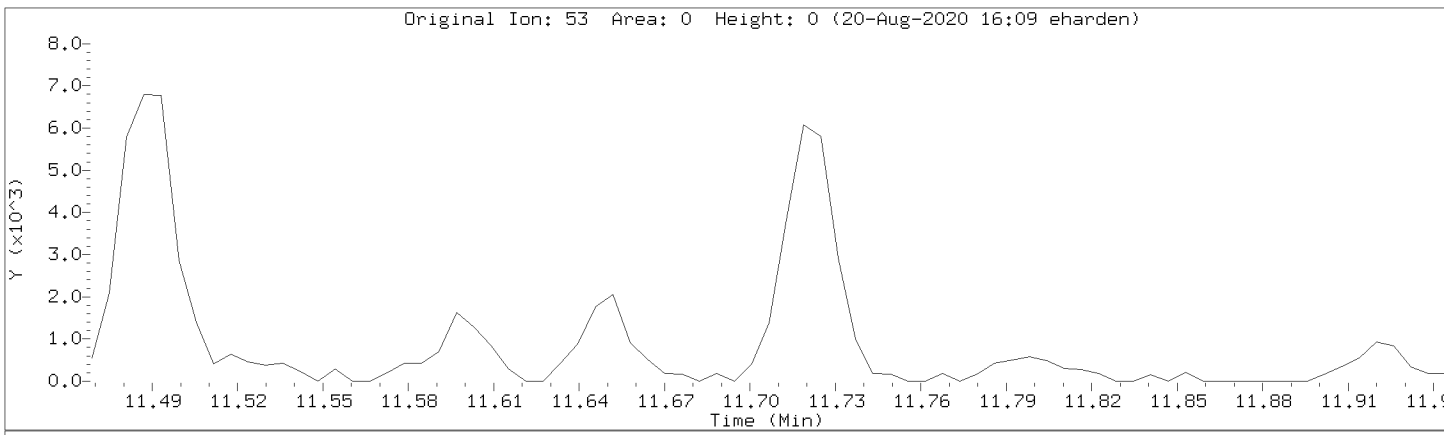
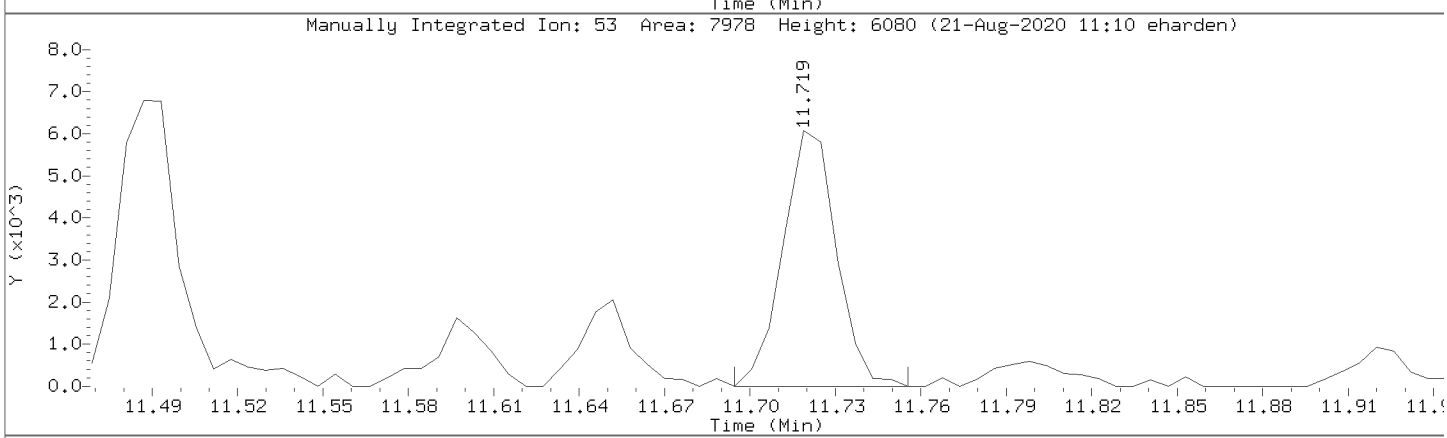
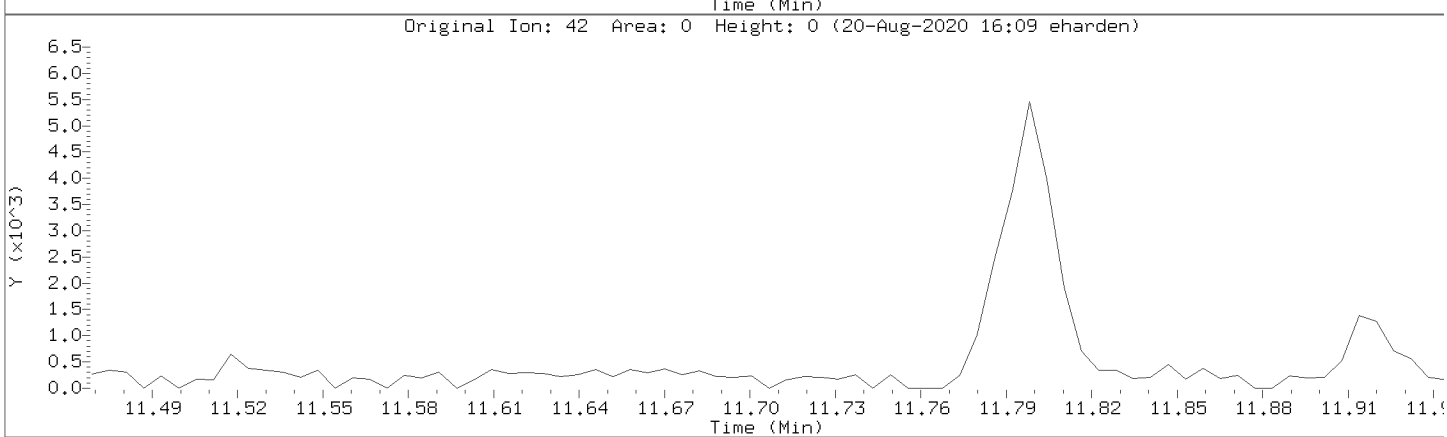
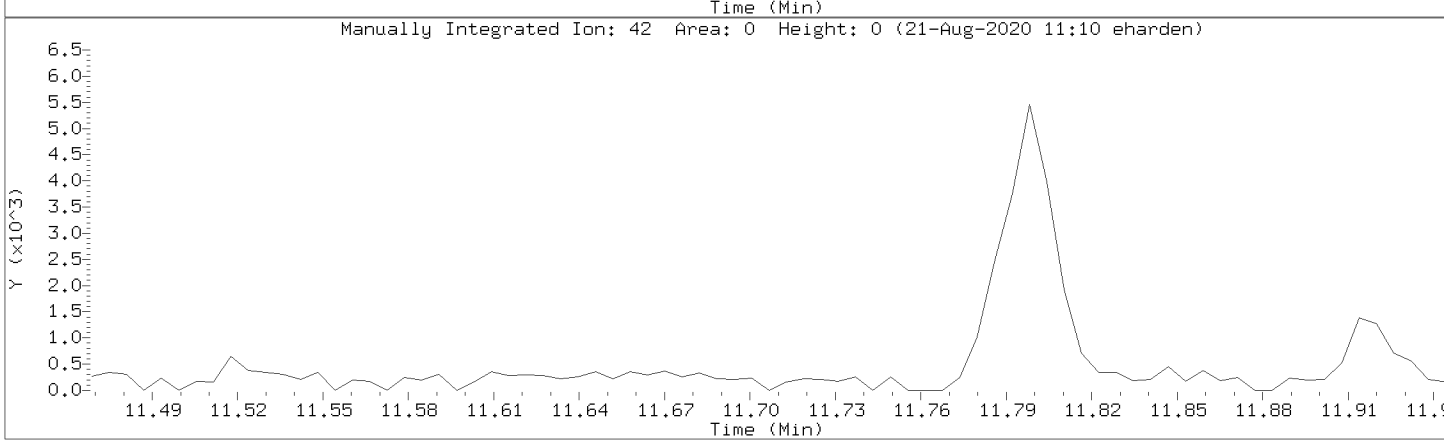
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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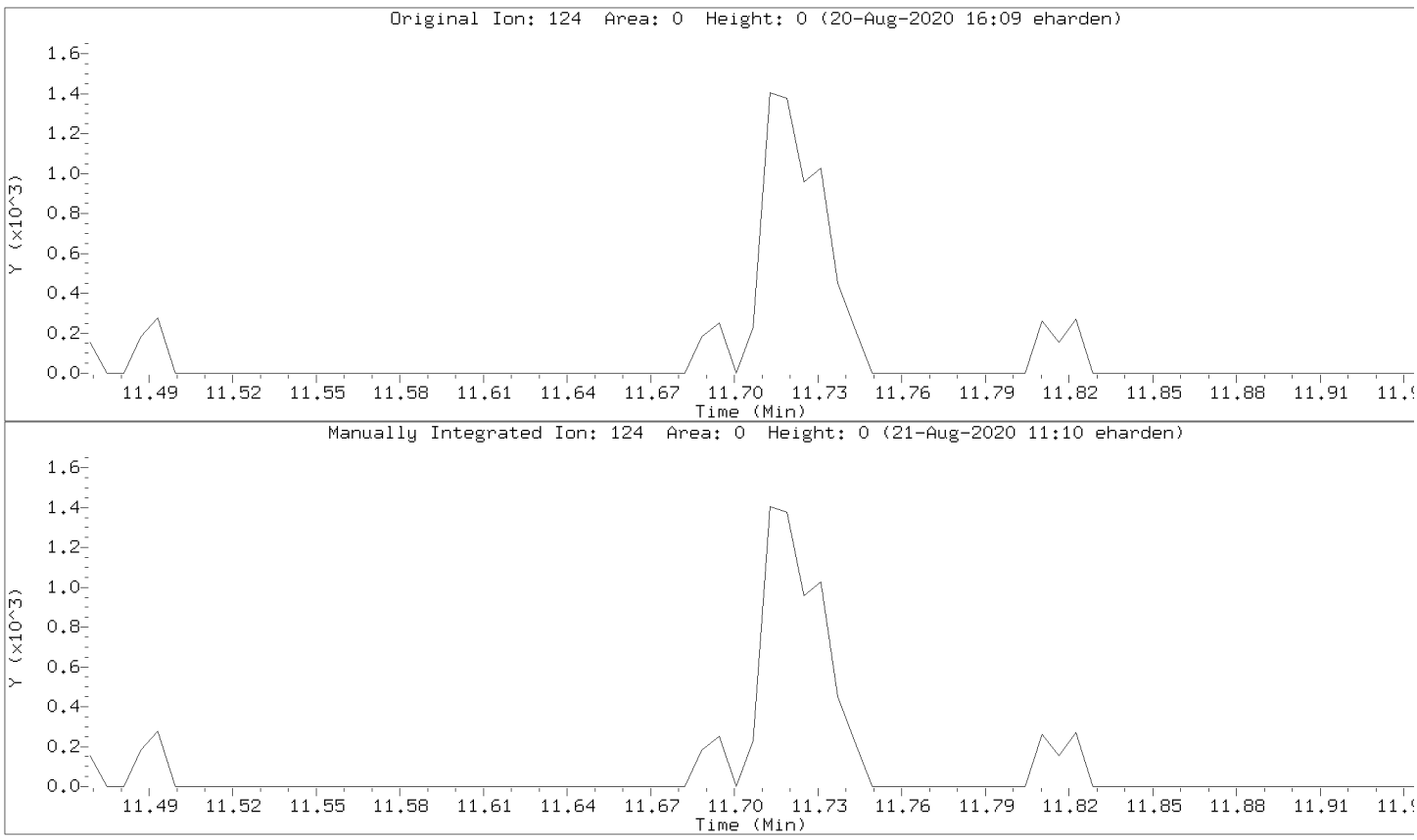
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_09.D
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Inj Date : 20-AUG-2020 13:20
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal7,27243:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 13:20 Cal File: 082020_09.D
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.410)	66551	20.0000	21.2(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	81131	20.0000	21.6	
3 Vinyl chloride	62	3.702	3.702	(0.471)	61034	20.0000	19.8	
4 1,3-Butadiene	39	3.714	3.708	(0.473)	53829	20.0000	19.5	
5 Bromomethane	94	4.201	4.195	(0.535)	59646	20.0000	23.8	
6 Chloroethane	64	4.360	4.360	(0.555)	18003	20.0000	20.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	39067	20.0000	19.9	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	21772	20.0000	20.1	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	72854	20.0000	20.9	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	49223	20.0000	21.4	
11 Carbon disulfide	76	5.293	5.293	(0.673)	161348	20.0000	20.9	
12 Iodomethane	142	5.433	5.439	(0.691)	23205	20.0000	16.7	
13 Acrolein	56	5.659	5.659	(0.720)	14345	40.0000	39.8	
14 Allyl chloride	76	5.787	5.787	(0.736)	19759	20.0000	18.4	
15 Methylene Chloride	49	5.902	5.902	(0.751)	83879	20.0000	20.2	
16 Acetone	43	5.976	5.976	(0.760)	85965	40.0000	41.5	
17 Methyl acetate	43	6.067	6.067	(0.772)	105076	40.0000	43.5	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	47201	20.0000	20.0	
19 n-Hexane	86	6.116	6.110	(0.778)	4689	20.0000	18.8	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	110621	20.0000	20.1	
21 Acetonitrile	41	6.457	6.463	(0.822)	7995	40.0000	36.1(H)	
22 Chloroprene	53	6.646	6.640	(0.846)	66082	20.0000	20.1	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	95363	20.0000	20.8	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	41455	40.0000	41.6	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	94090	20.0000	20.8(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	66700	20.0000	19.8	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	69400	20.0000	19.6	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	31223	20.0000	21.2	
	29 Cyclohexane	56	7.335	7.335	(0.882)	58345	20.0000	19.6	
	30 Chloroform	83	7.372	7.372	(0.938)	106759	20.0000	20.6	
	31 Ethyl acetate	43	7.433	7.433	(0.946)	117599	40.0000	40.2	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	76046	20.0000	21.6	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	31173	40.0000	41.7	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	149580	50.0000	49.9	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	85319	20.0000	21.4	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	94574	40.0000	42.3	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	58568	20.0000	21.1(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	260205	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	184702	20.0000	20.6	
	40 Propionitrile	54	7.896	7.902	(1.005)	18434	40.0000	41.6	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	92418	40.0000	41.0	
	42 Isobutanol	43	7.993	7.987	(1.017)	3297	40.0000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	27279	50.0000	50.6	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	81970	20.0000	20.2	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	100475	20.0000	20.7	
	46 Trichloroethene	130	8.317	8.317	(1.000)	52418	20.0000	21.4	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	349844	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	23561	20.0000	20.3	
	49 n-Butanol	56	8.512	8.524	(1.023)	2226	40.0000	41.6(H)	
	50 Dibromomethane	93	8.670	8.670	(1.043)	43883	20.0000	21.0	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	54314	20.0000	21.3	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	81003	20.0000	22.1	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	25633	20.0000	17.7	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	1026	40.0000	(M)	LT
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	40736	40.0000	32.0	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	73456	20.0000	20.6	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	379010	50.0000	50.3	
	58 Toluene	91	9.414	9.414	(1.132)	176320	20.0000	20.2	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	16319	20.0000	18.5(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	8556	40.0000	34.2(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	73456	20.0000	20.6	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	46748	20.0000	20.6	
	63 Ethyl methacrylate	69	9.755	9.761	(1.173)	47723	20.0000	17.4(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	46024	20.0000	20.8	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	66111	20.0000	21.0	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	70284	20.0000	20.8	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	55408	20.0000	20.5	
	68 2-Hexanone	43	10.273	10.280	(1.235)	121220	40.0000	41.0	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	164499	20.0000	19.0	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	330753	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	128596	20.0000	20.2	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	54617	20.0000	20.3	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	280615	40.0000	37.3	
	74 o-Xylene	106	10.993	10.993	(1.041)	56802	20.0000	16.3	
	75 Styrene	104	11.029	11.029	(1.044)	103176	20.0000	17.0	
	76 Bromoform	173	11.103	11.103	(1.051)	60029	20.0000	20.1	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	92598	20.0000	17.8	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	136161	50.0000	50.2	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	19403	20.0000	17.9	
80 n-Propylbenzene	91	11.529	11.523	(1.092)	212436	20.0000	20.0	
81 Bromobenzene	156	11.578	11.578	(1.096)	70823	20.0000	21.2	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	73479	20.0000	20.8	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	142512	20.0000	20.4	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	50034	20.0000	20.0	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	45527	20.0000	18.1	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	150389	20.0000	16.8	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	76477	20.0000	20.7	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	16946	20.0000	19.9	
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	132498	20.0000	16.6	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	145095	20.0000	17.9	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	171564	20.0000	17.9	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	132498	20.0000	16.6	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	112298	20.0000	19.9	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	212042	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	118836	20.0000	18.7	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	139939	20.0000	18.9	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	117112	20.0000	19.0	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	12299	20.0000	17.7	
100 Hexachloro-1,3-butadiene	225	13.815	13.822	(1.120)	34339	20.0000	18.2	
101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	73609	20.0000	17.6	
102 Naphthalene	128	14.193	14.193	(1.150)	120284	20.0000	14.9	
103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	74200	20.0000	19.1	

QC Flag Legend

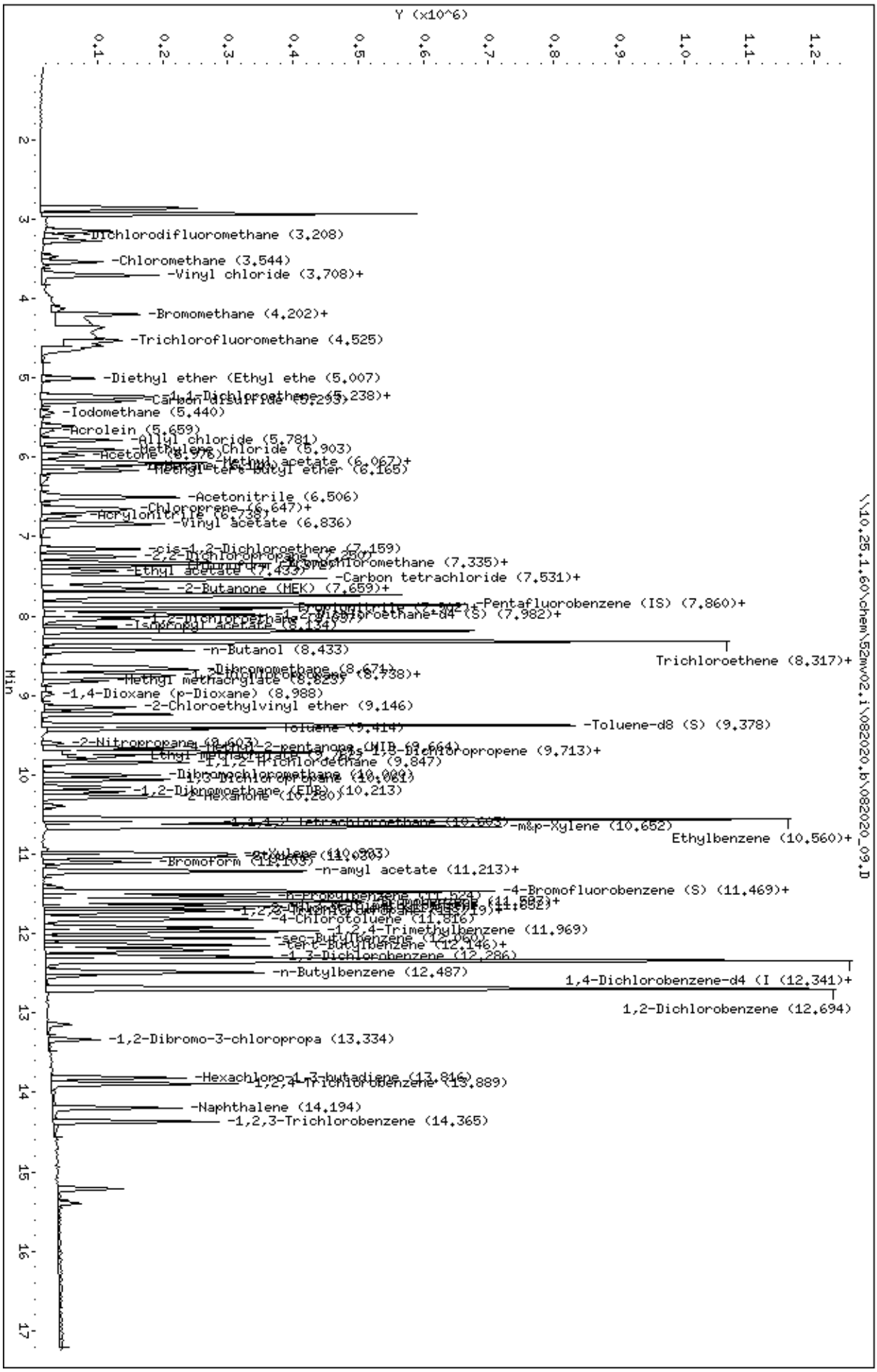
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_09.D
Date : 20-AUG-2020 13:20
Client ID: CAL7
Sample Info: CAL7,27243:1
Purge Volume: 5.0
Column phase: RTX-VMS

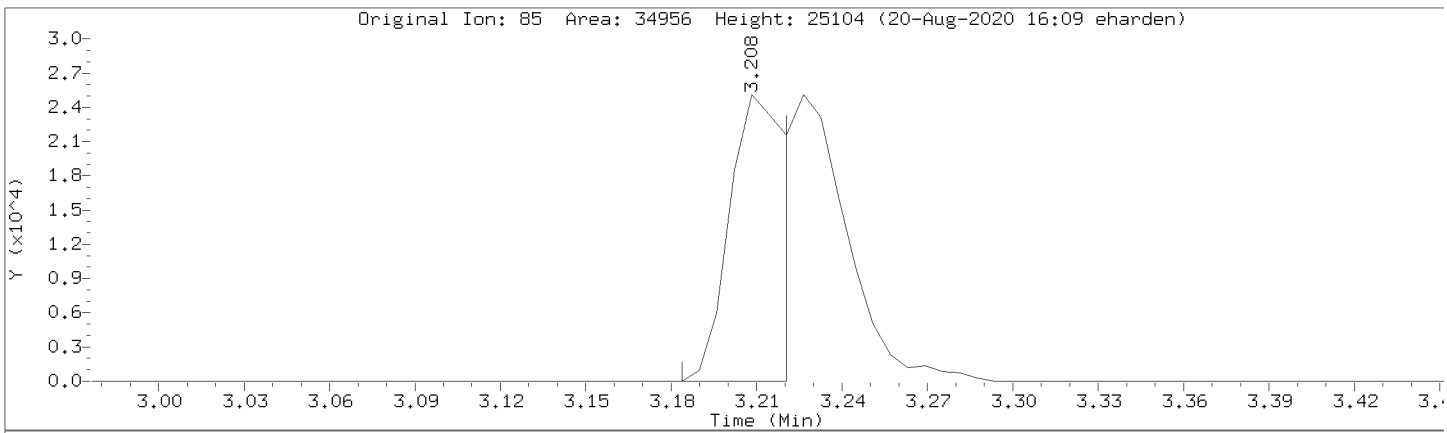
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

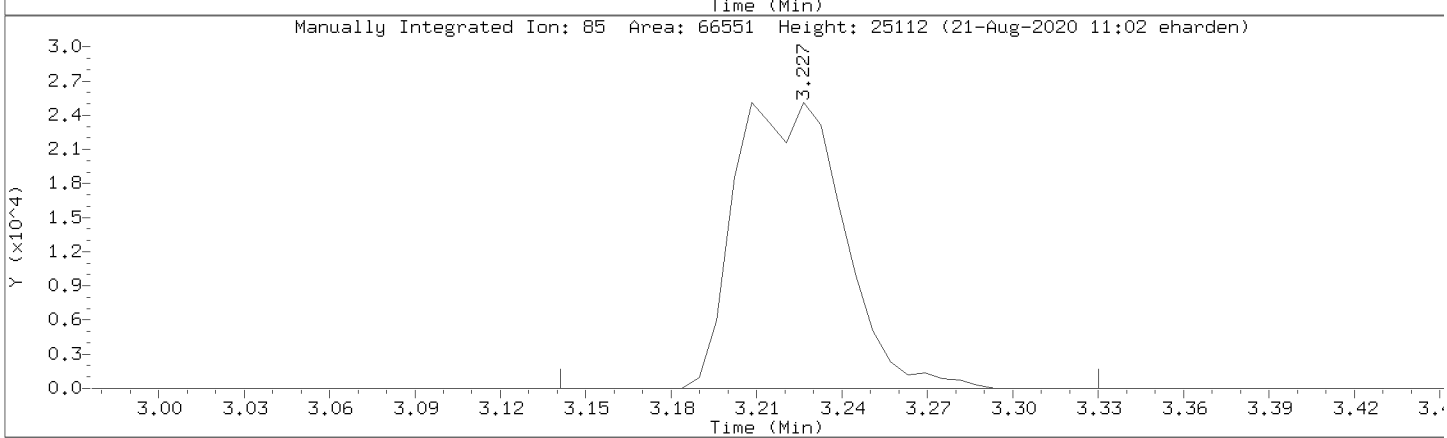


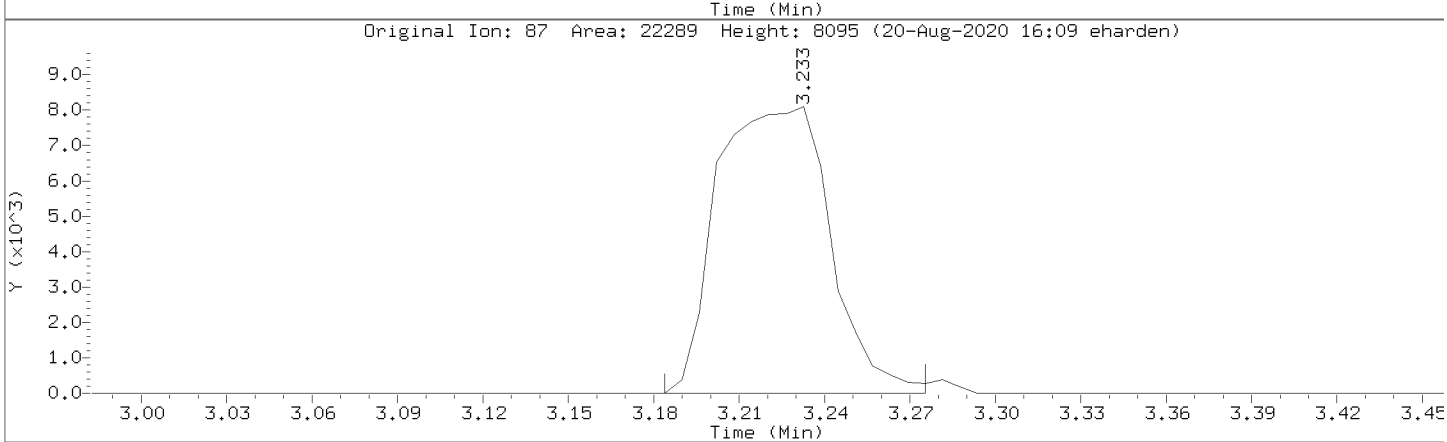
Page 4

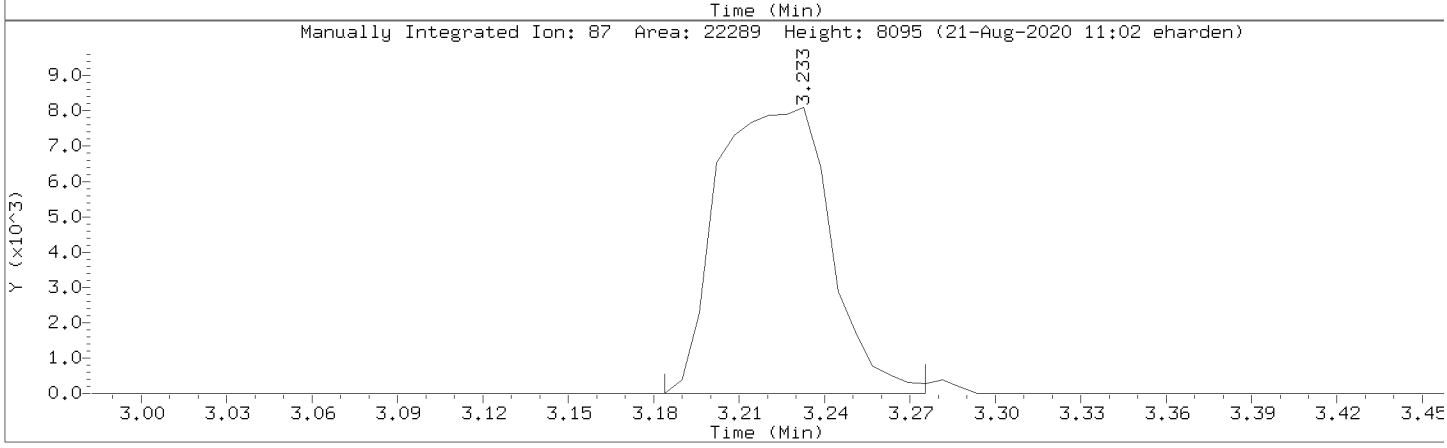
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_09.D
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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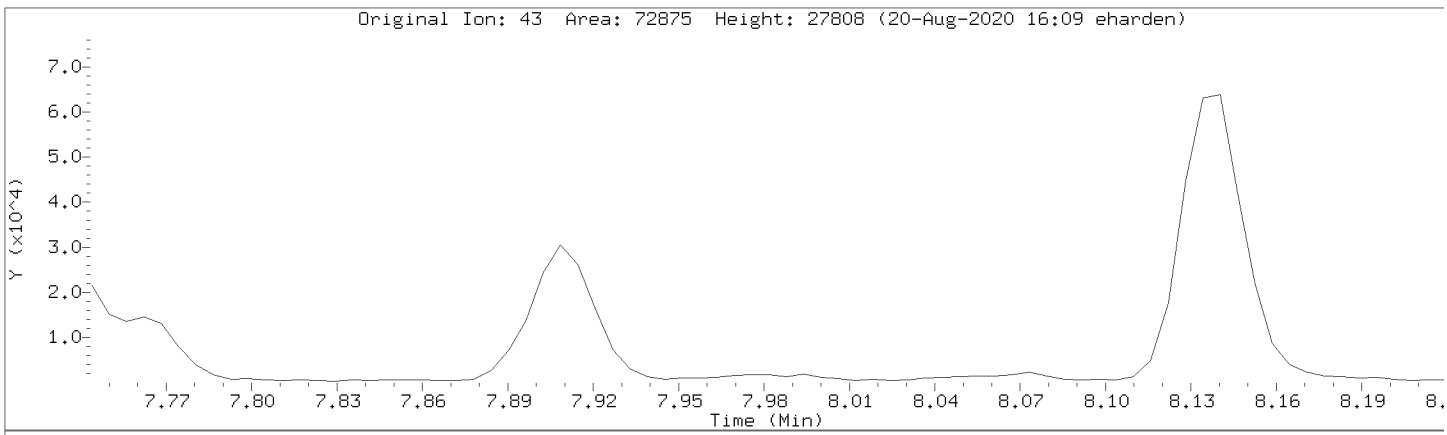
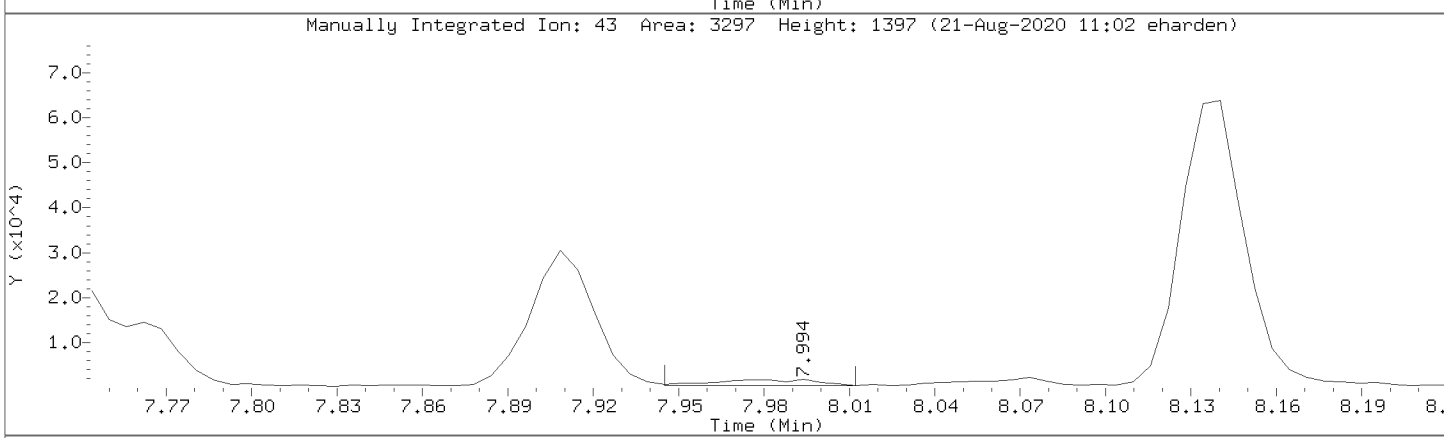
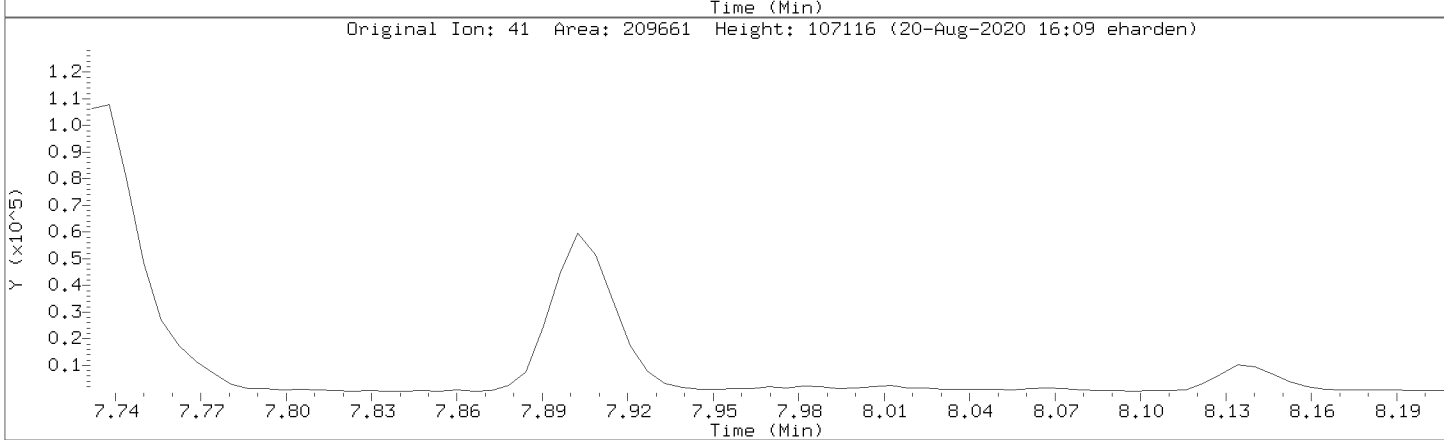
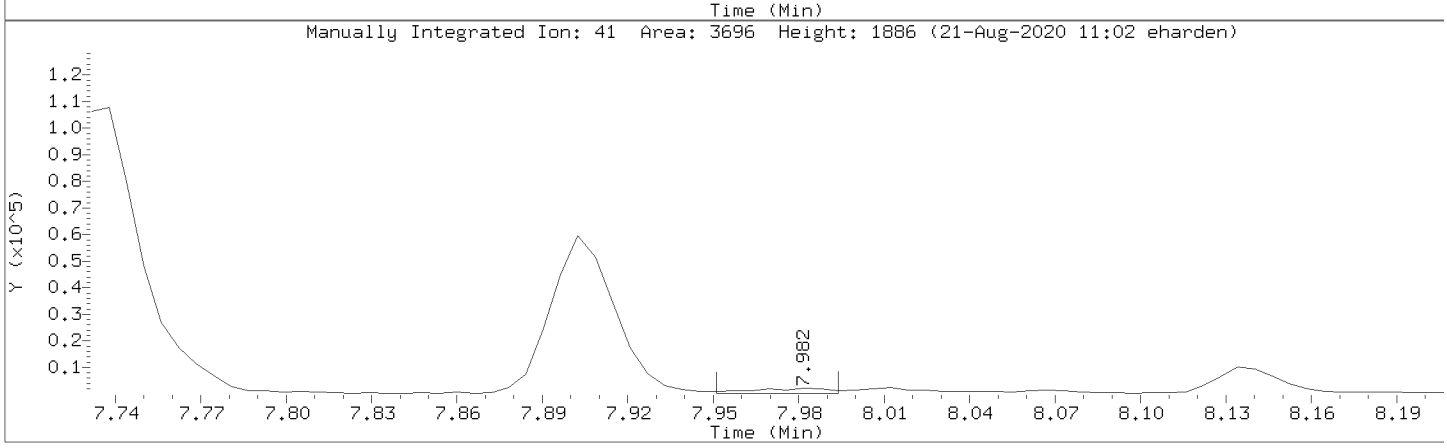
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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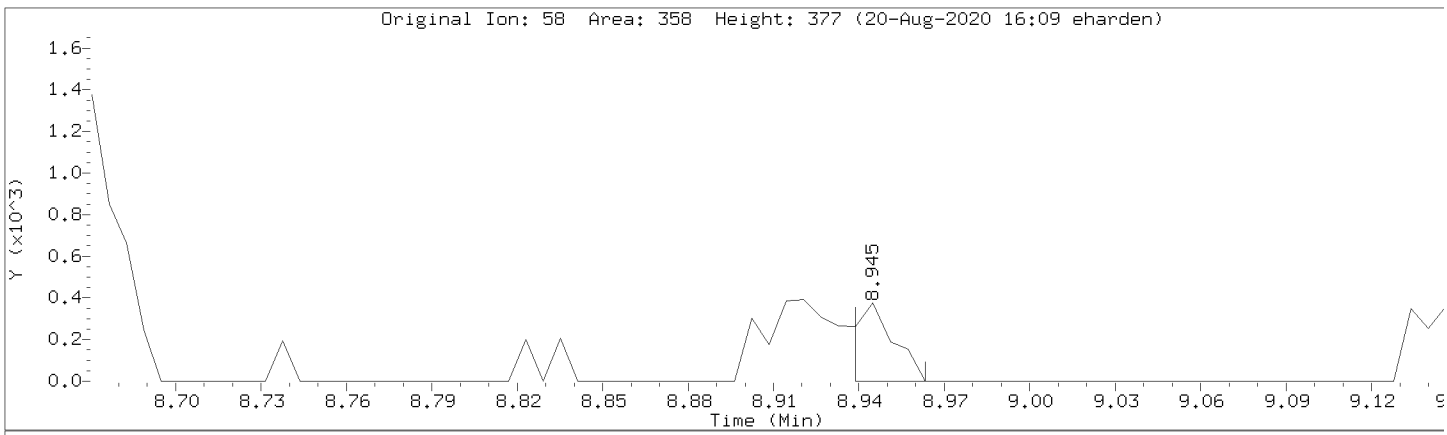
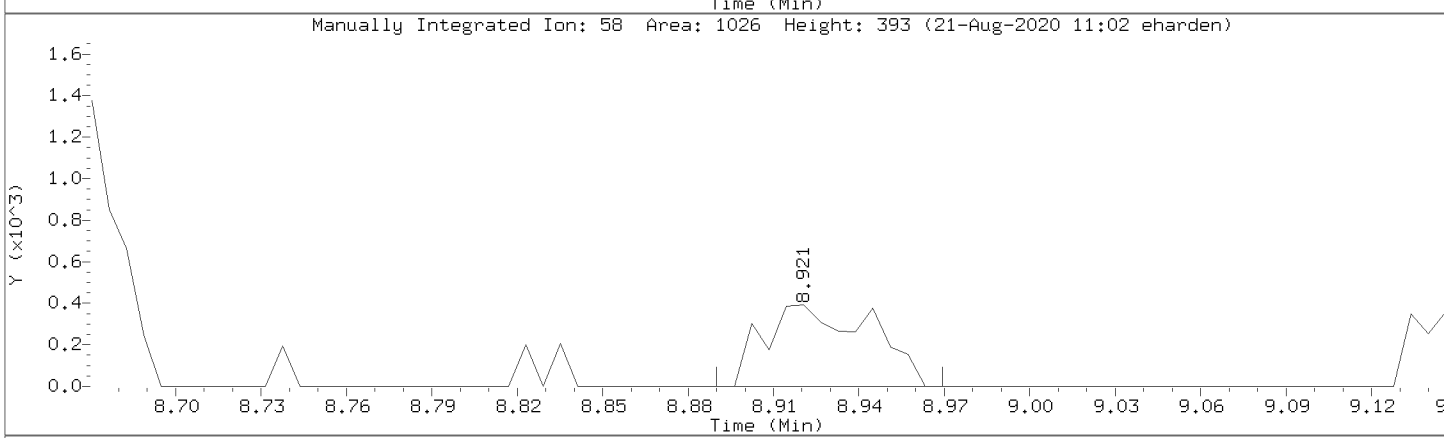
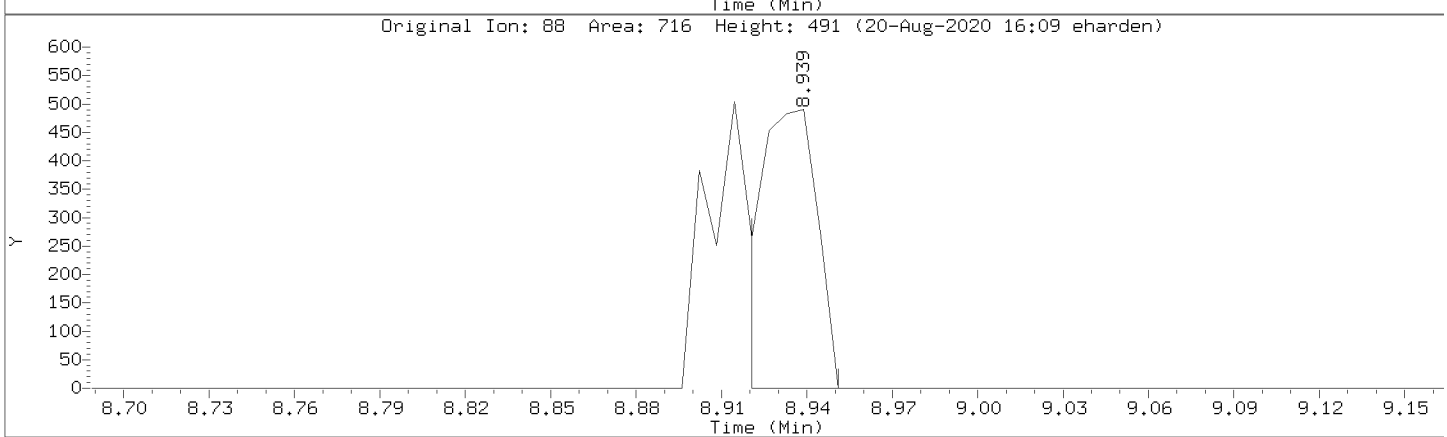
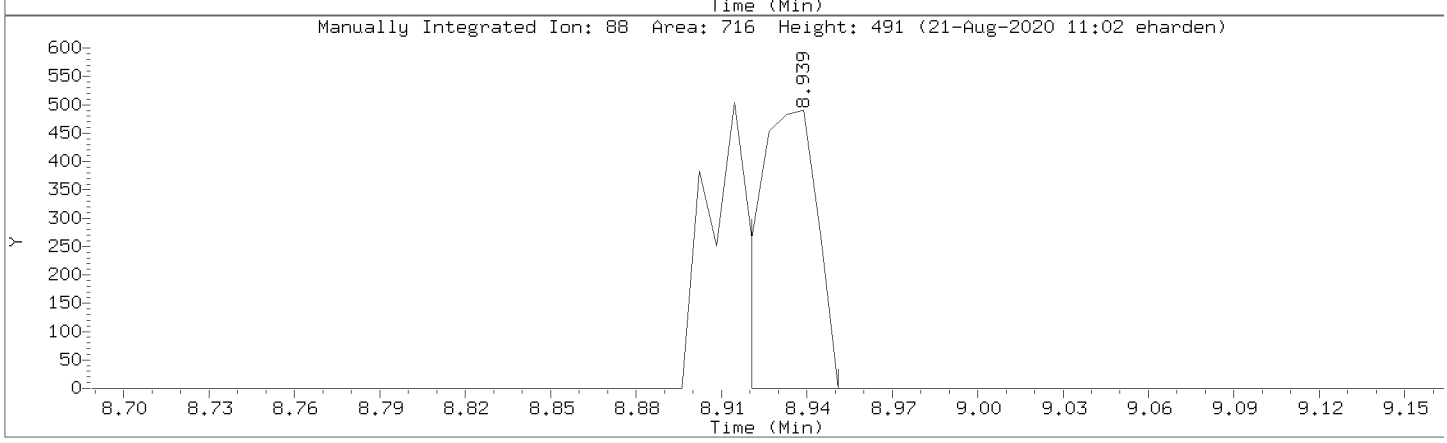
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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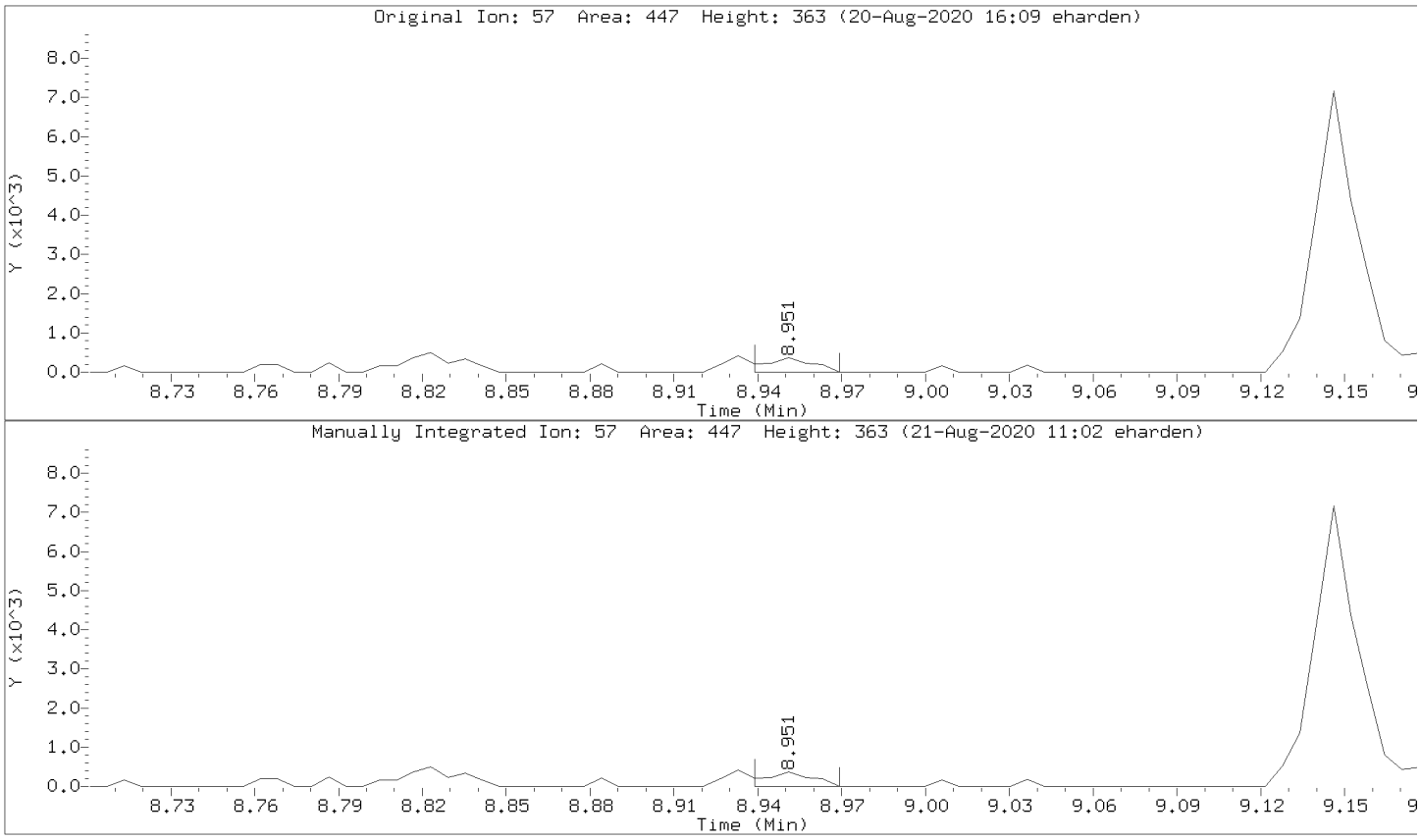
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7



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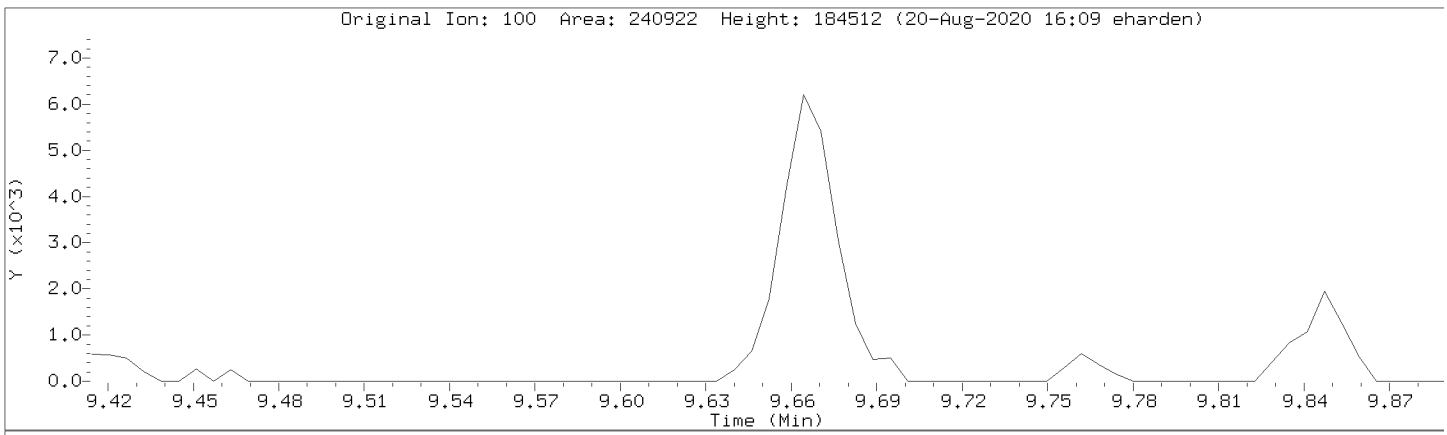
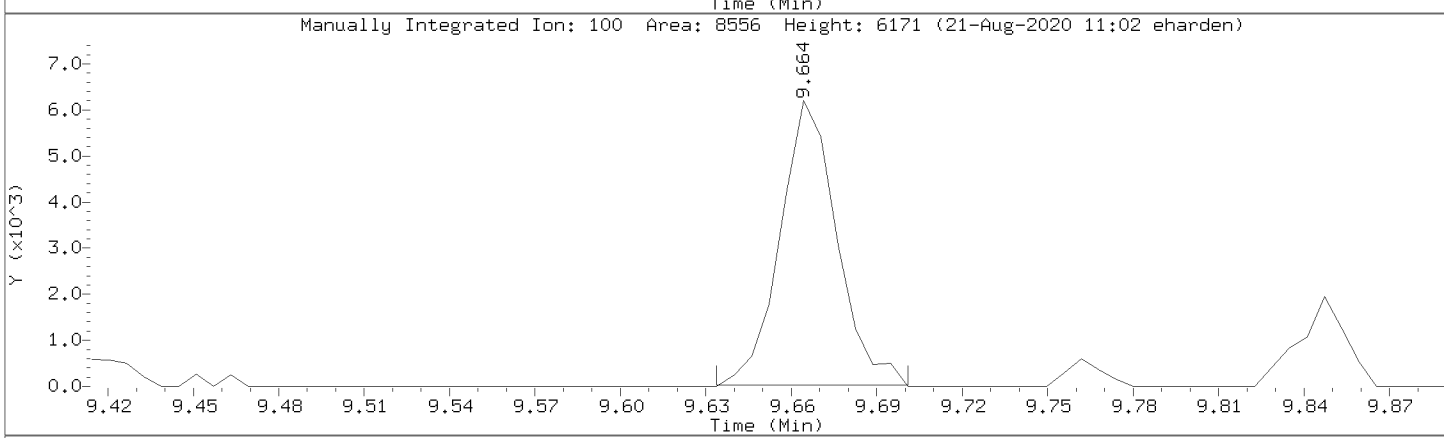
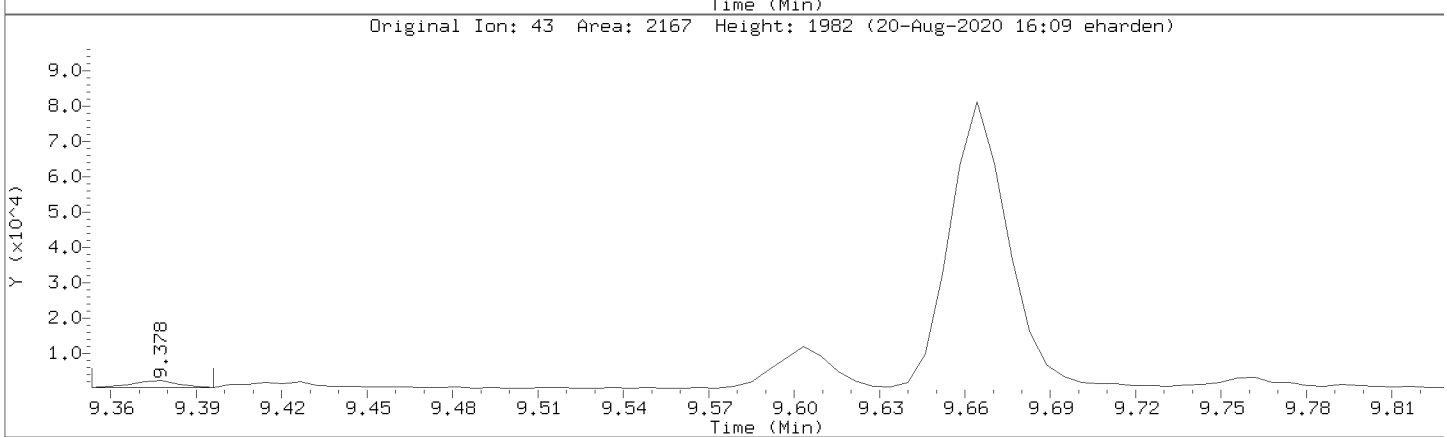
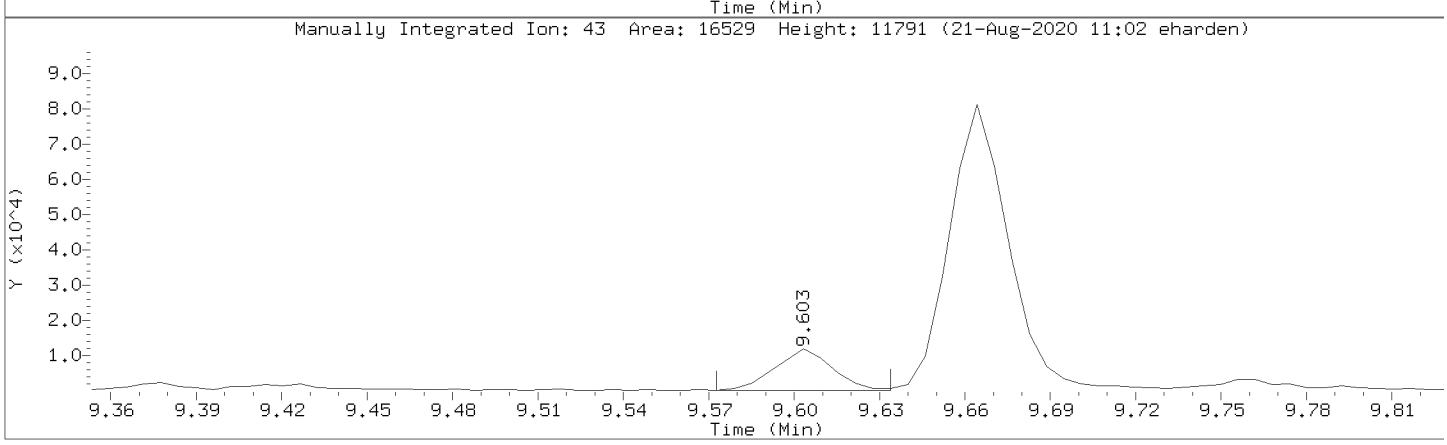
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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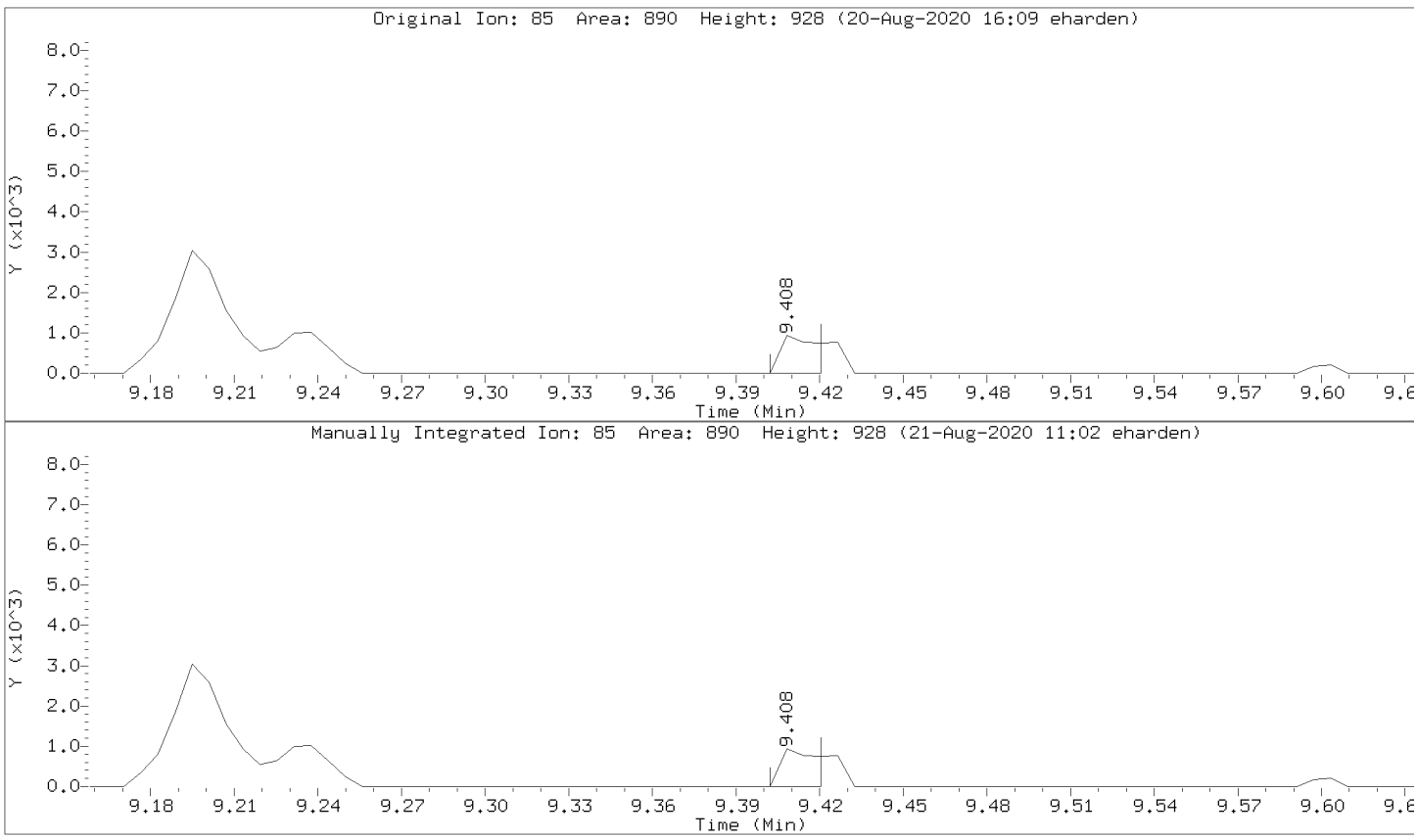
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_10.D
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Inj Date : 20-AUG-2020 13:45
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal8,27244:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 13:45 Cal File: 082020_10.D
Als bottle: 8 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.220	3.226	(0.410)	173079	50.0000	49.6(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	212550	50.0000	52.0	
3 Vinyl chloride	62	3.695	3.702	(0.470)	166119	50.0000	48.4	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	144991	50.0000	47.2	
5 Bromomethane	94	4.201	4.195	(0.535)	130011	50.0000	49.7	
6 Chloroethane	64	4.366	4.360	(0.556)	50765	50.0000	53.1	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	100155	50.0000	45.9	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	58875	50.0000	48.9	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	192156	50.0000	49.5	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	122394	50.0000	47.8	
11 Carbon disulfide	76	5.287	5.293	(0.673)	413695	50.0000	48.1	
12 Iodomethane	142	5.439	5.439	(0.692)	89679	50.0000	44.8	
13 Acrolein	56	5.658	5.659	(0.720)	37965	100.000	94.7	
14 Allyl chloride	76	5.780	5.787	(0.736)	56951	50.0000	47.7	
15 Methylene Chloride	49	5.902	5.902	(0.751)	216337	50.0000	46.9	
16 Acetone	43	5.969	5.976	(0.760)	217508	100.000	96.6	
17 Methyl acetate	43	6.067	6.067	(0.772)	274607	100.000	103	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	124266	50.0000	47.4	
19 n-Hexane	86	6.110	6.110	(0.777)	14689	50.0000	52.8	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	314639	50.0000	51.4	
21 Acetonitrile	41	6.457	6.463	(0.822)	27093	100.000	111(H)	
22 Chloroprene	53	6.640	6.640	(0.845)	195675	50.0000	53.5	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	251927	50.0000	49.4	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	102650	100.000	92.7	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	281798	50.0000	55.9	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	185024	50.0000	49.2	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	182412	50.0000	46.4	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	78756	50.0000	48.0	
	29 Cyclohexane	56	7.335	7.335	(0.882)	177735	50.0000	54.3	
	30 Chloroform	83	7.372	7.372	(0.938)	280462	50.0000	48.6	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	323030	100.000	99.3	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	200727	50.0000	51.8	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	79823	100.000	99.2	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	159185	50.0000	47.8	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	220636	50.0000	50.3	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	237312	100.000	95.5(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	162055	50.0000	53.2(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	289504	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	489899	50.0000	49.8	
	40 Propionitrile	54	7.890	7.902	(1.004)	49807	100.000	101	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	257917	100.000	103	
	42 Isobutanol	43	7.963	7.987	(1.013)	9414	100.000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	27652	50.0000	46.1	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	209549	50.0000	46.3	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	280793	50.0000	52.1	
	46 Trichloroethene	130	8.316	8.317	(1.000)	136449	50.0000	50.7	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	384566	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	63924	50.0000	50.2	
	49 n-Butanol	56	8.518	8.524	(1.024)	6256	100.000	106(M)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	115423	50.0000	50.4	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	141305	50.0000	50.3	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	214260	50.0000	53.1	
	53 Methyl methacrylate	69	8.822	8.823	(1.061)	75413	50.0000	46.2	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	1885	100.000		
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	131862	100.000	90.8	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	204555	50.0000	52.2	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	414998	50.0000	50.1	
	58 Toluene	91	9.414	9.414	(1.132)	484269	50.0000	50.5	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	44089	50.0000	46.2(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	28658	100.000	104(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	204310	50.0000	52.2	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	126445	50.0000	50.1	
	63 Ethyl methacrylate	69	9.755	9.761	(1.173)	146188	50.0000	47.0(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	115505	50.0000	47.5	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	175886	50.0000	50.3	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	193129	50.0000	52.1	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	146153	50.0000	48.8	
	68 2-Hexanone	43	10.280	10.280	(1.236)	360382	100.000	111	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	498717	50.0000	51.9	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	367527	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	344375	50.0000	48.6	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	141151	50.0000	47.1	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	829841	100.000	98.6	
	74 o-Xylene	106	10.993	10.993	(1.041)	177926	50.0000	45.1	
	75 Styrene	104	11.029	11.029	(1.044)	324197	50.0000	47.1	
	76 Bromoform	173	11.103	11.103	(1.051)	159603	50.0000	48.1	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	289017	50.0000	48.8	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	155822	50.0000	51.7	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	54700	50.0000	45.3	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	638613	50.0000	54.2	
81 Bromobenzene	156	11.578	11.578	(1.096)	189432	50.0000	50.9	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	190650	50.0000	48.5	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	416577	50.0000	53.1	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	136445	50.0000	48.6	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	136492	50.0000	48.2	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	469102	50.0000	46.3	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	204905	50.0000	49.8	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	49228	50.0000	52.0(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	419415	50.0000	45.8	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	442492	50.0000	48.1	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	512642	50.0000	46.9	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	419415	50.0000	45.8	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	318067	50.0000	50.3	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	237436	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	327228	50.0000	45.9	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	445646	50.0000	53.9	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	323974	50.0000	46.9	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	35137	50.0000	45.2	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	100028	50.0000	47.2	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	228410	50.0000	48.8	
102 Naphthalene	128	14.199	14.193	(1.151)	399832	50.0000	43.2	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	218926	50.0000	50.4	

QC Flag Legend

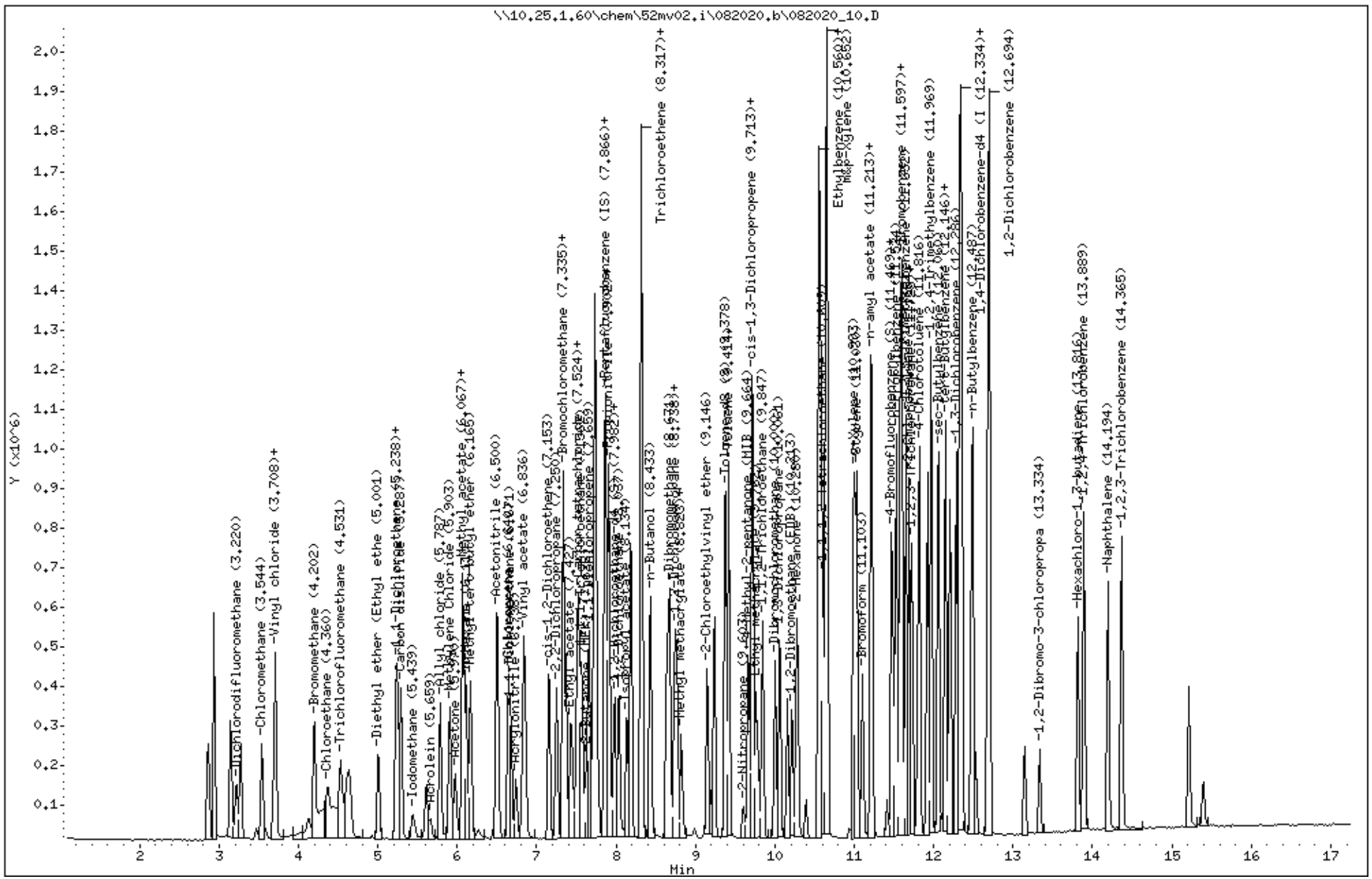
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_10.D
Date : 20-AUG-2020 13:45
Client ID: CAL8
Sample Info: CAL8,27244:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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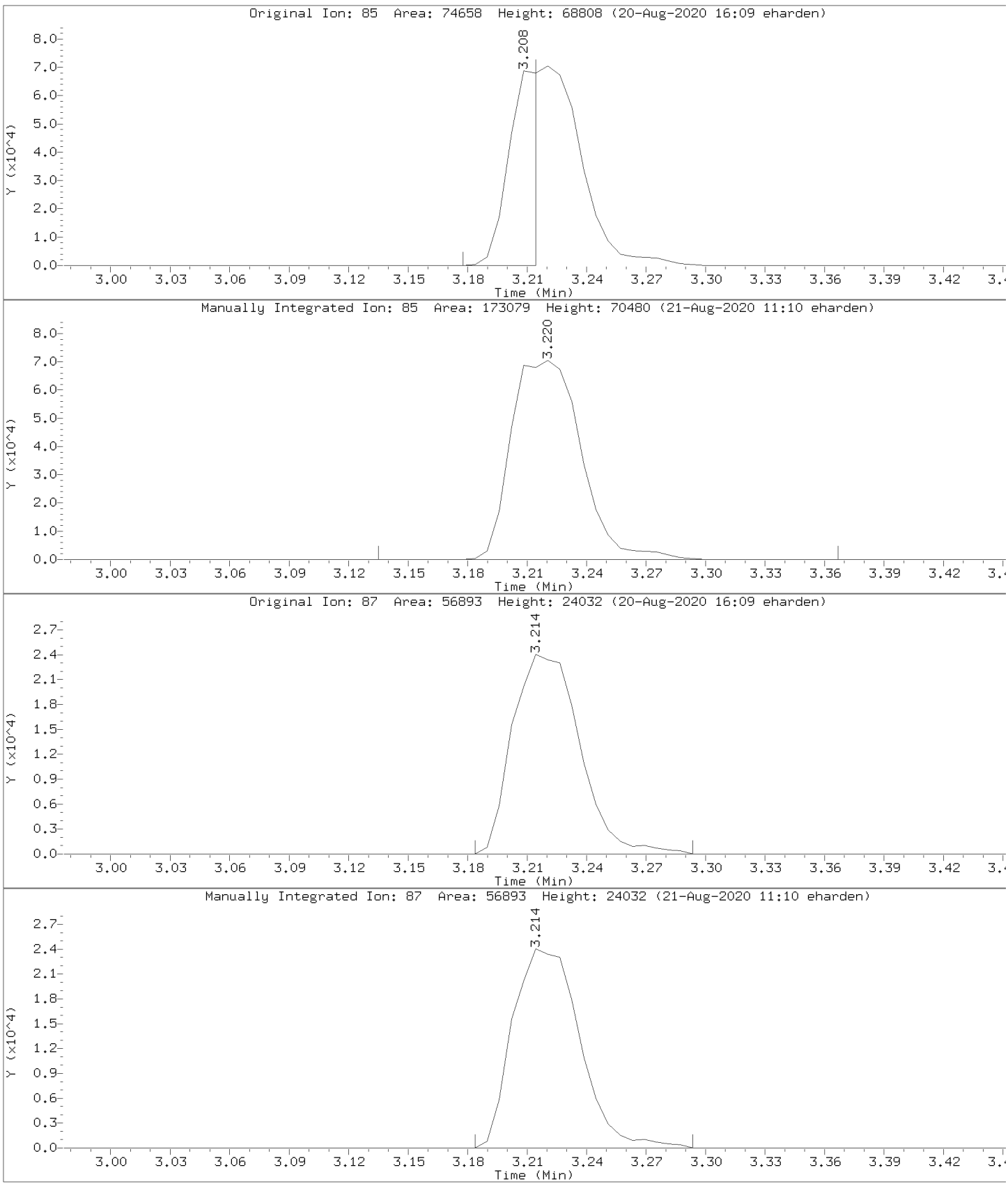
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



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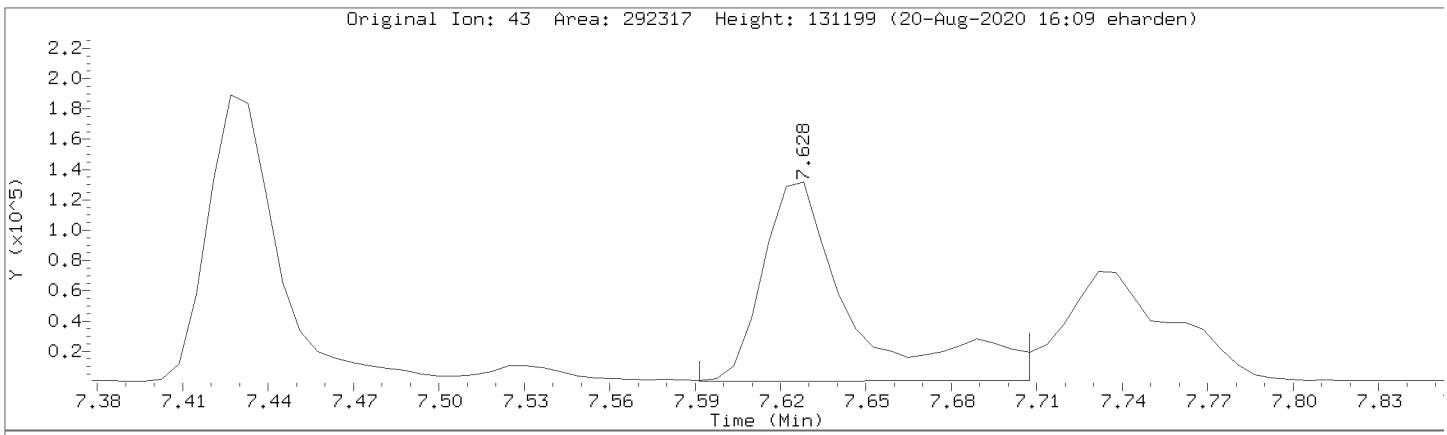
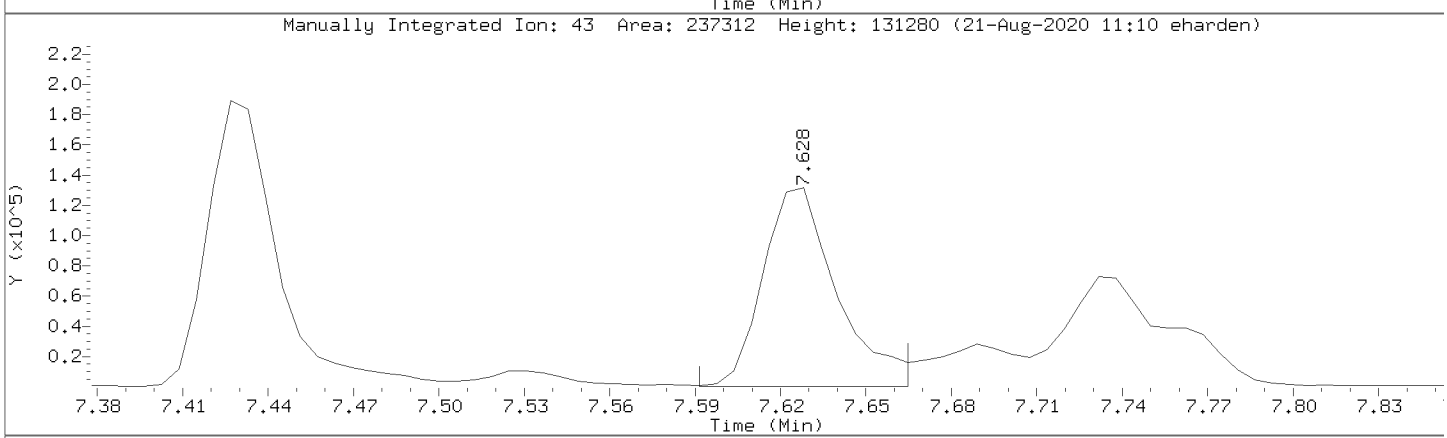
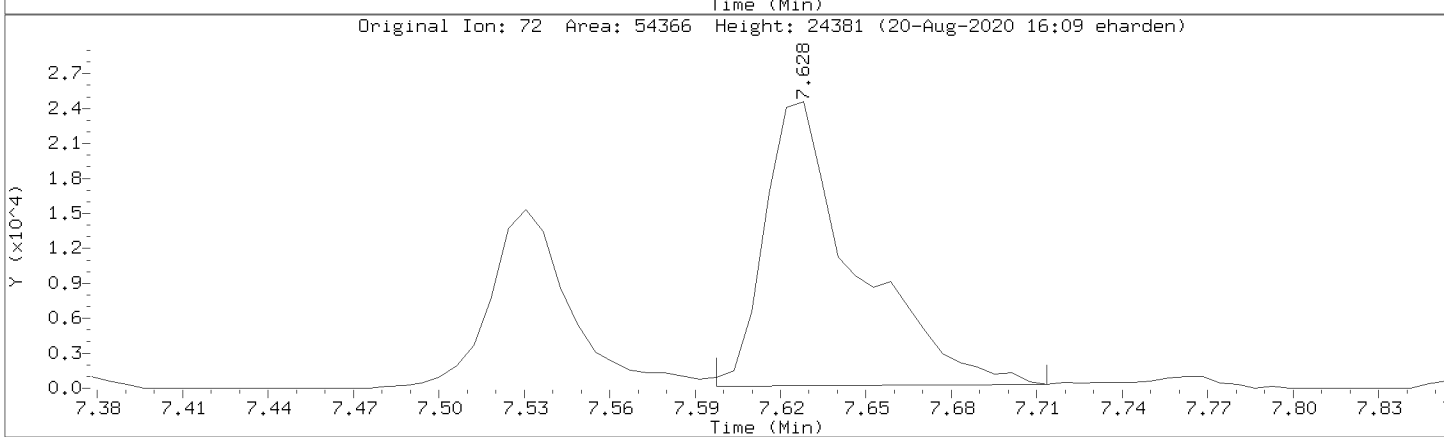
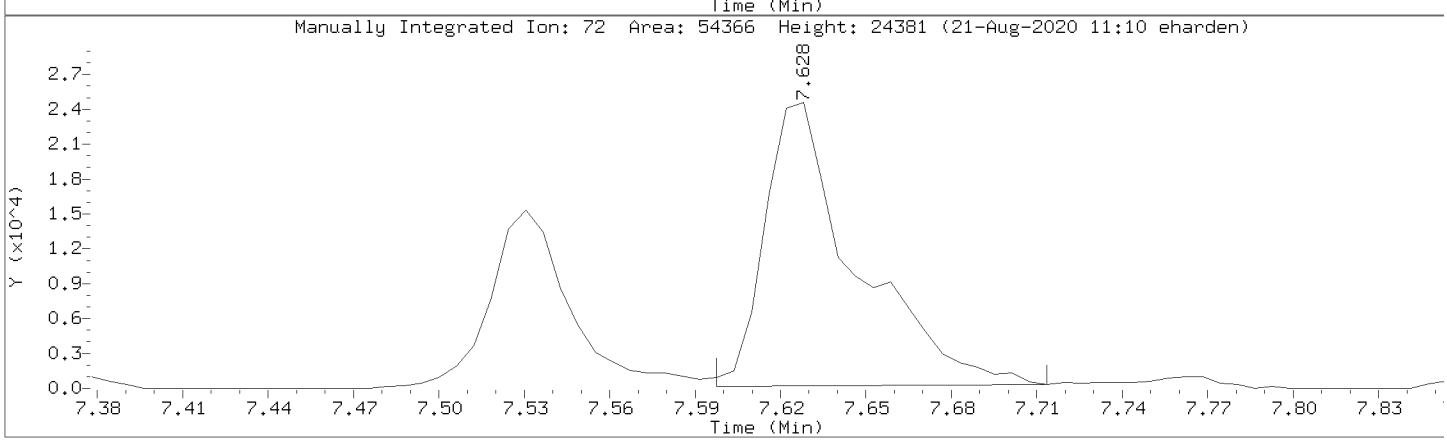
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3









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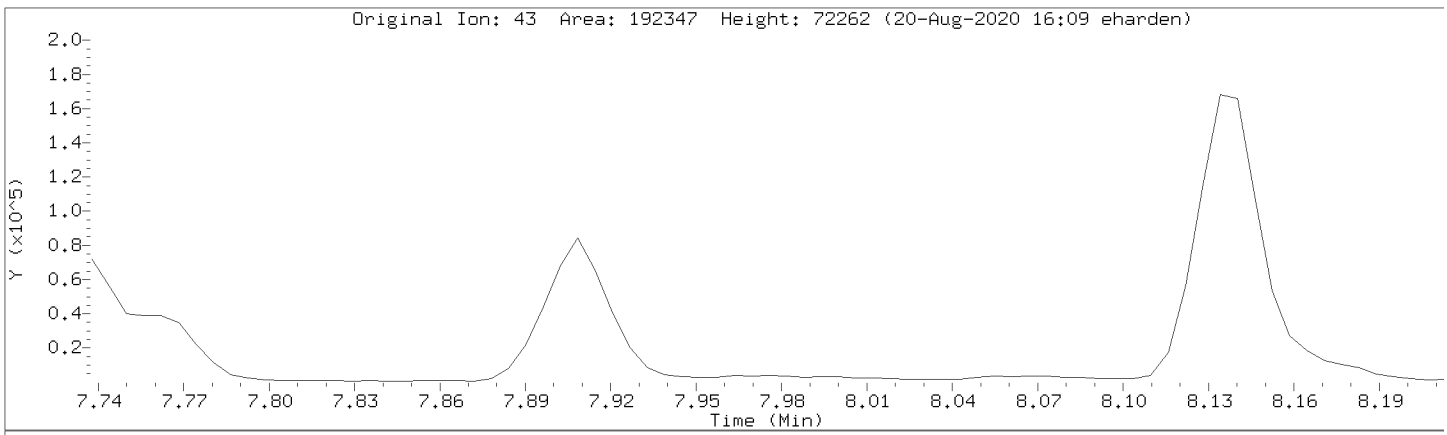
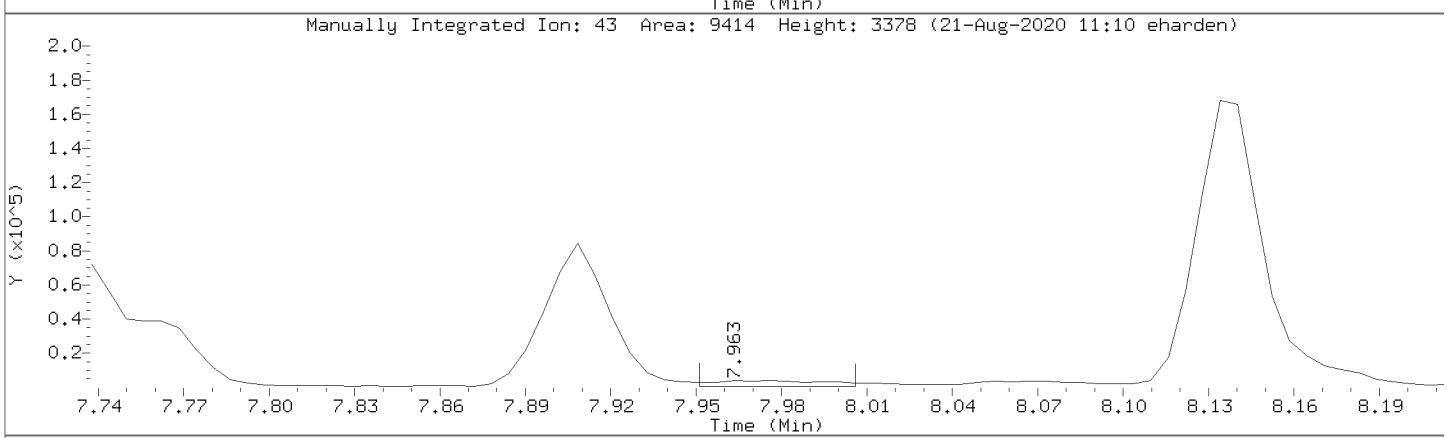
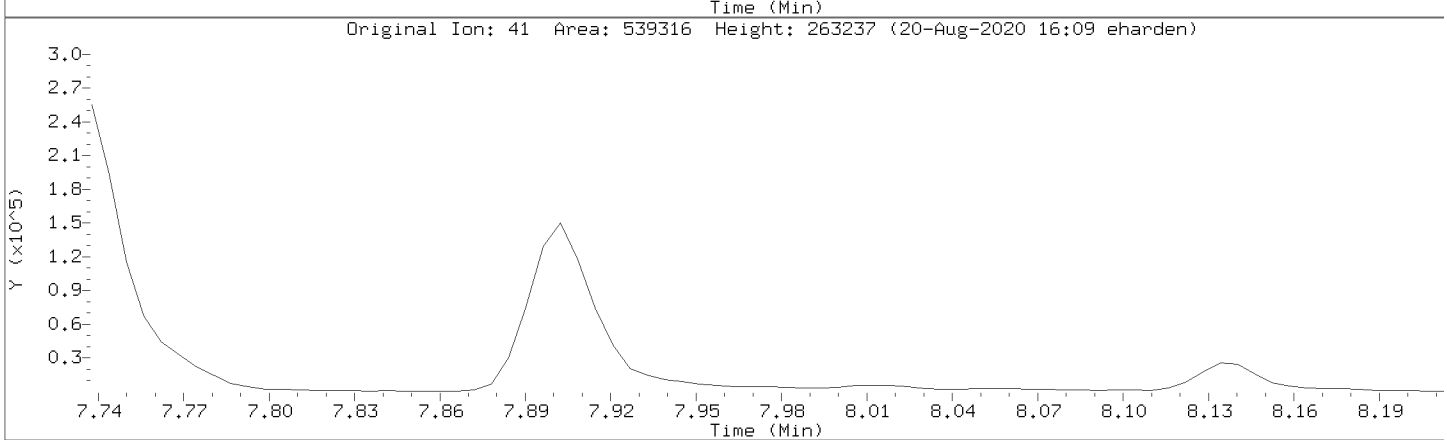
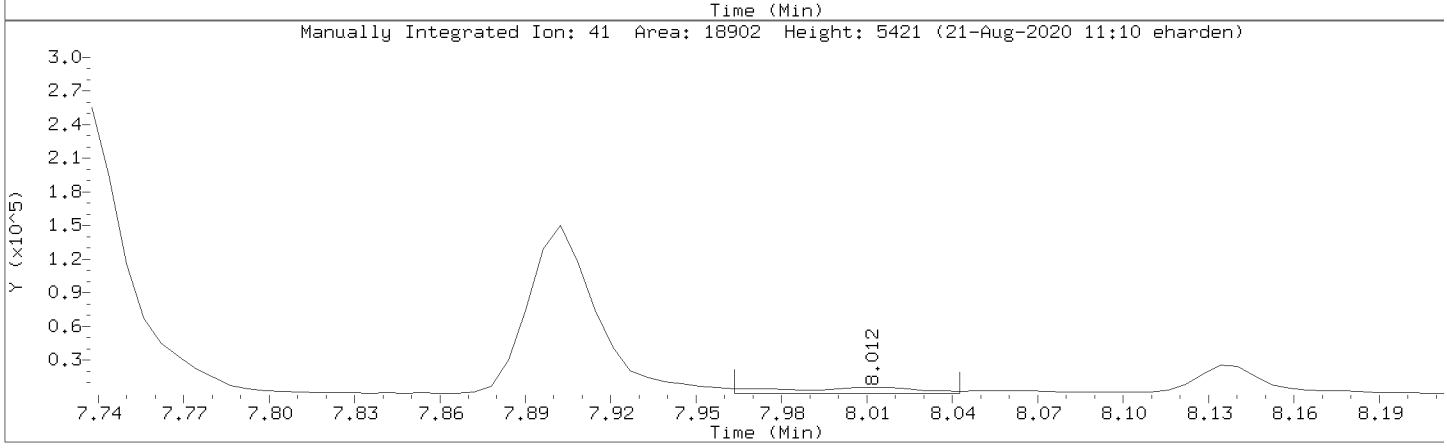
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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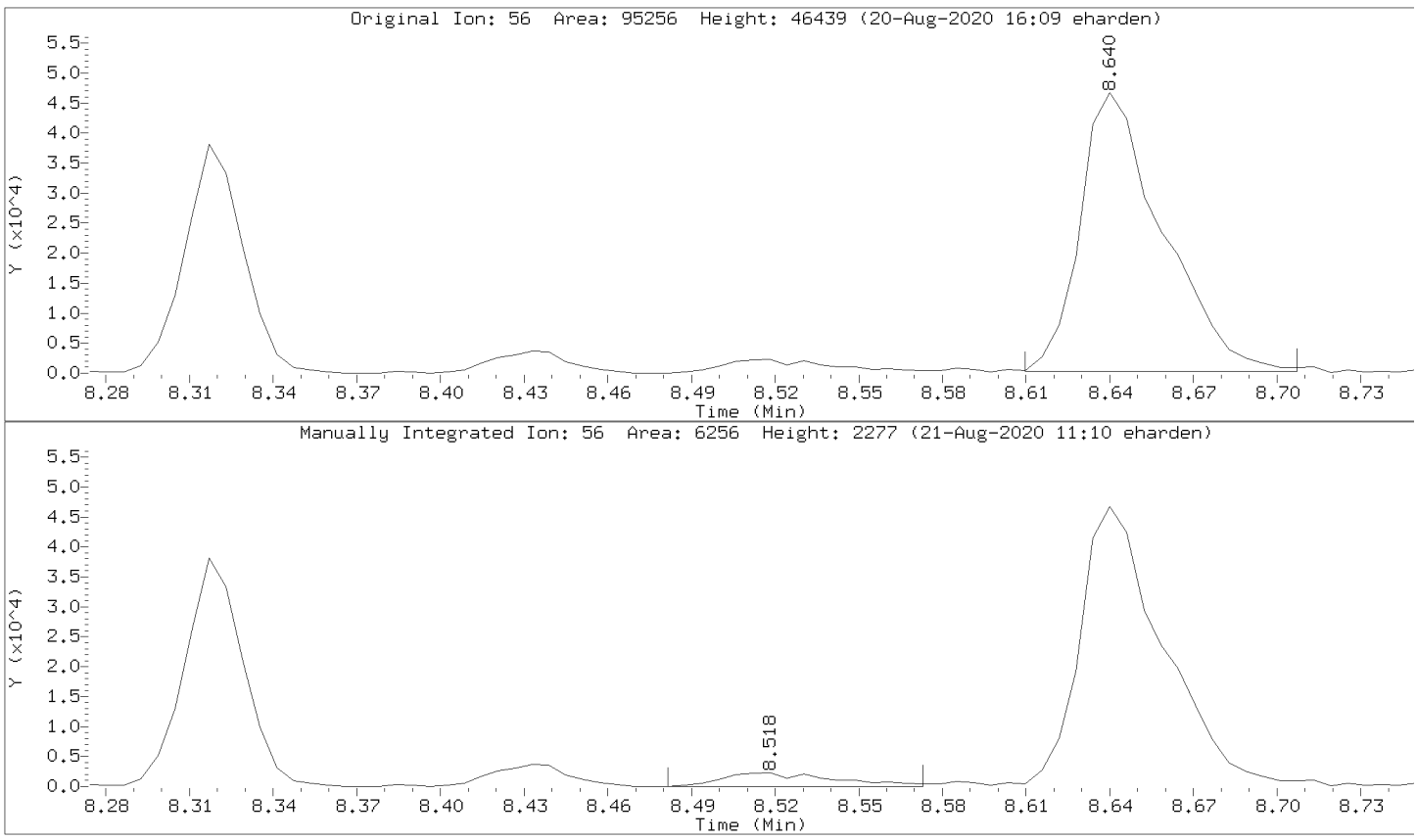
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3



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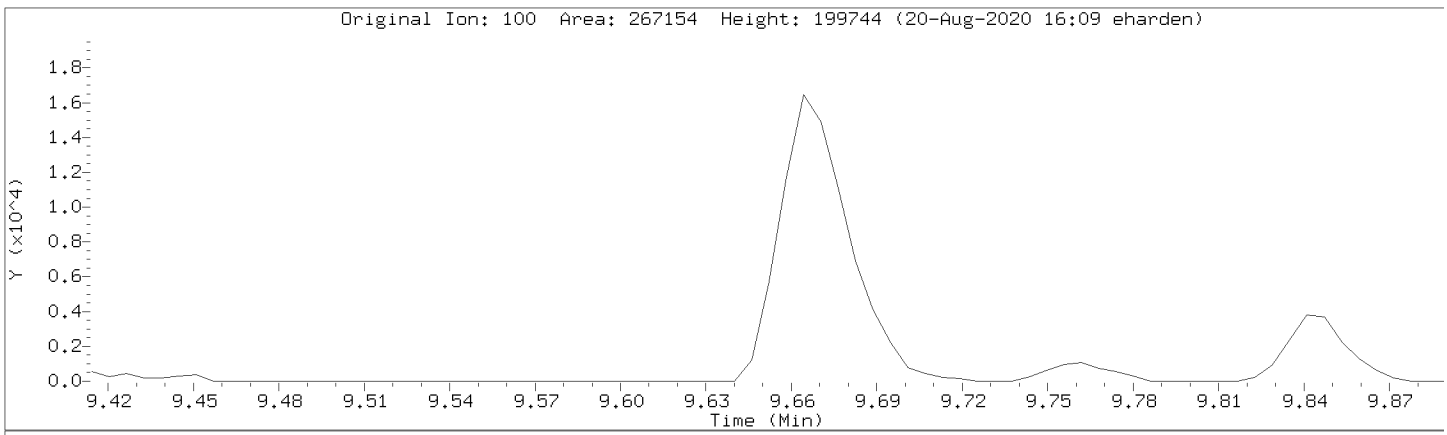
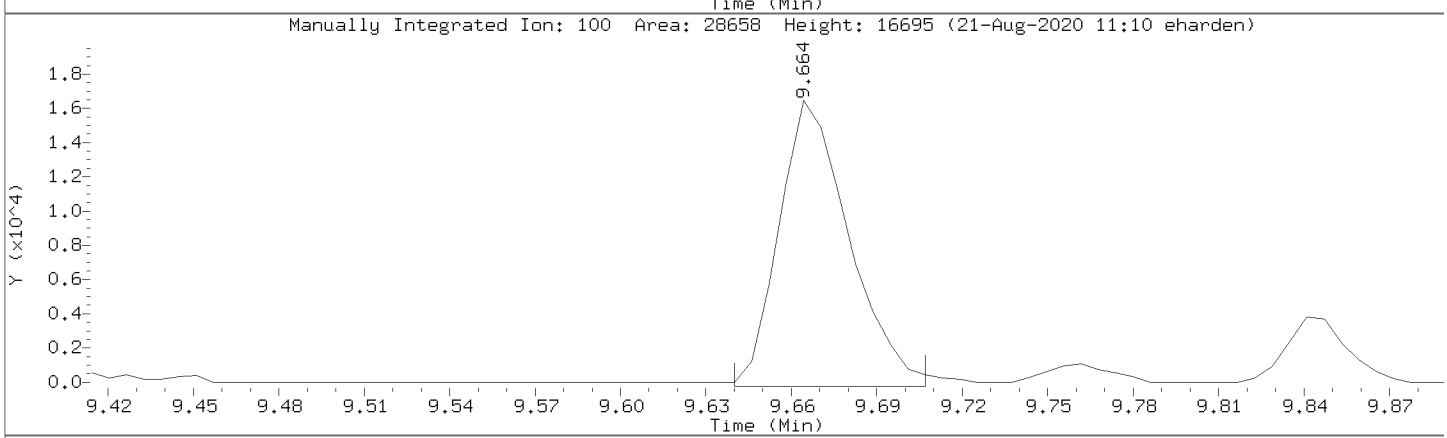
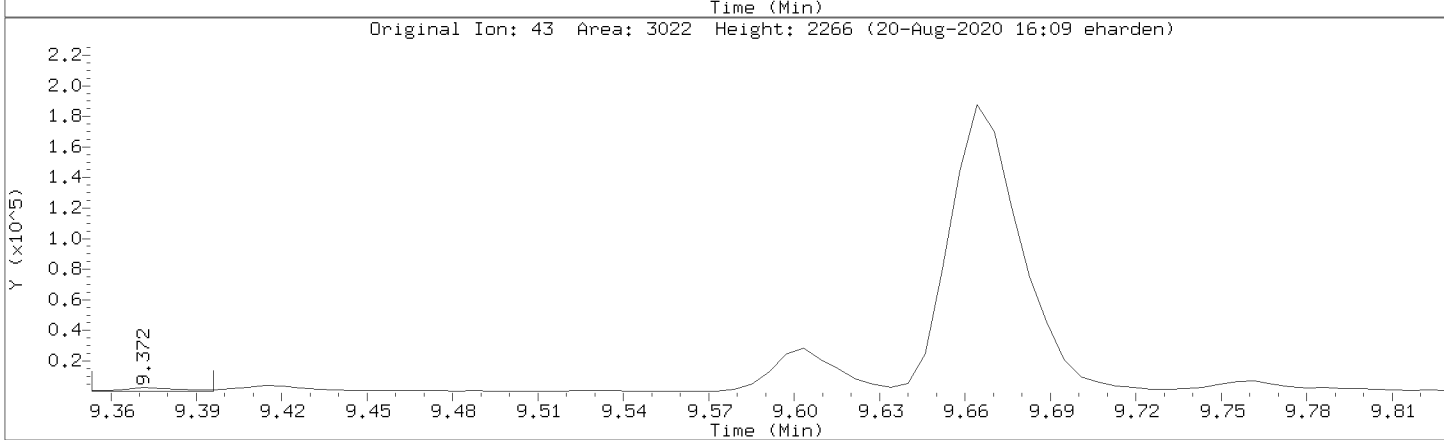
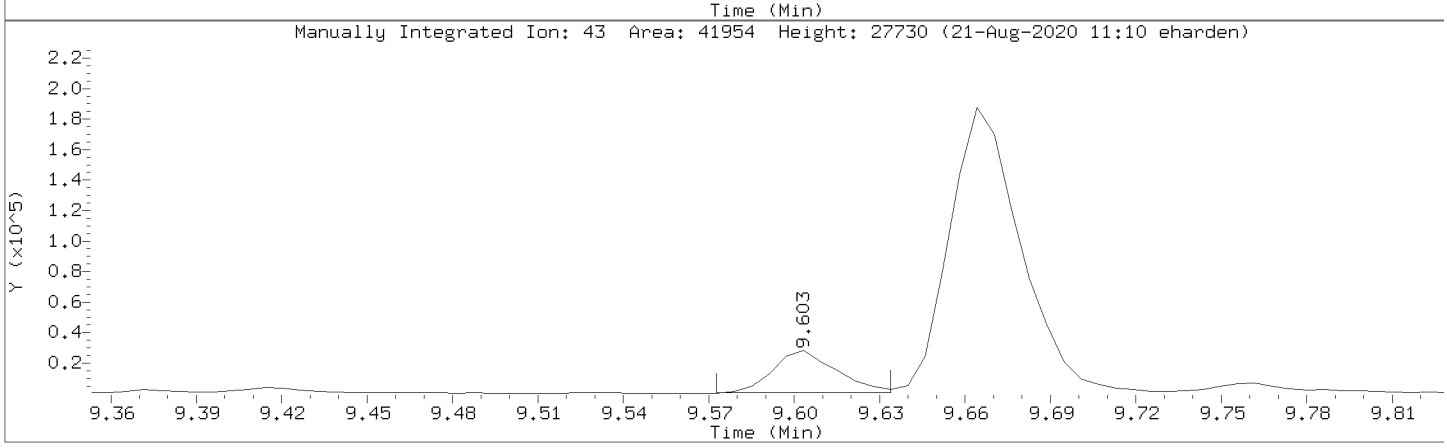
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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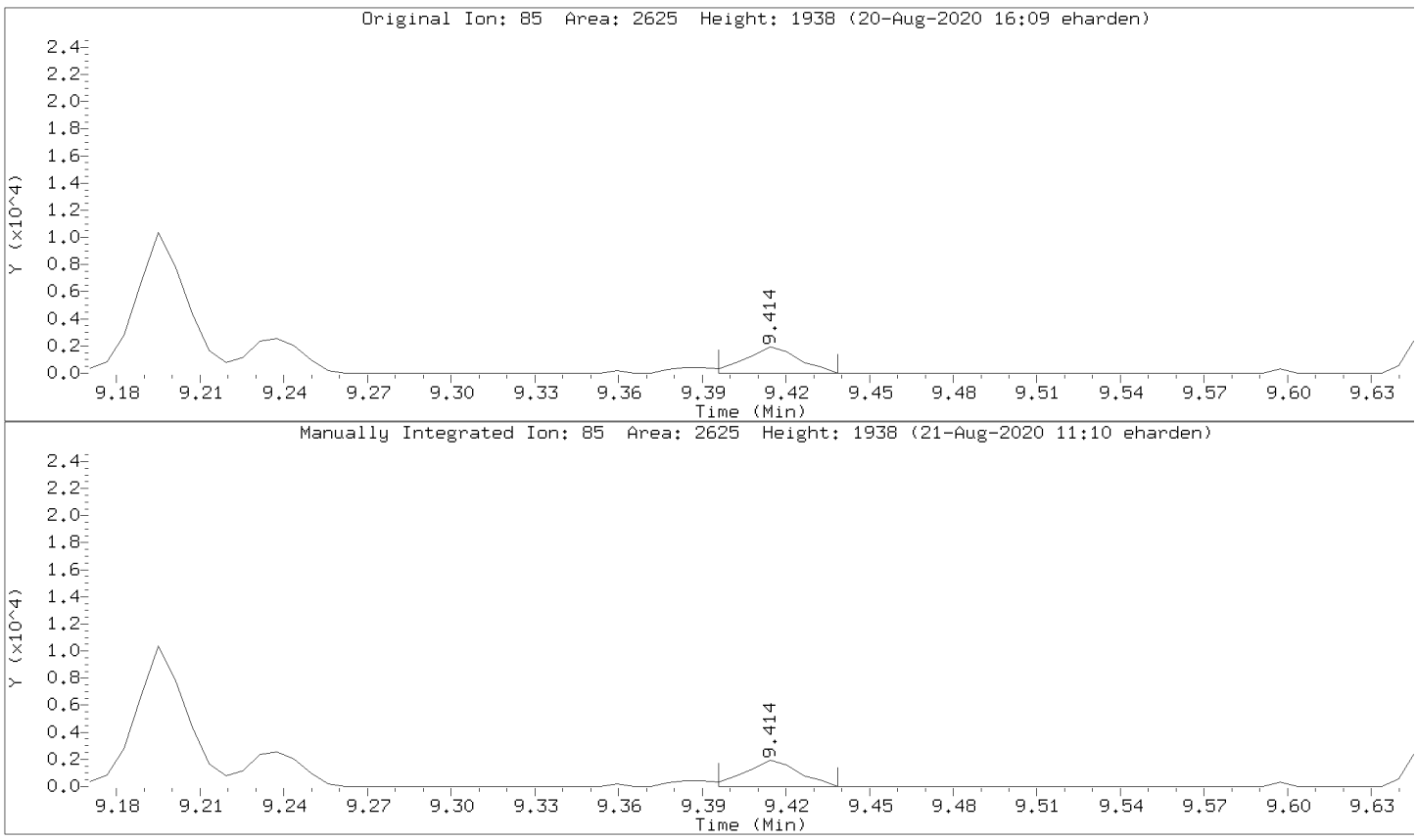
Instrument: 52mv02.i
Lab Sample ID: CAL8



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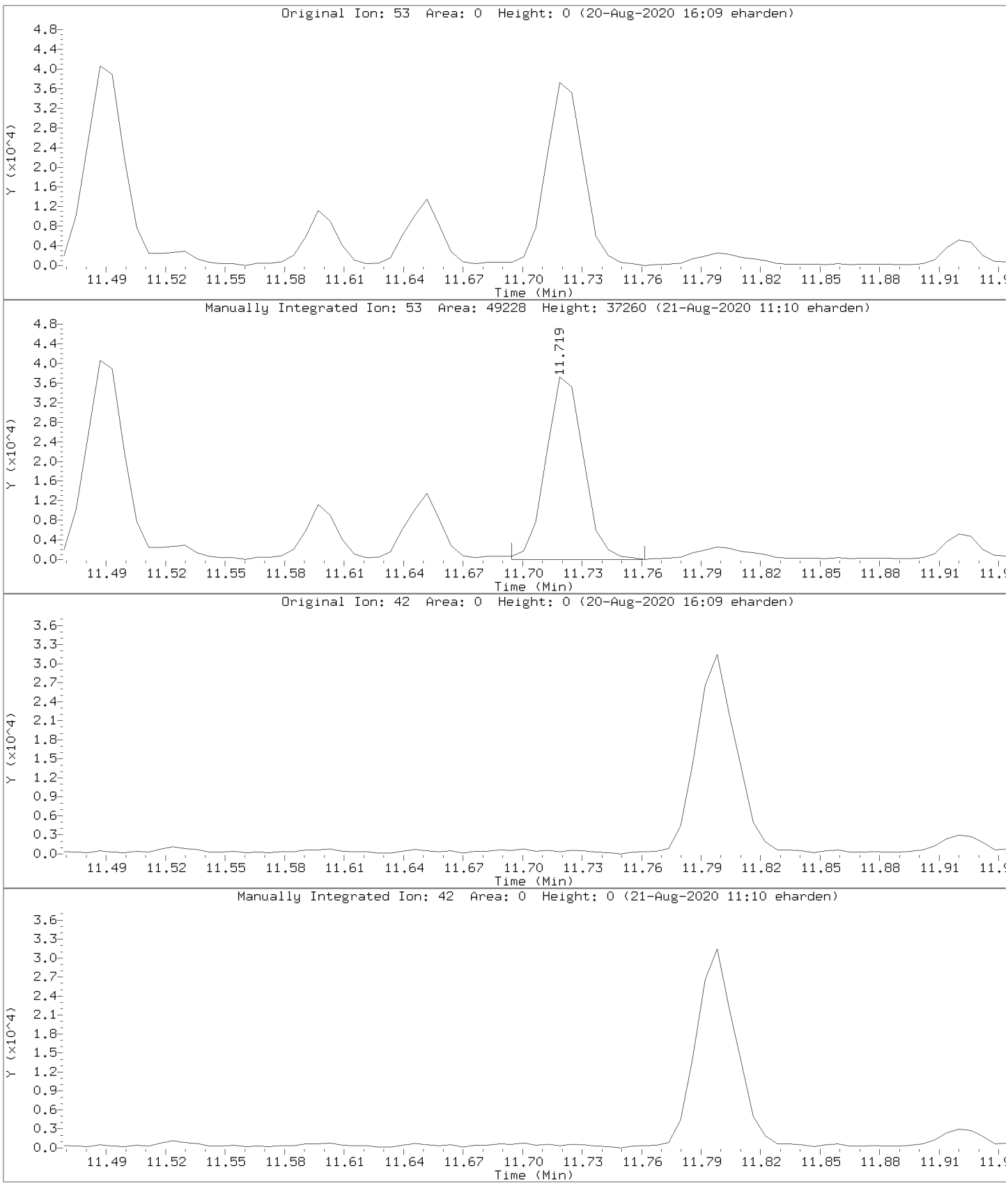
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6



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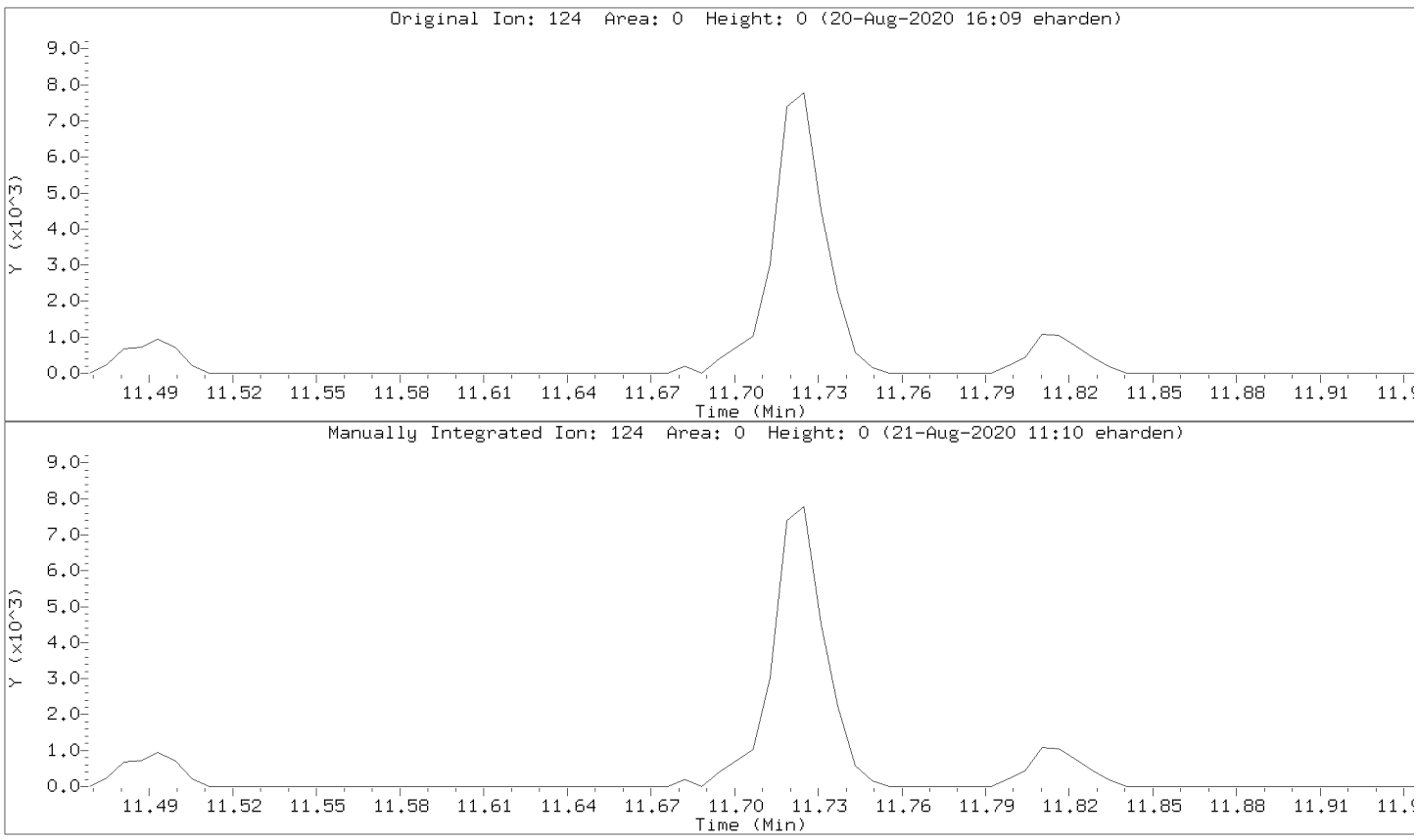
Instrument: 52mv02.i
Lab Sample ID: CAL8



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_11.D
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Inj Date : 20-AUG-2020 14:11
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal9,27245:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 14:11 Cal File: 082020_11.D
Als bottle: 9 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.410)	283760	75.0000	76.1(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	346933	75.0000	79.8	
3 Vinyl chloride	62	3.702	3.702	(0.471)	266129	75.0000	72.5	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	229006	75.0000	69.8	
5 Bromomethane	94	4.201	4.195	(0.535)	197842	75.0000	72.1	
6 Chloroethane	64	4.366	4.360	(0.556)	76609	75.0000	75.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	152397	75.0000	65.3	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	95070	75.0000	73.9	
9 1,1-Dichloroethene	61	5.226	5.226	(0.665)	307254	75.0000	74.0	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	190336	75.0000	69.5	
11 Carbon disulfide	76	5.287	5.293	(0.673)	644187	75.0000	70.1	
12 Iodomethane	142	5.445	5.439	(0.693)	174575	75.0000	74.4	
13 Acrolein	56	5.658	5.659	(0.720)	65220	150.000	152	
14 Allyl chloride	76	5.786	5.787	(0.736)	91135	75.0000	71.4	
15 Methylene Chloride	49	5.902	5.902	(0.751)	342732	75.0000	69.5	
16 Acetone	43	5.969	5.976	(0.760)	359242	150.000	150	
17 Methyl acetate	43	6.067	6.067	(0.772)	445182	150.000	157	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	200360	75.0000	71.5	
19 n-Hexane	86	6.110	6.110	(0.777)	24817	75.0000	83.6	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	507129	75.0000	77.6	
21 Acetonitrile	41	6.457	6.463	(0.822)	43661	150.000	168(H)	
22 Chloroprene	53	6.640	6.640	(0.845)	329381	75.0000	84.3	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	394304	75.0000	72.4	
24 Acrylonitrile	53	6.731	6.738	(0.857)	183534	150.000	155	
25 Vinyl acetate	43	6.859	6.860	(0.873)	438519	75.0000	81.4	
26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	296515	75.0000	73.9	
27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	277755	75.0000	66.1	
28 Bromochloromethane	128	7.335	7.335	(0.933)	121740	75.0000	69.4	
29 Cyclohexane	56	7.335	7.335	(0.882)	289677	75.0000	82.8	
30 Chloroform	83	7.372	7.372	(0.938)	435835	75.0000	70.8	
31 Ethyl acetate	43	7.426	7.433	(0.945)	516261	150.000	148	
32 Carbon tetrachloride	117	7.506	7.512	(0.902)	317911	75.0000	76.8	
33 Tetrahydrofuran	42	7.530	7.536	(0.958)	139651	150.000	164	
$ 34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	168498	50.0000	47.3	
35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	346786	75.0000	73.9	
36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	407706	150.000	154	
37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	260917	75.0000	80.1(H)	
* 38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	309362	50.0000		
39 Benzene	78	7.871	7.872	(0.946)	777686	75.0000	73.9	
40 Propionitrile	54	7.896	7.902	(1.005)	76528	150.000	145	
41 Methacrylonitrile	41	7.902	7.902	(1.005)	401655	150.000	150	
42 Isobutanol	43	7.975	7.987	(1.015)	20414	150.000	(MH)	WP
$ 43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	29467	50.0000	46.0	
44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	328819	75.0000	68.0	
45 Isopropyl acetate	43	8.134	8.134	(1.035)	448742	75.0000	77.9	
46 Trichloroethene	130	8.316	8.317	(1.000)	215771	75.0000	75.0	
* 47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	411283	50.0000		
48 Methylcyclohexane	98	8.316	8.317	(1.000)	104652	75.0000	76.8	
49 n-Butanol	56	8.512	8.524	(1.023)	10615	150.000	169(H)	
50 Dibromomethane	93	8.670	8.670	(1.043)	178140	75.0000	72.7	
51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	221116	75.0000	73.6	
52 Bromodichloromethane	83	8.768	8.768	(1.054)	335188	75.0000	77.7	
53 Methyl methacrylate	69	8.822	8.823	(1.061)	128004	75.0000	72.9	
54 1,4-Dioxane (p-Dioxane)	58	8.932	8.920	(1.074)	3243	150.000	(MH)	LT
55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	229530	150.000	147	
56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	334526	75.0000	79.8	
$ 57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	447242	50.0000	50.5	
58 Toluene	91	9.414	9.414	(1.132)	781683	75.0000	76.2	
59 2-Nitropropane	43	9.603	9.603	(1.155)	75539	75.0000	74.4(H)	
60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	44292	150.000	150(M)	WP
61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	333917	75.0000	79.8	
62 Tetrachloroethene	164	9.719	9.719	(0.920)	205799	75.0000	76.6	
63 Ethyl methacrylate	69	9.761	9.761	(1.174)	245737	75.0000	73.4(H)	
64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	182207	75.0000	70.1	
65 Dibromochloromethane	129	9.999	9.999	(0.947)	280478	75.0000	75.3	
66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	312981	75.0000	79.0	
67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	231783	75.0000	72.6	
68 2-Hexanone	43	10.273	10.280	(1.235)	571212	150.000	164	
69 Ethylbenzene	91	10.554	10.554	(0.999)	846583	75.0000	82.6	
* 70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	391574	50.0000		
71 Chlorobenzene	112	10.578	10.578	(1.002)	554970	75.0000	73.5	
72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	225655	75.0000	70.7	
73 m&p-Xylene	91	10.651	10.651	(1.009)	1353204	150.000	151	
74 o-Xylene	106	10.993	10.993	(1.041)	299124	75.0000	70.9	
75 Styrene	104	11.029	11.029	(1.044)	546784	75.0000	74.2	
76 Bromoform	173	11.103	11.103	(1.051)	260722	75.0000	73.7	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	479165	75.0000	75.6	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	166582	50.0000	51.8	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	91712	75.0000	71.3	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	1052699	75.0000	83.8	
81 Bromobenzene	156	11.578	11.578	(1.096)	312070	75.0000	78.8	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	302282	75.0000	72.2	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	695519	75.0000	83.9	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	220722	75.0000	73.6	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	228636	75.0000	75.5	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	797567	75.0000	73.6	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	319085	75.0000	72.8	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	78111	75.0000	77.5(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	710565	75.0000	73.0	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	731346	75.0000	74.8	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	858491	75.0000	74.0	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	710565	75.0000	73.0	
94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	523242	75.0000	78.3	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	251122	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	532968	75.0000	70.7	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	748624	75.0000	85.5	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	517606	75.0000	70.9	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	59552	75.0000	72.5	
100 Hexachloro-1,3-butadiene	225	13.815	13.822	(1.120)	164678	75.0000	73.6	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	399731	75.0000	80.8	
102 Naphthalene	128	14.193	14.193	(1.150)	711974	75.0000	72.4	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	369768	75.0000	80.4	

QC Flag Legend

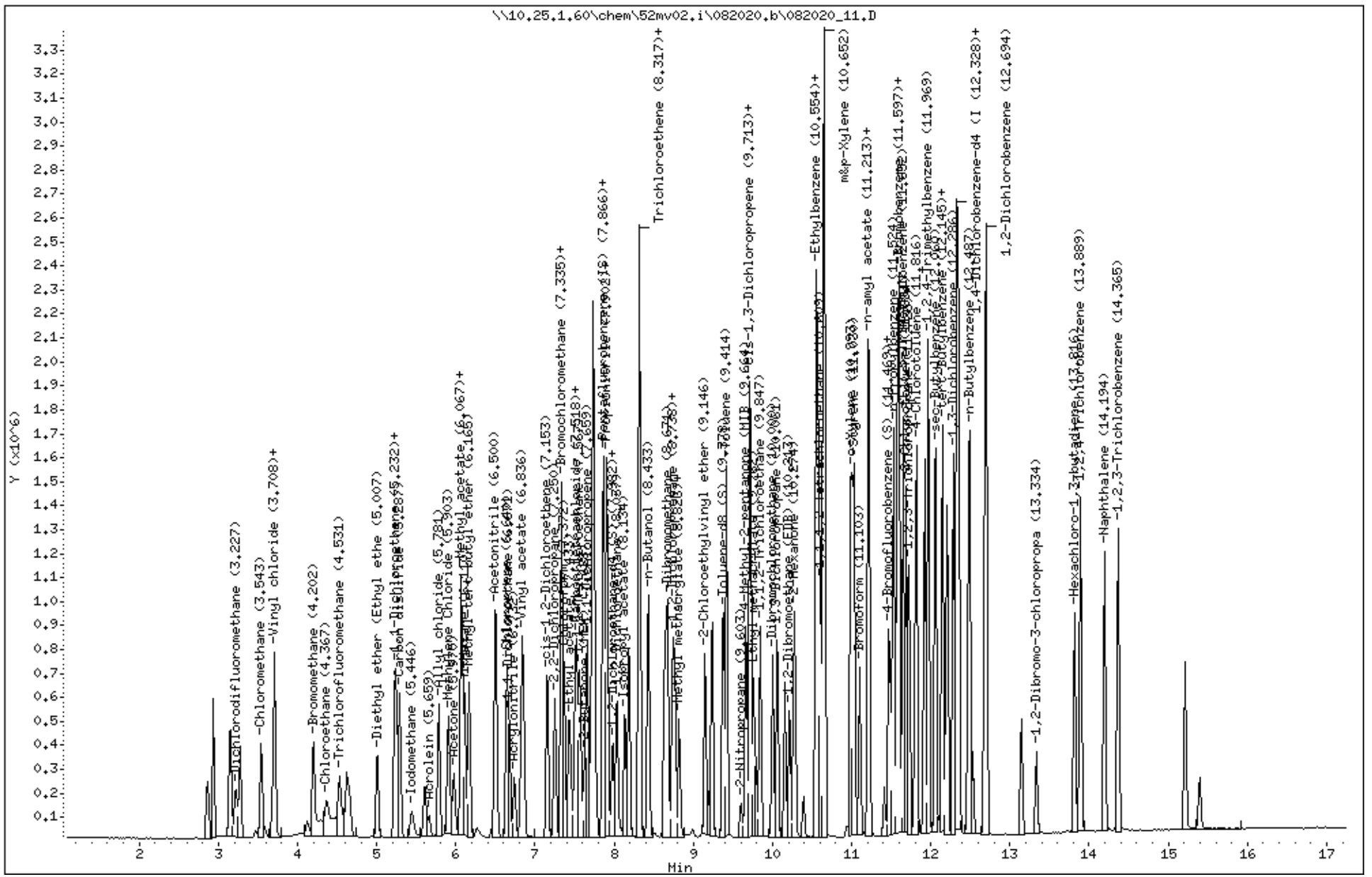
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_11.D
Date : 20-AUG-2020 14:11
Client ID: CAL9
Sample Info: CAL9,27245:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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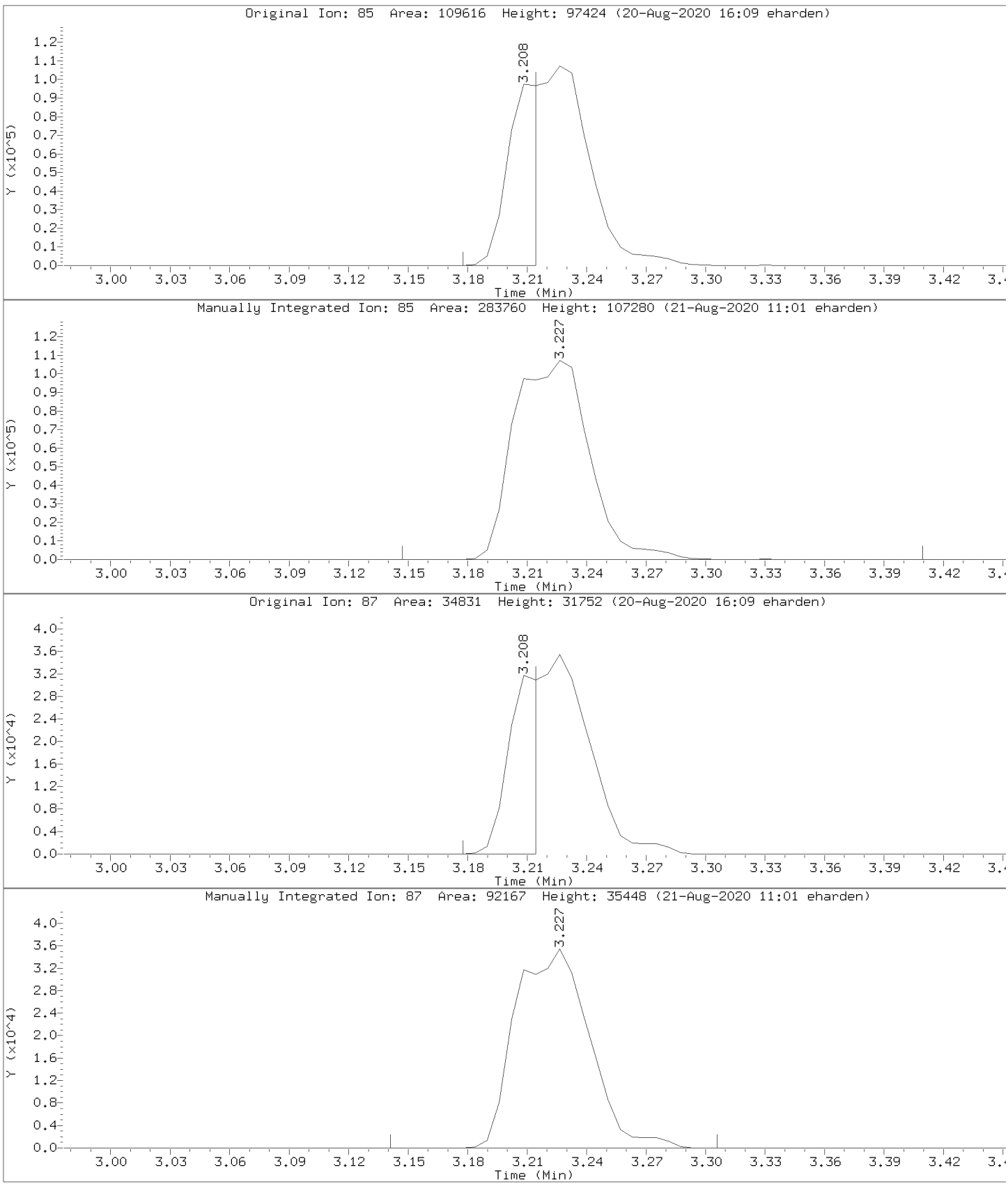
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



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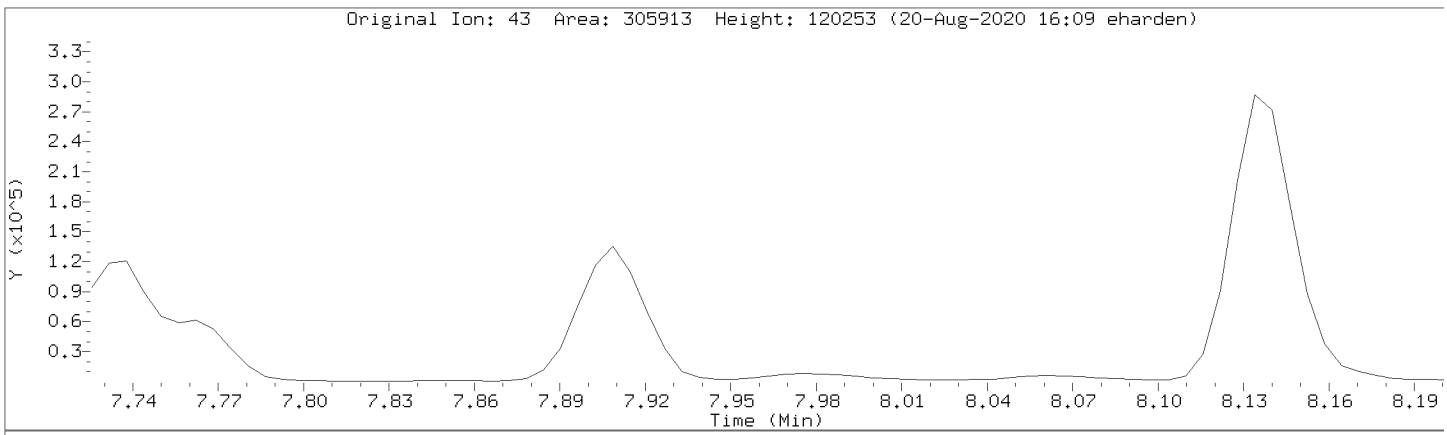
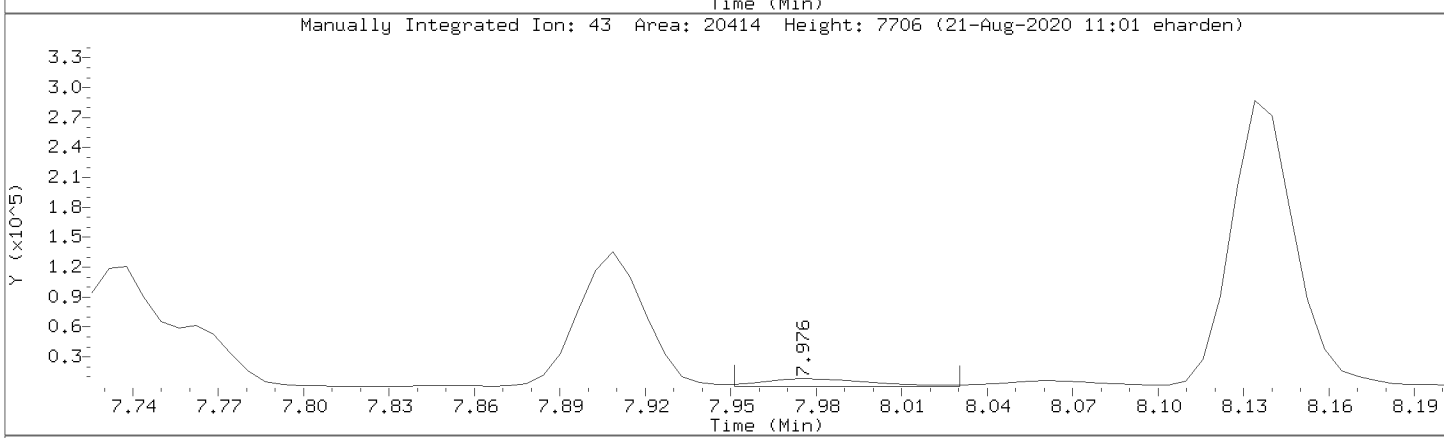
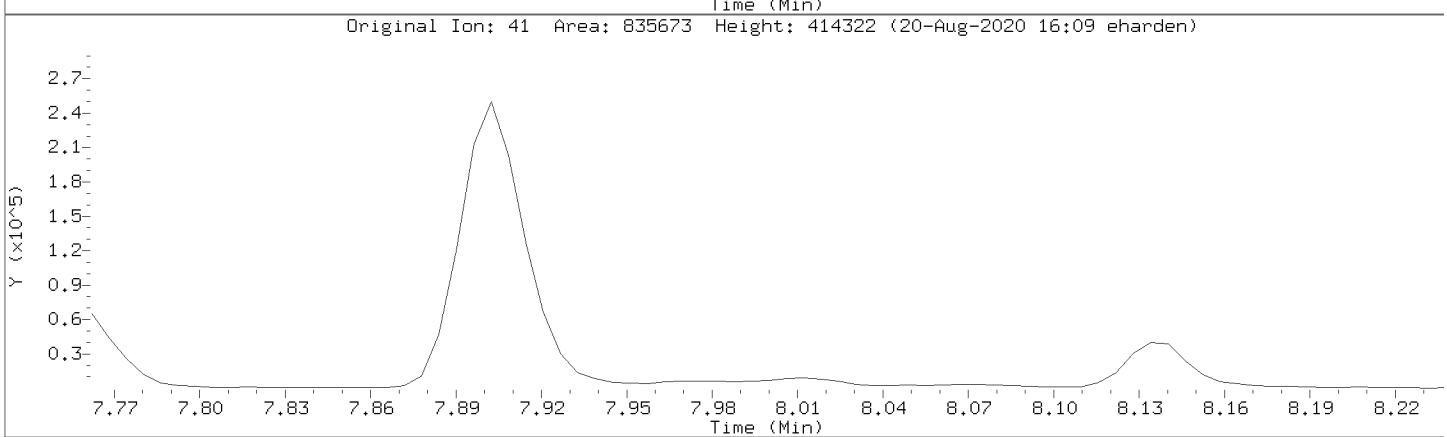
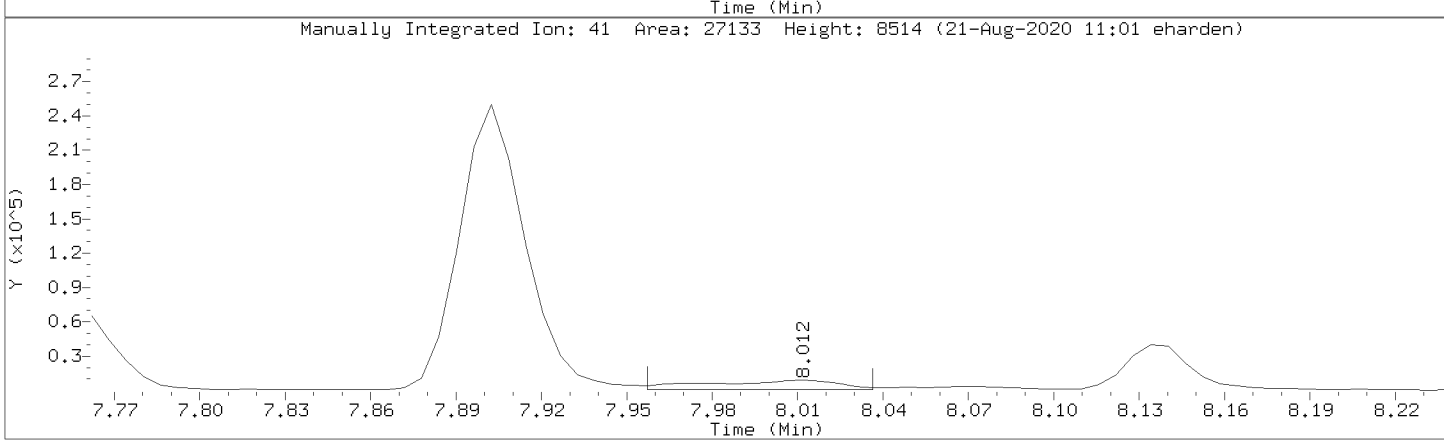
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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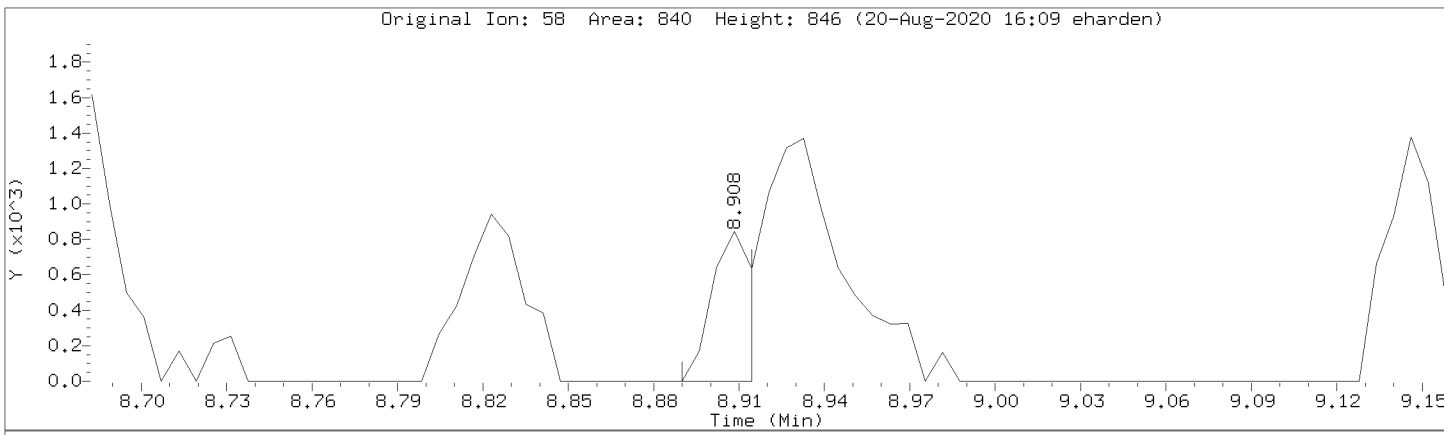
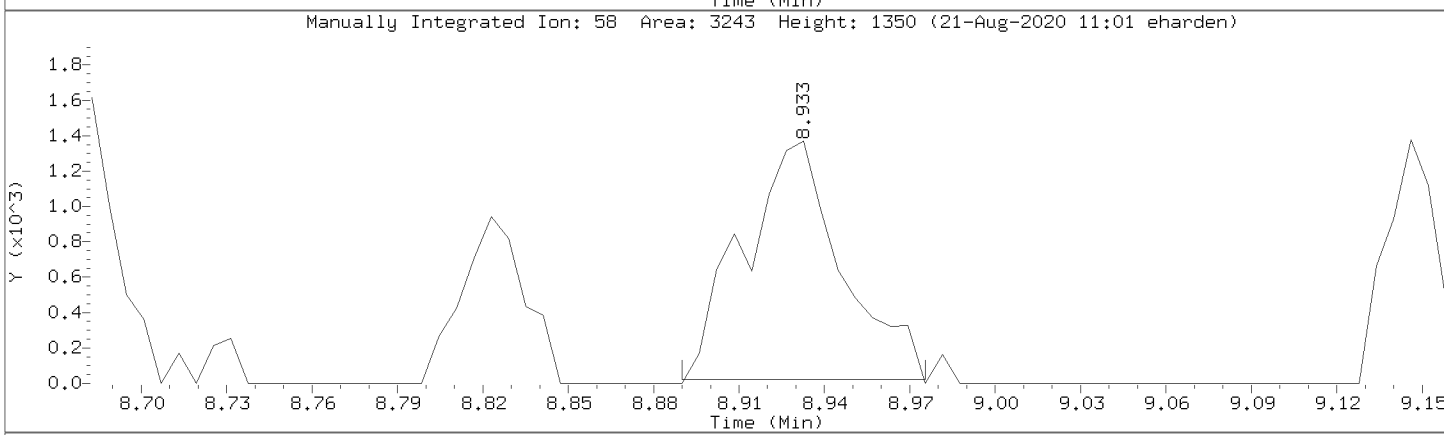
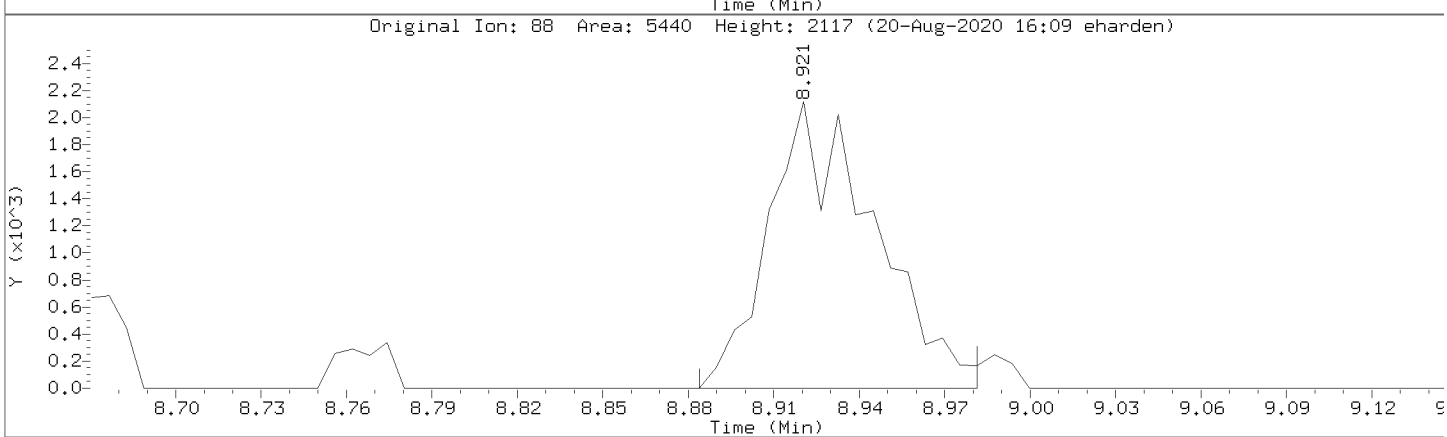
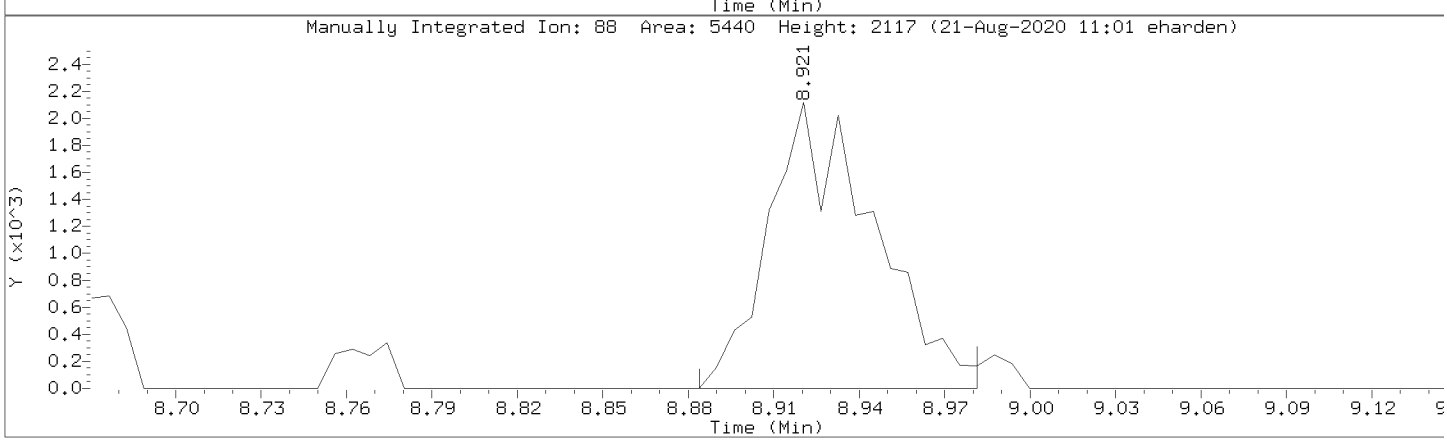
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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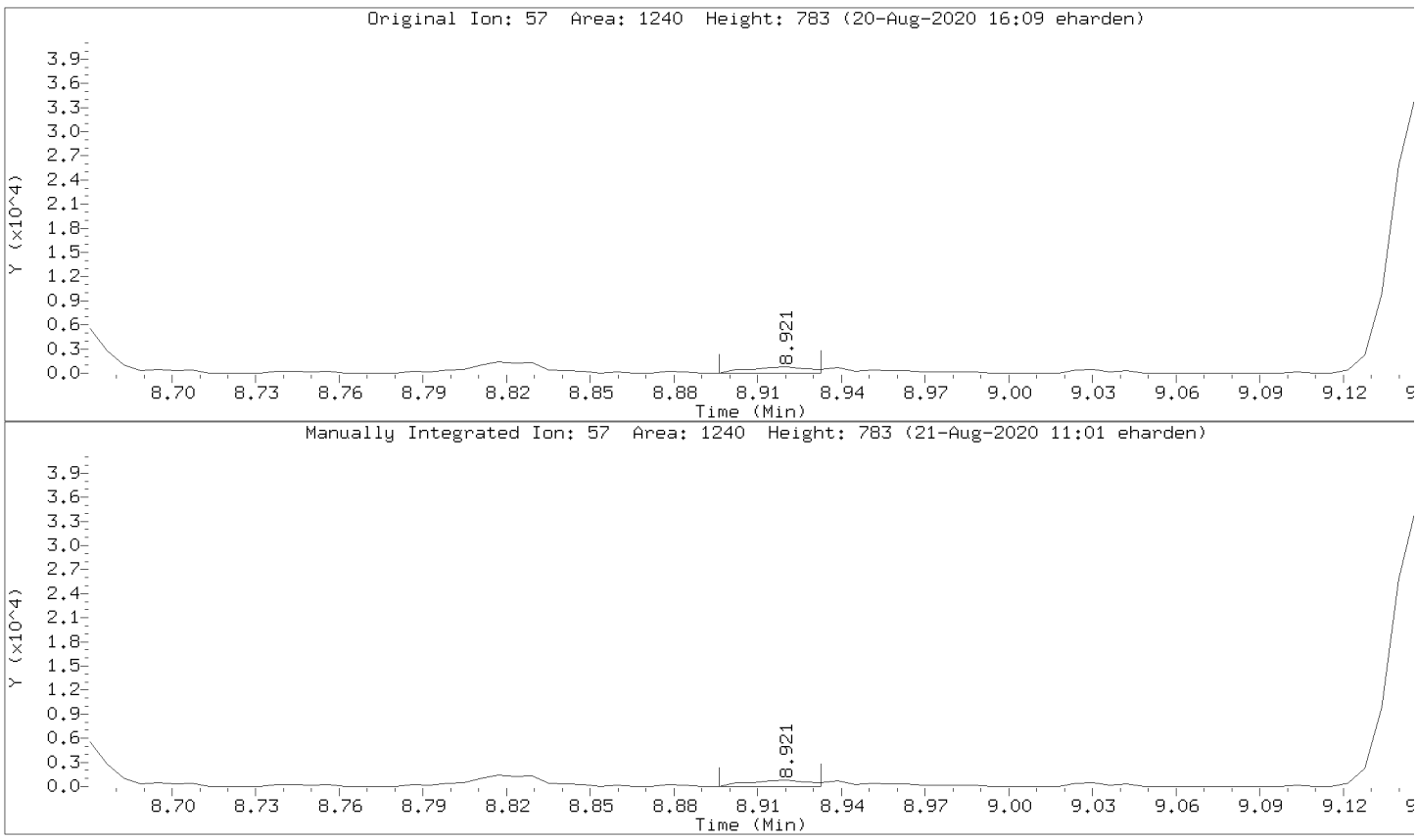
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9



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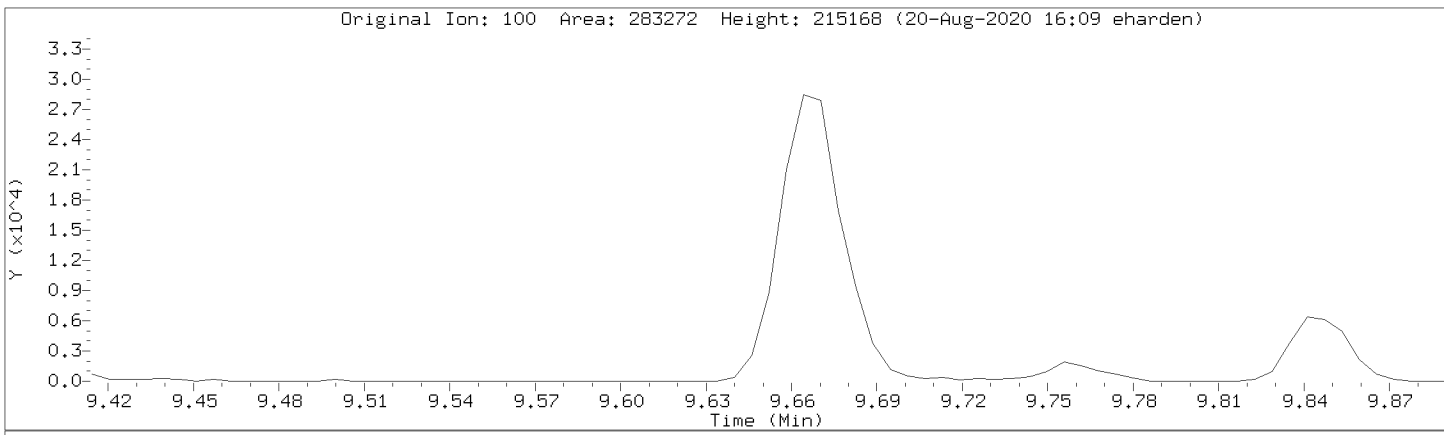
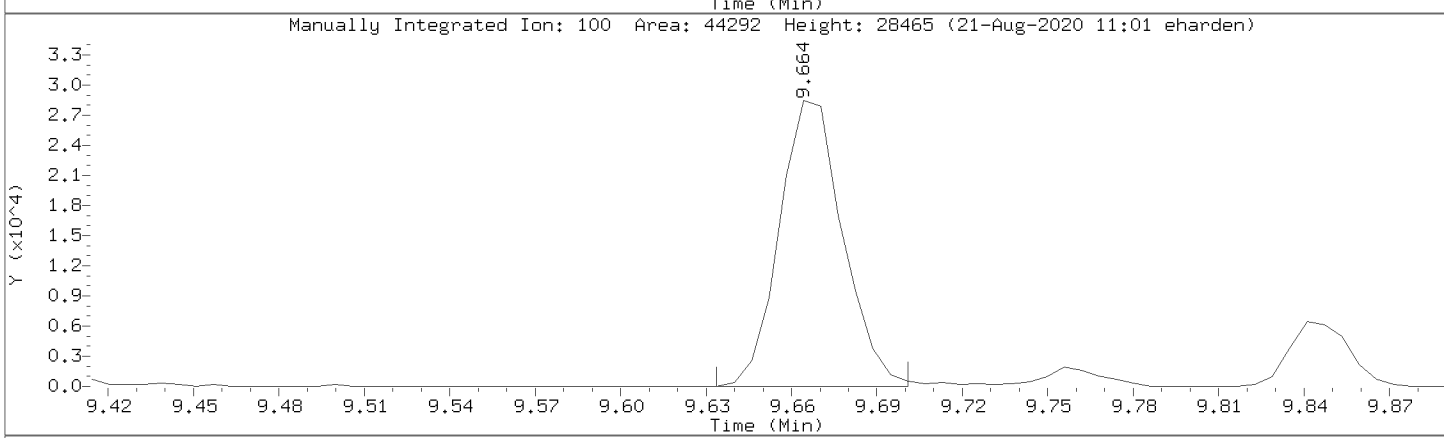
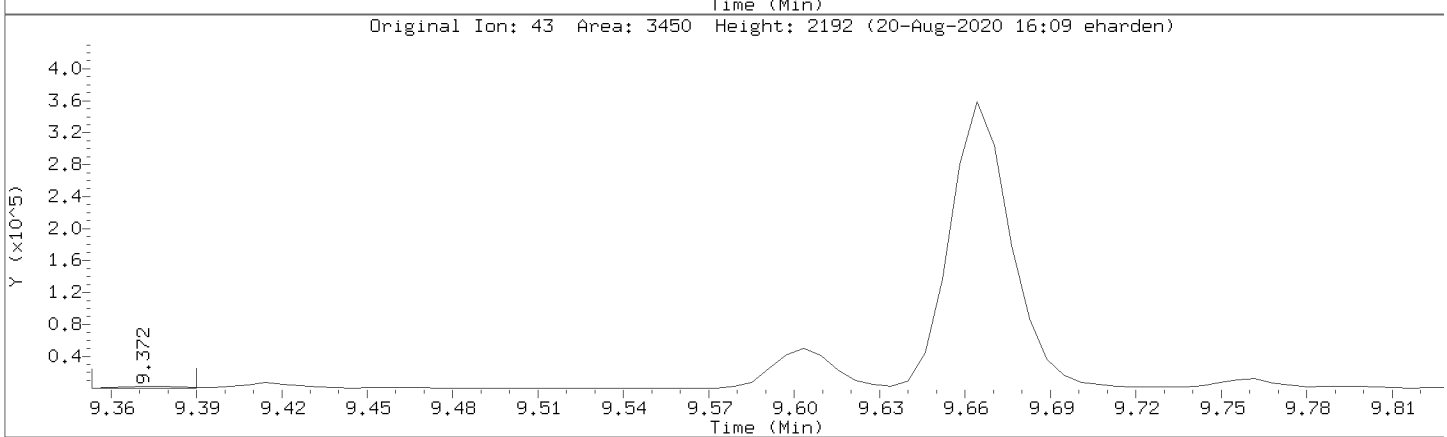
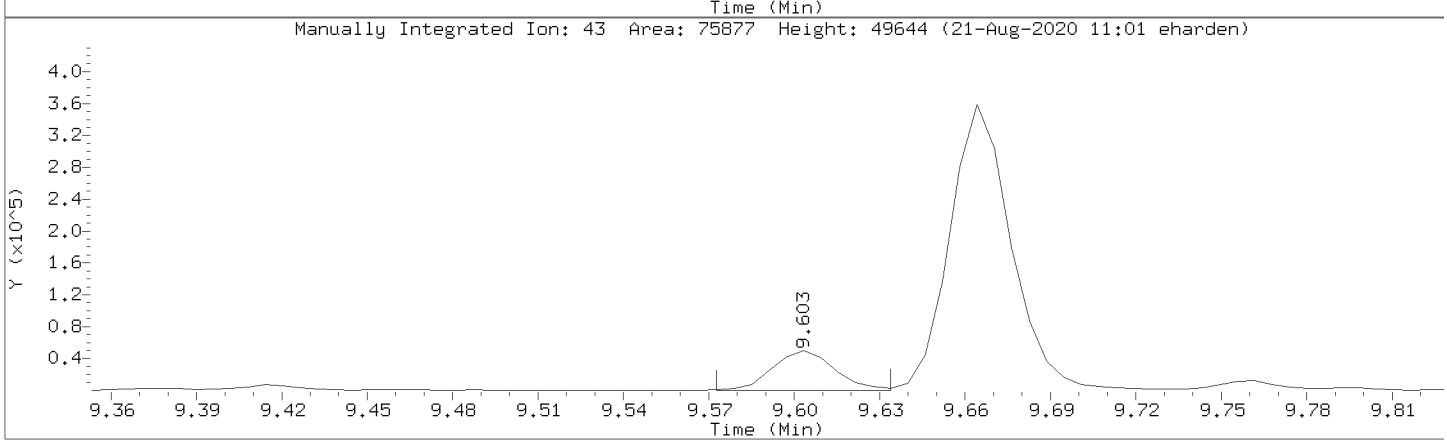
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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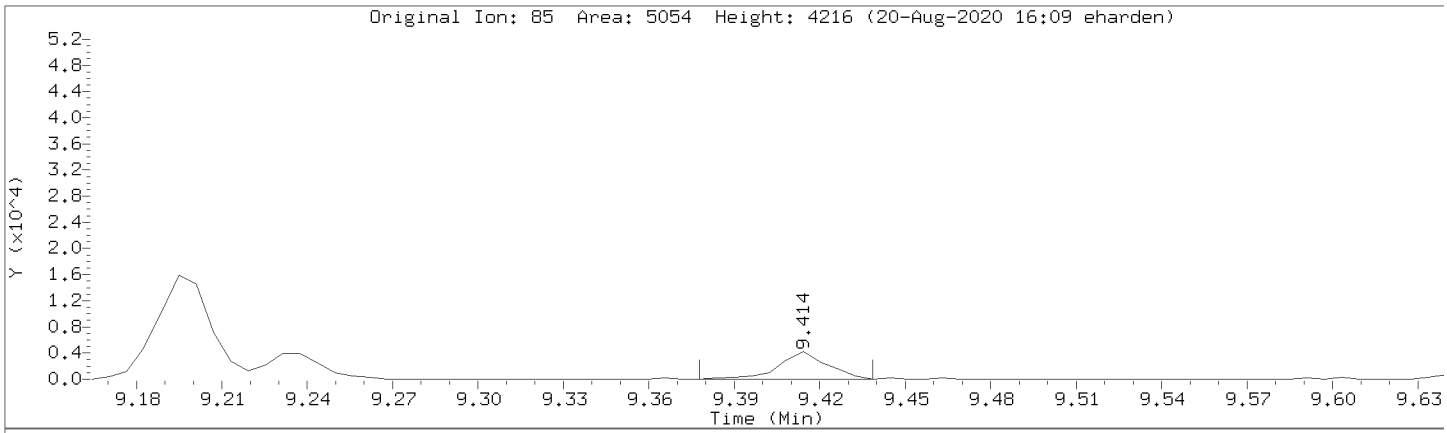
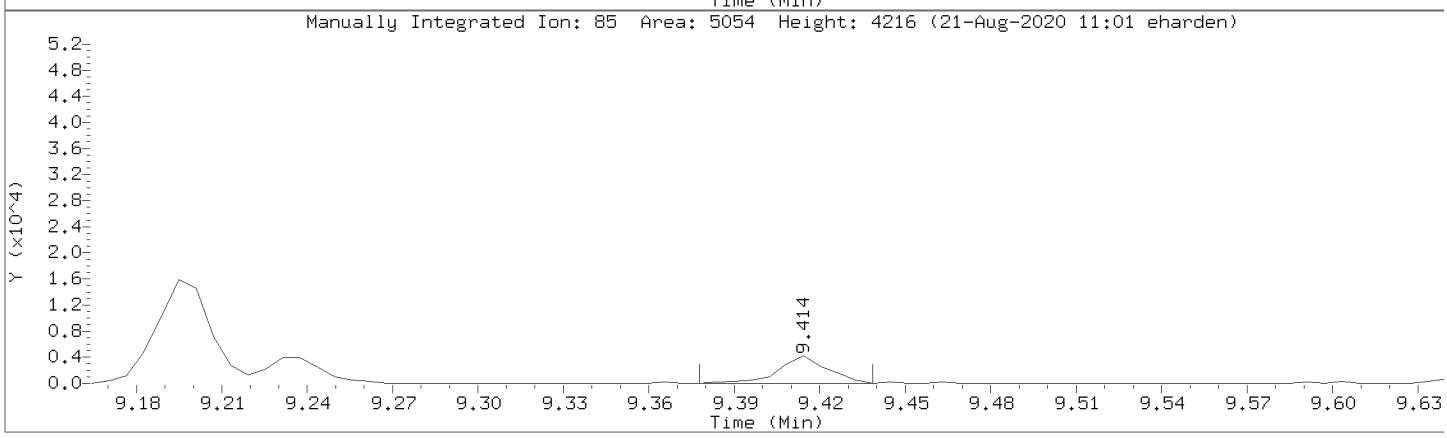
Instrument: 52mv02.i
Lab Sample ID: CAL9





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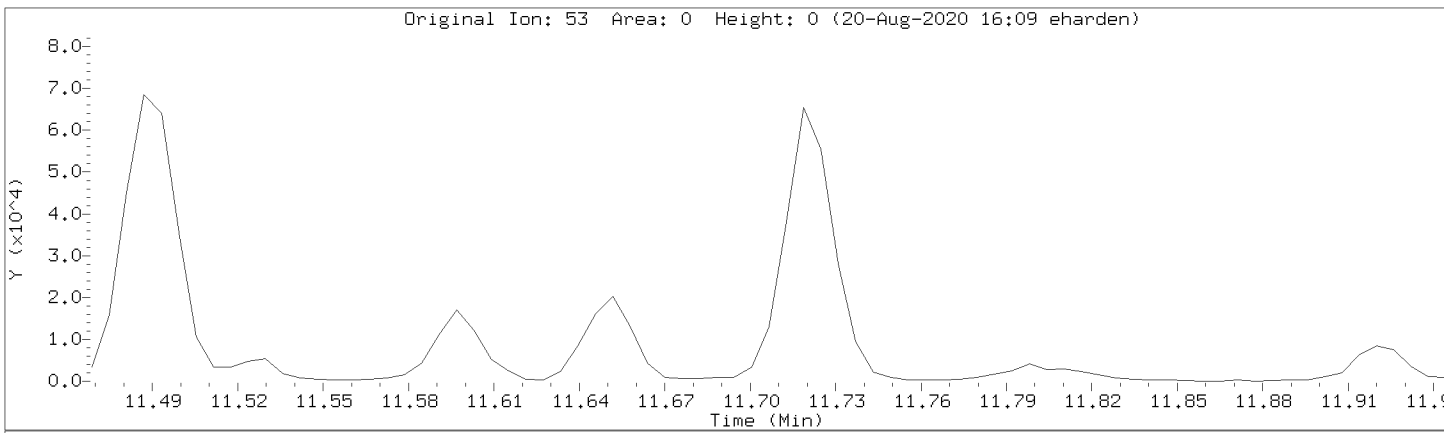
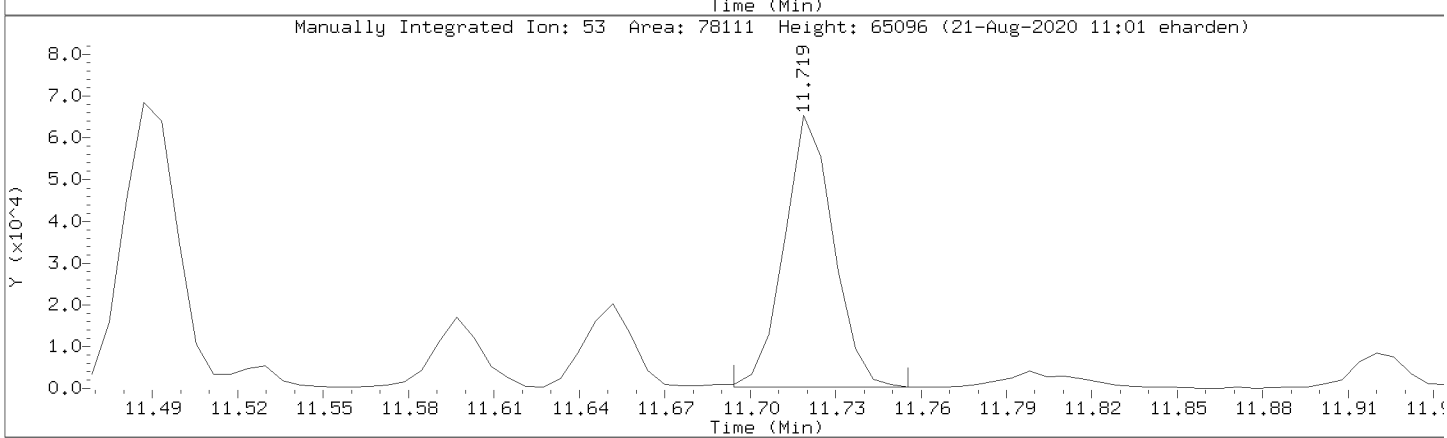
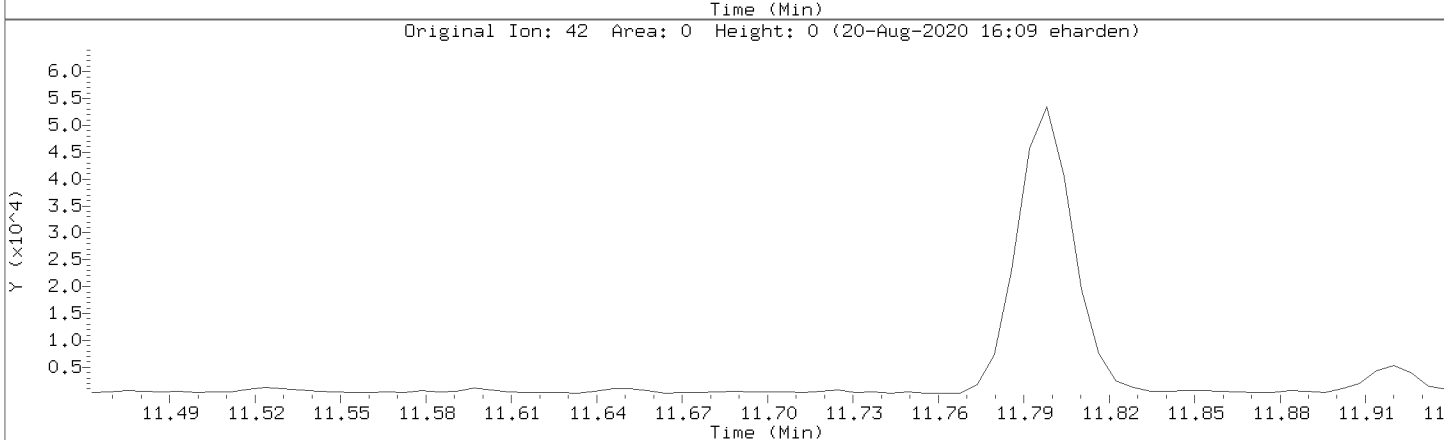
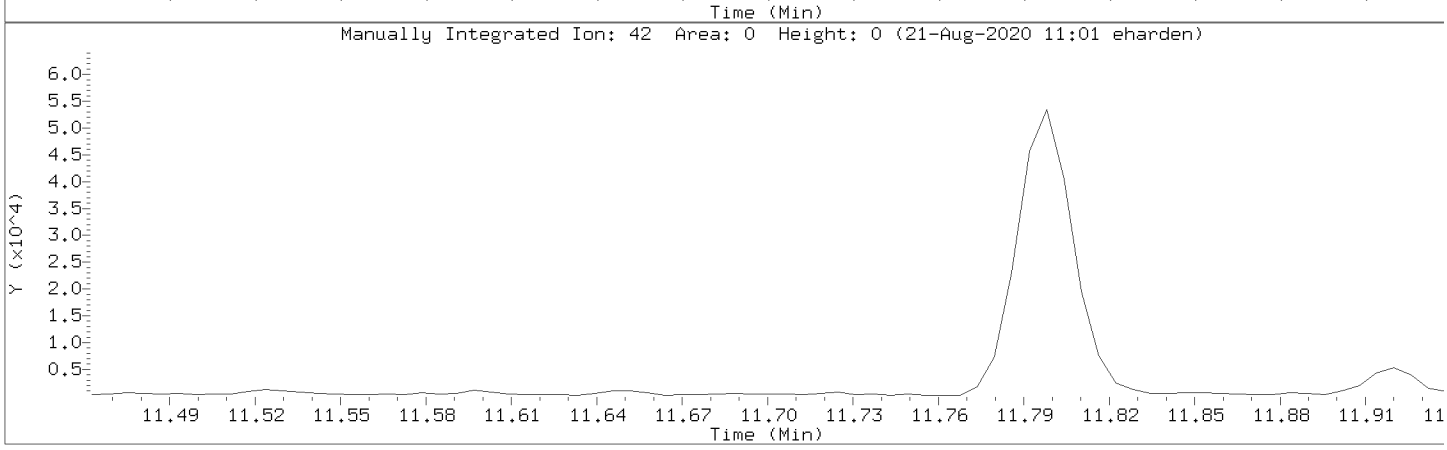
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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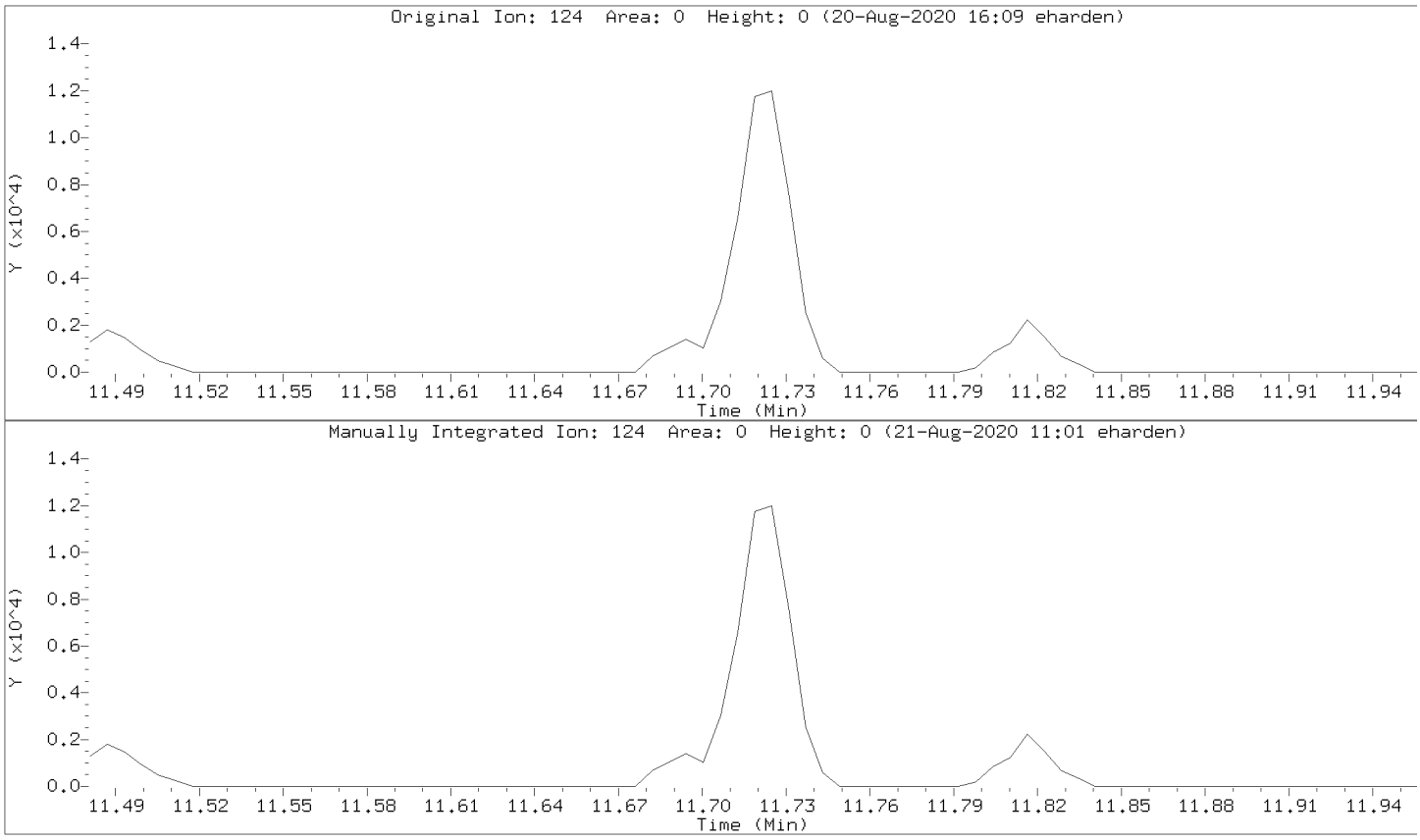
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_12.D
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Operator : EAH Inst ID: 52mv02.i
Smp Info : cal10,27246:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 14:36 Cal File: 082020_12.D
Als bottle: 10 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.232	3.226	(0.411)	408577	100.000	102(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	484636	100.000	105	
3 Vinyl chloride	62	3.702	3.702	(0.471)	387049	100.000	98.7	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	337639	100.000	96.3	
5 Bromomethane	94	4.201	4.195	(0.535)	280008	100.000	96.6	
6 Chloroethane	64	4.366	4.360	(0.556)	102291	100.000	94.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	201296	100.000	80.8	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	132497	100.000	96.5	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	447052	100.000	101	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	271477	100.000	92.9	
11 Carbon disulfide	76	5.287	5.293	(0.673)	903417	100.000	92.1	
12 Iodomethane	142	5.445	5.439	(0.693)	281734	100.000	105	
13 Acrolein	56	5.659	5.659	(0.720)	92978	200.000	203	
14 Allyl chloride	76	5.787	5.787	(0.736)	131327	100.000	96.3	
15 Methylene Chloride	49	5.902	5.902	(0.751)	464439	100.000	88.2	
16 Acetone	43	5.969	5.976	(0.760)	504949	200.000	198	
17 Methyl acetate	43	6.067	6.067	(0.772)	615823	200.000	204(A)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	281562	100.000	94.1	
19 n-Hexane	86	6.110	6.110	(0.777)	34191	100.000	108	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	722402	100.000	103	
21 Acetonitrile	41	6.463	6.463	(0.822)	59347	200.000	214(AH)	
22 Chloroprene	53	6.640	6.640	(0.845)	465931	100.000	112	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	538565	100.000	92.6	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	257393	200.000	204(A)	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	592348	100.000	103	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	420353	100.000	98.0	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	400045	100.000	89.2	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	170642	100.000	91.1	
	29 Cyclohexane	56	7.335	7.335	(0.882)	419057	100.000	113	
	30 Chloroform	83	7.372	7.372	(0.938)	604780	100.000	92.0	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	715243	200.000	193	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	438244	100.000	99.7	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	196080	200.000	216(A)	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	173193	50.0000	45.5	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	483513	100.000	97.1	
	36 2-Butanone (MEK)	43	7.622	7.628	(0.970)	582167	200.000	205	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	369324	100.000	107(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	330367	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	1069569	100.000	95.8	
	40 Propionitrile	54	7.896	7.902	(1.005)	106137	200.000	188	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	553697	200.000	193	
	42 Isobutanol	43	7.981	7.987	(1.016)	27725	200.000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	30521	50.0000	44.6	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	462341	100.000	89.5	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	647452	100.000	105	
	46 Trichloroethene	130	8.317	8.317	(1.000)	309121	100.000	101	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	436570	50.0000		
	48 Methylcyclohexane	98	8.317	8.317	(1.000)	158128	100.000	109	
	49 n-Butanol	56	8.512	8.524	(1.023)	14392	200.000	216(AH)	
	50 Dibromomethane	93	8.670	8.670	(1.043)	246347	100.000	94.7	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	303772	100.000	95.3	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	472990	100.000	103	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	186585	100.000	99.8	
	54 1,4-Dioxane (p-Dioxane)	58	8.932	8.920	(1.074)	5966	200.000		
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	331081	200.000	199	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	477231	100.000	107	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	469795	50.0000	50.0	
	58 Toluene	91	9.414	9.414	(1.132)	1103221	100.000	101	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	107110	100.000	99.6(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	67349	200.000	216(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	476057	100.000	107	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	293850	100.000	102	
	63 Ethyl methacrylate	69	9.755	9.761	(1.173)	357290	100.000	100(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	256256	100.000	92.9	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	402726	100.000	100	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	445948	100.000	106	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	331903	100.000	96.5	
	68 2-Hexanone	43	10.273	10.280	(1.235)	835017	200.000	226	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	1239031	100.000	112	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	421679	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	778798	100.000	95.7	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	313159	100.000	91.1	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	1926275	200.000	199	
	74 o-Xylene	106	10.993	10.993	(1.041)	447143	100.000	98.2	
	75 Styrene	104	11.029	11.029	(1.044)	787917	100.000	99.1	
	76 Bromoform	173	11.103	11.103	(1.051)	373847	100.000	98.1	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	674839	100.000	98.7	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	181905	50.0000	52.6	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	126903	100.000	91.6	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	1515194	100.000	112	
81 Bromobenzene	156	11.578	11.578	(1.096)	444066	100.000	104	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	420224	100.000	93.1	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	994488	100.000	112	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	318275	100.000	98.4	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	325711	100.000	99.8	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	1159541	100.000	99.1	
87 1,2,3-Trichloropropane	75	11.718	11.724	(1.110)	452394	100.000	95.9	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	107903	100.000	99.4(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	1046010	100.000	100	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	1050761	100.000	100	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	1234948	100.000	99.0	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	1046010	100.000	100	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	748097	100.000	104	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	269551	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	761377	100.000	94.0	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	1072153	100.000	114	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	743908	100.000	94.9	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	85330	100.000	96.8	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	240583	100.000	100	
101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	573550	100.000	108	
102 Naphthalene	128	14.193	14.193	(1.150)	1058070	100.000	100	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	534252	100.000	108	

QC Flag Legend

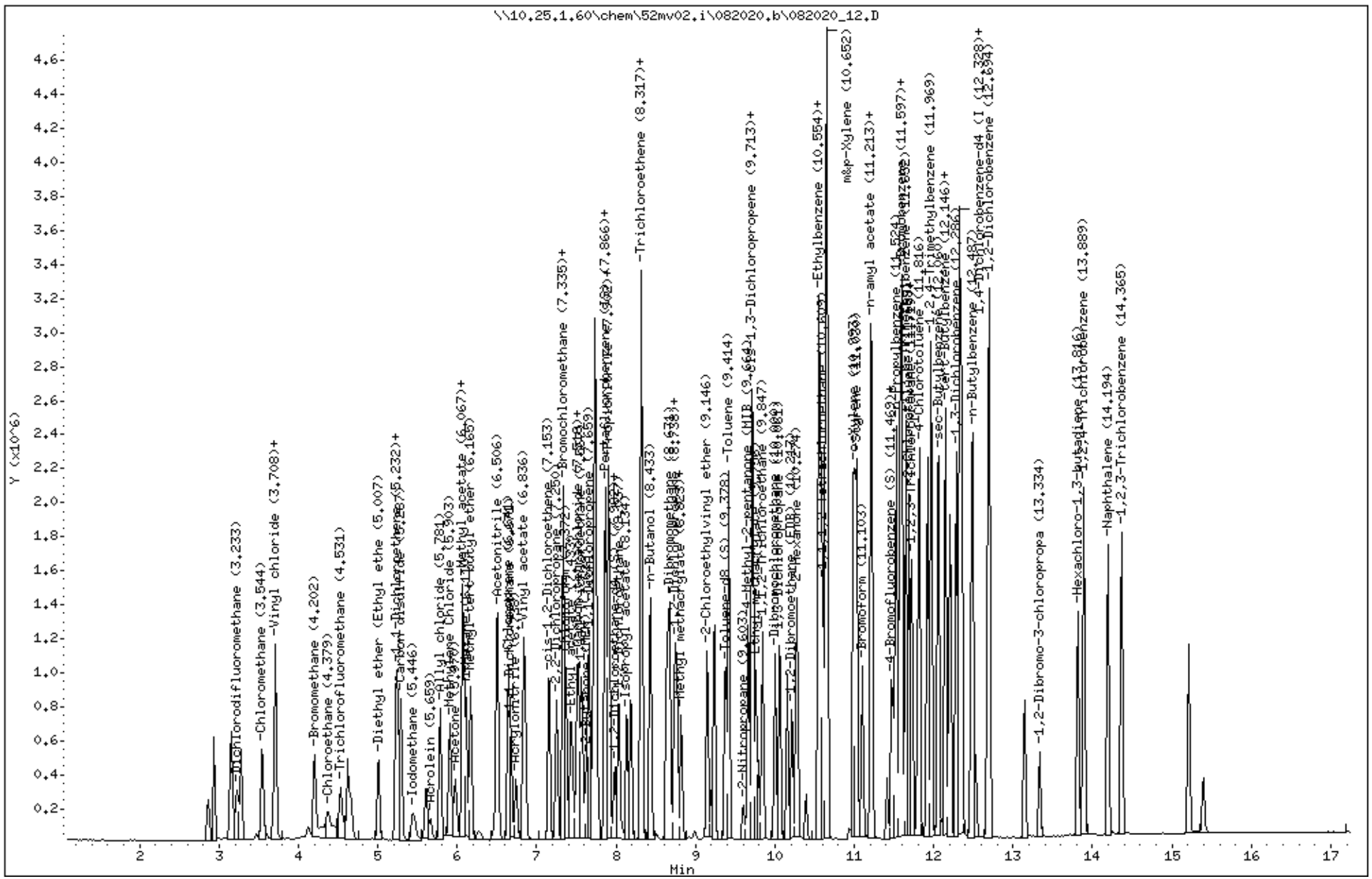
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_12.D
Date : 20-AUG-2020 14:36
Client ID: CAL10
Sample Info: CAL10,27246:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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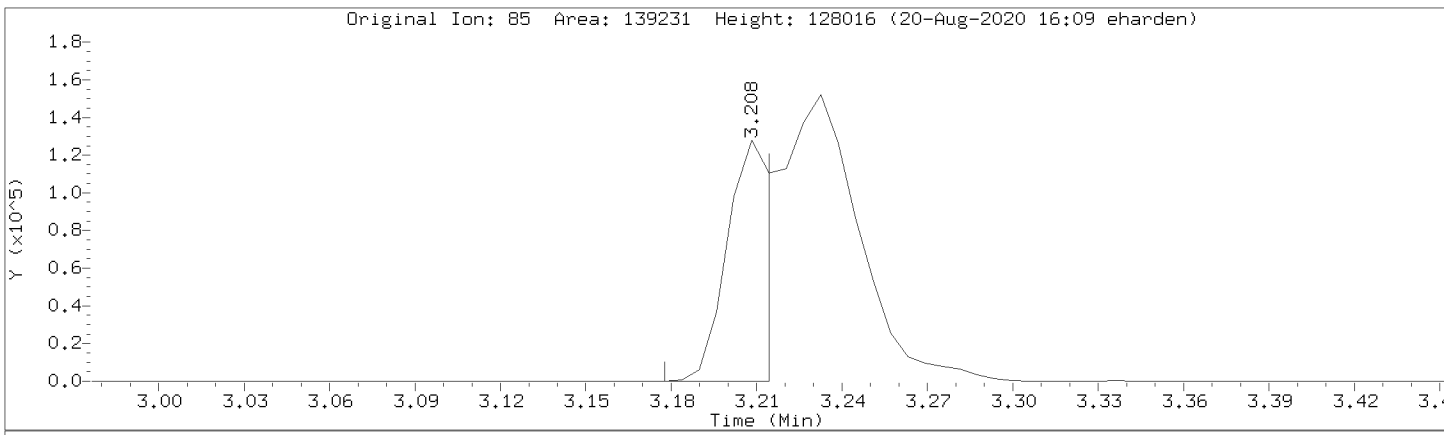
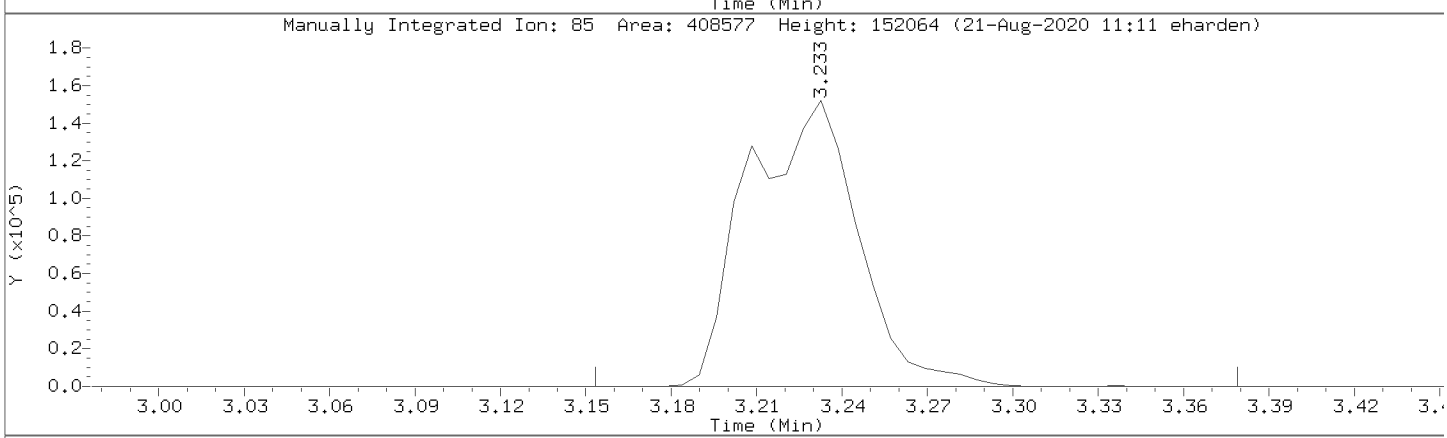
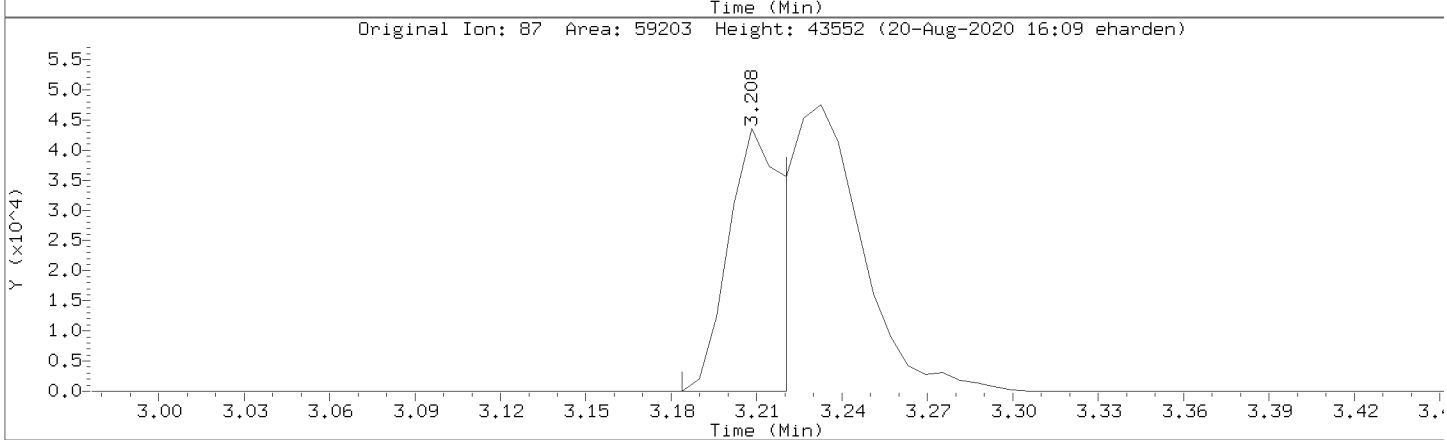
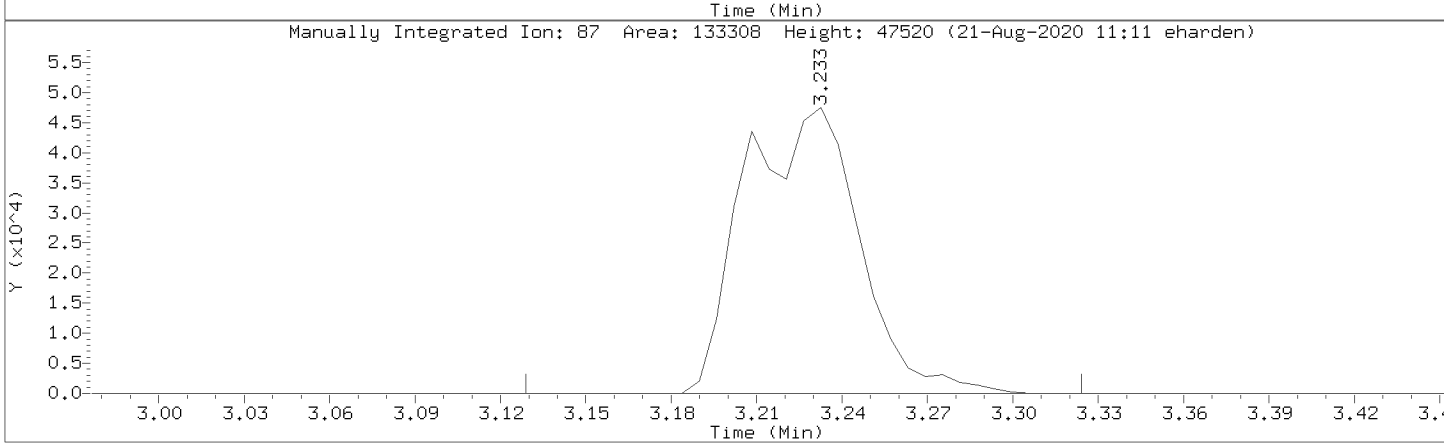
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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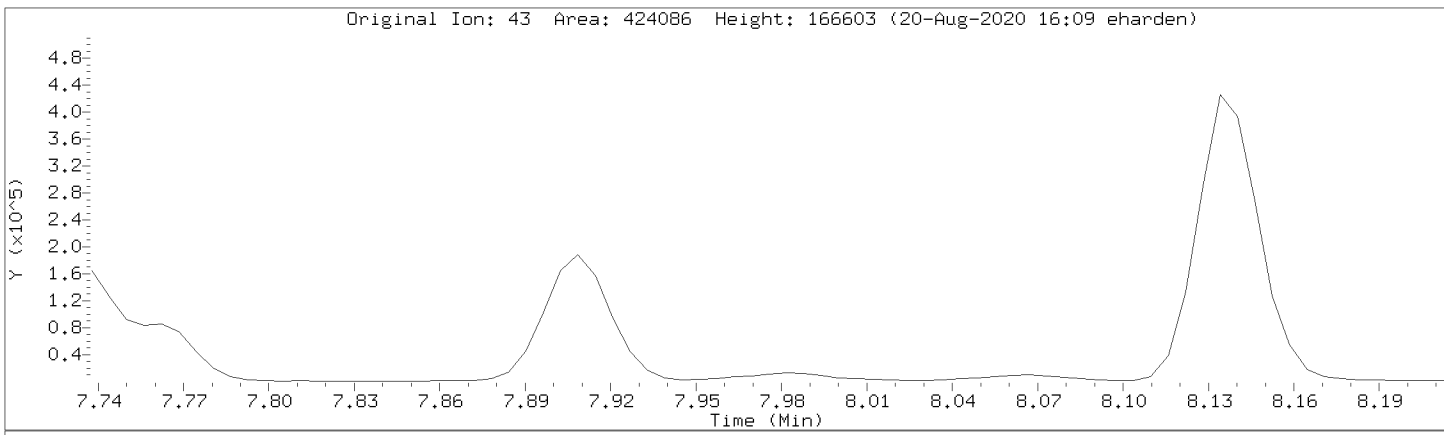
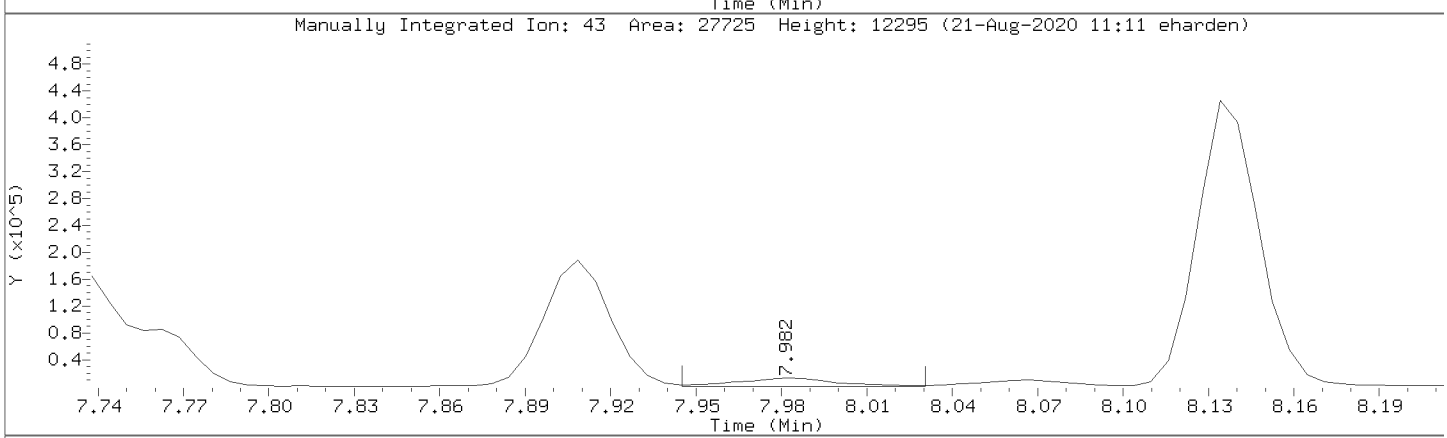
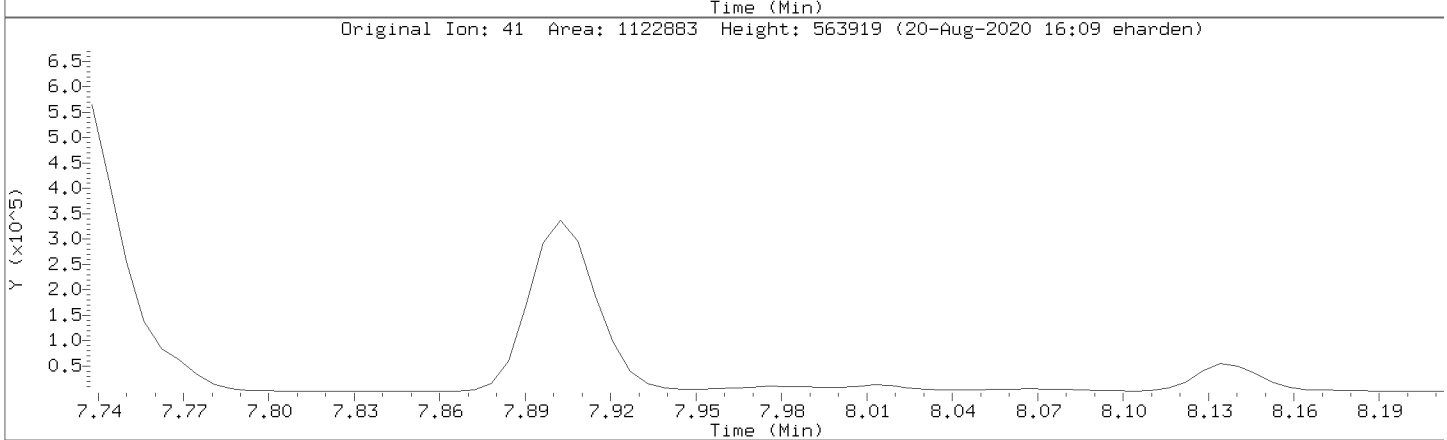
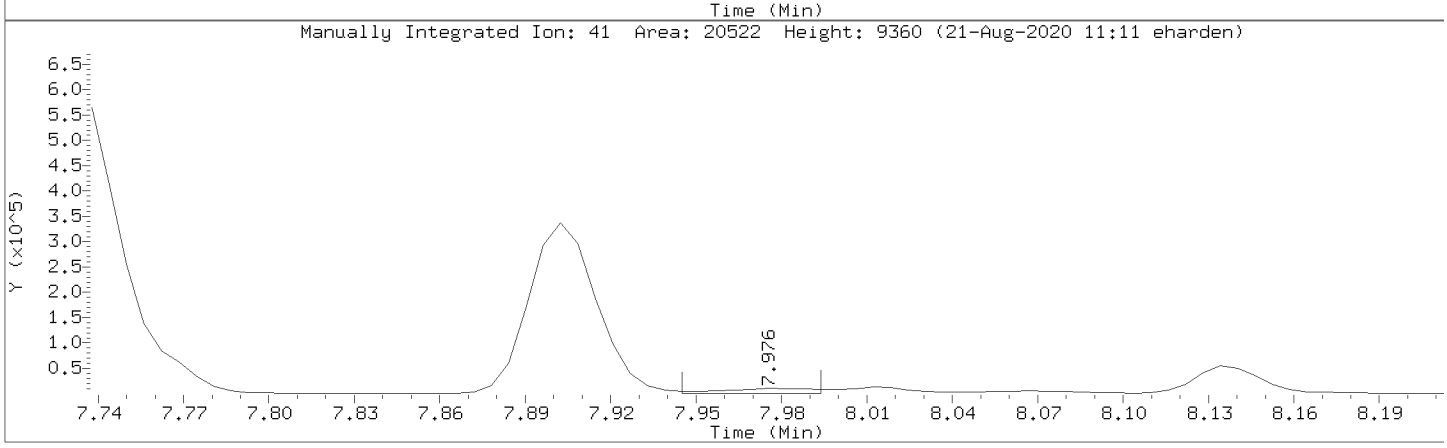
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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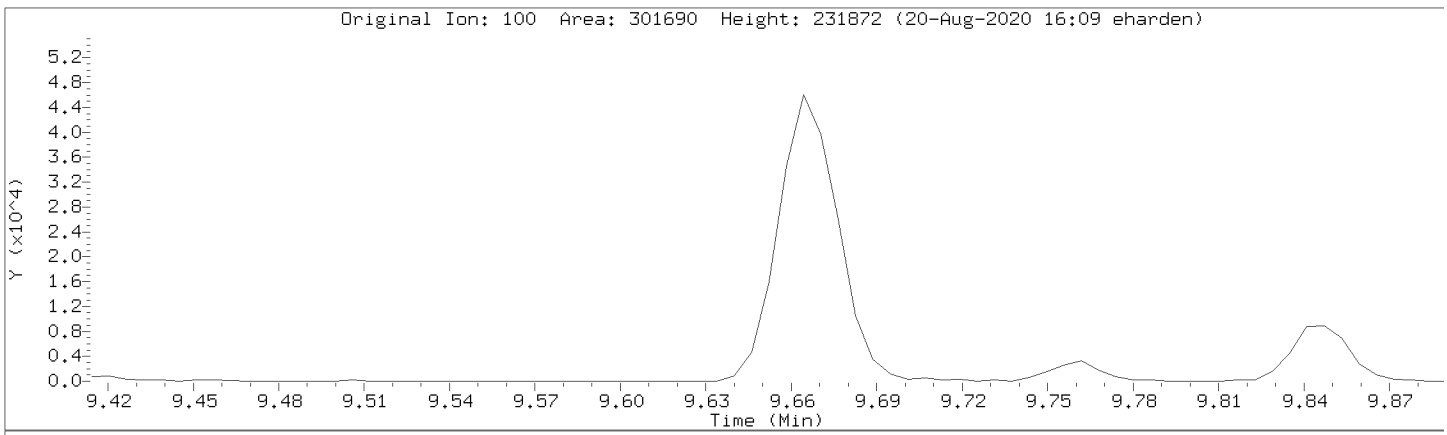
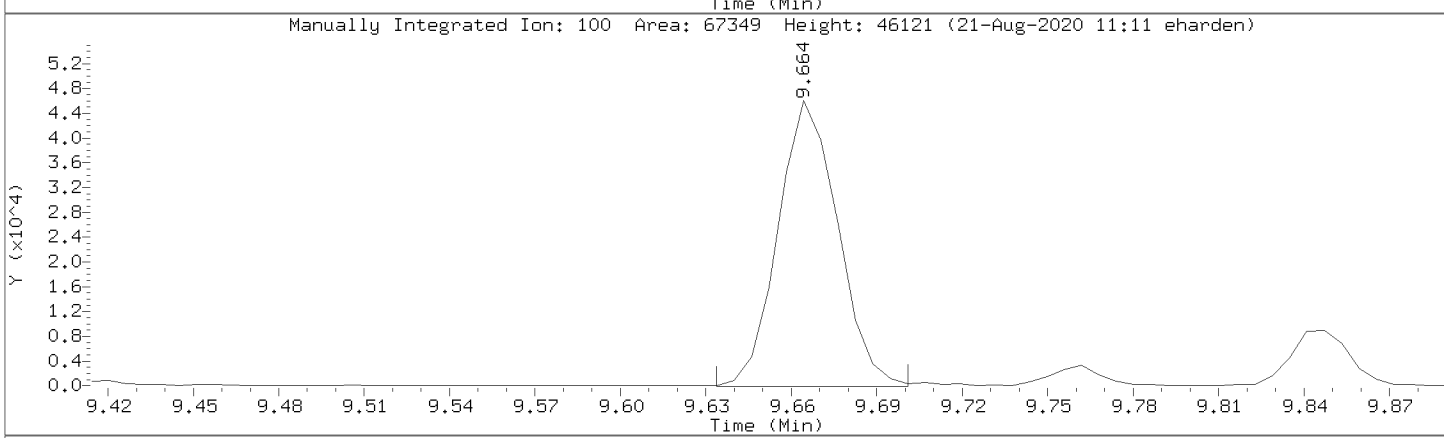
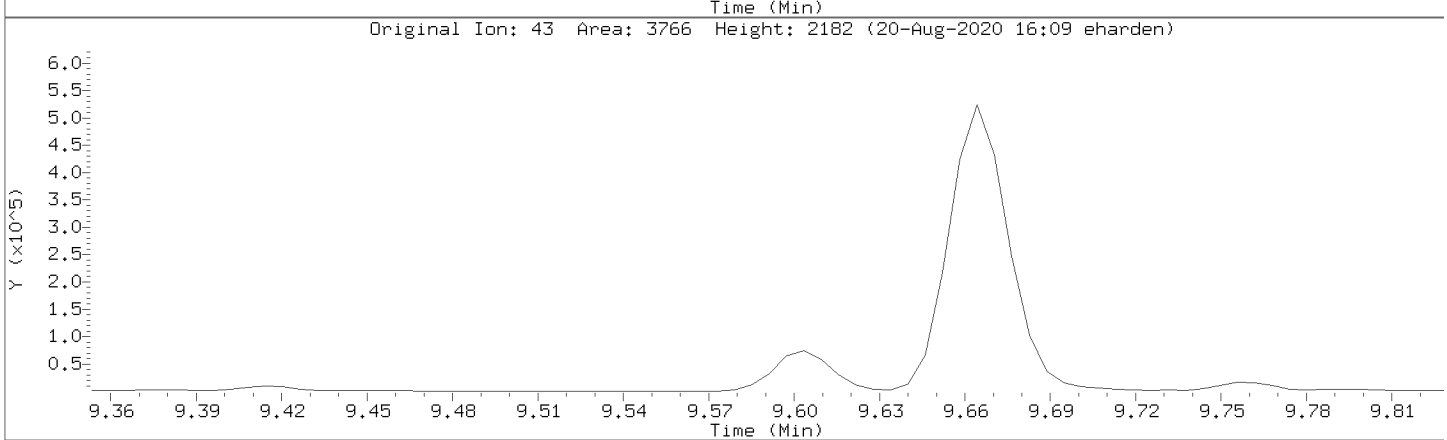
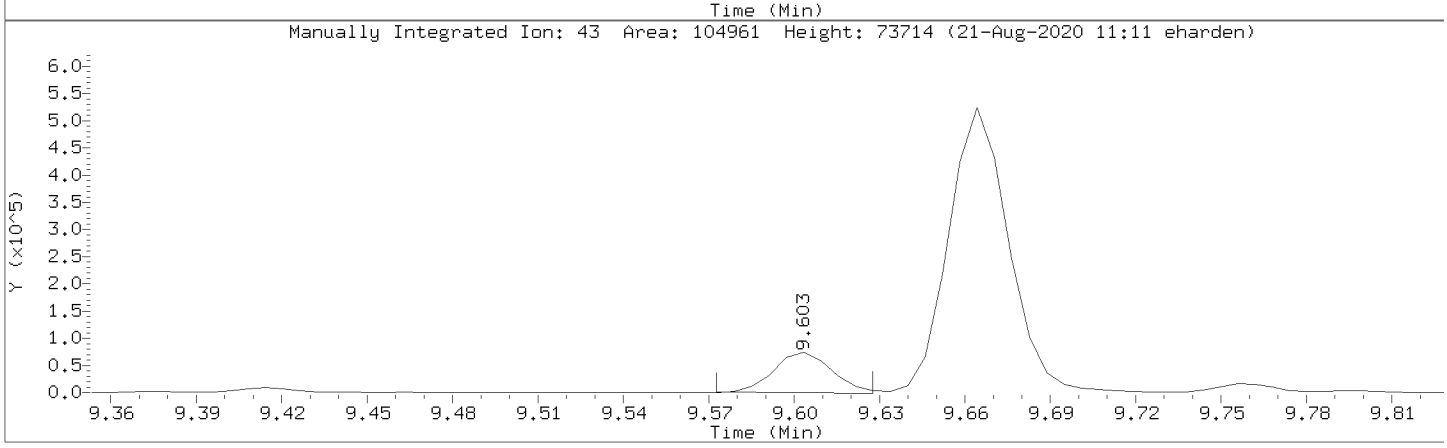
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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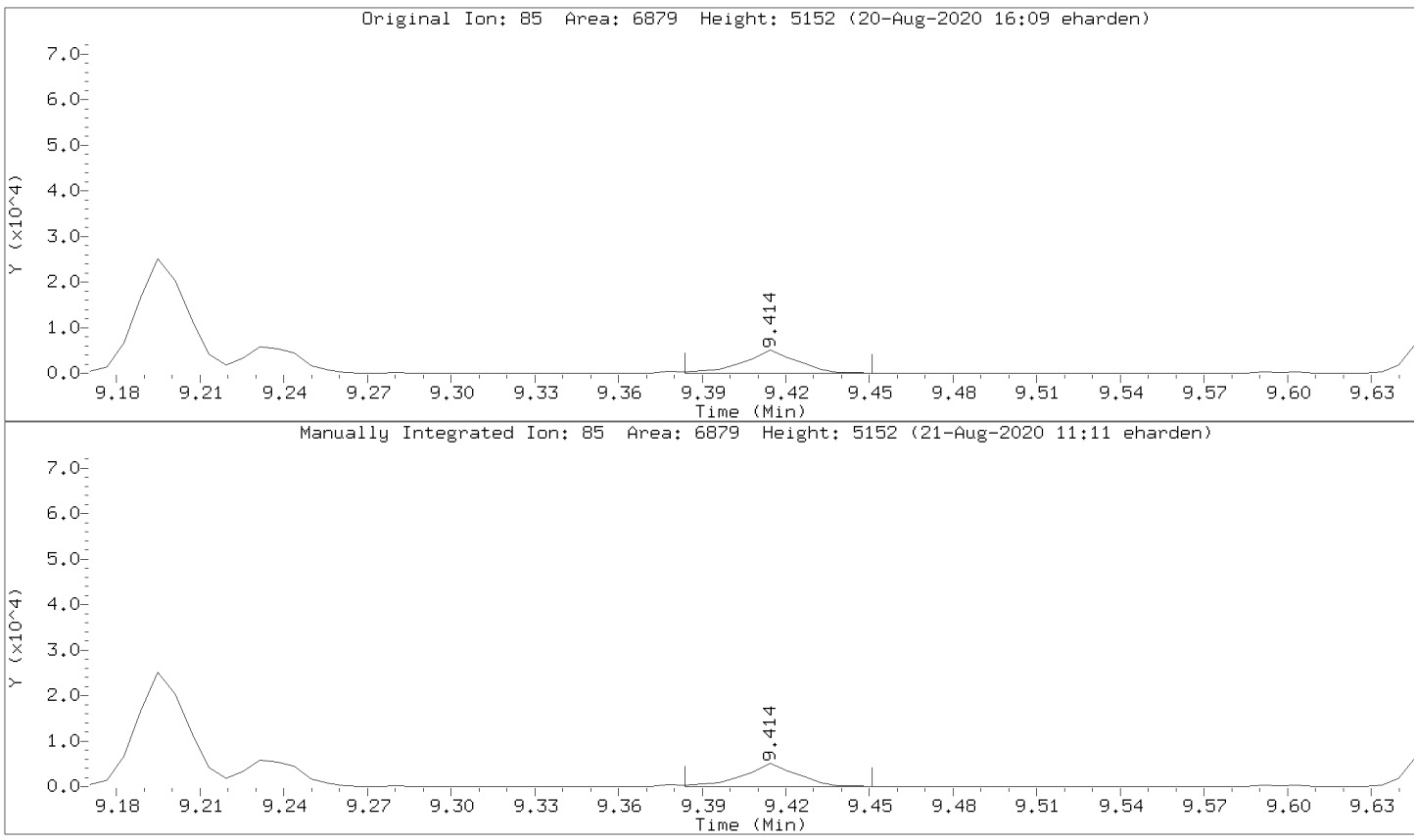
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10



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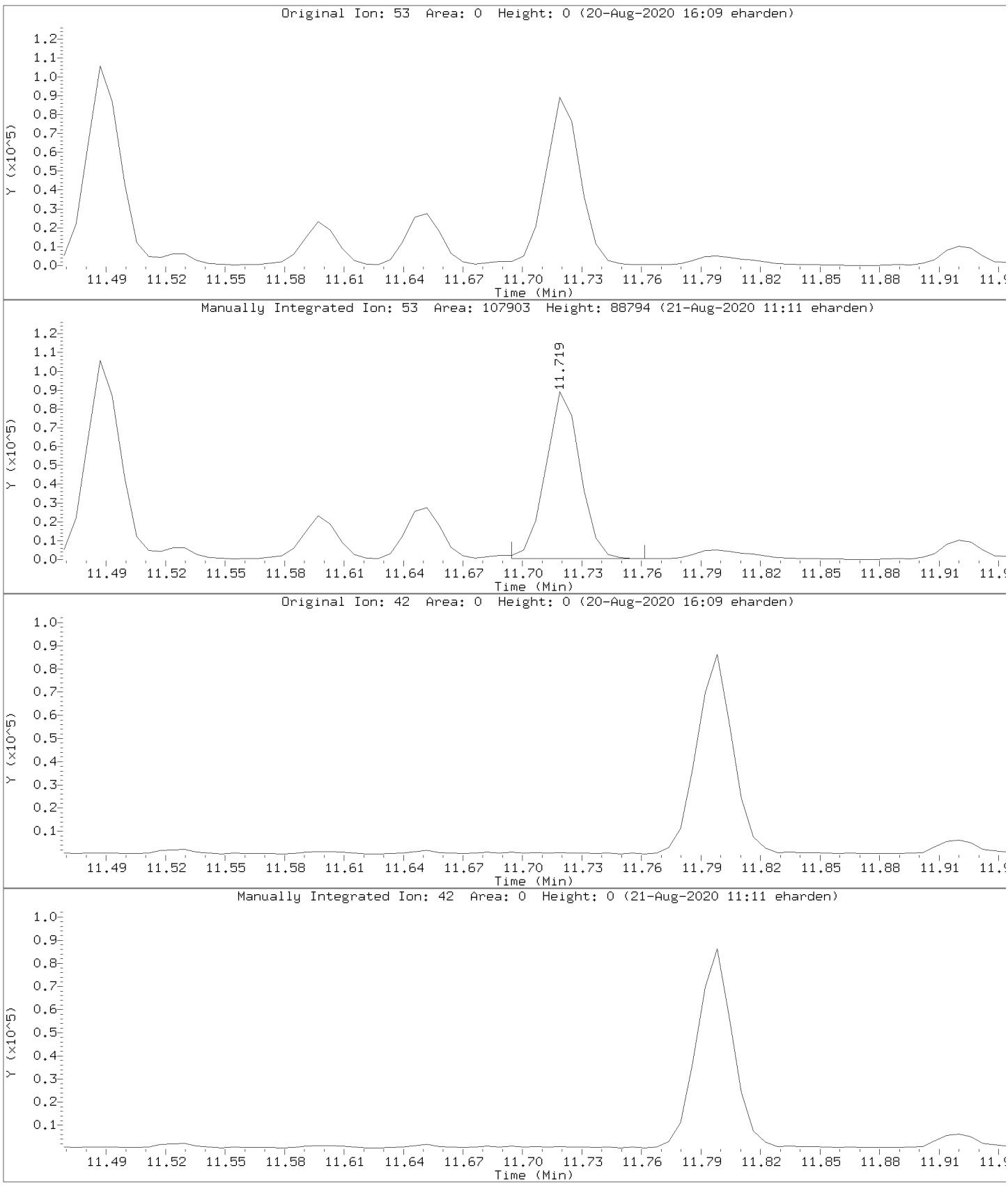
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6



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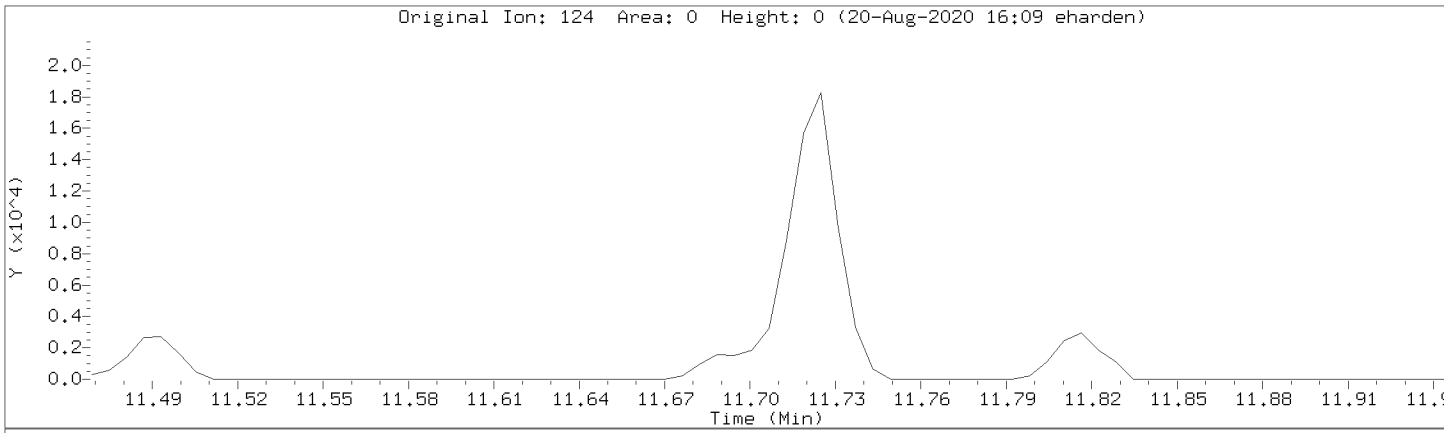
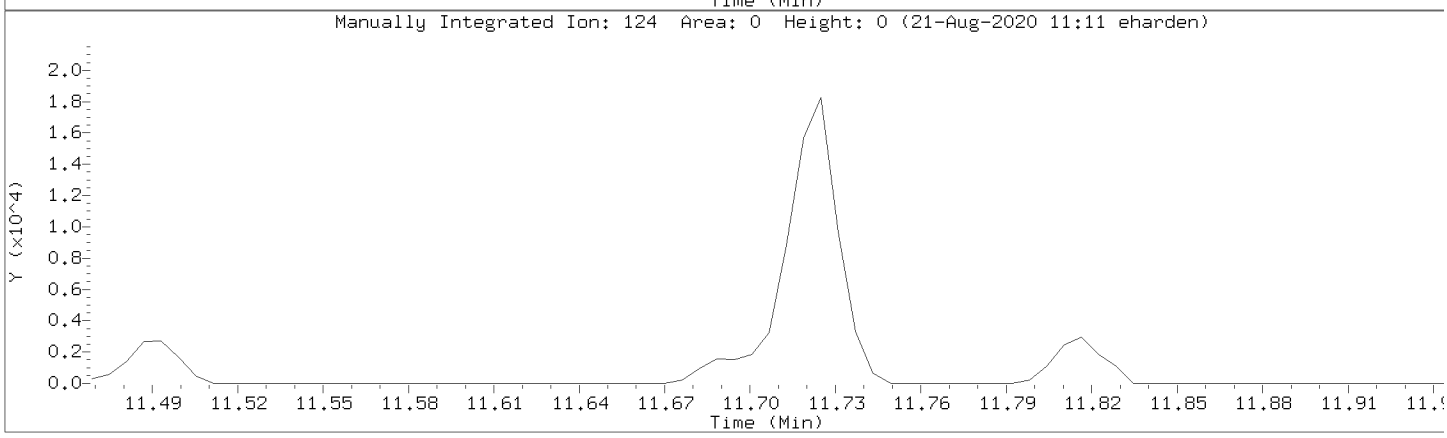
Instrument: 52mv02.i
Lab Sample ID: CAL10





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_13.D
Lab Smp Id: CAL11 Client Smp ID: CAL11
Inj Date : 20-AUG-2020 15:01
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal11,27247:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 11 Calibration Sample, Level: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.411)	596195	150.000	136	
2 Chloromethane	50	3.543	3.543	(0.451)	739356	150.000	145	
3 Vinyl chloride	62	3.696	3.702	(0.470)	576689	150.000	133	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	505231	150.000	131	
5 Bromomethane	94	4.202	4.195	(0.535)	405786	150.000	128	
6 Chloroethane	64	4.372	4.360	(0.556)	160377	150.000	135	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	281645	150.000	102	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	213435	150.000	141	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	700428	150.000	143	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	416914	150.000	129	
11 Carbon disulfide	76	5.293	5.293	(0.673)	1405135	150.000	130	
12 Iodomethane	142	5.445	5.439	(0.693)	477239	150.000	149	
13 Acrolein	56	5.653	5.659	(0.719)	138935	300.000	275	
14 Allyl chloride	76	5.781	5.787	(0.736)	206328	150.000	137	
15 Methylene Chloride	49	5.903	5.902	(0.751)	727096	150.000	125	
16 Acetone	43	5.970	5.976	(0.760)	656255	300.000	234	
17 Methyl acetate	43	6.067	6.067	(0.772)	970273	300.000	292(A)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	446654	150.000	135	
19 n-Hexane	86	6.110	6.110	(0.777)	56907	150.000	163	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	1130159	150.000	147	
21 Acetonitrile	41	6.457	6.463	(0.822)	86780	300.000	285(AH)	
22 Chloroprene	53	6.640	6.640	(0.845)	759997	150.000	165	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	841882	150.000	131	
	24 Acrylonitrile	53	6.732	6.738	(0.857)	345438	300.000	248(A)	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	953920	150.000	150	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	675979	150.000	143	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	639550	150.000	129	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	262219	150.000	127	
	29 Cyclohexane	56	7.335	7.335	(0.882)	673959	150.000	169	
	30 Chloroform	83	7.372	7.372	(0.938)	938653	150.000	129	
	31 Ethyl acetate	43	7.427	7.433	(0.945)	1167339	300.000	285(A)	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	693313	150.000	147	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	267882	300.000	269(A)	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	173692	50.0000	41.4	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	769482	150.000	144	
	36 2-Butanone (MEK)	43	7.622	7.628	(0.970)	813342	300.000	260	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	593514	150.000	160(H)	
*	38 Pentafluorobenzene (IS)	168	7.860	7.859	(1.000)	364284	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	1687076	150.000	140	
	40 Propionitrile	54	7.896	7.902	(1.005)	166664	300.000	268(A)	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	899644	300.000	285(A)	
	42 Isobutanol	43	7.939	7.987	(1.010)	51350	300.000	326(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	31193	50.0000	41.3	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	727644	150.000	128	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	1065124	150.000	157	
	46 Trichloroethene	130	8.317	8.317	(1.000)	502843	150.000	153	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	469326	50.0000		
	48 Methylcyclohexane	98	8.317	8.317	(1.000)	251607	150.000	162	
	49 n-Butanol	56	8.506	8.524	(1.023)	20257	300.000	282(AM)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	389827	150.000	139	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	498266	150.000	145	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	761518	150.000	155	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	310093	150.000	154	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	8913	300.000	(M)	LT
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	556411	300.000	310(A)	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	771157	150.000	161	
$	57 Toluene-d8 (S)	98	9.378	9.377	(1.128)	506560	50.0000	50.1	
	58 Toluene	91	9.414	9.414	(1.132)	1804467	150.000	154	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	173571	150.000	150(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	110057	300.000	328(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	770276	150.000	161	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	474671	150.000	157	
	63 Ethyl methacrylate	69	9.762	9.761	(1.174)	589423	150.000	153(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	411208	150.000	139	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	661080	150.000	158	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	718701	150.000	159	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	540700	150.000	151	
	68 2-Hexanone	43	10.280	10.280	(1.236)	1321811	300.000	334	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	2030868	150.000	176	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	440117	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	1246902	150.000	147	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	502389	150.000	140	
	73 m&p-Xylene	91	10.652	10.651	(1.009)	3087209	300.000	306	
	74 o-Xylene	106	10.993	10.993	(1.041)	749110	150.000	157	
	75 Styrene	104	11.030	11.029	(1.044)	1284674	150.000	154	
	76 Bromoform	173	11.103	11.103	(1.051)	620516	150.000	156	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.225	11.225	(1.063)	1097042	150.000	153	
$ 78 4-Bromofluorobenzene (S)	95	11.469	11.468	(1.086)	197928	50.0000	54.8	
79 cis-1,4-Dichloro-2-butene	53	11.493	11.487	(1.088)	206357	150.000	143	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	2449319	150.000	173	
81 Bromobenzene	156	11.578	11.578	(1.096)	711831	150.000	160	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	670344	150.000	142	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	1583363	150.000	167	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	512053	150.000	151	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	520832	150.000	153	
86 Isopropylbenzene (Cumene)	105	11.213	11.212	(1.062)	1881332	150.000	154	
87 1,2,3-Trichloropropane	75	11.725	11.724	(1.110)	714757	150.000	145	
88 trans-1,4-Dichloro-2-butene	53	11.725	11.718	(1.110)	175075	150.000	154(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	1701781	150.000	153	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	1675381	150.000	150	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	2013841	150.000	152	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	1701781	150.000	153	
94 1,3-Dichlorobenzene	146	12.292	12.291	(0.996)	1189514	150.000	156	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	286487	50.0000		
96 1,4-Dichlorobenzene	146	12.353	12.352	(1.001)	1209618	150.000	140	
97 n-Butylbenzene	91	12.487	12.486	(1.012)	1702056	150.000	170	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	1195470	150.000	143	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	140776	150.000	150	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	396371	150.000	155	
101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	959966	150.000	170	
102 Naphthalene	128	14.194	14.193	(1.150)	1728714	150.000	153	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	908509	150.000	173	

QC Flag Legend

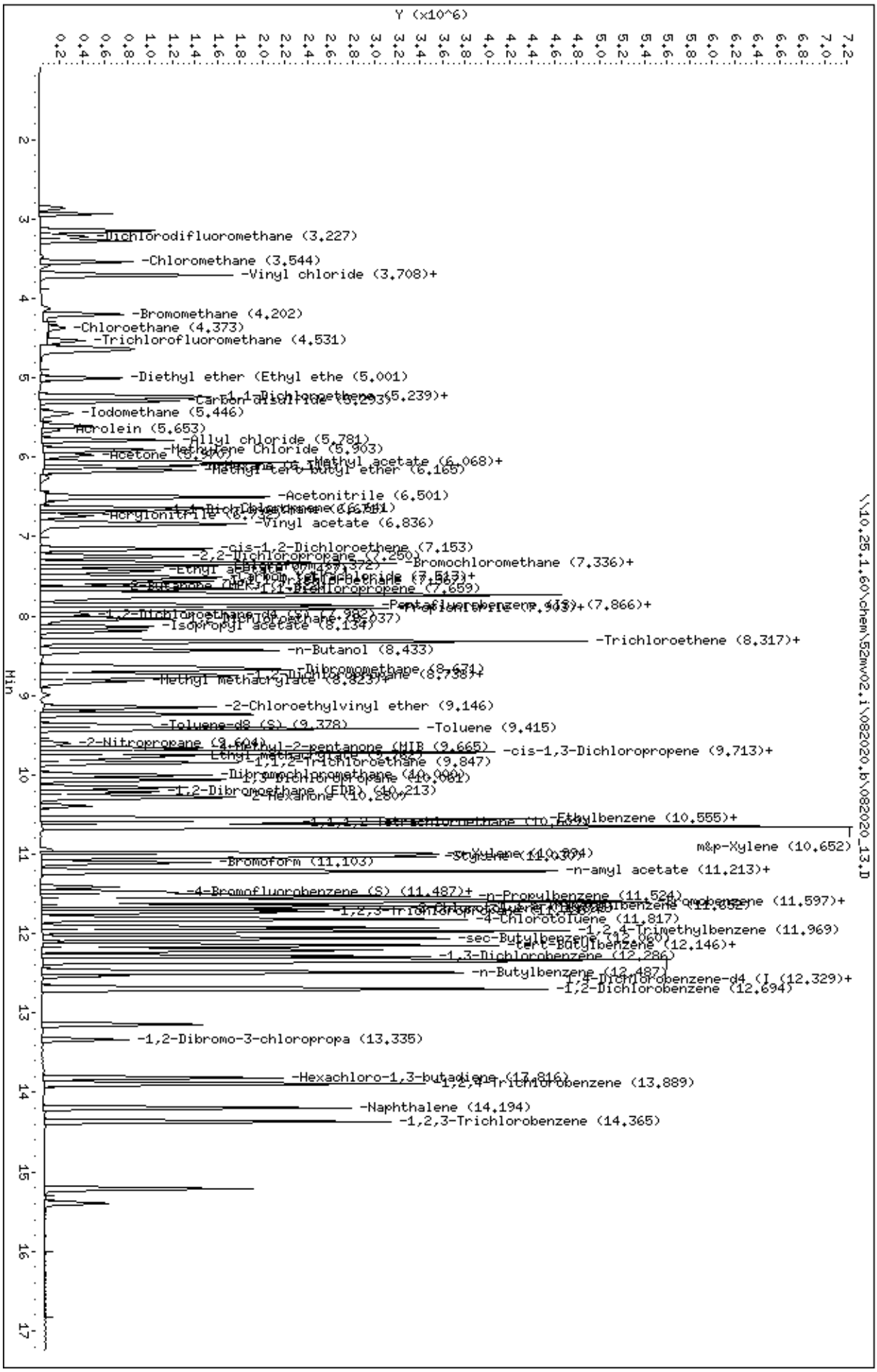
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_13.D
Date : 20-AUG-2020 15:01
Client ID: CAL11
Sample Info: CAL11,27247:1
Purge Volume: 5.0
Column phase: RTX-VMS

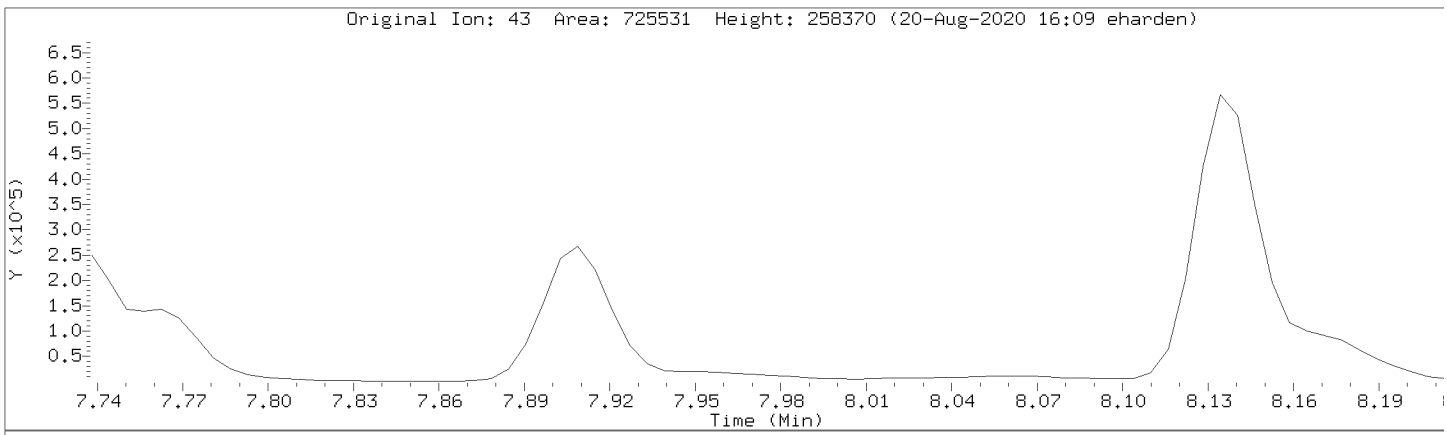
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

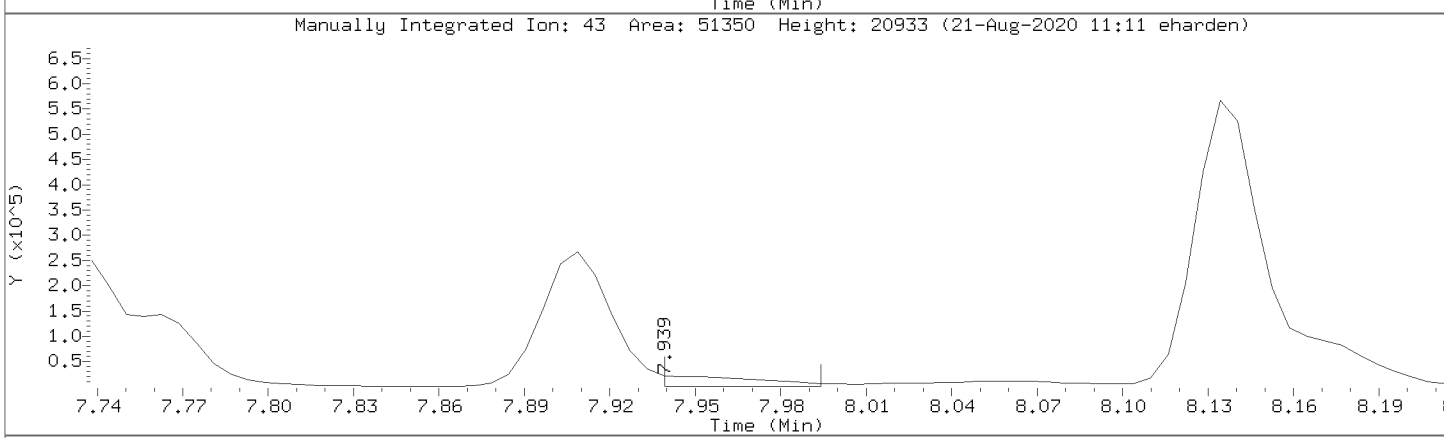


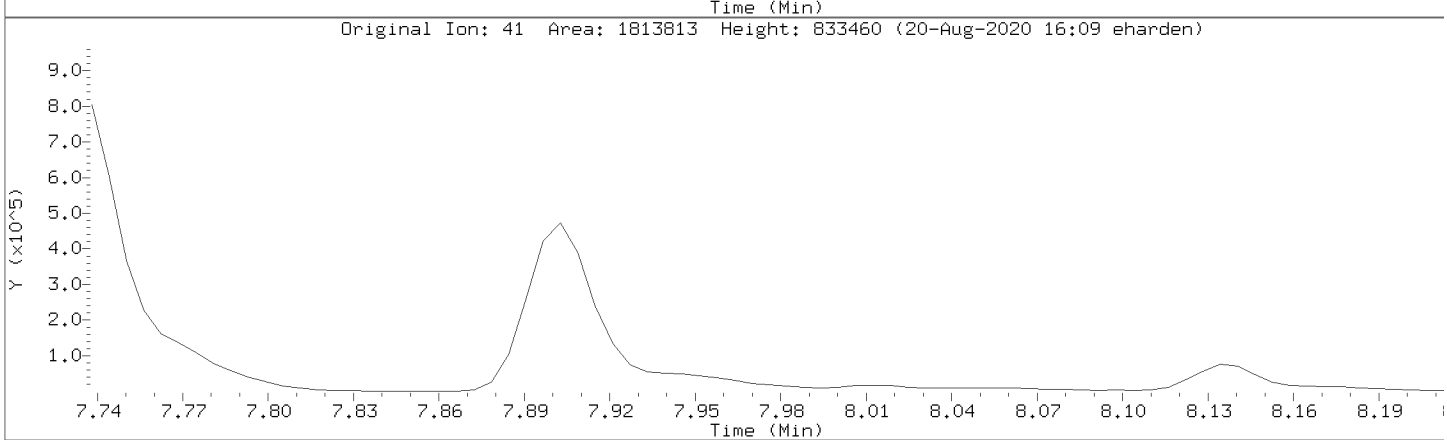
Page 4

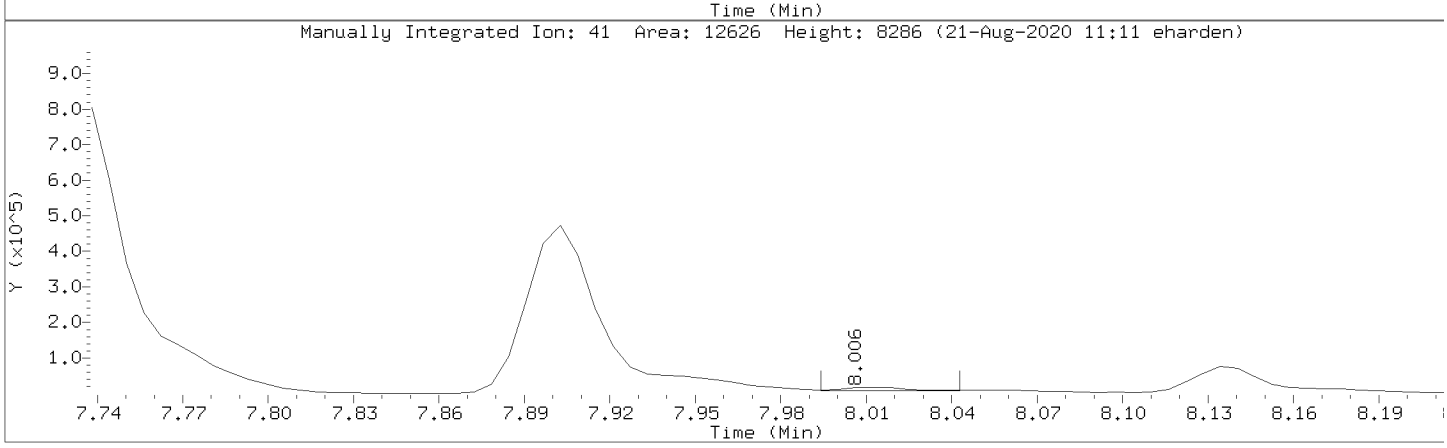
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_13.D
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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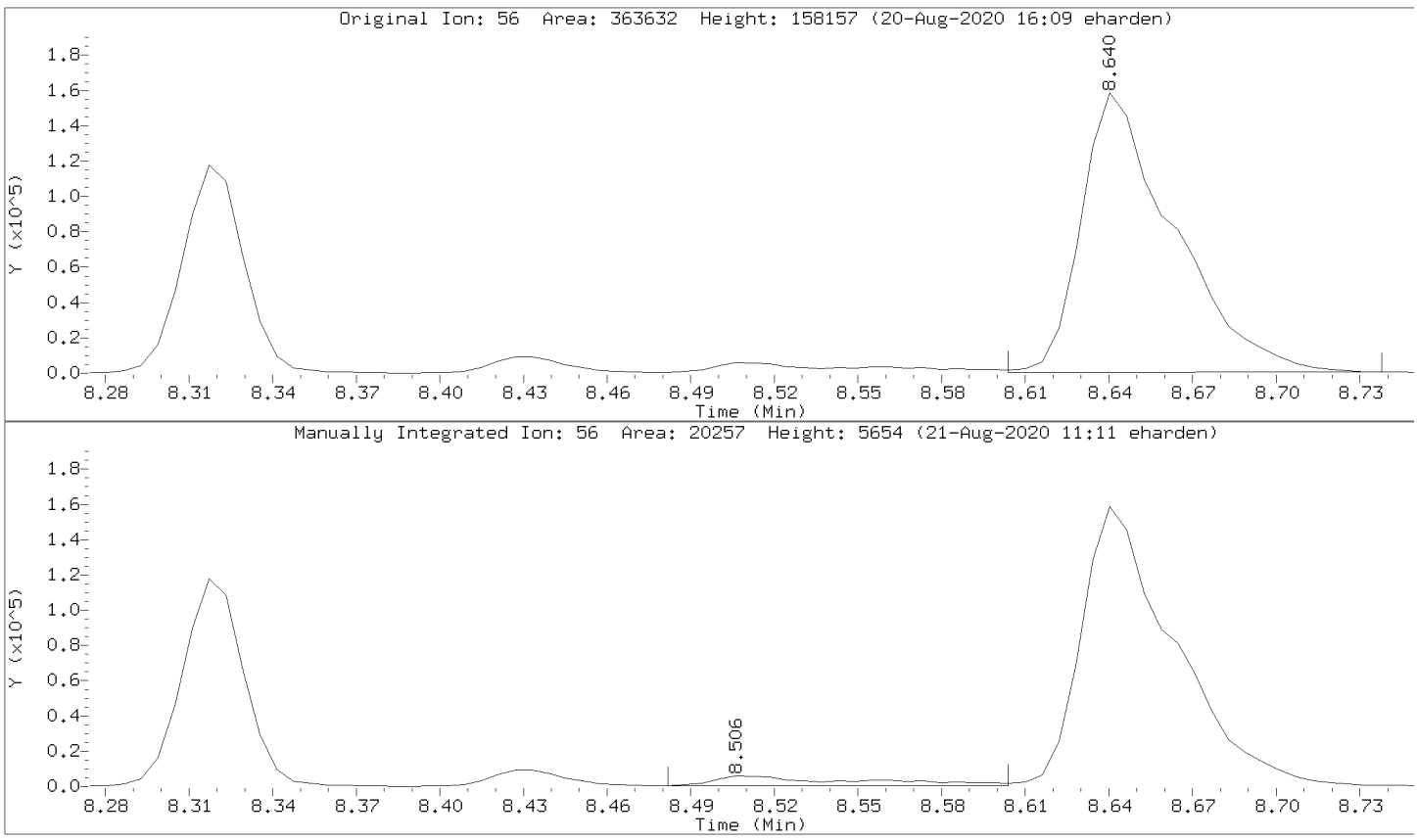
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3



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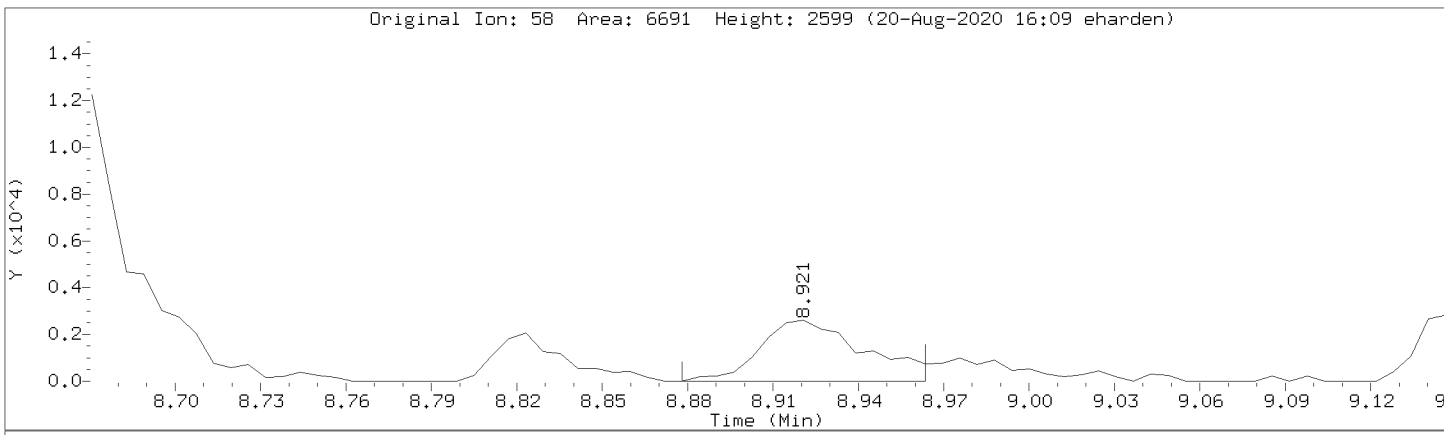
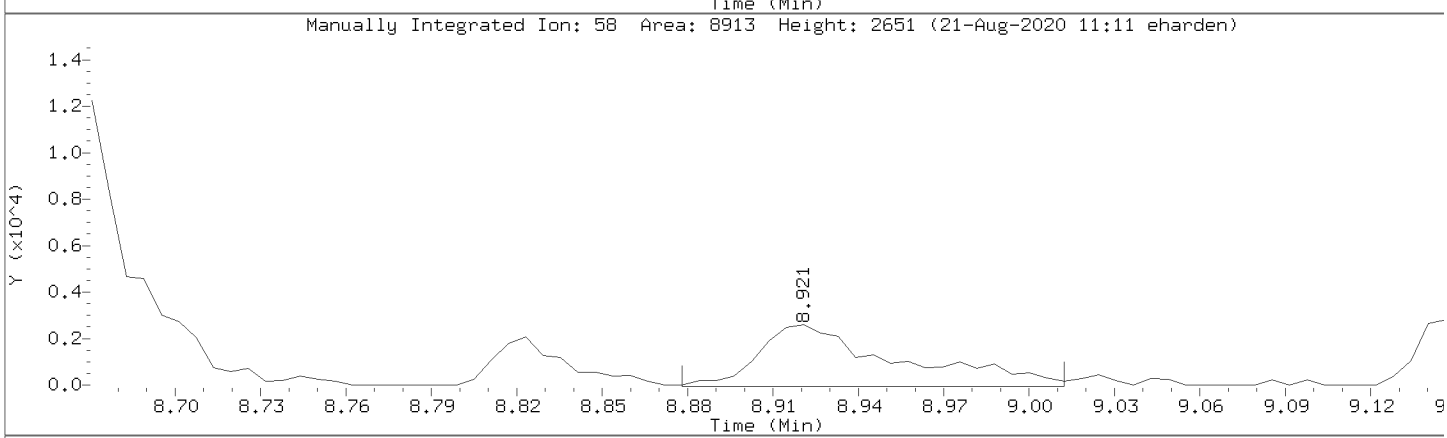
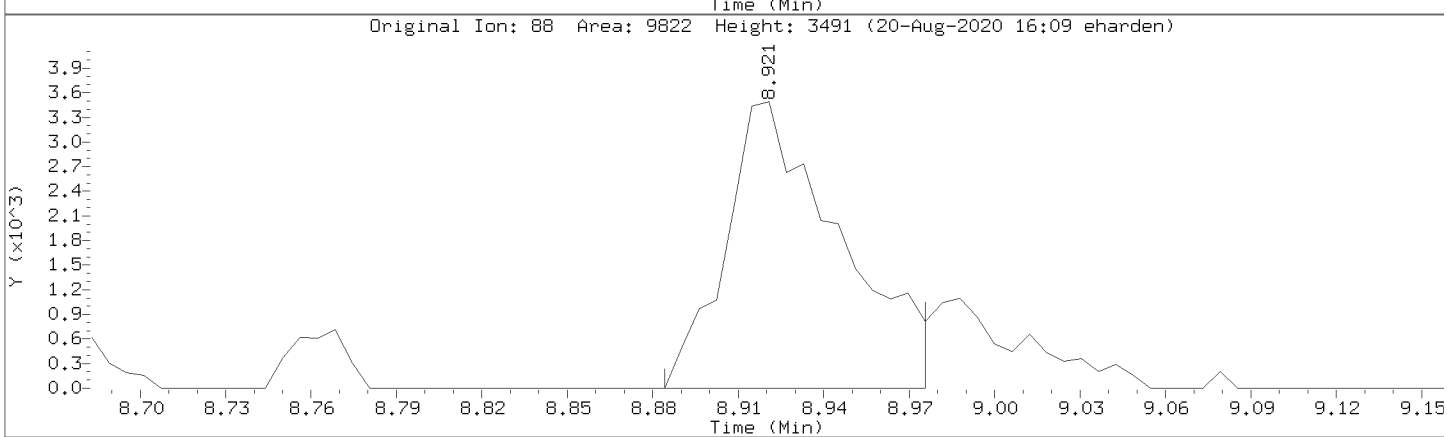
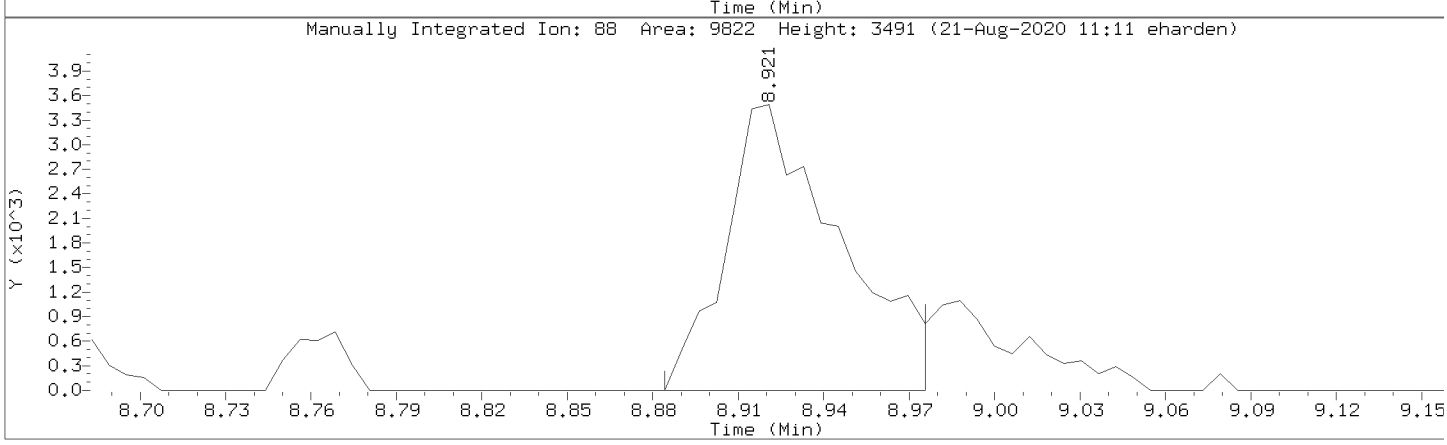
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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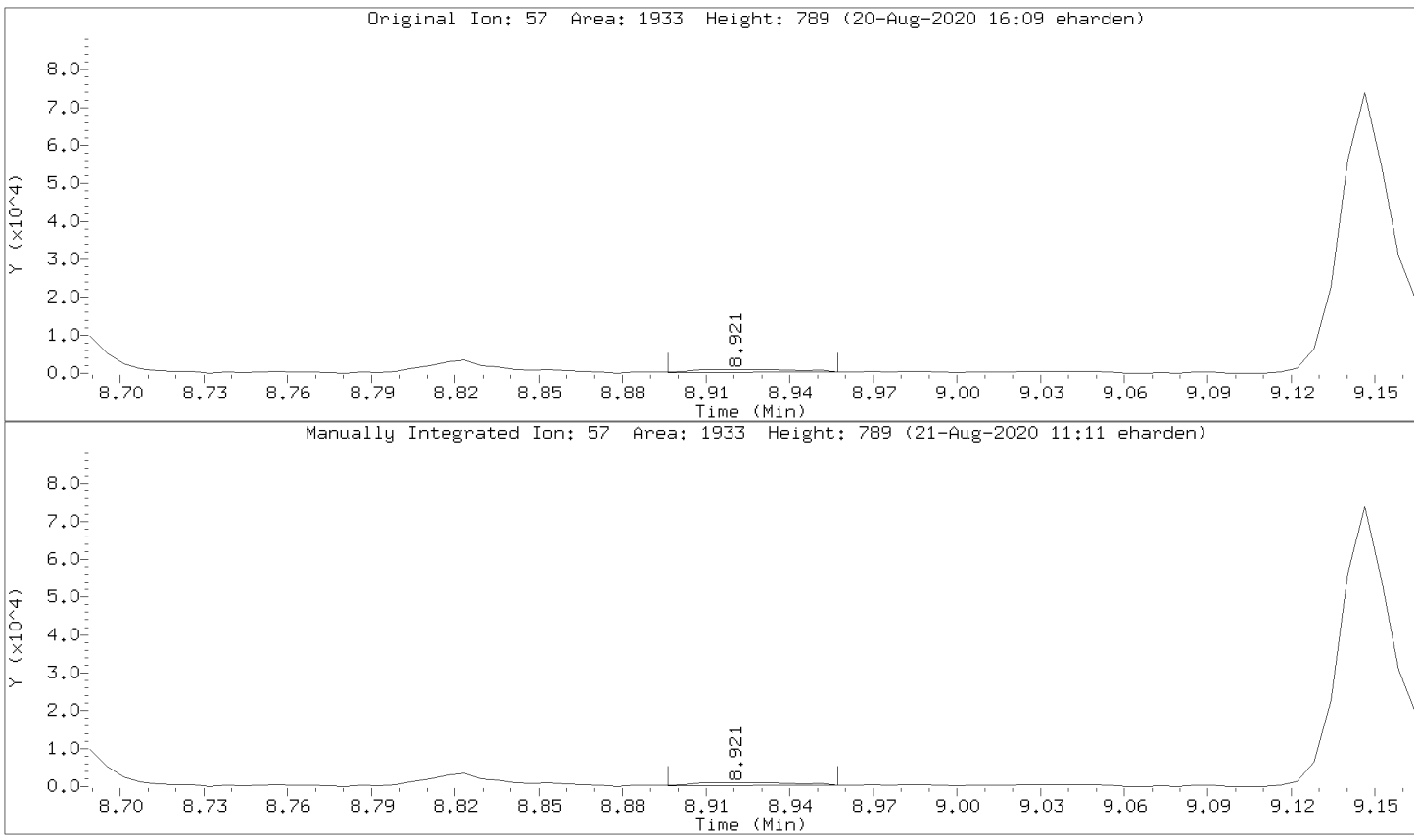
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11



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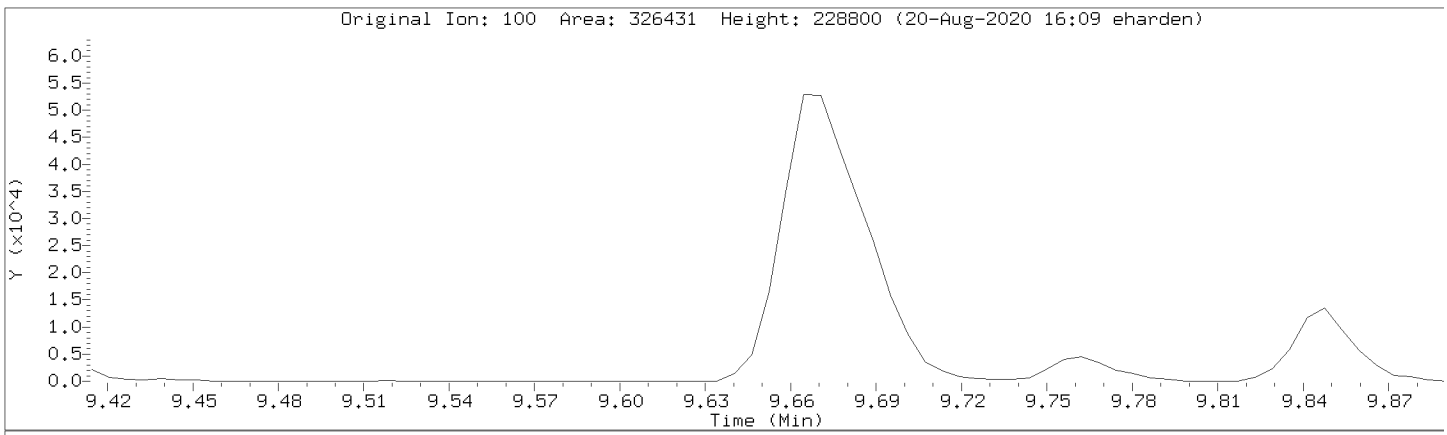
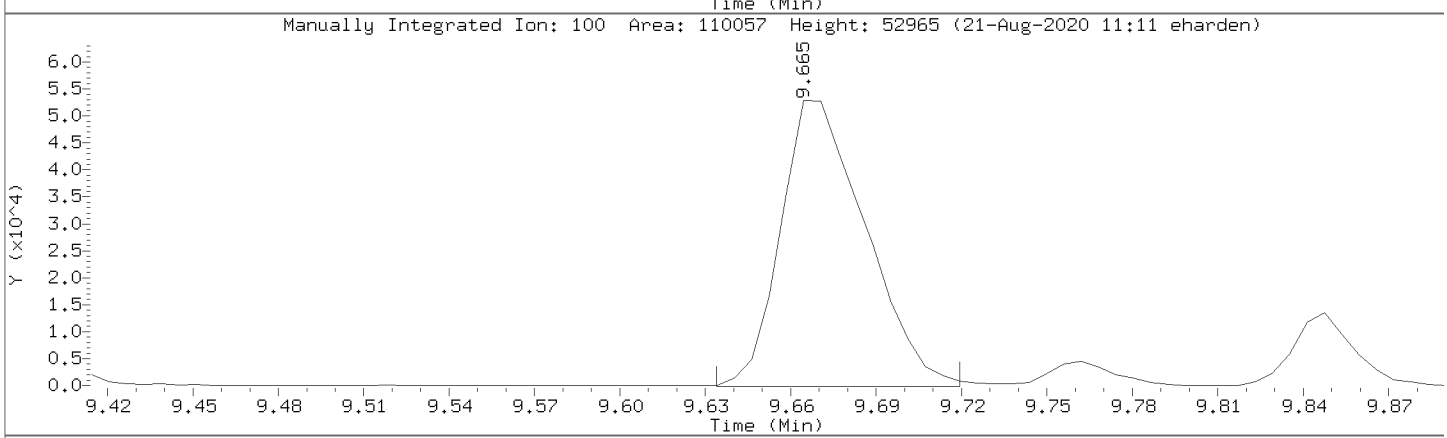
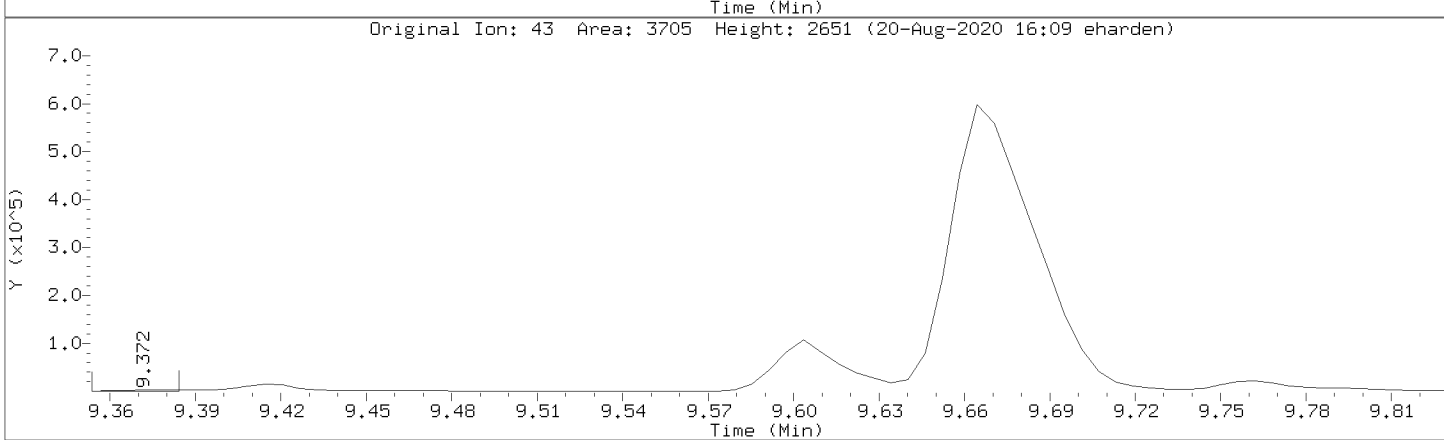
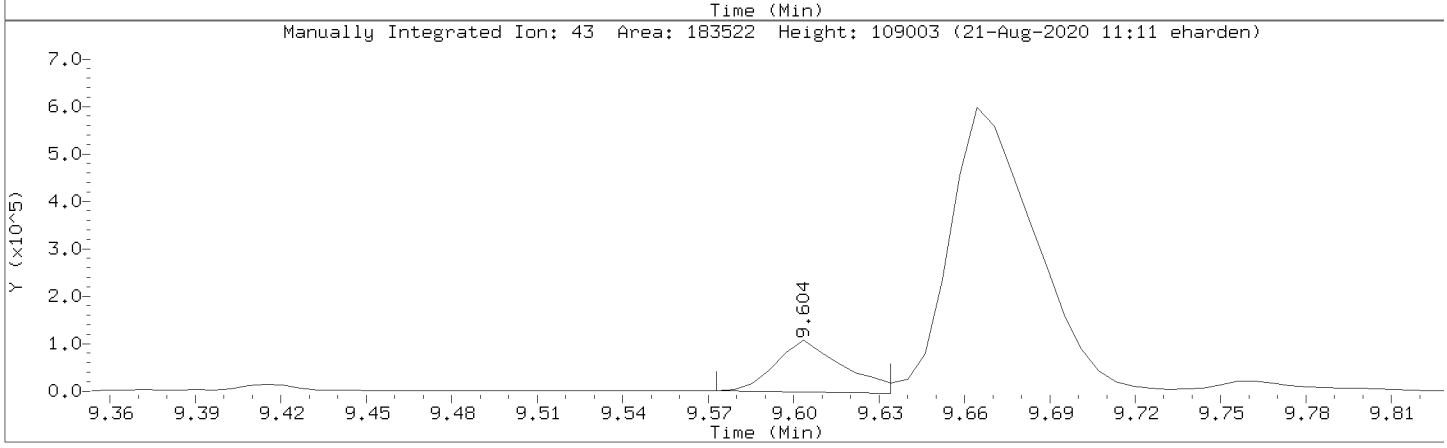
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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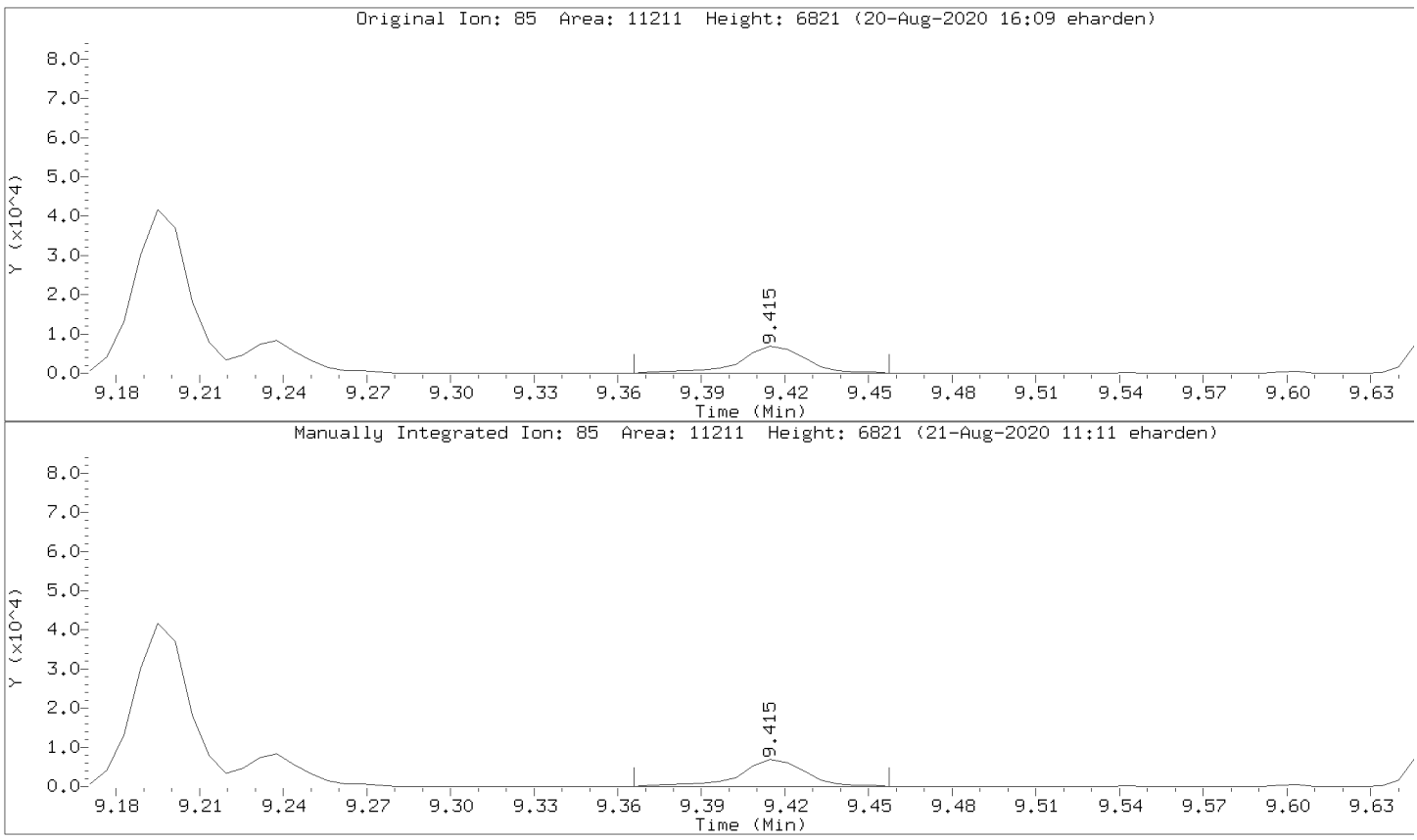
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11



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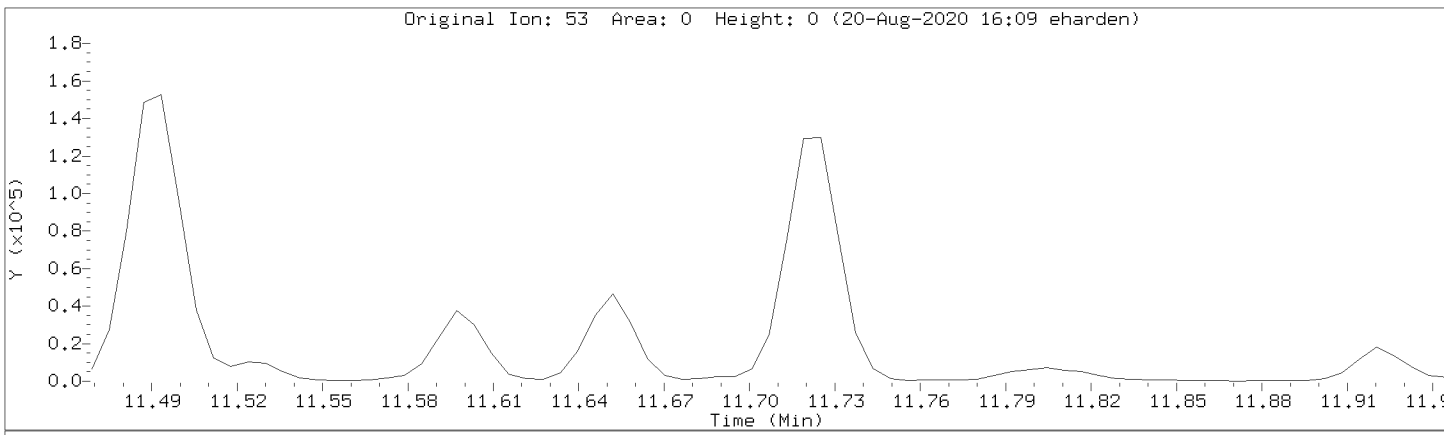
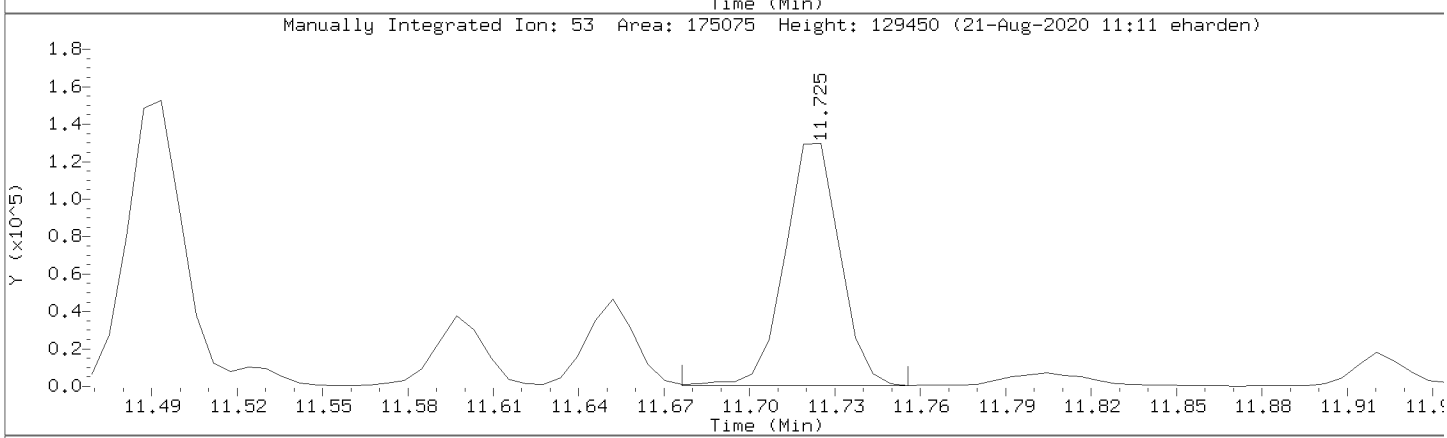
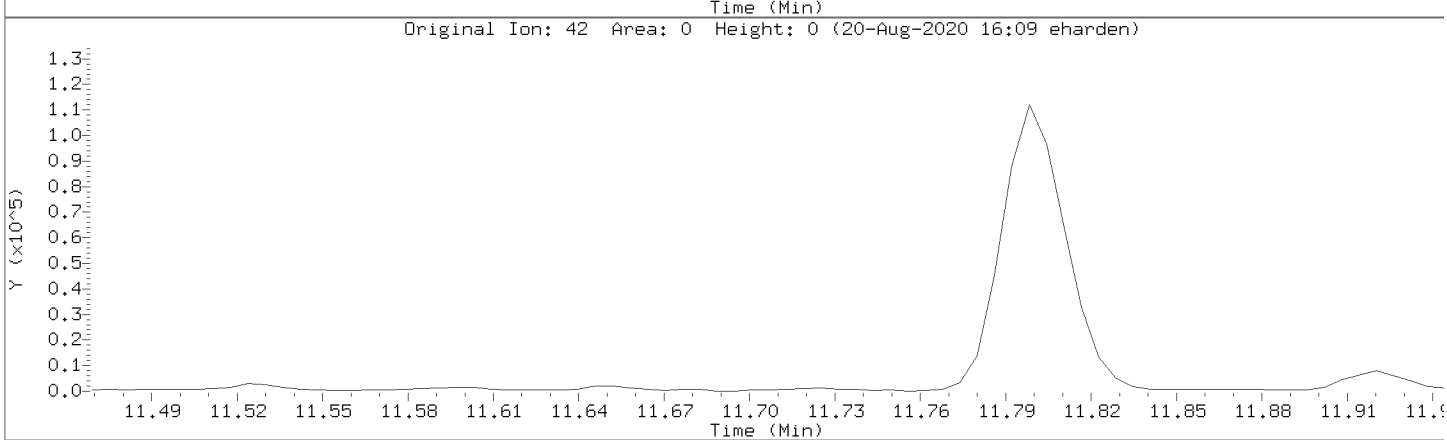
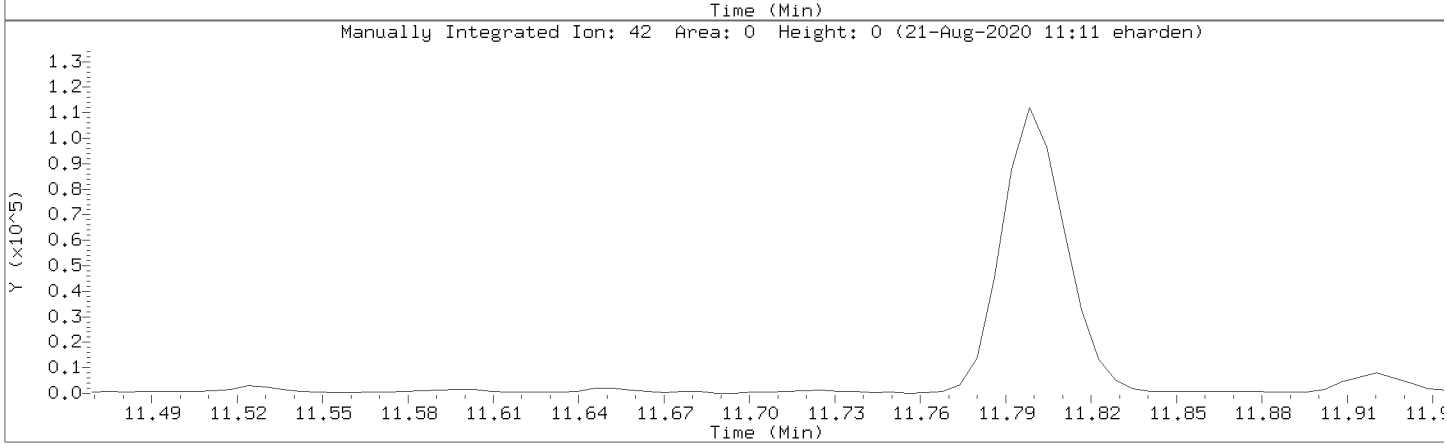
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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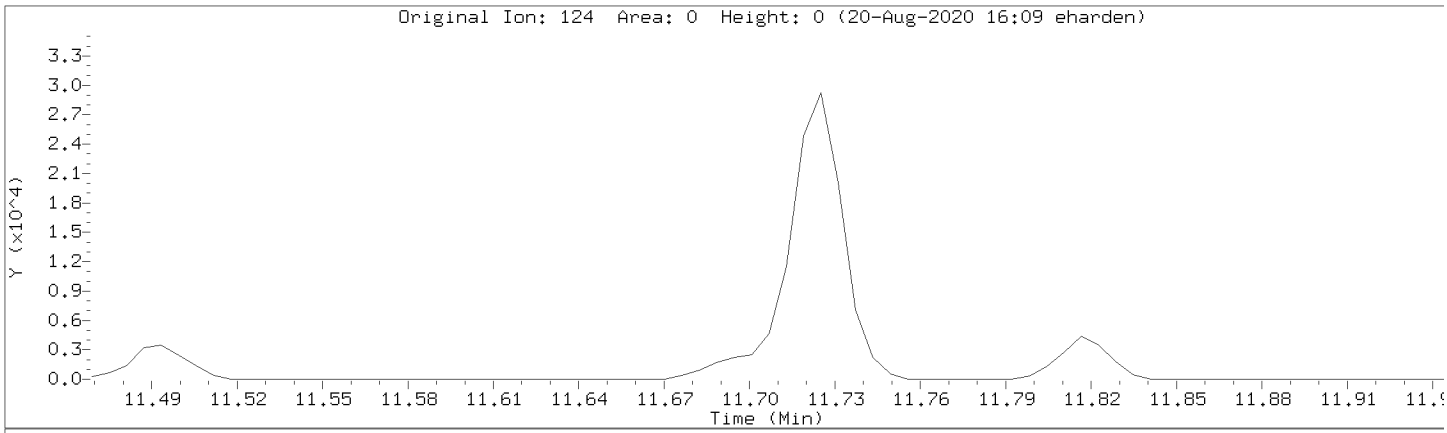
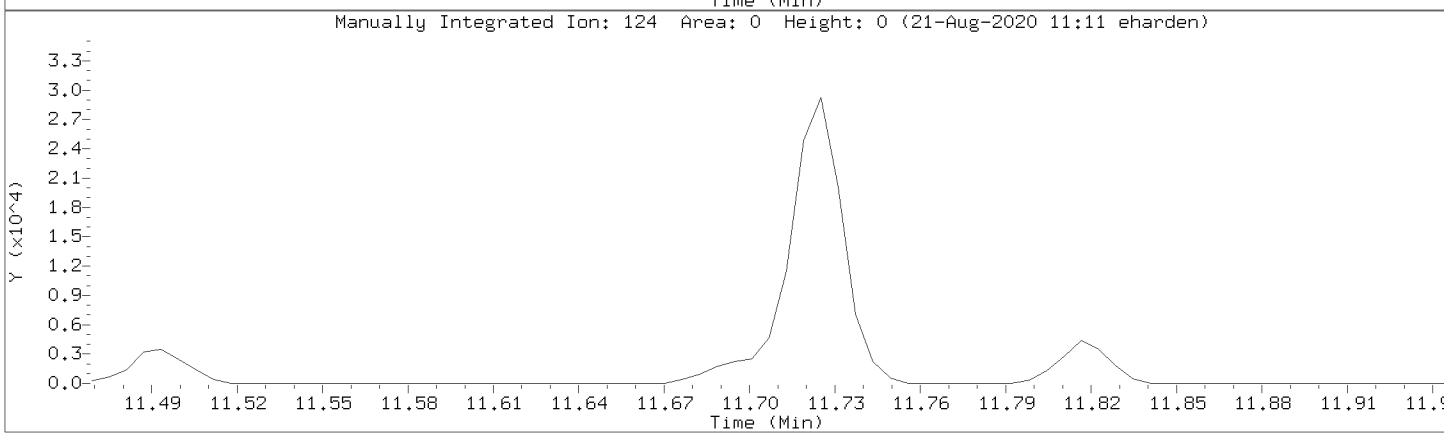
Instrument: 52mv02.i
Lab Sample ID: CAL11





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_14.D
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Inj Date : 20-AUG-2020 15:26
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal12,27248:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 15:26 Cal File: 082020_14.D
Als bottle: 12 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.410)	843624	200.000	180	
2 Chloromethane	50	3.543	3.543	(0.451)	1035862	200.000	191	
3 Vinyl chloride	62	3.702	3.702	(0.471)	829656	200.000	180	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	724882	200.000	176	
5 Bromomethane	94	4.201	4.195	(0.535)	575423	200.000	171	
6 Chloroethane	64	4.372	4.360	(0.556)	201667	200.000	159	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	390171	200.000	133	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	307440	200.000	190	
9 1,1-Dichloroethene	61	5.226	5.226	(0.665)	1011414	200.000	194	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	600631	200.000	175	
11 Carbon disulfide	76	5.287	5.293	(0.673)	2019084	200.000	175	
12 Iodomethane	142	5.451	5.439	(0.694)	734096	200.000	200	
13 Acrolein	56	5.658	5.659	(0.720)	211690	400.000	394	
14 Allyl chloride	76	5.786	5.787	(0.736)	294574	200.000	184	
15 Methylene Chloride	49	5.908	5.902	(0.752)	1050051	200.000	170	
16 Acetone	43	5.969	5.976	(0.760)	1032420	400.000	346	
17 Methyl acetate	43	6.067	6.067	(0.772)	1381491	400.000	390(A)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	650447	200.000	185	
19 n-Hexane	86	6.110	6.110	(0.777)	81559	200.000	219(A)	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	1688062	200.000	206(A)	
21 Acetonitrile	41	6.457	6.463	(0.822)	123656	400.000	381(AH)	
22 Chloroprene	53	6.640	6.640	(0.845)	1112304	200.000	227(A)	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	1205231	200.000	176	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	581161	400.000	391(A)	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	1375005	200.000	203(A)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	992534	200.000	197	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	903801	200.000	171	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	387279	200.000	176	
	29 Cyclohexane	56	7.335	7.335	(0.882)	980896	200.000	229(A)	
	30 Chloroform	83	7.372	7.372	(0.938)	1342881	200.000	174	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	1641965	400.000	376(A)	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	1014164	200.000	200(A)	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	425365	400.000	401(A)	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	196115	50.0000	43.8	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	1082414	200.000	189	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	1209413	400.000	363(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	852371	200.000	214(AH)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	388427	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	2390433	200.000	186	
	40 Propionitrile	54	7.896	7.902	(1.005)	235361	400.000	356(A)	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	1267856	400.000	376(A)	
	42 Isobutanol	43	8.006	7.987	(1.019)	63350	400.000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	34530	50.0000	42.9	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	1018325	200.000	168	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	1505636	200.000	208(A)	
	46 Trichloroethene	130	8.316	8.317	(1.000)	711450	200.000	202(A)	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	502471	50.0000		
	48 Methylcyclohexane	98	8.316	8.317	(1.000)	366667	200.000	220(A)	
	49 n-Butanol	56	8.524	8.524	(1.025)	32202	400.000	419(AH)	
	50 Dibromomethane	93	8.670	8.670	(1.043)	548606	200.000	183	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	697290	200.000	190	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	1076005	200.000	204(A)	
	53 Methyl methacrylate	69	8.822	8.823	(1.061)	445324	200.000	206(A)	
	54 1,4-Dioxane (p-Dioxane)	58	8.926	8.920	(1.073)	12627	400.000		
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	804281	400.000	417(A)	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	1101907	200.000	215(A)	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	535532	50.0000	49.5	
	58 Toluene	91	9.414	9.414	(1.132)	2545722	200.000	203(A)	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	254950	200.000	206(AH)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.670	9.664	(1.163)	157776	400.000	439(AM)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	1100485	200.000	215(A)	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	675307	200.000	207(A)	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	846262	200.000	206(AH)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	576866	200.000	182	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	932240	200.000	206(A)	
	66 1,3-Dichloropropane	76	10.066	10.060	(1.210)	1015605	200.000	210(A)	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	770644	200.000	199	
	68 2-Hexanone	43	10.280	10.280	(1.236)	1882914	400.000	444(A)	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	2928963	200.000	236(A)	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	475366	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	1776013	200.000	194	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	724011	200.000	187	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	4406208	400.000	404(A)	
	74 o-Xylene	106	10.993	10.993	(1.041)	1080392	200.000	210(A)	
	75 Styrene	104	11.029	11.029	(1.044)	1852119	200.000	206(A)	
	76 Bromoform	173	11.103	11.103	(1.051)	891644	200.000	208(A)	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	1568685	200.000	203(A)	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	213757	50.0000	54.8	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	295248	200.000	189	
80 n-Propylbenzene	91	11.529	11.523	(1.092)	3505994	200.000	230(A)	
81 Bromobenzene	156	11.578	11.578	(1.096)	1028329	200.000	214(A)	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	952451	200.000	187	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	2283486	200.000	233(AH)	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	743796	200.000	204(A)	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	747393	200.000	203(A)	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	2752818	200.000	208(A)	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	984420	200.000	185	
88 trans-1,4-Dichloro-2-butene	53	11.724	11.718	(1.110)	245006	200.000	200(AM)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	2429584	200.000	210(A)	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	2397637	200.000	207(A)	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	2866460	200.000	208(A)	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	2429584	200.000	210(A)	
94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	1695278	200.000	214(A)	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	296897	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	1711879	200.000	192	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	2431584	200.000	235(A)	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	1704224	200.000	197	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	202261	200.000	208(A)	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	587132	200.000	222(A)	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	1407142	200.000	241(A)	
102 Naphthalene	128	14.193	14.193	(1.150)	2506120	200.000	214(A)	
103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	1299349	200.000	239(A)	

QC Flag Legend

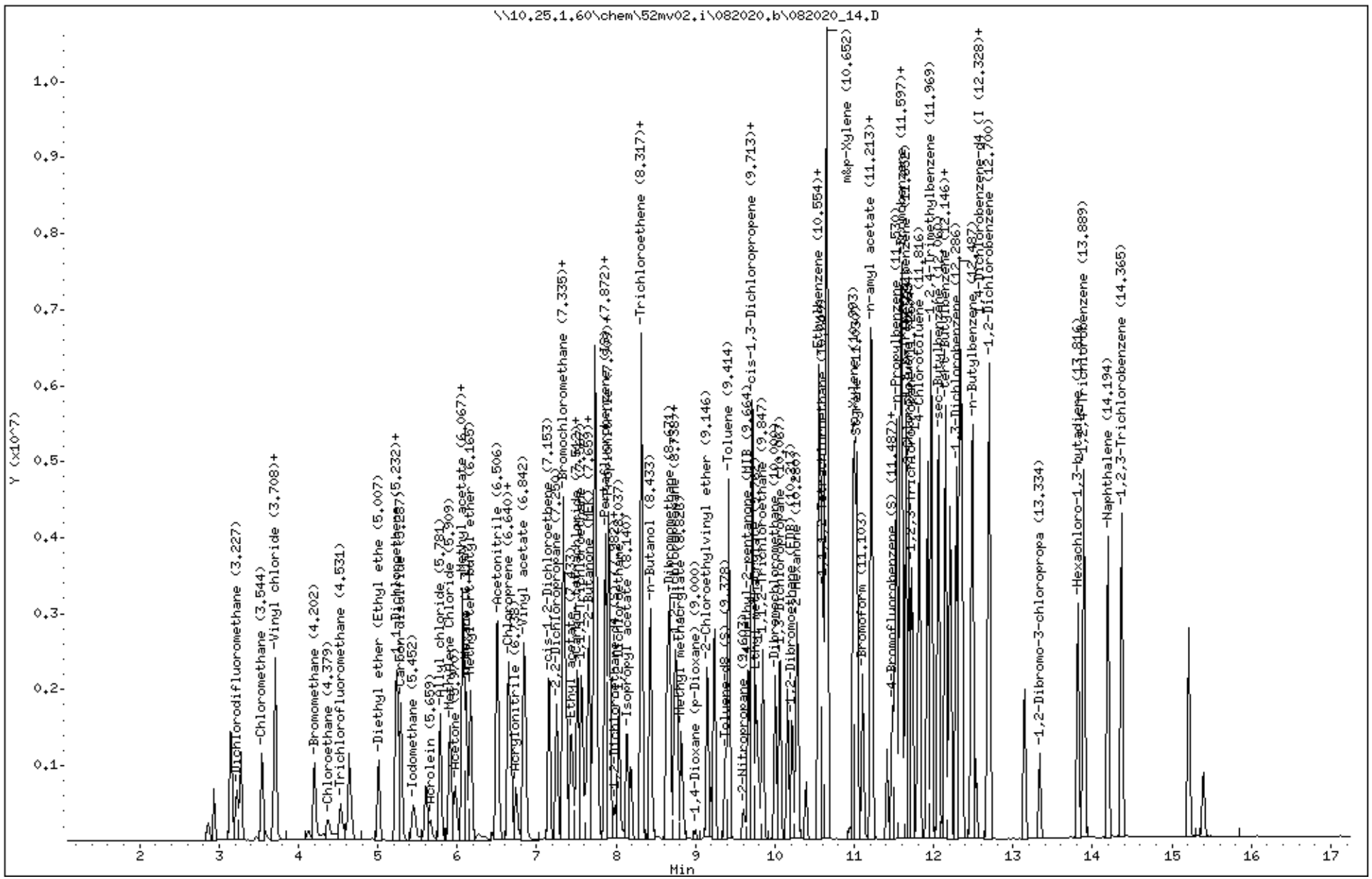
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_14.D
Date : 20-AUG-2020 15:26
Client ID: CAL12
Sample Info: CAL12,27248:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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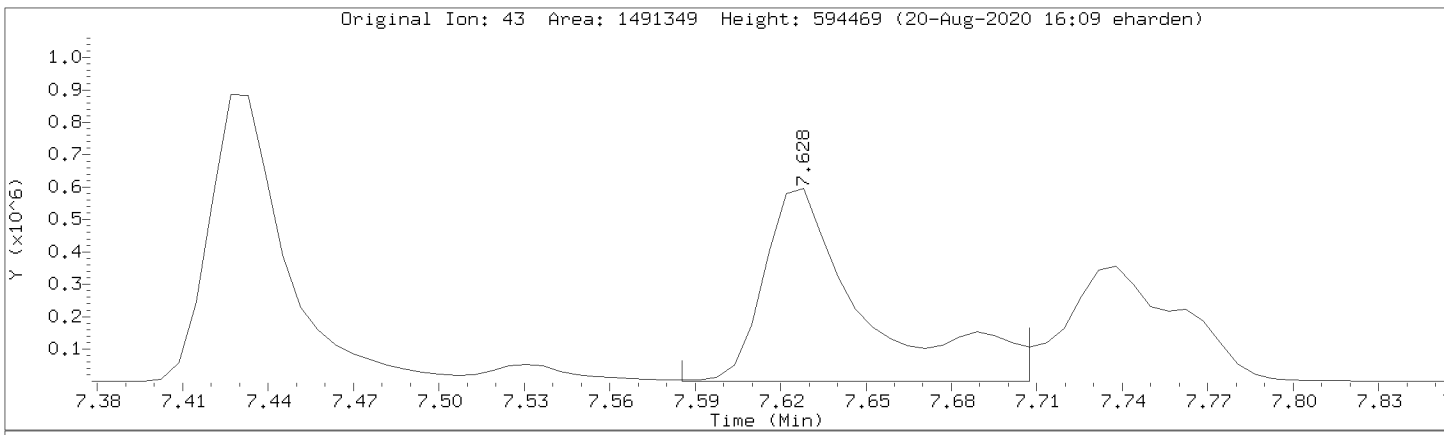
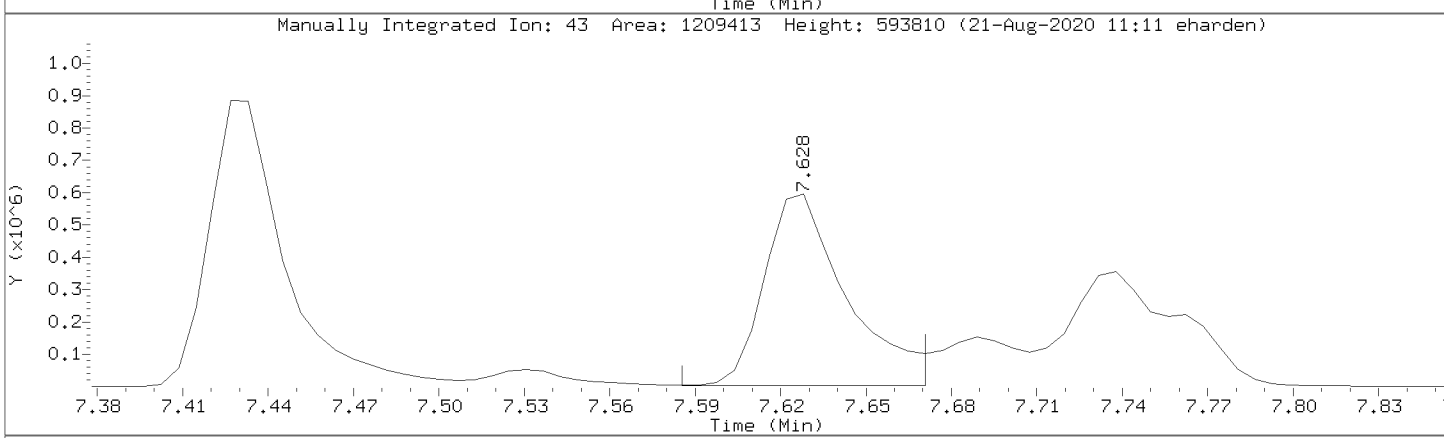
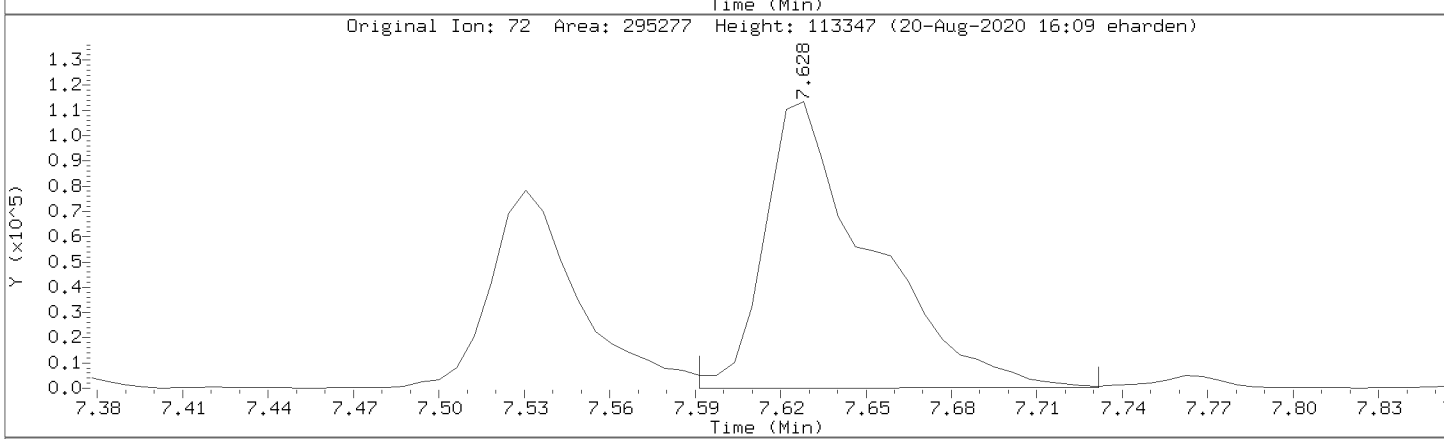
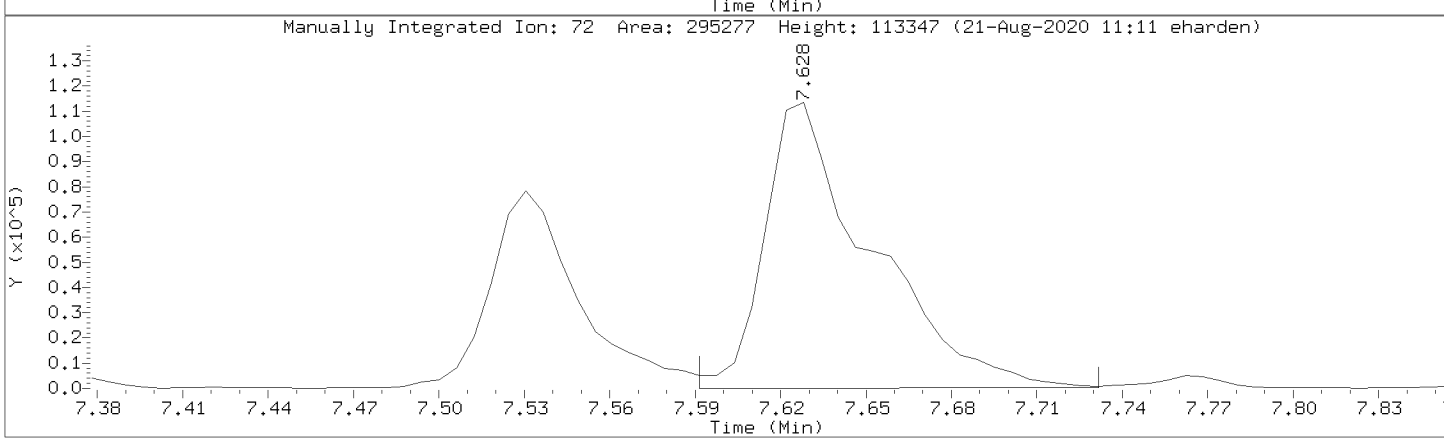
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3









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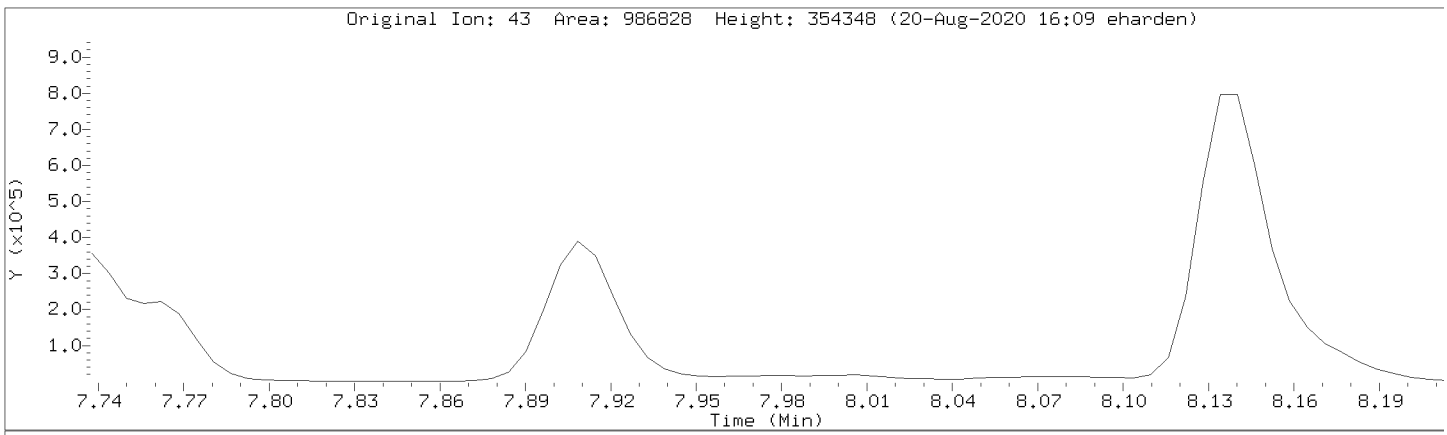
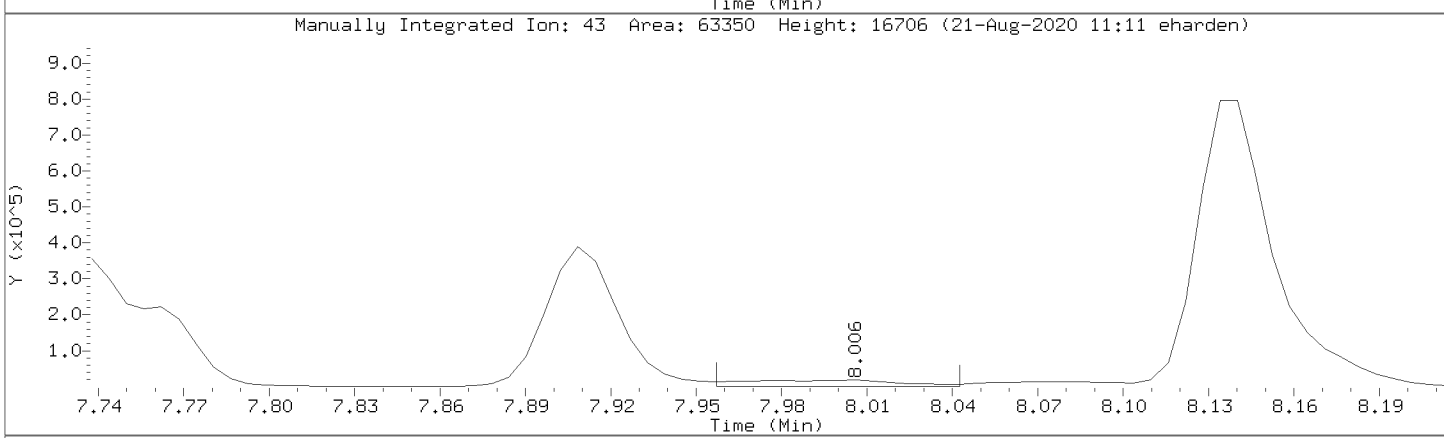
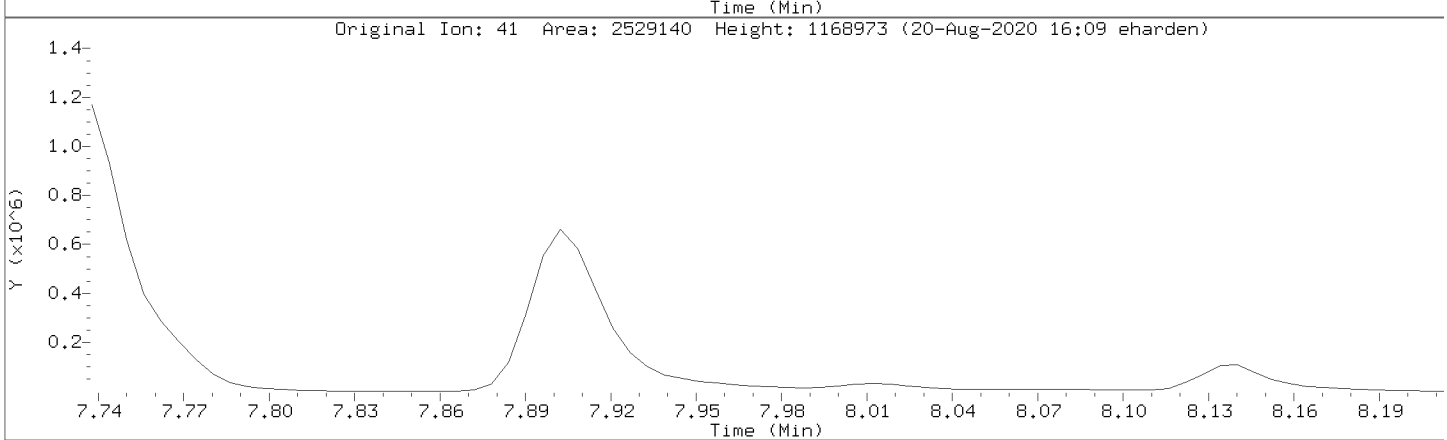
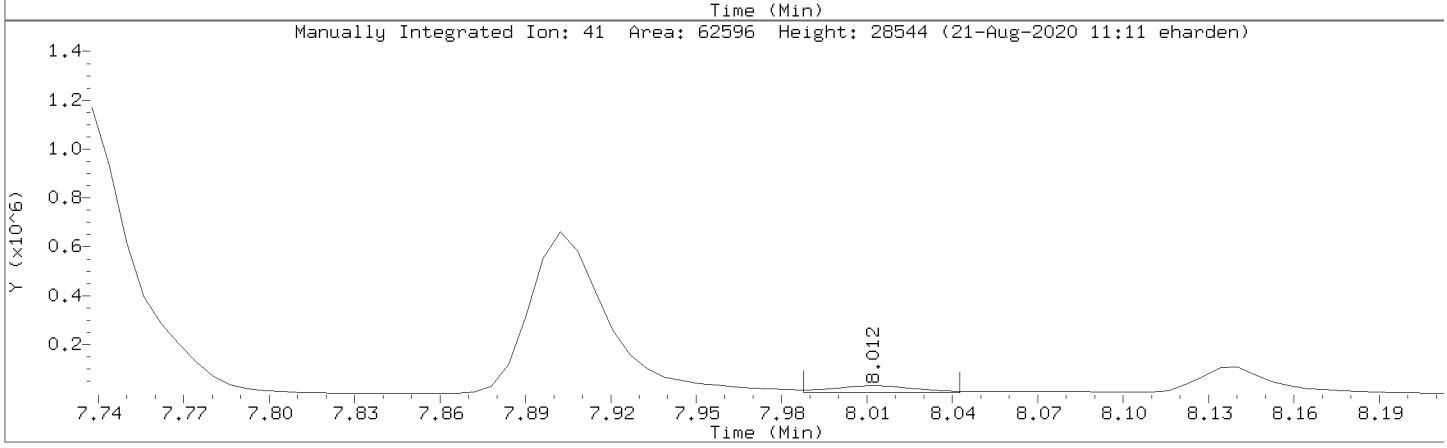
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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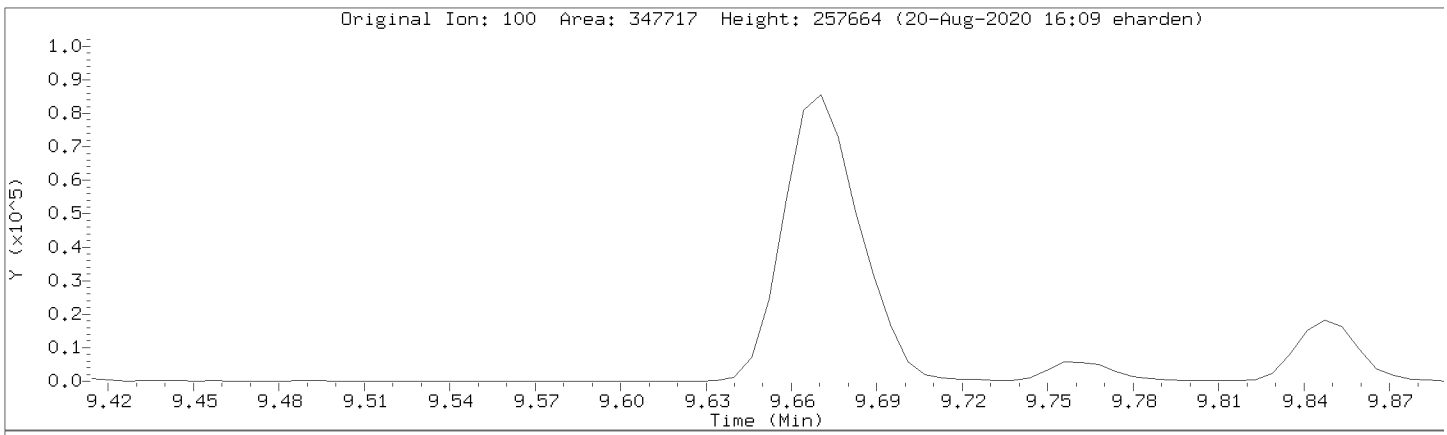
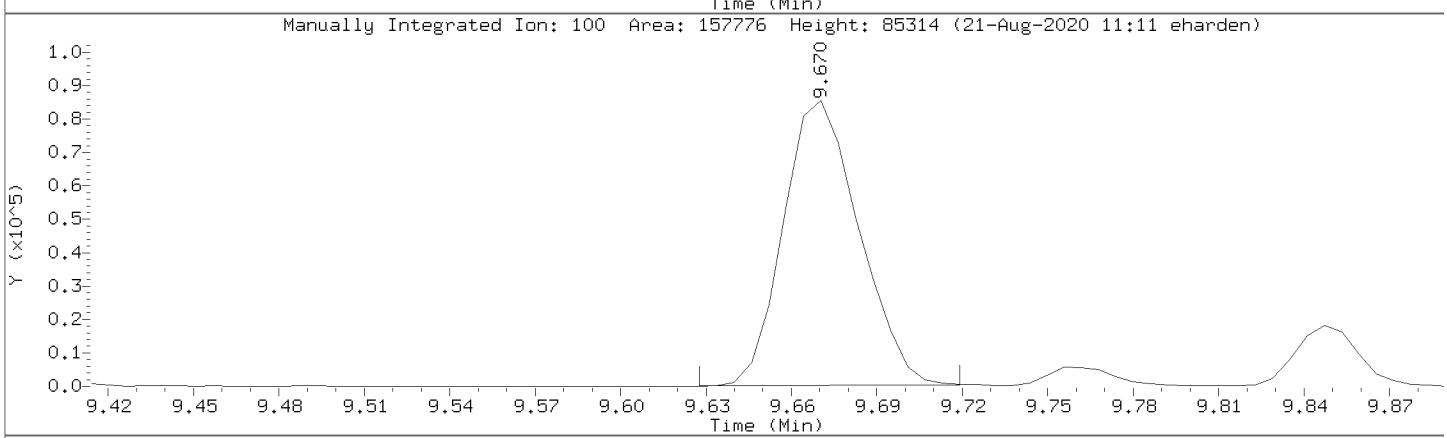
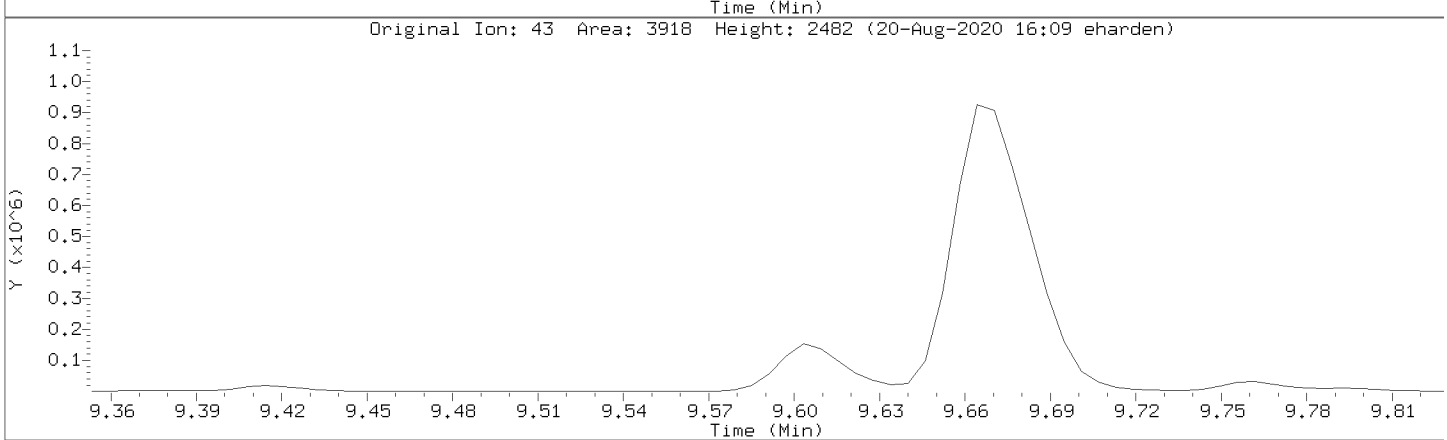
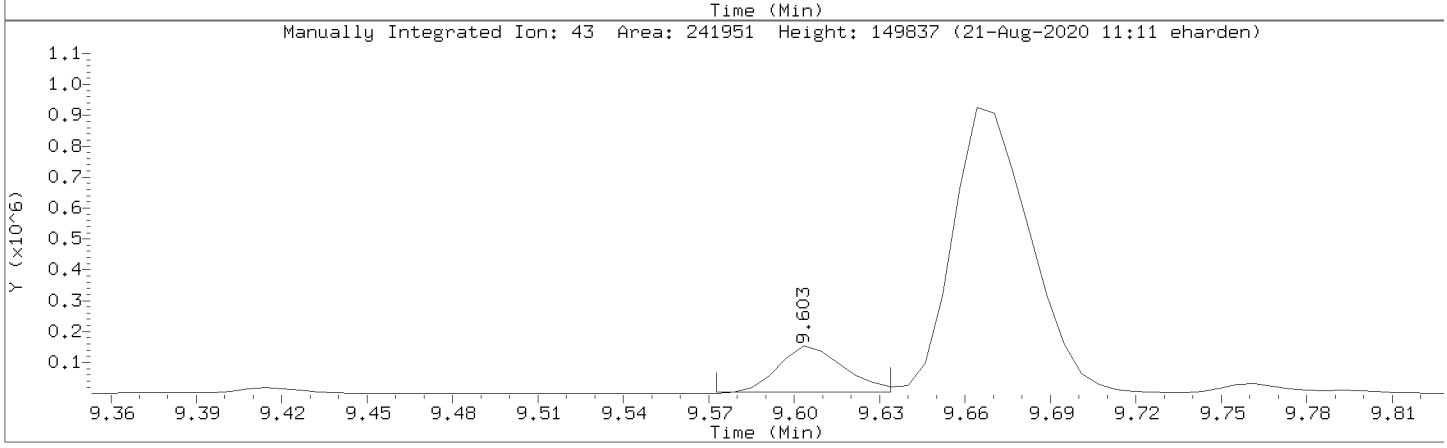
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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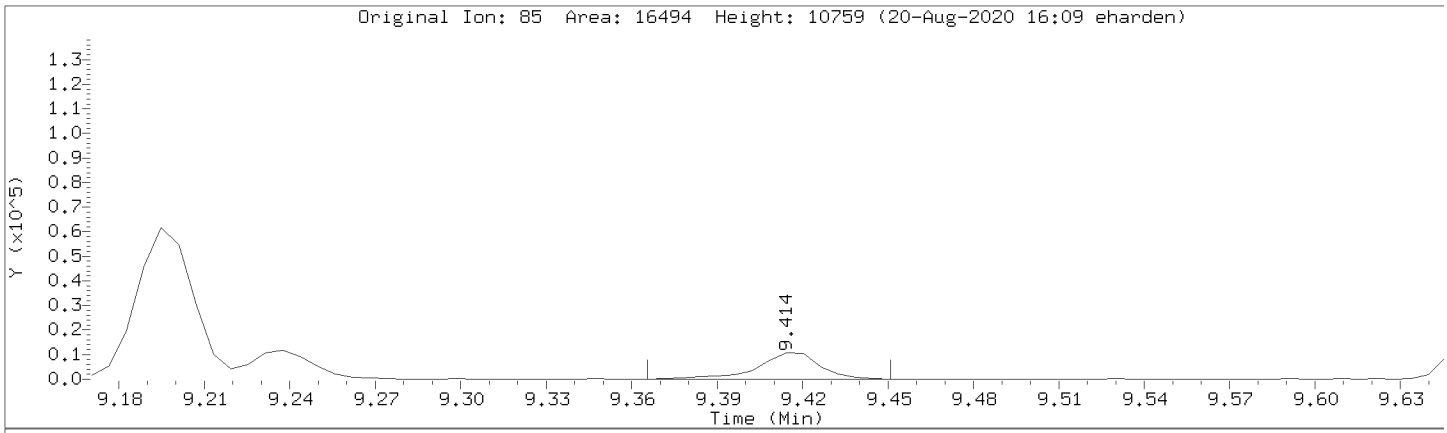
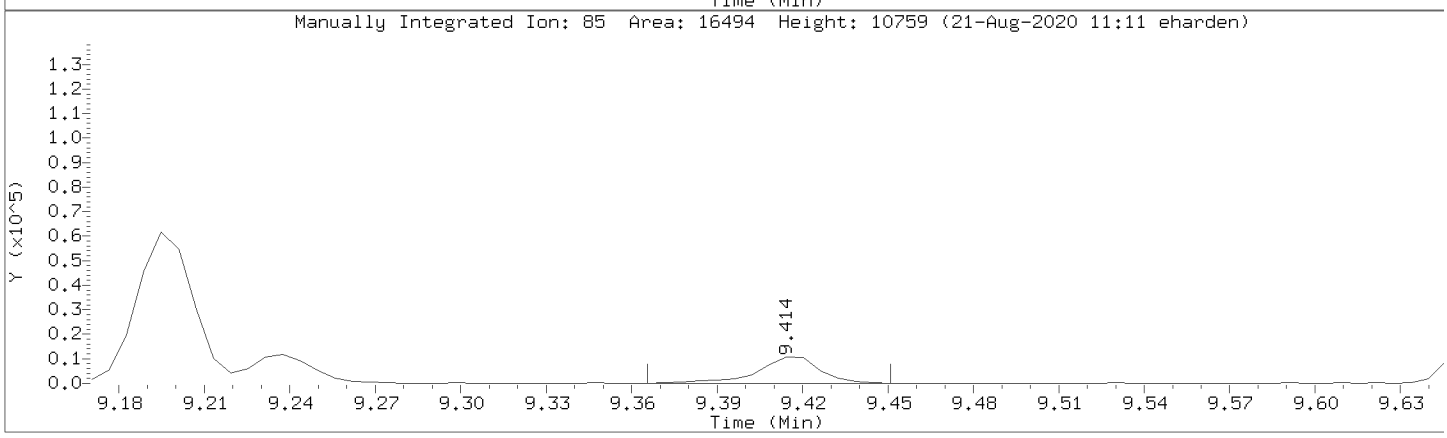
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12





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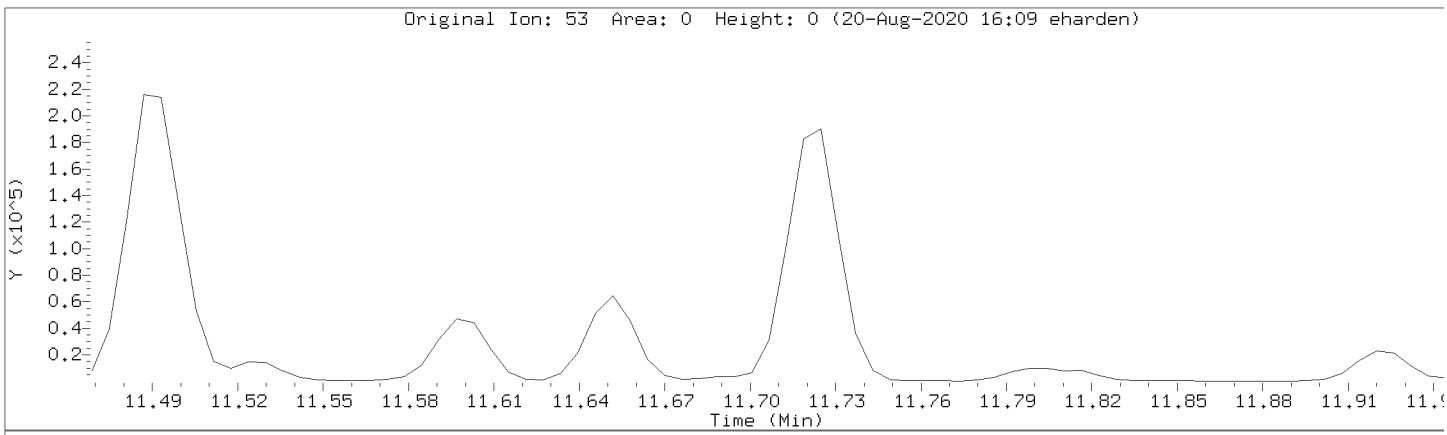
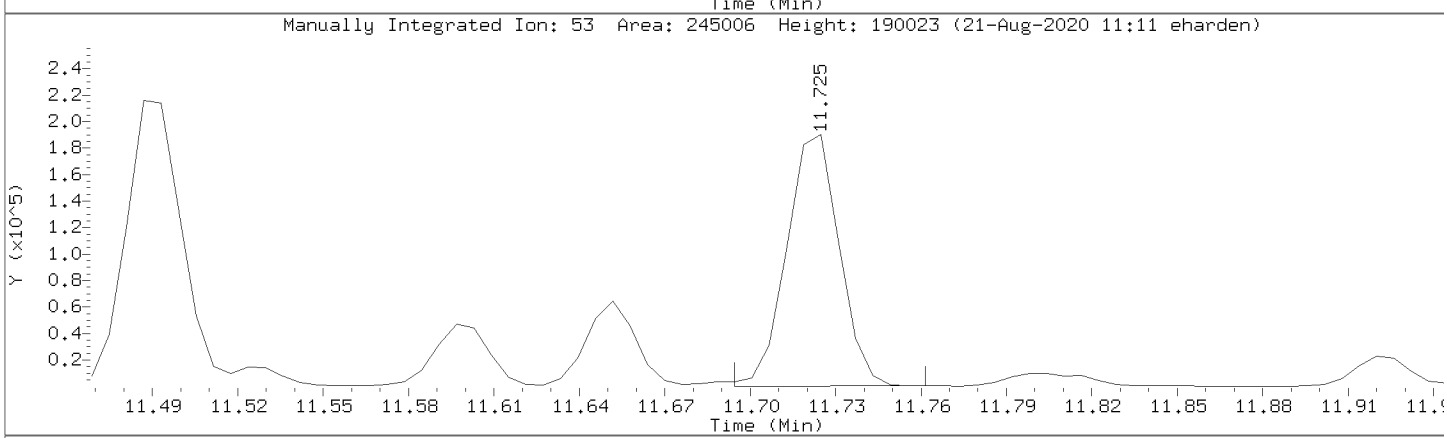
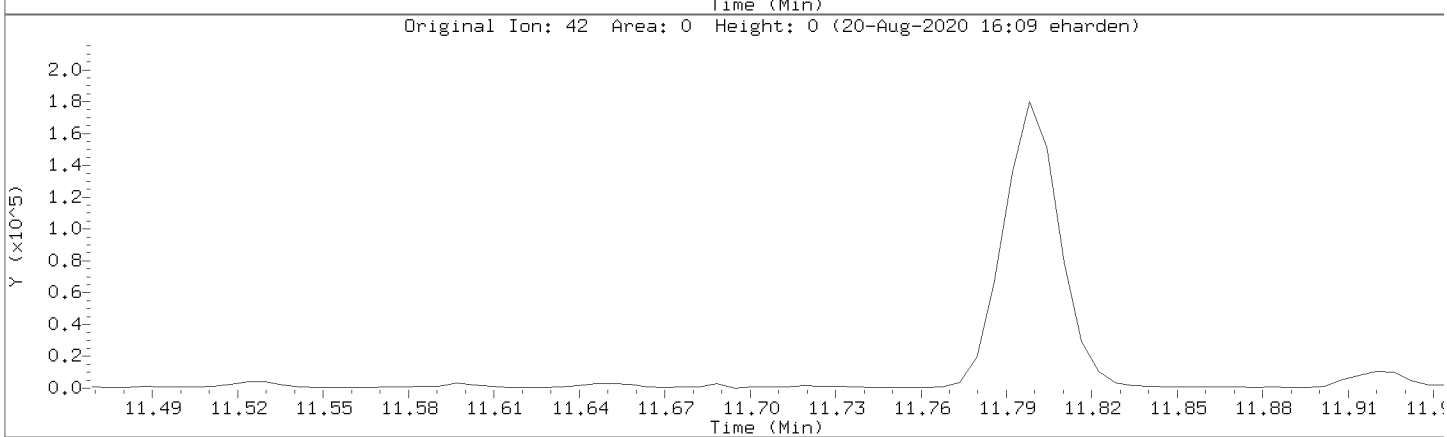
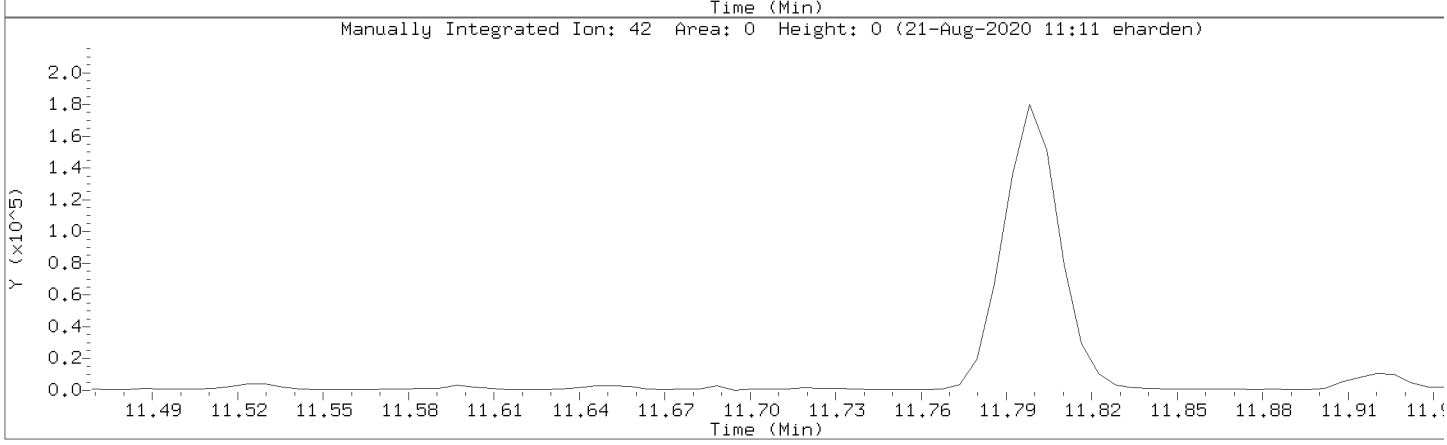
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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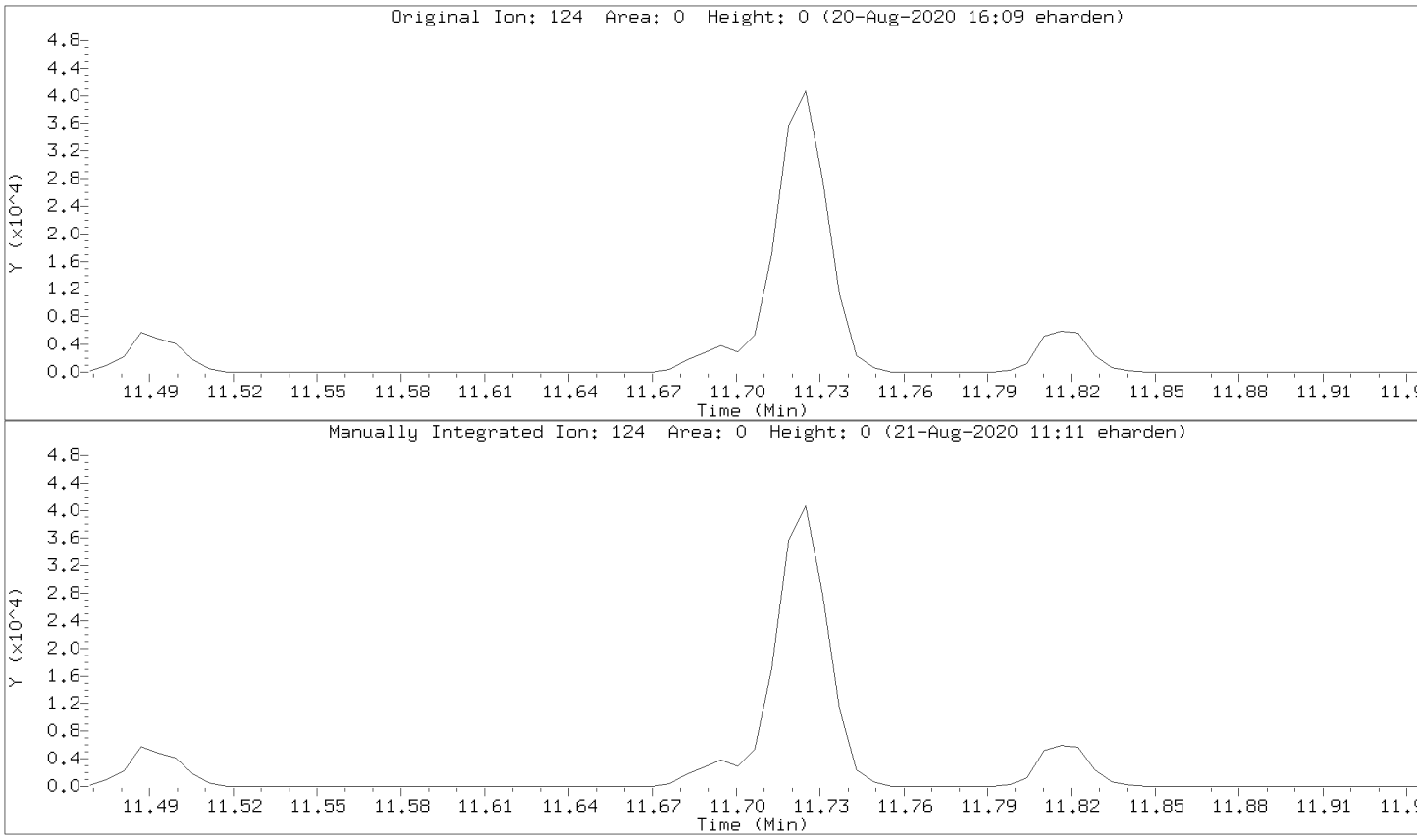
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12



SAMPLE NO.

1419858ICV

MSV - FORM VII VOA-1
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/20/2020 Time: 17:06

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082020.B\082020_18.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249143

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Wt Linear	40	24.82310	0.0100	-37.9422	20.0000
Acetonitrile	Wt Linear	40	45.08252	0.0100	12.7063	20.0000
Acrolein	Averaged	0.06923	0.04113	0.0100	-40.5887	20.0000
Acrylonitrile	Averaged	0.19127	0.17352	0.0100	-9.2796	20.0000
Benzene	Averaged	1.27880	1.23471	0.0100	-3.4482	20.0000
Bromobenzene	Averaged	0.50590	0.52741	0.0100	4.2522	20.0000
Bromochloromethane	Averaged	0.28358	0.25650	0.0100	-9.5467	20.0000
Bromodichloromethane	Averaged	0.52427	0.53160	0.0100	1.3963	20.0000
Bromoform	Averaged	0.45179	0.43515	0.1000	-3.6837	20.0000
Bromomethane	Wt Linear	20	23.62960	0.0100	18.1480	20.0000
2-Butanone (MEK)	Averaged	0.42919	0.26923	0.0100	-37.2693	20.0000
n-Butylbenzene	Averaged	1.74233	1.59435	0.0100	-8.4931	20.0000
sec-Butylbenzene	Wt Linear	20	17.56000	0.0100	-12.2000	20.0000
tert-Butylbenzene	Wt Linear	20	16.89826	0.0100	-15.5087	20.0000
Carbon disulfide	Averaged	1.48423	1.27936	0.0100	-13.8029	20.0000
Carbon tetrachloride	Averaged	0.50339	0.50026	0.0100	-0.6221	20.0000
Chlorobenzene	Averaged	0.96465	0.93844	0.3000	-2.7167	20.0000
Chloroethane	Wt Linear	20	12.67107	0.0100	-36.6446	20.0000
Chloroform	Averaged	0.99545	0.88461	0.0100	-11.1349	20.0000
Chloromethane	Wt Linear	20	18.23379	0.1000	-8.8310	20.0000
2-Chlorotoluene	Wt Linear	20	19.57548	0.0100	-2.1226	20.0000
4-Chlorotoluene	Wt Linear	20	18.13182	0.0100	-9.3409	20.0000
1,2-Dibromo-3-chloropropane	Averaged	0.16352	0.13836	0.0100	-15.3871	20.0000
Dibromochloromethane	Averaged	0.47553	0.47473	0.0100	-0.1686	20.0000
1,2-Dibromoethane (EDB)	Averaged	0.40786	0.40623	0.0100	-0.3978	20.0000
Dibromomethane	Averaged	0.29781	0.28268	0.0100	-5.0799	20.0000
1,2-Dichlorobenzene	Averaged	1.45432	1.36425	0.0100	-6.1934	20.0000
1,3-Dichlorobenzene	Averaged	1.33091	1.33610	0.0100	0.3903	20.0000
1,4-Dichlorobenzene	Averaged	1.50164	1.35286	0.0100	-9.9078	20.0000
Dichlorodifluoromethane	Averaged	0.60278	0.50357	0.0100	-16.4588	20.0000
1,1-Dichloroethane	Averaged	0.88035	0.79945	0.1000	-9.1896	20.0000
1,2-Dichloroethane	Averaged	0.78154	0.68274	0.0100	-12.6415	20.0000
1,1-Dichloroethene	Averaged	0.67064	0.59964	0.0100	-10.5866	20.0000
cis-1,2-Dichloroethene	Averaged	0.64880	0.60018	0.0100	-7.4943	20.0000
trans-1,2-Dichloroethene	Averaged	0.45304	0.38891	0.0100	-14.1553	20.0000
1,2-Dichloropropane	Averaged	0.36511	0.36208	0.0100	-0.8301	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

1419858ICV

MSV - FORM VII VOA-2
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/20/2020 Time: 17:06

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082020.B\082020_18.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249143

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,3-Dichloropropane	Averaged	0.48194	0.48242	0.0100	0.0987	20.0000
2,2-Dichloropropane	Averaged	0.67907	0.53477	0.0100	-21.2485	20.0000
1,1-Dichloropropene	Averaged	0.39618	0.37313	0.0100	-5.8167	20.0000
cis-1,3-Dichloropropene	Averaged	0.50984	0.49638	0.0100	-2.6405	20.0000
trans-1,3-Dichloropropene	Averaged	0.50883	0.49514	0.0100	-2.6903	20.0000
Ethyl acetate	Averaged	0.56197	0.49122	0.0100	-12.5887	20.0000
Ethylbenzene	Averaged	1.30807	1.28682	0.0100	-1.6246	20.0000
2-Hexanone	Averaged	0.42211	0.28352	0.0100	-32.8334	20.0000
Isopropylbenzene (Cumene)	Wt Linear	20	17.85189	0.0100	-10.7405	20.0000
p-Isopropyltoluene	Wt Linear	20	16.89826	0.0100	-15.5087	20.0000
Methylene Chloride	Averaged	0.79672	0.68891	0.0100	-13.5314	20.0000
4-Methyl-2-pentanone (MIBK)	Averaged	0.03578	0.03144	0.0100	-12.1476	20.0000
Methyl-tert-butyl ether	Averaged	1.05644	1.01790	0.0100	-3.6480	20.0000
Naphthalene	Wt Linear	20	16.32090	0.0100	-18.3955	20.0000
n-Propylbenzene	Averaged	1.60388	1.60259	0.0100	-0.0803	20.0000
Styrene	Wt Linear	20	17.64204	0.0100	-11.7898	20.0000
1,1,1,2-Tetrachloroethane	Averaged	0.40743	0.38534	0.3000	-5.4218	20.0000
1,1,2,2-Tetrachloroethane	Averaged	0.53495	0.49291	0.3000	-7.8595	20.0000
Tetrachloroethene	Averaged	0.34315	0.35395	0.0100	3.1459	20.0000
Toluene	Averaged	1.24680	1.24992	0.0100	0.2497	20.0000
1,2,3-Trichlorobenzene	Averaged	0.91538	0.87148	0.0100	-4.7954	20.0000
1,2,4-Trichlorobenzene	Averaged	0.98474	0.93125	0.0100	-5.4317	20.0000
1,1,1-Trichloroethane	Averaged	0.57038	0.54382	0.0100	-4.6553	20.0000
1,1,2-Trichloroethane	Averaged	0.31598	0.29895	0.0100	-5.3888	20.0000
Trichloroethene	Averaged	0.34963	0.35653	0.0100	1.9739	20.0000
Trichlorofluoromethane	Averaged	0.37716	0.28883	0.0100	-23.4190	20.0000
1,2,3-Trichloropropane	Averaged	0.55922	0.53202	0.0100	-4.8654	20.0000
1,2,4-Trimethylbenzene	Wt Linear	20	17.70907	0.0100	-11.4546	20.0000
1,3,5-Trimethylbenzene	Averaged	1.65100	1.59405	0.0100	-3.4490	20.0000
Vinyl acetate	Averaged	0.87084	0.47990	0.0100	-44.8924	20.0000
Vinyl chloride	Averaged	0.59325	0.47996	0.0100	-19.0961	20.0000
m&p-Xylene	Wt Linear	40	36.62116	0.0100	-8.4471	20.0000
o-Xylene	Wt Linear	20	17.08013	0.0100	-14.5993	20.0000
4-Bromofluorobenzene (S)	Averaged	0.41034	0.41596	0.0100	1.3689	20.0000
Dibromofluoromethane (S)	Averaged	0.57568	0.52418	0.0100	-8.9462	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.10356	0.09167	0.0100	-11.4833	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/31/2020 10:23

SAMPLE NO.

1419858ICV

MSV - FORM VII VOA-3
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton

Calibration Date: 08/20/2020 Time: 17:06

Instrument ID: 52MV02 GC Column: Col 1

Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082020.B\082020_18.D

Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249143

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Toluene-d8 (S)	Averaged	1.07633	1.07582	0.0100	-0.0475	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

1425578CCV

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/24/2020 Time: 11:37

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082420.B\082420_03.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249143

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Wt Linear	40	42.69418	0.0100	6.7355	20.0000
Acetonitrile	Wt Linear	40	61.01425	0.0100	52.5356	20.0000
Acrolein	Averaged	0.06923	0.06209	0.0100	-10.3141	20.0000
Acrylonitrile	Averaged	0.19127	0.19121	0.0100	-0.0286	20.0000
Benzene	Averaged	1.27880	1.26051	0.0100	-1.4308	20.0000
Bromobenzene	Averaged	0.50590	0.50552	0.0100	-0.0756	20.0000
Bromochloromethane	Averaged	0.28358	0.29109	0.0100	2.6495	20.0000
Bromodichloromethane	Averaged	0.52427	0.55169	0.0100	5.2293	20.0000
Bromoform	Averaged	0.45179	0.45066	0.1000	-0.2492	20.0000
Bromomethane	Wt Linear	20	23.21675	0.0100	16.0837	20.0000
2-Butanone (MEK)	Averaged	0.42919	0.43137	0.0100	0.5089	20.0000
n-Butylbenzene	Averaged	1.74233	1.57972	0.0100	-9.3324	20.0000
sec-Butylbenzene	Wt Linear	20	16.72677	0.0100	-16.3661	20.0000
tert-Butylbenzene	Wt Linear	20	15.21516	0.0100	-23.9242	20.0000
Carbon disulfide	Averaged	1.48423	1.42475	0.0100	-4.0071	20.0000
Carbon tetrachloride	Averaged	0.50339	0.53724	0.0100	6.7235	20.0000
Chlorobenzene	Averaged	0.96465	0.95052	0.3000	-1.4653	20.0000
Chloroethane	Wt Linear	20	23.33516	0.0100	16.6758	20.0000
Chloroform	Averaged	0.99545	0.97472	0.0100	-2.0821	20.0000
Chloromethane	Wt Linear	20	19.70653	0.1000	-1.4673	20.0000
2-Chlorotoluene	Wt Linear	20	19.42386	0.0100	-2.8807	20.0000
4-Chlorotoluene	Wt Linear	20	18.39700	0.0100	-8.0150	20.0000
1,2-Dibromo-3-chloropropane	Averaged	0.16352	0.14344	0.0100	-12.2773	20.0000
Dibromochloromethane	Averaged	0.47553	0.49688	0.0100	4.4893	20.0000
1,2-Dibromoethane (EDB)	Averaged	0.40786	0.41345	0.0100	1.3708	20.0000
Dibromomethane	Averaged	0.29781	0.29867	0.0100	0.2874	20.0000
1,2-Dichlorobenzene	Averaged	1.45432	1.30582	0.0100	-10.2109	20.0000
1,3-Dichlorobenzene	Averaged	1.33091	1.26138	0.0100	-5.2239	20.0000
1,4-Dichlorobenzene	Averaged	1.50164	1.37159	0.0100	-8.6608	20.0000
Dichlorodifluoromethane	Averaged	0.60278	0.56498	0.0100	-6.2721	20.0000
1,1-Dichloroethane	Averaged	0.88035	0.88006	0.1000	-0.0335	20.0000
1,2-Dichloroethane	Averaged	0.78154	0.76688	0.0100	-1.8756	20.0000
1,1-Dichloroethene	Averaged	0.67064	0.66520	0.0100	-0.8120	20.0000
cis-1,2-Dichloroethene	Averaged	0.64880	0.59858	0.0100	-7.7403	20.0000
trans-1,2-Dichloroethene	Averaged	0.45304	0.41850	0.0100	-7.6246	20.0000
1,2-Dichloropropane	Averaged	0.36511	0.36281	0.0100	-0.6279	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

1425578CCV

MSV - FORM VII VOA-2
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/24/2020 Time: 11:37

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082420.B\082420_03.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249143

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,3-Dichloropropane	Averaged	0.48194	0.47886	0.0100	-0.6385	20.0000
2,2-Dichloropropane	Averaged	0.67907	0.68590	0.0100	1.0062	20.0000
1,1-Dichloropropene	Averaged	0.39618	0.38641	0.0100	-2.4644	20.0000
cis-1,3-Dichloropropene	Averaged	0.50984	0.51485	0.0100	0.9835	20.0000
trans-1,3-Dichloropropene	Averaged	0.50883	0.51485	0.0100	1.1836	20.0000
Ethyl acetate	Averaged	0.56197	0.54333	0.0100	-3.3170	20.0000
Ethylbenzene	Averaged	1.30807	1.24218	0.0100	-5.0369	20.0000
2-Hexanone	Averaged	0.42211	0.47868	0.0100	13.4032	20.0000
Isopropylbenzene (Cumene)	Wt Linear	20	16.74362	0.0100	-16.2819	20.0000
p-Isopropyltoluene	Wt Linear	20	15.21516	0.0100	-23.9242	20.0000
Methylene Chloride	Averaged	0.79672	0.74560	0.0100	-6.4156	20.0000
4-Methyl-2-pentanone (MIBK)	Averaged	0.03578	0.03466	0.0100	-3.1474	20.0000
Methyl-tert-butyl ether	Averaged	1.05644	1.00519	0.0100	-4.8513	20.0000
Naphthalene	Wt Linear	20	14.22158	0.0100	-28.8921	20.0000
n-Propylbenzene	Averaged	1.60388	1.58524	0.0100	-1.1626	20.0000
Styrene	Wt Linear	20	16.46275	0.0100	-17.6862	20.0000
1,1,1,2-Tetrachloroethane	Averaged	0.40743	0.41288	0.3000	1.3358	20.0000
1,1,2,2-Tetrachloroethane	Averaged	0.53495	0.55336	0.3000	3.4411	20.0000
Tetrachloroethene	Averaged	0.34315	0.36185	0.0100	5.4473	20.0000
Toluene	Averaged	1.24680	1.21611	0.0100	-2.4622	20.0000
1,2,3-Trichlorobenzene	Averaged	0.91538	0.80468	0.0100	-12.0934	20.0000
1,2,4-Trichlorobenzene	Averaged	0.98474	0.84839	0.0100	-13.8462	20.0000
1,1,1-Trichloroethane	Averaged	0.57038	0.58793	0.0100	3.0777	20.0000
1,1,2-Trichloroethane	Averaged	0.31598	0.30524	0.0100	-3.3985	20.0000
Trichloroethene	Averaged	0.34963	0.36140	0.0100	3.3643	20.0000
Trichlorofluoromethane	Averaged	0.37716	0.36409	0.0100	-3.4657	20.0000
1,2,3-Trichloropropane	Averaged	0.55922	0.57125	0.0100	2.1498	20.0000
1,2,4-Trimethylbenzene	Wt Linear	20	16.86133	0.0100	-15.6933	20.0000
1,3,5-Trimethylbenzene	Averaged	1.65100	1.61754	0.0100	-2.0262	20.0000
Vinyl acetate	Averaged	0.87084	0.88884	0.0100	2.0672	20.0000
Vinyl chloride	Averaged	0.59325	0.54456	0.0100	-8.2075	20.0000
m&p-Xylene	Wt Linear	40	35.91968	0.0100	-10.2008	20.0000
o-Xylene	Wt Linear	20	15.80498	0.0100	-20.9751	20.0000
4-Bromofluorobenzene (S)	Averaged	0.41034	0.41560	0.0100	1.2797	20.0000
Dibromofluoromethane (S)	Averaged	0.57568	0.56127	0.0100	-2.5017	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.10356	0.09826	0.0100	-5.1211	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

1425578CCV

MSV - FORM VII VOA-3
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Dayton

Calibration Date: 08/24/2020 Time: 11:37

Instrument ID: 52MV02 GC Column: Col 1

Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082420.B\082420_03.D

Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249143

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Toluene-d8 (S)	Averaged	1.07633	1.05370	0.0100	-2.1025	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_18.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 20-AUG-2020 17:06
Operator : EAH Inst ID: 52mv02.i
Smp Info : icv, 27249:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 11:40 Cal File: 082020_05.D
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.411)	62218	20.0000	16.7(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	81833	20.0000	18.2	
3 Vinyl chloride	62	3.702	3.702	(0.471)	59301	20.0000	16.2	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	43356	20.0000	13.2	
5 Bromomethane	94	4.195	4.195	(0.534)	70375	20.0000	23.6	
6 Chloroethane	64	4.360	4.360	(0.555)	13606	20.0000	12.7	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	35686	20.0000	15.3	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	23334	20.0000	18.2	
9 1,1-Dichloroethene	61	5.226	5.226	(0.665)	74088	20.0000	17.9	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	46759	20.0000	17.1	
11 Carbon disulfide	76	5.293	5.293	(0.673)	158069	20.0000	17.2	
12 Iodomethane	142	5.439	5.439	(0.692)	24702	20.0000	15.5	
13 Acrolein	56	5.659	5.659	(0.720)	10164	40.0000	23.8	
14 Allyl chloride	76	5.787	5.787	(0.736)	22210	20.0000	17.4	
15 Methylene Chloride	49	5.902	5.902	(0.751)	85117	20.0000	17.3	
16 Acetone	43	5.976	5.976	(0.760)	62754	40.0000	24.8	
17 Methyl acetate	43	6.067	6.067	(0.772)	104303	40.0000	36.3	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	48051	20.0000	17.2	
19 n-Hexane	86	6.110	6.110	(0.777)	5754	20.0000	19.4	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	125765	20.0000	19.3	
21 Acetonitrile	41	6.463	6.463	(0.822)	11809	40.0000	45.1	
22 Chloroprene	53	6.640	6.640	(0.845)	65755	20.0000	16.8	
23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	98775	20.0000	18.2	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	24 Acrylonitrile	53	6.738	6.738	(0.857)	42878	40.0000	36.3	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	59293	20.0000	11.0(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	74154	20.0000	18.5	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	66073	20.0000	15.8	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	31692	20.0000	18.1	
	29 Cyclohexane	56	7.335	7.335	(0.882)	61163	20.0000	18.4	
	30 Chloroform	83	7.372	7.372	(0.938)	109296	20.0000	17.8	
	31 Ethyl acetate	43	7.433	7.433	(0.946)	121384	40.0000	35.0	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	78185	20.0000	19.9	
	33 Tetrahydrofuran	42	7.536	7.536	(0.959)	32607	40.0000	36.5	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	161909	50.0000	45.5	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	84993	20.0000	19.1	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	66529	40.0000	25.1	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	58316	20.0000	18.8	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	308883	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	192970	20.0000	19.3	
	40 Propionitrile	54	7.902	7.902	(1.005)	18605	40.0000	35.3	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	97332	40.0000	36.3	
	42 Isobutanol	43	7.987	7.987	(1.016)	3741	40.0000	47.8(M)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	28315	50.0000	44.2	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	84355	20.0000	17.5	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	100534	20.0000	17.5	
	46 Trichloroethene	130	8.317	8.317	(1.000)	55722	20.0000	20.4	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	390720	50.0000		
	48 Methylcyclohexane	98	8.317	8.317	(1.000)	25333	20.0000	19.6	
	49 n-Butanol	56	8.524	8.524	(1.025)	2306	40.0000	38.6	
	50 Dibromomethane	93	8.670	8.670	(1.043)	44180	20.0000	19.0	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	56588	20.0000	19.8	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	83082	20.0000	20.3	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	27754	20.0000	17.2	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	950	40.0000	39.5	
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	45831	40.0000	32.2	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	77578	20.0000	19.5	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	420345	50.0000	50.0	
	58 Toluene	91	9.414	9.414	(1.132)	195347	20.0000	20.0	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	16542	20.0000	16.7	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	9826	40.0000	35.1(MH)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	77385	20.0000	19.5	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	52492	20.0000	20.6	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	52298	20.0000	17.0	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	46722	20.0000	18.9	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	70404	20.0000	20.0	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	75396	20.0000	20.0	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	60246	20.0000	19.9	
	68 2-Hexanone	43	10.280	10.280	(1.236)	88620	40.0000	26.9	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	190840	20.0000	19.7	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	370760	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	139175	20.0000	19.4	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	57148	20.0000	18.9	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	308621	40.0000	36.6	
	74 o-Xylene	106	10.993	10.993	(1.041)	66780	20.0000	17.1	
	75 Styrene	104	11.029	11.029	(1.044)	120102	20.0000	17.6	
	76 Bromoform	173	11.103	11.103	(1.051)	64534	20.0000	19.3	
	77 n-amyl acetate	43	11.225	11.225	(1.063)	96056	20.0000	16.6	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	154222	50.0000	50.7	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	22484	20.0000	18.5	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	237671	20.0000	20.0	
81 Bromobenzene	156	11.578	11.578	(1.096)	78217	20.0000	20.8	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	73100	20.0000	18.4	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	152266	20.0000	19.3	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	54826	20.0000	19.6	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	51146	20.0000	18.1	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	178840	20.0000	17.8	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	78900	20.0000	19.0	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	19932	20.0000	20.9(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	152436	20.0000	16.9	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	161183	20.0000	17.7	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	189442	20.0000	17.6	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	152436	20.0000	16.9	
94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	127626	20.0000	20.1	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	238803	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	129227	20.0000	18.0	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	152294	20.0000	18.3	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	130315	20.0000	18.8	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	13216	20.0000	16.9	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	39516	20.0000	18.6	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	88954	20.0000	18.9	
102 Naphthalene	128	14.193	14.193	(1.150)	148785	20.0000	16.3	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	83245	20.0000	19.0	

QC Flag Legend

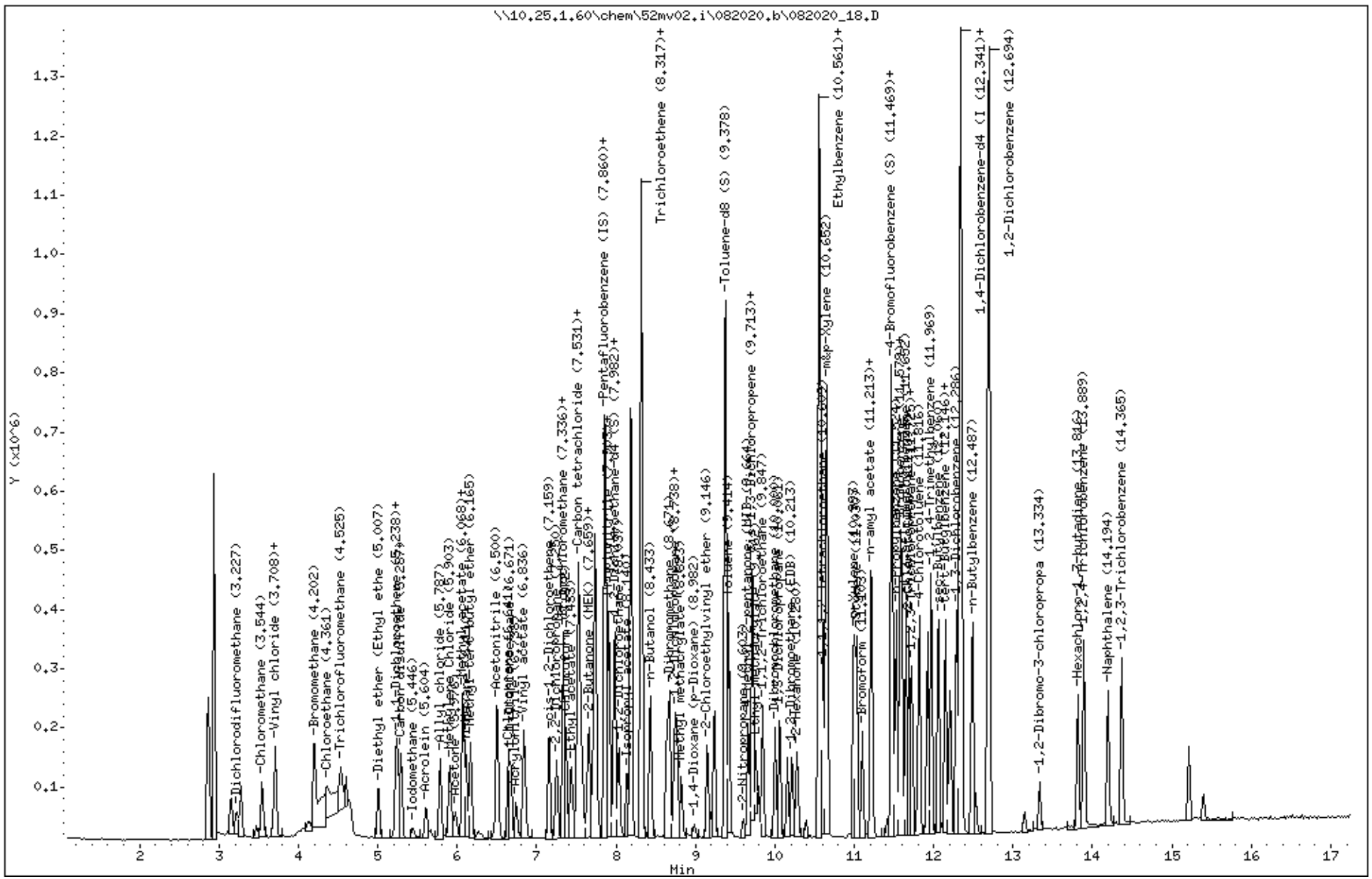
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

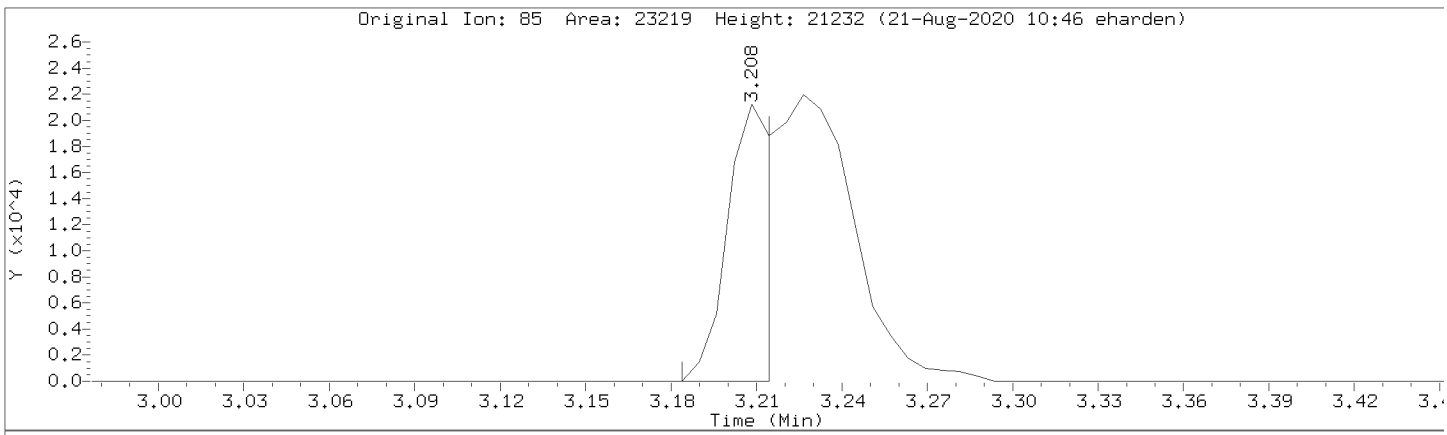
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_18.D
Date : 20-AUG-2020 17:06
Client ID: ICV
Sample Info: ICV, 27249:1
Purge Volume: 5.0
Column phase: RTX-VMS

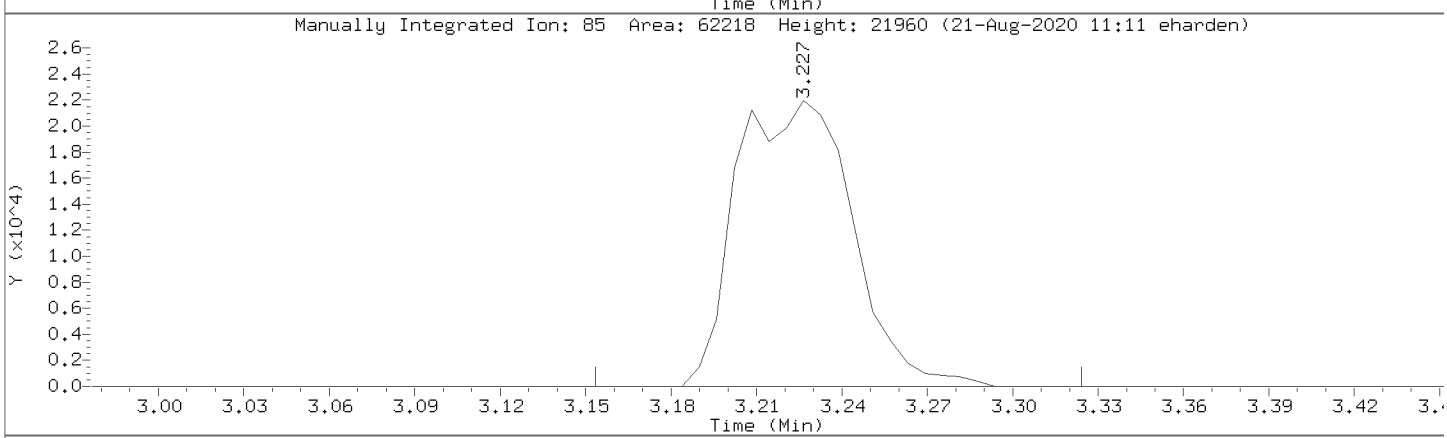
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

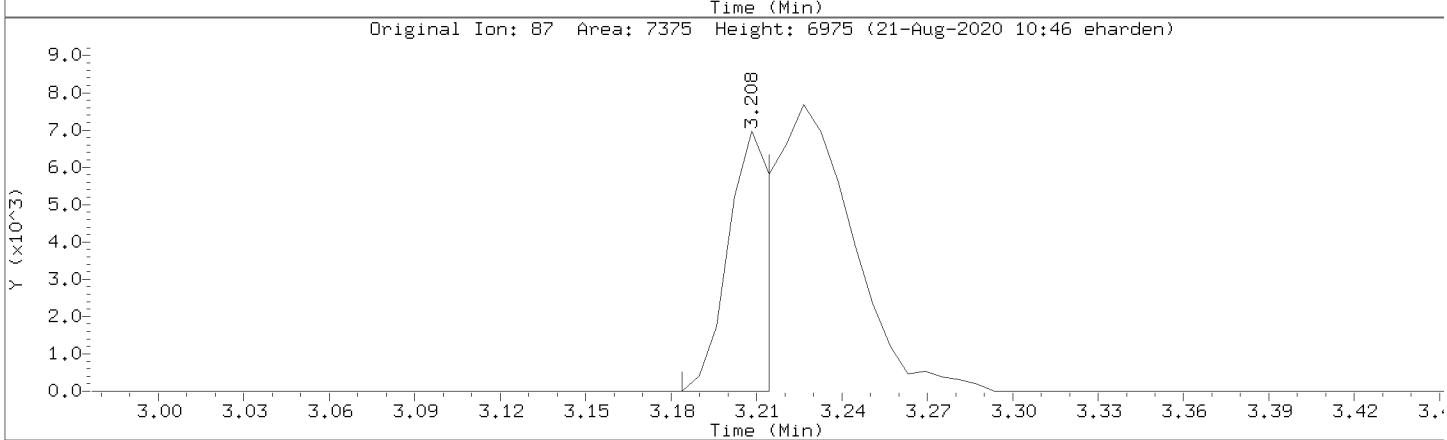


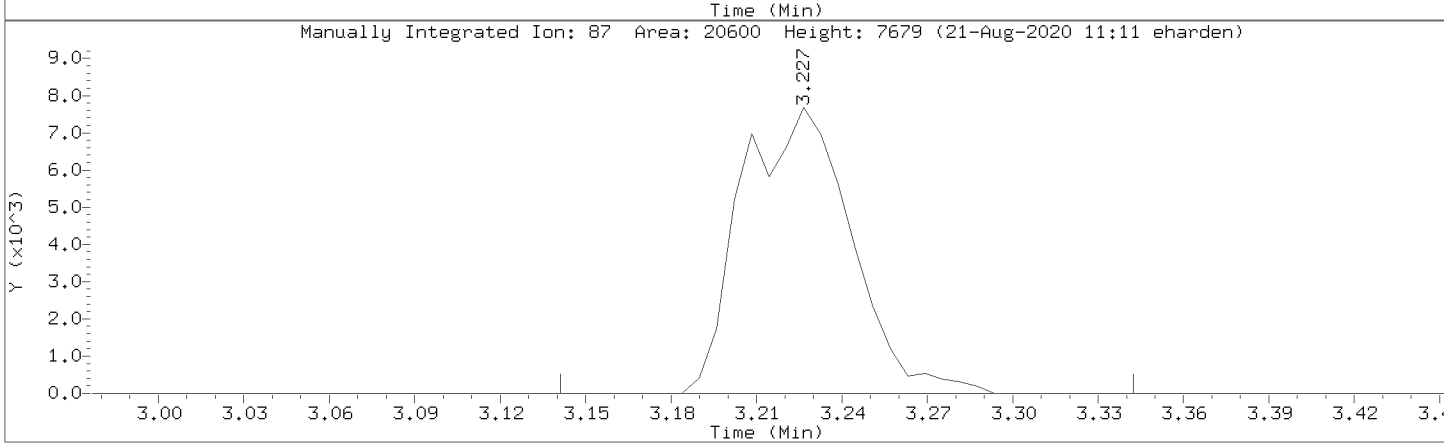
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_18.D
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



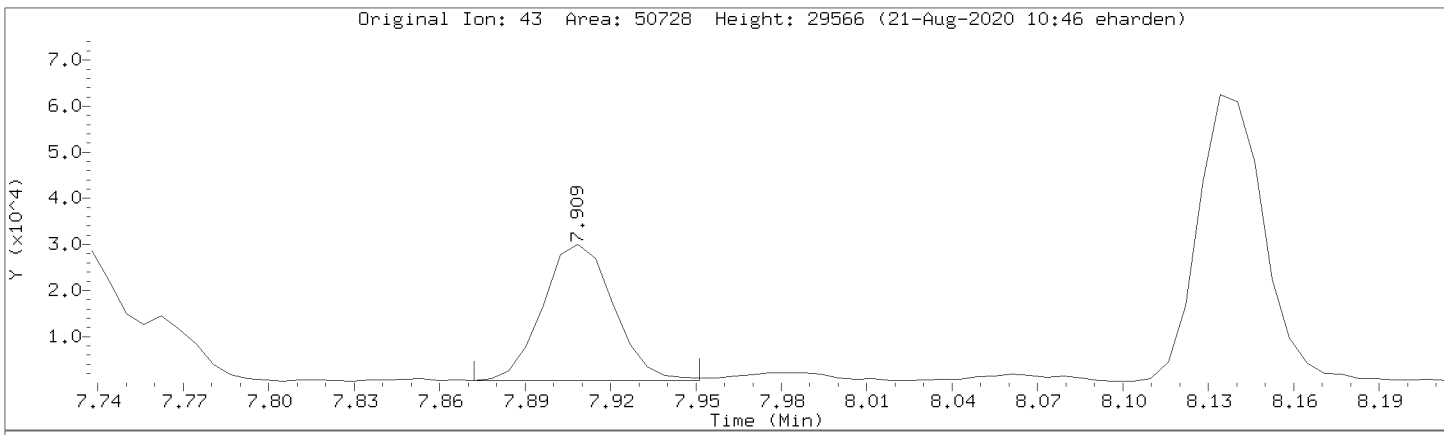


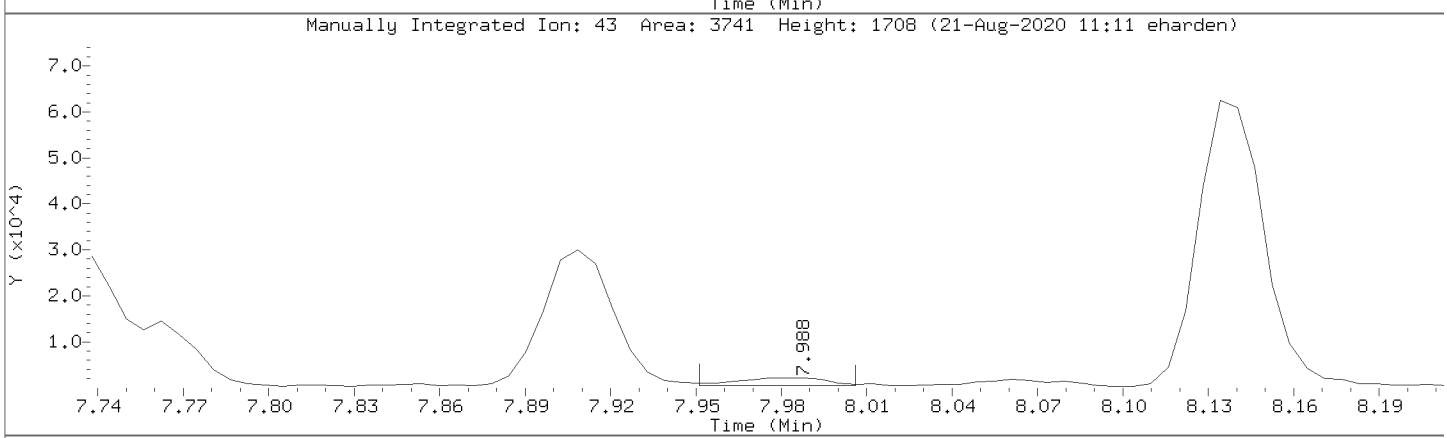


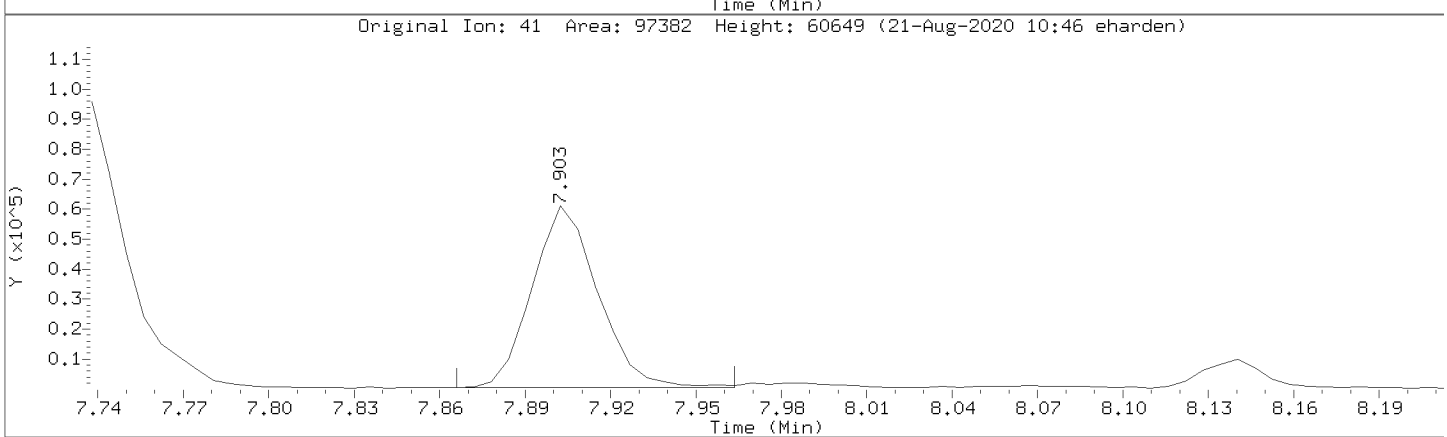


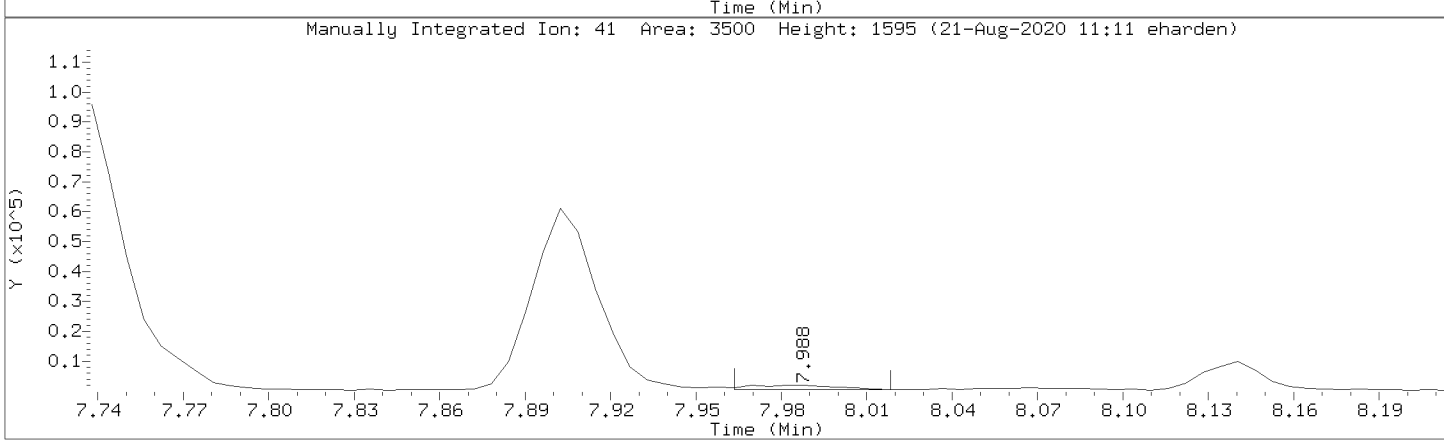
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_18.D
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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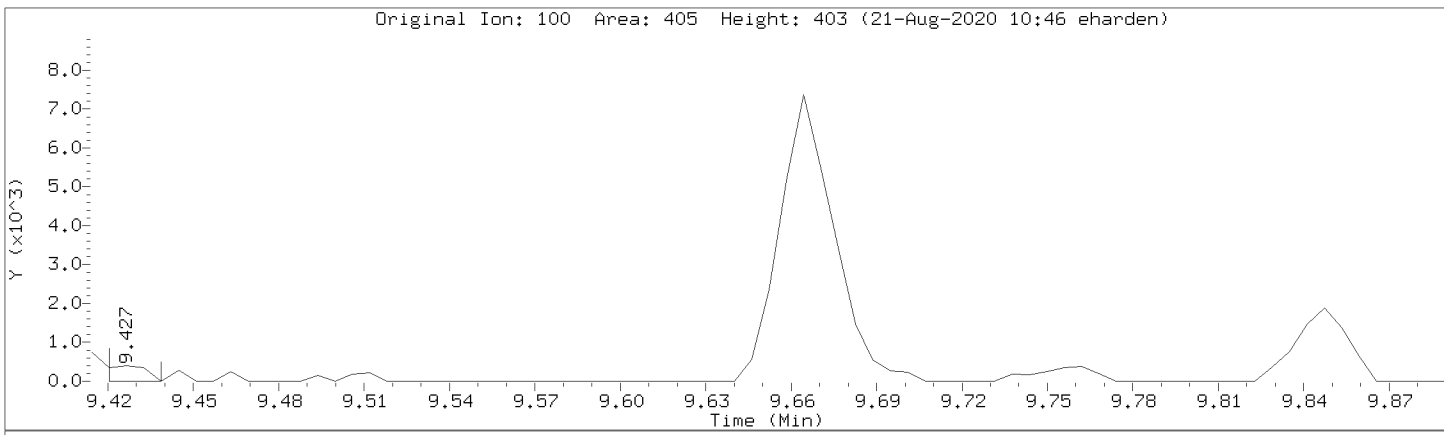
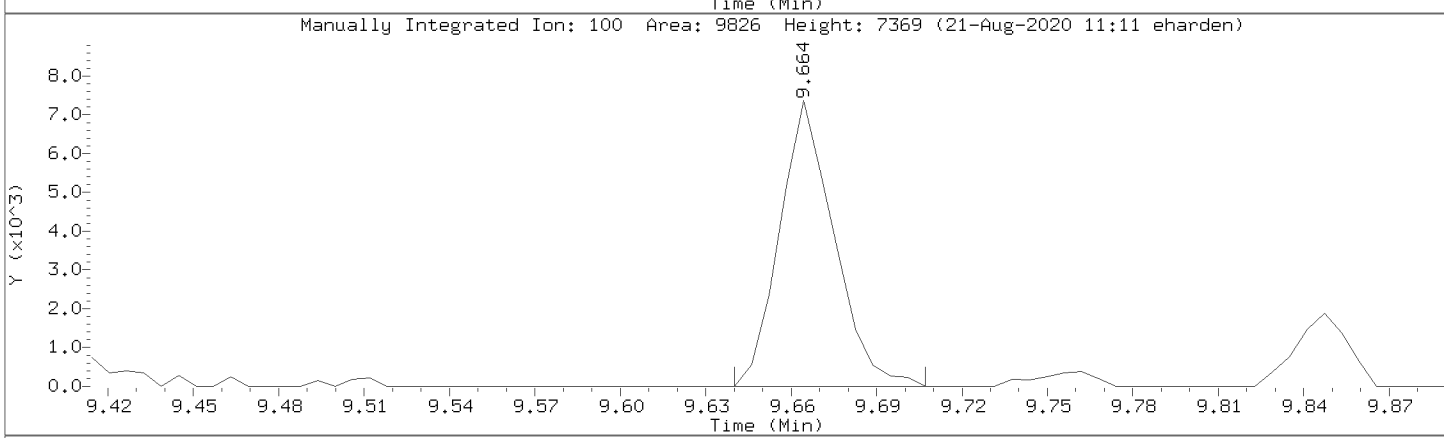
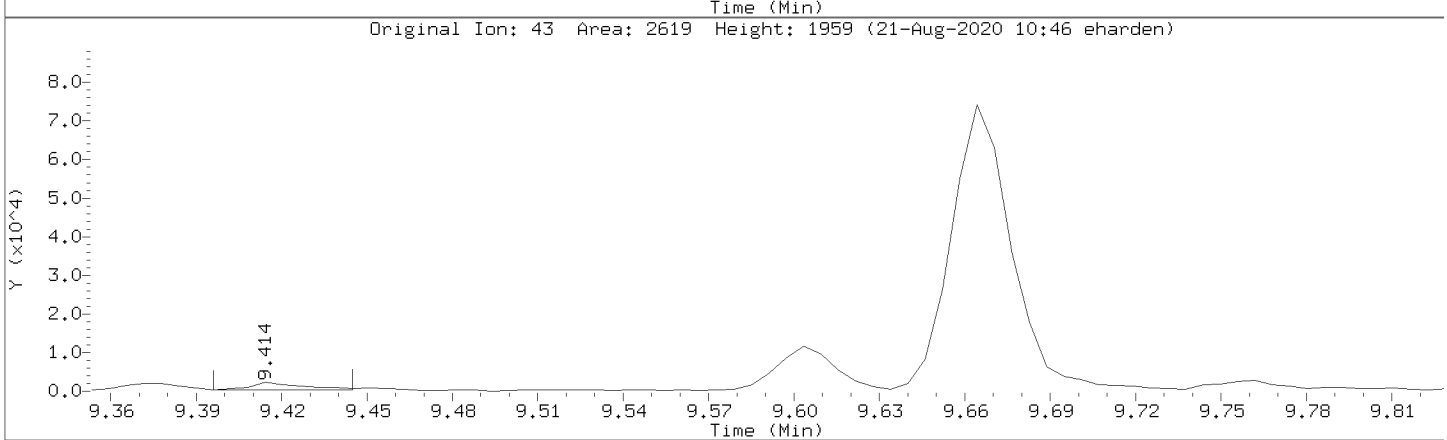
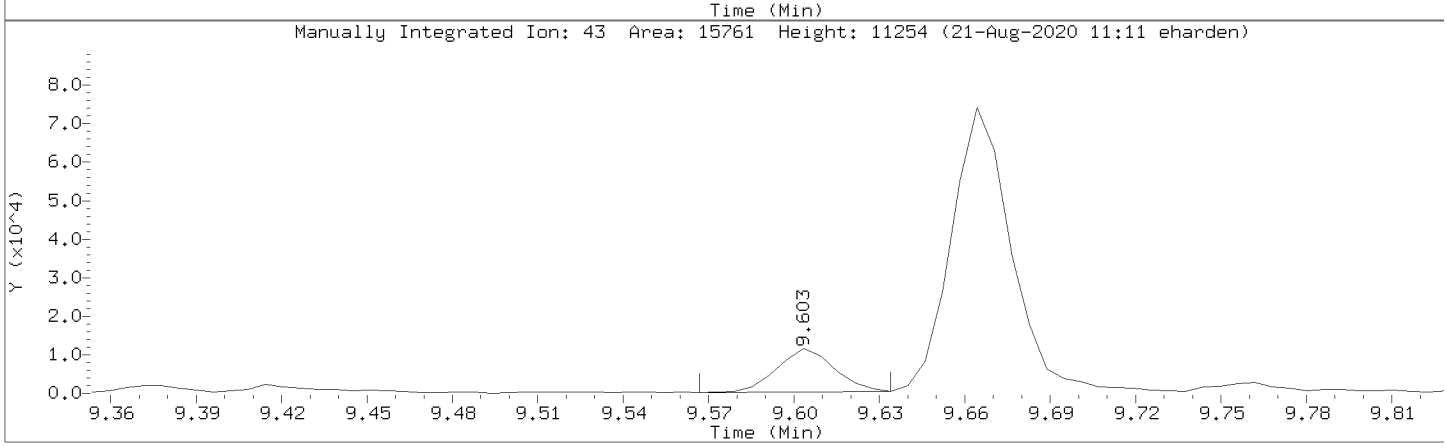
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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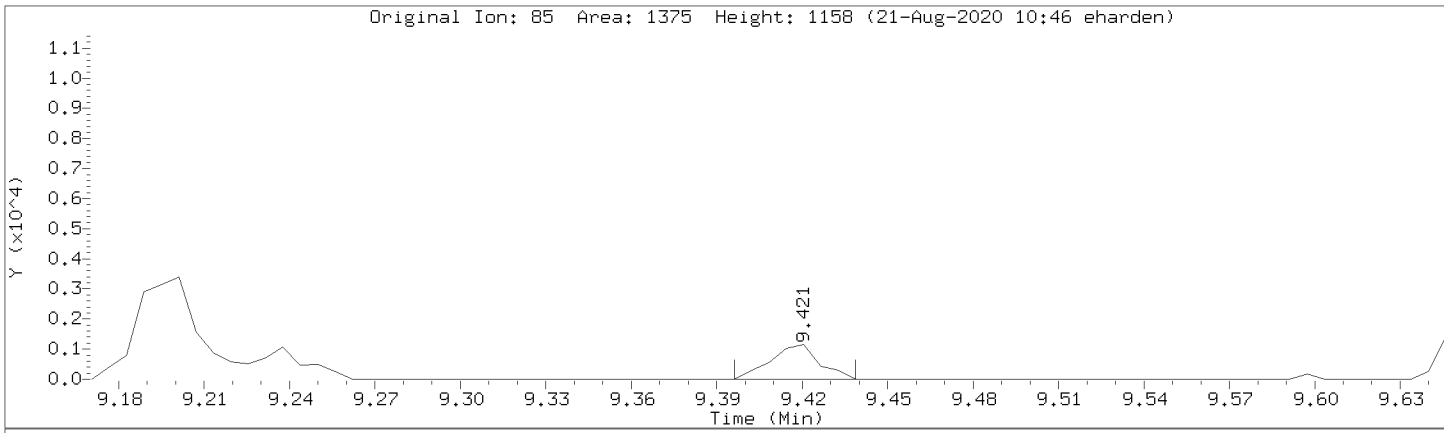
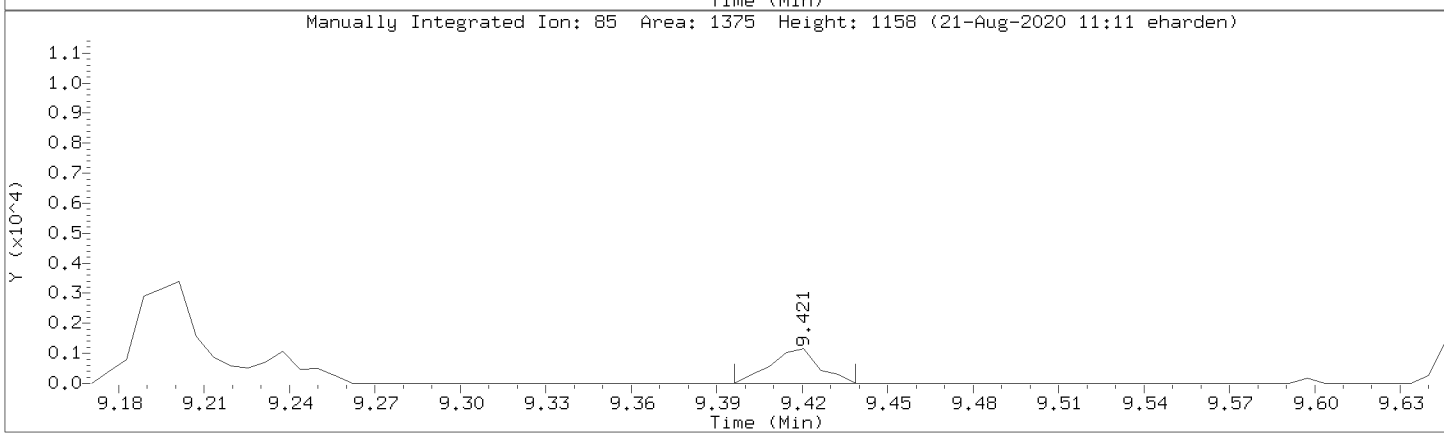
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV





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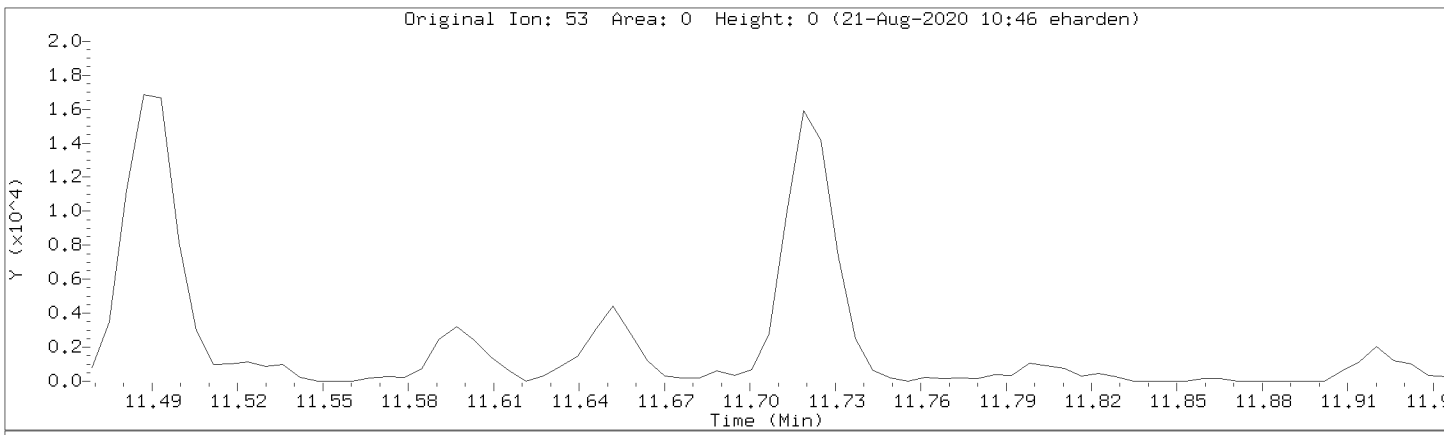
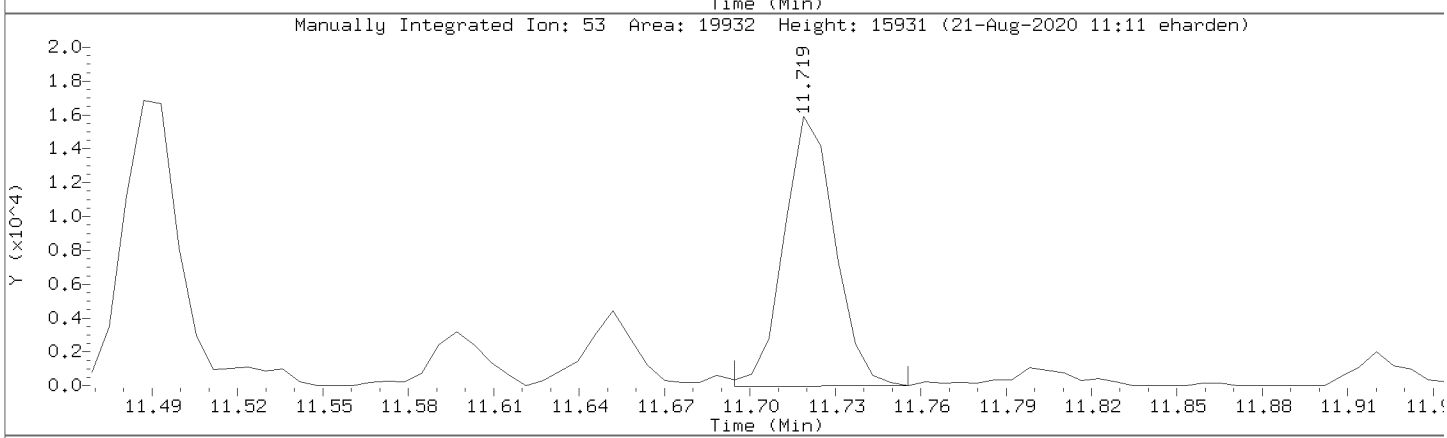
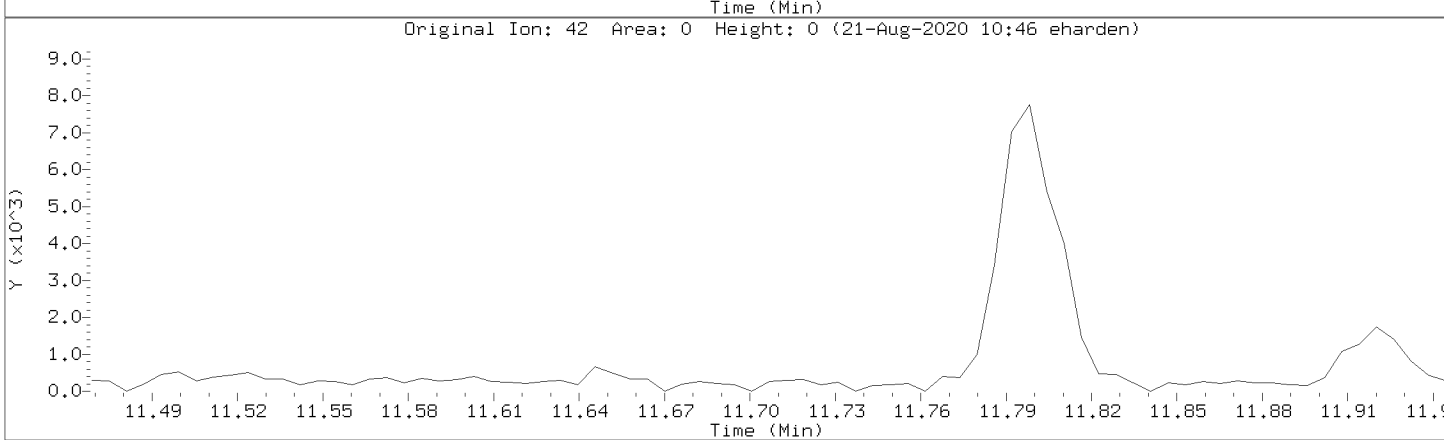
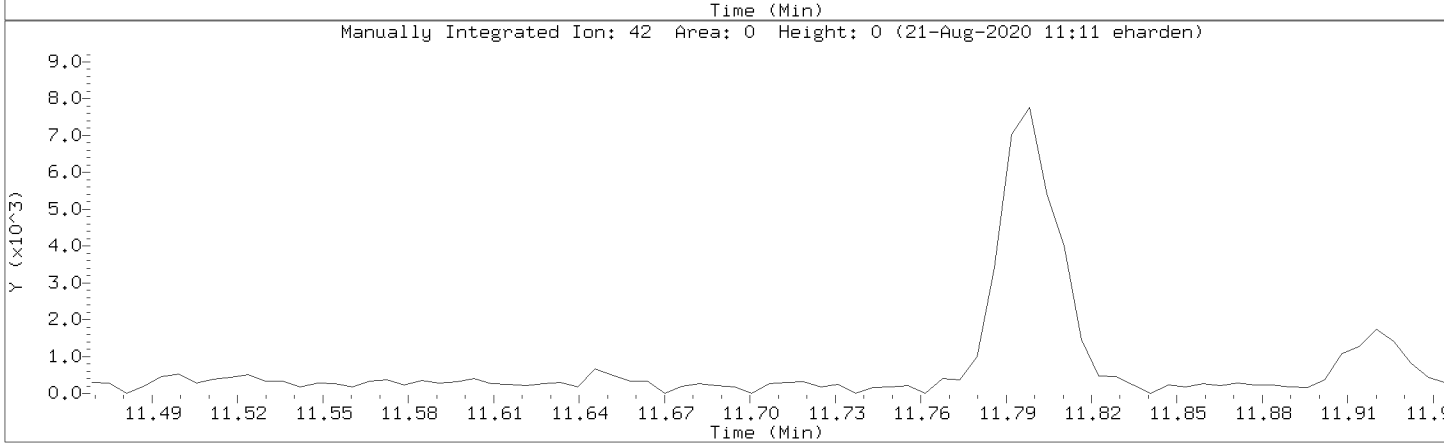
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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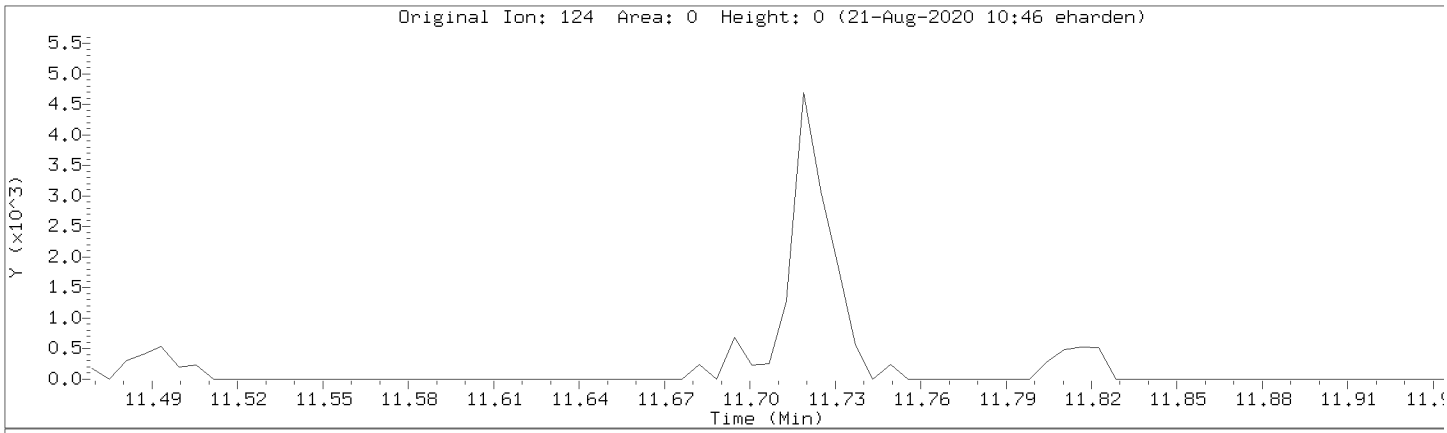
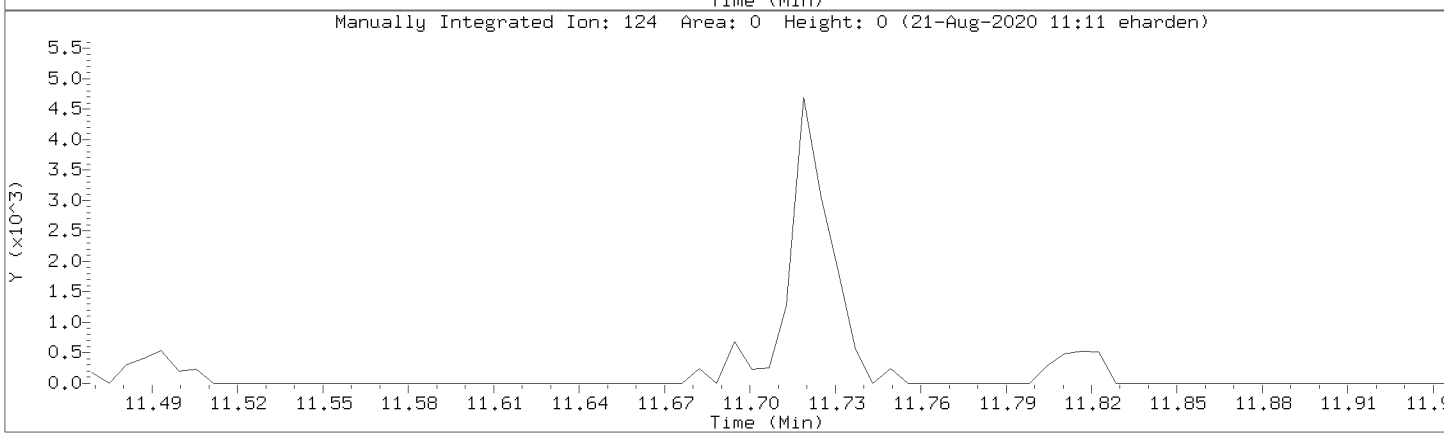
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082420.b\082420_03.D
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Inj Date : 24-AUG-2020 11:37
Operator : EAH Inst ID: 52mv02.i
Smp Info : ccv,27136:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082420.b\8260BSM_082020.m
Meth Date : 24-Aug-2020 11:57 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.208	(0.408)	55595	20.0000	18.7	
2 Chloromethane	50	3.543	3.543	(0.451)	70211	20.0000	19.7	
3 Vinyl chloride	62	3.696	3.696	(0.470)	53586	20.0000	18.4	
4 1,3-Butadiene	39	3.714	3.714	(0.473)	45640	20.0000	17.5	
5 Bromomethane	94	4.196	4.196	(0.534)	55187	20.0000	23.2	
6 Chloroethane	64	4.366	4.366	(0.556)	19357	20.0000	23.3	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	35827	20.0000	19.3	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	19254	20.0000	18.8	
9 1,1-Dichloroethene	61	5.232	5.232	(0.666)	65457	20.0000	19.8	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	41792	20.0000	19.2	
11 Carbon disulfide	76	5.293	5.293	(0.673)	140199	20.0000	19.2	
12 Iodomethane	142	5.439	5.439	(0.692)	19316	20.0000	15.3	
13 Acrolein	56	5.659	5.659	(0.720)	12220	40.0000	35.9	
14 Allyl chloride	76	5.787	5.787	(0.736)	18297	20.0000	18.0	
15 Methylene Chloride	49	5.909	5.909	(0.752)	73369	20.0000	18.7	
16 Acetone	43	5.970	5.970	(0.760)	83527	40.0000	42.7	
17 Methyl acetate	43	6.067	6.067	(0.772)	85903	40.0000	37.5	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	41181	20.0000	18.5	
19 n-Hexane	86	6.110	6.110	(0.777)	4360	20.0000	18.4	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	98913	20.0000	19.0	
21 Acetonitrile	41	6.463	6.463	(0.822)	12676	40.0000	61.0	
22 Chloroprene	53	6.640	6.640	(0.845)	58600	20.0000	18.8	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.677	(0.850)	86600	20.0000	20.0	
	24 Acrylonitrile	53	6.732	6.732	(0.857)	37632	40.0000	40.0	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	87464	20.0000	20.4(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	58902	20.0000	18.4	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	67494	20.0000	20.2	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	28644	20.0000	20.5	
	29 Cyclohexane	56	7.335	7.335	(0.882)	50775	20.0000	18.0	
	30 Chloroform	83	7.372	7.372	(0.938)	95915	20.0000	19.6	
	31 Ethyl acetate	43	7.427	7.427	(0.945)	106929	40.0000	38.7	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	71232	20.0000	21.3	
	33 Tetrahydrofuran	42	7.530	7.530	(0.958)	26235	40.0000	36.9	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	138077	50.0000	48.7	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	77953	20.0000	20.6	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	84896	40.0000	40.2	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	51234	20.0000	19.5	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	246006	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	167129	20.0000	19.7	
	40 Propionitrile	54	7.896	7.896	(1.005)	16552	40.0000	39.5	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	84795	40.0000	39.8	
	42 Isobutanol	43	7.981	7.981	(1.016)	3431	40.0000	51.4(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	24172	50.0000	47.4	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	75463	20.0000	19.6	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	87881	20.0000	19.2	
	46 Trichloroethene	130	8.317	8.317	(1.000)	47917	20.0000	20.7	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	331472	50.0000		
	48 Methylcyclohexane	98	8.323	8.323	(1.001)	20870	20.0000	19.0	
	49 n-Butanol	56	8.518	8.518	(1.024)	1979	40.0000	39.1(M)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	39600	20.0000	20.0	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	48105	20.0000	19.9	
	52 Bromodichloromethane	83	8.762	8.762	(1.054)	73148	20.0000	21.0	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	22705	20.0000	16.6	
	54 1,4-Dioxane (p-Dioxane)	58	8.939	8.939	(1.075)	604	40.0000	29.6(M)	LT
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	37790	40.0000	31.4	
	56 cis-1,3-Dichloropropene	75	9.707	9.707	(1.167)	68264	20.0000	20.2	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	349273	50.0000	48.9	
	58 Toluene	91	9.414	9.414	(1.132)	161242	20.0000	19.5	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	13292	20.0000	15.8	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	9190	40.0000	38.7	
	61 trans-1,3-Dichloropropene	75	9.707	9.707	(1.167)	68264	20.0000	20.2	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	44403	20.0000	21.1	
	63 Ethyl methacrylate	69	9.755	9.755	(1.173)	44000	20.0000	16.9	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	40471	20.0000	19.3	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	60973	20.0000	20.9	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	63492	20.0000	19.9	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	50735	20.0000	20.3	
	68 2-Hexanone	43	10.274	10.274	(1.235)	126936	40.0000	45.4	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	152431	20.0000	19.0	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	306781	50.0000		
	71 Chlorobenzene	112	10.572	10.572	(1.001)	116640	20.0000	19.7	
	72 1,1,1,2-Tetrachloroethane	131	10.603	10.603	(1.004)	50665	20.0000	20.3	
	73 m&p-Xylene	91	10.652	10.652	(1.009)	250419	40.0000	35.9	
	74 o-Xylene	106	10.993	10.993	(1.041)	51011	20.0000	15.8	
	75 Styrene	104	11.030	11.030	(1.044)	92519	20.0000	16.5	
	76 Bromoform	173	11.103	11.103	(1.051)	55302	20.0000	20.0	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.225	11.225	(1.063)	84395	20.0000	17.5	
$ 78 4-Bromofluorobenzene (S)	95	11.469	11.469	(1.086)	127497	50.0000	50.6	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	19431	20.0000	19.3	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	194528	20.0000	19.8	
81 Bromobenzene	156	11.578	11.578	(1.096)	62033	20.0000	20.0	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	67904	20.0000	20.7	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	130189	20.0000	19.6	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	45007	20.0000	19.4	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	42952	20.0000	18.4	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	138495	20.0000	16.7	
87 1,2,3-Trichloropropane	75	11.718	11.718	(1.110)	70099	20.0000	20.4(M)	CO
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	16775	20.0000	21.2(M)	WP
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	115222	20.0000	15.2	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	129133	20.0000	16.9	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	151824	20.0000	16.7	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	115222	20.0000	15.2	
94 1,3-Dichlorobenzene	146	12.285	12.285	(0.996)	101523	20.0000	19.0	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	201214	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	110393	20.0000	18.3	
97 n-Butylbenzene	91	12.487	12.487	(1.012)	127145	20.0000	18.1	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	105100	20.0000	18.0	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	11545	20.0000	17.5	
100 Hexachloro-1,3-butadiene	225	13.816	13.816	(1.120)	32421	20.0000	18.1	
101 1,2,4-Trichlorobenzene	180	13.889	13.889	(1.125)	68283	20.0000	17.2	
102 Naphthalene	128	14.194	14.194	(1.150)	108694	20.0000	14.2	
103 1,2,3-Trichlorobenzene	180	14.370	14.370	(1.165)	64765	20.0000	17.6	

QC Flag Legend

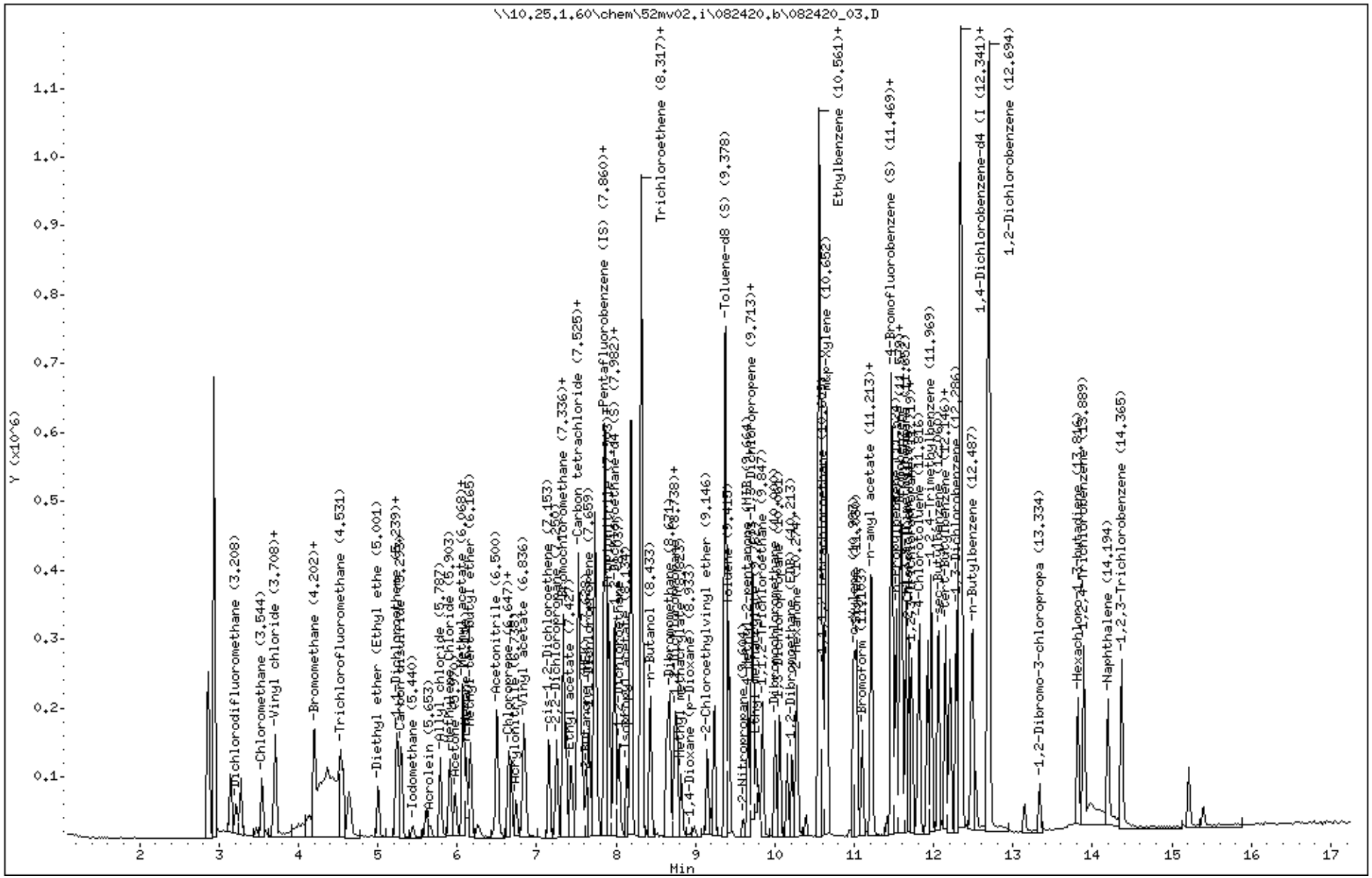
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

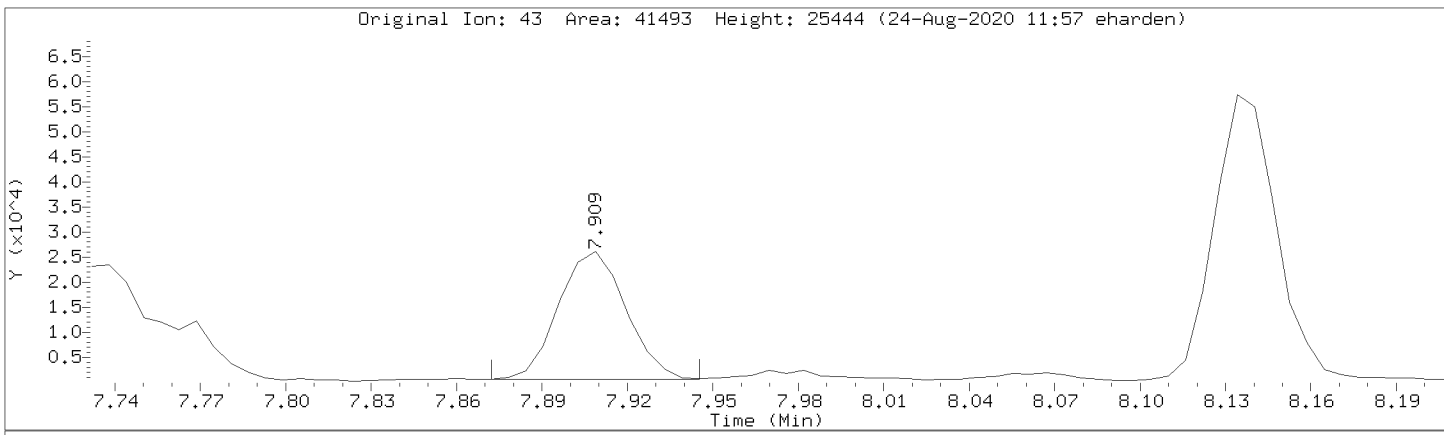
Data File: \\10.25.1.60\chem\52mv02.i\082420.b\082420_03.D
Date : 24-AUG-2020 11:37
Client ID: CCV
Sample Info: CCV,27136:1
Purge Volume: 5.0
Column phase: RTX-VMS

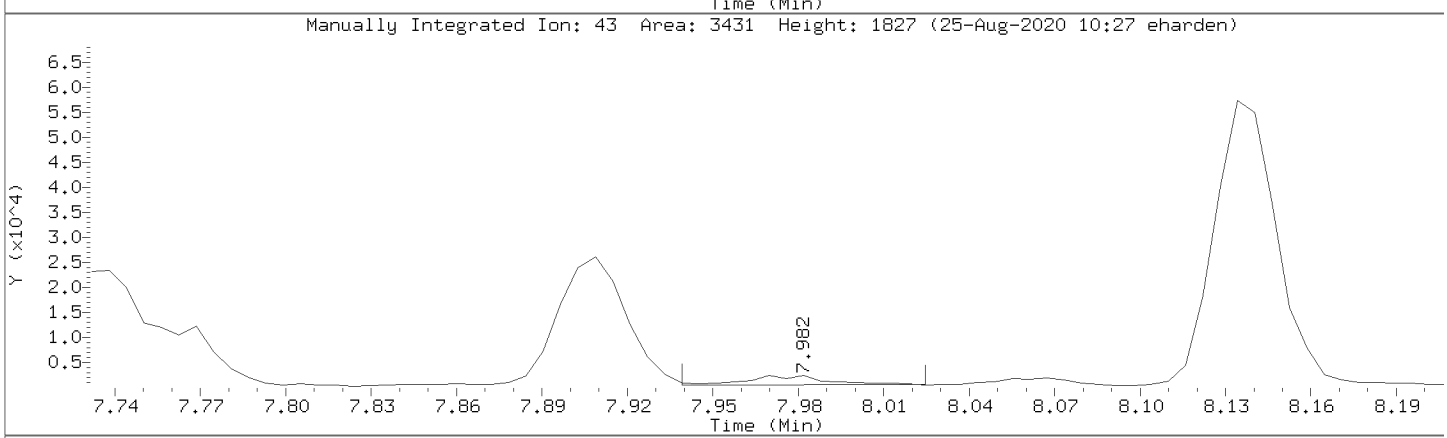
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

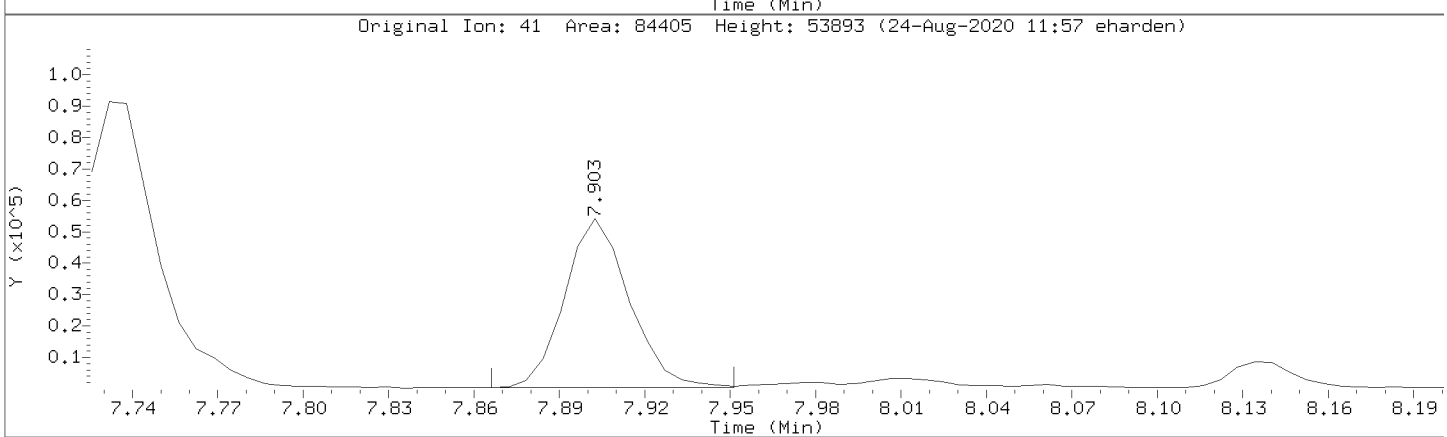


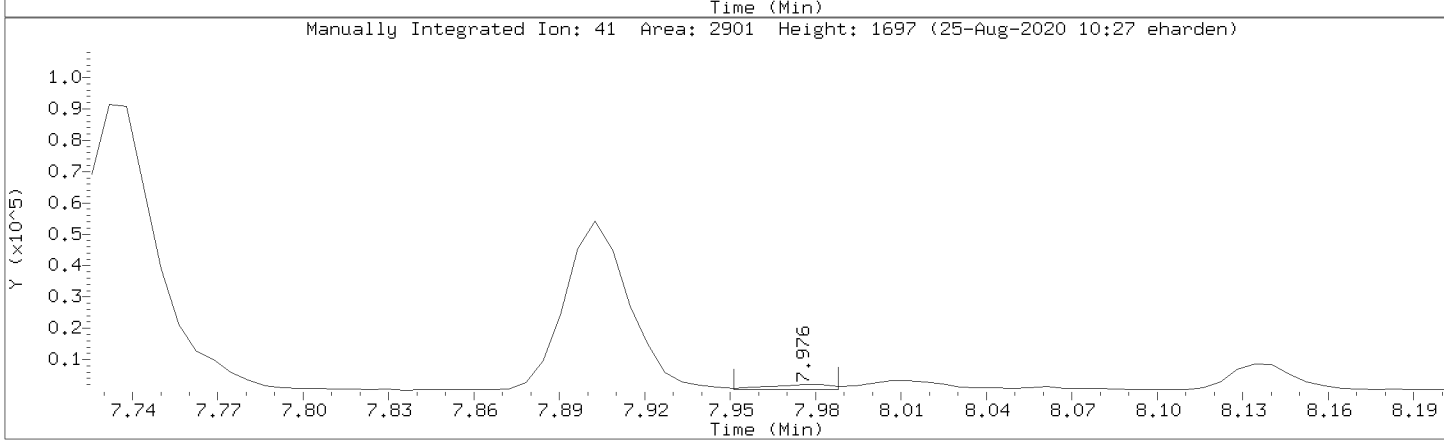
Data File: \\10.25.1.60\chem\52mv02.i\082420.b/082420_03.D
Injection Date: 24-AUG-2020 11:37
Instrument: 52mv02.i
Lab Sample ID: CCV

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1



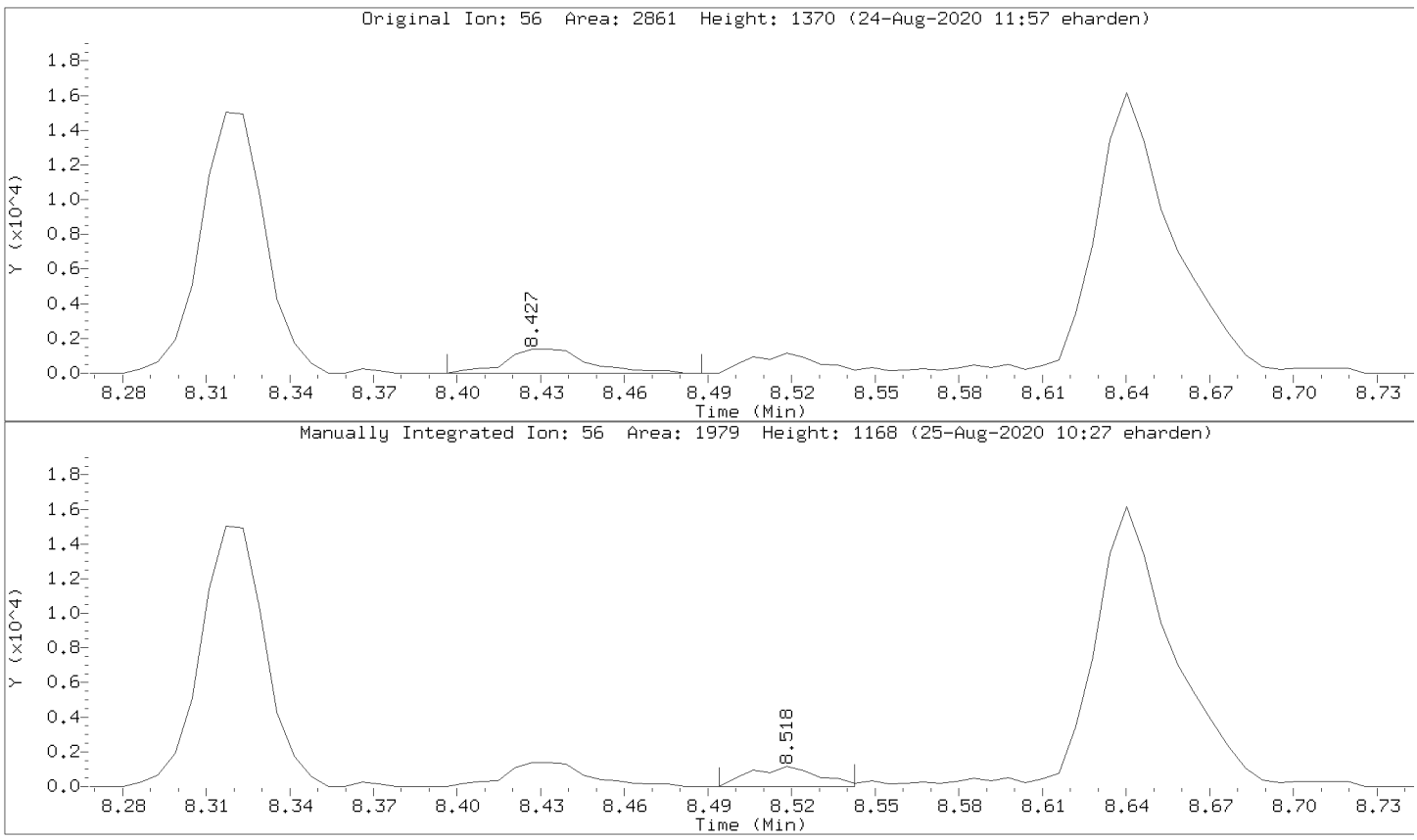






Data File: \\10.25.1.60\chem\52mv02.i\082420.b/082420_03.D
Injection Date: 24-AUG-2020 11:37
Instrument: 52mv02.i
Lab Sample ID: CCV

Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3



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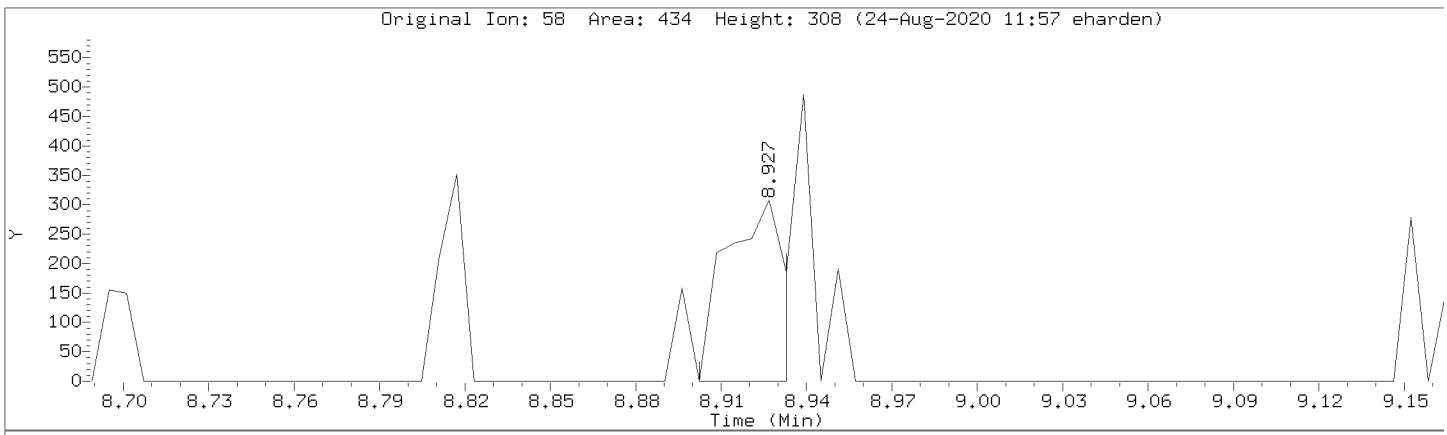
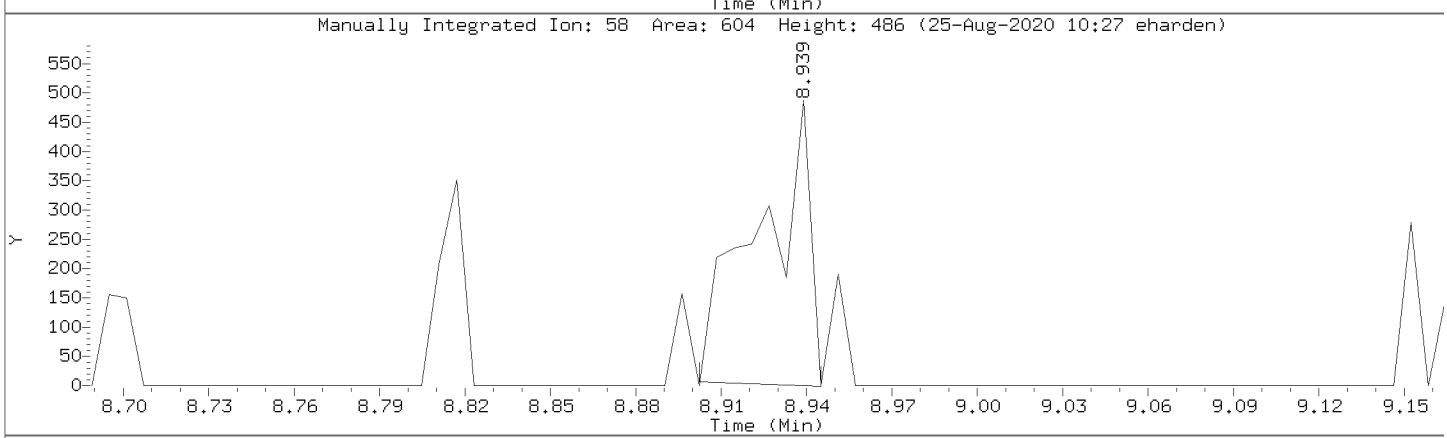
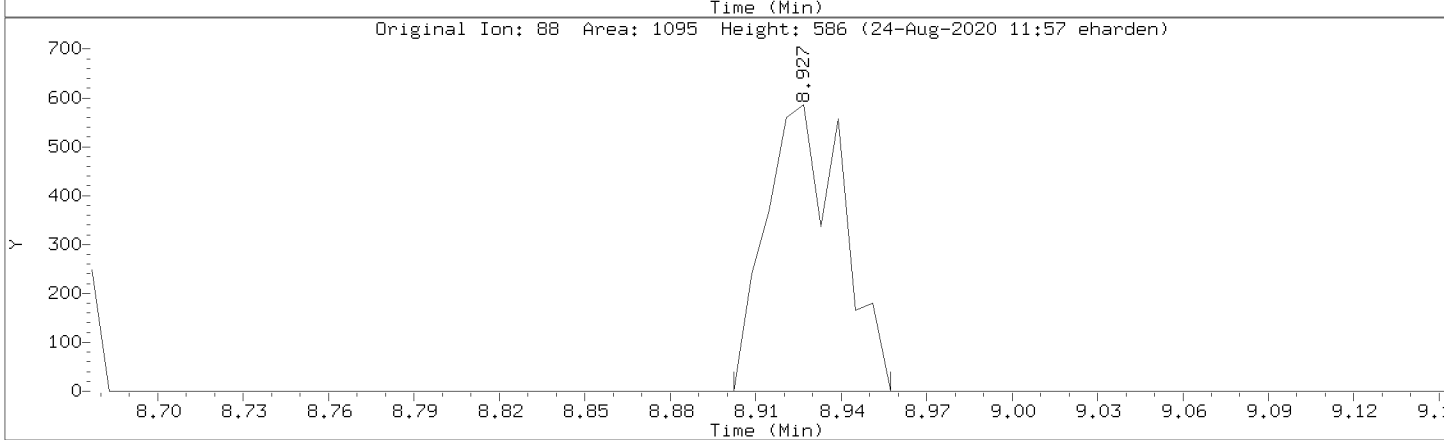
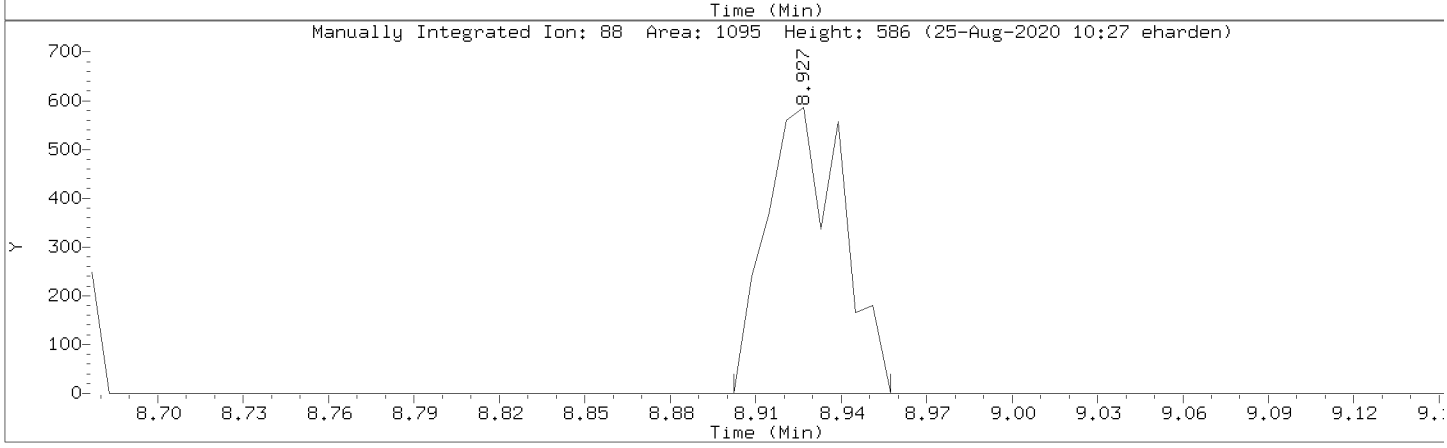
Injection Date: 24-AUG-2020 11:37
Instrument: 52mv02.i
Lab Sample ID: CCV

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1

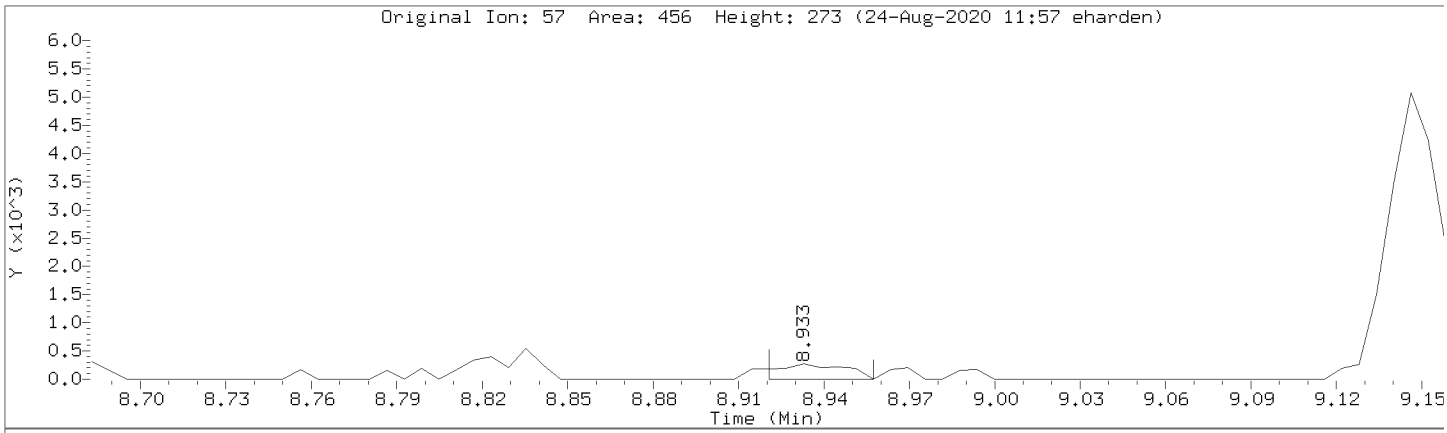


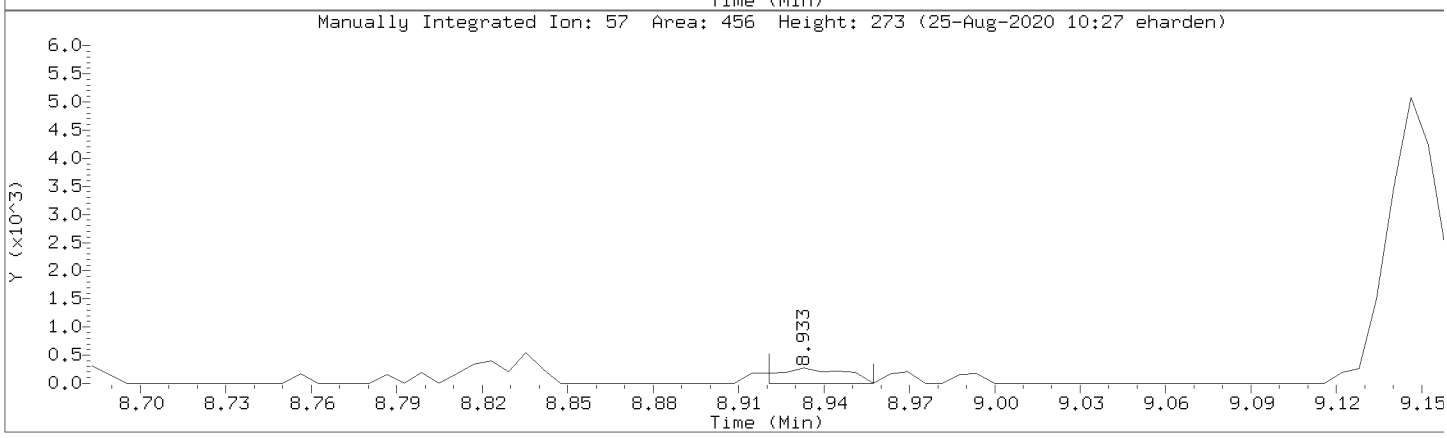






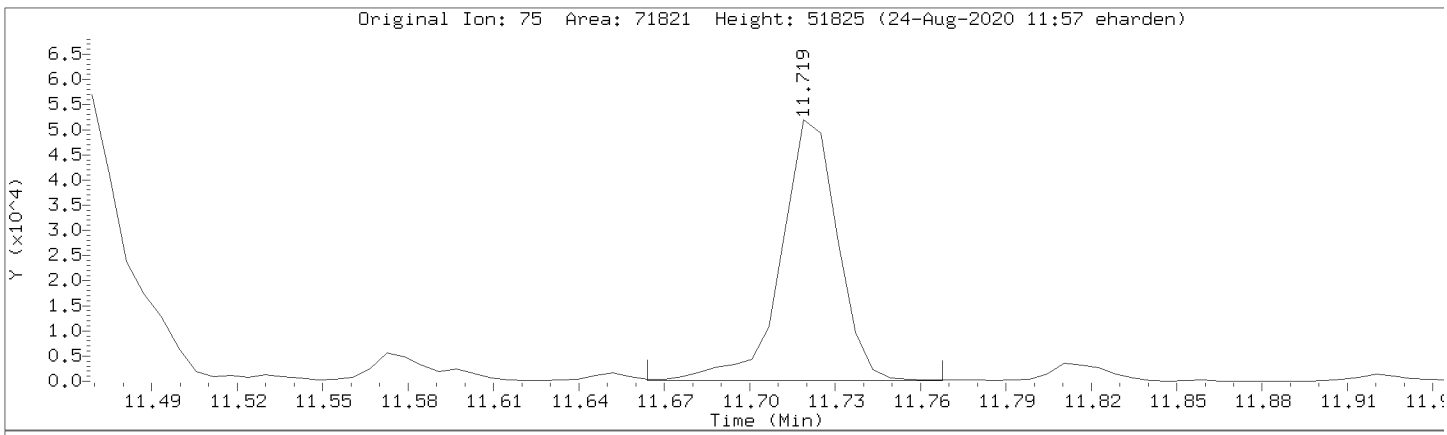
Data File: \\10.25.1.60\chem\52mv02.i\082420.b/082420_03.D
Injection Date: 24-AUG-2020 11:37
Instrument: 52mv02.i
Lab Sample ID: CCV

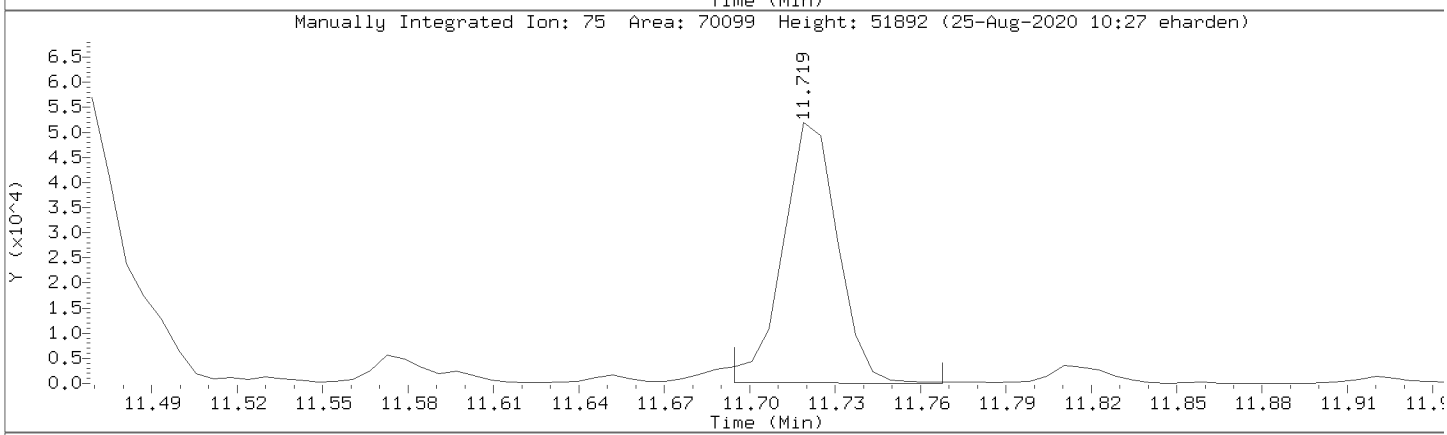


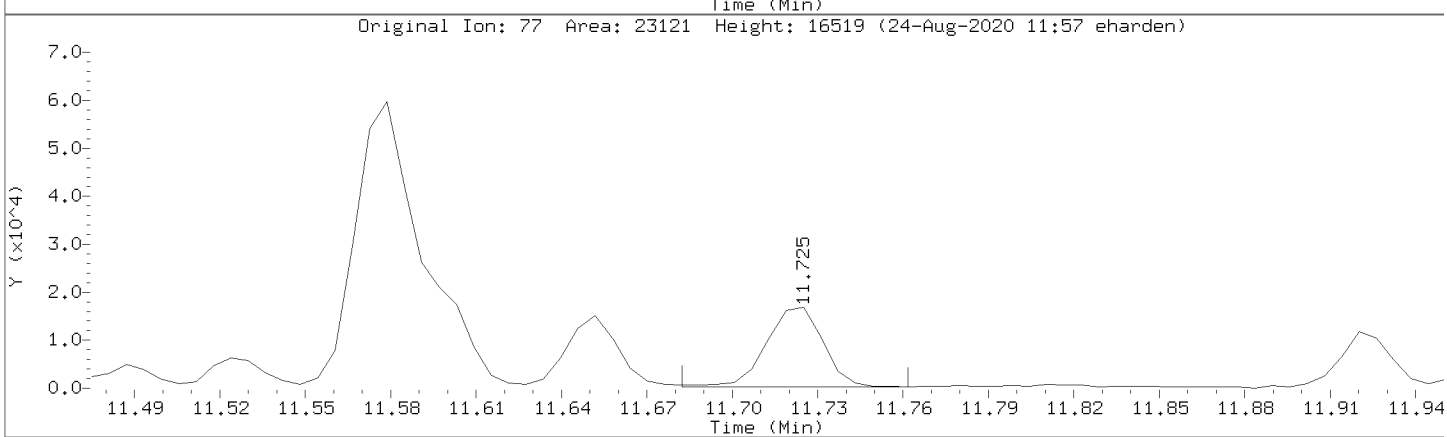


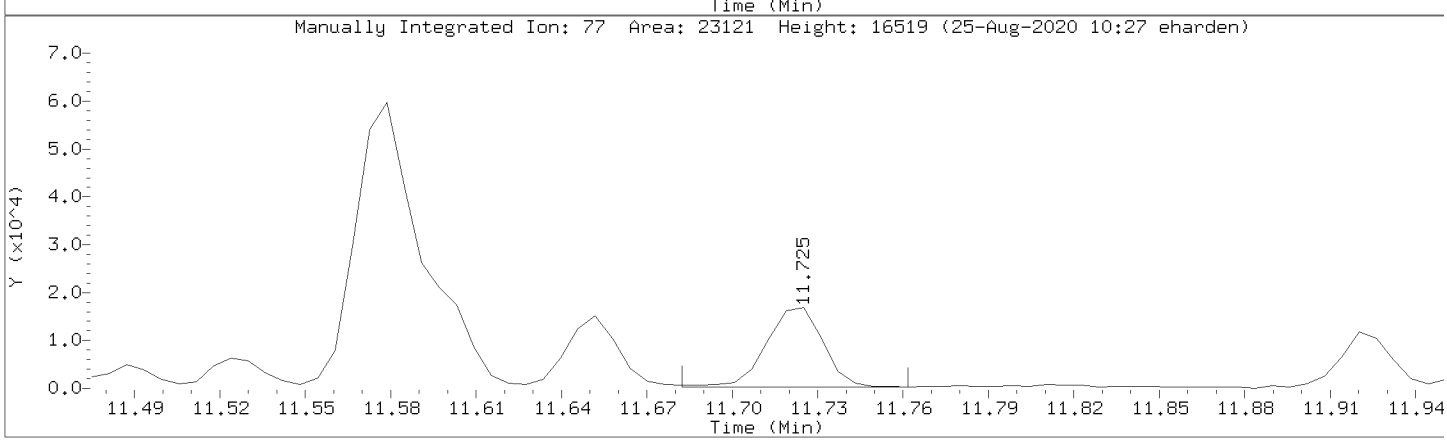
Data File: \\10.25.1.60\chem\52mv02.i\082420.b/082420_03.D
Injection Date: 24-AUG-2020 11:37
Instrument: 52mv02.i
Lab Sample ID: CCV

Compound: 1,2,3-Trichloropropane Review Code: CO
CAS Number: 96-18-4



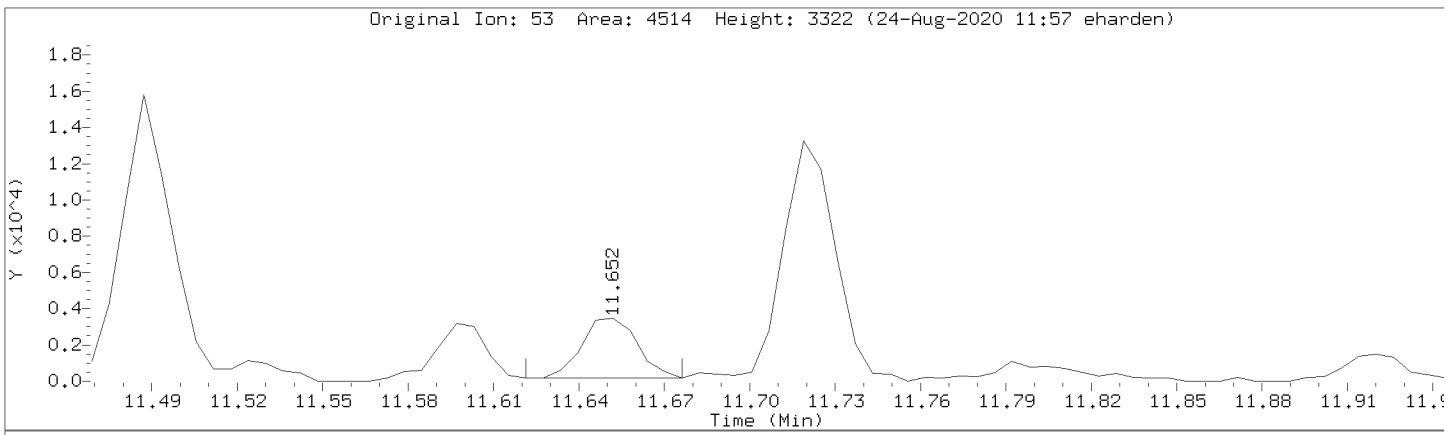


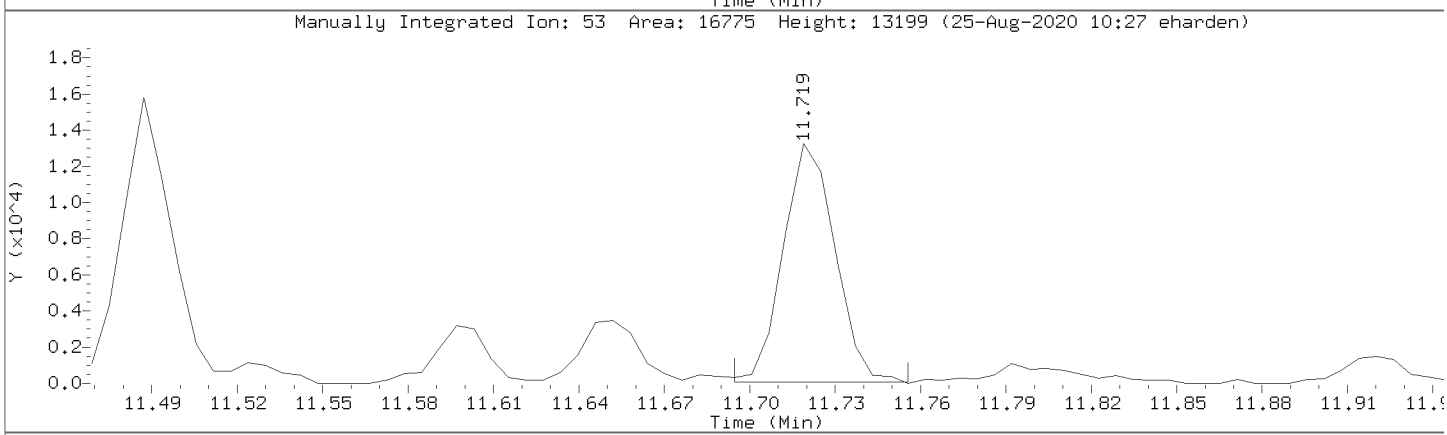


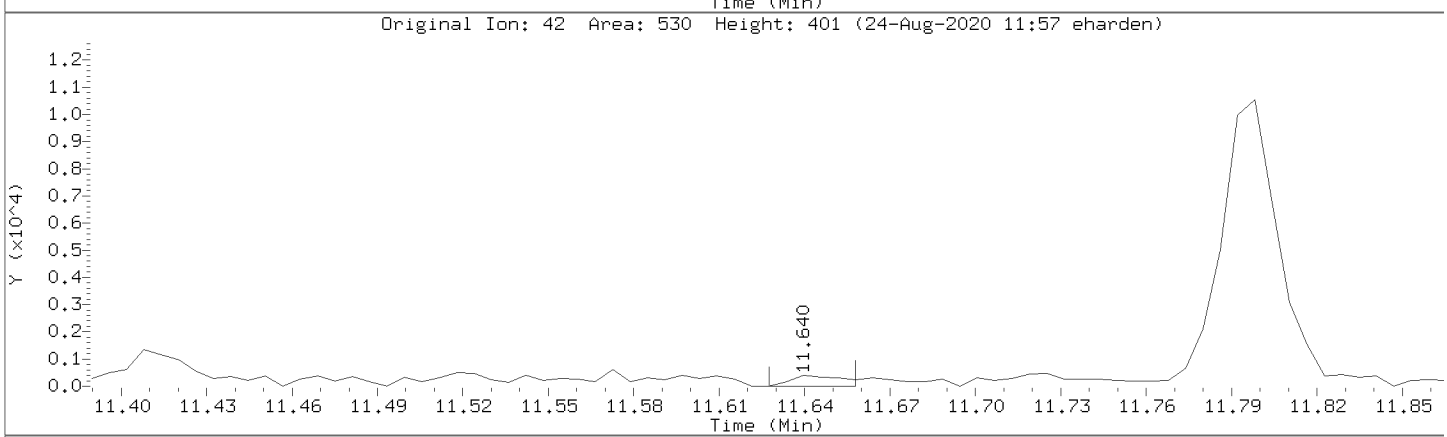


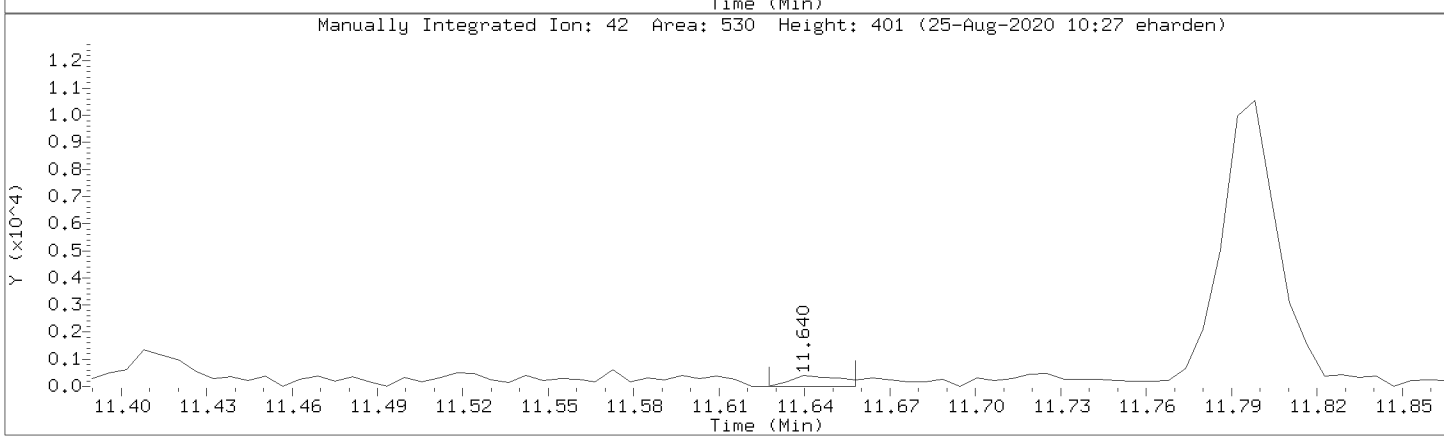
Data File: \\10.25.1.60\chem\52mv02.i\082420.b/082420_03.D
Injection Date: 24-AUG-2020 11:37
Instrument: 52mv02.i
Lab Sample ID: CCV

Compound: trans-1,4-Dichloro-2-butene Review Code: WP
CAS Number: 110-57-6

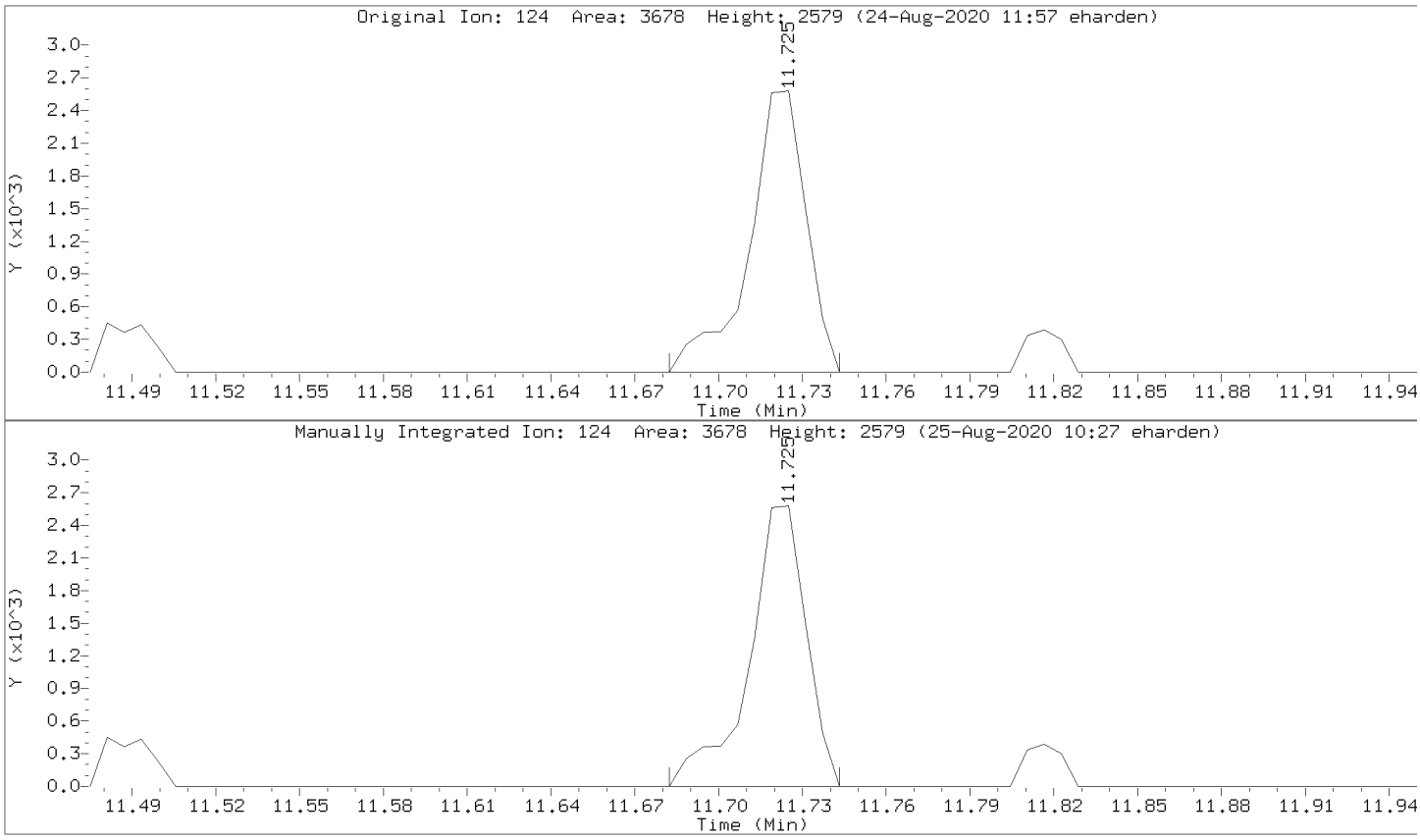








Data File: \\10.25.1.60\chem\52mv02.i\082420.b/082420_03.D
Injection Date: 24-AUG-2020 11:37
Instrument: 52mv02.i
Lab Sample ID: CCV



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Date : 20-AUG-2020 09:57

Client ID: BFB

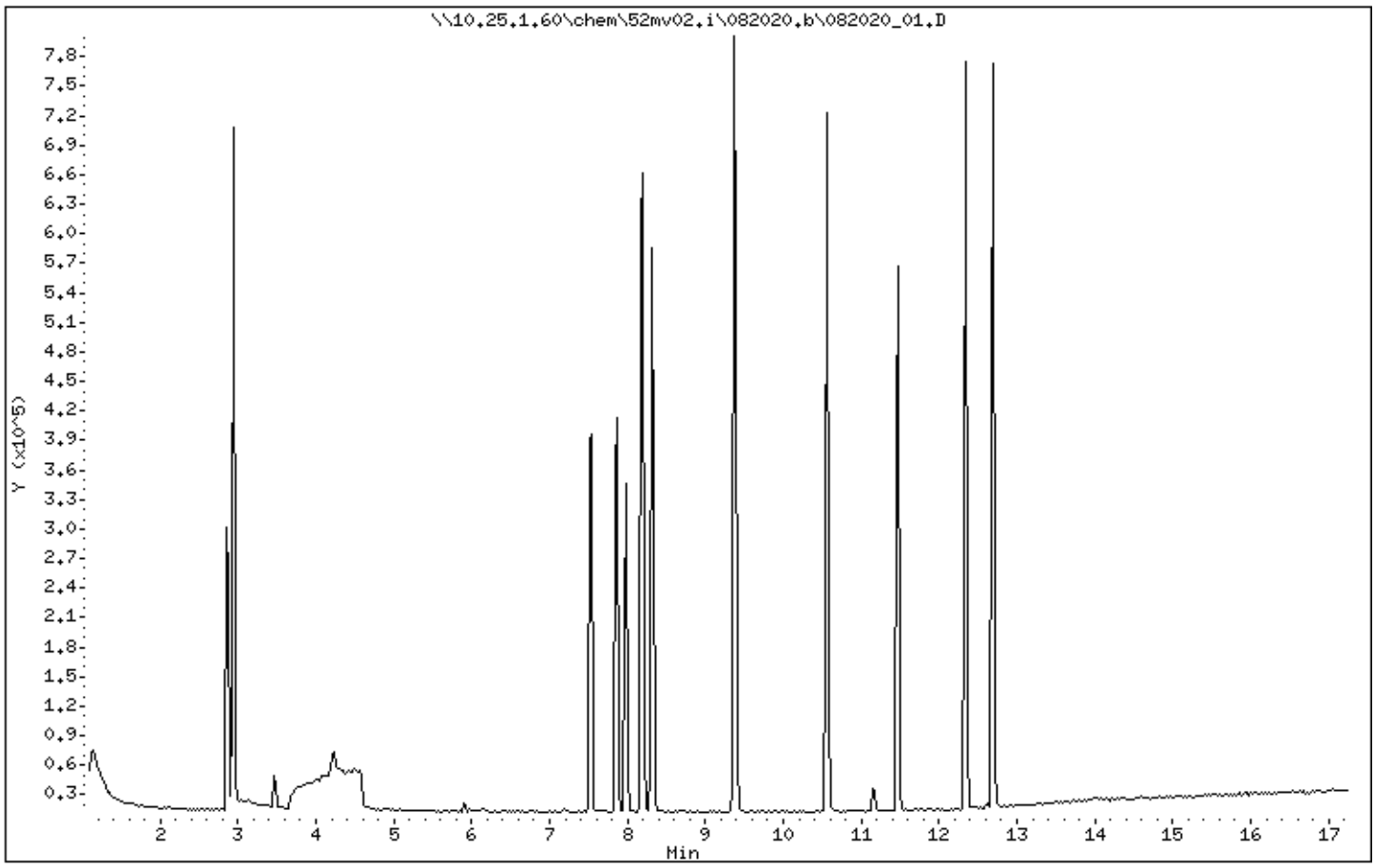
Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18



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Date : 20-AUG-2020 09:57

Client ID: BFB

Instrument: 52mv02.i

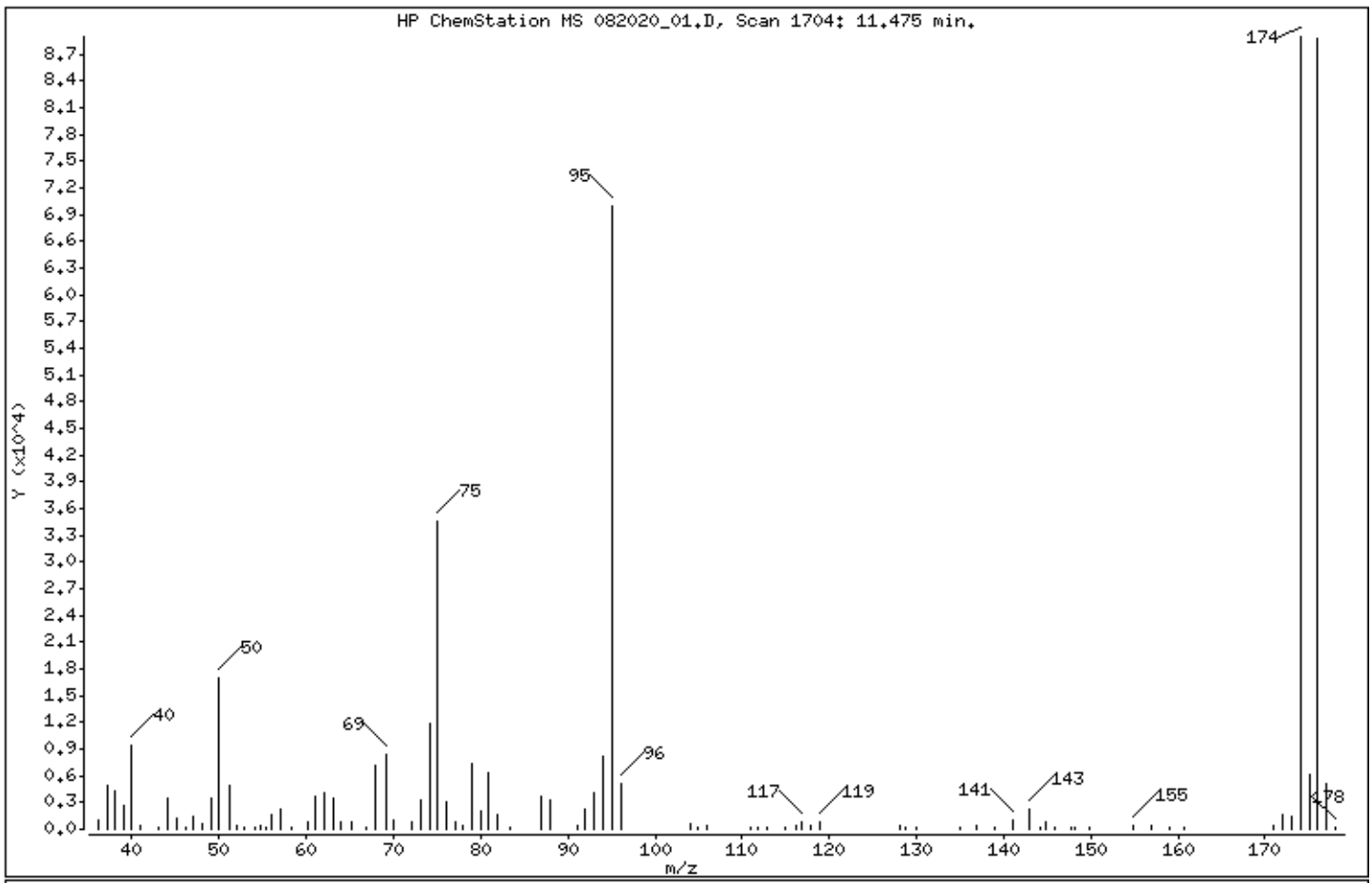
Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	24.30
75	30.00 - 60.00% of mass 95	49.31
96	5.00 - 9.00% of mass 95	7.36
173	Less than 2.00% of mass 174	2.18 (1.71)
174	Greater than 50.00% of mass 95	127.30
175	5.00 - 9.00% of mass 174	8.81 (6.92)
176	95.00 - 101.00% of mass 174	127.12 (99.86)
177	5.00 - 9.00% of mass 176	7.18 (5.65)

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_01.D

Date : 20-AUG-2020 09:57

Client ID: BFB

Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

Data File: 082020_01.D
Spectrum: HP ChemStation MS 082020_01.D, Scan 1704: 11.475 min.
Location of Maximum: 174.00
Number of points: 90

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	1098	60.10	905	87.90	3288	138.90	166
37.10	4897	61.10	3589	91.10	457	141.00	1123
38.10	4243	62.10	4175	92.00	2173	143.00	2215
39.00	2667	63.10	3523	93.00	4038	144.20	186
40.00	9368	63.90	778	94.10	8248	144.90	869
40.90	361	65.10	918	95.10	69920	145.90	188
43.00	292	66.90	193	96.10	5147	147.80	240
44.10	3452	68.00	7096	104.00	555	148.20	197
45.10	1204	69.10	8359	105.00	169	149.80	174
46.10	287	70.10	938	105.90	381	154.80	333
47.00	1467	72.00	732	110.90	175	156.90	307
48.00	627	73.10	3315	111.90	187	159.00	184
49.10	3548	74.10	11905	112.90	178	160.80	185
50.00	16992	75.10	34480	115.00	269	171.00	332
51.10	4943	76.00	3077	116.10	308	172.00	1687
52.00	318	77.10	845	116.90	765	173.00	1525
52.90	284	77.90	421	117.90	509	174.00	89008
54.10	194	78.90	7291	118.90	747	175.10	6163
54.80	315	80.00	1995	128.10	499	176.00	88880
55.30	249	80.90	6439	128.80	229	177.00	5023
56.10	1661	82.00	1621	130.00	283	178.10	199
57.10	2297	83.30	177	134.90	164		
58.20	201	87.00	3615	136.90	329		

Data File: \\10.25.1.60\chem\52mv02.i\082420.b\082420_03TUNE.D

Date : 24-AUG-2020 11:37

Client ID: BFB

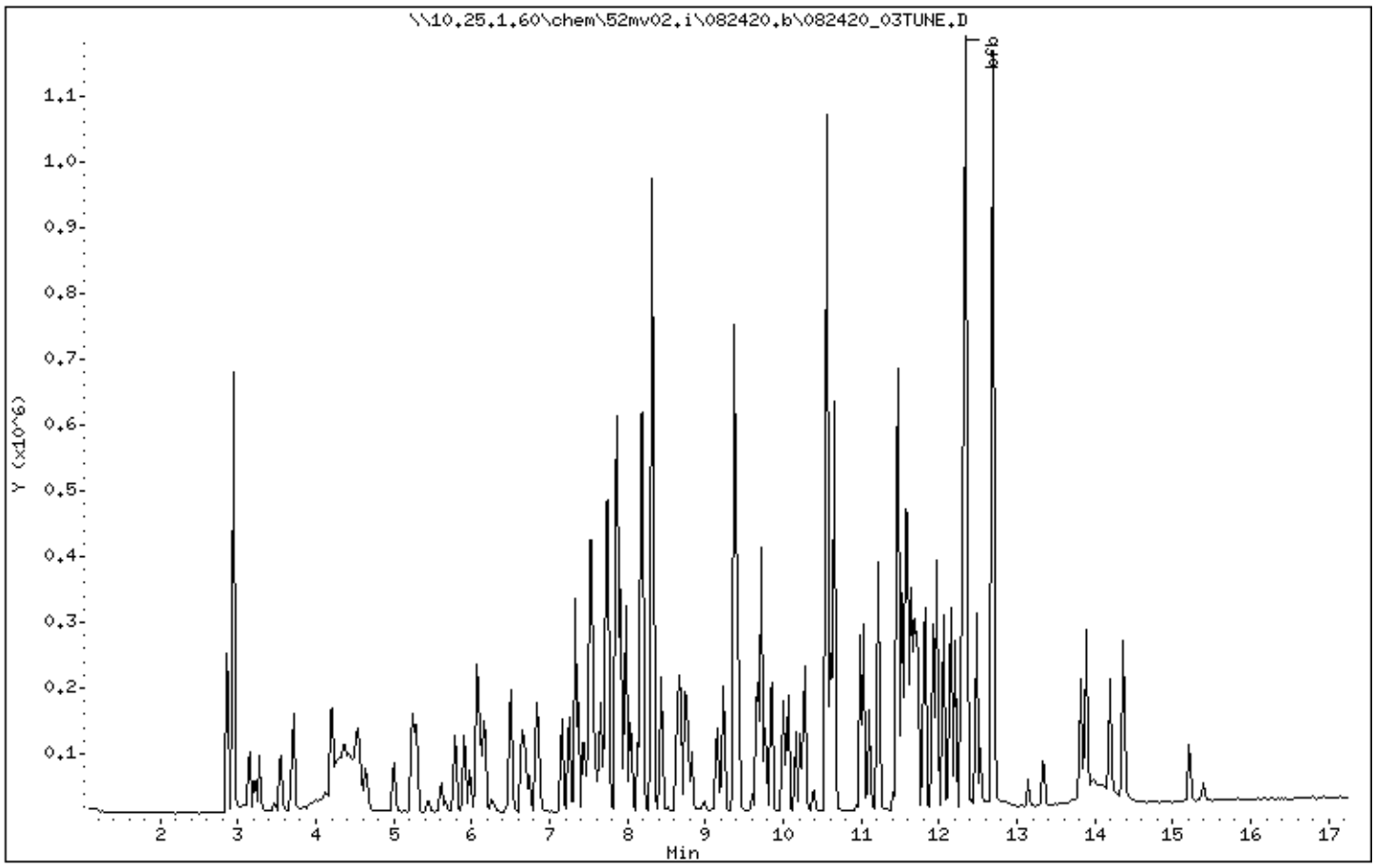
Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082420.b\082420_03TUNE.D

Date : 24-AUG-2020 11:37

Client ID: BFB

Instrument: 52mv02.i

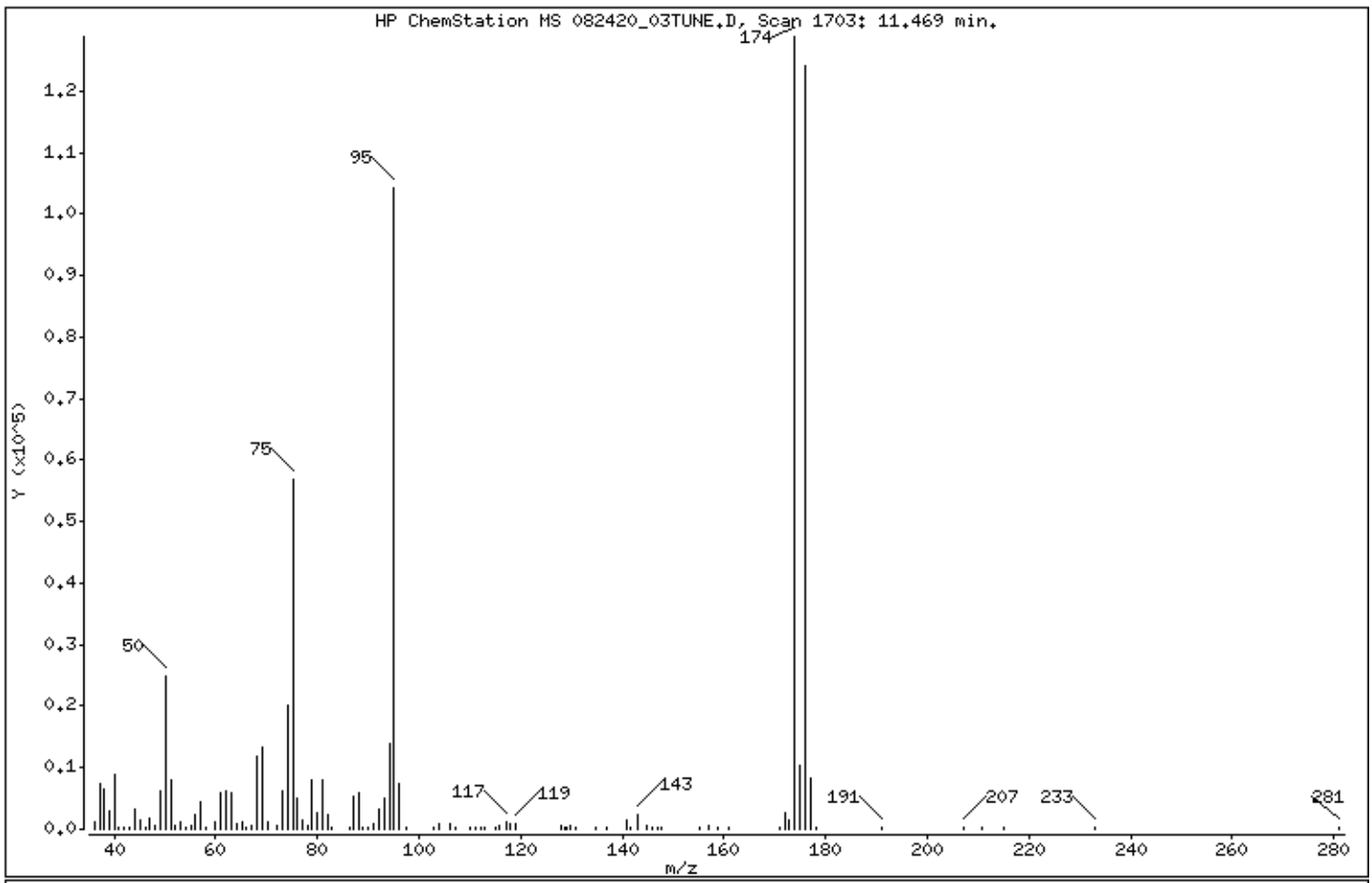
Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.71
75	30.00 - 60.00% of mass 95	54.57
96	5.00 - 9.00% of mass 95	7.12
173	Less than 2.00% of mass 174	1.47 (1.19)
174	Greater than 50.00% of mass 95	123.45
175	5.00 - 9.00% of mass 174	9.82 (7.96)
176	95.00 - 101.00% of mass 174	119.03 (96.42)
177	5.00 - 9.00% of mass 176	8.06 (6.77)

Data File: \\10.25.1.60\chem\52mv02.i\082420.b\082420_03TUNE.D

Date : 24-AUG-2020 11:37

Client ID: BFB

Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

Data File: 082420_03TUNE.D
Spectrum: HP ChemStation MS 082420_03TUNE.D, Scan 1703: 11.469 min.
Location of Maximum: 174.00
Number of points: 103

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	1309	63.10	5786	92.10	3368	140.90	1619
37.10	7485	64.10	930	93.10	4956	141.70	332
38.10	6380	65.20	1120	94.10	13838	143.00	2409
39.10	2995	66.00	198	95.10	104344	144.90	703
40.00	8773	67.10	491	96.00	7430	145.90	287
41.00	284	68.10	11886	97.30	396	147.00	188
42.00	384	69.10	13462	102.80	166	147.80	403
43.10	365	70.10	1290	104.00	914	155.20	308
44.10	3305	72.10	689	106.00	990	157.00	463
45.00	1524	73.10	6341	107.10	236	158.90	305
46.10	385	74.10	20160	110.10	262	160.90	195
47.00	1858	75.10	56944	111.00	256	170.90	350
48.10	719	76.10	4966	112.00	228	172.00	2653
49.10	6218	77.10	1493	113.00	309	172.90	1529
50.10	24736	78.00	637	115.10	212	174.00	128816
51.10	7943	79.00	8042	115.90	566	175.00	10249
52.10	452	80.00	2550	117.10	1280	176.00	124200
53.00	1109	81.00	7864	117.90	810	177.00	8408
54.20	301	82.00	2305	119.00	928	178.20	285
55.00	467	82.90	250	128.10	564	191.00	199
56.00	2354	86.30	179	128.80	193	207.20	387
57.00	4322	87.00	5293	129.20	266	210.90	221
58.00	202	88.00	5887	129.90	681	215.00	162
60.00	1228	89.00	323	130.90	259	233.10	340
61.00	5902	90.00	215	134.80	335	281.10	216
62.00	6333	91.00	860	136.90	192		

SAMPLE NO.

BLANK

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249143
Date Extracted: 08/24/2020 10:53
Lab Sample ID: 203632
Date Analyzed: 08/24/2020 12:53
Lab File ID: 082420.B\082420_06.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

BLANK

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249143
Date Extracted: 08/24/2020 10:53
Lab Sample ID: 203632
Date Analyzed: 08/24/2020 12:53
Lab File ID: 082420.B\082420_06.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082420.b\082420_06.D
Lab Smp Id: 203632 Client Smp ID: MB
Inj Date : 24-AUG-2020 12:53
Operator : EAH Inst ID: 52mv02.i
Smp Info : 203632,
Misc Info : 2971,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082420.b\8260BSM_082020.m
Meth Date : 24-Aug-2020 11:57 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						(D)
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						
21 Acetonitrile	41	Compound Not Detected.						
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	24 Acrylonitrile	53	Compound Not Detected.						
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	127479	55.1660	55.2	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	200705	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	22524	54.1826	54.2	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	283983	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	296378	48.4816	48.5	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	247625	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.469	(1.086)	93842	46.1768	46.2	
79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						(D)
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	135727	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

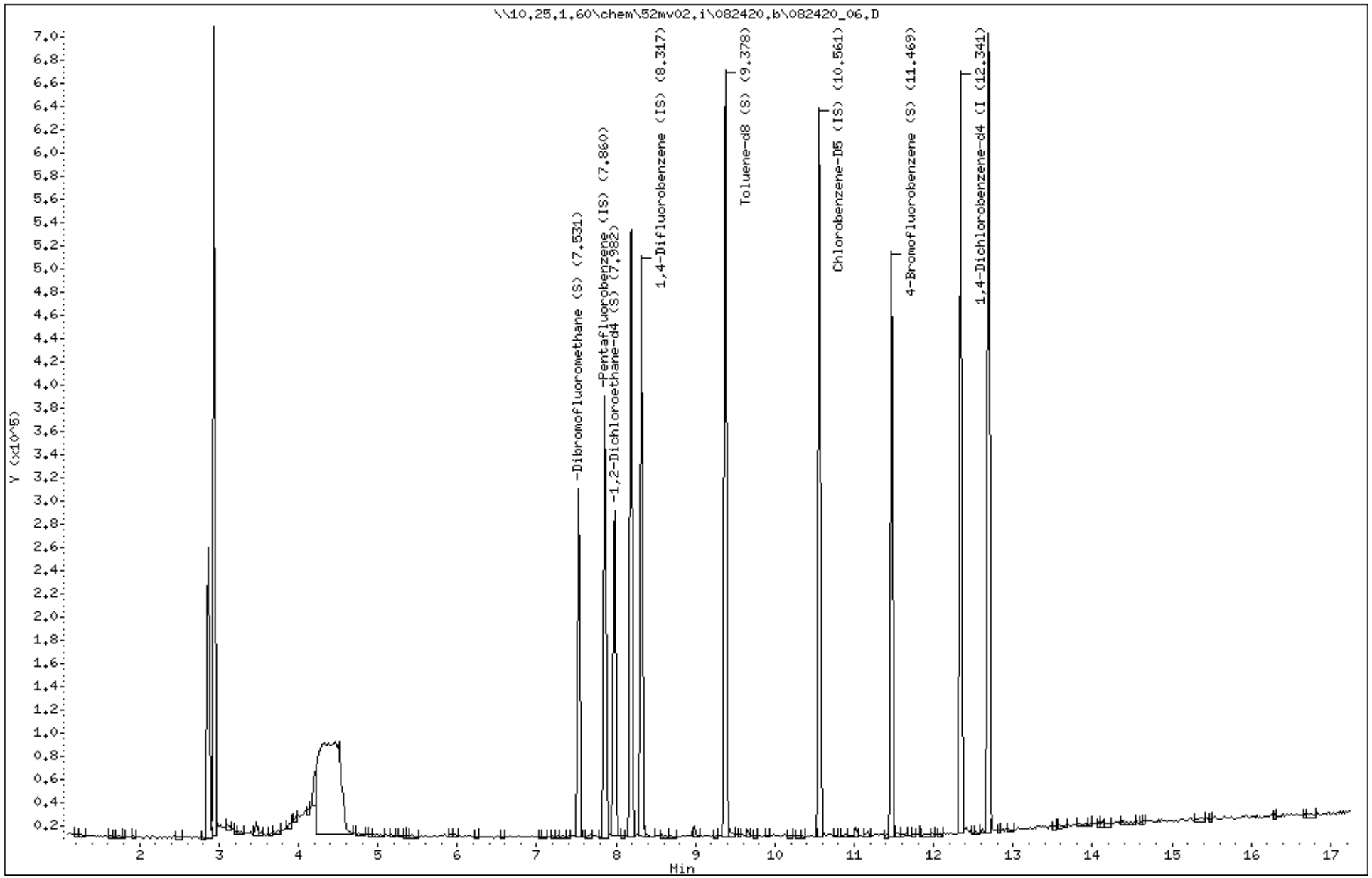
:

Data File: \\10.25.1.60\chem\52mv02.i\082420.b\082420_06.D
Date : 24-AUG-2020 12:53
Client ID: MB
Sample Info: 203632,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082420.b/082420_06.D
Injection Date: 24-AUG-2020 12:53
Instrument: 52mv02.i
Lab Sample ID: 203632
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LCS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249143
Date Extracted: 08/24/2020 10:53
Lab Sample ID: 203633
Date Analyzed: 08/24/2020 11:37
Lab File ID: 082420.B\082420_03B2971.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	1070	
75-05-8	Acetonitrile	1530	
107-02-8	Acrolein	897	
107-13-1	Acrylonitrile	1000	
71-43-2	Benzene	493	
108-86-1	Bromobenzene	500	
74-97-5	Bromochloromethane	513	
75-27-4	Bromodichloromethane	526	
75-25-2	Bromoform	499	
74-83-9	Bromomethane	580	
78-93-3	2-Butanone (MEK)	1010	
104-51-8	n-Butylbenzene	453	
135-98-8	sec-Butylbenzene	418	
98-06-6	tert-Butylbenzene	380	
75-15-0	Carbon disulfide	480	
56-23-5	Carbon tetrachloride	534	
108-90-7	Chlorobenzene	493	
75-00-3	Chloroethane	583	
67-66-3	Chloroform	490	
74-87-3	Chloromethane	493	
95-49-8	2-Chlorotoluene	486	
106-43-4	4-Chlorotoluene	460	
96-12-8	1,2-Dibromo-3-chloropropane	439	
124-48-1	Dibromochloromethane	522	
106-93-4	1,2-Dibromoethane (EDB)	507	
74-95-3	Dibromomethane	501	
95-50-1	1,2-Dichlorobenzene	449	
541-73-1	1,3-Dichlorobenzene	474	
106-46-7	1,4-Dichlorobenzene	457	
75-71-8	Dichlorodifluoromethane	469	
75-34-3	1,1-Dichloroethane	500	
107-06-2	1,2-Dichloroethane	491	
75-35-4	1,1-Dichloroethene	496	
156-59-2	cis-1,2-Dichloroethene	461	
156-60-5	trans-1,2-Dichloroethene	462	
78-87-5	1,2-Dichloropropane	497	
142-28-9	1,3-Dichloropropane	497	

SAMPLE NO.

LCS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249143
Date Extracted: 08/24/2020 10:53
Lab Sample ID: 203633
Date Analyzed: 08/24/2020 11:37
Lab File ID: 082420.B\082420_03B2971.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	505	
563-58-6	1,1-Dichloropropene	488	
10061-01-5	cis-1,3-Dichloropropene	505	
10061-02-6	trans-1,3-Dichloropropene	506	
141-78-6	Ethyl acetate	967	
100-41-4	Ethylbenzene	475	
591-78-6	2-Hexanone	1130	
98-82-8	Isopropylbenzene (Cumene)	419	
99-87-6	p-Isopropyltoluene	380	
75-09-2	Methylene Chloride	468	
108-10-1	4-Methyl-2-pentanone (MIBK)	969	
1634-04-4	Methyl-tert-butyl ether	476	
91-20-3	Naphthalene	356	
103-65-1	n-Propylbenzene	494	
100-42-5	Styrene	412	
630-20-6	1,1,1,2-Tetrachloroethane	507	
79-34-5	1,1,2,2-Tetrachloroethane	517	
127-18-4	Tetrachloroethene	527	
108-88-3	Toluene	488	
87-61-6	1,2,3-Trichlorobenzene	440	
120-82-1	1,2,4-Trichlorobenzene	431	
71-55-6	1,1,1-Trichloroethane	515	
79-00-5	1,1,2-Trichloroethane	483	
79-01-6	Trichloroethene	517	
75-69-4	Trichlorofluoromethane	483	
96-18-4	1,2,3-Trichloropropane	511	
95-63-6	1,2,4-Trimethylbenzene	422	
108-67-8	1,3,5-Trimethylbenzene	490	
108-05-4	Vinyl acetate	510	
75-01-4	Vinyl chloride	459	
1330-20-7	Xylene (Total)	1290	

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082420.b\082420_03B2971.D
Lab Smp Id: 203633 Client Smp ID: MBLCS
Inj Date : 24-AUG-2020 11:37
Operator : EAH Inst ID: 52mv02.i
Smp Info : 203633,
Misc Info : 2971,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082420.b\8260BSM_082020.m
Meth Date : 24-Aug-2020 11:57 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.208	(0.408)	55595	18.7456	18.7	
2 Chloromethane	50	3.543	3.543	(0.451)	70211	19.7065	19.7	
3 Vinyl chloride	62	3.696	3.696	(0.470)	53586	18.3585	18.4	
4 1,3-Butadiene	39	3.714	3.714	(0.473)	45640	17.4869	17.5	
5 Bromomethane	94	4.196	4.196	(0.534)	55187	23.2167	23.2	
6 Chloroethane	64	4.366	4.366	(0.556)	19357	23.3352	23.3	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	35827	19.3069	19.3	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	19254	18.8287	18.8	
9 1,1-Dichloroethene	61	5.232	5.232	(0.666)	65457	19.8376	19.8	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	41792	19.1992	19.2	
11 Carbon disulfide	76	5.293	5.293	(0.673)	140199	19.1986	19.2	
12 Iodomethane	142	5.439	5.439	(0.692)	19316	15.2995	15.3	
13 Acrolein	56	5.659	5.659	(0.720)	12220	35.8743	35.9	
14 Allyl chloride	76	5.787	5.787	(0.736)	18297	18.0228	18.0	
15 Methylene Chloride	49	5.909	5.909	(0.752)	73369	18.7169	18.7	
16 Acetone	43	5.970	5.970	(0.760)	83527	42.6942	42.7	
17 Methyl acetate	43	6.067	6.067	(0.772)	85903	37.5315	37.5	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	41181	18.4751	18.5	
19 n-Hexane	86	6.110	6.110	(0.777)	4360	18.4590	18.4	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	98913	19.0297	19.0	
21 Acetonitrile	41	6.463	6.463	(0.822)	12676	61.0143	61.0	
22 Chloroprene	53	6.640	6.640	(0.845)	58600	18.8590	18.8	
23 1,1-Dichloroethane	63	6.677	6.677	(0.850)	86600	19.9933	20.0	
24 Acrylonitrile	53	6.732	6.732	(0.857)	37632	39.9886	40.0	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
25 Vinyl acetate	43	6.860	6.860	(0.873)	87464	20.4134	20.4(T)	
26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	58902	18.4519	18.4	
27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	67494	20.2012	20.2	
28 Bromochloromethane	128	7.335	7.335	(0.933)	28644	20.5299	20.5	
29 Cyclohexane	56	7.335	7.335	(0.882)	50775	18.0027	18.0	
30 Chloroform	83	7.372	7.372	(0.938)	95915	19.5836	19.6	
31 Ethyl acetate	43	7.427	7.427	(0.945)	106929	38.6732	38.7	
32 Carbon tetrachloride	117	7.512	7.512	(0.903)	71232	21.3447	21.3	
33 Tetrahydrofuran	42	7.530	7.530	(0.958)	26235	36.8853	36.9	
$ 34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	138077	48.7491	48.7(R)	
35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	77953	20.6155	20.6	
36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	84896	40.2035	40.2	
37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	51234	19.5071	19.5	
* 38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	246006	50.0000		
39 Benzene	78	7.872	7.872	(0.946)	167129	19.7138	19.7	
40 Propionitrile	54	7.896	7.896	(1.005)	16552	39.4808	39.5	
41 Methacrylonitrile	41	7.902	7.902	(1.005)	84795	39.7583	39.8	
42 Isobutanol	43	7.981	7.981	(1.016)	3431	51.4275	51.4(MH)	WP
$ 43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	24172	47.4394	47.4(R)	
44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	75463	19.6249	19.6	
45 Isopropyl acetate	43	8.134	8.134	(1.035)	87881	19.1881	19.2	
46 Trichloroethene	130	8.317	8.317	(1.000)	47917	20.6729	20.7	
* 47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	331472	50.0000		
48 Methylcyclohexane	98	8.323	8.323	(1.001)	20870	18.9975	19.0	
49 n-Butanol	56	8.518	8.518	(1.024)	1979	39.0617	39.1(M)	WP
50 Dibromomethane	93	8.670	8.670	(1.043)	39600	20.0575	20.0	
51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	48105	19.8744	19.9	
52 Bromodichloromethane	83	8.762	8.762	(1.054)	73148	21.0459	21.0	
53 Methyl methacrylate	69	8.823	8.823	(1.061)	22705	16.6394	16.6	
54 1,4-Dioxane (p-Dioxane)	58	8.939	8.939	(1.075)	604	29.6001	29.6(M)	LT
55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	37790	31.3734	31.4	
56 cis-1,3-Dichloropropene	75	9.707	9.707	(1.167)	68264	20.1967	20.2	
$ 57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	349273	48.9488	48.9(R)	
58 Toluene	91	9.414	9.414	(1.132)	161242	19.5076	19.5	
59 2-Nitropropane	43	9.603	9.603	(1.155)	13292	15.8363	15.8	
60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	9190	38.7410	38.7	
61 trans-1,3-Dichloropropene	75	9.707	9.707	(1.167)	68264	20.2367	20.2	
62 Tetrachloroethene	164	9.719	9.719	(0.920)	44403	21.0895	21.1	
63 Ethyl methacrylate	69	9.755	9.755	(1.173)	44000	16.9179	16.9	
64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	40471	19.3203	19.3	
65 Dibromochloromethane	129	9.999	9.999	(0.947)	60973	20.8979	20.9	
66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	63492	19.8723	19.9	
67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	50735	20.2742	20.3	
68 2-Hexanone	43	10.274	10.274	(1.235)	126936	45.3613	45.4	
69 Ethylbenzene	91	10.554	10.554	(0.999)	152431	18.9926	19.0	
* 70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	306781	50.0000		
71 Chlorobenzene	112	10.572	10.572	(1.001)	116640	19.7069	19.7	
72 1,1,1,2-Tetrachloroethane	131	10.603	10.603	(1.004)	50665	20.2672	20.3	
73 m&p-Xylene	91	10.652	10.652	(1.009)	250419	35.9197	35.9	
74 o-Xylene	106	10.993	10.993	(1.041)	51011	15.8050	15.8	
75 Styrene	104	11.030	11.030	(1.044)	92519	16.4628	16.5	
76 Bromoform	173	11.103	11.103	(1.051)	55302	19.9502	20.0	
77 n-amyl acetate	43	11.225	11.225	(1.063)	84395	17.5399	17.5	
$ 78 4-Bromofluorobenzene (S)	95	11.469	11.469	(1.086)	127497	50.6399	50.6(R)	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	19431	19.2898	19.3	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	194528	19.7675	19.8	
81 Bromobenzene	156	11.578	11.578	(1.096)	62033	19.9849	20.0	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	67904	20.6882	20.7	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	130189	19.5948	19.6	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	45007	19.4239	19.4	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	42952	18.3970	18.4	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	138495	16.7436	16.7	
87 1,2,3-Trichloropropane	75	11.718	11.718	(1.110)	70099	20.4300	20.4(M)	CO
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	16775	21.2350	21.2(M)	WP
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	115222	15.2152	15.2	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	129133	16.8613	16.9	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	151824	16.7268	16.7	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	115222	15.2152	15.2	
94 1,3-Dichlorobenzene	146	12.285	12.285	(0.996)	101523	18.9552	19.0	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	201214	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	110393	18.2678	18.3	
97 n-Butylbenzene	91	12.487	12.487	(1.012)	127145	18.1335	18.1	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	105100	17.9578	18.0	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	11545	17.5445	17.5	
100 Hexachloro-1,3-butadiene	225	13.816	13.816	(1.120)	32421	18.0727	18.1	
101 1,2,4-Trichlorobenzene	180	13.889	13.889	(1.125)	68283	17.2308	17.2	
102 Naphthalene	128	14.194	14.194	(1.150)	108694	14.2216	14.2	
103 1,2,3-Trichlorobenzene	180	14.370	14.370	(1.165)	64765	17.5813	17.6	

QC Flag Legend

T - Target compound detected outside RT window.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

Data File: \\10.25.1.60\chem\52mv02.i\082420.b\082420_03B2971.D

Page 4

Date : 24-AUG-2020 11:37

Client ID: MBLCS

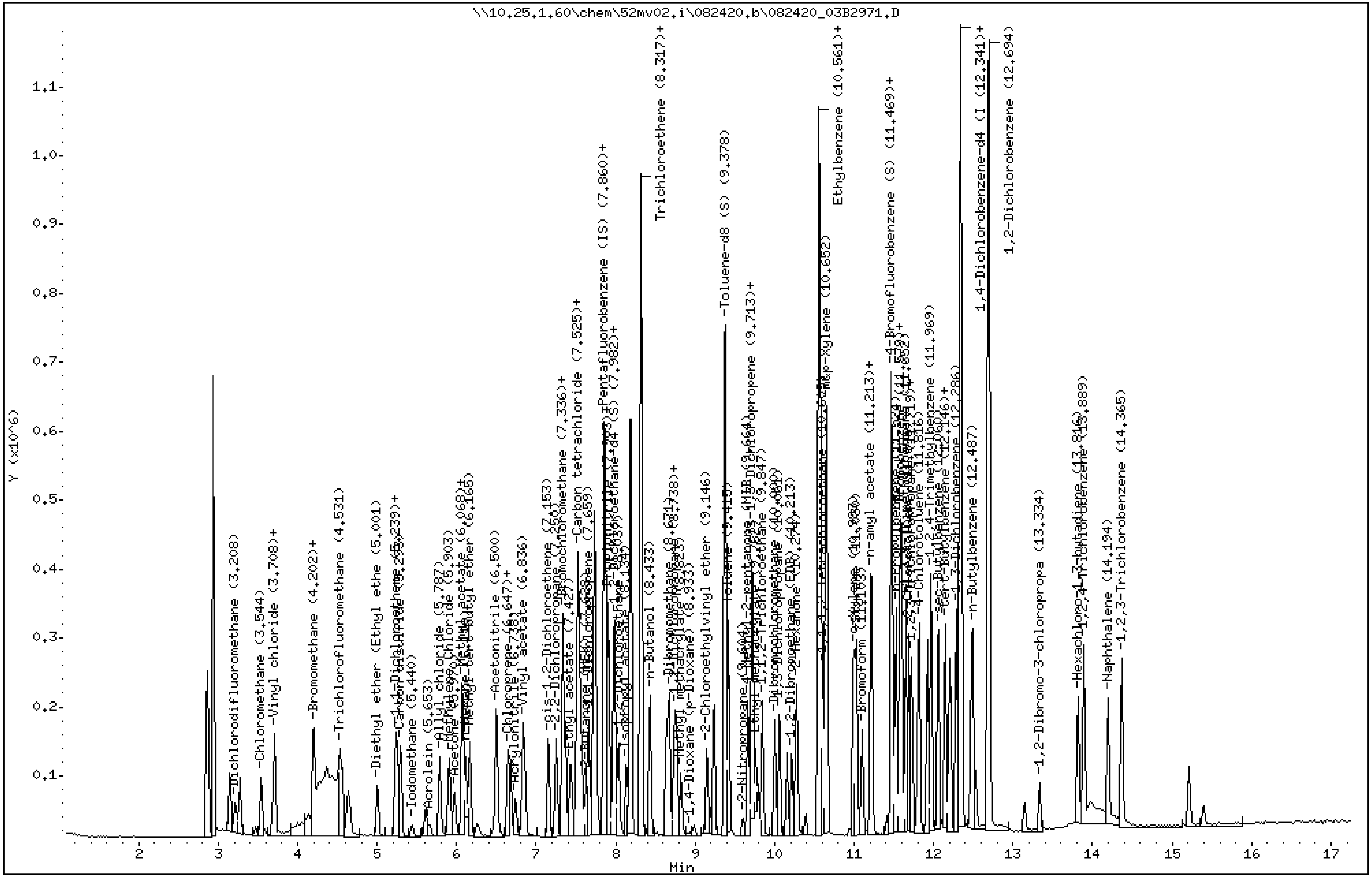
Instrument: 52mv02.i

Sample Info: 203633,

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



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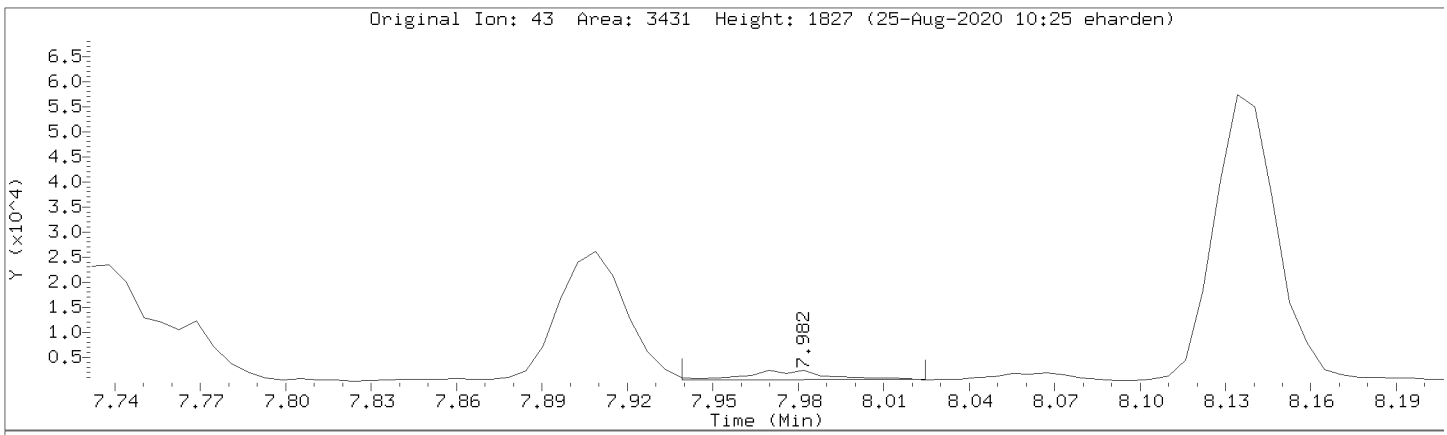
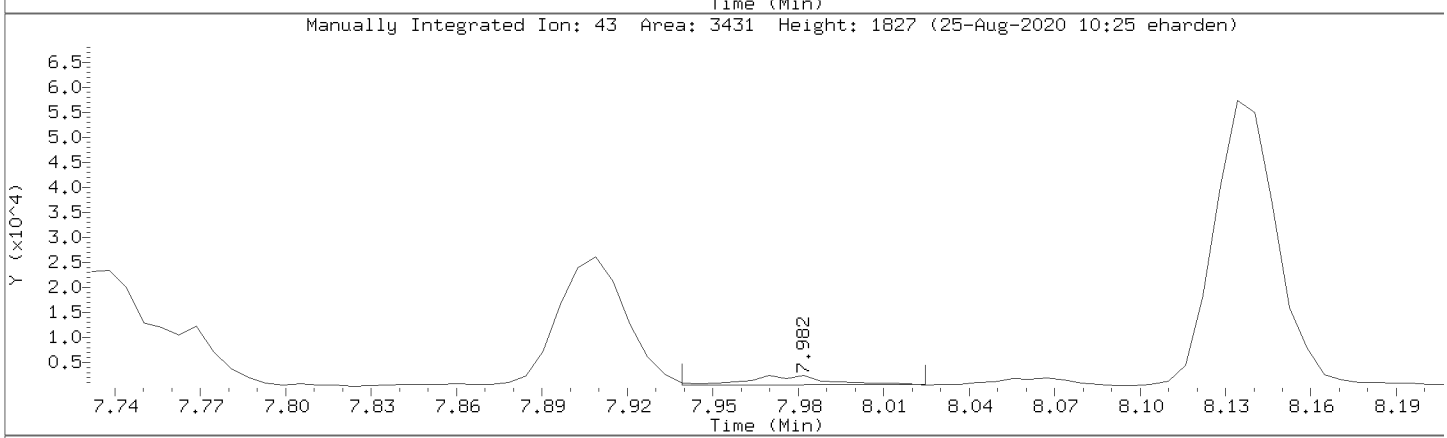
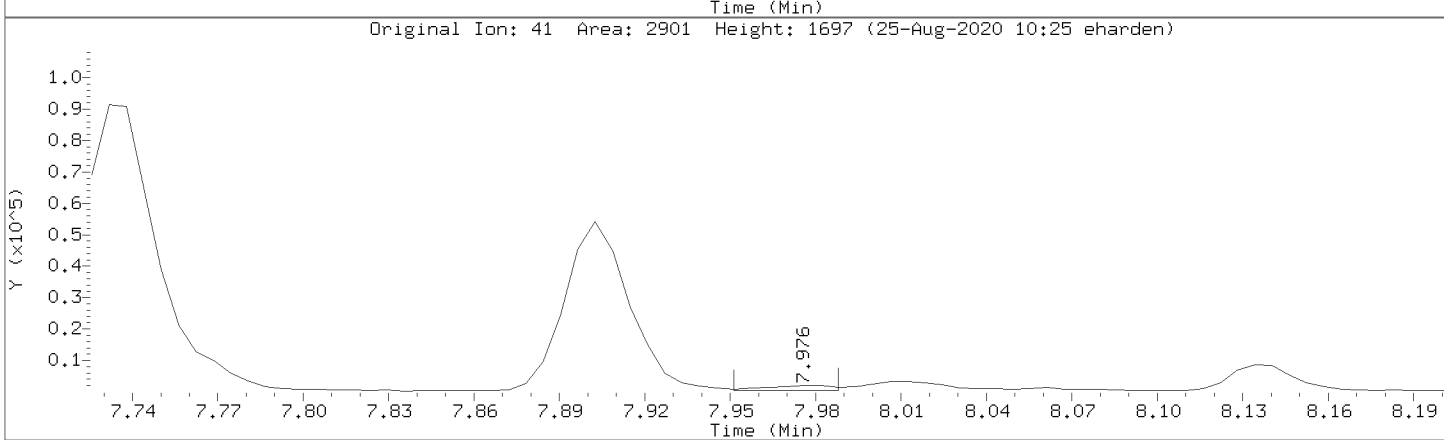
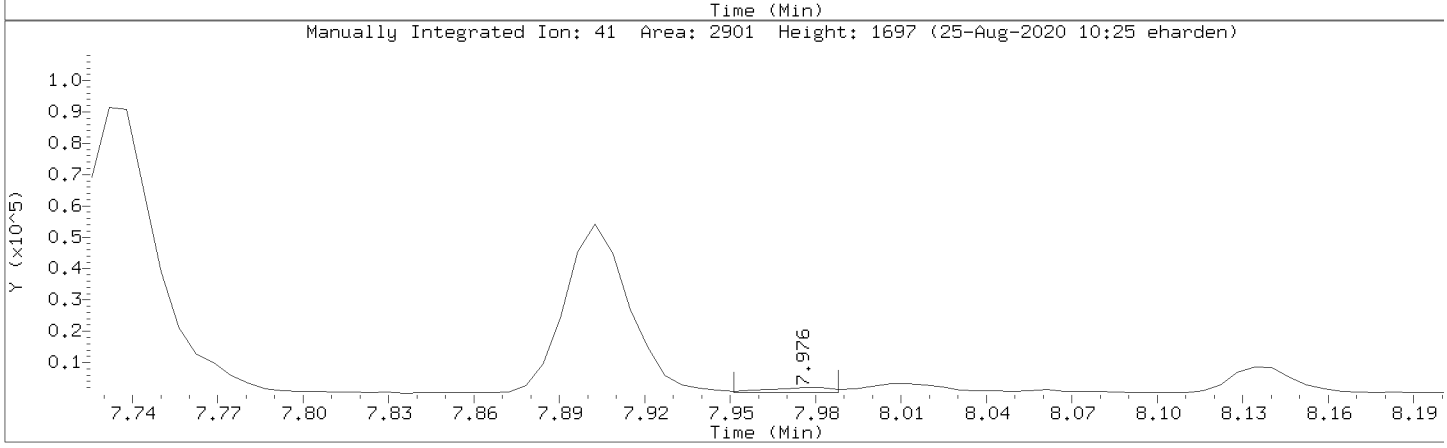
Injection Date: 24-AUG-2020 11:37
Instrument: 52mv02.i
Lab Sample ID: 203633

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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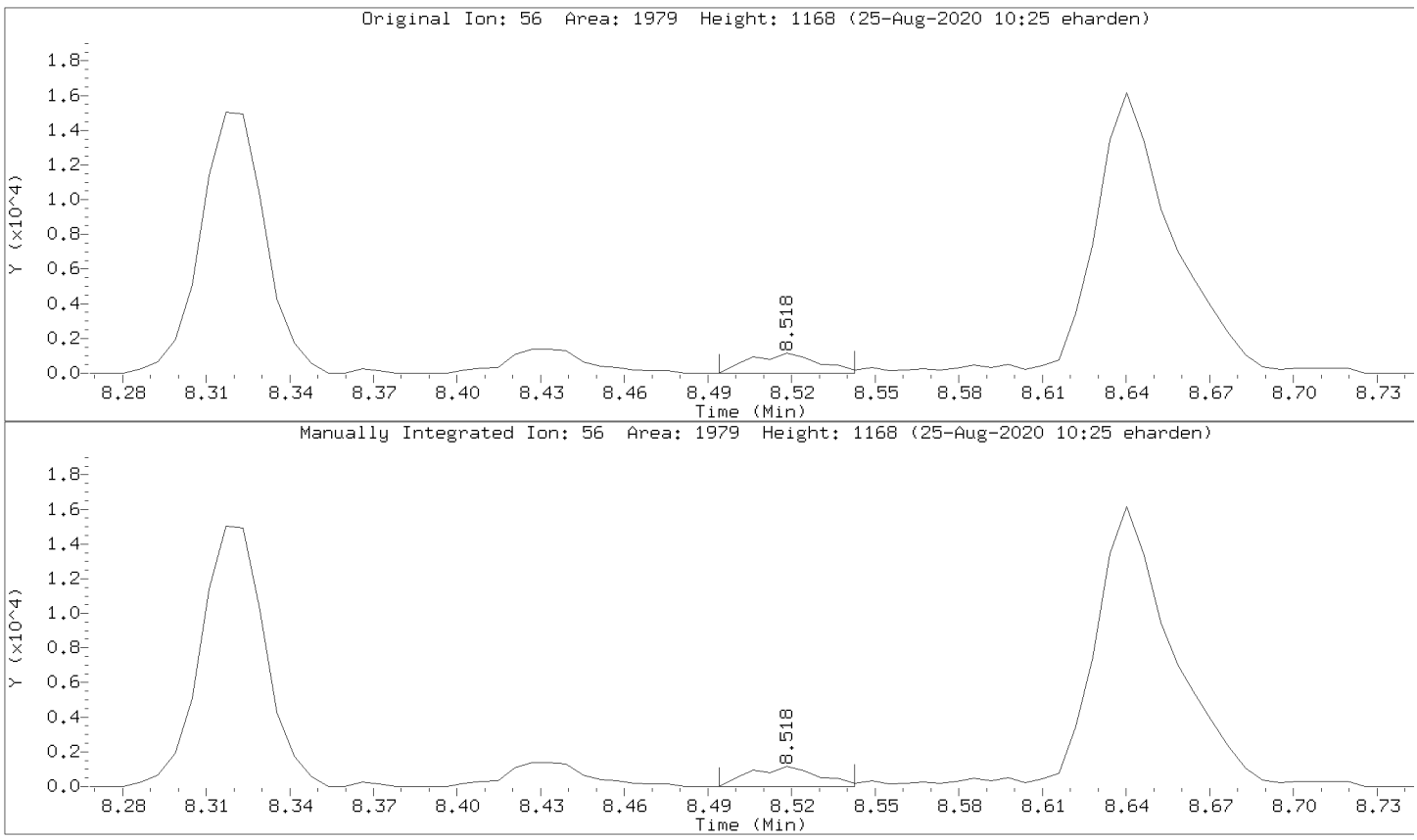
Injection Date: 24-AUG-2020 11:37
Instrument: 52mv02.i
Lab Sample ID: 203633

Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3



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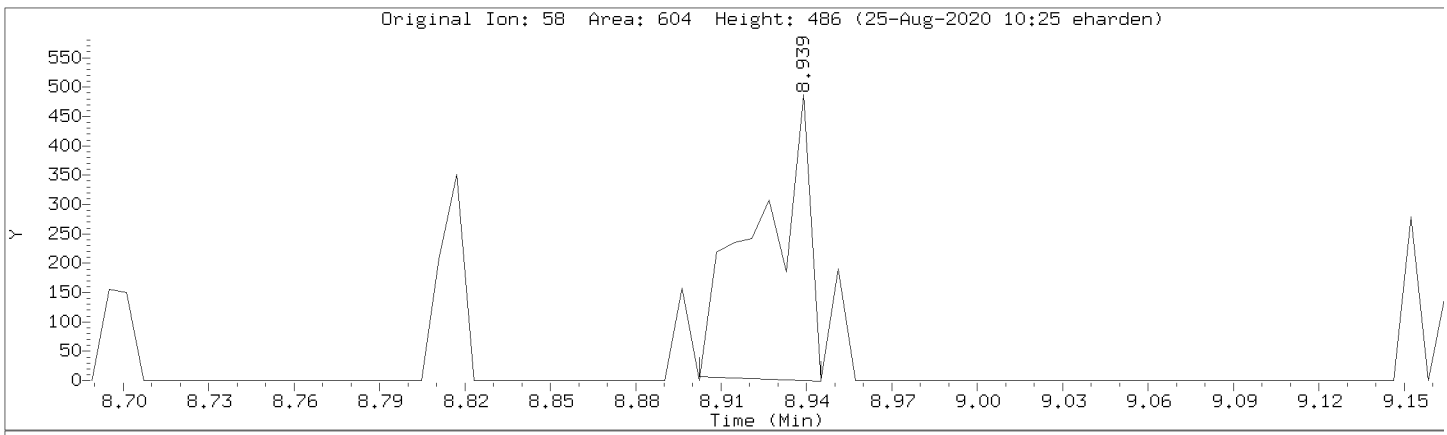
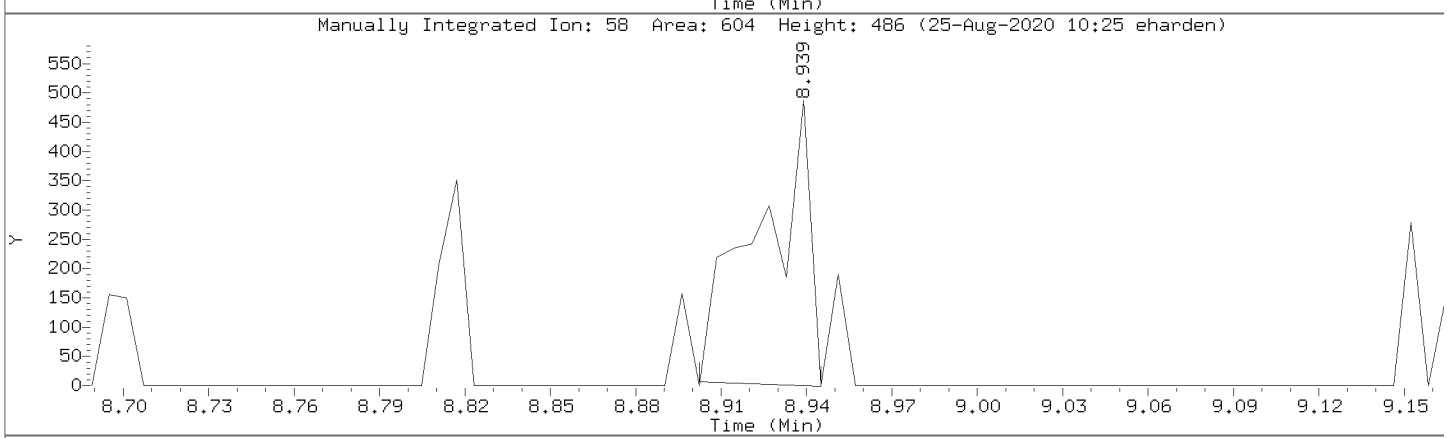
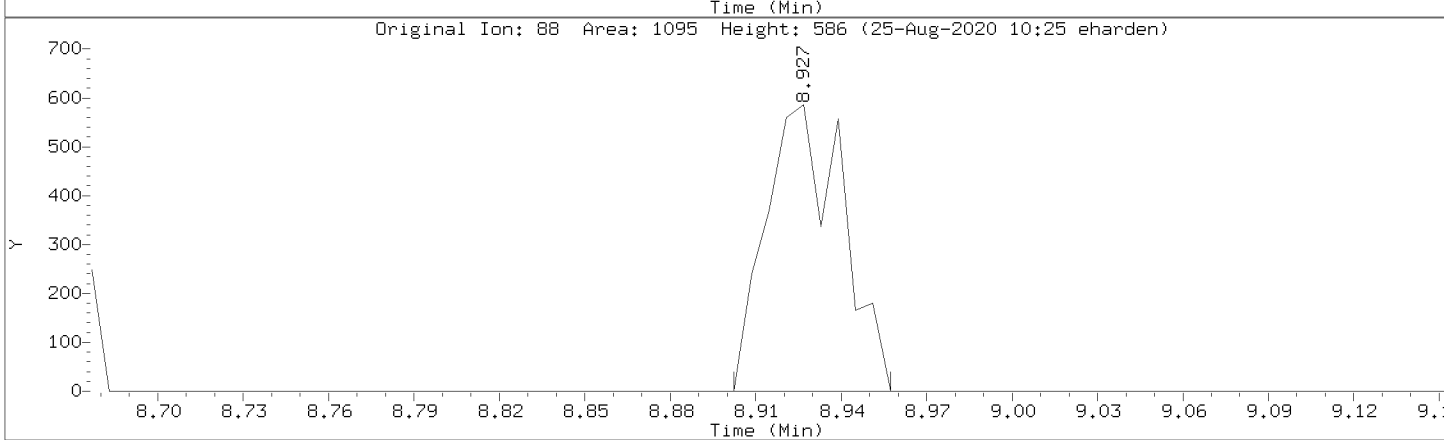
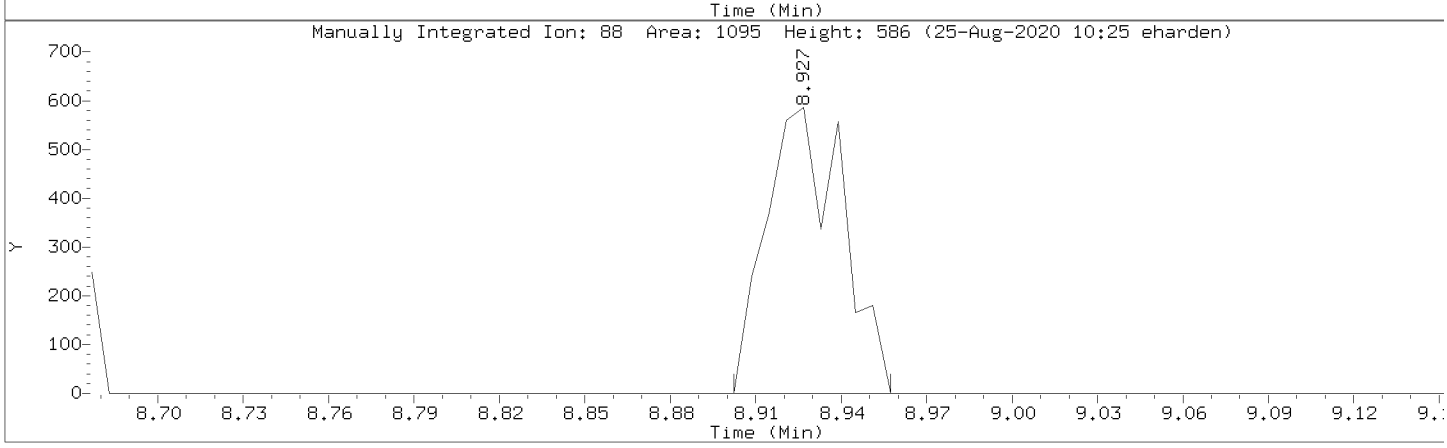
Injection Date: 24-AUG-2020 11:37
Instrument: 52mv02.i
Lab Sample ID: 203633

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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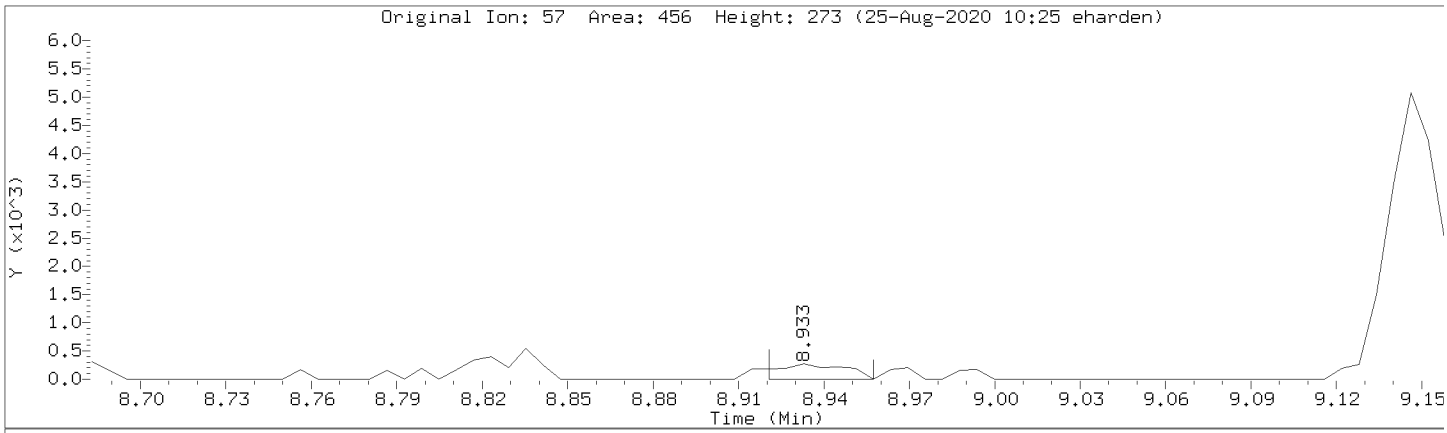
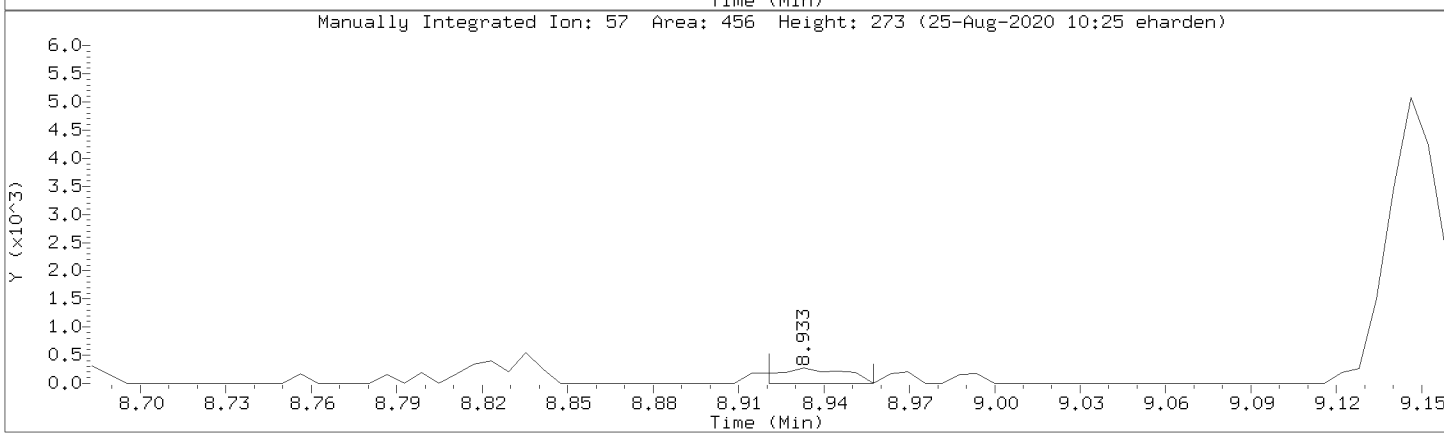
Injection Date: 24-AUG-2020 11:37
Instrument: 52mv02.i
Lab Sample ID: 203633





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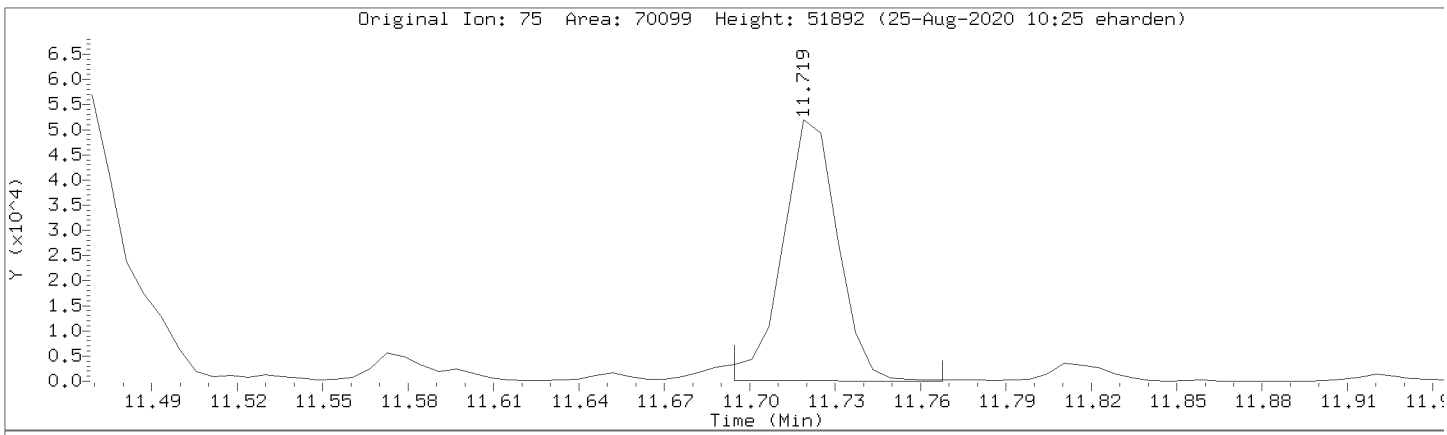
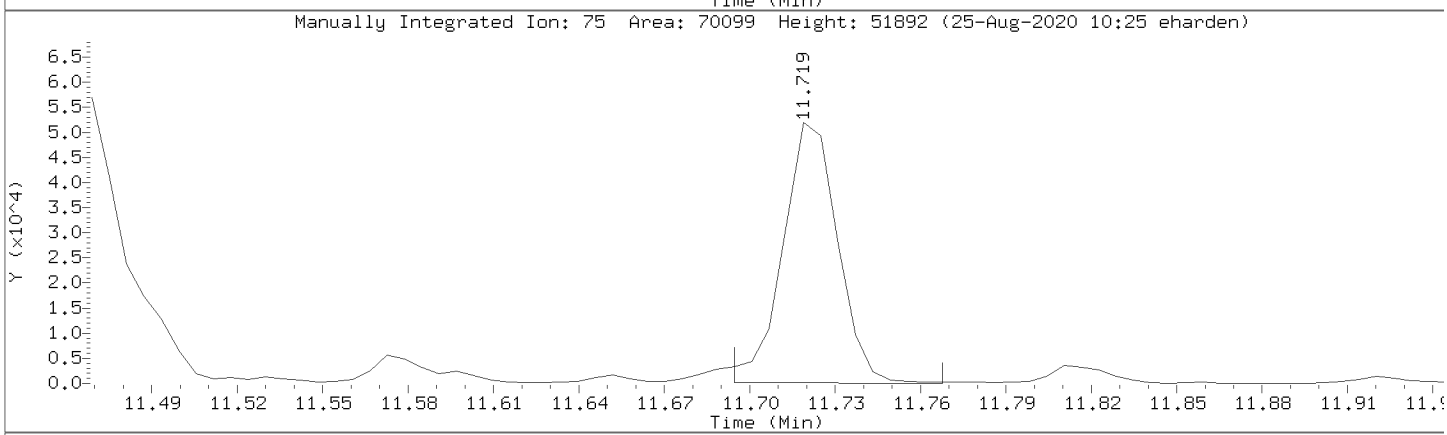
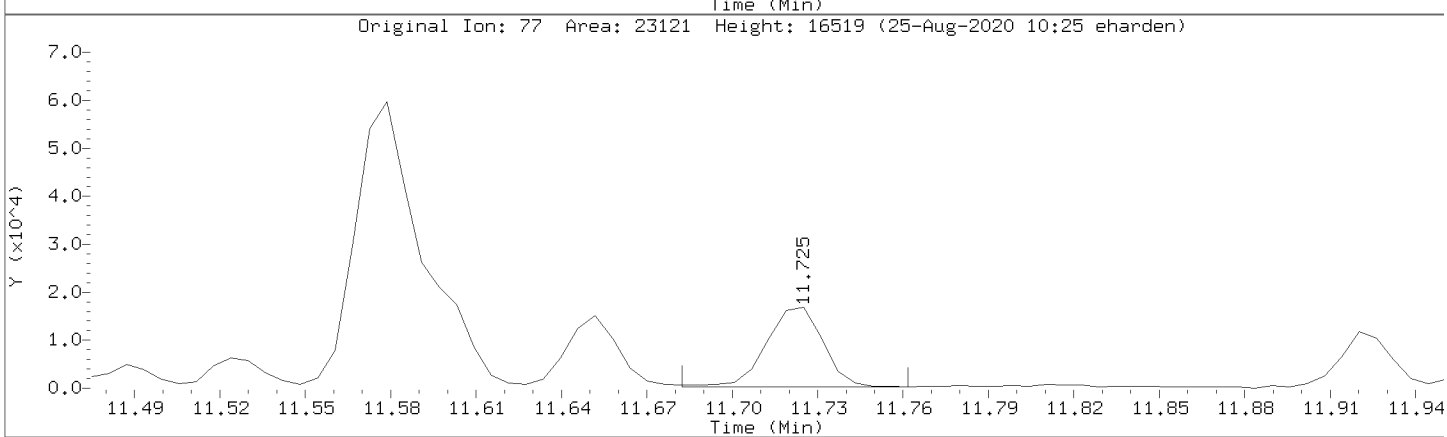
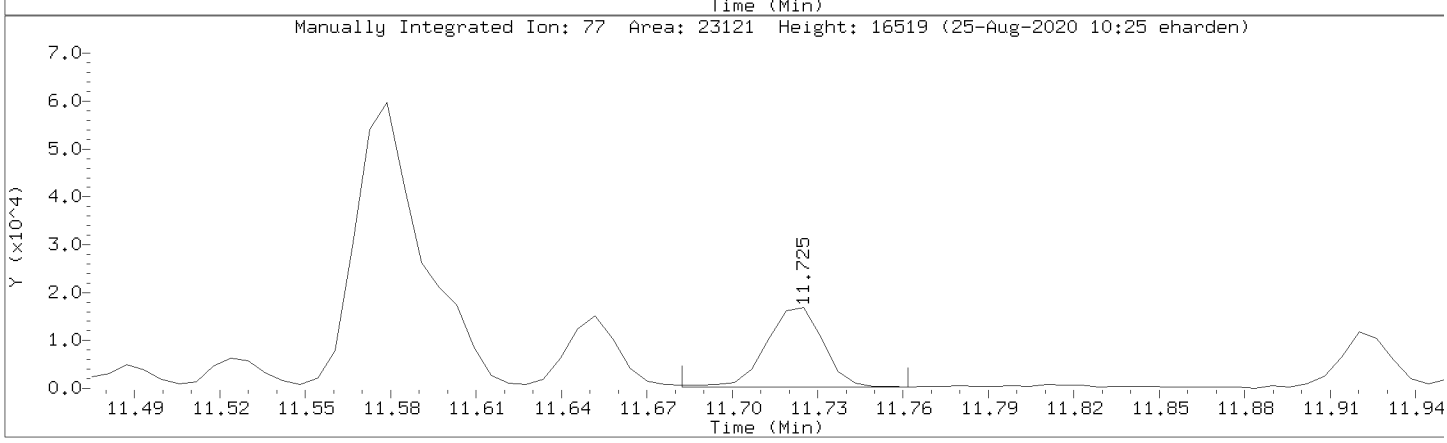
Injection Date: 24-AUG-2020 11:37
Instrument: 52mv02.i
Lab Sample ID: 203633

Compound: 1,2,3-Trichloropropane Review Code: CO
CAS Number: 96-18-4









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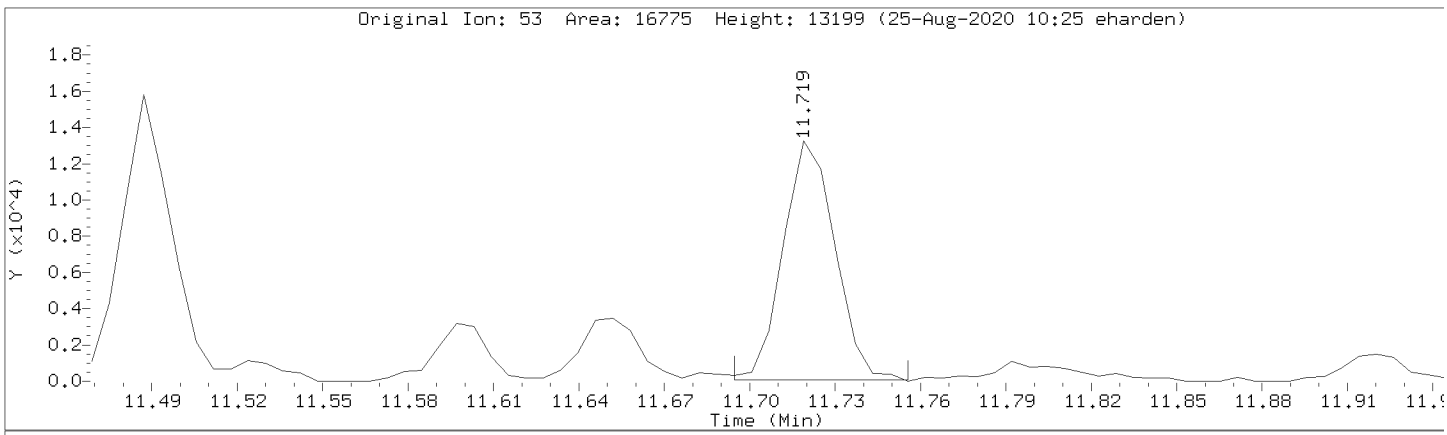
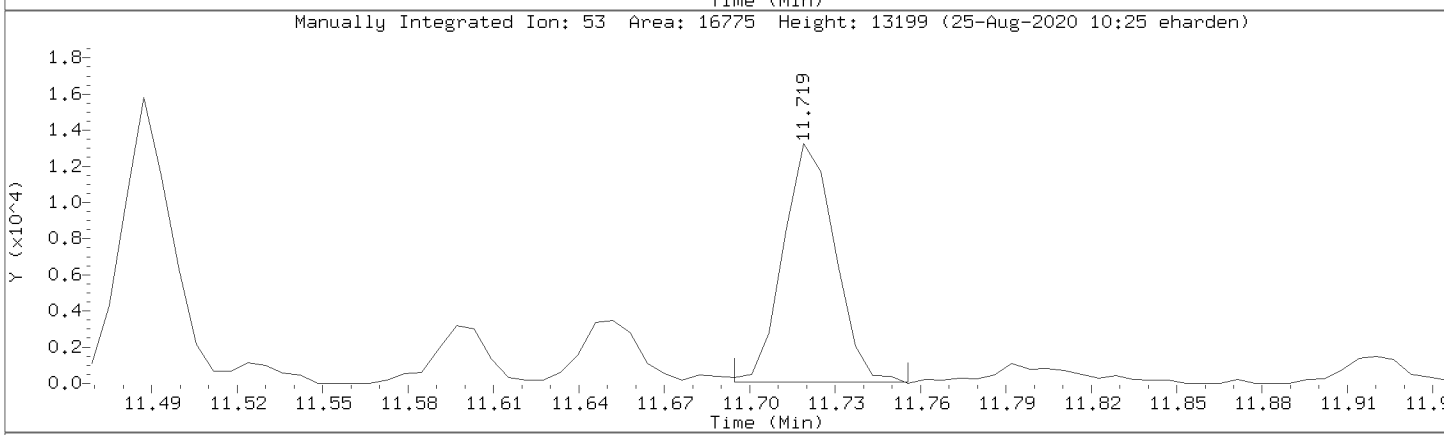
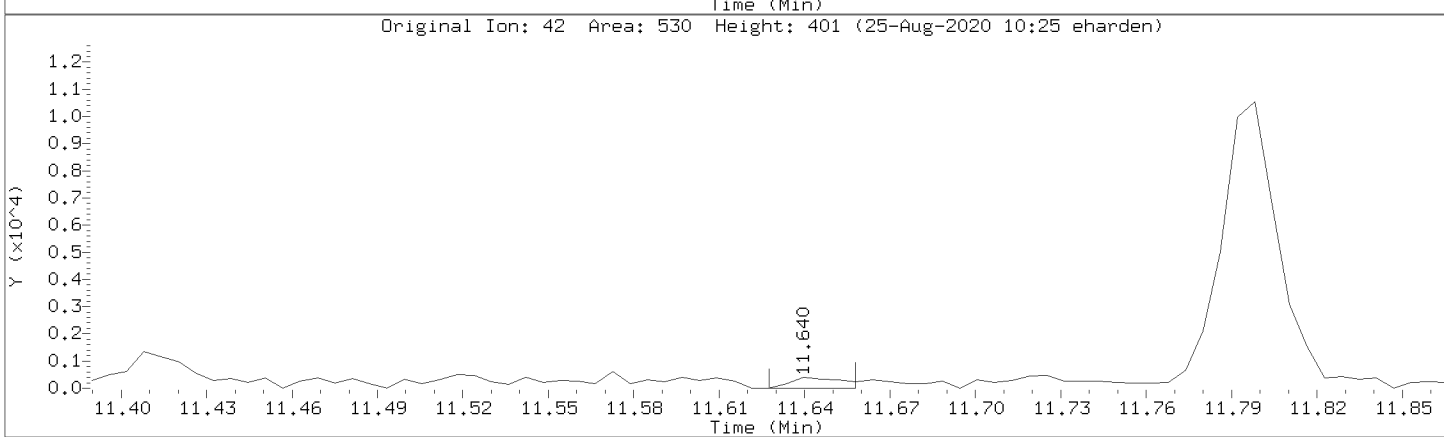
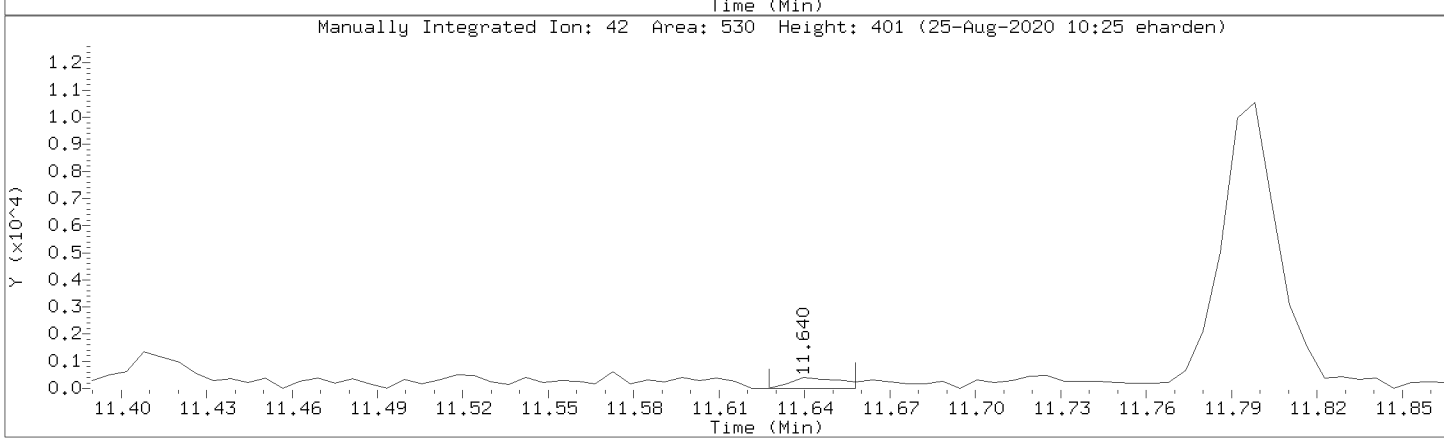
Injection Date: 24-AUG-2020 11:37
Instrument: 52mv02.i
Lab Sample ID: 203633

Compound: trans-1,4-Dichloro-2-butene Review Code: WP
CAS Number: 110-57-6









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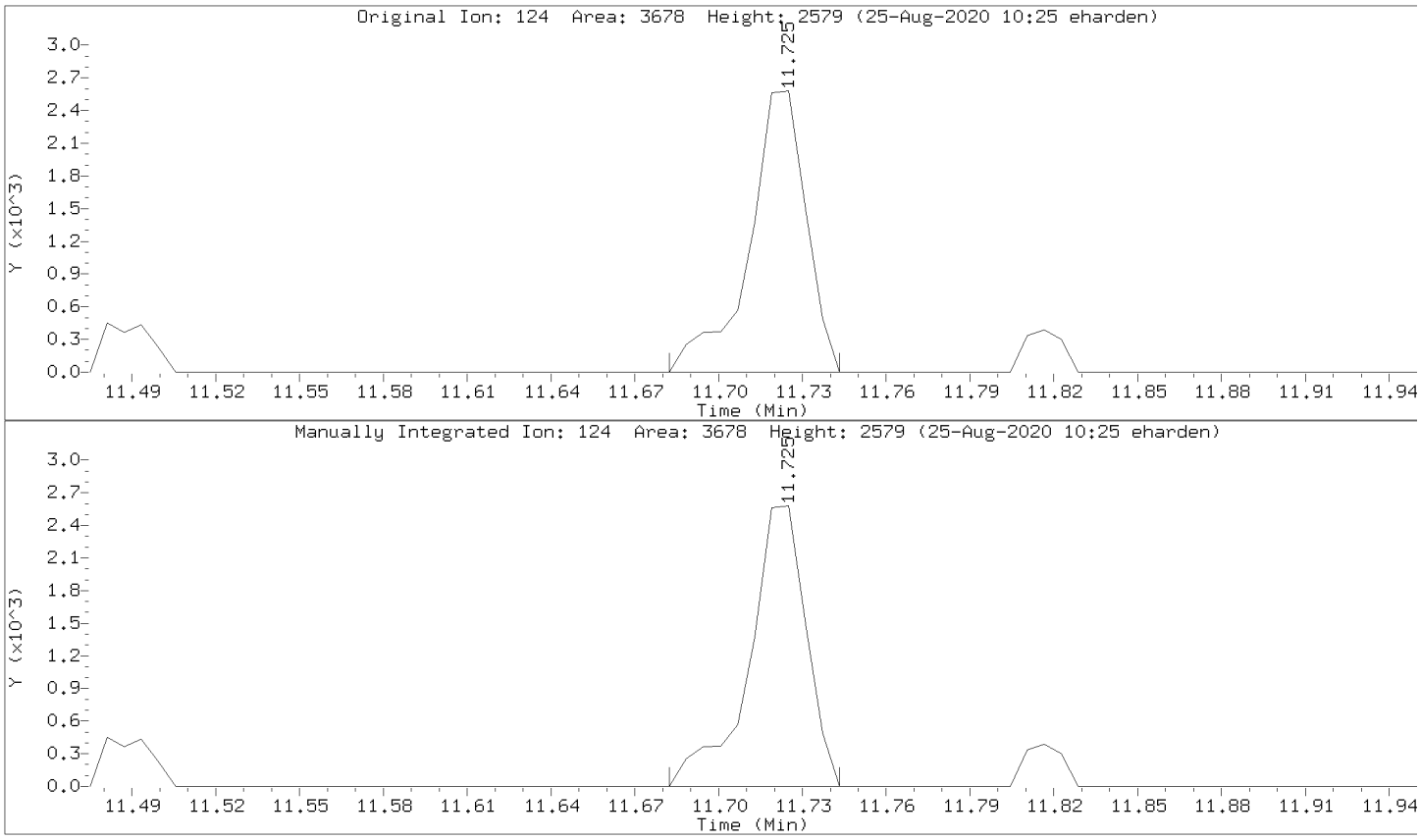
Injection Date: 24-AUG-2020 11:37
Instrument: 52mv02.i
Lab Sample ID: 203633



Prep Log Report

Batch Information: MSV 8260B SM_P 48453

Template Version: EF-DAYT-O-001-Rev.00 (02Nov2018)

Prep Method	EPA 5035A	Analysis Method	EPA 8260B	Prepared By	EAH	Extracted Date/Time	08/24/2020 10:53:13:438
Instrument	52BL11	Ottawa Sand	8940	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Tare Weight (g)	Total Weight (g)	Initial Weight (g)	Final Volume (mL)	Preservation	Sample Notes
8260B SM_P	BLANK	**203632**	0	5	5.0000	5		
8260B SM_P	LCS	**203633**	0	5	5.0000	5		
8260B SM_P	PS	**5249043001**	0	5.2	5.2000	5		
8260B SM_P	MS	**203634**	0	5.28	5.2800	5		
8260B SM_P	MSD	**203635**	0	5.19	5.1900	5		

Prep Log Report

Batch Information: MSV 8260B SM_P 48453 B **Template Version: EF-DAYT-O-001-Rev.00 (02Nov2018)**

Prep Method	EPA 5035A	Analysis Method	EPA 8260B	Prepared By	EAH	Extracted Date/Time	08/24/2020 15:19:14:967
Instrument	52BL11	Ottawa Sand	8940	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Tare Weight (g)	Total Weight (g)	Initial Weight (g)	Final Volume (mL)	Preservation	Sample Notes
8260B SM_P	PS	**5249143001**	0	5.07	5.0700	5		
8260B SM_P	PS	**5249143002**	0	5.21	5.2100	5		
8260B SM_P	PS	**5249143003**	0	5.44	5.4400	5		
8260B SM_P	PS	**5249143004**	0	5.44	5.4400	5		
8260B SM_P	PS	**5249143005**	0	5.16	5.1600	5		
8260B SM_P	PS	**5249143006**	0	5.26	5.2600	5		
8260B SM_P	PS	**5249143007**	0	5.22	5.2200	5		
8260B SM_P	PS	**5249143008**	0	5.07	5.0700	5		
8260B SM_P	PS	**5249143009**	0	5.11	5.1100	5		

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
ISTD lot:
Lot:
Tune std: _____

Method: EPA 524.2
Surr. lot: 26400:1
Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/081920_02.D	TUNE,26558:1,	L/~~2919~~ 2933	BFB	1	7	BFB/all	8/19/20	09:34	EAH	
1/081920_03.D	CCV,27136:1	L/2860	CCALIB_7	1	7	8260BW_071720/	8/19/20	09:59	EAH	
1/081920_03TUNE.D	TUNE	L/2860	BFB	1	7	BFB/all	8/19/20	09:59	EAH	
1/081920_04.D	CCV,27137:1	L/2933	CCALIB_5	1	7	5242W_080720/a	8/19/20	10:24	EAH	
1/081920_04B2955.D	202255,	L/2955	LCS	1	7	5242W_080720/a	8/19/20	10:24	EAH	
1/081920_05.D	0.50 RLC	L/	RLC	1	<2	5242W_080720/a	8/19/20	10:49	EAH	
1/081920_06.D	0.40 RLC	L/	RLC	1	<2	5242W_080720/M	8/19/20	11:14	EAH	
1/081920_07.D	202254,	L/2955	BLANK	1	7	5242W_080720/a	8/19/20	11:39	EAH	
1/081920_08.D	5248591001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	12:06	EAH	
1/081920_09.D	5248591002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	12:32	EAH	
1/081920_10.D	5248591003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	12:57	EAH	
1/081920_11.D	5248591004,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	13:22	EAH	
1/081920_12.D	5248591005,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	13:47	EAH	
1/081920_13.D	5248713001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	14:12	EAH	
1/081920_14.D	5248713002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	14:37	EAH	
1/081920_15.D	5248713003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	15:02	EAH	
1/081920_16.D	5248588001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	15:27	EAH	
1/081920_17.D	5248588002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	15:52	EAH	
1/081920_18.D	5248588003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	16:17	EAH	
1/081920_19.D	5248590001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	16:42	EAH	
1/081920_20.D	5248590002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	17:07	EAH	
1/081920_21.D	5248590003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	17:32	EAH	
1/081920_22.D	5248650001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	17:57	EAH	
1/081920_23.D	5248650002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	18:22	EAH	
1/081920_24.D	5248792001,	L/~~2595~~ 2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	18:48	EAH	
1/081920_25.D	5248792002,	L/~~2595~~ 2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	19:13	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\081920.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 14:51 08/20/2020

Reviewed By/Date: _____ Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
ISTD lot:
Lot:
Tune std: _____

Method: SW846 8260
Surr. lot: 26400:5
Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/082020_01.D	TUNE,26400:1,	L/2957	BFB	1	7	BFB/all	8/20/20	09:57	EAH	
1/082020_02.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	10:23	EAH	
1/082020_03.D	CAL1,27237:1	L/2957	CALIB_1	1	<2	8260BSM_082020	8/20/20	10:50	EAH	
1/082020_04.D	CAL2,27238:1	L/2957	CALIB_2	1	<2	8260BSM_082020	8/20/20	11:15	EAH	
1/082020_05.D	CAL3,27239:1	L/2957	CALIB_3	1	<2	8260BSM_082020	8/20/20	11:40	EAH	
1/082020_06.D	CAL4,27240:1	L/2957	CALIB_4	1	<2	8260BSM_082020	8/20/20	12:05	EAH	
1/082020_07.D	CAL5,27241:1	L/2957	CALIB_5	1	<2	8260BSM_082020	8/20/20	12:30	EAH	
1/082020_08.D	CAL6,27242:1	L/2957	CALIB_6	1	<2	8260BSM_082020	8/20/20	12:55	EAH	
1/082020_09.D	CAL7,27243:1	L/2957	CALIB_7	1	<2	8260BSM_082020	8/20/20	13:20	EAH	
1/082020_10.D	CAL8,27244:1	L/2957	CALIB_8	1	<2	8260BSM_082020	8/20/20	13:45	EAH	
1/082020_11.D	CAL9,27245:1	L/2957	CALIB_9	1	<2	8260BSM_082020	8/20/20	14:11	EAH	
1/082020_12.D	CAL10,27246:1	L/2957	CALIB_10	1	<2	8260BSM_082020	8/20/20	14:36	EAH	
1/082020_13.D	CAL11,27247:1	L/2957	CALIB_11	1	<2	8260BSM_082020	8/20/20	15:01	EAH	
1/082020_14.D	CAL12,27248:1	L/2957	CALIB_12	1	<2	8260BSM_082020	8/20/20	15:26	EAH	
1/082020_15.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	15:51	EAH	
1/082020_16.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	16:16	EAH	
1/082020_17.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	16:41	EAH	
1/082020_18.D	ICV, 27249:1	L/2957	CCALIB_7	1	7	8260BSM_082020	8/20/20	17:06	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\082020.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 11:12 08/21/2020

Reviewed By/Date: _____ Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot:
Lot:
Tune std: _____

Method: SW846 8260

Surr. lot: 26400:5

Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/082420_01.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/24/20	10:47	EAH	
1/082420_02.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/24/20	11:12	EAH	
1/082420_03.D	CCV,27136:1	L/2957	CCALIB_7	1	7	8260BSM_082020	8/24/20	11:37	EAH	
1/082420_03B2971.D	203633,	S/2971	LCS	1		8260BSM_082020	8/24/20	11:37	EAH	
1/082420_03TUNE.D	TUNE,26400:1,	L/2957	BFB	1	7	BFB/all	8/24/20	11:37	EAH	
1/082420_06.D	203632,	S/2971	BLANK	1		8260BSM_082020	8/24/20	12:53	EAH	
1/082420_07.D	MEOH BLANK	L/	SAMPLE	1	<2	8260BSM_082020	8/24/20	13:18	EAH	
1/082420_08.D	MEOH BLANK	L/	SAMPLE	1	<2	8260BSM_082020	8/24/20	13:43	EAH	
1/082420_09.D	0.50 RLC	L/	SAMPLE	1	<2	8260BSM_082020	8/24/20	14:08	EAH	
1/082420_10.D	0.50 RLC	L/	SAMPLE	1	<2	8260BSM_082020	8/24/20	14:33	EAH	
1/082420_11.D	1.0 RLC	L/	SAMPLE	1	<2	8260BSM_082020	8/24/20	14:58	EAH	
1/082420_12.D	1.0 RLC	L/	SAMPLE	1	<2	8260BSM_082020	8/24/20	15:23	EAH	
1/082420_13.D	5249043001,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	15:48	EAH	
1/082420_14.D	203634,	S/2971	MS	1		8260BSM_082020	8/24/20	16:13	EAH	
1/082420_15.D	203635,	S/2971	MSD	1		8260BSM_082020	8/24/20	16:38	EAH	
1/082420_18.D	5249143001,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	17:54	EAH	
1/082420_19.D	5249143002,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	18:19	EAH	
1/082420_20.D	5249143003,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	18:44	EAH	
1/082420_21.D	5249143004,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	19:09	EAH	
1/082420_22.D	5249143005,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	19:34	EAH	
1/082420_23.D	5249143006,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	19:59	EAH	
1/082420_24.D	5249143007,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	20:24	EAH	
1/082420_25.D	5249143008,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	20:49	EAH	
1/082420_26.D	5249143009,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	21:14	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\082420.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:55 08/25/2020

Reviewed By/Date: _____ Page: 1 of 1

Standard Log Report

Standards Log Information for Standard #27249

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-ICV

Notes:

MSV 8260 ICV

Compound Name and Concentration for Standard #27249

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	20 ug/L	1,1,1-Trichloroethane	20 ug/L
1,1,2,2-Tetrachloroethane	20 ug/L	1,1,2-Trichloroethane	20 ug/L
1,1,2-	20 ug/L	1,1-Dichloroethane	20 ug/L
1,1-Dichloroethene	20 ug/L	1,1-Dichloropropene	20 ug/L
1,2,3-Trichlorobenzene	20 ug/L	1,2,3-Trichloropropane	20 ug/L
1,2,4-Trichlorobenzene	20 ug/L	1,2,4-Trimethylbenzene	20 ug/L
1,2-Dibromo-3-	20 ug/L	1,2-Dibromoethane (EDB)	20 ug/L
1,2-Dichlorobenzene	20 ug/L	1,2-Dichloroethane	20 ug/L
1,2-Dichloropropane	20 ug/L	1,3,5-Trimethylbenzene	20 ug/L
1,3-Butadiene	20 ug/L	1,3-Dichlorobenzene	20 ug/L
1,3-Dichloropropane	20 ug/L	1,4-Dichlorobenzene	20 ug/L
1,4-Dioxane (p-Dioxane)	40 ug/L	2,2-Dichloropropane	20 ug/L
2-Butanone (MEK)	40 ug/L	2-Chloroethylvinyl ether	40 ug/L
2-Chlorotoluene	20 ug/L	2-Hexanone	40 ug/L
2-Nitropropane	20 ug/L	4-Chlorotoluene	20 ug/L
4-Methyl-2-pentanone	40 ug/L	Acetone	40 ug/L
Acetonitrile	40 ug/L	Acrolein	40 ug/L
Acrylonitrile	40 ug/L	Allyl chloride	20 ug/L
Benzene	20 ug/L	Bromobenzene	20 ug/L
Bromochloromethane	20 ug/L	Bromodichloromethane	20 ug/L
Bromoform	20 ug/L	Bromomethane	20 ug/L
Carbon disulfide	20 ug/L	Carbon tetrachloride	20 ug/L
Chlorobenzene	20 ug/L	Chloroethane	20 ug/L
Chloroform	20 ug/L	Chloromethane	20 ug/L
Chloroprene	20 ug/L	Cyclohexane	20 ug/L
Dibromochloromethane	20 ug/L	Dibromomethane	20 ug/L
Dichlorodifluoromethane	20 ug/L	Diethyl ether (Ethyl ether)	20 ug/L
Ethyl acetate	40 ug/L	Ethyl methacrylate	20 ug/L
Ethylbenzene	20 ug/L	Hexachloro-1,3-butadiene	20 ug/L
Iodomethane	20 ug/L	Isobutanol	40 ug/L
Isopropyl acetate	20 ug/L	Isopropylbenzene	20 ug/L
Methacrylonitrile	40 ug/L	Methanol	ug/L
Methyl acetate	40 ug/L	Methyl acrylate	20 ug/L
Methyl methacrylate	20 ug/L	Methyl-tert-butyl ether	20 ug/L
Methylcyclohexane	20 ug/L	Methylene Chloride	20 ug/L
Naphthalene	20 ug/L	Propionitrile	40 ug/L
Styrene	20 ug/L	TOTAL BTEX	120 ug/L
Tetrachloroethene	20 ug/L	Tetrahydrofuran	40 ug/L
Toluene	20 ug/L	Total Trihalomethanes	80 ug/L
Trichloroethene	20 ug/L	Trichlorofluoromethane	20 ug/L
Vinyl acetate	20 ug/L	Vinyl chloride	20 ug/L
Xylene (Total)	60 ug/L	cis-1,2-Dichloroethene	20 ug/L
cis-1,3-Dichloropropene	20 ug/L	cis-1,4-Dichloro-2-butene	20 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	40 ug/L	n-Butanol	40 ug/L
n-Butylbenzene	20 ug/L	n-Hexane	20 ug/L
n-Propylbenzene	20 ug/L	n-amyl acetate	20 ug/L
o-Xylene	20 ug/L	p-Isopropyltoluene	20 ug/L
sec-Butylbenzene	20 ug/L	tert-Butylbenzene	20 ug/L
trans-1,2-Dichloroethene	20 ug/L	trans-1,3-Dichloropropene	20 ug/L
trans-1,4-Dichloro-2-	20 ug/L		

Composed of Information for Standard #27249

Composed of Standard Seq	Volume	Units
27116	0.02	mL
26718	0.02	mL
1	49.96	mL

Standard Log Report

Standards Log Information for Standard #27248

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL12

Notes:

MSV 8260 200PPB

Compound Name and Concentration for Standard #27248

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	200 ug/L	1,1,1-Trichloroethane	200 ug/L
1,1,2,2-Tetrachloroethane	200 ug/L	1,1,2-Trichloroethane	200 ug/L
1,1,2-	200 ug/L	1,1-Dichloroethane	200 ug/L
1,1-Dichloroethene	200 ug/L	1,1-Dichloropropene	200 ug/L
1,2,3-Trichlorobenzene	200 ug/L	1,2,3-Trichloropropane	200 ug/L
1,2,4-Trichlorobenzene	200 ug/L	1,2,4-Trimethylbenzene	200 ug/L
1,2-Dibromo-3-	200 ug/L	1,2-Dibromoethane (EDB)	200 ug/L
1,2-Dichlorobenzene	200 ug/L	1,2-Dichloroethane	200 ug/L
1,2-Dichloropropane	200 ug/L	1,3,5-Trimethylbenzene	200 ug/L
1,3-Butadiene	200 ug/L	1,3-Dichlorobenzene	200 ug/L
1,3-Dichloropropane	200 ug/L	1,4-Dichlorobenzene	200 ug/L
1,4-Dioxane (p-Dioxane)	400 ug/L	2,2-Dichloropropane	200 ug/L
2-Butanone (MEK)	400 ug/L	2-Chloroethylvinyl ether	400 ug/L
2-Chlorotoluene	200 ug/L	2-Hexanone	400 ug/L
2-Nitropropane	200 ug/L	4-Chlorotoluene	200 ug/L
4-Methyl-2-pentanone	400 ug/L	Acetone	400 ug/L
Acetonitrile	400 ug/L	Acrolein	400 ug/L
Acrylonitrile	400 ug/L	Allyl chloride	200 ug/L
Benzene	200 ug/L	Bromobenzene	200 ug/L
Bromochloromethane	200 ug/L	Bromodichloromethane	200 ug/L
Bromoform	200 ug/L	Bromomethane	200 ug/L
Carbon disulfide	200 ug/L	Carbon tetrachloride	200 ug/L
Chlorobenzene	200 ug/L	Chloroethane	200 ug/L
Chloroform	200 ug/L	Chloromethane	200 ug/L
Chloroprene	200 ug/L	Cyclohexane	200 ug/L
Dibromochloromethane	200 ug/L	Dibromomethane	200 ug/L
Dichlorodifluoromethane	200 ug/L	Diethyl ether (Ethyl ether)	200 ug/L
Ethyl acetate	400 ug/L	Ethyl methacrylate	200 ug/L
Ethylbenzene	200 ug/L	Hexachloro-1,3-butadiene	200 ug/L
Iodomethane	200 ug/L	Isobutanol	400 ug/L
Isopropyl acetate	200 ug/L	Isopropylbenzene	200 ug/L
Methacrylonitrile	400 ug/L	Methanol	ug/L
Methyl acetate	400 ug/L	Methyl acrylate	200 ug/L
Methyl methacrylate	200 ug/L	Methyl-tert-butyl ether	200 ug/L
Methylcyclohexane	200 ug/L	Methylene Chloride	200 ug/L
Naphthalene	200 ug/L	Propionitrile	400 ug/L
Styrene	200 ug/L	TOTAL BTEX	1200 ug/L
Tetrachloroethene	200 ug/L	Tetrahydrofuran	400 ug/L
Toluene	200 ug/L	Total Trihalomethanes	800 ug/L
Trichloroethene	200 ug/L	Trichlorofluoromethane	200 ug/L
Vinyl acetate	200 ug/L	Vinyl chloride	200 ug/L
Xylene (Total)	600 ug/L	cis-1,2-Dichloroethene	200 ug/L
cis-1,3-Dichloropropene	200 ug/L	cis-1,4-Dichloro-2-butene	200 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	400 ug/L	n-Butanol	400 ug/L
n-Butylbenzene	200 ug/L	n-Hexane	200 ug/L
n-Propylbenzene	200 ug/L	n-amyl acetate	200 ug/L
o-Xylene	200 ug/L	p-Isopropyltoluene	200 ug/L
sec-Butylbenzene	200 ug/L	tert-Butylbenzene	200 ug/L
trans-1,2-Dichloroethene	200 ug/L	trans-1,3-Dichloropropene	200 ug/L
trans-1,4-Dichloro-2-	200 ug/L		

Composed of Information for Standard #27248

Composed of Standard Seq	Volume	Units
27114	0.2	mL
26717	0.2	mL
1	49.3	mL

Standard Log Report

Standards Log Information for Standard #27247

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL11

Notes:

MSV 8260 150PPB

Compound Name and Concentration for Standard #27247

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	150 ug/L	1,1,1-Trichloroethane	150 ug/L
1,1,2,2-Tetrachloroethane	150 ug/L	1,1,2-Trichloroethane	150 ug/L
1,1,2-	150 ug/L	1,1-Dichloroethane	150 ug/L
1,1-Dichloroethene	150 ug/L	1,1-Dichloropropene	150 ug/L
1,2,3-Trichlorobenzene	150 ug/L	1,2,3-Trichloropropane	150 ug/L
1,2,4-Trichlorobenzene	150 ug/L	1,2,4-Trimethylbenzene	150 ug/L
1,2-Dibromo-3-	150 ug/L	1,2-Dibromoethane (EDB)	150 ug/L
1,2-Dichlorobenzene	150 ug/L	1,2-Dichloroethane	150 ug/L
1,2-Dichloropropane	150 ug/L	1,3,5-Trimethylbenzene	150 ug/L
1,3-Butadiene	150 ug/L	1,3-Dichlorobenzene	150 ug/L
1,3-Dichloropropane	150 ug/L	1,4-Dichlorobenzene	150 ug/L
1,4-Dioxane (p-Dioxane)	300 ug/L	2,2-Dichloropropane	150 ug/L
2-Butanone (MEK)	300 ug/L	2-Chloroethylvinyl ether	300 ug/L
2-Chlorotoluene	150 ug/L	2-Hexanone	300 ug/L
2-Nitropropane	150 ug/L	4-Chlorotoluene	150 ug/L
4-Methyl-2-pentanone	300 ug/L	Acetone	300 ug/L
Acetonitrile	300 ug/L	Acrolein	300 ug/L
Acrylonitrile	300 ug/L	Allyl chloride	150 ug/L
Benzene	150 ug/L	Bromobenzene	150 ug/L
Bromochloromethane	150 ug/L	Bromodichloromethane	150 ug/L
Bromoform	150 ug/L	Bromomethane	150 ug/L
Carbon disulfide	150 ug/L	Carbon tetrachloride	150 ug/L
Chlorobenzene	150 ug/L	Chloroethane	150 ug/L
Chloroform	150 ug/L	Chloromethane	150 ug/L
Chloroprene	150 ug/L	Cyclohexane	150 ug/L
Dibromochloromethane	150 ug/L	Dibromomethane	150 ug/L
Dichlorodifluoromethane	150 ug/L	Diethyl ether (Ethyl ether)	150 ug/L
Ethyl acetate	300 ug/L	Ethyl methacrylate	150 ug/L
Ethylbenzene	150 ug/L	Hexachloro-1,3-butadiene	150 ug/L
Iodomethane	150 ug/L	Isobutanol	300 ug/L
Isopropyl acetate	150 ug/L	Isopropylbenzene	150 ug/L
Methacrylonitrile	300 ug/L	Methanol	ug/L
Methyl acetate	300 ug/L	Methyl acrylate	150 ug/L
Methyl methacrylate	150 ug/L	Methyl-tert-butyl ether	150 ug/L
Methylcyclohexane	150 ug/L	Methylene Chloride	150 ug/L
Naphthalene	150 ug/L	Propionitrile	300 ug/L
Styrene	150 ug/L	TOTAL BTEX	900 ug/L
Tetrachloroethene	150 ug/L	Tetrahydrofuran	300 ug/L
Toluene	150 ug/L	Total Trihalomethanes	600 ug/L
Trichloroethene	150 ug/L	Trichlorofluoromethane	150 ug/L
Vinyl acetate	150 ug/L	Vinyl chloride	150 ug/L
Xylene (Total)	450 ug/L	cis-1,2-Dichloroethene	150 ug/L
cis-1,3-Dichloropropene	150 ug/L	cis-1,4-Dichloro-2-butene	150 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	300 ug/L	n-Butanol	300 ug/L
n-Butylbenzene	150 ug/L	n-Hexane	150 ug/L
n-Propylbenzene	150 ug/L	n-amyl acetate	150 ug/L
o-Xylene	150 ug/L	p-Isopropyltoluene	150 ug/L
sec-Butylbenzene	150 ug/L	tert-Butylbenzene	150 ug/L
trans-1,2-Dichloroethene	150 ug/L	trans-1,3-Dichloropropene	150 ug/L
trans-1,4-Dichloro-2-	150 ug/L		

Composed of Information for Standard #27247

Composed of Standard Seq	Volume	Units
27114	0.15	mL
26717	0.15	mL
1	49.7	mL

Standard Log Report

Standards Log Information for Standard #27246

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL10

Notes:

MSV 8260 100PPB

Compound Name and Concentration for Standard #27246

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	100 ug/L	1,1,1-Trichloroethane	100 ug/L
1,1,2,2-Tetrachloroethane	100 ug/L	1,1,2-Trichloroethane	100 ug/L
1,1,2-	100 ug/L	1,1-Dichloroethane	100 ug/L
1,1-Dichloroethene	100 ug/L	1,1-Dichloropropene	100 ug/L
1,2,3-Trichlorobenzene	100 ug/L	1,2,3-Trichloropropane	100 ug/L
1,2,4-Trichlorobenzene	100 ug/L	1,2,4-Trimethylbenzene	100 ug/L
1,2-Dibromo-3-	100 ug/L	1,2-Dibromoethane (EDB)	100 ug/L
1,2-Dichlorobenzene	100 ug/L	1,2-Dichloroethane	100 ug/L
1,2-Dichloropropane	100 ug/L	1,3,5-Trimethylbenzene	100 ug/L
1,3-Butadiene	100 ug/L	1,3-Dichlorobenzene	100 ug/L
1,3-Dichloropropane	100 ug/L	1,4-Dichlorobenzene	100 ug/L
1,4-Dioxane (p-Dioxane)	200 ug/L	2,2-Dichloropropane	100 ug/L
2-Butanone (MEK)	200 ug/L	2-Chloroethylvinyl ether	200 ug/L
2-Chlorotoluene	100 ug/L	2-Hexanone	200 ug/L
2-Nitropropane	100 ug/L	4-Chlorotoluene	100 ug/L
4-Methyl-2-pentanone	200 ug/L	Acetone	200 ug/L
Acetonitrile	200 ug/L	Acrolein	200 ug/L
Acrylonitrile	200 ug/L	Allyl chloride	100 ug/L
Benzene	100 ug/L	Bromobenzene	100 ug/L
Bromochloromethane	100 ug/L	Bromodichloromethane	100 ug/L
Bromoform	100 ug/L	Bromomethane	100 ug/L
Carbon disulfide	100 ug/L	Carbon tetrachloride	100 ug/L
Chlorobenzene	100 ug/L	Chloroethane	100 ug/L
Chloroform	100 ug/L	Chloromethane	100 ug/L
Chloroprene	100 ug/L	Cyclohexane	100 ug/L
Dibromochloromethane	100 ug/L	Dibromomethane	100 ug/L
Dichlorodifluoromethane	100 ug/L	Diethyl ether (Ethyl ether)	100 ug/L
Ethyl acetate	200 ug/L	Ethyl methacrylate	100 ug/L
Ethylbenzene	100 ug/L	Hexachloro-1,3-butadiene	100 ug/L
Iodomethane	100 ug/L	Isobutanol	200 ug/L
Isopropyl acetate	100 ug/L	Isopropylbenzene	100 ug/L
Methacrylonitrile	200 ug/L	Methanol	ug/L
Methyl acetate	200 ug/L	Methyl acrylate	100 ug/L
Methyl methacrylate	100 ug/L	Methyl-tert-butyl ether	100 ug/L
Methylcyclohexane	100 ug/L	Methylene Chloride	100 ug/L
Naphthalene	100 ug/L	Propionitrile	200 ug/L
Styrene	100 ug/L	TOTAL BTEX	600 ug/L
Tetrachloroethene	100 ug/L	Tetrahydrofuran	200 ug/L
Toluene	100 ug/L	Total Trihalomethanes	400 ug/L
Trichloroethene	100 ug/L	Trichlorofluoromethane	100 ug/L
Vinyl acetate	100 ug/L	Vinyl chloride	100 ug/L
Xylene (Total)	300 ug/L	cis-1,2-Dichloroethene	100 ug/L
cis-1,3-Dichloropropene	100 ug/L	cis-1,4-Dichloro-2-butene	100 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	200 ug/L	n-Butanol	200 ug/L
n-Butylbenzene	100 ug/L	n-Hexane	100 ug/L
n-Propylbenzene	100 ug/L	n-amyl acetate	100 ug/L
o-Xylene	100 ug/L	p-Isopropyltoluene	100 ug/L
sec-Butylbenzene	100 ug/L	tert-Butylbenzene	100 ug/L
trans-1,2-Dichloroethene	100 ug/L	trans-1,3-Dichloropropene	100 ug/L
trans-1,4-Dichloro-2-	100 ug/L		

Composed of Information for Standard #27246

Composed of Standard Seq	Volume	Units
27114	0.1	mL
26717	0.1	mL
1	49.8	mL

Standard Log Report

Standards Log Information for Standard #27245

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL9

Notes:

MSV 8260 75PPB

Compound Name and Concentration for Standard #27245

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	75 ug/L	1,1,1-Trichloroethane	75 ug/L
1,1,2,2-Tetrachloroethane	75 ug/L	1,1,2-Trichloroethane	75 ug/L
1,1,2-	75 ug/L	1,1-Dichloroethane	75 ug/L
1,1-Dichloroethene	75 ug/L	1,1-Dichloropropene	75 ug/L
1,2,3-Trichlorobenzene	75 ug/L	1,2,3-Trichloropropane	75 ug/L
1,2,4-Trichlorobenzene	75 ug/L	1,2,4-Trimethylbenzene	75 ug/L
1,2-Dibromo-3-	75 ug/L	1,2-Dibromoethane (EDB)	75 ug/L
1,2-Dichlorobenzene	75 ug/L	1,2-Dichloroethane	75 ug/L
1,2-Dichloropropane	75 ug/L	1,3,5-Trimethylbenzene	75 ug/L
1,3-Butadiene	75 ug/L	1,3-Dichlorobenzene	75 ug/L
1,3-Dichloropropane	75 ug/L	1,4-Dichlorobenzene	75 ug/L
1,4-Dioxane (p-Dioxane)	150 ug/L	2,2-Dichloropropane	75 ug/L
2-Butanone (MEK)	150 ug/L	2-Chloroethylvinyl ether	150 ug/L
2-Chlorotoluene	75 ug/L	2-Hexanone	150 ug/L
2-Nitropropane	75 ug/L	4-Chlorotoluene	75 ug/L
4-Methyl-2-pentanone	150 ug/L	Acetone	150 ug/L
Acetonitrile	150 ug/L	Acrolein	150 ug/L
Acrylonitrile	150 ug/L	Allyl chloride	75 ug/L
Benzene	75 ug/L	Bromobenzene	75 ug/L
Bromochloromethane	75 ug/L	Bromodichloromethane	75 ug/L
Bromoform	75 ug/L	Bromomethane	75 ug/L
Carbon disulfide	75 ug/L	Carbon tetrachloride	75 ug/L
Chlorobenzene	75 ug/L	Chloroethane	75 ug/L
Chloroform	75 ug/L	Chloromethane	75 ug/L
Chloroprene	75 ug/L	Cyclohexane	75 ug/L
Dibromochloromethane	75 ug/L	Dibromomethane	75 ug/L
Dichlorodifluoromethane	75 ug/L	Diethyl ether (Ethyl ether)	75 ug/L
Ethyl acetate	150 ug/L	Ethyl methacrylate	75 ug/L
Ethylbenzene	75 ug/L	Hexachloro-1,3-butadiene	75 ug/L
Iodomethane	75 ug/L	Isobutanol	150 ug/L
Isopropyl acetate	75 ug/L	Isopropylbenzene	75 ug/L
Methacrylonitrile	150 ug/L	Methanol	ug/L
Methyl acetate	150 ug/L	Methyl acrylate	75 ug/L
Methyl methacrylate	75 ug/L	Methyl-tert-butyl ether	75 ug/L
Methylcyclohexane	75 ug/L	Methylene Chloride	75 ug/L
Naphthalene	75 ug/L	Propionitrile	150 ug/L
Styrene	75 ug/L	TOTAL BTEX	450 ug/L
Tetrachloroethene	75 ug/L	Tetrahydrofuran	150 ug/L
Toluene	75 ug/L	Total Trihalomethanes	300 ug/L
Trichloroethene	75 ug/L	Trichlorofluoromethane	75 ug/L
Vinyl acetate	75 ug/L	Vinyl chloride	75 ug/L
Xylene (Total)	225 ug/L	cis-1,2-Dichloroethene	75 ug/L
cis-1,3-Dichloropropene	75 ug/L	cis-1,4-Dichloro-2-butene	75 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	150 ug/L	n-Butanol	150 ug/L
n-Butylbenzene	75 ug/L	n-Hexane	75 ug/L
n-Propylbenzene	75 ug/L	n-amyl acetate	75 ug/L
o-Xylene	75 ug/L	p-Isopropyltoluene	75 ug/L
sec-Butylbenzene	75 ug/L	tert-Butylbenzene	75 ug/L
trans-1,2-Dichloroethene	75 ug/L	trans-1,3-Dichloropropene	75 ug/L
trans-1,4-Dichloro-2-	75 ug/L		

Composed of Information for Standard #27245

Composed of Standard Seq	Volume	Units
27114	0.075	mL
26717	0.075	mL
1	49.85	mL

Standard Log Report

Standards Log Information for Standard #27244

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL8

Notes:

MSV 8260 50PPB

Compound Name and Concentration for Standard #27244

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	50 ug/L	1,1,1-Trichloroethane	50 ug/L
1,1,2,2-Tetrachloroethane	50 ug/L	1,1,2-Trichloroethane	50 ug/L
1,1,2-	50 ug/L	1,1-Dichloroethane	50 ug/L
1,1-Dichloroethene	50 ug/L	1,1-Dichloropropene	50 ug/L
1,2,3-Trichlorobenzene	50 ug/L	1,2,3-Trichloropropane	50 ug/L
1,2,4-Trichlorobenzene	50 ug/L	1,2,4-Trimethylbenzene	50 ug/L
1,2-Dibromo-3-	50 ug/L	1,2-Dibromoethane (EDB)	50 ug/L
1,2-Dichlorobenzene	50 ug/L	1,2-Dichloroethane	50 ug/L
1,2-Dichloropropane	50 ug/L	1,3,5-Trimethylbenzene	50 ug/L
1,3-Butadiene	50 ug/L	1,3-Dichlorobenzene	50 ug/L
1,3-Dichloropropane	50 ug/L	1,4-Dichlorobenzene	50 ug/L
1,4-Dioxane (p-Dioxane)	100 ug/L	2,2-Dichloropropane	50 ug/L
2-Butanone (MEK)	100 ug/L	2-Chloroethylvinyl ether	100 ug/L
2-Chlorotoluene	50 ug/L	2-Hexanone	100 ug/L
2-Nitropropane	50 ug/L	4-Chlorotoluene	50 ug/L
4-Methyl-2-pentanone	100 ug/L	Acetone	100 ug/L
Acetonitrile	100 ug/L	Acrolein	100 ug/L
Acrylonitrile	100 ug/L	Allyl chloride	50 ug/L
Benzene	50 ug/L	Bromobenzene	50 ug/L
Bromochloromethane	50 ug/L	Bromodichloromethane	50 ug/L
Bromoform	50 ug/L	Bromomethane	50 ug/L
Carbon disulfide	50 ug/L	Carbon tetrachloride	50 ug/L
Chlorobenzene	50 ug/L	Chloroethane	50 ug/L
Chloroform	50 ug/L	Chloromethane	50 ug/L
Chloroprene	50 ug/L	Cyclohexane	50 ug/L
Dibromochloromethane	50 ug/L	Dibromomethane	50 ug/L
Dichlorodifluoromethane	50 ug/L	Diethyl ether (Ethyl ether)	50 ug/L
Ethyl acetate	100 ug/L	Ethyl methacrylate	50 ug/L
Ethylbenzene	50 ug/L	Hexachloro-1,3-butadiene	50 ug/L
Iodomethane	50 ug/L	Isobutanol	100 ug/L
Isopropyl acetate	50 ug/L	Isopropylbenzene	50 ug/L
Methacrylonitrile	100 ug/L	Methanol	ug/L
Methyl acetate	100 ug/L	Methyl acrylate	50 ug/L
Methyl methacrylate	50 ug/L	Methyl-tert-butyl ether	50 ug/L
Methylcyclohexane	50 ug/L	Methylene Chloride	50 ug/L
Naphthalene	50 ug/L	Propionitrile	100 ug/L
Styrene	50 ug/L	TOTAL BTEX	300 ug/L
Tetrachloroethene	50 ug/L	Tetrahydrofuran	100 ug/L
Toluene	50 ug/L	Total Trihalomethanes	200 ug/L
Trichloroethene	50 ug/L	Trichlorofluoromethane	50 ug/L
Vinyl acetate	50 ug/L	Vinyl chloride	50 ug/L
Xylene (Total)	150 ug/L	cis-1,2-Dichloroethene	50 ug/L
cis-1,3-Dichloropropene	50 ug/L	cis-1,4-Dichloro-2-butene	50 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	100 ug/L	n-Butanol	100 ug/L
n-Butylbenzene	50 ug/L	n-Hexane	50 ug/L
n-Propylbenzene	50 ug/L	n-amyl acetate	50 ug/L
o-Xylene	50 ug/L	p-Isopropyltoluene	50 ug/L
sec-Butylbenzene	50 ug/L	tert-Butylbenzene	50 ug/L
trans-1,2-Dichloroethene	50 ug/L	trans-1,3-Dichloropropene	50 ug/L
trans-1,4-Dichloro-2-	50 ug/L		

Composed of Information for Standard #27244

Composed of Standard Seq	Volume	Units
27114	0.05	mL
26717	0.05	mL
1	49.9	mL

Standard Log Report

Standards Log Information for Standard #27243

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL7

Notes:

MSV 8260 20PPB

Compound Name and Concentration for Standard #27243

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	20 ug/L	1,1,1-Trichloroethane	20 ug/L
1,1,2,2-Tetrachloroethane	20 ug/L	1,1,2-Trichloroethane	20 ug/L
1,1,2-	20 ug/L	1,1-Dichloroethane	20 ug/L
1,1-Dichloroethene	20 ug/L	1,1-Dichloropropene	20 ug/L
1,2,3-Trichlorobenzene	20 ug/L	1,2,3-Trichloropropane	20 ug/L
1,2,4-Trichlorobenzene	20 ug/L	1,2,4-Trimethylbenzene	20 ug/L
1,2-Dibromo-3-	20 ug/L	1,2-Dibromoethane (EDB)	20 ug/L
1,2-Dichlorobenzene	20 ug/L	1,2-Dichloroethane	20 ug/L
1,2-Dichloropropane	20 ug/L	1,3,5-Trimethylbenzene	20 ug/L
1,3-Butadiene	20 ug/L	1,3-Dichlorobenzene	20 ug/L
1,3-Dichloropropane	20 ug/L	1,4-Dichlorobenzene	20 ug/L
1,4-Dioxane (p-Dioxane)	40 ug/L	2,2-Dichloropropane	20 ug/L
2-Butanone (MEK)	40 ug/L	2-Chloroethylvinyl ether	40 ug/L
2-Chlorotoluene	20 ug/L	2-Hexanone	40 ug/L
2-Nitropropane	20 ug/L	4-Chlorotoluene	20 ug/L
4-Methyl-2-pentanone	40 ug/L	Acetone	40 ug/L
Acetonitrile	40 ug/L	Acrolein	40 ug/L
Acrylonitrile	40 ug/L	Allyl chloride	20 ug/L
Benzene	20 ug/L	Bromobenzene	20 ug/L
Bromochloromethane	20 ug/L	Bromodichloromethane	20 ug/L
Bromoform	20 ug/L	Bromomethane	20 ug/L
Carbon disulfide	20 ug/L	Carbon tetrachloride	20 ug/L
Chlorobenzene	20 ug/L	Chloroethane	20 ug/L
Chloroform	20 ug/L	Chloromethane	20 ug/L
Chloroprene	20 ug/L	Cyclohexane	20 ug/L
Dibromochloromethane	20 ug/L	Dibromomethane	20 ug/L
Dichlorodifluoromethane	20 ug/L	Diethyl ether (Ethyl ether)	20 ug/L
Ethyl acetate	40 ug/L	Ethyl methacrylate	20 ug/L
Ethylbenzene	20 ug/L	Hexachloro-1,3-butadiene	20 ug/L
Iodomethane	20 ug/L	Isobutanol	40 ug/L
Isopropyl acetate	20 ug/L	Isopropylbenzene	20 ug/L
Methacrylonitrile	40 ug/L	Methanol	ug/L
Methyl acetate	40 ug/L	Methyl acrylate	20 ug/L
Methyl methacrylate	20 ug/L	Methyl-tert-butyl ether	20 ug/L
Methylcyclohexane	20 ug/L	Methylene Chloride	20 ug/L
Naphthalene	20 ug/L	Propionitrile	40 ug/L
Styrene	20 ug/L	TOTAL BTEX	120 ug/L
Tetrachloroethene	20 ug/L	Tetrahydrofuran	40 ug/L
Toluene	20 ug/L	Total Trihalomethanes	80 ug/L
Trichloroethene	20 ug/L	Trichlorofluoromethane	20 ug/L
Vinyl acetate	20 ug/L	Vinyl chloride	20 ug/L
Xylene (Total)	60 ug/L	cis-1,2-Dichloroethene	20 ug/L
cis-1,3-Dichloropropene	20 ug/L	cis-1,4-Dichloro-2-butene	20 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	40 ug/L	n-Butanol	40 ug/L
n-Butylbenzene	20 ug/L	n-Hexane	20 ug/L
n-Propylbenzene	20 ug/L	n-amyl acetate	20 ug/L
o-Xylene	20 ug/L	p-Isopropyltoluene	20 ug/L
sec-Butylbenzene	20 ug/L	tert-Butylbenzene	20 ug/L
trans-1,2-Dichloroethene	20 ug/L	trans-1,3-Dichloropropene	20 ug/L
trans-1,4-Dichloro-2-	20 ug/L		

Composed of Information for Standard #27243

Composed of Standard Seq	Volume	Units
27114	0.02	mL
26717	0.02	mL
1	49.96	mL

Standard Log Report

Standards Log Information for Standard #27242

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL6

Notes:

MSV 8260 10PPB

Compound Name and Concentration for Standard #27242

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	10 ug/L	1,1,1-Trichloroethane	10 ug/L
1,1,2,2-Tetrachloroethane	10 ug/L	1,1,2-Trichloroethane	10 ug/L
1,1,2-	10 ug/L	1,1-Dichloroethane	10 ug/L
1,1-Dichloroethene	10 ug/L	1,1-Dichloropropene	10 ug/L
1,2,3-Trichlorobenzene	10 ug/L	1,2,3-Trichloropropane	10 ug/L
1,2,4-Trichlorobenzene	10 ug/L	1,2,4-Trimethylbenzene	10 ug/L
1,2-Dibromo-3-	10 ug/L	1,2-Dibromoethane (EDB)	10 ug/L
1,2-Dichlorobenzene	10 ug/L	1,2-Dichloroethane	10 ug/L
1,2-Dichloropropane	10 ug/L	1,3,5-Trimethylbenzene	10 ug/L
1,3-Butadiene	10 ug/L	1,3-Dichlorobenzene	10 ug/L
1,3-Dichloropropane	10 ug/L	1,4-Dichlorobenzene	10 ug/L
1,4-Dioxane (p-Dioxane)	20 ug/L	2,2-Dichloropropane	10 ug/L
2-Butanone (MEK)	20 ug/L	2-Chloroethylvinyl ether	20 ug/L
2-Chlorotoluene	10 ug/L	2-Hexanone	20 ug/L
2-Nitropropane	10 ug/L	4-Chlorotoluene	10 ug/L
4-Methyl-2-pentanone	20 ug/L	Acetone	20 ug/L
Acetonitrile	20 ug/L	Acrolein	20 ug/L
Acrylonitrile	20 ug/L	Allyl chloride	10 ug/L
Benzene	10 ug/L	Bromobenzene	10 ug/L
Bromochloromethane	10 ug/L	Bromodichloromethane	10 ug/L
Bromoform	10 ug/L	Bromomethane	10 ug/L
Carbon disulfide	10 ug/L	Carbon tetrachloride	10 ug/L
Chlorobenzene	10 ug/L	Chloroethane	10 ug/L
Chloroform	10 ug/L	Chloromethane	10 ug/L
Chloroprene	10 ug/L	Cyclohexane	10 ug/L
Dibromochloromethane	10 ug/L	Dibromomethane	10 ug/L
Dichlorodifluoromethane	10 ug/L	Diethyl ether (Ethyl ether)	10 ug/L
Ethyl acetate	20 ug/L	Ethyl methacrylate	10 ug/L
Ethylbenzene	10 ug/L	Hexachloro-1,3-butadiene	10 ug/L
Iodomethane	10 ug/L	Isobutanol	20 ug/L
Isopropyl acetate	10 ug/L	Isopropylbenzene	10 ug/L
Methacrylonitrile	20 ug/L	Methanol	ug/L
Methyl acetate	20 ug/L	Methyl acrylate	10 ug/L
Methyl methacrylate	10 ug/L	Methyl-tert-butyl ether	10 ug/L
Methylcyclohexane	10 ug/L	Methylene Chloride	10 ug/L
Naphthalene	10 ug/L	Propionitrile	20 ug/L
Styrene	10 ug/L	TOTAL BTEX	60 ug/L
Tetrachloroethene	10 ug/L	Tetrahydrofuran	20 ug/L
Toluene	10 ug/L	Total Trihalomethanes	40 ug/L
Trichloroethene	10 ug/L	Trichlorofluoromethane	10 ug/L
Vinyl acetate	10 ug/L	Vinyl chloride	10 ug/L
Xylene (Total)	30 ug/L	cis-1,2-Dichloroethene	10 ug/L
cis-1,3-Dichloropropene	10 ug/L	cis-1,4-Dichloro-2-butene	10 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	20 ug/L	n-Butanol	20 ug/L
n-Butylbenzene	10 ug/L	n-Hexane	10 ug/L
n-Propylbenzene	10 ug/L	n-amyl acetate	10 ug/L
o-Xylene	10 ug/L	p-Isopropyltoluene	10 ug/L
sec-Butylbenzene	10 ug/L	tert-Butylbenzene	10 ug/L
trans-1,2-Dichloroethene	10 ug/L	trans-1,3-Dichloropropene	10 ug/L
trans-1,4-Dichloro-2-	10 ug/L		

Composed of Information for Standard #27242

Composed of Standard Seq	Volume	Units
27114	0.01	mL
26717	0.01	mL
1	49.98	mL

Standard Log Report

Standards Log Information for Standard #27241

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL5

Notes:

MSV 8260 5PPB

Compound Name and Concentration for Standard #27241

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	5 ug/L	1,1,1-Trichloroethane	5 ug/L
1,1,2,2-Tetrachloroethane	5 ug/L	1,1,2-Trichloroethane	5 ug/L
1,1,2-	5 ug/L	1,1-Dichloroethane	5 ug/L
1,1-Dichloroethene	5 ug/L	1,1-Dichloropropene	5 ug/L
1,2,3-Trichlorobenzene	5 ug/L	1,2,3-Trichloropropane	5 ug/L
1,2,4-Trichlorobenzene	5 ug/L	1,2,4-Trimethylbenzene	5 ug/L
1,2-Dibromo-3-	5 ug/L	1,2-Dibromoethane (EDB)	5 ug/L
1,2-Dichlorobenzene	5 ug/L	1,2-Dichloroethane	5 ug/L
1,2-Dichloropropane	5 ug/L	1,3,5-Trimethylbenzene	5 ug/L
1,3-Butadiene	5 ug/L	1,3-Dichlorobenzene	5 ug/L
1,3-Dichloropropane	5 ug/L	1,4-Dichlorobenzene	5 ug/L
1,4-Dioxane (p-Dioxane)	10 ug/L	2,2-Dichloropropane	5 ug/L
2-Butanone (MEK)	10 ug/L	2-Chloroethylvinyl ether	10 ug/L
2-Chlorotoluene	5 ug/L	2-Hexanone	10 ug/L
2-Nitropropane	5 ug/L	4-Chlorotoluene	5 ug/L
4-Methyl-2-pentanone	10 ug/L	Acetone	10 ug/L
Acetonitrile	10 ug/L	Acrolein	10 ug/L
Acrylonitrile	10 ug/L	Allyl chloride	5 ug/L
Benzene	5 ug/L	Bromobenzene	5 ug/L
Bromochloromethane	5 ug/L	Bromodichloromethane	5 ug/L
Bromoform	5 ug/L	Bromomethane	5 ug/L
Carbon disulfide	5 ug/L	Carbon tetrachloride	5 ug/L
Chlorobenzene	5 ug/L	Chloroethane	5 ug/L
Chloroform	5 ug/L	Chloromethane	5 ug/L
Chloroprene	5 ug/L	Cyclohexane	5 ug/L
Dibromochloromethane	5 ug/L	Dibromomethane	5 ug/L
Dichlorodifluoromethane	5 ug/L	Diethyl ether (Ethyl ether)	5 ug/L
Ethyl acetate	10 ug/L	Ethyl methacrylate	5 ug/L
Ethylbenzene	5 ug/L	Hexachloro-1,3-butadiene	5 ug/L
Iodomethane	5 ug/L	Isobutanol	10 ug/L
Isopropyl acetate	5 ug/L	Isopropylbenzene	5 ug/L
Methacrylonitrile	10 ug/L	Methanol	ug/L
Methyl acetate	10 ug/L	Methyl acrylate	5 ug/L
Methyl methacrylate	5 ug/L	Methyl-tert-butyl ether	5 ug/L
Methylcyclohexane	5 ug/L	Methylene Chloride	5 ug/L
Naphthalene	5 ug/L	Propionitrile	10 ug/L
Styrene	5 ug/L	TOTAL BTEX	30 ug/L
Tetrachloroethene	5 ug/L	Tetrahydrofuran	10 ug/L
Toluene	5 ug/L	Total Trihalomethanes	20 ug/L
Trichloroethene	5 ug/L	Trichlorofluoromethane	5 ug/L
Vinyl acetate	5 ug/L	Vinyl chloride	5 ug/L
Xylene (Total)	15 ug/L	cis-1,2-Dichloroethene	5 ug/L
cis-1,3-Dichloropropene	5 ug/L	cis-1,4-Dichloro-2-butene	5 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	10 ug/L	n-Butanol	10 ug/L
n-Butylbenzene	5 ug/L	n-Hexane	5 ug/L
n-Propylbenzene	5 ug/L	n-amyl acetate	5 ug/L
o-Xylene	5 ug/L	p-Isopropyltoluene	5 ug/L
sec-Butylbenzene	5 ug/L	tert-Butylbenzene	5 ug/L
trans-1,2-Dichloroethene	5 ug/L	trans-1,3-Dichloropropene	5 ug/L
trans-1,4-Dichloro-2-	5 ug/L		

Composed of Information for Standard #27241

Composed of Standard Seq	Volume	Units
27114	0.005	mL
26717	0.005	mL
1	49.99	mL

Standard Log Report

Standards Log Information for Standard #27240

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL4

Notes:

MSV 8260 2PPB

Compound Name and Concentration for Standard #27240

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	2 ug/L	1,1,1-Trichloroethane	2 ug/L
1,1,2,2-Tetrachloroethane	2 ug/L	1,1,2-Trichloroethane	2 ug/L
1,1,2-	2 ug/L	1,1-Dichloroethane	2 ug/L
1,1-Dichloroethene	2 ug/L	1,1-Dichloropropene	2 ug/L
1,2,3-Trichlorobenzene	2 ug/L	1,2,3-Trichloropropane	2 ug/L
1,2,4-Trichlorobenzene	2 ug/L	1,2,4-Trimethylbenzene	2 ug/L
1,2-Dibromo-3-	2 ug/L	1,2-Dibromoethane (EDB)	2 ug/L
1,2-Dichlorobenzene	2 ug/L	1,2-Dichloroethane	2 ug/L
1,2-Dichloropropane	2 ug/L	1,3,5-Trimethylbenzene	2 ug/L
1,3-Butadiene	2 ug/L	1,3-Dichlorobenzene	2 ug/L
1,3-Dichloropropane	2 ug/L	1,4-Dichlorobenzene	2 ug/L
1,4-Dioxane (p-Dioxane)	4 ug/L	2,2-Dichloropropane	2 ug/L
2-Butanone (MEK)	4 ug/L	2-Chloroethylvinyl ether	4 ug/L
2-Chlorotoluene	2 ug/L	2-Hexanone	4 ug/L
2-Nitropropane	2 ug/L	4-Chlorotoluene	2 ug/L
4-Methyl-2-pentanone	4 ug/L	Acetone	4 ug/L
Acetonitrile	4 ug/L	Acrolein	4 ug/L
Acrylonitrile	4 ug/L	Allyl chloride	2 ug/L
Benzene	2 ug/L	Bromobenzene	2 ug/L
Bromochloromethane	2 ug/L	Bromodichloromethane	2 ug/L
Bromoform	2 ug/L	Bromomethane	2 ug/L
Carbon disulfide	2 ug/L	Carbon tetrachloride	2 ug/L
Chlorobenzene	2 ug/L	Chloroethane	2 ug/L
Chloroform	2 ug/L	Chloromethane	2 ug/L
Chloroprene	2 ug/L	Cyclohexane	2 ug/L
Dibromochloromethane	2 ug/L	Dibromomethane	2 ug/L
Dichlorodifluoromethane	2 ug/L	Diethyl ether (Ethyl ether)	2 ug/L
Ethyl acetate	4 ug/L	Ethyl methacrylate	2 ug/L
Ethylbenzene	2 ug/L	Hexachloro-1,3-butadiene	2 ug/L
Iodomethane	2 ug/L	Isobutanol	4 ug/L
Isopropyl acetate	2 ug/L	Isopropylbenzene	2 ug/L
Methacrylonitrile	4 ug/L	Methanol	ug/L
Methyl acetate	4 ug/L	Methyl acrylate	2 ug/L
Methyl methacrylate	2 ug/L	Methyl-tert-butyl ether	2 ug/L
Methylcyclohexane	2 ug/L	Methylene Chloride	2 ug/L
Naphthalene	2 ug/L	Propionitrile	4 ug/L
Styrene	2 ug/L	TOTAL BTEX	12 ug/L
Tetrachloroethene	2 ug/L	Tetrahydrofuran	4 ug/L
Toluene	2 ug/L	Total Trihalomethanes	8 ug/L
Trichloroethene	2 ug/L	Trichlorofluoromethane	2 ug/L
Vinyl acetate	2 ug/L	Vinyl chloride	2 ug/L
Xylene (Total)	6 ug/L	cis-1,2-Dichloroethene	2 ug/L
cis-1,3-Dichloropropene	2 ug/L	cis-1,4-Dichloro-2-butene	2 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	4 ug/L	n-Butanol	4 ug/L
n-Butylbenzene	2 ug/L	n-Hexane	2 ug/L
n-Propylbenzene	2 ug/L	n-amyl acetate	2 ug/L
o-Xylene	2 ug/L	p-Isopropyltoluene	2 ug/L
sec-Butylbenzene	2 ug/L	tert-Butylbenzene	2 ug/L
trans-1,2-Dichloroethene	2 ug/L	trans-1,3-Dichloropropene	2 ug/L
trans-1,4-Dichloro-2-	2 ug/L		

Composed of Information for Standard #27240

Composed of Standard Seq	Volume	Units
27114	0.002	mL
26717	0.002	mL
1	49.996	mL

Standard Log Report

Standards Log Information for Standard #27239

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL3

Notes:

MSV 8260 1PPB

Compound Name and Concentration for Standard #27239

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	1 ug/L	1,1,1-Trichloroethane	1 ug/L
1,1,2,2-Tetrachloroethane	1 ug/L	1,1,2-Trichloroethane	1 ug/L
1,1,2-	1 ug/L	1,1-Dichloroethane	1 ug/L
1,1-Dichloroethene	1 ug/L	1,1-Dichloropropene	1 ug/L
1,2,3-Trichlorobenzene	1 ug/L	1,2,3-Trichloropropane	1 ug/L
1,2,4-Trichlorobenzene	1 ug/L	1,2,4-Trimethylbenzene	1 ug/L
1,2-Dibromo-3-	1 ug/L	1,2-Dibromoethane (EDB)	1 ug/L
1,2-Dichlorobenzene	1 ug/L	1,2-Dichloroethane	1 ug/L
1,2-Dichloropropane	1 ug/L	1,3,5-Trimethylbenzene	1 ug/L
1,3-Butadiene	1 ug/L	1,3-Dichlorobenzene	1 ug/L
1,3-Dichloropropane	1 ug/L	1,4-Dichlorobenzene	1 ug/L
1,4-Dioxane (p-Dioxane)	2 ug/L	2,2-Dichloropropane	1 ug/L
2-Butanone (MEK)	2 ug/L	2-Chloroethylvinyl ether	2 ug/L
2-Chlorotoluene	1 ug/L	2-Hexanone	2 ug/L
2-Nitropropane	1 ug/L	4-Chlorotoluene	1 ug/L
4-Methyl-2-pentanone	2 ug/L	Acetone	2 ug/L
Acetonitrile	2 ug/L	Acrolein	2 ug/L
Acrylonitrile	2 ug/L	Allyl chloride	1 ug/L
Benzene	1 ug/L	Bromobenzene	1 ug/L
Bromochloromethane	1 ug/L	Bromodichloromethane	1 ug/L
Bromoform	1 ug/L	Bromomethane	1 ug/L
Carbon disulfide	1 ug/L	Carbon tetrachloride	1 ug/L
Chlorobenzene	1 ug/L	Chloroethane	1 ug/L
Chloroform	1 ug/L	Chloromethane	1 ug/L
Chloroprene	1 ug/L	Cyclohexane	1 ug/L
Dibromochloromethane	1 ug/L	Dibromomethane	1 ug/L
Dichlorodifluoromethane	1 ug/L	Diethyl ether (Ethyl ether)	1 ug/L
Ethyl acetate	2 ug/L	Ethyl methacrylate	1 ug/L
Ethylbenzene	1 ug/L	Hexachloro-1,3-butadiene	1 ug/L
Iodomethane	1 ug/L	Isobutanol	2 ug/L
Isopropyl acetate	1 ug/L	Isopropylbenzene	1 ug/L
Methacrylonitrile	2 ug/L	Methanol	ug/L
Methyl acetate	2 ug/L	Methyl acrylate	1 ug/L
Methyl methacrylate	1 ug/L	Methyl-tert-butyl ether	1 ug/L
Methylcyclohexane	1 ug/L	Methylene Chloride	1 ug/L
Naphthalene	1 ug/L	Propionitrile	2 ug/L
Styrene	1 ug/L	TOTAL BTEX	6 ug/L
Tetrachloroethene	1 ug/L	Tetrahydrofuran	2 ug/L
Toluene	1 ug/L	Total Trihalomethanes	4 ug/L
Trichloroethene	1 ug/L	Trichlorofluoromethane	1 ug/L
Vinyl acetate	1 ug/L	Vinyl chloride	1 ug/L
Xylene (Total)	3 ug/L	cis-1,2-Dichloroethene	1 ug/L
cis-1,3-Dichloropropene	1 ug/L	cis-1,4-Dichloro-2-butene	1 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	2 ug/L	n-Butanol	2 ug/L
n-Butylbenzene	1 ug/L	n-Hexane	1 ug/L
n-Propylbenzene	1 ug/L	n-amyl acetate	1 ug/L
o-Xylene	1 ug/L	p-Isopropyltoluene	1 ug/L
sec-Butylbenzene	1 ug/L	tert-Butylbenzene	1 ug/L
trans-1,2-Dichloroethene	1 ug/L	trans-1,3-Dichloropropene	1 ug/L
trans-1,4-Dichloro-2-	1 ug/L		

Composed of Information for Standard #27239

Composed of Standard Seq	Volume	Units
27114	0.001	mL
26717	0.001	mL
1	49.998	mL

Standard Log Report

Standards Log Information for Standard #27238

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	100 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL2

Notes:

MSV 8260 0.5PPB

Compound Name and Concentration for Standard #27238

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	.5 ug/L	1,1,1-Trichloroethane	.5 ug/L
1,1,2,2-Tetrachloroethane	.5 ug/L	1,1,2-Trichloroethane	.5 ug/L
1,1,2-	.5 ug/L	1,1-Dichloroethane	.5 ug/L
1,1-Dichloroethene	.5 ug/L	1,1-Dichloropropene	.5 ug/L
1,2,3-Trichlorobenzene	.5 ug/L	1,2,3-Trichloropropane	.5 ug/L
1,2,4-Trichlorobenzene	.5 ug/L	1,2,4-Trimethylbenzene	.5 ug/L
1,2-Dibromo-3-	.5 ug/L	1,2-Dibromoethane (EDB)	.5 ug/L
1,2-Dichlorobenzene	.5 ug/L	1,2-Dichloroethane	.5 ug/L
1,2-Dichloropropane	.5 ug/L	1,3,5-Trimethylbenzene	.5 ug/L
1,3-Butadiene	.5 ug/L	1,3-Dichlorobenzene	.5 ug/L
1,3-Dichloropropane	.5 ug/L	1,4-Dichlorobenzene	.5 ug/L
1,4-Dioxane (p-Dioxane)	1 ug/L	2,2-Dichloropropane	.5 ug/L
2-Butanone (MEK)	1 ug/L	2-Chloroethylvinyl ether	1 ug/L
2-Chlorotoluene	.5 ug/L	2-Hexanone	1 ug/L
2-Nitropropane	.5 ug/L	4-Chlorotoluene	.5 ug/L
4-Methyl-2-pentanone	1 ug/L	Acetone	1 ug/L
Acetonitrile	1 ug/L	Acrolein	1 ug/L
Acrylonitrile	1 ug/L	Allyl chloride	.5 ug/L
Benzene	.5 ug/L	Bromobenzene	.5 ug/L
Bromochloromethane	.5 ug/L	Bromodichloromethane	.5 ug/L
Bromoform	.5 ug/L	Bromomethane	.5 ug/L
Carbon disulfide	.5 ug/L	Carbon tetrachloride	.5 ug/L
Chlorobenzene	.5 ug/L	Chloroethane	.5 ug/L
Chloroform	.5 ug/L	Chloromethane	.5 ug/L
Chloroprene	.5 ug/L	Cyclohexane	.5 ug/L
Dibromochloromethane	.5 ug/L	Dibromomethane	.5 ug/L
Dichlorodifluoromethane	.5 ug/L	Diethyl ether (Ethyl ether)	.5 ug/L
Ethyl acetate	1 ug/L	Ethyl methacrylate	.5 ug/L
Ethylbenzene	.5 ug/L	Hexachloro-1,3-butadiene	.5 ug/L
Iodomethane	.5 ug/L	Isobutanol	1 ug/L
Isopropyl acetate	.5 ug/L	Isopropylbenzene	.5 ug/L
Methacrylonitrile	1 ug/L	Methanol	ug/L
Methyl acetate	1 ug/L	Methyl acrylate	.5 ug/L
Methyl methacrylate	.5 ug/L	Methyl-tert-butyl ether	.5 ug/L
Methylcyclohexane	.5 ug/L	Methylene Chloride	.5 ug/L
Naphthalene	.5 ug/L	Propionitrile	1 ug/L
Styrene	.5 ug/L	TOTAL BTEX	3 ug/L
Tetrachloroethene	.5 ug/L	Tetrahydrofuran	1 ug/L
Toluene	.5 ug/L	Total Trihalomethanes	2 ug/L
Trichloroethene	.5 ug/L	Trichlorofluoromethane	.5 ug/L
Vinyl acetate	.5 ug/L	Vinyl chloride	.5 ug/L
Xylene (Total)	1.5 ug/L	cis-1,2-Dichloroethene	.5 ug/L
cis-1,3-Dichloropropene	.5 ug/L	cis-1,4-Dichloro-2-butene	.5 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	1 ug/L	n-Butanol	1 ug/L
n-Butylbenzene	.5 ug/L	n-Hexane	.5 ug/L
n-Propylbenzene	.5 ug/L	n-amyl acetate	.5 ug/L
o-Xylene	.5 ug/L	p-Isopropyltoluene	.5 ug/L
sec-Butylbenzene	.5 ug/L	tert-Butylbenzene	.5 ug/L
trans-1,2-Dichloroethene	.5 ug/L	trans-1,3-Dichloropropene	.5 ug/L
trans-1,4-Dichloro-2-	.5 ug/L		

Composed of Information for Standard #27238

Composed of Standard Seq	Volume	Units
27114	0.001	mL
26717	0.001	mL
1	99.998	mL

Standard Log Report

Standards Log Information for Standard #27237

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	100 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL1

Notes:

MSV 8260 0.2 PPB

Compound Name and Concentration for Standard #27237

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	.2 ug/L	1,1,1-Trichloroethane	.2 ug/L
1,1,2,2-Tetrachloroethane	.2 ug/L	1,1,2-Trichloroethane	.2 ug/L
1,1,2-	.2 ug/L	1,1-Dichloroethane	.2 ug/L
1,1-Dichloroethene	.2 ug/L	1,1-Dichloropropene	.2 ug/L
1,2,3-Trichlorobenzene	.2 ug/L	1,2,3-Trichloropropane	.2 ug/L
1,2,4-Trichlorobenzene	.2 ug/L	1,2,4-Trimethylbenzene	.2 ug/L
1,2-Dibromo-3-	.2 ug/L	1,2-Dibromoethane (EDB)	.2 ug/L
1,2-Dichlorobenzene	.2 ug/L	1,2-Dichloroethane	.2 ug/L
1,2-Dichloropropane	.2 ug/L	1,3,5-Trimethylbenzene	.2 ug/L
1,3-Butadiene	.2 ug/L	1,3-Dichlorobenzene	.2 ug/L
1,3-Dichloropropane	.2 ug/L	1,4-Dichlorobenzene	.2 ug/L
1,4-Dioxane (p-Dioxane)	.4 ug/L	2,2-Dichloropropane	.2 ug/L
2-Butanone (MEK)	.4 ug/L	2-Chloroethylvinyl ether	.4 ug/L
2-Chlorotoluene	.2 ug/L	2-Hexanone	.4 ug/L
2-Nitropropane	.2 ug/L	4-Chlorotoluene	.2 ug/L
4-Methyl-2-pentanone	.4 ug/L	Acetone	.4 ug/L
Acetonitrile	.4 ug/L	Acrolein	.4 ug/L
Acrylonitrile	.4 ug/L	Allyl chloride	.2 ug/L
Benzene	.2 ug/L	Bromobenzene	.2 ug/L
Bromochloromethane	.2 ug/L	Bromodichloromethane	.2 ug/L
Bromoform	.2 ug/L	Bromomethane	.2 ug/L
Carbon disulfide	.2 ug/L	Carbon tetrachloride	.2 ug/L
Chlorobenzene	.2 ug/L	Chloroethane	.2 ug/L
Chloroform	.2 ug/L	Chloromethane	.2 ug/L
Chloroprene	.2 ug/L	Cyclohexane	.2 ug/L
Dibromochloromethane	.2 ug/L	Dibromomethane	.2 ug/L
Dichlorodifluoromethane	.2 ug/L	Diethyl ether (Ethyl ether)	.2 ug/L
Ethyl acetate	.4 ug/L	Ethyl methacrylate	.2 ug/L
Ethylbenzene	.2 ug/L	Hexachloro-1,3-butadiene	.2 ug/L
Iodomethane	.2 ug/L	Isobutanol	.4 ug/L
Isopropyl acetate	.2 ug/L	Isopropylbenzene	.2 ug/L
Methacrylonitrile	.4 ug/L	Methanol	ug/L
Methyl acetate	.4 ug/L	Methyl acrylate	.2 ug/L
Methyl methacrylate	.2 ug/L	Methyl-tert-butyl ether	.2 ug/L
Methylcyclohexane	.2 ug/L	Methylene Chloride	.2 ug/L
Naphthalene	.2 ug/L	Propionitrile	.4 ug/L
Styrene	.2 ug/L	TOTAL BTEX	1.2 ug/L
Tetrachloroethene	.2 ug/L	Tetrahydrofuran	.4 ug/L
Toluene	.2 ug/L	Total Trihalomethanes	.8 ug/L
Trichloroethene	.2 ug/L	Trichlorofluoromethane	.2 ug/L
Vinyl acetate	.2 ug/L	Vinyl chloride	.2 ug/L
Xylene (Total)	.6 ug/L	cis-1,2-Dichloroethene	.2 ug/L
cis-1,3-Dichloropropene	.2 ug/L	cis-1,4-Dichloro-2-butene	.2 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	.4 ug/L	n-Butanol	.4 ug/L
n-Butylbenzene	.2 ug/L	n-Hexane	.2 ug/L
n-Propylbenzene	.2 ug/L	n-amyl acetate	.2 ug/L
o-Xylene	.2 ug/L	p-Isopropyltoluene	.2 ug/L
sec-Butylbenzene	.2 ug/L	tert-Butylbenzene	.2 ug/L
trans-1,2-Dichloroethene	.2 ug/L	trans-1,3-Dichloropropene	.2 ug/L
trans-1,4-Dichloro-2-	.2 ug/L		

Composed of Information for Standard #27237

Composed of Standard Seq	Volume	Units
27114	0.0004	mL
26717	0.0004	mL
1	99.9992	mL

Standard Log Report

Standards Log Information for Standard #27136

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/19/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CCV

Notes:

MSV 8260 CCV

Compound Name and Concentration for Standard #27136

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	20 ug/L	1,1,1-Trichloroethane	20 ug/L
1,1,2,2-Tetrachloroethane	20 ug/L	1,1,2-Trichloroethane	20 ug/L
1,1,2-	20 ug/L	1,1-Dichloroethane	20 ug/L
1,1-Dichloroethene	20 ug/L	1,1-Dichloropropene	20 ug/L
1,2,3-Trichlorobenzene	20 ug/L	1,2,3-Trichloropropane	20 ug/L
1,2,4-Trichlorobenzene	20 ug/L	1,2,4-Trimethylbenzene	20 ug/L
1,2-Dibromo-3-	20 ug/L	1,2-Dibromoethane (EDB)	20 ug/L
1,2-Dichlorobenzene	20 ug/L	1,2-Dichloroethane	20 ug/L
1,2-Dichloropropane	20 ug/L	1,3,5-Trimethylbenzene	20 ug/L
1,3-Butadiene	20 ug/L	1,3-Dichlorobenzene	20 ug/L
1,3-Dichloropropane	20 ug/L	1,4-Dichlorobenzene	20 ug/L
1,4-Dioxane (p-Dioxane)	40 ug/L	2,2-Dichloropropane	20 ug/L
2-Butanone (MEK)	40 ug/L	2-Chloroethylvinyl ether	40 ug/L
2-Chlorotoluene	20 ug/L	2-Hexanone	40 ug/L
2-Nitropropane	20 ug/L	4-Chlorotoluene	20 ug/L
4-Methyl-2-pentanone	40 ug/L	Acetone	40 ug/L
Acetonitrile	40 ug/L	Acrolein	40 ug/L
Acrylonitrile	40 ug/L	Allyl chloride	20 ug/L
Benzene	20 ug/L	Bromobenzene	20 ug/L
Bromochloromethane	20 ug/L	Bromodichloromethane	20 ug/L
Bromoform	20 ug/L	Bromomethane	20 ug/L
Carbon disulfide	20 ug/L	Carbon tetrachloride	20 ug/L
Chlorobenzene	20 ug/L	Chloroethane	20 ug/L
Chloroform	20 ug/L	Chloromethane	20 ug/L
Chloroprene	20 ug/L	Cyclohexane	20 ug/L
DI Water	ug/L	Dibromochloromethane	20 ug/L
Dibromomethane	20 ug/L	Dichlorodifluoromethane	20 ug/L
Diethyl ether (Ethyl ether)	20 ug/L	Ethyl acetate	40 ug/L
Ethyl methacrylate	20 ug/L	Ethylbenzene	20 ug/L
Hexachloro-1,3-butadiene	20 ug/L	Iodomethane	20 ug/L
Isobutanol	40 ug/L	Isopropyl acetate	20 ug/L
Isopropylbenzene	20 ug/L	Methacrylonitrile	40 ug/L
Methanol	ug/L	Methyl acetate	40 ug/L
Methyl acrylate	20 ug/L	Methyl methacrylate	20 ug/L
Methyl-tert-butyl ether	20 ug/L	Methylcyclohexane	20 ug/L
Methylene Chloride	20 ug/L	Naphthalene	20 ug/L
Propionitrile	40 ug/L	Styrene	20 ug/L
TOTAL BTEX	120 ug/L	Tetrachloroethene	20 ug/L
Tetrahydrofuran	40 ug/L	Toluene	20 ug/L
Total Trihalomethanes	80 ug/L	Trichloroethene	20 ug/L
Trichlorofluoromethane	20 ug/L	Vinyl acetate	20 ug/L
Vinyl chloride	20 ug/L	Xylene (Total)	60 ug/L
cis-1,2-Dichloroethene	20 ug/L	cis-1,3-Dichloropropene	20 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
cis-1,4-Dichloro-2-butene	20 ug/L	m&p-Xylene	40 ug/L
n-Butanol	40 ug/L	n-Butylbenzene	20 ug/L
n-Hexane	20 ug/L	n-Propylbenzene	20 ug/L
n-amyl acetate	20 ug/L	o-Xylene	20 ug/L
p-Isopropyltoluene	20 ug/L	sec-Butylbenzene	20 ug/L
tert-Butylbenzene	20 ug/L	trans-1,2-Dichloroethene	20 ug/L
trans-1,3-Dichloropropene	20 ug/L	trans-1,4-Dichloro-2-	20 ug/L

Composed of Information for Standard #27136

Composed of Standard Seq	Volume	Units
27114	0.02	mL
26717	0.02	mL
1	49.96	mL

Standard Log Report

Standards Log Information for Standard #27116

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/18/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260GAS-SPK

Notes:

MSV 8260 Agilent Secondary Gas Spike MIX

Compound Name and Concentration for Standard #27116

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	100 ug/mL	Acrolein	100 ug/mL
Acrylonitrile	100 ug/mL	Bromomethane	50 ug/mL
Chloroethane	50 ug/mL	Chloromethane	50 ug/mL
Dichlorodifluoromethane	50 ug/mL	Methanol	ug/mL
Methyl acetate	100 ug/mL	Trichlorofluoromethane	50 ug/mL
Vinyl acetate	50 ug/mL	Vinyl chloride	50 ug/mL

Composed of Information for Standard #27116

Composed of Standard Seq	Volume	Units
26774	23.5	mL
26712	0.625	mL
26711	0.25	mL
26710	0.625	mL

Standard Log Report

Standards Log Information for Standard #27114

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/18/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260GAS-SPK

Notes:

MSV 8260 Phenova Primary Gas Spike MIX

Compound Name and Concentration for Standard #27114

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	100 ug/mL	Acrolein	100 ug/mL
Acrylonitrile	100 ug/mL	Bromomethane	50 ug/mL
Chloroethane	50 ug/mL	Chloromethane	50 ug/mL
Dichlorodifluoromethane	50 ug/mL	Methanol	ug/mL
Methyl acetate	100 ug/mL	Trichlorofluoromethane	50 ug/mL
Vinyl acetate	50 ug/mL	Vinyl chloride	50 ug/mL

Composed of Information for Standard #27114

Composed of Standard Seq	Volume	Units
26774	23.25	mL
26387	0.25	mL
26386	0.625	mL
26385	0.25	mL
24913	0.625	mL

Standard Log Report

Standards Log Information for Standard #26774

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	522674
Create Date:	08/07/2020	**Manufacturer:**	Fisher Scientific	**Part ID:**	A453-500
Expire Date:	02/03/2021	**Manufacturer Lot ID:**	198331	**Standard ID:**	RGNT179

Notes:

MSV P/T Methanol

Compound Name and Concentration for Standard #26774

Compound Name	Concentration	Compound Name	Concentration
Methanol			

Standard Log Report

Standards Log Information for Standard #26718

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/06/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/05/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-SPK

Notes:

MSV 8260 Agilent Secondary Mega Mix Spike

Compound Name and Concentration for Standard #26718

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	50 ug/mL	1,1,1-Trichloroethane	50 ug/mL
1,1,2,2-Tetrachloroethane	50 ug/mL	1,1,2-Trichloroethane	50 ug/mL
1,1,2-	50 ug/mL	1,1-Dichloroethane	50 ug/mL
1,1-Dichloroethene	50 ug/mL	1,1-Dichloropropene	50 ug/mL
1,2,3-Trichlorobenzene	50 ug/mL	1,2,3-Trichloropropane	50 ug/mL
1,2,4-Trichlorobenzene	50 ug/mL	1,2,4-Trimethylbenzene	50 ug/mL
1,2-Dibromo-3-	50 ug/mL	1,2-Dibromoethane (EDB)	50 ug/mL
1,2-Dichlorobenzene	50 ug/mL	1,2-Dichloroethane	50 ug/mL
1,2-Dichloropropane	50 ug/mL	1,3,5-Trimethylbenzene	50 ug/mL
1,3-Butadiene	50 ug/mL	1,3-Dichlorobenzene	50 ug/mL
1,3-Dichloropropane	50 ug/mL	1,4-Dichlorobenzene	50 ug/mL
1,4-Dioxane (p-Dioxane)	100 ug/mL	2,2-Dichloropropane	50 ug/mL
2-Butanone (MEK)	100 ug/mL	2-Chlorotoluene	50 ug/mL
2-Hexanone	100 ug/mL	2-Nitropropane	50 ug/mL
4-Chlorotoluene	50 ug/mL	4-Methyl-2-pentanone	100 ug/mL
Acetone	100 ug/mL	Acetonitrile	100 ug/mL
Allyl chloride	50 ug/mL	Benzene	50 ug/mL
Bromobenzene	50 ug/mL	Bromochloromethane	50 ug/mL
Bromodichloromethane	50 ug/mL	Bromoform	50 ug/mL
Carbon disulfide	50 ug/mL	Carbon tetrachloride	50 ug/mL
Chlorobenzene	50 ug/mL	Chloroform	50 ug/mL
Chloroprene	50 ug/mL	Cyclohexane	50 ug/mL
Dibromochloromethane	50 ug/mL	Dibromomethane	50 ug/mL
Diethyl ether (Ethyl ether)	50 ug/mL	Ethyl acetate	100 ug/mL
Ethyl methacrylate	50 ug/mL	Ethylbenzene	50 ug/mL
Hexachloro-1,3-butadiene	50 ug/mL	Iodomethane	50 ug/mL
Isobutanol	100 ug/mL	Isopropyl acetate	50 ug/mL
Isopropylbenzene	50 ug/mL	Methacrylonitrile	100 ug/mL
Methanol	ug/mL	Methyl acrylate	50 ug/mL
Methyl methacrylate	50 ug/mL	Methyl-tert-butyl ether	50 ug/mL
Methylcyclohexane	50 ug/mL	Methylene Chloride	50 ug/mL
Naphthalene	50 ug/mL	Propionitrile	100 ug/mL
Styrene	50 ug/mL	TOTAL BTEX	300 ug/mL
Tetrachloroethene	50 ug/mL	Tetrahydrofuran	100 ug/mL
Toluene	50 ug/mL	Total Trihalomethanes	200 ug/mL
Trichloroethene	50 ug/mL	Xylene (Total)	150 ug/mL
cis-1,2-Dichloroethene	50 ug/mL	cis-1,3-Dichloropropene	50 ug/mL
cis-1,4-Dichloro-2-butene	50 ug/mL	m&p-Xylene	100 ug/mL
n-Butanol	100 ug/mL	n-Butylbenzene	50 ug/mL
n-Hexane	50 ug/mL	n-Propylbenzene	50 ug/mL
n-amyl acetate	50 ug/mL	o-Xylene	50 ug/mL
p-Isopropyltoluene	50 ug/mL	sec-Butylbenzene	50 ug/mL
tert-Butylbenzene	50 ug/mL	trans-1,2-Dichloroethene	50 ug/mL

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
trans-1,3-Dichloropropene	50 ug/mL	trans-1,4-Dichloro-2-	50 ug/mL

Composed of Information for Standard #26718

Composed of Standard Seq	Volume	Units
26117	21.375	mL
25570	0.25	mL
25569	0.25	mL
25568	0.625	mL
25566	0.625	mL
25565	0.625	mL
25564	0.625	mL

Standard Log Report

Standards Log Information for Standard #26717

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/06/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/05/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-SPK

Notes:

MSV 8260 Phenova Primary Mega Mix Spike

Compound Name and Concentration for Standard #26717

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	50 ug/mL	1,1,1-Trichloroethane	50 ug/mL
1,1,2,2-Tetrachloroethane	50 ug/mL	1,1,2-Trichloroethane	50 ug/mL
1,1,2-	50 ug/mL	1,1-Dichloroethane	50 ug/mL
1,1-Dichloroethene	50 ug/mL	1,1-Dichloropropene	50 ug/mL
1,2,3-Trichlorobenzene	50 ug/mL	1,2,3-Trichloropropane	50 ug/mL
1,2,4-Trichlorobenzene	50 ug/mL	1,2,4-Trimethylbenzene	50 ug/mL
1,2-Dibromo-3-	50 ug/mL	1,2-Dibromoethane (EDB)	50 ug/mL
1,2-Dichlorobenzene	50 ug/mL	1,2-Dichloroethane	50 ug/mL
1,2-Dichloropropane	50 ug/mL	1,3,5-Trimethylbenzene	50 ug/mL
1,3-Butadiene	50 ug/mL	1,3-Dichlorobenzene	50 ug/mL
1,3-Dichloropropane	50 ug/mL	1,4-Dichlorobenzene	50 ug/mL
1,4-Dioxane (p-Dioxane)	100 ug/mL	2,2-Dichloropropane	50 ug/mL
2-Butanone (MEK)	100 ug/mL	2-Chlorotoluene	50 ug/mL
2-Hexanone	100 ug/mL	2-Nitropropane	50 ug/mL
4-Chlorotoluene	50 ug/mL	4-Methyl-2-pentanone	100 ug/mL
Acetone	100 ug/mL	Acetonitrile	100 ug/mL
Allyl chloride	50 ug/mL	Benzene	50 ug/mL
Bromobenzene	50 ug/mL	Bromochloromethane	50 ug/mL
Bromodichloromethane	50 ug/mL	Bromoform	50 ug/mL
Carbon disulfide	50 ug/mL	Carbon tetrachloride	50 ug/mL
Chlorobenzene	50 ug/mL	Chloroform	50 ug/mL
Chloroprene	50 ug/mL	Cyclohexane	50 ug/mL
Dibromochloromethane	50 ug/mL	Dibromomethane	50 ug/mL
Diethyl ether (Ethyl ether)	50 ug/mL	Ethyl acetate	100 ug/mL
Ethyl methacrylate	50 ug/mL	Ethylbenzene	50 ug/mL
Hexachloro-1,3-butadiene	50 ug/mL	Iodomethane	50 ug/mL
Isobutanol	100 ug/mL	Isopropyl acetate	50 ug/mL
Isopropylbenzene	50 ug/mL	Methacrylonitrile	100 ug/mL
Methanol	ug/mL	Methyl acrylate	50 ug/mL
Methyl methacrylate	50 ug/mL	Methyl-tert-butyl ether	50 ug/mL
Methylcyclohexane	50 ug/mL	Methylene Chloride	50 ug/mL
Naphthalene	50 ug/mL	Propionitrile	100 ug/mL
Styrene	50 ug/mL	TOTAL BTEX	300 ug/mL
Tetrachloroethene	50 ug/mL	Tetrahydrofuran	100 ug/mL
Toluene	50 ug/mL	Total Trihalomethanes	200 ug/mL
Trichloroethene	50 ug/mL	Xylene (Total)	150 ug/mL
cis-1,2-Dichloroethene	50 ug/mL	cis-1,3-Dichloropropene	50 ug/mL
cis-1,4-Dichloro-2-butene	50 ug/mL	m&p-Xylene	100 ug/mL
n-Butanol	100 ug/mL	n-Butylbenzene	50 ug/mL
n-Hexane	50 ug/mL	n-Propylbenzene	50 ug/mL
n-amyl acetate	50 ug/mL	o-Xylene	50 ug/mL
p-Isopropyltoluene	50 ug/mL	sec-Butylbenzene	50 ug/mL
tert-Butylbenzene	50 ug/mL	trans-1,2-Dichloroethene	50 ug/mL

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
trans-1,3-Dichloropropene	50 ug/mL	trans-1,4-Dichloro-2-	50 ug/mL

Composed of Information for Standard #26717

Composed of Standard Seq	Volume	Units
26117	22.625	mL
23770	0.625	mL
23769	0.625	mL
23768	0.625	mL
23767	0.25	mL
23766	0.25	mL

Standard Log Report

Standards Log Information for Standard #26712

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522672
Create Date:	08/06/2020	**Manufacturer:**	Agilent	**Part ID:**	3095185
Expire Date:	11/30/2020	**Manufacturer Lot ID:**	0006547794	**Standard ID:**	ACETATESTK

Notes:

MSV Custom Acetate Mix-Secondary Source

Compound Name and Concentration for Standard #26712

Compound Name	Concentration	Compound Name	Concentration
Vinyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26711

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522671
Create Date:	08/06/2020	**Manufacturer:**	Agilent	**Part ID:**	3059401
Expire Date:	11/30/2020	**Manufacturer Lot ID:**	0006547796	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #26711

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	10000 ug/mL	Acrolein	10000 ug/mL
Acrylonitrile	10000 ug/mL	Methyl acetate	10000 ug/mL

Standard Log Report

Standards Log Information for Standard #26710

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522670
Create Date:	08/06/2020	**Manufacturer:**	Agilent	**Part ID:**	3059400
Expire Date:	08/31/2022	**Manufacturer Lot ID:**	0006547006	**Standard ID:**	MSV-GAS-SS

Notes:

MSV 502.2 Cal Mix#1-Secondary Source

Compound Name and Concentration for Standard #26710

Compound Name	Concentration	Compound Name	Concentration
Bromomethane	2000 ug/mL	Chloroethane	2000 ug/mL
Chloromethane	2000 ug/mL	Dichlorodifluoromethane	2000 ug/mL
Trichlorofluoromethane	2000 ug/mL	Vinyl chloride	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #26400

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	10 mL	**Lot ID:**	PACE
Create Date:	07/30/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/29/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-ISSS

Notes:

MSV Working MV02 524/8260 IS/Surrogate

Compound Name and Concentration for Standard #26400

Compound Name	Concentration	Compound Name	Concentration
1,2-Dichlorobenzene-d4 (S)	50 mg/L	1,2-Dichloroethane-d4 (S)	50 mg/L
1,4-Dichlorobenzene-d4	50 mg/L	1,4-Difluorobenzene (IS)	50 mg/L
4-Bromofluorobenzene (S)	50 mg/L	Chlorobenzene-D5 (IS)	50 mg/L
Dibromofluoromethane (S)	50 mg/L	Fluorobenzene (IS)	50 mg/L
Methanol	mg/L	Pentafluorobenzene (IS)	50 mg/L
Toluene-d8 (S)	50 mg/L		

Composed of Information for Standard #26400

Composed of Standard Seq	Volume	Units
26117	9.1	mL
24910	0.25	mL
24909	0.25	mL
24908	0.2	mL
24907	0.2	mL

Standard Log Report

Standards Log Information for Standard #26387

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522645
Create Date:	07/29/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180007
Expire Date:	10/31/2020	**Manufacturer Lot ID:**	CL15234	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Reactives Std-Primary Source

Compound Name and Concentration for Standard #26387

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	10000 ug/mL	Acrylonitrile	10000 ug/mL
Methyl acetate	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26386

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522644
Create Date:	07/29/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180018
Expire Date:	08/27/2020	**Manufacturer Lot ID:**	CL15596	**Standard ID:**	ACETATEPSTK

Notes:

MSV Phenova Custom Acetate Mix-Primary Source

Compound Name and Concentration for Standard #26386

Compound Name	Concentration	Compound Name	Concentration
Vinyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26385

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522643
Create Date:	07/29/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180017
Expire Date:	08/27/2020	**Manufacturer Lot ID:**	CL15595	**Standard ID:**	AcrolienPSTK

Notes:

MSV Phenova Acrolein Stock Standard - Primary

Compound Name and Concentration for Standard #26385

Compound Name	Concentration	Compound Name	Concentration
Acrolein	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26117

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	522617
Create Date:	07/22/2020	**Manufacturer:**	Fisher Scientific	**Part ID:**	A453-500
Expire Date:	01/18/2021	**Manufacturer Lot ID:**	198331	**Standard ID:**	RGNT179

Notes:

MSV P/T Methanol

Compound Name and Concentration for Standard #26117

Compound Name	Concentration	Compound Name	Concentration
Methanol			

Standard Log Report

Standards Log Information for Standard #25570

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522580
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059390
Expire Date:	04/30/2021	**Manufacturer Lot ID:**	0006527178	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #25570

Compound Name	Concentration	Compound Name	Concentration
n-Butanol	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25569

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522579
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059399
Expire Date:	07/31/2022	**Manufacturer Lot ID:**	00006542413	**Standard ID:**	VOACALMX1

Notes:

MSV VOA Calibration Mix#1-Secondary Source

Compound Name and Concentration for Standard #25569

Compound Name	Concentration	Compound Name	Concentration
1,4-Dioxane (p-Dioxane)	10000 ug/mL	2-Butanone (MEK)	10000 ug/mL
2-Hexanone	10000 ug/mL	4-Methyl-2-pentanone	10000 ug/mL
Acetone	10000 ug/mL	Acetonitrile	10000 ug/mL
Ethyl acetate	10000 ug/mL	Isobutanol	10000 ug/mL
Methacrylonitrile	10000 ug/mL	Propionitrile	10000 ug/mL
Tetrahydrofuran	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25568

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522578
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059396
Expire Date:	04/30/2022	**Manufacturer Lot ID:**	0006527210	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #25568

Compound Name	Concentration	Compound Name	Concentration
Chloroprene	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25566

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522576
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3154935
Expire Date:	09/30/2020	**Manufacturer Lot ID:**	0006537291	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #25566

Compound Name	Concentration	Compound Name	Concentration
Isopropyl acetate	2000 ug/mL	Methyl acrylate	2000 ug/mL
n-amyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25565

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522575
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3083487
Expire Date:	04/30/2021	**Manufacturer Lot ID:**	0006527215	**Standard ID:**	ButadieneSTK

Notes:

MSV 1,3-Butadiene Stock-Secondary Source

Compound Name and Concentration for Standard #25565

Compound Name	Concentration	Compound Name	Concentration
1,3-Butadiene	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25564

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522574
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059393
Expire Date:	07/31/2022	**Manufacturer Lot ID:**	0006542412	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Mix-Agilent Secondary Source

Compound Name and Concentration for Standard #25564

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	2000 ug/mL	1,1,1-Trichloroethane	2000 ug/mL
1,1,2,2-Tetrachloroethane	2000 ug/mL	1,1,2-Trichloroethane	2000 ug/mL
1,1,2-	2000 ug/mL	1,1-Dichloroethane	2000 ug/mL
1,1-Dichloroethene	2000 ug/mL	1,1-Dichloropropene	2000 ug/mL
1,2,3-Trichlorobenzene	2000 ug/mL	1,2,3-Trichloropropane	2000 ug/mL
1,2,4-Trichlorobenzene	2000 ug/mL	1,2,4-Trimethylbenzene	2000 ug/mL
1,2-Dibromo-3-	2000 ug/mL	1,2-Dibromoethane (EDB)	2000 ug/mL
1,2-Dichlorobenzene	2000 ug/mL	1,2-Dichloroethane	2000 ug/mL
1,2-Dichloropropane	2000 ug/mL	1,3,5-Trimethylbenzene	2000 ug/mL
1,3-Dichlorobenzene	2000 ug/mL	1,3-Dichloropropane	2000 ug/mL
1,4-Dichlorobenzene	2000 ug/mL	2,2-Dichloropropane	2000 ug/mL
2-Chlorotoluene	2000 ug/mL	2-Nitropropane	2000 ug/mL
4-Chlorotoluene	2000 ug/mL	Allyl chloride	2000 ug/mL
Benzene	2000 ug/mL	Bromobenzene	2000 ug/mL
Bromochloromethane	2000 ug/mL	Bromodichloromethane	2000 ug/mL
Bromoform	2000 ug/mL	Carbon disulfide	2000 ug/mL
Carbon tetrachloride	2000 ug/mL	Chlorobenzene	2000 ug/mL
Chloroform	2000 ug/mL	Cyclohexane	2000 ug/mL
Dibromochloromethane	2000 ug/mL	Dibromomethane	2000 ug/mL
Diethyl ether (Ethyl ether)	2000 ug/mL	Ethyl methacrylate	2000 ug/mL
Ethylbenzene	2000 ug/mL	Hexachloro-1,3-butadiene	2000 ug/mL
Iodomethane	2000 ug/mL	Isopropylbenzene	2000 ug/mL
Methyl methacrylate	2000 ug/mL	Methyl-tert-butyl ether	2000 ug/mL
Methylcyclohexane	2000 ug/mL	Methylene Chloride	2000 ug/mL
Naphthalene	2000 ug/mL	Styrene	2000 ug/mL
TOTAL BTEX	12000 ug/mL	Tetrachloroethene	2000 ug/mL
Toluene	2000 ug/mL	Total Trihalomethanes	8000 ug/mL
Trichloroethene	2000 ug/mL	Xylene (Total)	6000 ug/mL
cis-1,2-Dichloroethene	2000 ug/mL	cis-1,3-Dichloropropene	2000 ug/mL
cis-1,4-Dichloro-2-butene	2000 ug/mL	m&p-Xylene	4000 ug/mL
n-Butylbenzene	2000 ug/mL	n-Hexane	2000 ug/mL
n-Propylbenzene	2000 ug/mL	o-Xylene	2000 ug/mL
p-Isopropyltoluene	2000 ug/mL	sec-Butylbenzene	2000 ug/mL
tert-Butylbenzene	2000 ug/mL	trans-1,2-Dichloroethene	2000 ug/mL
trans-1,3-Dichloropropene	2000 ug/mL	trans-1,4-Dichloro-2-	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #24913

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522539
Create Date:	06/23/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180002
Expire Date:	08/31/2024	**Manufacturer Lot ID:**	CL14053	**Standard ID:**	MSV-GAS-PS

Notes:

MSV 502.2 Cal Mix#1-Primary Source

Compound Name and Concentration for Standard #24913

Compound Name	Concentration	Compound Name	Concentration
Bromomethane	2000 ug/mL	Chloroethane	2000 ug/mL
Chloromethane	2000 ug/mL	Dichlorodifluoromethane	2000 ug/mL
Trichlorofluoromethane	2000 ug/mL	Vinyl chloride	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #24910

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522538
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30030
Expire Date:	02/28/2025	**Manufacturer Lot ID:**	A0158124	**Standard ID:**	524 IS STK

Notes:

MSV 524.2 Fluorobenzene IS Stock

Compound Name and Concentration for Standard #24910

Compound Name	Concentration	Compound Name	Concentration
Fluorobenzene (IS)	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #24909

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522537
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30049
Expire Date:	08/31/2028	**Manufacturer Lot ID:**	A0160880	**Standard ID:**	524 Surr STK

Notes:

MSV 524 Surrogate 1,2-Dichlorobenzene-d4

Compound Name and Concentration for Standard #24909

Compound Name	Concentration	Compound Name	Concentration
1,2-Dichlorobenzene-d4 (S)	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #24908

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522536
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30240
Expire Date:	01/31/2025	**Manufacturer Lot ID:**	A0156492	**Standard ID:**	8260 SUR STK

Notes:

MSV 8260 Surrogate Stock

Compound Name and Concentration for Standard #24908

Compound Name	Concentration	Compound Name	Concentration
1,2-Dichloroethane-d4 (S)	2500 ug/mL	4-Bromofluorobenzene (S)	2500 ug/mL
Dibromofluoromethane (S)	2500 ug/mL	Toluene-d8 (S)	2500 ug/mL

Standard Log Report

Standards Log Information for Standard #24907

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522535
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30074
Expire Date:	04/30/2025	**Manufacturer Lot ID:**	A0159786	**Standard ID:**	8260 IS

Notes:

MSV 8260 IS Stock

Compound Name and Concentration for Standard #24907

Compound Name	Concentration	Compound Name	Concentration
1,4-Dichlorobenzene-d4	2500 ug/mL	1,4-Difluorobenzene (IS)	2500 ug/mL
Chlorobenzene-D5 (IS)	2500 ug/mL	Pentafluorobenzene (IS)	2500 ug/mL

Standard Log Report

Standards Log Information for Standard #23770

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522451
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180001
Expire Date:	12/31/2021	**Manufacturer Lot ID:**	CL14606	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Mix-Primary Source

Compound Name and Concentration for Standard #23770

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	2000 ug/mL	1,1,1-Trichloroethane	2000 ug/mL
1,1,2,2-Tetrachloroethane	2000 ug/mL	1,1,2-Trichloroethane	2000 ug/mL
1,1,2-	2000 ug/mL	1,1-Dichloroethane	2000 ug/mL
1,1-Dichloroethene	2000 ug/mL	1,1-Dichloropropene	2000 ug/mL
1,2,3-Trichlorobenzene	2000 ug/mL	1,2,3-Trichloropropane	2000 ug/mL
1,2,4-Trichlorobenzene	2000 ug/mL	1,2,4-Trimethylbenzene	2000 ug/mL
1,2-Dibromo-3-	2000 ug/mL	1,2-Dibromoethane (EDB)	2000 ug/mL
1,2-Dichlorobenzene	2000 ug/mL	1,2-Dichloroethane	2000 ug/mL
1,2-Dichloropropane	2000 ug/mL	1,3,5-Trimethylbenzene	2000 ug/mL
1,3-Dichlorobenzene	2000 ug/mL	1,3-Dichloropropane	2000 ug/mL
1,4-Dichlorobenzene	2000 ug/mL	2,2-Dichloropropane	2000 ug/mL
2-Chlorotoluene	2000 ug/mL	2-Nitropropane	2000 ug/mL
4-Chlorotoluene	2000 ug/mL	Allyl chloride	2000 ug/mL
Benzene	2000 ug/mL	Bromobenzene	2000 ug/mL
Bromochloromethane	2000 ug/mL	Bromodichloromethane	2000 ug/mL
Bromoform	2000 ug/mL	Carbon disulfide	2000 ug/mL
Carbon tetrachloride	2000 ug/mL	Chlorobenzene	2000 ug/mL
Chloroform	2000 ug/mL	Chloroprene	2000 ug/mL
Cyclohexane	2000 ug/mL	Dibromochloromethane	2000 ug/mL
Dibromomethane	2000 ug/mL	Diethyl ether (Ethyl ether)	2000 ug/mL
Ethyl methacrylate	2000 ug/mL	Ethylbenzene	2000 ug/mL
Hexachloro-1,3-butadiene	2000 ug/mL	Iodomethane	2000 ug/mL
Isopropylbenzene	2000 ug/mL	Methyl methacrylate	2000 ug/mL
Methyl-tert-butyl ether	2000 ug/mL	Methylcyclohexane	2000 ug/mL
Methylene Chloride	2000 ug/mL	Naphthalene	2000 ug/mL
Styrene	2000 ug/mL	TOTAL BTEX	12000 ug/mL
Tetrachloroethene	2000 ug/mL	Toluene	2000 ug/mL
Total Trihalomethanes	8000 ug/mL	Trichloroethene	2000 ug/mL
Xylene (Total)	6000 ug/mL	cis-1,2-Dichloroethene	2000 ug/mL
cis-1,3-Dichloropropene	2000 ug/mL	cis-1,4-Dichloro-2-butene	2000 ug/mL
m&p-Xylene	4000 ug/mL	n-Butylbenzene	2000 ug/mL
n-Hexane	2000 ug/mL	n-Propylbenzene	2000 ug/mL
o-Xylene	2000 ug/mL	p-Isopropyltoluene	2000 ug/mL
sec-Butylbenzene	2000 ug/mL	tert-Butylbenzene	2000 ug/mL
trans-1,2-Dichloroethene	2000 ug/mL	trans-1,3-Dichloropropene	2000 ug/mL
trans-1,4-Dichloro-2-	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23769

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522450
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180006
Expire Date:	11/30/2020	**Manufacturer Lot ID:**	CL14585	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Supplemental Std-Primary Source

Compound Name and Concentration for Standard #23769

Compound Name	Concentration	Compound Name	Concentration
Isopropyl acetate	2000 ug/mL	Methyl acrylate	2000 ug/mL
n-amyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23768

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522449
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180004
Expire Date:	11/30/2021	**Manufacturer Lot ID:**	CL14652	**Standard ID:**	ButadieneSTK

Notes:

MSV 1,3-Butadiene Stock-Primary Source

Compound Name and Concentration for Standard #23768

Compound Name	Concentration	Compound Name	Concentration
1,3-Butadiene	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23767

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522448
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180003
Expire Date:	11/30/2022	**Manufacturer Lot ID:**	CL14587	**Standard ID:**	VOACALMX1

Notes:

MSV VOA Calibration Mix#1-Primary Source

Compound Name and Concentration for Standard #23767

Compound Name	Concentration	Compound Name	Concentration
1,4-Dioxane (p-Dioxane)	10000 ug/mL	2-Butanone (MEK)	10000 ug/mL
2-Hexanone	10000 ug/mL	4-Methyl-2-pentanone	10000 ug/mL
Acetone	10000 ug/mL	Acetonitrile	10000 ug/mL
Ethyl acetate	10000 ug/mL	Isobutanol	10000 ug/mL
Methacrylonitrile	10000 ug/mL	Propionitrile	10000 ug/mL
Tetrahydrofuran	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23766

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522447
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180005
Expire Date:	12/31/2020	**Manufacturer Lot ID:**	CL14607	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Supplemental Std-Primary Source

Compound Name and Concentration for Standard #23766

Compound Name	Concentration	Compound Name	Concentration
n-Butanol	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #8940

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	521408
Create Date:	05/09/2019	**Manufacturer:**	Fisher Scientific	**Part ID:**	S23-3
Expire Date:	09/01/2022	**Manufacturer Lot ID:**	175767	**Standard ID:**	RGNT210

Notes:

MSV Ottowa Sand

Compound Name and Concentration for Standard #8940

Compound Name	Concentration	Compound Name	Concentration
Ottawa Sand	mg/kg		

Standard Log Report

Standards Log Information for Standard #1

STOCK STANDARD

Created By:	GR1	**Volume of Standard:**	1000 mL	**Lot ID:**	PACE
Create Date:	01/01/2018	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	01/01/2025	**Manufacturer Lot ID:**	PACE	**Standard ID:**	RGNT389

Notes:

DI Water

Compound Name and Concentration for Standard #1

Compound Name	Concentration	Compound Name	Concentration
DI Water			

The standards listed are from Pace's LIMS52.

521408
REC. 04/19/18 BY EF
Exp. 9/1/22 By
Open 1/9/19 By

STD
8940

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

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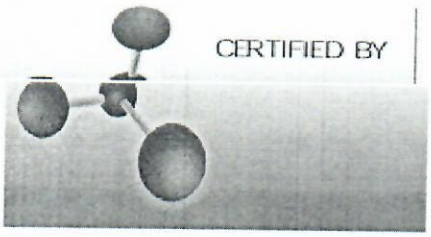
Catalog Number	**S23**	**Quality Test / Release Date**	**9/26/2017**
Lot Number	**175767**		
Description	**SAND, OTTAWA**		
Country of Origin	**United States**	*** Suggested Retest Date**	**Sep-2022**

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless to Yellow-Brown Beads
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
MESH SIZE	PASS/FAIL	= PASS TEST	PASS TEST



Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

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Catalog Number: AL0-180005
Description: Additions Mix 1
Storage: Freeze (-18-0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14607
Certification Date: January 22, 2020
Expiration Date: December 31, 2020

Andrea L Gill

522447
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STO# 23766

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
n-Decane	124-18-5	2001	0.230%
n-Dodecane	112-40-3	2000	0.115%
n-Undecane	1120-21-4	1999	0.115%
n-Octane	111-65-9	2000	0.115%
n-Nonane	111-84-2	2001	0.167%
3,3-dimethyl-1-butanol	624-95-3	10002	0.157%
1-Chlorobutane	109-69-3	2000	0.230%
1-Propanol	71-23-8	10000	0.226%
2-Bromo-1-chloropropane	3017-95-6	2000	1.042%
2-Butanol	78-92-2	2000	0.230%
2-Methylpentane	107-83-5	2000	0.115%
4-Methyl-2-pentanol	108-11-2	1999	0.230%
Benzyl chloride	100-44-7	1999	0.140%
Butylcyclohexane	1678-93-9	2001	0.230%
Hexachloroethane	67-72-1	2001	0.230%
2-Chloroethanol	107-07-3	2000	0.230%
Nitrobenzene	98-95-3	2000	0.230%
1-Methylnaphthalene	90-12-0	2000	0.115%
Isooctane	540-84-1	2000	0.115%
1-Butanol	71-36-3	10000	0.226%
n-Heptane	142-82-5	2000	0.204%
Isopropanol (2-Propanol)	67-63-0	10000	0.105%

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Certified Reference Material

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Catalog Number: AL0-180003
Description: Elevated VOA Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14587
Certification Date: January 12, 2020
Expiration Date: November 30, 2022

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522448
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STD# 23767

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Acetone	67-64-1	10000	3.527%
Acetonitrile	75-05-8	10000	0.225%
tert-Amyl alcohol	75-85-4	10002	0.104%
tert-Butanol	75-65-0	10000	0.105%
2-Butanone	78-93-3	10000	0.225%
Cyclohexanone	108-94-1	10000	0.225%
1,4-Dioxane	123-91-1	10001	0.225%
Ethanol	64-17-5	10000	0.225%
Ethyl acetate	141-78-6	10000	0.225%
Isobutanol (2-methyl-1-propanol)	78-83-1	10000	0.225%
2-Hexanone	591-78-6	10000	0.105%
Methacrylonitrile	126-98-7	10000	0.105%
4-Methyl-2-pentanone	108-10-1	10000	0.225%
Propionitrile	107-12-0	10000	0.225%
Tetrahydrofuran	109-99-9	10000	0.225%

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Catalog Number: AL0-180004
Description: Custom 8260 Additions Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14652
Certification Date: January 21, 2020
Expiration Date: November 30, 2021

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522449
REC.05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STD#23768

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
1,3-Butadiene	106-99-0	2005	5.367%
Dicyclopentadiene	77-73-6	2000	13.563%
4-Ethyltoluene	622-96-8	2000	13.560%
Propene	115-07-1	1981	8.812%

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Certified Reference Material

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Catalog Number: AL0-180006
Description: Additions Mix 2
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14585
Certification Date: January 12, 2020
Expiration Date: November 30, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522450
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Open __/__/__ By

STO# 23769

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Methyl acrylate	96-33-3	2000	4.712%
n-Amyl acetate	628-63-7	2000	3.289%
Ethyl acrylate	140-88-5	2000	5.106%
Butyl Acetate	123-86-4	2000	4.627%
tert-Butyl Acetate	540-88-5	2000	5.102%
tert-Butyl Formate	762-75-4	10000	4.021%
Isopropyl acetate	108-21-4	2000	4.640%

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Catalog Number: AL0-180001
Description: Custom VOA Cal Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: > 1 mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14606
Certification Date: March 3, 2020
Expiration Date: December 31, 2021

522451
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STOck 23770

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Allyl Chloride	107-05-1	2000	0.492%
tert-Amyl Ethyl Ether (TAEE)	919-94-8	2000	0.215%
tert-Amyl Methyl Ether (TAME)	994-05-8	2000	0.632%
Benzene	71-43-2	2000	0.519%
Bromobenzene	108-86-1	2000	0.479%
Bromoform	75-25-2	2000	0.487%
Bromochloromethane	74-97-5	2000	0.545%
Bromodichloromethane	75-27-4	2000	0.481%
n-Butylbenzene	104-51-8	2000	0.480%
sec-Butylbenzene	135-98-8	2000	0.478%
tert-Butylbenzene	98-06-6	2000	0.481%
Ethyl-tert Butyl Ether (ETBE)	637-92-3	2000	0.635%
Carbon disulfide	75-15-0	2000	0.480%
Carbon tetrachloride	56-23-5	2000	0.519%
Chlorobenzene	108-90-7	2000	0.519%
Chloroform	67-66-3	2000	0.519%
Chloroprene	126-99-8	2000	1.518%
2-Chlorotoluene	95-49-8	2000	0.478%
4-Chlorotoluene	106-43-4	2000	0.479%
Cyclohexane	110-82-7	2000	0.507%
Dibromochloromethane	124-48-1	2000	0.480%
1,2-Dibromo-3-Chloropropane	96-12-8	2000	0.479%
Dibromomethane	74-95-3	2000	0.508%
Dibromomethane	106-93-4	2000	0.508%
1,2-Dichlorobenzene	95-50-1	2000	0.478%
1,3-Dichlorobenzene	541-73-1	2000	0.479%

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Catalog Number: AL0-180001
Description: Custom VOA Cal Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: > 1 mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14606
Certification Date: March 3, 2020
Expiration Date: December 31, 2021

OFFICE USE

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
1,4-Dichlorobenzene	106-46-7	2001	0.215%
cis-1,4-Dichloro-2-butene	1476-11-5	2000	0.480%
trans-1,4-Dichloro-2-butene	110-57-6	2000	0.492%
1,1-Dichloroethane	75-34-3	2000	0.546%
1,2-Dichloroethane	107-06-2	2000	0.545%
1,1-Dichloroethene	75-35-4	2000	0.507%
cis-1,2-Dichloroethene	156-59-2	2000	0.545%
trans-1,2-Dichloroethene	156-60-5	2000	0.558%
1,2-Dichloropropane	78-87-5	2000	0.524%
1,3-Dichloropropane	142-28-9	2000	0.478%
2,2-Dichloropropane	594-20-7	2000	0.519%
1,1-Dichloropropene	563-58-6	2000	0.218%
cis-1,3-Dichloropropene	10061-01-5	2001	0.507%
trans-1,3-Dichloropropene	10061-02-6	2000	0.507%
Ethyl Ether	60-29-7	2000	0.624%
Diisopropyl ether (DIPE)	108-20-3	2000	0.622%
Ethylbenzene	100-41-4	2000	0.519%
Ethyl methacrylate	97-63-2	2000	0.500%
Hexachlorobutadiene	87-68-3	2000	0.479%
n-Hexane	110-54-3	2000	0.507%
Iodomethane (methyl iodide)	74-88-4	1999	0.216%
Isopropylbenzene	98-82-8	2000	0.507%
p-isopropyltoluene	99-87-6	2000	0.507%
Methyl-tert-butyl ether (MTBE)	1634-04-4	2000	0.649%
Methylcyclohexane	108-87-2	2000	0.479%
Methyl methacrylate	80-62-6	2000	0.479%

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Catalog Number: AL0-180001
Description: Custom VOA Cal Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: > 1 mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14606
Certification Date: March 3, 2020
Expiration Date: December 31, 2021

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Methylene Chloride	75-09-2	2000	0.479%
2-Methylnaphthalene	91-57-6	2000	0.479%
Naphthalene	91-20-3	2000	0.217%
2-Nitropropane	79-46-9	2000	0.509%
N-Propylbenzene	103-65-1	2000	0.519%
Styrene	100-42-5	2000	0.501%
1,1,1,2-Tetrachloroethane	630-20-6	2000	0.505%
1,1,2,2-Tetrachloroethane	79-34-5	2000	0.480%
Tetrachloroethene	127-18-4	2000	0.519%
Toluene	108-88-3	2000	0.519%
1,2,3-Trichlorobenzene	87-61-6	2000	0.293%
1,2,4-Trichlorobenzene	120-82-1	2000	0.478%
1,1,1-Trichloroethane	71-55-6	2001	1.009%
1,1,2-Trichloroethane	79-00-5	2000	0.479%
Trichloroethene	79-01-6	2000	0.479%
1,2,3-Trichloropropane	96-18-4	2000	0.479%
1,1,2-Trichlorotrifluoroethane	76-13-1	2000	0.644%
1,2,3-Trimethylbenzene	526-73-8	2000	0.215%
1,2,4-Trimethylbenzene	95-63-6	2000	0.507%
1,3,5-Trimethylbenzene	108-67-8	2000	0.507%
m-Xylene	108-38-3	2000	0.478%
o-Xylene	95-47-6	2000	0.479%
p-Xylene	106-42-3	2000	0.478%

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30074 **Lot No.:** A0159786

Description : 8260 Internal Standard Mix

8260 Internal Standard Mix 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Pentafluorobenzene **CAS #** 363-72-4 **Purity** 99%	(Lot MKCH1850)	2,507.0 µg/mL	+/- 14.5759 µg/mL +/- 140.5650 µg/mL +/- 143.8540 µg/mL		Gravimetric Unstressed Stressed
2	1,4-Difluorobenzene **CAS #** 540-36-3 **Purity** 99%	(Lot MKBN8571V)	2,506.6 µg/mL	+/- 14.5736 µg/mL +/- 140.5426 µg/mL +/- 143.8311 µg/mL		Gravimetric Unstressed Stressed
3	Chlorobenzene-d5 **CAS #** 3114-55-4 **Purity** 99%	(Lot PR-29571)	2,504.8 µg/mL	+/- 14.5631 µg/mL +/- 140.4416 µg/mL +/- 143.7278 µg/mL		Gravimetric Unstressed Stressed
4	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 **Purity** 99%	(Lot PR-30447)	2,508.0 µg/mL	+/- 14.5817 µg/mL +/- 140.6211 µg/mL +/- 143.9114 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30240 **Lot No.:** A0156492

Description : 8260A Surrogate Mix

8260A Surrogate Mix 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dibromofluoromethane **CAS #** 1868-53-7 **Purity** 99%	(Lot 0012016)	2,501.9 µg/mL	+/- 14.5463 µg/mL +/- 140.2790 µg/mL +/- 143.5614 µg/mL		Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 **Purity** 99%	(Lot PR-29377)	2,500.9 µg/mL	+/- 14.5404 µg/mL +/- 140.2230 µg/mL +/- 143.5040 µg/mL		Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 **Purity** 99%	(Lot I-21928)	2,500.5 µg/mL	+/- 14.5381 µg/mL +/- 140.2006 µg/mL +/- 143.4811 µg/mL		Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 **Purity** 99%	(Lot 20401KO)	2,501.2 µg/mL	+/- 14.5422 µg/mL +/- 140.2398 µg/mL +/- 143.5212 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30049 **Lot No.:** A0160880

Description : 1,2-Dichlorobenzene-d4 Mix

1, 2-Dichlorobenzene-d4 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,2-Dichlorobenzene-d4		2,000.0 µg/mL	+/- 11.8794	µg/mL	Gravimetric
	CAS # 2199-69-1	(Lot M-2097)		+/- 112.1643	µg/mL	Unstressed
	Purity 99%			+/- 114.7876	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30030 **Lot No.:** A0158124

Description : Fluorobenzene Mixture

Fluorobenzene 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Fluorobenzene	2,006.0 µg/mL	+/- 11.7723 µg/mL	Gravimetric
	CAS # 462-06-6 (Lot BCBZ5549)		+/- 112.4858 µg/mL	Unstressed
	Purity 99%		+/- 115.1173 µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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Catalog Number: AL0-180002
Description: 8260 Gases Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14053
Certification Date: January 12, 2020
Expiration Date: August 31, 2024

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STD# 24913

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Bromomethane	74-83-9	2000	6.589%
Chloroethane	75-00-3	2001	4.979%
Chloromethane	74-87-3	2009	7.022%
Chlorodifluoromethane	75-45-6	2000	0.405%
Dichlorodifluoromethane	75-71-8	2006	8.740%
Dichlorofluoromethane	75-43-4	2007	8.745%
Trichlorofluoromethane	75-69-4	1996	4.584%
Vinyl Chloride	75-01-4	2001	7.920%

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STD# 2556 4

Product Name: Custom Standard

Product Number: CUS-00002034

Lot Issue Date: 17-Jun-2020

Lot Number: 0006542412

Expiration Date: 31-Jul-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,1,1,2-tetrachloroethane	000630-20-6	RM12632	2008 ± 10 µg/mL
1,1,1-trichloroethane	000071-55-6	RM15035	2008 ± 10 µg/mL
1,1,2,2-tetrachloroethane	000079-34-5	NT00390	2006 ± 10 µg/mL
1,1,2-trichlorotrifluoroethane	000076-13-1	RM04848	2000 ± 10 µg/mL
1,1,2-trichloroethane	000079-00-5	RM01175	2007 ± 10 µg/mL
1,1-dichloroethane	000075-34-3	RM15556	2003 ± 10 µg/mL
1,1-dichloroethene	000075-35-4	RM01356	2008 ± 10 µg/mL
1,1-dichloropropene	000563-58-6	RM16247	2008 ± 10 µg/mL
1,2,3-trichlorobenzene	000087-61-6	RM10193	2002 ± 10 µg/mL
1,2,3-trichloropropane	000096-18-4	RM13082	2009 ± 10 µg/mL
1,2,3-trimethylbenzene	000526-73-8	RM13689	2009 ± 10 µg/mL
1,2,4-trichlorobenzene	000120-82-1	RM09454	2007 ± 10 µg/mL
1,2,4-trimethylbenzene	000095-63-6	RM06731	2000 ± 10 µg/mL
1,2-dibromo-3-chloropropane	000096-12-8	RM13666	2003 ± 10 µg/mL
1,2-dichlorobenzene	000095-50-1	RM13636	2008 ± 10 µg/mL
1,2-dichloroethane	000107-06-2	RM04655	2007 ± 10 µg/mL
1,2-dibromoethane	000106-93-4	RM00018	2009 ± 10 µg/mL

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ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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Product Number: CUS-00002034 **Lot Number:** 0006542412

1,2-dichloropropane	000078-87-5	RM12821	2004 ± 10 µg/mL
1,3,5-trimethylbenzene	000108-67-8	NT01632	2001 ± 10 µg/mL
1,3-dichlorobenzene	000541-73-1	NT00356	2005 ± 10 µg/mL
1,3-dichloropropane	000142-28-9	RM09825	2010 ± 10 µg/mL
1,4-dichlorobenzene	000106-46-7	RM12826	2006 ± 10 µg/mL
2,2-dichloropropane	000594-20-7	RM12927	2007 ± 10 µg/mL
2-chlorotoluene	000095-49-8	RM13774	2009 ± 10 µg/mL
allyl chloride	000107-05-1	RM12242	2001 ± 10 µg/mL
4-chlorotoluene	000106-43-4	RM11750	2003 ± 10 µg/mL
4-isopropyltoluene	000099-87-6	RM09747	2009 ± 10 µg/mL
benzene	000071-43-2	RM03830	2009 ± 10 µg/mL
bromobenzene	000108-86-1	RM10227	2009 ± 10 µg/mL
bromoform	000075-25-2	RM07516	2004 ± 10 µg/mL
bromochloromethane	000074-97-5	RM00009	2001 ± 10 µg/mL
carbon disulfide	000075-15-0	RM08158	2010 ± 10 µg/mL
carbon tetrachloride	000056-23-5	RM07576	2005 ± 10 µg/mL
chlorobenzene	000108-90-7	RM01874	2006 ± 10 µg/mL
dibromochloromethane	000124-48-1	RM14843-01	2007 ± 10 µg/mL
chloroform	000067-66-3	RM13988	2005 ± 10 µg/mL
cis-1,2-dichloroethene	000156-59-2	RM15008	2007 ± 10 µg/mL
cis-1,3-dichloropropene	010061-01-5	RM12891	2007 ± 10 µg/mL
cis-1,4-dichloro-2-butene	001476-11-5	RM11674	2005 ± 10 µg/mL

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Product Number: CUS-00002034 **Lot Number:** 0006542412

cyclohexane	000110-82-7	RM11622	2006 ± 10 µg/mL
dibromomethane	000074-95-3	RM12878	2010 ± 10 µg/mL
bromodichloromethane	000075-27-4	RM14215	2004 ± 10 µg/mL
diethyl ether	000060-29-7	RM11151	2007 ± 10 µg/mL
ethyl methacrylate	000097-63-2	RM04592	2008 ± 10 µg/mL
ethylbenzene	000100-41-4	RM00783	2008 ± 10 µg/mL
hexachlorobutadiene	000087-68-3	RM09157	2009 ± 10 µg/mL
n-hexane	000110-54-3	RM10581	2010 ± 10 µg/mL
methyl iodide	000074-88-4	RM14171	2008 ± 10 µg/mL
isopropylbenzene	000098-82-8	RM00835	2009 ± 10 µg/mL
methyl methacrylate	000080-62-6	RM04912	2008 ± 10 µg/mL
tert-butylmethyl ether	001634-04-4	RM06568	2008 ± 10 µg/mL
methylcyclohexane	000108-87-2	RM10295	2008 ± 10 µg/mL
methylene chloride	000075-09-2	RM09575	2008 ± 10 µg/mL
naphthalene	000091-20-3	RM02406	2010 ± 10 µg/mL
n-butylbenzene	000104-51-8	NT01633	2009 ± 10 µg/mL
n-propylbenzene	000103-65-1	RM02470	2007 ± 10 µg/mL
m-xylene	000108-38-3	RM15919	2008 ± 10 µg/mL
o-xylene	000095-47-6	NT00774	1999 ± 10 µg/mL
p-xylene	000106-42-3	RM09445	2007 ± 10 µg/mL
sec-butylbenzene	000135-98-8	NT01548	2009 ± 10 µg/mL
styrene	000100-42-5	RM11083	2001 ± 10 µg/mL

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ISO 17034 Cert No. AR-1936

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Product Number: CUS-00002034 **Lot Number:** 0006542412

tert-butylbenzene	000098-06-6	NT01547	2009 ± 10 µg/mL
tetrachloroethene	000127-18-4	RM06491	2002 ± 10 µg/mL
toluene	000108-88-3	RM06650	2000 ± 10 µg/mL
trans-1,2-dichloroethene	000156-60-5	RM07565	2009 ± 10 µg/mL
trans-1,3-dichloropropene	010061-02-6	RM12254	2008 ± 10 µg/mL
trans-1,4-dichloro-2-butene	000110-57-6	RM13971	2005 ± 10 µg/mL
trichloroethene	000079-01-6	RM14232	2008 ± 10 µg/mL
2-methylnaphthalene	000091-57-6	RM01258	2009 ± 10 µg/mL
2-nitropropane	000079-46-9	RM12249	2007 ± 10 µg/mL
isopropyl ether	000108-20-3	RM03712	2004 ± 10 µg/mL
tert-amyl methyl ether	000994-05-8	RM00554	2008 ± 10 µg/mL
tert-butyl ethyl ether	000637-92-3	RM05137	2007 ± 10 µg/mL
tert-amyl ethyl ether	000919-94-8	RM12453	2007 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

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Certificate of Analysis

522575
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Exp. __/__/__ By _
Open __/__/__ By _

STD# 25565

Product Name: Custom Standard

Product Number: CUS-00002374

Lot Issue Date: 23-Mar-2020

Lot Number: 0006527215

Expiration Date: 30-Apr-2021

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,3-butadiene	000106-99-0	RM14006	2000 ± 10 µg/mL
4-ethyltoluene	000622-96-8	RM14957	2010 ± 10 µg/mL
dicyclopentadiene	000077-73-6	RM16067	2008 ± 10 µg/mL
propene	000115-07-1	RM11969	2000 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 2

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ISO 17025 Cert No. AT-1937

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Certificate of Analysis

522576
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Open __/__/__ By

STD# 25566

Product Name: Custom Standard

Product Number: CUS-00002584

Lot Issue Date: 12-May-2020

Lot Number: 0006537291

Expiration Date: 30-Sep-2020

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
methyl acrylate	000096-33-3	NT00903	2007 ± 10 µg/mL
pentyl acetate	000628-63-7	RM02455	2006 ± 10 µg/mL
ethyl acrylate	000140-88-5	RM04396	2006 ± 10 µg/mL
n-butyl acetate	000123-86-4	RM07291	2008 ± 10 µg/mL
t-butyl acetate	000540-88-5	RM11665	2002 ± 10 µg/mL
tert-butyl formate	000762-75-4	RM10789	10040 ± 50 µg/mL
isopropyl acetate	000108-21-4	RM00997	2007 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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ISO 17025 Cert No. AT-1937

522578
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Exp. __/__/__ By
Open __/__/__ By

STD# 25568

Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002344

Lot Issue Date: 19-Mar-2020

Lot Number: 0006527210

Expiration Date: 30-Apr-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
chloroprene	000126-99-8	RM15691	2000 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

M Bourgeois

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

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Certificate of Analysis

522579
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STD# 25569

Product Name: Custom Standard

Product Number: CUS-00002036

Lot Number: 0006542413

Lot Issue Date: 22-Jun-2020

Expiration Date: 31-Jul-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,4-dioxane	000123-91-1	RM00526	10035 ± 50 µg/mL
acetonitrile	000075-05-8	RM14601	10040 ± 50 µg/mL
ethyl alcohol	000064-17-5	RM15111	10040 ± 50 µg/mL
ethyl acetate	000141-78-6	RM12930	10025 ± 50 µg/mL
isobutyl alcohol	000078-83-1	RM13876	10030 ± 50 µg/mL
tert-butanol	000075-65-0	RM01883	10040 ± 50 µg/mL
2-butanone	000078-93-3	RM06696	10039 ± 50 µg/mL
2-hexanone	000591-78-6	RM10228	10030 ± 50 µg/mL
4-methyl-2-pentanone	000108-10-1	RM14374	10028 ± 50 µg/mL
acetone	000067-64-1	RM13477	10040 ± 50 µg/mL
methacrylonitrile	000126-98-7	RM10100	10030 ± 50 µg/mL
propionitrile	000107-12-0	RM15267	10036 ± 50 µg/mL
tert-pentanol	000075-85-4	RM11924	10030 ± 50 µg/mL
tetrahydrofuran	000109-99-9	RM14318	10041 ± 50 µg/mL
cyclohexanone	000108-94-1	RM10703	10030 ± 50 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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ISO 17025 Cert No. AT-1937

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Open __/__/__ By -

STD# 25570

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002032

Lot Issue Date: 23-Mar-2020

Lot Number: 0006527178

Expiration Date: 30-Apr-2021

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
n-decane	000124-18-5	RM16108	2006 ± 10 µg/mL
n-dodecane	000112-40-3	RM15591	2003 ± 10 µg/mL
n-undecane	001120-21-4	RM04270	2009 ± 10 µg/mL
n-octane	000111-65-9	NT01970	2004 ± 10 µg/mL
n-nonane	000111-84-2	RM15036	2009 ± 10 µg/mL
3,3-dimethyl-1-butanol	000624-95-3	RM15245	10024 ± 50 µg/mL
1-chlorobutane	000109-69-3	RM03678	2007 ± 10 µg/mL
1-propanol	000071-23-8	RM11119	10029 ± 50 µg/mL
2-bromo-1-chloropropane	003017-85-6	RM09192	2009 ± 10 µg/mL
sec-butanol	000078-92-2	RM01299	2008 ± 10 µg/mL
2-methylpentane	000107-83-5	RM11010	2009 ± 10 µg/mL
4-methyl-2-pentanol	000108-11-2	RM02348	2009 ± 10 µg/mL
benzyl chloride	000100-44-7	RM12844	2009 ± 10 µg/mL
butylcyclohexane	001678-93-9	RM13072	2008 ± 10 µg/mL
hexachloroethane	000067-72-1	RM06859	2007 ± 10 µg/mL
2-chloroethanol	000107-07-3	NT01518	2008 ± 10 µg/mL
nitrobenzene	000098-95-3	RM11472	2009 ± 10 µg/mL

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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ISO 17025 Cert No. AT-1937

Certificate of Analysis

Product Number: CUS-00002032 **Lot Number:** 0006527178

1-methylnaphthalene	000090-12-0	RM07712	2002 ± 10 µg/mL
2,2,4-trimethylpentane	000540-84-1	RM14637	2007 ± 10 µg/mL
1-butanol	000071-36-3	RM06085	10008 ± 50 µg/mL
n-heptane	000142-82-5	RM14537	2009 ± 10 µg/mL
isopropyl alcohol	000067-63-0	RM10189	10030 ± 50 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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ISO 17025 Cert No. AT-1937

Certificate of Analysis
ThermoFisher SCIENTIFIC

522617
REC. 07/22/20 BY EF
Exp. 01/18/21 By -
Open 04/22/20 By -

Certificate of Analysis

STD# 26117

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A453	Quality Test / Release Date	02/19/2020
Lot Number	198331		
Description	METHANOL, PURGE & TRAP GRADE		
Country of Origin	Venezuela	Suggested Retest Date	Feb/2025
Chemical Origin	Organic - synthetic		
BSE/TSE Comment	This product is derived from petroleum products. It does not contain any materials that are of human or animal origin, nor does it come into contact with such materials during the manufacturing process. Therefore, to the best of our knowledge, there is no potential for BSE or TSE to be present in this product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear colorless liquid free of suspended matter.
2-BUTANONE	ppb	<= 50	<25
ACETONE	ppb	<= 50	<25
AROMATIC COMPOUNDS	ppb	<= 10	<10
ASSAY	%	>= 99.9	>99.99
CARBON TETRACHLORIDE	ppb	<= 10	<10
CHLOROFORM	ppb	<= 10	<10
EVAPORATION RESIDUE	ppm	<= 1	0.22
HEPTANE	ppb	<= 50	<10
HEXANE	ppb	<= 50	<10
ISO-OCTANE	ppb	<= 50	<10
METHYL ISO-AMYL KETONE	ppb	<= 50	<25
METHYLENE CHLORIDE	ppb	<= 10	<10
OTHER DETECTABLE ALKANES	ppb	<= 50	<10
OTHER DETECTABLE CHLOROHYDROCARBONS	ppb	<= 10	<10
OTHER DETECTABLE KETONES	ppb	<= 50	<25
OTHER DETECTABLE PEAKS AS HEXANE	ppb	<= 50	<10
PENTANE	ppb	<= 50	<10
TITRATABLE ACID	MEQ/G	<= 0.0003	0.0003
TITRATABLE BASE	MEQ/G	<= 0.0002	<0.0002
VOLATILE ORGANIC CMPDS (EPA8260B OR EQUIV)	PASS/FAIL	= PASS TEST	PASS TEST

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

WATER (KARL FISCHER)	%	<= 0.2	<0.01

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

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522643
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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180017
Description: Acrolein
Storage: Freeze (-18 - 0ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL15595
Certification Date: July 28, 2020
Expiration Date: August 27, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Acrolein	107-02-8	10000	0.301%

Notes: Due to the nature of acrolein in solution, long term storage is not recommended. Please use immediately.

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

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Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

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522644
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STD# 26386

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180018
Description: Vinyl Acetate
Storage: Freeze (-18 - 0 °C)
Provided As: 1 mL in 2 mL Ampoule in P&T Methanol

Lot Number: CL15596
Certification Date: July 28, 2020
Expiration Date: August 27, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Vinyl Acetate	108-05-4	2000	0.615%

Notes: Due to the nature of Vinyl Acetate in solution, long term storage is not recommended. Please use immediately.

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

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Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

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Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180007
Description: Reactives Mix
Storage: Freeze (-18-0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL15234
Certification Date: April 28, 2020
Expiration Date: October 31, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
2-Chloroethyl vinyl ether	110-75-8	10001	0.106%
Methyl acetate	79-20-9	10001	0.225%
Acrylonitrile	107-13-1	10000	0.115%

ACCREDITED
Reference Material Producer
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phenova Certified Reference Materials | A Phenomenex Company

Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002037

Lot Number: 0006547006

522670
REC. 08/06/20 BY EF
Exp. __/__/__ By -
Open __/__/__ By -

STD#26710

Lot Issue Date: 21-Jul-2020

Expiration Date: 31-Aug-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
bromomethane	000074-83-9	RM00064	2006 ± 10 µg/mL
chloroethane	000075-00-3	RM00065	2009 ± 10 µg/mL
chloromethane	000074-87-3	RM12571	2009 ± 10 µg/mL
chlorodifluoromethane	000075-45-6	RM04765	2010 ± 10 µg/mL
dichlorodifluoromethane	000075-71-8	RM05289	2010 ± 10 µg/mL
dichlorofluoromethane	000075-43-4	RM05287	2010 ± 10 µg/mL
trichlorofluoromethane	000075-69-4	RM00017	2004 ± 10 µg/mL
vinyl chloride	000075-01-4	RM05458	2009 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

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Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002038

Lot Number: 0006547796

522671
REC. 08/06/20 BY EF
Exp. --/--/-- By
Open --/--/-- By

STD# 26711

Lot Issue Date: 15-Jul-2020

Expiration Date: 30-Nov-2020

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
2-chloroethylvinyl ether	000110-75-8	RM06940	10044 ± 50 µg/mL
acrolein	000107-02-8	RM15726	10043 ± 50 µg/mL
methyl acetate	000079-20-9	NT02091	10043 ± 50 µg/mL
acrylonitrile	000107-13-1	RM14521	10048 ± 50 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002379

Lot Number: 0006547794

522672
REC.08/06/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

Lot Issue Date: 15-Jul-2020

Expiration Date: 30-Nov-2020

Description: STD# 26712

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
vinyl acetate	000108-05-4	RM12298	2004 ± 10 µg/mL

Matrix: water (low TOC, < 50 ppb)

Storage Conditions: Store Refrigerated (2° - 8°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

M Bourgeois
Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

www.agilent.com/quality/

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

Certificate of Analysis
ThermoFisher SCIENTIFIC

522674
REC. 08/07/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STO# 26774

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A453	Quality Test / Release Date	02/19/2020
Lot Number	198331		
Description	METHANOL, PURGE & TRAP GRADE		
Country of Origin	Venezuela	Suggested Retest Date	Feb/2025
Chemical Origin	Organic - synthetic		
BSE/TSE Comment	This product is derived from petroleum products. It does not contain any materials that are of human or animal origin, nor does it come into contact with such materials during the manufacturing process. Therefore, to the best of our knowledge, there is no potential for BSE or TSE to be present in this product.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear colorless liquid free of suspended matter.
2-BUTANONE	ppb	<= 50	<25
ACETONE	ppb	<= 50	<25
AROMATIC COMPOUNDS	ppb	<= 10	<10
ASSAY	%	>= 99.9	>99.99
CARBON TETRACHLORIDE	ppb	<= 10	<10
CHLOROFORM	ppb	<= 10	<10
EVAPORATION RESIDUE	ppm	<= 1	0.22
HEPTANE	ppb	<= 50	<10
HEXANE	ppb	<= 50	<10
ISO-OCTANE	ppb	<= 50	<10
METHYL ISO-AMYL KETONE	ppb	<= 50	<25
METHYLENE CHLORIDE	ppb	<= 10	<10
OTHER DETECTABLE ALKANES	ppb	<= 50	<10
OTHER DETECTABLE CHLOROHYDROCARBONS	ppb	<= 10	<10
OTHER DETECTABLE KETONES	ppb	<= 50	<25
OTHER DETECTABLE PEAKS AS HEXANE	ppb	<= 50	<10
PENTANE	ppb	<= 50	<10
TITRATABLE ACID	MEQ/G	<= 0.0003	0.0003
TITRATABLE BASE	MEQ/G	<= 0.0002	<0.0002
VOLATILE ORGANIC CMPDS (EPA8260B OR EQUIV)	PASS/FAIL	= PASS TEST	PASS TEST

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

WATER (KARL FISCHER)	%	<= 0.2	<0.01

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

SAMPLE NO.

BLA6WWSS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249143 Contract: RUSH VOC Soils

Lab Sample ID: 5249143001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	16.7		%	1	08/25/2020 14:09

SAMPLE NO.

BLA6WESS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249143 Contract: RUSH VOC Soils

Lab Sample ID: 5249143003 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	38.9		%	1	08/25/2020 14:11

SAMPLE NO.

BLA6PBSS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249143 Contract: RUSH VOC Soils

Lab Sample ID: 5249143004 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	17.4		%	1	08/25/2020 14:13

FORM XII INORGANIC-1

PREPARATION LOG

Lab Name: Pace Analytical - Dayton SDG No. : 5249143 Contract: RUSH VOC Soils

Preparation Method: ASTM D2216 Batch: PMST 1476

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
5249143001	BLA6WWSS	08/25/2020	1	1
5249143003	BLA6WESS	08/25/2020	1	1
5249143004	BLA6PBSS	08/25/2020	1	1

FORM XIII INORGANIC-1

ANALYSIS RUN LOG

Lab Name: Pace Analytical - Dayton SDG No. : 5249143 Contract: RUSH VOC Soils

Instrument ID: 52BL03 Analysis Method: ASTM D2216

Start Date: 08/25/2020 14:09 End Date: 08/25/2020 14:13

Sample Name	Lab Sample ID	D/F	Date	Time	MOIST
BLA6WWSS	5249143001	1	08/25/2020	14:09	X
BLA6WESS	5249143003	1	08/25/2020	14:11	X
BLA6PBSS	5249143004	1	08/25/2020	14:13	X

Prep Log Report

Batch Information: PMST 48589

Template Version: EF-DAYT-I-038-Rev.00 (02Nov2018)

Analysis Method	ASTM D2216	Analyzed By	SEP	Instrument	52BL03	Oven ID	52OV01
Thermometer ID	52TC01	Oven Temp Correction Factor	0	Oven Temp In1 (C) | Corr | Date/Time | Init	104.9 | 104.9 | 08/24/2020 15:19 | SEP	Oven Temp Out1 (C) | Corr | Date/Time | Init	104.7 | 104.7 | 08/25/2020 15:23 | SEP
Desic. In 1 ID | Date/Time | Init	52DS13 | 08/25/2020 15:23 | SEP	Desic. Out 1 Date/Time | Init	08/25/2020 15:38 | SEP	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**5249143001**	Y		83.25	16.75	08/24/2020 15:09:33	10.1365	1.0109	11.9724	10.1365	M	
DRY WEIGHT	PS	**5249143002**	Y		76.26	23.74	08/24/2020 15:09:33	6.2504	1.0059	7.8826	6.2504	M	
DRY WEIGHT	PS	**5249143003**	Y		61.15	38.85	08/24/2020 15:09:33	5.0601	1.0063	7.6359	5.0601	M	
DRY WEIGHT	PS	**5249143004**	Y		82.61	17.39	08/24/2020 15:09:33	5.2647	1.0096	6.1602	5.2647	M	
DRY WEIGHT	PS	**5249143005**	Y		74.97	25.03	08/24/2020 15:09:33	7.3069	1.0152	9.4079	7.3069	M	
DRY WEIGHT	PS	**5249143006**	Y		79.98	20.02	08/24/2020 15:09:33	6.9214	1.0135	8.3999	6.9214	M	
DRY WEIGHT	PS	**5249143007**	Y		73.86	26.14	08/24/2020 15:09:33	8.3552	1.0197	10.9511	8.3552	M	
DRY WEIGHT	PS	**5249143008**	Y		76.75	23.25	08/24/2020 15:09:33	5.0998	1.0094	6.3388	5.0998	M	
DRY WEIGHT	PS	**5249143009**	Y		79.39	20.61	08/24/2020 15:09:33	6.6952	1.0131	8.1702	6.6952	M	

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 5249198

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

August 28, 2020

John Bowen
MAKSolve, LLC
261 Regency Dr
Dayton, OH 45459

RE: Project: RUSH VOC Soils
Pace Project No.: 5249198

Dear John Bowen:

Enclosed are the analytical results for sample(s) received by the laboratory on August 25, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Dayton

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christina Schneider
christina.schneider@pacelabs.com
(937)832-8242
Project Manager

Enclosures

cc: Barbara McGavern, MAKSolve, LLC

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

CERTIFICATIONS

Project:	RUSH VOC Soils
Pace Project No.:	5249198

Pace Analytical Services Dayton

25 Holiday Drive, Englewood, OH 45322
Florida Certification #: E871136
Ohio VAP Certification #: CL0032
Kentucky UST Certification #: 123049
Kentucky Wastewater Certification #: KY98039
Ohio EPA Drinking Water Lab #872

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Englewood, OH 45322
(937)832-8242

SAMPLE SUMMARY

Project: RUSH VOC Soils
Pace Project No.: 5249198

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5249198001	**BR8PB1SS**	Solid	08/25/20 07:26	08/25/20 12:31
5249198002	**BR8WE1SS**	Solid	08/25/20 10:02	08/25/20 12:31
5249198003	**BR8WE1SD**	Solid	08/25/20 10:02	08/25/20 12:31
5249198004	**BR8PB2SS**	Solid	08/25/20 11:08	08/25/20 12:31

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(937)832-8242

SAMPLE ANALYTE COUNT

Project: RUSH VOC Soils
Pace Project No.: 5249198

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5249198001	**BR8PB1SS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249198002	**BR8WE1SS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249198003	**BR8WE1SD**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249198004	**BR8PB2SS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1

PASI-DAY = Pace Analytical Services - Dayton

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Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249198

Sample: BR8PB1SS **Lab ID: 5249198001** Collected: 08/25/20 07:26 Received: 08/25/20 12:31 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	297	16.2	1	08/25/20 13:50	08/25/20 14:54	67-64-1	
Acetonitrile	ND	ug/kg	238	11.7	1	08/25/20 13:50	08/25/20 14:54	75-05-8	L1
Acrolein	ND	ug/kg	297	8.8	1	08/25/20 13:50	08/25/20 14:54	107-02-8	
Acrylonitrile	ND	ug/kg	119	1.3	1	08/25/20 13:50	08/25/20 14:54	107-13-1	
Benzene	ND	ug/kg	5.9	0.96	1	08/25/20 13:50	08/25/20 14:54	71-43-2	
Bromobenzene	ND	ug/kg	29.7	0.92	1	08/25/20 13:50	08/25/20 14:54	108-86-1	
Bromochloromethane	ND	ug/kg	29.7	0.73	1	08/25/20 13:50	08/25/20 14:54	74-97-5	
Bromodichloromethane	ND	ug/kg	29.7	0.94	1	08/25/20 13:50	08/25/20 14:54	75-27-4	
Bromoform	ND	ug/kg	29.7	0.72	1	08/25/20 13:50	08/25/20 14:54	75-25-2	
Bromomethane	ND	ug/kg	149	0.93	1	08/25/20 13:50	08/25/20 14:54	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	119	1.7	1	08/25/20 13:50	08/25/20 14:54	78-93-3	
n-Butylbenzene	ND	ug/kg	29.7	1.9	1	08/25/20 13:50	08/25/20 14:54	104-51-8	
sec-Butylbenzene	ND	ug/kg	29.7	1.6	1	08/25/20 13:50	08/25/20 14:54	135-98-8	
tert-Butylbenzene	ND	ug/kg	29.7	1.5	1	08/25/20 13:50	08/25/20 14:54	98-06-6	
Carbon disulfide	ND	ug/kg	119	1.9	1	08/25/20 13:50	08/25/20 14:54	75-15-0	
Carbon tetrachloride	ND	ug/kg	29.7	1.7	1	08/25/20 13:50	08/25/20 14:54	56-23-5	
Chlorobenzene	ND	ug/kg	29.7	0.91	1	08/25/20 13:50	08/25/20 14:54	108-90-7	
Chloroethane	ND	ug/kg	29.7	1.7	1	08/25/20 13:50	08/25/20 14:54	75-00-3	
Chloroform	ND	ug/kg	29.7	1.2	1	08/25/20 13:50	08/25/20 14:54	67-66-3	
Chloromethane	ND	ug/kg	29.7	0.93	1	08/25/20 13:50	08/25/20 14:54	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	29.7	0.97	1	08/25/20 13:50	08/25/20 14:54	95-49-8	
4-Chlorotoluene	ND	ug/kg	29.7	0.96	1	08/25/20 13:50	08/25/20 14:54	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	59.5	0.96	1	08/25/20 13:50	08/25/20 14:54	96-12-8	
Dibromochloromethane	ND	ug/kg	29.7	0.73	1	08/25/20 13:50	08/25/20 14:54	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	29.7	0.67	1	08/25/20 13:50	08/25/20 14:54	106-93-4	
Dibromomethane	ND	ug/kg	29.7	0.92	1	08/25/20 13:50	08/25/20 14:54	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	29.7	0.82	1	08/25/20 13:50	08/25/20 14:54	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	29.7	0.83	1	08/25/20 13:50	08/25/20 14:54	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	29.7	0.68	1	08/25/20 13:50	08/25/20 14:54	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	29.7	2.6	1	08/25/20 13:50	08/25/20 14:54	75-71-8	
1,1-Dichloroethane	ND	ug/kg	29.7	1.3	1	08/25/20 13:50	08/25/20 14:54	75-34-3	
1,2-Dichloroethane	ND	ug/kg	29.7	1.2	1	08/25/20 13:50	08/25/20 14:54	107-06-2	
1,1-Dichloroethene	ND	ug/kg	29.7	2.0	1	08/25/20 13:50	08/25/20 14:54	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	29.7	1.1	1	08/25/20 13:50	08/25/20 14:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	29.7	1.4	1	08/25/20 13:50	08/25/20 14:54	156-60-5	
1,2-Dichloropropane	ND	ug/kg	29.7	0.84	1	08/25/20 13:50	08/25/20 14:54	78-87-5	
1,3-Dichloropropane	ND	ug/kg	29.7	0.75	1	08/25/20 13:50	08/25/20 14:54	142-28-9	
2,2-Dichloropropane	ND	ug/kg	29.7	1.8	1	08/25/20 13:50	08/25/20 14:54	594-20-7	
1,1-Dichloropropene	ND	ug/kg	29.7	1.5	1	08/25/20 13:50	08/25/20 14:54	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	29.7	0.77	1	08/25/20 13:50	08/25/20 14:54	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	29.7	1.0	1	08/25/20 13:50	08/25/20 14:54	10061-02-6	
Ethyl acetate	ND	ug/kg	59.5	2.0	1	08/25/20 13:50	08/25/20 14:54	141-78-6	
Ethylbenzene	ND	ug/kg	29.7	1.4	1	08/25/20 13:50	08/25/20 14:54	100-41-4	
2-Hexanone	ND	ug/kg	119	5.4	1	08/25/20 13:50	08/25/20 14:54	591-78-6	N2

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249198

Sample: BR8PB1SS **Lab ID: 5249198001** Collected: 08/25/20 07:26 Received: 08/25/20 12:31 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	29.7	1.2	1	08/25/20 13:50	08/25/20 14:54	98-82-8	
p-Isopropyltoluene	ND	ug/kg	29.7	5.9	1	08/25/20 13:50	08/25/20 14:54	99-87-6	
Methylene Chloride	ND	ug/kg	149	1.9	1	08/25/20 13:50	08/25/20 14:54	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	119	3.4	1	08/25/20 13:50	08/25/20 14:54	108-10-1	N2
Methyl-tert-butyl ether	**6.7J**	ug/kg	59.5	1.4	1	08/25/20 13:50	08/25/20 14:54	1634-04-4	
Naphthalene	ND	ug/kg	29.7	0.75	1	08/25/20 13:50	08/25/20 14:54	91-20-3	
n-Propylbenzene	ND	ug/kg	29.7	1.3	1	08/25/20 13:50	08/25/20 14:54	103-65-1	
Styrene	ND	ug/kg	29.7	1.1	1	08/25/20 13:50	08/25/20 14:54	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	29.7	0.72	1	08/25/20 13:50	08/25/20 14:54	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	29.7	0.66	1	08/25/20 13:50	08/25/20 14:54	79-34-5	
Tetrachloroethene	**4.0J**	ug/kg	29.7	1.7	1	08/25/20 13:50	08/25/20 14:54	127-18-4	
Toluene	ND	ug/kg	29.7	1.0	1	08/25/20 13:50	08/25/20 14:54	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	29.7	0.69	1	08/25/20 13:50	08/25/20 14:54	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	29.7	0.79	1	08/25/20 13:50	08/25/20 14:54	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	29.7	1.5	1	08/25/20 13:50	08/25/20 14:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	29.7	0.95	1	08/25/20 13:50	08/25/20 14:54	79-00-5	
Trichloroethene	ND	ug/kg	29.7	1.3	1	08/25/20 13:50	08/25/20 14:54	79-01-6	
Trichlorofluoromethane	ND	ug/kg	29.7	2.1	1	08/25/20 13:50	08/25/20 14:54	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	29.7	1.5	1	08/25/20 13:50	08/25/20 14:54	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	29.7	0.98	1	08/25/20 13:50	08/25/20 14:54	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	29.7	1.1	1	08/25/20 13:50	08/25/20 14:54	108-67-8	
Vinyl acetate	ND	ug/kg	59.5	2.3	1	08/25/20 13:50	08/25/20 14:54	108-05-4	
Vinyl chloride	ND	ug/kg	29.7	2.2	1	08/25/20 13:50	08/25/20 14:54	75-01-4	
Xylene (Total)	ND	ug/kg	59.5	3.1	1	08/25/20 13:50	08/25/20 14:54	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	107	%.	78-126		1	08/25/20 13:50	08/25/20 14:54	1868-53-7	
Toluene-d8 (S)	98	%.	80-120		1	08/25/20 13:50	08/25/20 14:54	2037-26-5	
4-Bromofluorobenzene (S)	95	%.	80-120		1	08/25/20 13:50	08/25/20 14:54	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%.	76-127		1	08/25/20 13:50	08/25/20 14:54	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**21.3**	%	0.10	0.10	1		08/25/20 16:28		N2

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249198

Sample: BR8WE1SS **Lab ID: 5249198002** Collected: 08/25/20 10:02 Received: 08/25/20 12:31 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	307	16.7	1	08/25/20 13:50	08/25/20 15:19	67-64-1	
Acetonitrile	ND	ug/kg	246	12.1	1	08/25/20 13:50	08/25/20 15:19	75-05-8	L1
Acrolein	ND	ug/kg	307	9.1	1	08/25/20 13:50	08/25/20 15:19	107-02-8	
Acrylonitrile	ND	ug/kg	123	1.4	1	08/25/20 13:50	08/25/20 15:19	107-13-1	
Benzene	ND	ug/kg	6.1	0.99	1	08/25/20 13:50	08/25/20 15:19	71-43-2	
Bromobenzene	ND	ug/kg	30.7	0.95	1	08/25/20 13:50	08/25/20 15:19	108-86-1	
Bromochloromethane	ND	ug/kg	30.7	0.75	1	08/25/20 13:50	08/25/20 15:19	74-97-5	
Bromodichloromethane	ND	ug/kg	30.7	0.97	1	08/25/20 13:50	08/25/20 15:19	75-27-4	
Bromoform	ND	ug/kg	30.7	0.74	1	08/25/20 13:50	08/25/20 15:19	75-25-2	
Bromomethane	ND	ug/kg	154	0.96	1	08/25/20 13:50	08/25/20 15:19	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	123	1.7	1	08/25/20 13:50	08/25/20 15:19	78-93-3	
n-Butylbenzene	ND	ug/kg	30.7	2.0	1	08/25/20 13:50	08/25/20 15:19	104-51-8	
sec-Butylbenzene	ND	ug/kg	30.7	1.7	1	08/25/20 13:50	08/25/20 15:19	135-98-8	
tert-Butylbenzene	ND	ug/kg	30.7	1.5	1	08/25/20 13:50	08/25/20 15:19	98-06-6	
Carbon disulfide	ND	ug/kg	123	1.9	1	08/25/20 13:50	08/25/20 15:19	75-15-0	
Carbon tetrachloride	ND	ug/kg	30.7	1.8	1	08/25/20 13:50	08/25/20 15:19	56-23-5	
Chlorobenzene	ND	ug/kg	30.7	0.94	1	08/25/20 13:50	08/25/20 15:19	108-90-7	
Chloroethane	ND	ug/kg	30.7	1.8	1	08/25/20 13:50	08/25/20 15:19	75-00-3	
Chloroform	ND	ug/kg	30.7	1.3	1	08/25/20 13:50	08/25/20 15:19	67-66-3	
Chloromethane	ND	ug/kg	30.7	0.96	1	08/25/20 13:50	08/25/20 15:19	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	30.7	1.0	1	08/25/20 13:50	08/25/20 15:19	95-49-8	
4-Chlorotoluene	ND	ug/kg	30.7	1.0	1	08/25/20 13:50	08/25/20 15:19	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	61.5	0.99	1	08/25/20 13:50	08/25/20 15:19	96-12-8	
Dibromochloromethane	ND	ug/kg	30.7	0.75	1	08/25/20 13:50	08/25/20 15:19	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	30.7	0.70	1	08/25/20 13:50	08/25/20 15:19	106-93-4	
Dibromomethane	ND	ug/kg	30.7	0.95	1	08/25/20 13:50	08/25/20 15:19	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	30.7	0.85	1	08/25/20 13:50	08/25/20 15:19	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	30.7	0.85	1	08/25/20 13:50	08/25/20 15:19	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	30.7	0.70	1	08/25/20 13:50	08/25/20 15:19	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	30.7	2.6	1	08/25/20 13:50	08/25/20 15:19	75-71-8	
1,1-Dichloroethane	ND	ug/kg	30.7	1.3	1	08/25/20 13:50	08/25/20 15:19	75-34-3	
1,2-Dichloroethane	ND	ug/kg	30.7	1.3	1	08/25/20 13:50	08/25/20 15:19	107-06-2	
1,1-Dichloroethene	ND	ug/kg	30.7	2.1	1	08/25/20 13:50	08/25/20 15:19	75-35-4	N2
cis-1,2-Dichloroethene	**7.5J**	ug/kg	30.7	1.1	1	08/25/20 13:50	08/25/20 15:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	30.7	1.5	1	08/25/20 13:50	08/25/20 15:19	156-60-5	
1,2-Dichloropropane	ND	ug/kg	30.7	0.87	1	08/25/20 13:50	08/25/20 15:19	78-87-5	
1,3-Dichloropropane	ND	ug/kg	30.7	0.77	1	08/25/20 13:50	08/25/20 15:19	142-28-9	
2,2-Dichloropropane	ND	ug/kg	30.7	1.8	1	08/25/20 13:50	08/25/20 15:19	594-20-7	
1,1-Dichloropropene	ND	ug/kg	30.7	1.6	1	08/25/20 13:50	08/25/20 15:19	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	30.7	0.80	1	08/25/20 13:50	08/25/20 15:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	30.7	1.1	1	08/25/20 13:50	08/25/20 15:19	10061-02-6	
Ethyl acetate	ND	ug/kg	61.5	2.1	1	08/25/20 13:50	08/25/20 15:19	141-78-6	
Ethylbenzene	ND	ug/kg	30.7	1.4	1	08/25/20 13:50	08/25/20 15:19	100-41-4	
2-Hexanone	ND	ug/kg	123	5.5	1	08/25/20 13:50	08/25/20 15:19	591-78-6	N2

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249198

Sample: BR8WE1SS **Lab ID: 5249198002** Collected: 08/25/20 10:02 Received: 08/25/20 12:31 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	30.7	1.3	1	08/25/20 13:50	08/25/20 15:19	98-82-8	
p-Isopropyltoluene	ND	ug/kg	30.7	6.1	1	08/25/20 13:50	08/25/20 15:19	99-87-6	
Methylene Chloride	ND	ug/kg	154	2.0	1	08/25/20 13:50	08/25/20 15:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	123	3.5	1	08/25/20 13:50	08/25/20 15:19	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	61.5	1.4	1	08/25/20 13:50	08/25/20 15:19	1634-04-4	
Naphthalene	ND	ug/kg	30.7	0.77	1	08/25/20 13:50	08/25/20 15:19	91-20-3	
n-Propylbenzene	ND	ug/kg	30.7	1.3	1	08/25/20 13:50	08/25/20 15:19	103-65-1	
Styrene	ND	ug/kg	30.7	1.2	1	08/25/20 13:50	08/25/20 15:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	30.7	0.74	1	08/25/20 13:50	08/25/20 15:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	30.7	0.68	1	08/25/20 13:50	08/25/20 15:19	79-34-5	
Tetrachloroethene	ND	ug/kg	30.7	1.8	1	08/25/20 13:50	08/25/20 15:19	127-18-4	
Toluene	ND	ug/kg	30.7	1.1	1	08/25/20 13:50	08/25/20 15:19	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	30.7	0.72	1	08/25/20 13:50	08/25/20 15:19	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	30.7	0.82	1	08/25/20 13:50	08/25/20 15:19	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	30.7	1.5	1	08/25/20 13:50	08/25/20 15:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	30.7	0.98	1	08/25/20 13:50	08/25/20 15:19	79-00-5	
Trichloroethene	**5.5J**	ug/kg	30.7	1.4	1	08/25/20 13:50	08/25/20 15:19	79-01-6	
Trichlorofluoromethane	ND	ug/kg	30.7	2.2	1	08/25/20 13:50	08/25/20 15:19	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	30.7	1.6	1	08/25/20 13:50	08/25/20 15:19	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	30.7	1.0	1	08/25/20 13:50	08/25/20 15:19	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	30.7	1.1	1	08/25/20 13:50	08/25/20 15:19	108-67-8	
Vinyl acetate	ND	ug/kg	61.5	2.4	1	08/25/20 13:50	08/25/20 15:19	108-05-4	
Vinyl chloride	ND	ug/kg	30.7	2.2	1	08/25/20 13:50	08/25/20 15:19	75-01-4	
Xylene (Total)	ND	ug/kg	61.5	3.2	1	08/25/20 13:50	08/25/20 15:19	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	111	%.	78-126		1	08/25/20 13:50	08/25/20 15:19	1868-53-7	
Toluene-d8 (S)	97	%.	80-120		1	08/25/20 13:50	08/25/20 15:19	2037-26-5	
4-Bromofluorobenzene (S)	95	%.	80-120		1	08/25/20 13:50	08/25/20 15:19	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%.	76-127		1	08/25/20 13:50	08/25/20 15:19	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**21.2**	%	0.10	0.10	1		08/25/20 16:47		N2

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(937)832-8242

ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249198

Sample: BR8WE1SD **Lab ID: 5249198003** Collected: 08/25/20 10:02 Received: 08/25/20 12:31 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	308	16.7	1	08/25/20 13:50	08/25/20 15:44	67-64-1	
Acetonitrile	ND	ug/kg	246	12.1	1	08/25/20 13:50	08/25/20 15:44	75-05-8	L1
Acrolein	ND	ug/kg	308	9.1	1	08/25/20 13:50	08/25/20 15:44	107-02-8	
Acrylonitrile	ND	ug/kg	123	1.4	1	08/25/20 13:50	08/25/20 15:44	107-13-1	
Benzene	ND	ug/kg	6.2	1.0	1	08/25/20 13:50	08/25/20 15:44	71-43-2	
Bromobenzene	ND	ug/kg	30.8	0.96	1	08/25/20 13:50	08/25/20 15:44	108-86-1	
Bromochloromethane	ND	ug/kg	30.8	0.75	1	08/25/20 13:50	08/25/20 15:44	74-97-5	
Bromodichloromethane	ND	ug/kg	30.8	0.97	1	08/25/20 13:50	08/25/20 15:44	75-27-4	
Bromoform	ND	ug/kg	30.8	0.74	1	08/25/20 13:50	08/25/20 15:44	75-25-2	
Bromomethane	ND	ug/kg	154	0.96	1	08/25/20 13:50	08/25/20 15:44	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	123	1.7	1	08/25/20 13:50	08/25/20 15:44	78-93-3	
n-Butylbenzene	ND	ug/kg	30.8	2.0	1	08/25/20 13:50	08/25/20 15:44	104-51-8	
sec-Butylbenzene	ND	ug/kg	30.8	1.7	1	08/25/20 13:50	08/25/20 15:44	135-98-8	
tert-Butylbenzene	ND	ug/kg	30.8	1.5	1	08/25/20 13:50	08/25/20 15:44	98-06-6	
Carbon disulfide	ND	ug/kg	123	1.9	1	08/25/20 13:50	08/25/20 15:44	75-15-0	
Carbon tetrachloride	ND	ug/kg	30.8	1.8	1	08/25/20 13:50	08/25/20 15:44	56-23-5	
Chlorobenzene	ND	ug/kg	30.8	0.94	1	08/25/20 13:50	08/25/20 15:44	108-90-7	
Chloroethane	ND	ug/kg	30.8	1.8	1	08/25/20 13:50	08/25/20 15:44	75-00-3	
Chloroform	ND	ug/kg	30.8	1.3	1	08/25/20 13:50	08/25/20 15:44	67-66-3	
Chloromethane	ND	ug/kg	30.8	0.96	1	08/25/20 13:50	08/25/20 15:44	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	30.8	1.0	1	08/25/20 13:50	08/25/20 15:44	95-49-8	
4-Chlorotoluene	ND	ug/kg	30.8	1.0	1	08/25/20 13:50	08/25/20 15:44	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	61.5	0.99	1	08/25/20 13:50	08/25/20 15:44	96-12-8	
Dibromochloromethane	ND	ug/kg	30.8	0.75	1	08/25/20 13:50	08/25/20 15:44	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	30.8	0.70	1	08/25/20 13:50	08/25/20 15:44	106-93-4	
Dibromomethane	ND	ug/kg	30.8	0.95	1	08/25/20 13:50	08/25/20 15:44	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	30.8	0.85	1	08/25/20 13:50	08/25/20 15:44	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	30.8	0.85	1	08/25/20 13:50	08/25/20 15:44	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	30.8	0.70	1	08/25/20 13:50	08/25/20 15:44	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	30.8	2.6	1	08/25/20 13:50	08/25/20 15:44	75-71-8	
1,1-Dichloroethane	ND	ug/kg	30.8	1.3	1	08/25/20 13:50	08/25/20 15:44	75-34-3	
1,2-Dichloroethane	ND	ug/kg	30.8	1.3	1	08/25/20 13:50	08/25/20 15:44	107-06-2	
1,1-Dichloroethene	ND	ug/kg	30.8	2.1	1	08/25/20 13:50	08/25/20 15:44	75-35-4	N2
cis-1,2-Dichloroethene	**6.7J**	ug/kg	30.8	1.1	1	08/25/20 13:50	08/25/20 15:44	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	30.8	1.5	1	08/25/20 13:50	08/25/20 15:44	156-60-5	
1,2-Dichloropropane	ND	ug/kg	30.8	0.87	1	08/25/20 13:50	08/25/20 15:44	78-87-5	
1,3-Dichloropropane	ND	ug/kg	30.8	0.77	1	08/25/20 13:50	08/25/20 15:44	142-28-9	
2,2-Dichloropropane	ND	ug/kg	30.8	1.8	1	08/25/20 13:50	08/25/20 15:44	594-20-7	
1,1-Dichloropropene	ND	ug/kg	30.8	1.6	1	08/25/20 13:50	08/25/20 15:44	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	30.8	0.80	1	08/25/20 13:50	08/25/20 15:44	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	30.8	1.1	1	08/25/20 13:50	08/25/20 15:44	10061-02-6	
Ethyl acetate	ND	ug/kg	61.5	2.1	1	08/25/20 13:50	08/25/20 15:44	141-78-6	
Ethylbenzene	ND	ug/kg	30.8	1.4	1	08/25/20 13:50	08/25/20 15:44	100-41-4	
2-Hexanone	ND	ug/kg	123	5.5	1	08/25/20 13:50	08/25/20 15:44	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249198

Sample: BR8WE1SD **Lab ID: 5249198003** Collected: 08/25/20 10:02 Received: 08/25/20 12:31 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	30.8	1.3	1	08/25/20 13:50	08/25/20 15:44	98-82-8	
p-Isopropyltoluene	ND	ug/kg	30.8	6.2	1	08/25/20 13:50	08/25/20 15:44	99-87-6	
Methylene Chloride	ND	ug/kg	154	2.0	1	08/25/20 13:50	08/25/20 15:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	123	3.5	1	08/25/20 13:50	08/25/20 15:44	108-10-1	N2
Methyl-tert-butyl ether	**6.6J**	ug/kg	61.5	1.4	1	08/25/20 13:50	08/25/20 15:44	1634-04-4	
Naphthalene	ND	ug/kg	30.8	0.77	1	08/25/20 13:50	08/25/20 15:44	91-20-3	
n-Propylbenzene	ND	ug/kg	30.8	1.3	1	08/25/20 13:50	08/25/20 15:44	103-65-1	
Styrene	ND	ug/kg	30.8	1.2	1	08/25/20 13:50	08/25/20 15:44	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	30.8	0.74	1	08/25/20 13:50	08/25/20 15:44	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	30.8	0.68	1	08/25/20 13:50	08/25/20 15:44	79-34-5	
Tetrachloroethene	ND	ug/kg	30.8	1.8	1	08/25/20 13:50	08/25/20 15:44	127-18-4	
Toluene	ND	ug/kg	30.8	1.1	1	08/25/20 13:50	08/25/20 15:44	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	30.8	0.72	1	08/25/20 13:50	08/25/20 15:44	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	30.8	0.82	1	08/25/20 13:50	08/25/20 15:44	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	30.8	1.5	1	08/25/20 13:50	08/25/20 15:44	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	30.8	0.98	1	08/25/20 13:50	08/25/20 15:44	79-00-5	
Trichloroethene	ND	ug/kg	30.8	1.4	1	08/25/20 13:50	08/25/20 15:44	79-01-6	
Trichlorofluoromethane	ND	ug/kg	30.8	2.2	1	08/25/20 13:50	08/25/20 15:44	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	30.8	1.6	1	08/25/20 13:50	08/25/20 15:44	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	30.8	1.0	1	08/25/20 13:50	08/25/20 15:44	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	30.8	1.1	1	08/25/20 13:50	08/25/20 15:44	108-67-8	
Vinyl acetate	ND	ug/kg	61.5	2.4	1	08/25/20 13:50	08/25/20 15:44	108-05-4	
Vinyl chloride	ND	ug/kg	30.8	2.2	1	08/25/20 13:50	08/25/20 15:44	75-01-4	
Xylene (Total)	ND	ug/kg	61.5	3.2	1	08/25/20 13:50	08/25/20 15:44	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	111	%.	78-126		1	08/25/20 13:50	08/25/20 15:44	1868-53-7	
Toluene-d8 (S)	100	%.	80-120		1	08/25/20 13:50	08/25/20 15:44	2037-26-5	
4-Bromofluorobenzene (S)	93	%.	80-120		1	08/25/20 13:50	08/25/20 15:44	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%.	76-127		1	08/25/20 13:50	08/25/20 15:44	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**20.7**	%	0.10	0.10	1		08/25/20 16:48		N2

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249198

Sample: BR8PB2SS **Lab ID: 5249198004** Collected: 08/25/20 11:08 Received: 08/25/20 12:31 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	302	16.4	1	08/25/20 13:50	08/25/20 16:09	67-64-1	
Acetonitrile	ND	ug/kg	242	11.9	1	08/25/20 13:50	08/25/20 16:09	75-05-8	L1
Acrolein	ND	ug/kg	302	8.9	1	08/25/20 13:50	08/25/20 16:09	107-02-8	
Acrylonitrile	ND	ug/kg	121	1.4	1	08/25/20 13:50	08/25/20 16:09	107-13-1	
Benzene	ND	ug/kg	6.0	0.98	1	08/25/20 13:50	08/25/20 16:09	71-43-2	
Bromobenzene	ND	ug/kg	30.2	0.94	1	08/25/20 13:50	08/25/20 16:09	108-86-1	
Bromochloromethane	ND	ug/kg	30.2	0.74	1	08/25/20 13:50	08/25/20 16:09	74-97-5	
Bromodichloromethane	ND	ug/kg	30.2	0.95	1	08/25/20 13:50	08/25/20 16:09	75-27-4	
Bromoform	ND	ug/kg	30.2	0.73	1	08/25/20 13:50	08/25/20 16:09	75-25-2	
Bromomethane	ND	ug/kg	151	0.95	1	08/25/20 13:50	08/25/20 16:09	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	121	1.7	1	08/25/20 13:50	08/25/20 16:09	78-93-3	
n-Butylbenzene	ND	ug/kg	30.2	1.9	1	08/25/20 13:50	08/25/20 16:09	104-51-8	
sec-Butylbenzene	ND	ug/kg	30.2	1.7	1	08/25/20 13:50	08/25/20 16:09	135-98-8	
tert-Butylbenzene	ND	ug/kg	30.2	1.5	1	08/25/20 13:50	08/25/20 16:09	98-06-6	
Carbon disulfide	ND	ug/kg	121	1.9	1	08/25/20 13:50	08/25/20 16:09	75-15-0	
Carbon tetrachloride	ND	ug/kg	30.2	1.8	1	08/25/20 13:50	08/25/20 16:09	56-23-5	
Chlorobenzene	ND	ug/kg	30.2	0.92	1	08/25/20 13:50	08/25/20 16:09	108-90-7	
Chloroethane	ND	ug/kg	30.2	1.7	1	08/25/20 13:50	08/25/20 16:09	75-00-3	
Chloroform	ND	ug/kg	30.2	1.2	1	08/25/20 13:50	08/25/20 16:09	67-66-3	
Chloromethane	ND	ug/kg	30.2	0.94	1	08/25/20 13:50	08/25/20 16:09	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	30.2	0.98	1	08/25/20 13:50	08/25/20 16:09	95-49-8	
4-Chlorotoluene	ND	ug/kg	30.2	0.98	1	08/25/20 13:50	08/25/20 16:09	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	60.4	0.97	1	08/25/20 13:50	08/25/20 16:09	96-12-8	
Dibromochloromethane	ND	ug/kg	30.2	0.74	1	08/25/20 13:50	08/25/20 16:09	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	30.2	0.68	1	08/25/20 13:50	08/25/20 16:09	106-93-4	
Dibromomethane	ND	ug/kg	30.2	0.94	1	08/25/20 13:50	08/25/20 16:09	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	30.2	0.84	1	08/25/20 13:50	08/25/20 16:09	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	30.2	0.84	1	08/25/20 13:50	08/25/20 16:09	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	30.2	0.69	1	08/25/20 13:50	08/25/20 16:09	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	30.2	2.6	1	08/25/20 13:50	08/25/20 16:09	75-71-8	
1,1-Dichloroethane	ND	ug/kg	30.2	1.3	1	08/25/20 13:50	08/25/20 16:09	75-34-3	
1,2-Dichloroethane	ND	ug/kg	30.2	1.3	1	08/25/20 13:50	08/25/20 16:09	107-06-2	
1,1-Dichloroethene	ND	ug/kg	30.2	2.1	1	08/25/20 13:50	08/25/20 16:09	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	30.2	1.1	1	08/25/20 13:50	08/25/20 16:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	30.2	1.4	1	08/25/20 13:50	08/25/20 16:09	156-60-5	
1,2-Dichloropropane	ND	ug/kg	30.2	0.86	1	08/25/20 13:50	08/25/20 16:09	78-87-5	
1,3-Dichloropropane	ND	ug/kg	30.2	0.76	1	08/25/20 13:50	08/25/20 16:09	142-28-9	
2,2-Dichloropropane	ND	ug/kg	30.2	1.8	1	08/25/20 13:50	08/25/20 16:09	594-20-7	
1,1-Dichloropropene	ND	ug/kg	30.2	1.5	1	08/25/20 13:50	08/25/20 16:09	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	30.2	0.79	1	08/25/20 13:50	08/25/20 16:09	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	30.2	1.0	1	08/25/20 13:50	08/25/20 16:09	10061-02-6	
Ethyl acetate	ND	ug/kg	60.4	2.0	1	08/25/20 13:50	08/25/20 16:09	141-78-6	
Ethylbenzene	ND	ug/kg	30.2	1.4	1	08/25/20 13:50	08/25/20 16:09	100-41-4	
2-Hexanone	ND	ug/kg	121	5.4	1	08/25/20 13:50	08/25/20 16:09	591-78-6	N2

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249198

Sample: BR8PB2SS **Lab ID: 5249198004** Collected: 08/25/20 11:08 Received: 08/25/20 12:31 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	30.2	1.2	1	08/25/20 13:50	08/25/20 16:09	98-82-8	
p-Isopropyltoluene	ND	ug/kg	30.2	6.0	1	08/25/20 13:50	08/25/20 16:09	99-87-6	
Methylene Chloride	ND	ug/kg	151	2.0	1	08/25/20 13:50	08/25/20 16:09	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	121	3.5	1	08/25/20 13:50	08/25/20 16:09	108-10-1	N2
Methyl-tert-butyl ether	**5.7J**	ug/kg	60.4	1.4	1	08/25/20 13:50	08/25/20 16:09	1634-04-4	
Naphthalene	ND	ug/kg	30.2	0.76	1	08/25/20 13:50	08/25/20 16:09	91-20-3	
n-Propylbenzene	ND	ug/kg	30.2	1.3	1	08/25/20 13:50	08/25/20 16:09	103-65-1	
Styrene	ND	ug/kg	30.2	1.2	1	08/25/20 13:50	08/25/20 16:09	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	30.2	0.73	1	08/25/20 13:50	08/25/20 16:09	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	30.2	0.67	1	08/25/20 13:50	08/25/20 16:09	79-34-5	
Tetrachloroethene	**9.6J**	ug/kg	30.2	1.8	1	08/25/20 13:50	08/25/20 16:09	127-18-4	
Toluene	ND	ug/kg	30.2	1.1	1	08/25/20 13:50	08/25/20 16:09	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	30.2	0.70	1	08/25/20 13:50	08/25/20 16:09	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	30.2	0.81	1	08/25/20 13:50	08/25/20 16:09	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	30.2	1.5	1	08/25/20 13:50	08/25/20 16:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	30.2	0.96	1	08/25/20 13:50	08/25/20 16:09	79-00-5	
Trichloroethene	**26.0J**	ug/kg	30.2	1.3	1	08/25/20 13:50	08/25/20 16:09	79-01-6	
Trichlorofluoromethane	ND	ug/kg	30.2	2.2	1	08/25/20 13:50	08/25/20 16:09	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	30.2	1.5	1	08/25/20 13:50	08/25/20 16:09	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	30.2	1.0	1	08/25/20 13:50	08/25/20 16:09	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	30.2	1.1	1	08/25/20 13:50	08/25/20 16:09	108-67-8	
Vinyl acetate	ND	ug/kg	60.4	2.3	1	08/25/20 13:50	08/25/20 16:09	108-05-4	
Vinyl chloride	ND	ug/kg	30.2	2.2	1	08/25/20 13:50	08/25/20 16:09	75-01-4	
Xylene (Total)	ND	ug/kg	60.4	3.1	1	08/25/20 13:50	08/25/20 16:09	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	110	%.	78-126		1	08/25/20 13:50	08/25/20 16:09	1868-53-7	
Toluene-d8 (S)	100	%.	80-120		1	08/25/20 13:50	08/25/20 16:09	2037-26-5	
4-Bromofluorobenzene (S)	95	%.	80-120		1	08/25/20 13:50	08/25/20 16:09	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%.	76-127		1	08/25/20 13:50	08/25/20 16:09	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**21.3**	%	0.10	0.10	1		08/25/20 16:49		N2

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249198

QC Batch: 48556
QC Batch Method: EPA 5035A
Analysis Method: EPA 8260B
Analysis Description: 8260B MSV 5035A Med Level
Laboratory: Pace Analytical Services - Dayton
Associated Lab Samples: 5249198001, 5249198002, 5249198003, 5249198004

METHOD BLANK: 204024
Matrix: Solid
Associated Lab Samples: 5249198001, 5249198002, 5249198003, 5249198004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	25.0	0.60	08/25/20 12:23	
1,1,1-Trichloroethane	ug/kg	ND	25.0	1.2	08/25/20 12:23	
1,1,2,2-Tetrachloroethane	ug/kg	ND	25.0	0.56	08/25/20 12:23	
1,1,2-Trichloroethane	ug/kg	ND	25.0	0.80	08/25/20 12:23	
1,1-Dichloroethane	ug/kg	ND	25.0	1.1	08/25/20 12:23	
1,1-Dichloroethene	ug/kg	ND	25.0	1.7	08/25/20 12:23	N2
1,1-Dichloropropene	ug/kg	ND	25.0	1.3	08/25/20 12:23	
1,2,3-Trichlorobenzene	ug/kg	ND	25.0	0.58	08/25/20 12:23	N2
1,2,3-Trichloropropane	ug/kg	ND	25.0	1.3	08/25/20 12:23	
1,2,4-Trichlorobenzene	ug/kg	ND	25.0	0.67	08/25/20 12:23	
1,2,4-Trimethylbenzene	ug/kg	ND	25.0	0.83	08/25/20 12:23	
1,2-Dibromo-3-chloropropane	ug/kg	ND	50.0	0.80	08/25/20 12:23	
1,2-Dibromoethane (EDB)	ug/kg	ND	25.0	0.57	08/25/20 12:23	
1,2-Dichlorobenzene	ug/kg	ND	25.0	0.69	08/25/20 12:23	
1,2-Dichloroethane	ug/kg	2.9J	25.0	1.0	08/25/20 12:23	
1,2-Dichloropropane	ug/kg	ND	25.0	0.71	08/25/20 12:23	
1,3,5-Trimethylbenzene	ug/kg	ND	25.0	0.92	08/25/20 12:23	
1,3-Dichlorobenzene	ug/kg	ND	25.0	0.69	08/25/20 12:23	
1,3-Dichloropropane	ug/kg	ND	25.0	0.63	08/25/20 12:23	
1,4-Dichlorobenzene	ug/kg	ND	25.0	0.57	08/25/20 12:23	
2,2-Dichloropropane	ug/kg	ND	25.0	1.5	08/25/20 12:23	
2-Butanone (MEK)	ug/kg	ND	100	1.4	08/25/20 12:23	
2-Chlorotoluene	ug/kg	ND	25.0	0.81	08/25/20 12:23	
2-Hexanone	ug/kg	ND	100	4.5	08/25/20 12:23	N2
4-Chlorotoluene	ug/kg	ND	25.0	0.81	08/25/20 12:23	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	100	2.9	08/25/20 12:23	N2
Acetone	ug/kg	ND	250	13.6	08/25/20 12:23	
Acetonitrile	ug/kg	ND	200	9.9	08/25/20 12:23	
Acrolein	ug/kg	ND	250	7.4	08/25/20 12:23	
Acrylonitrile	ug/kg	ND	100	1.1	08/25/20 12:23	
Benzene	ug/kg	ND	5.0	0.81	08/25/20 12:23	
Bromobenzene	ug/kg	ND	25.0	0.78	08/25/20 12:23	
Bromochloromethane	ug/kg	ND	25.0	0.61	08/25/20 12:23	
Bromodichloromethane	ug/kg	ND	25.0	0.79	08/25/20 12:23	
Bromoform	ug/kg	ND	25.0	0.60	08/25/20 12:23	
Bromomethane	ug/kg	ND	125	0.78	08/25/20 12:23	N2
Carbon disulfide	ug/kg	ND	100	1.6	08/25/20 12:23	
Carbon tetrachloride	ug/kg	ND	25.0	1.4	08/25/20 12:23	
Chlorobenzene	ug/kg	ND	25.0	0.76	08/25/20 12:23	
Chloroethane	ug/kg	ND	25.0	1.4	08/25/20 12:23	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249198

METHOD BLANK: 204024 Matrix: Solid
Associated Lab Samples: 5249198001, 5249198002, 5249198003, 5249198004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloroform	ug/kg	ND	25.0	1.0	08/25/20 12:23	
Chloromethane	ug/kg	ND	25.0	0.78	08/25/20 12:23	N2
cis-1,2-Dichloroethene	ug/kg	ND	25.0	0.91	08/25/20 12:23	
cis-1,3-Dichloropropene	ug/kg	ND	25.0	0.65	08/25/20 12:23	
Dibromochloromethane	ug/kg	ND	25.0	0.61	08/25/20 12:23	
Dibromomethane	ug/kg	ND	25.0	0.78	08/25/20 12:23	
Dichlorodifluoromethane	ug/kg	ND	25.0	2.1	08/25/20 12:23	
Ethyl acetate	ug/kg	ND	50.0	1.7	08/25/20 12:23	
Ethylbenzene	ug/kg	ND	25.0	1.2	08/25/20 12:23	
Isopropylbenzene (Cumene)	ug/kg	ND	25.0	1.0	08/25/20 12:23	
Methyl-tert-butyl ether	ug/kg	ND	50.0	1.2	08/25/20 12:23	
Methylene Chloride	ug/kg	ND	125	1.6	08/25/20 12:23	
n-Butylbenzene	ug/kg	ND	25.0	1.6	08/25/20 12:23	
n-Propylbenzene	ug/kg	ND	25.0	1.1	08/25/20 12:23	
Naphthalene	ug/kg	ND	25.0	0.63	08/25/20 12:23	
p-Isopropyltoluene	ug/kg	ND	25.0	5.0	08/25/20 12:23	
sec-Butylbenzene	ug/kg	ND	25.0	1.4	08/25/20 12:23	
Styrene	ug/kg	ND	25.0	0.96	08/25/20 12:23	
tert-Butylbenzene	ug/kg	ND	25.0	1.2	08/25/20 12:23	
Tetrachloroethene	ug/kg	ND	25.0	1.4	08/25/20 12:23	
Toluene	ug/kg	ND	25.0	0.87	08/25/20 12:23	
trans-1,2-Dichloroethene	ug/kg	ND	25.0	1.2	08/25/20 12:23	
trans-1,3-Dichloropropene	ug/kg	ND	25.0	0.86	08/25/20 12:23	
Trichloroethene	ug/kg	ND	25.0	1.1	08/25/20 12:23	
Trichlorofluoromethane	ug/kg	ND	25.0	1.8	08/25/20 12:23	
Vinyl acetate	ug/kg	ND	50.0	1.9	08/25/20 12:23	
Vinyl chloride	ug/kg	ND	25.0	1.8	08/25/20 12:23	
Xylene (Total)	ug/kg	ND	50.0	2.6	08/25/20 12:23	
1,2-Dichloroethane-d4 (S)	%.	111	76-127		08/25/20 12:23	
4-Bromofluorobenzene (S)	%.	94	80-120		08/25/20 12:23	
Dibromofluoromethane (S)	%.	112	78-126		08/25/20 12:23	
Toluene-d8 (S)	%.	97	80-120		08/25/20 12:23	

LABORATORY CONTROL SAMPLE: 204025

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	500	498	100	70-130	
1,1,1-Trichloroethane	ug/kg	500	524	105	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	500	495	99	70-130	
1,1,2-Trichloroethane	ug/kg	500	471	94	70-130	
1,1-Dichloroethane	ug/kg	500	488	98	70-130	
1,1-Dichloroethene	ug/kg	500	471	94	70-130	N2
1,1-Dichloropropene	ug/kg	500	485	97	70-130	
1,2,3-Trichlorobenzene	ug/kg	500	417	83	70-130	N2

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249198

LABORATORY CONTROL SAMPLE: 204025

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichloropropane	ug/kg	500	489	98	70-130	
1,2,4-Trichlorobenzene	ug/kg	500	401	80	70-130	
1,2,4-Trimethylbenzene	ug/kg	500	403	81	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	500	416	83	70-130	
1,2-Dibromoethane (EDB)	ug/kg	500	485	97	70-130	
1,2-Dichlorobenzene	ug/kg	500	435	87	70-130	
1,2-Dichloroethane	ug/kg	500	471	94	70-130	
1,2-Dichloropropane	ug/kg	500	494	99	70-130	
1,3,5-Trimethylbenzene	ug/kg	500	459	92	70-130	
1,3-Dichlorobenzene	ug/kg	500	456	91	50-150	
1,3-Dichloropropane	ug/kg	500	514	103	70-130	
1,4-Dichlorobenzene	ug/kg	500	448	90	50-150	
2,2-Dichloropropane	ug/kg	500	498	100	70-130	
2-Butanone (MEK)	ug/kg	1000	963	96	50-150	
2-Chlorotoluene	ug/kg	500	441	88	70-130	
2-Hexanone	ug/kg	1000	1110	111	50-150	N2
4-Chlorotoluene	ug/kg	500	437	87	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	1000	937	94	70-130	N2
Acetone	ug/kg	1000	1050	105	50-150	
Acetonitrile	ug/kg	1000	1530	153	70-130	L1
Acrolein	ug/kg	1000	884	88	70-130	
Acrylonitrile	ug/kg	1000	971	97	70-130	
Benzene	ug/kg	500	494	99	70-130	
Bromobenzene	ug/kg	500	474	95	70-130	
Bromochloromethane	ug/kg	500	487	97	70-130	
Bromodichloromethane	ug/kg	500	539	108	70-130	
Bromoform	ug/kg	500	481	96	70-130	
Bromomethane	ug/kg	500	612	122	50-150	N2
Carbon disulfide	ug/kg	500	460	92	70-130	
Carbon tetrachloride	ug/kg	500	550	110	70-130	
Chlorobenzene	ug/kg	500	473	95	70-130	
Chloroethane	ug/kg	500	664	133	50-150	
Chloroform	ug/kg	500	486	97	70-130	
Chloromethane	ug/kg	500	520	104	50-150	N2
cis-1,2-Dichloroethene	ug/kg	500	473	95	70-130	
cis-1,3-Dichloropropene	ug/kg	500	497	99	70-130	
Dibromochloromethane	ug/kg	500	514	103	70-130	
Dibromomethane	ug/kg	500	517	103	70-130	
Dichlorodifluoromethane	ug/kg	500	475	95	50-150	
Ethyl acetate	ug/kg	1000	875	88	70-130	
Ethylbenzene	ug/kg	500	458	92	70-130	
Isopropylbenzene (Cumene)	ug/kg	500	391	78	70-130	
Methyl-tert-butyl ether	ug/kg	500	450	90	70-130	
Methylene Chloride	ug/kg	500	471	94	70-130	
n-Butylbenzene	ug/kg	500	445	89	70-130	
n-Propylbenzene	ug/kg	500	467	93	70-130	
Naphthalene	ug/kg	500	336	67	50-150	

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REPORT OF LABORATORY ANALYSIS

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249198

LABORATORY CONTROL SAMPLE: 204025

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/kg	500	369	74	70-130	
sec-Butylbenzene	ug/kg	500	400	80	70-130	
Styrene	ug/kg	500	379	76	70-130	
tert-Butylbenzene	ug/kg	500	369	74	70-130	
Tetrachloroethene	ug/kg	500	500	100	70-130	
Toluene	ug/kg	500	497	99	70-130	
trans-1,2-Dichloroethene	ug/kg	500	457	91	70-130	
trans-1,3-Dichloropropene	ug/kg	500	498	100	70-130	
Trichloroethene	ug/kg	500	512	102	70-130	
Trichlorofluoromethane	ug/kg	500	557	111	50-150	
Vinyl acetate	ug/kg	500	471	94	70-130	
Vinyl chloride	ug/kg	500	465	93	50-150	
Xylene (Total)	ug/kg	1500	1260	84	70-130	
1,2-Dichloroethane-d4 (S)	%.			102	76-127	
4-Bromofluorobenzene (S)	%.			96	80-120	
Dibromofluoromethane (S)	%.			100	78-126	
Toluene-d8 (S)	%.			102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 204026 204027

Parameter	Units	5249083001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/kg	ND	592	561	569	584	96	104	48-135	3	20	
1,1,1-Trichloroethane	ug/kg	ND	592	561	597	609	101	109	49-123	2	23	
1,1,2,2-Tetrachloroethane	ug/kg	ND	592	561	561	557	95	99	43-135	1	26	
1,1,2-Trichloroethane	ug/kg	ND	592	561	546	556	92	99	52-138	2	21	
1,1-Dichloroethane	ug/kg	ND	592	561	568	566	96	101	61-129	0	20	
1,1-Dichloroethene	ug/kg	ND	592	561	557	550	94	98	41-127	1	28	N2
1,1-Dichloropropene	ug/kg	ND	592	561	578	566	98	101	44-119	2	25	
1,2,3-Trichlorobenzene	ug/kg	ND	592	561	497	500	84	89	10-110	1	30	N2
1,2,3-Trichloropropane	ug/kg	ND	592	561	547	560	92	100	46-128	2	24	
1,2,4-Trichlorobenzene	ug/kg	ND	592	561	477	498	81	89	11-130	4	38	
1,2,4-Trimethylbenzene	ug/kg	ND	592	561	483	481	82	86	24-153	1	25	
1,2-Dibromo-3-chloropropane	ug/kg	ND	592	561	499	506	84	90	30-146	1	26	
1,2-Dibromoethane (EDB)	ug/kg	ND	592	561	562	564	95	101	51-136	0	20	
1,2-Dichlorobenzene	ug/kg	ND	592	561	526	522	89	93	31-137	1	25	
1,2-Dichloroethane	ug/kg	ND	592	561	541	555	91	99	65-124	3	20	
1,2-Dichloropropane	ug/kg	ND	592	561	559	560	95	100	64-124	0	20	
1,3,5-Trimethylbenzene	ug/kg	ND	592	561	542	554	92	99	31-140	2	24	
1,3-Dichlorobenzene	ug/kg	ND	592	561	553	559	93	100	30-136	1	25	
1,3-Dichloropropane	ug/kg	ND	592	561	558	572	94	102	57-127	2	21	
1,4-Dichlorobenzene	ug/kg	ND	592	561	546	527	92	94	36-131	3	24	
2,2-Dichloropropane	ug/kg	ND	592	561	536	521	91	93	45-124	3	17	
2-Butanone (MEK)	ug/kg	ND	1180	1120	1050	1060	89	95	35-149	1	22	

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REPORT OF LABORATORY ANALYSIS

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249198

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 204026 204027

Parameter	Units	5249083001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2-Chlorotoluene	ug/kg	ND	592	561	541	534	91	95	37-129	1	24	
2-Hexanone	ug/kg	ND	1180	1120	1130	1170	96	104	34-134	3	23	N2
4-Chlorotoluene	ug/kg	ND	592	561	506	514	85	92	32-131	2	23	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	1180	1120	967	1030	82	92	49-137	6	24	N2
Acetone	ug/kg	ND	1180	1120	1070	1090	91	97	12-177	1	34	
Acetonitrile	ug/kg	ND	1180	1120	1530	1510	129	135	41-152	1	38	
Acrolein	ug/kg	ND	1180	1120	1040	866	87	77	10-200	18	48	
Acrylonitrile	ug/kg	ND	1180	1120	1120	1030	94	92	54-136	8	26	
Benzene	ug/kg	ND	592	561	582	579	98	103	61-122	1	20	
Bromobenzene	ug/kg	ND	592	561	589	581	100	104	38-133	1	21	
Bromochloromethane	ug/kg	ND	592	561	565	573	96	102	70-130	1	19	
Bromodichloromethane	ug/kg	ND	592	561	629	628	106	112	53-131	0	21	
Bromoform	ug/kg	ND	592	561	566	587	96	105	49-127	4	22	
Bromomethane	ug/kg	ND	592	561	697	640	118	114	15-168	8	22	N2
Carbon disulfide	ug/kg	ND	592	561	534	524	90	93	43-118	2	33	
Carbon tetrachloride	ug/kg	ND	592	561	626	625	106	112	39-121	0	23	
Chlorobenzene	ug/kg	ND	592	561	574	574	97	102	46-130	0	21	
Chloroethane	ug/kg	ND	592	561	847	707	143	126	6-154	18	86	
Chloroform	ug/kg	ND	592	561	586	574	99	102	62-128	2	19	
Chloromethane	ug/kg	ND	592	561	582	577	98	103	50-132	1	25	N2
cis-1,2-Dichloroethene	ug/kg	ND	592	561	518	528	88	94	61-127	2	20	
cis-1,3-Dichloropropene	ug/kg	ND	592	561	552	561	93	100	55-125	2	21	
Dibromochloromethane	ug/kg	ND	592	561	598	613	101	109	53-133	2	21	
Dibromomethane	ug/kg	ND	592	561	581	564	98	101	64-127	3	20	
Dichlorodifluoromethane	ug/kg	ND	592	561	568	550	96	98	10-184	3	69	
Ethyl acetate	ug/kg	ND	1180	1120	1020	999	86	89	10-155	2	40	
Ethylbenzene	ug/kg	ND	592	561	521	547	88	97	40-129	5	23	
Isopropylbenzene (Cumene)	ug/kg	ND	592	561	451	474	76	85	42-121	5	24	
Methyl-tert-butyl ether	ug/kg	ND	592	561	536	540	91	96	60-132	1	27	
Methylene Chloride	ug/kg	ND	592	561	533	525	90	94	46-146	2	39	
n-Butylbenzene	ug/kg	ND	592	561	516	527	87	94	20-127	2	29	
n-Propylbenzene	ug/kg	ND	592	561	542	548	92	98	33-126	1	25	
Naphthalene	ug/kg	ND	592	561	396	403	67	72	8-150	2	31	
p-Isopropyltoluene	ug/kg	ND	592	561	454	461	77	82	27-131	1	26	
sec-Butylbenzene	ug/kg	ND	592	561	476	482	80	86	27-130	1	26	
Styrene	ug/kg	ND	592	561	459	490	78	87	41-132	7	22	
tert-Butylbenzene	ug/kg	ND	592	561	454	461	77	82	36-129	1	25	
Tetrachloroethene	ug/kg	ND	592	561	590	621	97	108	36-128	5	23	
Toluene	ug/kg	ND	592	561	567	573	96	102	50-125	1	20	
trans-1,2-Dichloroethene	ug/kg	ND	592	561	541	517	91	92	51-127	5	31	
trans-1,3-Dichloropropene	ug/kg	ND	592	561	552	562	93	100	55-126	2	21	
Trichloroethene	ug/kg	ND	592	561	590	610	100	109	47-132	3	20	
Trichlorofluoromethane	ug/kg	ND	592	561	649	606	110	108	14-140	7	24	
Vinyl acetate	ug/kg	ND	592	561	418	383	71	68	10-127	9	50	

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249198

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 204026 204027

Parameter	Units	5249083001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Vinyl chloride	ug/kg	ND	592	561	562	537	95	96	35-130	5	54	
Xylene (Total)	ug/kg	ND	1780	1690	1460	1500	82	89	70-130	3	32	
1,2-Dichloroethane-d4 (S)	%.						95	92	76-127			
4-Bromofluorobenzene (S)	%.						96	98	80-120			
Dibromofluoromethane (S)	%.						99	97	78-126			
Toluene-d8 (S)	%.						99	101	80-120			

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QUALIFIERS

Project: RUSH VOC Soils
Pace Project No.: 5249198

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

WORKORDER QUALIFIERS

WO: 5249198

[1] 5249198- Report revised to split the workorder. Sample 005 moved to new workorder per client CFMS 082820

ANALYTE QUALIFIERS

L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RUSH VOC Soils
Pace Project No.: 5249198

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
5249198001	**BR8PB1SS**	EPA 5035A	48556	EPA 8260B	48630
5249198002	**BR8WE1SS**	EPA 5035A	48556	EPA 8260B	48630
5249198003	**BR8WE1SD**	EPA 5035A	48556	EPA 8260B	48630
5249198004	**BR8PB2SS**	EPA 5035A	48556	EPA 8260B	48630
5249198001	**BR8PB1SS**	ASTM D2216	48616		
5249198002	**BR8WE1SS**	ASTM D2216	48616		
5249198003	**BR8WE1SD**	ASTM D2216	48616		
5249198004	**BR8PB2SS**	ASTM D2216	48616		

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CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or

WO# : 5249198

5249198

ALL SI

Container Preservat

U U

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) ... (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Company: MAKSolve

Address: 261 Regency Ridge Dr. Dayton, OH 45459

Report To: Barb@maksolve.com

Copy To: John@maksolve.com

Customer Project Name/Number: Spinnaker

Billing Information: Bill to MakSolve

Email To: Barb@maksolve.com

Site Collection Info/Address: 518 E. Water Street

State: OH County/City: Troy Time Zone Collected: [ ] PT [ ] MT [ ] CT [X] ET

Phone: 3072516465 Email:

Site/Facility ID #:

Compliance Monitoring? [ ] Yes [X] No

Collected By (print): Barb McGovern

Purchase Order #: Quote #: 00076550

DW PWS ID #: DW Location Code:

Collected By (signature): Barbara McGovern

Turnaround Date Required: RUSH for 8/26 8am

Immediately Packed on Ice: [X] Yes [ ] No

Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [X] Hold: 30 days

Rush: [ ] Same Day [X] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis: _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	PCE (8260)	TCE (8260)
BR8PB1SS	SL	Grab	8/25	0726					X	X
BR8WE1SS	SL	Grab	8/25	1002					X	X
BR8WE1SD	SL	Grab	8/25	1002					X	X
BR8PB2SS	SL	Grab	8/25	1108					X	X
BR8WE2SS	SL	Grab	8/25	1115					X	X

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact Y N NA
Custody Signatures Present Y N NA
Collector Signature Present Y N NA
Bottles Intact Y N NA
Correct Bottles Y N NA
Sufficient Volume Y N NA
Samples Received on Ice Y N NA
VOA - Headspace Acceptable Y N NA
USDA Regulated Soils Y N NA
Samples in Holding Time Y N NA
Residual Chlorine Present Y N NA
Cl Strips: _____
Sample pH Acceptable Y N NA
pH Strips: _____
Sulfide Present Y N NA
Lead Acetate Strips: _____

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:
- Level 4 data pkg
- Collected 1 jar per sample

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2519616

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: _____
Cooler 1 Temp Upon Receipt: 7 oC
Cooler 1 Therm Corr. Factor: _____ oC
Cooler 1 Corrected Temp: _____ oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Barbara McGovern	8/25/20 1134	[signature]	8-25-20 1134
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
[signature]		[signature]	8/25 12[illegible]
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: _____ of: _____

MSV - FORM II VOA-1
SOLID VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Dayton SDG No.: 5249198 Contract: RUSH VOC Soils

Instrument ID: 52MV02

LAB SAMPLE ID	SAMPLE NAME	12D4	BFB	DIBF	TOL8
204024	204024BLANK	111	94	112	97
204025	204025LCS	102	96	100	102
5249198001	BR8PB1SS	107	95	107	98
5249198002	BR8WE1SS	107	95	111	97
5249198003	BR8WE1SD	117	93	111	100
5249198004	BR8PB2SS	108	95	110	100

	QC LIMITS
(12D4) = 1,2-Dichloroethane-d4 (S)	(76-127)
(BFB) = 4-Bromofluorobenzene (S)	(80-120)
(DIBF) = Dibromofluoromethane (S)	(78-126)
(TOL8) = Toluene-d8 (S)	(80-120)

* Values outside of QC Limits

MSV - FORM III VOA-1

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Dayton

Date Extracted: 08/25/2020

Instrument: 52MV02

Lab File ID: 082520.B\082520_03B2977.D

Lab Sample ID: 204025LCS

Date Analyzed (1): 08/25/2020

LCS Lot No:

SDG No.: 5249198

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
Acetone	1000	1050	105	50-150
Acetonitrile	1000	1530	153	70-130
Acrolein	1000	884	88	70-130
Acrylonitrile	1000	971	97	70-130
Benzene	500	494	99	70-130
Bromobenzene	500	474	95	70-130
Bromochloromethane	500	487	97	70-130
Bromodichloromethane	500	539	108	70-130
Bromoform	500	481	96	70-130
Bromomethane	500	612	122	50-150
2-Butanone (MEK)	1000	963	96	50-150
n-Butylbenzene	500	445	89	70-130
sec-Butylbenzene	500	400	80	70-130
tert-Butylbenzene	500	369	74	70-130
Carbon disulfide	500	460	92	70-130
Carbon tetrachloride	500	550	110	70-130
Chlorobenzene	500	473	95	70-130
Chloroethane	500	664	133	50-150
Chloroform	500	486	97	70-130
Chloromethane	500	520	104	50-150
2-Chlorotoluene	500	441	88	70-130
4-Chlorotoluene	500	437	87	70-130
1,2-Dibromo-3-chloropropane	500	416	83	70-130
Dibromochloromethane	500	514	103	70-130
1,2-Dibromoethane (EDB)	500	485	97	70-130
Dibromomethane	500	517	103	70-130
1,2-Dichlorobenzene	500	435	87	70-130
1,3-Dichlorobenzene	500	456	91	50-150
1,4-Dichlorobenzene	500	448	90	50-150
Dichlorodifluoromethane	500	475	95	50-150
1,1-Dichloroethane	500	488	98	70-130
1,2-Dichloroethane	500	471	94	70-130
1,1-Dichloroethene	500	471	94	70-130
cis-1,2-Dichloroethene	500	473	95	70-130
trans-1,2-Dichloroethene	500	457	91	70-130
1,2-Dichloropropane	500	494	99	70-130
1,3-Dichloropropane	500	514	103	70-130
2,2-Dichloropropane	500	498	100	70-130
1,1-Dichloropropene	500	485	97	70-130
cis-1,3-Dichloropropene	500	497	99	70-130
trans-1,3-Dichloropropene	500	498	100	70-130
Ethyl acetate	1000	875	88	70-130
Ethylbenzene	500	458	92	70-130
2-Hexanone	1000	1110	111	50-150
Isopropylbenzene (Cumene)	500	391	78	70-130
p-Isopropyltoluene	500	369	74	70-130
Methylene Chloride	500	471	94	70-130

MSV - FORM III VOA-2

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Dayton

Lab Sample ID: 204025LCS

Date Extracted: 08/25/2020

Date Analyzed (1): 08/25/2020

Instrument: 52MV02

LCS Lot No:

Lab File ID: 082520.B\082520_03B2977.D

SDG No.: 5249198

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
4-Methyl-2-pentanone (MIBK)	1000	937	94	70-130
Methyl-tert-butyl ether	500	450	90	70-130
Naphthalene	500	336	67	50-150
n-Propylbenzene	500	467	93	70-130
Styrene	500	379	76	70-130
1,1,1,2-Tetrachloroethane	500	498	100	70-130
1,1,2,2-Tetrachloroethane	500	495	99	70-130
Tetrachloroethene	500	500	100	70-130
Toluene	500	497	99	70-130
1,2,3-Trichlorobenzene	500	417	83	70-130
1,2,4-Trichlorobenzene	500	401	80	70-130
1,1,1-Trichloroethane	500	524	105	70-130
1,1,2-Trichloroethane	500	471	94	70-130
Trichloroethene	500	512	102	70-130
Trichlorofluoromethane	500	557	111	50-150
1,2,3-Trichloropropane	500	489	98	70-130
1,2,4-Trimethylbenzene	500	403	81	70-130
1,3,5-Trimethylbenzene	500	459	92	70-130
Vinyl acetate	500	471	94	70-130
Vinyl chloride	500	465	93	50-150
Xylene (Total)	1500	1260	84	70-130

Spike Recovery: 1 out of 68 outside limits.

09/01/2020 9:37

MSV - FORM III VOA-1

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Dayton

Matrix Spike - Sample No: 204026MS

Date Extracted: 08/25/2020

Date Analyzed (1): 08/25/2020

Instrument: 52MV02

Lab File ID: 082520.B\082520_24.D

Parent Sample ID: 5249083001

SDG No.: 5249198

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	592	ND	569	96	48-135
1,1,1-Trichloroethane	592	ND	597	101	49-123
1,1,2,2-Tetrachloroethane	592	ND	561	95	43-135
1,1,2-Trichloroethane	592	ND	546	92	52-138
1,1-Dichloroethane	592	ND	568	96	61-129
1,1-Dichloroethene	592	ND	557	94	41-127
1,1-Dichloropropene	592	ND	578	98	44-119
1,2,3-Trichlorobenzene	592	ND	497	84	10-110
1,2,3-Trichloropropane	592	ND	547	92	46-128
1,2,4-Trichlorobenzene	592	ND	477	81	11-130
1,2,4-Trimethylbenzene	592	ND	483	82	24-153
1,2-Dibromo-3-chloropropane	592	ND	499	84	30-146
1,2-Dibromoethane (EDB)	592	ND	562	95	51-136
1,2-Dichlorobenzene	592	ND	526	89	31-137
1,2-Dichloroethane	592	ND	541	91	65-124
1,2-Dichloropropane	592	ND	559	95	64-124
1,3,5-Trimethylbenzene	592	ND	542	92	31-140
1,3-Dichlorobenzene	592	ND	553	93	30-136
1,3-Dichloropropane	592	ND	558	94	57-127
1,4-Dichlorobenzene	592	ND	546	92	36-131
2,2-Dichloropropane	592	ND	536	91	45-124
2-Butanone (MEK)	1180	ND	1050	89	35-149
2-Chlorotoluene	592	ND	541	91	37-129
2-Hexanone	1180	ND	1130	96	34-134
4-Chlorotoluene	592	ND	506	85	32-131
4-Methyl-2-pentanone (MIBK)	1180	ND	967	82	49-137
Acetone	1180	ND	1070	91	12-177
Acetonitrile	1180	ND	1530	129	41-152
Acrolein	1180	ND	1040	87	10-200
Acrylonitrile	1180	ND	1120	94	54-136
Benzene	592	ND	582	98	61-122
Bromobenzene	592	ND	589	100	38-133
Bromochloromethane	592	ND	565	96	70-130
Bromodichloromethane	592	ND	629	106	53-131
Bromoform	592	ND	566	96	49-127
Bromomethane	592	ND	697	118	15-168
Carbon disulfide	592	ND	534	90	43-118
Carbon tetrachloride	592	ND	626	106	39-121
Chlorobenzene	592	ND	574	97	46-130
Chloroethane	592	ND	847	143	6-154
Chloroform	592	ND	586	99	62-128
Chloromethane	592	ND	582	98	50-132
Dibromochloromethane	592	ND	598	101	53-133
Dibromomethane	592	ND	581	98	64-127
Dichlorodifluoromethane	592	ND	568	96	10-184
Ethyl acetate	1180	ND	1020	86	10-155
Ethylbenzene	592	ND	521	88	40-129

MSV - FORM III VOA-2

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Dayton

Matrix Spike - Sample No: 204026MS

Date Extracted: 08/25/2020

Date Analyzed (1): 08/25/2020

Instrument: 52MV02

Lab File ID: 082520.B\082520_24.D

Parent Sample ID: 5249083001

SDG No.: 5249198

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
Isopropylbenzene (Cumene)	592	ND	451	76	42-121
Methyl-tert-butyl ether	592	ND	536	91	60-132
Methylene Chloride	592	ND	533	90	46-146
Naphthalene	592	ND	396	67	8-150
Styrene	592	ND	459	78	41-132
Tetrachloroethene	592	ND	590	97	36-128
Toluene	592	ND	567	96	50-125
Trichloroethene	592	ND	590	100	47-132
Trichlorofluoromethane	592	ND	649	110	14-140
Vinyl acetate	592	ND	418	71	10-127
Vinyl chloride	592	ND	562	95	35-130
Xylene (Total)	1780	ND	1460	82	70-130
cis-1,2-Dichloroethene	592	ND	518	88	61-127
cis-1,3-Dichloropropene	592	ND	552	93	55-125
n-Butylbenzene	592	ND	516	87	20-127
n-Propylbenzene	592	ND	542	92	33-126
p-Isopropyltoluene	592	ND	454	77	27-131
sec-Butylbenzene	592	ND	476	80	27-130
tert-Butylbenzene	592	ND	454	77	36-129
trans-1,2-Dichloroethene	592	ND	541	91	51-127
trans-1,3-Dichloropropene	592	ND	552	93	55-126

Spike Recovery: 0 out of 68 outside limits.

09/01/2020 9:37

MSV - FORM III VOA-3

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 52MV02 Matrix Spike Duplicate - Sample No: 204027MSD

Lab File ID (2): 082520.B\082520_25.D Date Analyzed (2): 08/25/2020

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
1,1,1,2-Tetrachloroethane	561	584	104	3	0-20	48-135
1,1,1-Trichloroethane	561	609	109	2	0-23	49-123
1,1,2,2-Tetrachloroethane	561	557	99	1	0-26	43-135
1,1,2-Trichloroethane	561	556	99	2	0-21	52-138
1,1-Dichloroethane	561	566	101	0	0-20	61-129
1,1-Dichloroethene	561	550	98	1	0-28	41-127
1,1-Dichloropropene	561	566	101	2	0-25	44-119
1,2,3-Trichlorobenzene	561	500	89	1	0-30	10-110
1,2,3-Trichloropropane	561	560	100	2	0-24	46-128
1,2,4-Trichlorobenzene	561	498	89	4	0-38	11-130
1,2,4-Trimethylbenzene	561	481	86	1	0-25	24-153
1,2-Dibromo-3-chloropropane	561	506	90	1	0-26	30-146
1,2-Dibromoethane (EDB)	561	564	101	0	0-20	51-136
1,2-Dichlorobenzene	561	522	93	1	0-25	31-137
1,2-Dichloroethane	561	555	99	3	0-20	65-124
1,2-Dichloropropane	561	560	100	0	0-20	64-124
1,3,5-Trimethylbenzene	561	554	99	2	0-24	31-140
1,3-Dichlorobenzene	561	559	100	1	0-25	30-136
1,3-Dichloropropane	561	572	102	2	0-21	57-127
1,4-Dichlorobenzene	561	527	94	3	0-24	36-131
2,2-Dichloropropane	561	521	93	3	0-17	45-124
2-Butanone (MEK)	1120	1060	95	1	0-22	35-149
2-Chlorotoluene	561	534	95	1	0-24	37-129
2-Hexanone	1120	1170	104	3	0-23	34-134
4-Chlorotoluene	561	514	92	2	0-23	32-131
4-Methyl-2-pentanone (MIBK)	1120	1030	92	6	0-24	49-137
Acetone	1120	1090	97	1	0-34	12-177
Acetonitrile	1120	1510	135	1	0-38	41-152
Acrolein	1120	866	77	18	0-48	10-200
Acrylonitrile	1120	1030	92	8	0-26	54-136
Benzene	561	579	103	1	0-20	61-122
Bromobenzene	561	581	104	1	0-21	38-133
Bromochloromethane	561	573	102	1	0-19	70-130
Bromodichloromethane	561	628	112	0	0-21	53-131
Bromoform	561	587	105	4	0-22	49-127
Bromomethane	561	640	114	8	0-22	15-168
Carbon disulfide	561	524	93	2	0-33	43-118
Carbon tetrachloride	561	625	112	0	0-23	39-121
Chlorobenzene	561	574	102	0	0-21	46-130
Chloroethane	561	707	126	18	0-86	6-154
Chloroform	561	574	102	2	0-19	62-128
Chloromethane	561	577	103	1	0-25	50-132
Dibromochloromethane	561	613	109	2	0-21	53-133
Dibromomethane	561	564	101	3	0-20	64-127
Dichlorodifluoromethane	561	550	98	3	0-69	10-184
Ethyl acetate	1120	999	89	2	0-40	10-155
Ethylbenzene	561	547	97	5	0-23	40-129
Isopropylbenzene (Cumene)	561	474	85	5	0-24	42-121
Methyl-tert-butyl ether	561	540	96	1	0-27	60-132

MSV - FORM III VOA-4

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 52MV02 Matrix Spike Duplicate - Sample No: 204027MSD

Lab File ID (2): 082520.B\082520_25.D Date Analyzed (2): 08/25/2020

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Methylene Chloride	561	525	94	2	0-39	46-146
Naphthalene	561	403	72	2	0-31	8-150
Styrene	561	490	87	7	0-22	41-132
Tetrachloroethene	561	621	108	5	0-23	36-128
Toluene	561	573	102	1	0-20	50-125
Trichloroethene	561	610	109	3	0-20	47-132
Trichlorofluoromethane	561	606	108	7	0-24	14-140
Vinyl acetate	561	383	68	9	0-50	10-127
Vinyl chloride	561	537	96	5	0-54	35-130
Xylene (Total)	1690	1500	89	3	0-32	70-130
cis-1,2-Dichloroethene	561	528	94	2	0-20	61-127
cis-1,3-Dichloropropene	561	561	100	2	0-21	55-125
n-Butylbenzene	561	527	94	2	0-29	20-127
n-Propylbenzene	561	548	98	1	0-25	33-126
p-Isopropyltoluene	561	461	82	1	0-26	27-131
sec-Butylbenzene	561	482	86	1	0-26	27-130
tert-Butylbenzene	561	461	82	1	0-25	36-129
trans-1,2-Dichloroethene	561	517	92	5	0-31	51-127
trans-1,3-Dichloropropene	561	562	100	2	0-21	55-126

RPD: 0 out of 68 outside limits.

Spike Recovery: 0 out of 68 outside limits.

09/01/2020 9:37

SAMPLE NO.

204024BLANK

MSV - FORM IV VOA-1
VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Dayton SDG No.: 5249198 Contract: RUSH VOC Soils

Instrument ID: 52MV02 Matrix: Solid Lab Sample ID: 204024

Lab File ID: 082520.B\082520_06.D Date Analyzed: 08/25/2020 Time:12:23

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
204025LCS	204025	082520.B\082520_03B2977.	08/25/2020 11:08
BR8PB1SS	5249198001	082520.B\082520_12.D	08/25/2020 14:54
BR8WE1SS	5249198002	082520.B\082520_13.D	08/25/2020 15:19
BR8WE1SD	5249198003	082520.B\082520_14.D	08/25/2020 15:44
BR8PB2SS	5249198004	082520.B\082520_15.D	08/25/2020 16:09

MSV - FORM V VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Dayton SDG No.: 5249198 Contract: RUSH VOC Soils

Lab File ID: 082020.B\082020_01.D BFB Injection Date 08/20/2020

Instrument ID: 52MV02 BFB Injection Time 09:57

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	24.30	
75	30.00 - 60.00% of mass 95	49.31	
95	Mass 95 relative abundance	100.00	
96	5.00 - 9.00% of mass 95	7.36	
173	Less than 2.00% of mass 174	2.18	(1.71)[1]
174	Greater than 50.00% of mass 95	127.30	
175	5.00 - 9.00% of mass 174	8.81	(6.92)[1]
176	95.00 - 101.00% of mass 174	127.12	(99.86)[1]
177	5.00 - 9.00% of mass 176	7.18	(5.65)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1419846CAL1	1419846CAL1	082020.B\082020_03.D	08/20/2020	10:50
1419847CAL2	1419847CAL2	082020.B\082020_04.D	08/20/2020	11:15
1419848CAL3	1419848CAL3	082020.B\082020_05.D	08/20/2020	11:40
1419849CAL4	1419849CAL4	082020.B\082020_06.D	08/20/2020	12:05
1419850CAL5	1419850CAL5	082020.B\082020_07.D	08/20/2020	12:30
1419851CAL6	1419851CAL6	082020.B\082020_08.D	08/20/2020	12:55
1419852CAL7	1419852CAL7	082020.B\082020_09.D	08/20/2020	13:20
1419853CAL8	1419853CAL8	082020.B\082020_10.D	08/20/2020	13:45
1419854CAL9	1419854CAL9	082020.B\082020_11.D	08/20/2020	14:11
1419855CAL10	1419855CAL10	082020.B\082020_12.D	08/20/2020	14:36
1419856CAL11	1419856CAL11	082020.B\082020_13.D	08/20/2020	15:01
1419857CAL12	1419857CAL12	082020.B\082020_14.D	08/20/2020	15:26
1419858ICV	1419858ICV	082020.B\082020_18.D	08/20/2020	17:06

MSV - FORM V VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Dayton SDG No.: 5249198 Contract: RUSH VOC Soils

Lab File ID: 082520.B\082520_03TUNE.D BFB Injection Date 08/25/2020

Instrument ID: 52MV02 BFB Injection Time 11:08

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	23.70	
75	30.00 - 60.00% of mass 95	51.42	
95	Mass 95 relative abundance	100.00	
96	5.00 - 9.00% of mass 95	6.87	
173	Less than 2.00% of mass 174	1.66	(1.43)[1]
174	Greater than 50.00% of mass 95	115.61	
175	5.00 - 9.00% of mass 174	8.45	(7.31)[1]
176	95.00 - 101.00% of mass 174	111.29	(96.26)[1]
177	5.00 - 9.00% of mass 176	7.40	(6.65)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
204025LCS	204025LCS	082520.B\082520_03B2977.D	08/25/2020	11:08
1434121CCV	1434121CCV	082520.B\082520_03.D	08/25/2020	11:08
204024BLANK	204024BLANK	082520.B\082520_06.D	08/25/2020	12:23
BR8PB1SS	5249198001	082520.B\082520_12.D	08/25/2020	14:54
BR8WE1SS	5249198002	082520.B\082520_13.D	08/25/2020	15:19
BR8WE1SD	5249198003	082520.B\082520_14.D	08/25/2020	15:44
BR8PB2SS	5249198004	082520.B\082520_15.D	08/25/2020	16:09

MSV - FORM VIII VOA-1
MSV INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Dayton SDG No.: 5249198 Contract: RUSH VOC Soils

Sample ID : 1434121CCV Date Analyzed: 08/25/2020

Instrument ID: 52MV02 GC Column: Col 1 Time Analyzed: 11:08

Lab File ID: 082520.B\082520_03.D

		AREA CBZ	RT	AREA DCB	RT	AREA DFB	RT	AREA PFB	RT
12 HOUR STD		303010	10.561	199456	12.341	316188	8.317	242229	7.86
UPPER LIMIT		606020	11.061	398912	12.841	632376	8.817	484458	8.36
LOWER LIMIT		151505	10.061	99728	11.841	158094	7.817	121114.5	7.36
LAB SAMPLE ID	SAMPLE NO.								
204024	204024BLANK	239816	10.561	133468	12.341	274571	8.317	191786	7.86
204025	204025LCS	303010	10.561	199456	12.341	316188	8.317	242229	7.86
5249198001	BR8PB1SS	255003	10.561	138454	12.341	297121	8.317	215184	7.86
5249198002	BR8WE1SS	253994	10.561	139829	12.341	294593	8.317	209718	7.86
5249198003	BR8WE1SD	247197	10.561	134265	12.341	279195	8.317	198437	7.86
5249198004	BR8PB2SS	257028	10.561	141010	12.341	291078	8.317	209897	7.86

CBZ = Chlorobenzene-D5 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
DFB = 1,4-Difluorobenzene (IS)
PFB = Pentafluorobenzene (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

BR8PB1SS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/25/2020 12:31
Matrix: Solid SDG No.: 5249198
Date Extracted: 08/25/2020 13:50
Lab Sample ID: 5249198001
Date Analyzed: 08/25/2020 14:54
Lab File ID: 082520.B\082520_12.D
Initial wt/vol: 5.34 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 21.3%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

BR8PB1SS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/25/2020 12:31
Matrix: Solid SDG No.: 5249198
Date Extracted: 08/25/2020 13:50
Lab Sample ID: 5249198001
Date Analyzed: 08/25/2020 14:54
Lab File ID: 082520.B\082520_12.D
Initial wt/vol: 5.34 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 21.3%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	6.7	J
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	4.0	J
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082520.b\082520_12.D
Lab Smp Id: 5249198001 Client Smp ID: BR8PB1SS
Inj Date : 25-AUG-2020 14:54
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249198001,
Misc Info : 2977,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082520.b\8260BSM_082020.m
Meth Date : 25-Aug-2020 11:32 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	1021	0.22456	0.224	
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	132247	53.3786	53.4	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	215184	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	23849	53.5097	53.5	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	297121	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	313678	49.0427	49.0	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	9.725	9.719	(0.921)	233	0.13314	0.133	
	63 Ethyl methacrylate	69	Compound Not Detected.						
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	255003	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.469	11.468	(1.086)	99086	47.3465	47.3	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						(D)
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	138454	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

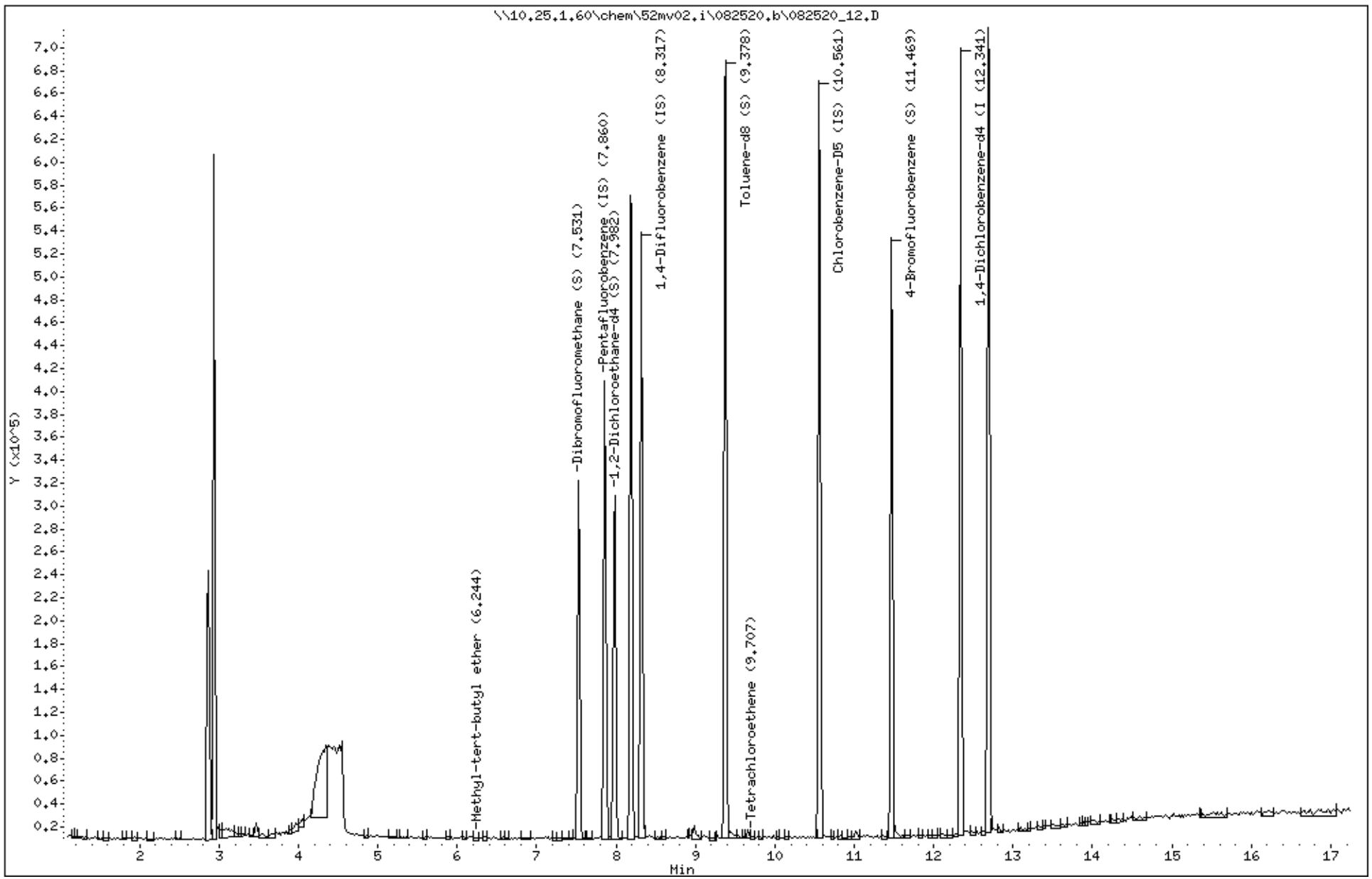
Data File: \\10.25.1.60\chem\52mv02.i\082520.b\082520_12.D
Date : 25-AUG-2020 14:54
Client ID: BR8PB1SS
Sample Info: 5249198001,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082520.b/082520_12.D
Injection Date: 25-AUG-2020 14:54
Instrument: 52mv02.i
Lab Sample ID: 5249198001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

BR8WE1SS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/25/2020 12:31
Matrix: Solid SDG No.: 5249198
Date Extracted: 08/25/2020 13:50
Lab Sample ID: 5249198002
Date Analyzed: 08/25/2020 15:19
Lab File ID: 082520.B\082520_13.D
Initial wt/vol: 5.16 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 21.2%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	7.5	J
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

BR8WE1SS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/25/2020 12:31
Matrix: Solid SDG No.: 5249198
Date Extracted: 08/25/2020 13:50
Lab Sample ID: 5249198002
Date Analyzed: 08/25/2020 15:19
Lab File ID: 082520.B\082520_13.D
Initial wt/vol: 5.16 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 21.2%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	5.5	J
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082520.b\082520_13.D
Lab Smp Id: 5249198002 Client Smp ID: BR8WE1SS
Inj Date : 25-AUG-2020 15:19
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249198002,
Misc Info : 2977,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082520.b\8260BSM_082020.m
Meth Date : 25-Aug-2020 11:32 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	668	0.24547	0.245	
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	133779	55.4043	55.4	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	209718	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	23211	53.4356	53.4	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.323	8.317	(1.001)	370	0.17961	0.180	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	294593	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	307382	48.4707	48.5	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	253994	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.469	11.468	(1.086)	98908	47.4492	47.4	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	139829	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

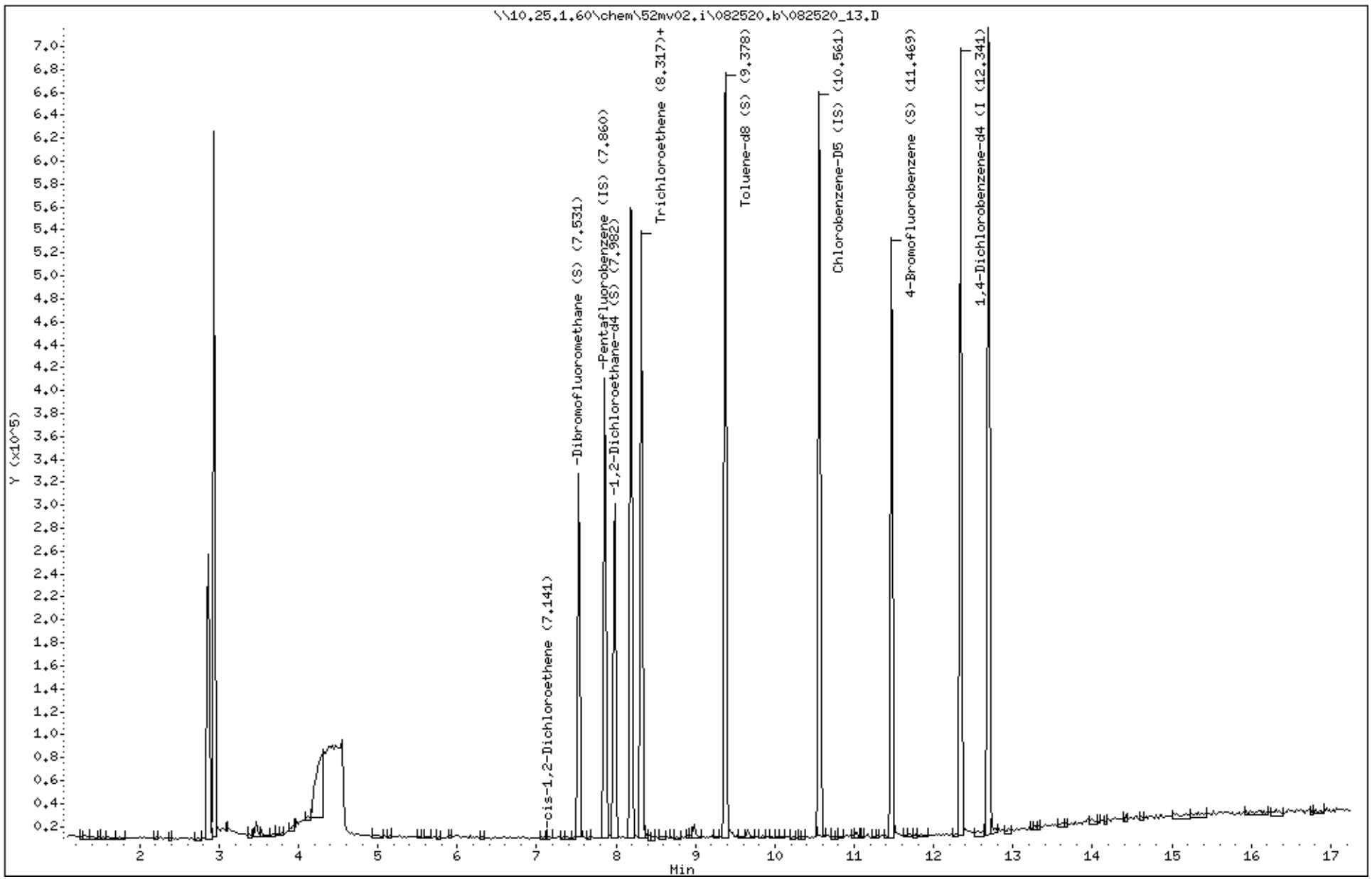
Data File: \\10.25.1.60\chem\52mv02.i\082520.b\082520_13.D
Date : 25-AUG-2020 15:19
Client ID: BR8WE1SS
Sample Info: 5249198002,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



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Injection Date: 25-AUG-2020 15:19
Instrument: 52mv02.i
Lab Sample ID: 5249198002
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

BR8WE1SD

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/25/2020 12:31
Matrix: Solid SDG No.: 5249198
Date Extracted: 08/25/2020 13:50
Lab Sample ID: 5249198003
Date Analyzed: 08/25/2020 15:44
Lab File ID: 082520.B\082520_14.D
Initial wt/vol: 5.125 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 20.7%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	6.7	J
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

BR8WE1SD

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/25/2020 12:31
Matrix: Solid SDG No.: 5249198
Date Extracted: 08/25/2020 13:50
Lab Sample ID: 5249198003
Date Analyzed: 08/25/2020 15:44
Lab File ID: 082520.B\082520_14.D
Initial wt/vol: 5.125 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 20.7%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	6.6	J
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082520.b\082520_14.D
Lab Smp Id: 5249198003 Client Smp ID: BR8WE1SD
Inj Date : 25-AUG-2020 15:44
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249198003,
Misc Info : 2977,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082520.b\8260BSM_082020.m
Meth Date : 25-Aug-2020 11:32 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	897	0.21394	0.214	
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	561	0.21787	0.218(M)	LT
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	126388	55.3190	55.3	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						(D)
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	198437	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	24046	58.5050	58.5	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	279195	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	300845	50.0563	50.0	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	247197	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.469	11.468	(1.086)	94153	46.4101	46.4	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						(D)
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	134265	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

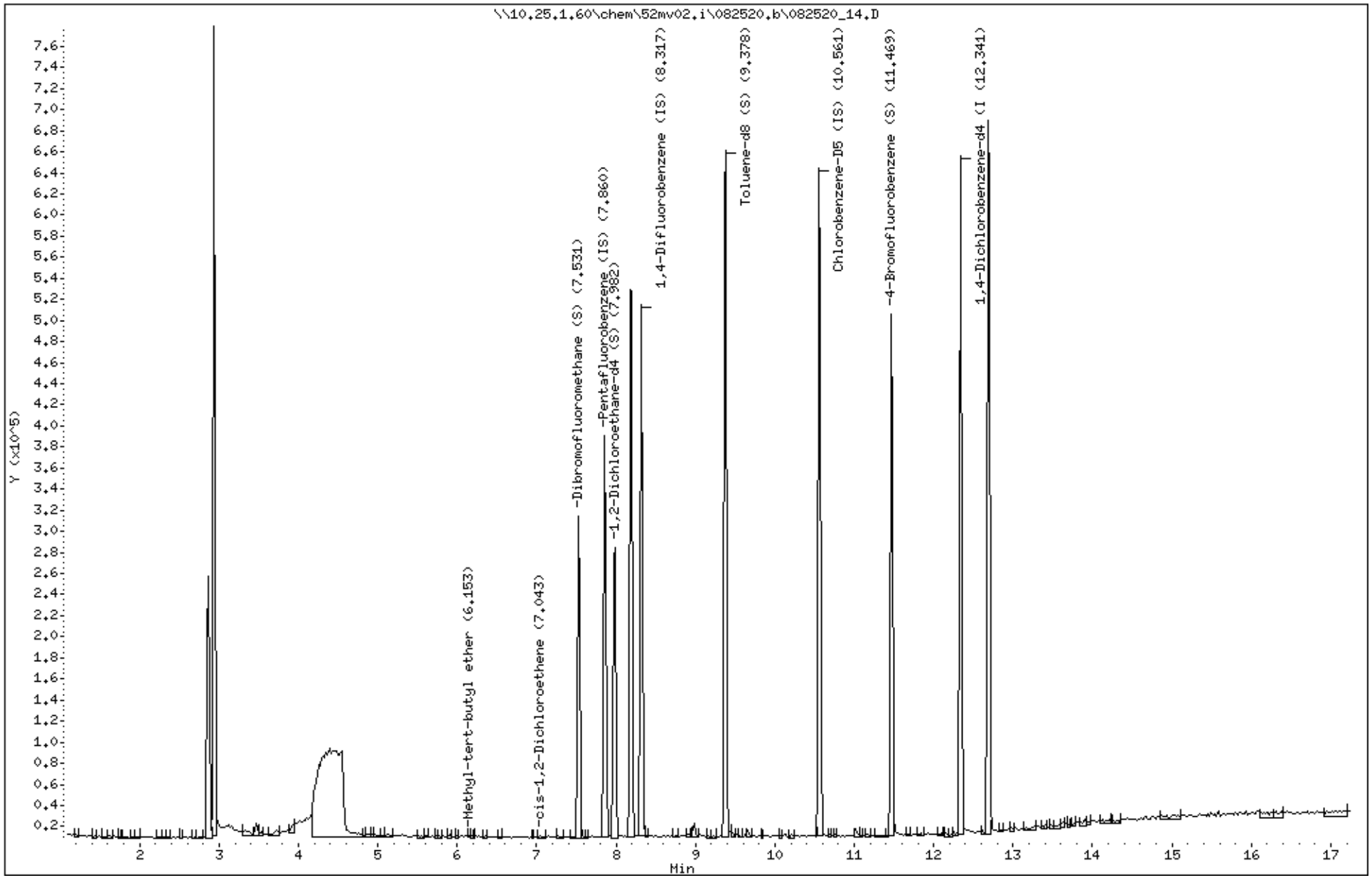
Data File: \\10.25.1.60\chem\52mv02.i\082520.b\082520_14.D
Date : 25-AUG-2020 15:44
Client ID: BR8WE1SD
Sample Info: 5249198003,

Instrument: 52mv02.i

Operator: EAH

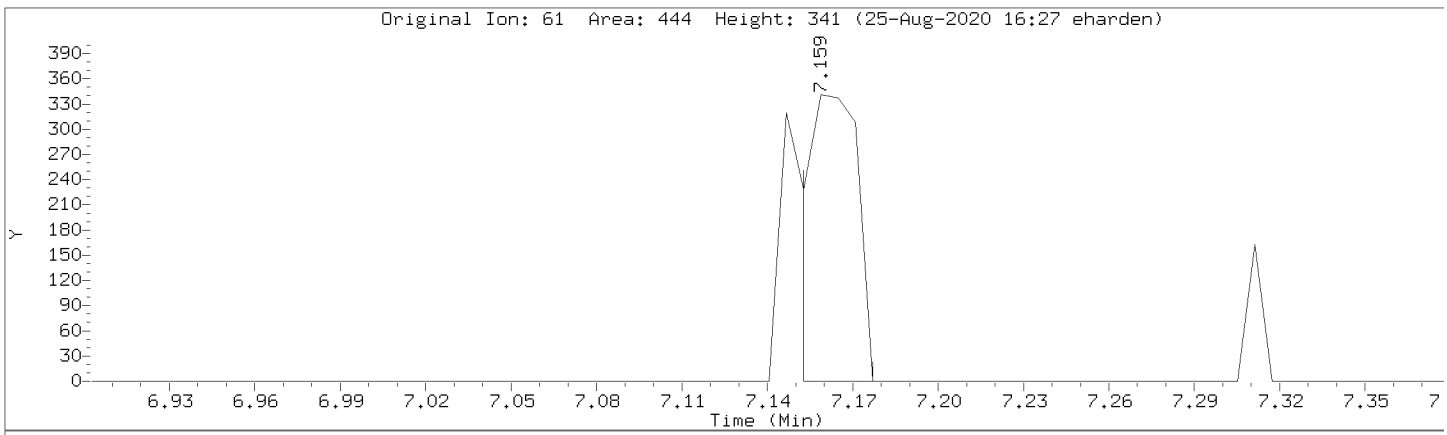
Column phase: RTX-VMS

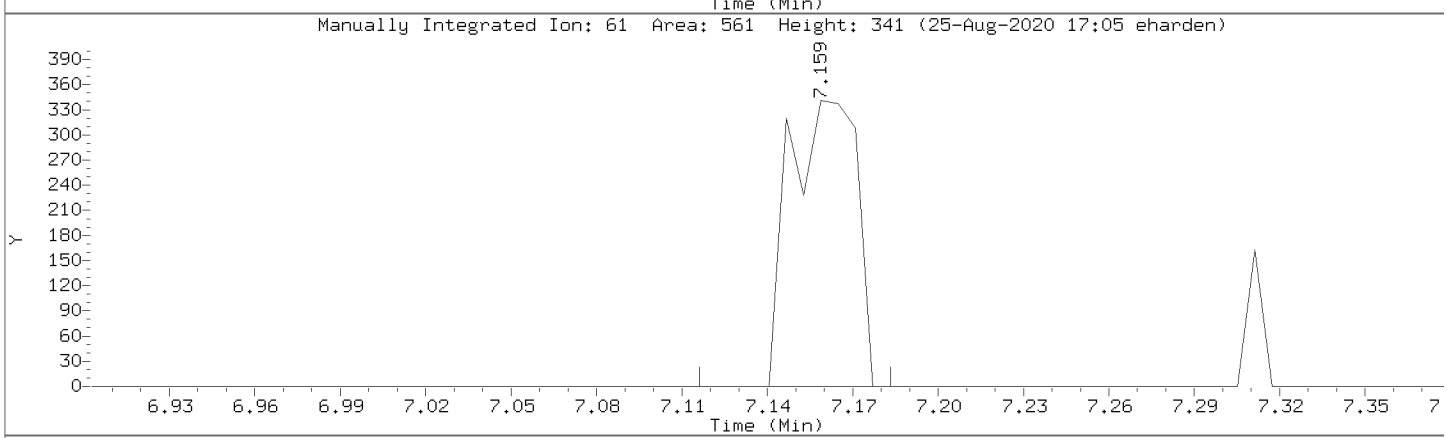
Column diameter: 0.18

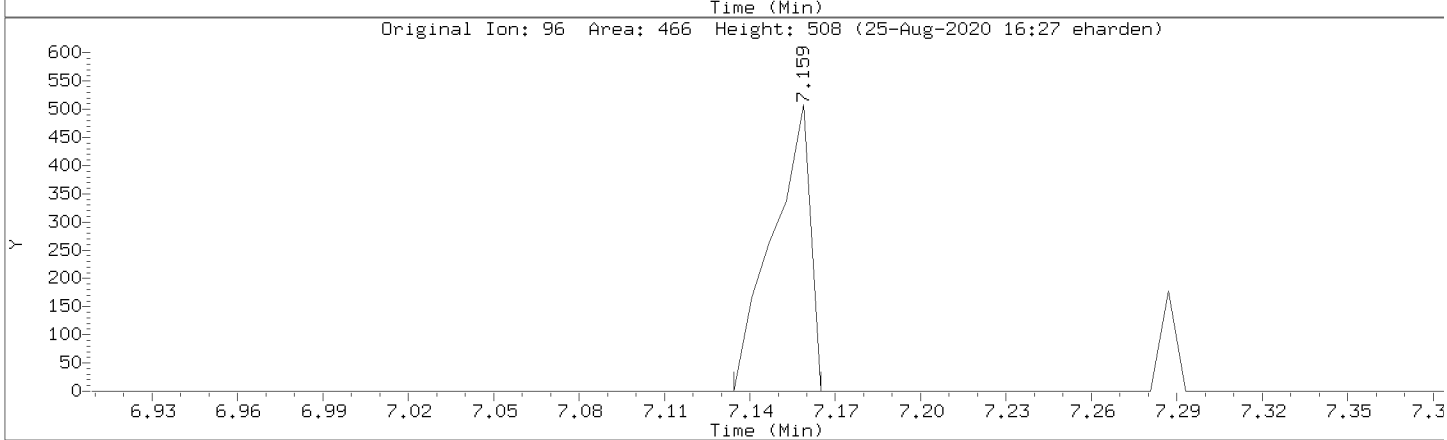


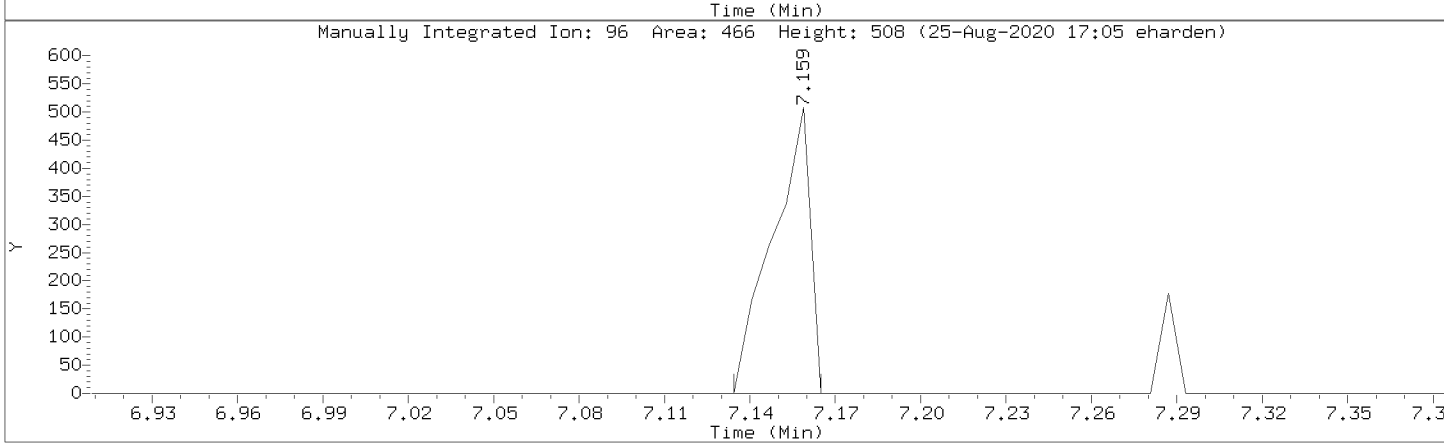
Data File: \\10.25.1.60\chem\52mv02.i\082520.b/082520_14.D
Injection Date: 25-AUG-2020 15:44
Instrument: 52mv02.i
Lab Sample ID: 5249198003

Compound: cis-1,2-Dichloroethene Review Code: LT
CAS Number: 156-59-2

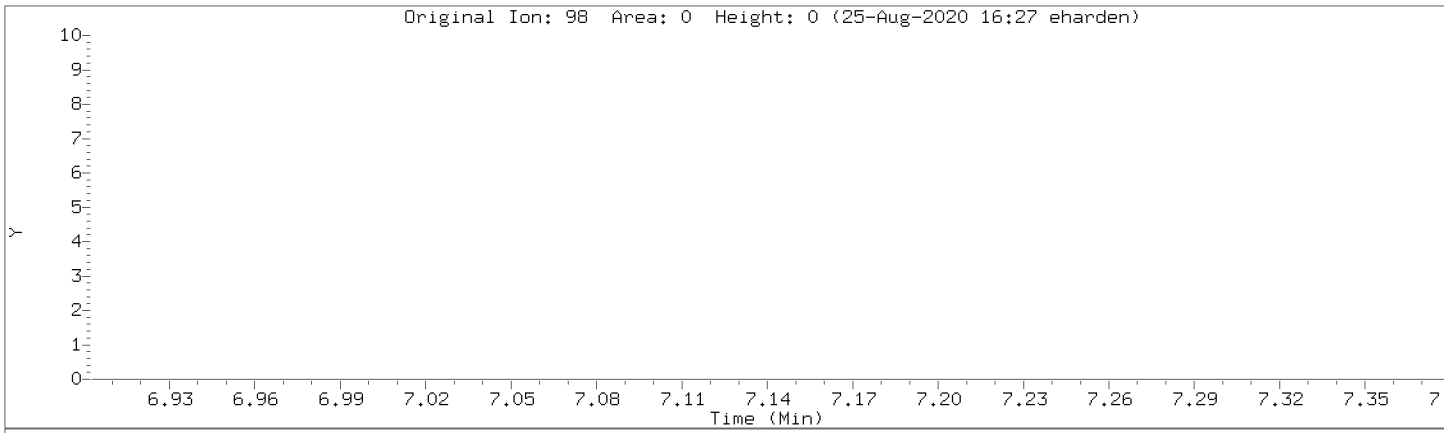


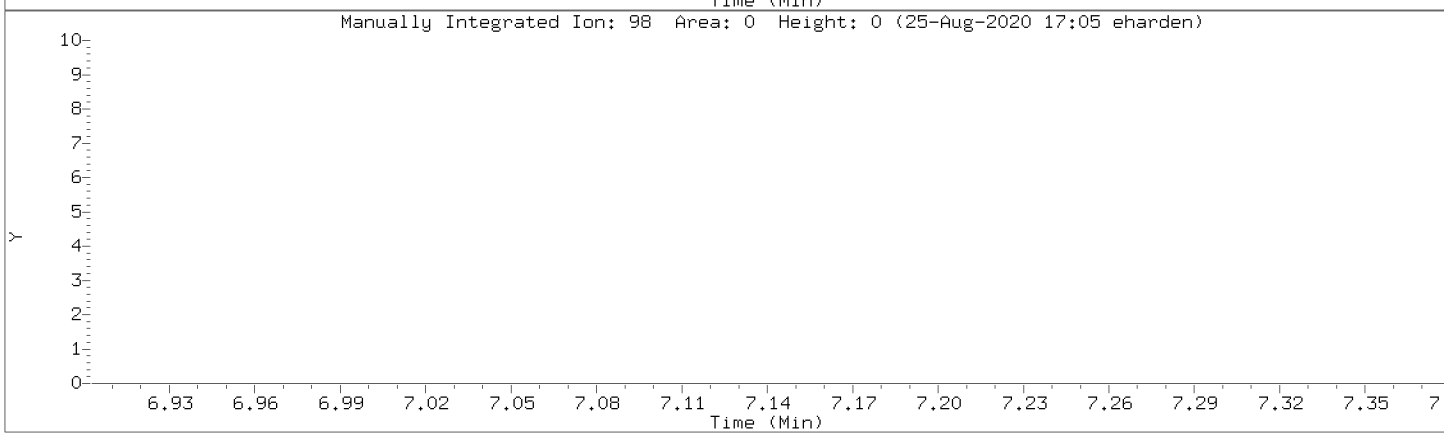






Data File: \\10.25.1.60\chem\52mv02.i\082520.b/082520_14.D
Injection Date: 25-AUG-2020 15:44
Instrument: 52mv02.i
Lab Sample ID: 5249198003





SAMPLE NO.

BR8PB2SS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/25/2020 12:31
Matrix: Solid SDG No.: 5249198
Date Extracted: 08/25/2020 13:50
Lab Sample ID: 5249198004
Date Analyzed: 08/25/2020 16:09
Lab File ID: 082520.B\082520_15.D
Initial wt/vol: 5.26 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 21.3%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

BR8PB2SS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/25/2020 12:31
Matrix: Solid SDG No.: 5249198
Date Extracted: 08/25/2020 13:50
Lab Sample ID: 5249198004
Date Analyzed: 08/25/2020 16:09
Lab File ID: 082520.B\082520_15.D
Initial wt/vol: 5.26 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 21.3%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	5.7	J
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	9.6	J
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	26.0	J
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082520.b\082520_15.D
Lab Smp Id: 5249198004 Client Smp ID: BR8PB2SS
Inj Date : 25-AUG-2020 16:09
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249198004,
Misc Info : 2977,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082520.b\8260BSM_082020.m
Meth Date : 25-Aug-2020 11:32 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	843	0.19008	0.190	
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	132740	54.9271	54.9	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	209897	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	23527	54.1169	54.1	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.323	8.317	(1.001)	1751	0.86027	0.860	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	291078	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	312546	49.8802	49.9	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	9.725	9.719	(0.921)	561	0.31803	0.318	
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	257028	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.469	11.468	(1.086)	99914	47.3660	47.4	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	141010	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

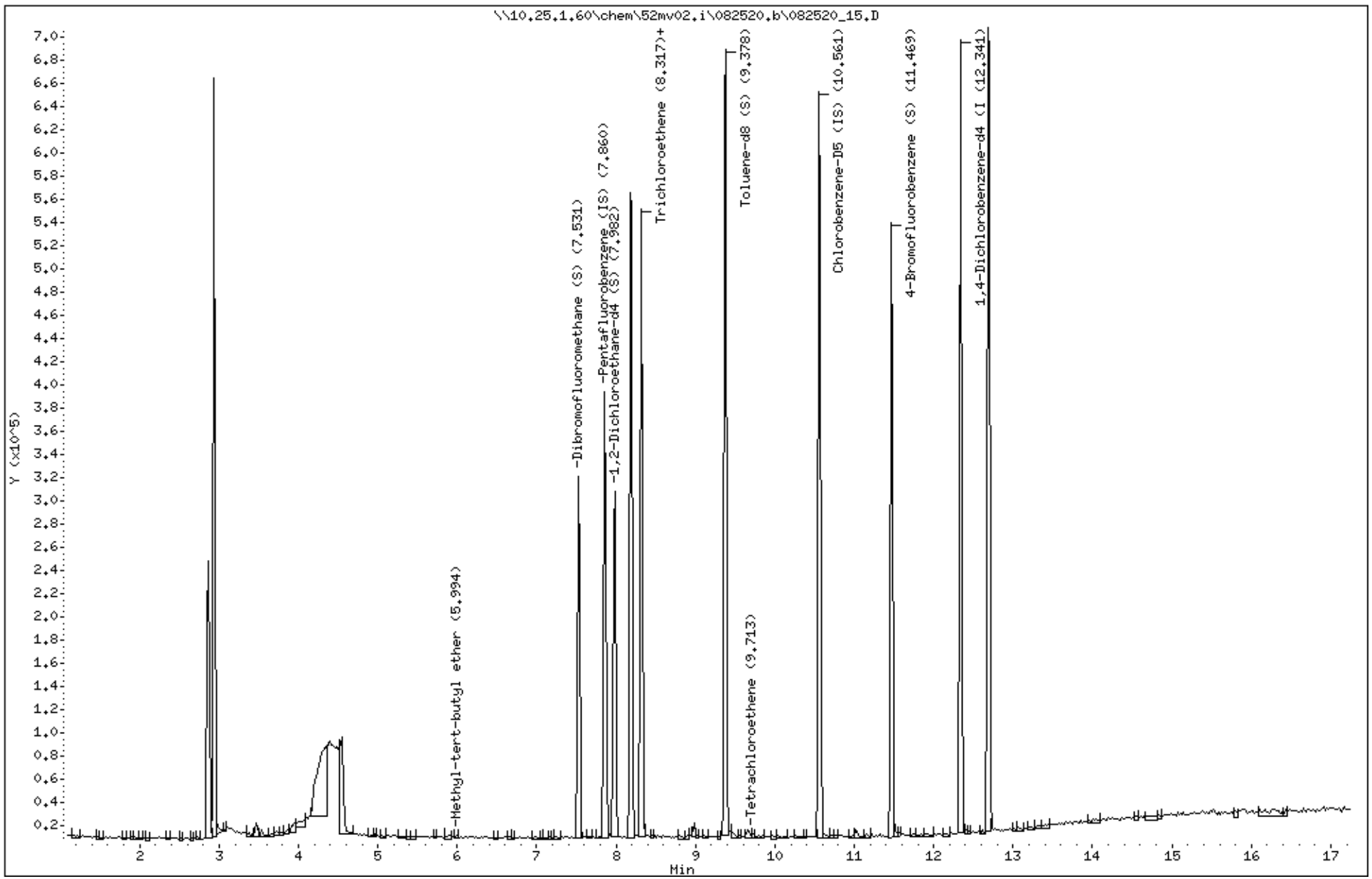
Data File: \\10.25.1.60\chem\52mv02.i\082520.b\082520_15.D
Date : 25-AUG-2020 16:09
Client ID: BR8PB2SS
Sample Info: 5249198004,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082520.b/082520_15.D
Injection Date: 25-AUG-2020 16:09
Instrument: 52mv02.i
Lab Sample ID: 5249198004
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

MSV - FORM VI VOA-1

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249198

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Acetone	Wt Linear			0.62900	0.55994	0.50057	0.45567
Acetonitrile	Wt Linear				0.06914	0.02812	0.03538
Acrolein	Averaged				0.08416	0.06550	0.06663
Acrylonitrile	Averaged			0.21923	0.20463	0.19660	0.17821
Benzene	Averaged	1.47226	1.17470	1.10627	1.43668	1.30598	1.38283
Bromobenzene	Averaged		0.44187	0.42245	0.49777	0.46884	0.54542
Bromochloromethane	Averaged		0.31597	0.30786	0.31639	0.29311	0.30419
Bromodichloromethane	Averaged		0.37292	0.40712	0.57953	0.49521	0.61500
Bromoform	Averaged		0.43514	0.43198	0.48641	0.42825	0.47385
Bromomethane	Wt Linear			1.52273	1.15152	0.76564	0.66086
2-Butanone (MEK)	Averaged			0.50647	0.40123	0.44364	0.43519
n-Butylbenzene	Averaged			1.39216	1.45958	1.44353	1.59712
sec-Butylbenzene	Wt Linear		1.18759	1.24368	1.67899	1.52562	1.84820
tert-Butylbenzene	Wt Linear		1.05533	1.23614	1.25134	1.14366	1.44555
Carbon disulfide	Averaged		1.57701	1.57013	1.73228	1.48016	1.64695
Carbon tetrachloride	Averaged			0.40579	0.50689	0.49562	0.54603
Chlorobenzene	Averaged		1.00310	0.91983	1.08642	0.90944	1.03666
Chloroethane	Wt Linear			0.21117	0.31149	0.17587	0.20642
Chloroform	Averaged		0.91551	1.14590	1.17564	1.07349	1.06717
Chloromethane	Wt Linear		1.70187	1.21534	1.00675	0.83064	0.79315
2-Chlorotoluene	Wt Linear		0.20503	0.23617	0.27463	0.30975	0.37215
4-Chlorotoluene	Wt Linear		0.30194	0.21412	0.30492	0.29219	0.31811
1,2-Dibromo-3-chloropropane	Averaged				0.21563	0.16898	0.14356
Dibromochloromethane	Averaged		0.39061	0.41330	0.50471	0.47639	0.52153
1,2-Dibromoethane (EDB)	Averaged		0.39922	0.39891	0.44521	0.38546	0.43818
Dibromomethane	Averaged		0.30841	0.27910	0.31794	0.30634	0.32971
1,2-Dichlorobenzene	Averaged	1.62186	1.64056	1.43913	1.59814	1.34139	1.48556
1,3-Dichlorobenzene	Averaged	1.46004	1.15332	1.12127	1.39100	1.22471	1.36866
1,4-Dichlorobenzene	Averaged	1.92711	1.64810	1.47102	1.57896	1.41215	1.52701
Dichlorodifluoromethane	Averaged		0.59716	0.66099	0.60136	0.62199	0.59348
1,1-Dichloroethane	Averaged		0.89883	0.86932	1.02064	0.92741	0.97039
1,2-Dichloroethane	Averaged			0.94445	0.99469	0.81825	0.81708
1,1-Dichloroethene	Averaged		0.62480	0.59321	0.74340	0.67088	0.75046
cis-1,2-Dichloroethene	Averaged		0.61860	0.67545	0.71938	0.63203	0.67887

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/01/2020 9:37

MSV - FORM VI VOA-2

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249198

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
trans-1,2-Dichloroethene	Averaged		0.55331	0.47234	0.48357	0.41487	0.49134
1,2-Dichloropropane	Averaged		0.34955	0.36433	0.39290	0.35841	0.38826
1,3-Dichloropropane	Averaged		0.31663	0.43033	0.53682	0.46817	0.51113
2,2-Dichloropropane	Averaged		0.79065	0.80509	0.78585	0.68606	0.73428
1,1-Dichloropropene	Averaged		0.33046	0.35306	0.39409	0.34712	0.40174
cis-1,3-Dichloropropene	Averaged			0.40994	0.46953	0.45855	0.51880
trans-1,3-Dichloropropene	Averaged			0.40977	0.46953	0.45855	0.51319
Ethyl acetate	Averaged		0.62504	0.56797	0.61081	0.52501	0.56996
Ethylbenzene	Averaged		1.16922	1.07603	1.16044	1.13282	1.26091
2-Hexanone	Averaged			0.32992	0.32976	0.36720	0.41358
Isopropylbenzene (Cumene)	Wt Linear		0.73184	0.72215	0.88627	0.85802	1.07692
p-Isopropyltoluene	Wt Linear		1.05533	1.23614	1.25134	1.14366	1.44555
Methylene Chloride	Averaged			0.95867	0.99674	0.81915	0.85680
4-Methyl-2-pentanone (MIBK)	Averaged					0.03167	0.03396
Methyl-tert-butyl ether	Averaged		1.04371	0.98592	1.12170	0.97810	1.03498
Naphthalene	Wt Linear		1.29997	1.18745	1.36631	1.29132	1.36736
n-Propylbenzene	Averaged		1.17895	1.25876	1.48439	1.43680	1.65273
Styrene	Wt Linear		0.51595	0.49065	0.60308	0.57764	0.71624
1,1,1,2-Tetrachloroethane	Averaged		0.39735	0.45216	0.48731	0.40596	0.42534
1,1,2,2-Tetrachloroethane	Averaged			0.55212	0.57143	0.54413	0.58617
Tetrachloroethene	Averaged		0.28810	0.33725	0.33197	0.34833	0.35819
Toluene	Averaged		1.09209	1.19764	1.30569	1.22009	1.30131
1,2,3-Trichlorobenzene	Averaged		0.85249	0.82329	0.83816	0.81429	0.82024
1,2,4-Trichlorobenzene	Averaged			0.89496	0.87936	0.88914	0.92716
1,1,1-Trichloroethane	Averaged		0.51511	0.55802	0.63628	0.56094	0.61942
1,1,2-Trichloroethane	Averaged		0.37160	0.30364	0.37829	0.29572	0.32933
Trichloroethene	Averaged	0.28552	0.31598	0.34344	0.39369	0.32979	0.38287
Trichlorofluoromethane	Averaged			0.48751	0.40869	0.39167	0.37503
1,2,3-Trichloropropane	Averaged	0.67083	0.55786	0.50074	0.60209	0.54758	0.55729
1,2,4-Trimethylbenzene	Wt Linear		1.28216	1.05543	1.25794	1.29529	1.61333
1,3,5-Trimethylbenzene	Averaged			1.28003	1.37323	1.37049	1.59529
Vinyl acetate	Averaged					0.58340	0.90658
Vinyl chloride	Averaged		0.71725	0.64891	0.61115	0.59900	0.56828
m&p-Xylene	Wt Linear	0.80750	0.71388	0.69095	0.86918	0.85161	0.98882

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/01/2020 9:37

MSV - FORM VI VOA-3

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249198

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
o-Xylene	Wt Linear		0.36816	0.33352	0.37551	0.36020	0.41933
4-Bromofluorobenzene (S)	Averaged	0.37583	0.38941	0.39051	0.38275	0.39379	0.40003
Dibromofluoromethane (S)	Averaged	0.62769	0.63739	0.63657	0.62879	0.60966	0.59270
1,2-Dichloroethane-d4 (S)	Averaged	0.11531	0.11871	0.12158	0.11740	0.10453	0.10269
Toluene-d8 (S)	Averaged	1.07880	1.06882	1.06855	1.06786	1.07640	1.08438

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/01/2020 9:37

MSV - FORM VI VOA-4

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249198

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10	CAL11	CAL12
Acetone	Wt Linear	0.41297	0.37566	0.38708	0.38211		
Acetonitrile	Wt Linear	0.03841	0.04679	0.04704	0.04491	0.03970	0.03979
Acrolein	Averaged	0.06891	0.06557	0.07027	0.07036	0.06357	0.06812
Acrylonitrile	Averaged	0.19915	0.17729	0.19776	0.19478	0.15804	0.18702
Benzene	Averaged	1.31989	1.27390	1.26059	1.22497	1.19823	1.18934
Bromobenzene	Averaged	0.53532	0.51542	0.53131	0.52655	0.53912	0.54081
Bromochloromethane	Averaged	0.29998	0.27204	0.26235	0.25826	0.23994	0.24926
Bromodichloromethane	Averaged	0.57885	0.55715	0.54332	0.54171	0.54086	0.53536
Bromoform	Averaged	0.45373	0.43426	0.44389	0.44328	0.46996	0.46892
Bromomethane	Wt Linear	0.57307	0.44908	0.42634	0.42378		
2-Butanone (MEK)	Averaged	0.45432	0.40986	0.43930	0.44055	0.37212	0.38920
n-Butylbenzene	Averaged	1.64990	1.87691	1.98741	1.98878	1.98038	2.04750
sec-Butylbenzene	Wt Linear	2.02276	2.15907	2.27908	2.29075	2.34314	2.41368
tert-Butylbenzene	Wt Linear	1.56217	1.76643	1.88637	1.94028	1.98006	2.04581
Carbon disulfide	Averaged	1.55020	1.42898	1.38821	1.36729	1.28575	1.29953
Carbon tetrachloride	Averaged	0.54343	0.52196	0.51532	0.50192	0.49242	0.50459
Chlorobenzene	Averaged	0.97199	0.93701	0.94485	0.92345	0.94437	0.93402
Chloroethane	Wt Linear	0.17297	0.17535	0.16509	0.15481		
Chloroform	Averaged	1.02572	0.96877	0.93921	0.91532	0.85890	0.86431
Chloromethane	Wt Linear	0.77949	0.73419	0.74763	0.73348	0.67654	0.66670
2-Chlorotoluene	Wt Linear	0.37818	0.37125	0.37579	0.37739	0.38782	0.39117
4-Chlorotoluene	Wt Linear	0.34412	0.37138	0.38926	0.38621	0.39446	0.39306
1,2-Dibromo-3-chloropropane	Averaged	0.14501	0.14799	0.15810	0.15828	0.16380	0.17031
Dibromochloromethane	Averaged	0.49970	0.47857	0.47752	0.47753	0.50069	0.49027
1,2-Dibromoethane (EDB)	Averaged	0.41880	0.39767	0.39462	0.39355	0.40951	0.40529
Dibromomethane	Averaged	0.31359	0.30014	0.28875	0.28214	0.27687	0.27295
1,2-Dichlorobenzene	Averaged	1.38076	1.36447	1.37412	1.37990	1.39095	1.43503
1,3-Dichlorobenzene	Averaged	1.32401	1.33959	1.38908	1.38767	1.38402	1.42750
1,4-Dichlorobenzene	Averaged	1.40109	1.37817	1.41490	1.41231	1.40741	1.44148
Dichlorodifluoromethane	Averaged	0.63941	0.59785	0.61150	0.61837	0.54554	0.54297
1,1-Dichloroethane	Averaged	0.91623	0.87020	0.84971	0.81510	0.77035	0.77571
1,2-Dichloroethane	Averaged	0.78755	0.72382	0.70860	0.69974	0.66582	0.65542
1,1-Dichloroethene	Averaged	0.69997	0.66374	0.66212	0.67660	0.64092	0.65097
cis-1,2-Dichloroethene	Averaged	0.64084	0.63911	0.63898	0.63619	0.61855	0.63882

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/01/2020 9:37

MSV - FORM VI VOA-5

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249198

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10	CAL11	CAL12
trans-1,2-Dichloroethene	Averaged	0.45350	0.42924	0.43177	0.42614	0.40870	0.41864
1,2-Dichloropropane	Averaged	0.38813	0.36744	0.35842	0.34791	0.35389	0.34693
1,3-Dichloropropane	Averaged	0.50225	0.50220	0.50732	0.51074	0.51045	0.50531
2,2-Dichloropropane	Averaged	0.66678	0.63008	0.59855	0.60546	0.58521	0.58171
1,1-Dichloropropene	Averaged	0.41853	0.42140	0.42293	0.42298	0.42154	0.42409
cis-1,3-Dichloropropene	Averaged	0.52492	0.53191	0.54225	0.54657	0.54771	0.54824
trans-1,3-Dichloropropene	Averaged	0.52492	0.53127	0.54126	0.54522	0.54708	0.54754
Ethyl acetate	Averaged	0.56493	0.55790	0.55626	0.54125	0.53408	0.52840
Ethylbenzene	Averaged	1.24337	1.35695	1.44133	1.46916	1.53813	1.54037
2-Hexanone	Averaged	0.43312	0.46856	0.46295	0.47817	0.46940	0.46841
Isopropylbenzene (Cumene)	Wt Linear	1.13672	1.27637	1.35788	1.37491	1.42487	1.44774
p-Isopropyltoluene	Wt Linear	1.56217	1.76643	1.88637	1.94028	1.98006	2.04581
Methylene Chloride	Averaged	0.80589	0.74727	0.73858	0.70291	0.66532	0.67584
4-Methyl-2-pentanone (MIBK)	Averaged	0.03057	0.03726	0.03590	0.03857	0.03908	0.03925
Methyl-tert-butyl ether	Averaged	1.06283	1.08682	1.09285	1.09333	1.03414	1.08647
Naphthalene	Wt Linear	1.41816	1.68396	1.89011	1.96265	2.01139	2.11026
n-Propylbenzene	Averaged	1.60570	1.73759	1.79225	1.79662	1.85505	1.84384
Styrene	Wt Linear	0.77986	0.88210	0.93092	0.93426	0.97298	0.97405
1,1,1,2-Tetrachloroethane	Averaged	0.41282	0.38406	0.38418	0.37132	0.38050	0.38077
1,1,2,2-Tetrachloroethane	Averaged	0.55539	0.51874	0.51464	0.49827	0.50770	0.50090
Tetrachloroethene	Averaged	0.35335	0.34404	0.35038	0.34843	0.35950	0.35515
Toluene	Averaged	1.25999	1.25926	1.26706	1.26351	1.28160	1.26660
1,2,3-Trichlorobenzene	Averaged	0.87483	0.92204	0.98164	0.99100	1.05707	1.09411
1,2,4-Trichlorobenzene	Averaged	0.86786	0.96199	1.06119	1.06390	1.11694	1.18487
1,1,1-Trichloroethane	Averaged	0.60969	0.57373	0.56212	0.55376	0.54652	0.53855
1,1,2-Trichloroethane	Averaged	0.32889	0.30035	0.29535	0.29349	0.29206	0.28701
Trichloroethene	Averaged	0.37458	0.35481	0.34975	0.35403	0.35714	0.35398
Trichlorofluoromethane	Averaged	0.37535	0.34595	0.32841	0.30466		
1,2,3-Trichloropropane	Averaged	0.57805	0.55752	0.54325	0.53642	0.54134	0.51772
1,2,4-Trimethylbenzene	Wt Linear	1.71069	1.86363	1.94154	1.94909	1.94934	2.01891
1,3,5-Trimethylbenzene	Averaged	1.68023	1.75448	1.84643	1.84471	1.84227	1.92279
Vinyl acetate	Averaged	0.90400	0.97338	0.94500	0.89650	0.87287	0.88498
Vinyl chloride	Averaged	0.58640	0.57381	0.57350	0.58579	0.52769	0.53398
m&p-Xylene	Wt Linear	1.06052	1.12895	1.15194	1.14203	1.16909	1.15864

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

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MSV - FORM VI VOA-6

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249198

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10	CAL11	CAL12
o-Xylene	Wt Linear	0.42934	0.48412	0.50927	0.53019	0.56736	0.56819
4-Bromofluorobenzene (S)	Averaged	0.41167	0.42397	0.42542	0.43138	0.44972	0.44967
Dibromofluoromethane (S)	Averaged	0.57485	0.54985	0.54466	0.52424	0.47680	0.50490
1,2-Dichloroethane-d4 (S)	Averaged	0.10484	0.09552	0.09525	0.09239	0.08563	0.08890
Toluene-d8 (S)	Averaged	1.08337	1.07913	1.08743	1.07610	1.07934	1.06580

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/01/2020 9:37

MSV - FORM VI VOA-7

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249198

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Acetone	Wt Linear		0.99848	0.01374774	0.38153	
Acetonitrile	Wt Linear		0.99061	0.00060749	0.04173	
Acrolein	Averaged	8.73847			0.06923	
Acrylonitrile	Averaged	8.87425			0.19127	
Benzene	Averaged	8.62942			1.27880	
Bromobenzene	Averaged	8.48252			0.50590	
Bromochloromethane	Averaged	9.85318			0.28358	
Bromodichloromethane	Averaged	14.00186			0.52427	
Bromoform	Averaged	4.41496			0.45179	
Bromomethane	Wt Linear		0.99117	0.02722209	0.42450	
2-Butanone (MEK)	Averaged	8.88630			0.42919	
n-Butylbenzene	Averaged	14.94450			1.74233	
sec-Butylbenzene	Wt Linear		0.99752	-0.0235130	2.32577	
tert-Butylbenzene	Wt Linear		0.99539	-0.0212852	1.95174	
Carbon disulfide	Averaged	9.71280			1.48423	
Carbon tetrachloride	Averaged	7.73071			0.50339	
Chlorobenzene	Averaged	5.75373			0.96465	
Chloroethane	Wt Linear		0.99271	0.00289449	0.16240	
Chloroform	Averaged	10.99465			0.99545	
Chloromethane	Wt Linear		0.99766	0.01147544	0.69502	
2-Chlorotoluene	Wt Linear		0.99948	-0.0028441	0.38497	
4-Chlorotoluene	Wt Linear		0.99856	-0.0028784	0.38834	
1,2-Dibromo-3-chloropropane	Averaged	13.38306			0.16352	
Dibromochloromethane	Averaged	8.28025			0.47553	
1,2-Dibromoethane (EDB)	Averaged	4.64138			0.40786	
Dibromomethane	Averaged	6.36753			0.29781	
1,2-Dichlorobenzene	Averaged	7.39530			1.45432	
1,3-Dichlorobenzene	Averaged	8.08472			1.33091	
1,4-Dichlorobenzene	Averaged	10.46018			1.50164	
Dichlorodifluoromethane	Averaged	5.84563			0.60278	
1,1-Dichloroethane	Averaged	8.80603			0.88035	
1,2-Dichloroethane	Averaged	14.72899			0.78154	
1,1-Dichloroethene	Averaged	7.00161			0.67064	
cis-1,2-Dichloroethene	Averaged	4.67942			0.64880	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

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MSV - FORM VI VOA-8

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249198

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
trans-1,2-Dichloroethene	Averaged	9.66545			0.45304	
1,2-Dichloropropane	Averaged	4.68693			0.36511	
1,3-Dichloropropane	Averaged	12.73991			0.48194	
2,2-Dichloropropane	Averaged	12.80164			0.67907	
1,1-Dichloropropene	Averaged	8.96428			0.39618	
cis-1,3-Dichloropropene	Averaged	9.32428			0.50984	
trans-1,3-Dichloropropene	Averaged	9.26560			0.50883	
Ethyl acetate	Averaged	5.68883			0.56197	
Ethylbenzene	Averaged	12.90669			1.30807	
2-Hexanone	Averaged	14.03454			0.42211	
Isopropylbenzene (Cumene)	Wt Linear		0.99637	-0.0156127	1.39474	
p-Isopropyltoluene	Wt Linear		0.99539	-0.0212852	1.95174	
Methylene Chloride	Averaged	14.30697			0.79672	
4-Methyl-2-pentanone (MIBK)	Averaged	9.46365			0.03578	
Methyl-tert-butyl ether	Averaged	4.34204			1.05644	
Naphthalene	Wt Linear		0.99209	-0.0210899	1.97334	
n-Propylbenzene	Averaged	14.69415			1.60388	
Styrene	Wt Linear		0.99669	-0.0104898	0.94781	
1,1,1,2-Tetrachloroethane	Averaged	8.73379			0.40743	
1,1,2,2-Tetrachloroethane	Averaged	5.80301			0.53495	
Tetrachloroethene	Averaged	5.85748			0.34315	
Toluene	Averaged	4.82081			1.24680	
1,2,3-Trichlorobenzene	Averaged	11.00536			0.91538	
1,2,4-Trichlorobenzene	Averaged	11.50100			0.98474	
1,1,1-Trichloroethane	Averaged	6.44871			0.57038	
1,1,2-Trichloroethane	Averaged	10.24085			0.31598	
Trichloroethene	Averaged	8.38981			0.34963	
Trichlorofluoromethane	Averaged	14.86295			0.37716	
1,2,3-Trichloropropane	Averaged	7.81870			0.55922	
1,2,4-Trimethylbenzene	Wt Linear		0.99797	-0.0184252	1.95772	
1,3,5-Trimethylbenzene	Averaged	14.19477			1.65100	
Vinyl acetate	Averaged	13.85329			0.87084	
Vinyl chloride	Averaged	8.94064			0.59325	
m&p-Xylene	Wt Linear		0.99877	-0.0092364	1.14911	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/01/2020 9:37

MSV - FORM VI VOA-9

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249198

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
o-Xylene	Wt Linear		0.99470	-0.0052424	0.54262	
4-Bromofluorobenzene (S)	Averaged	6.19963			0.41034	
Dibromofluoromethane (S)	Averaged	9.59315			0.57568	
1,2-Dichloroethane-d4 (S)	Averaged	11.94143			0.10356	
Toluene-d8 (S)	Averaged	0.66305			1.07633	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/01/2020 9:37

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_03.D
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 20-AUG-2020 10:50
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal1,27237:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 10:50 Cal File: 082020_03.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						(D)
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						(D)
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						(D)
9 1,1-Dichloroethene	61	5.238	5.226	(0.666)	569	0.20000	0.208	
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						(D)
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						(D)
17 Methyl acetate	43	Compound Not Detected.						(D)
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						(D)
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	863	0.20000	0.240	
	24 Acrylonitrile	53	Compound Not Detected.						
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	737	0.20000	0.278(T)	
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						(D)
	29 Cyclohexane	56	Compound Not Detected.						(D)
	30 Chloroform	83	7.372	7.372	(0.938)	932	0.20000	0.236(M)	NI
	31 Ethyl acetate	43	Compound Not Detected.						(D)
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	576	0.20000	0.202	
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	128324	50.0000	54.5	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						(D)
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	204440	50.0000		
	39 Benzene	78	7.878	7.872	(0.947)	1748	0.20000	0.230	
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	23574	50.0000	55.7	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	1197	0.20000	0.364	
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.323	8.317	(1.001)	339	0.20000	0.163	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	296822	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.676	8.670	(1.043)	169	0.20000	0.0956	
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	9.719	9.713	(1.169)	492	0.20000	0.162	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	320213	50.0000	50.1	
	58 Toluene	91	9.420	9.414	(1.133)	1693	0.20000	0.229	
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						(D)
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	10.066	10.060	(1.210)	722	0.20000	0.252	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	477	0.20000	0.225	
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	10.560	10.554	(1.000)	1806	0.20000	0.266	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	259753	50.0000		
	71 Chlorobenzene	112	10.584	10.578	(1.002)	1258	0.20000	0.251	
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	10.657	10.651	(1.009)	1678	0.40000	0.330	
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						(D)
	76 Bromoform	173	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	97623	50.0000	45.8	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)
	80 n-Propylbenzene	91	11.529	11.523	(1.092)	1365	0.20000	0.164	
	81 Bromobenzene	156	11.584	11.578	(1.097)	395	0.20000	0.148	
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
	83 1,3,5-Trimethylbenzene	105	11.657	11.651	(0.945)	1019	0.20000	0.227	
	84 2-Chlorotoluene	126	Compound Not Detected.						(D)
	85 4-Chlorotoluene	126	Compound Not Detected.						(D)
	86 Isopropylbenzene (Cumene)	105	11.218	11.212	(1.062)	845	0.20000	0.141	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	697	0.20000	0.243	
	88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	89 Cyclohexanone	98	Compound Not Detected.						
	90 tert-Butylbenzene	119	Compound Not Detected.						(D)
	91 1,2,4-Trimethylbenzene	105	11.974	11.968	(0.970)	588	0.20000	0.130	
	92 sec-Butylbenzene	105	Compound Not Detected.						
	93 p-Isopropyltoluene	119	12.151	12.145	(0.985)	466	0.20000	0.105	
	94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	794	0.20000	0.221	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	135955	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	1048	0.20000	0.263	
	97 n-Butylbenzene	91	Compound Not Detected.						
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	882	0.20000	0.225	
	99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
	102 Naphthalene	128	Compound Not Detected.						
	103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

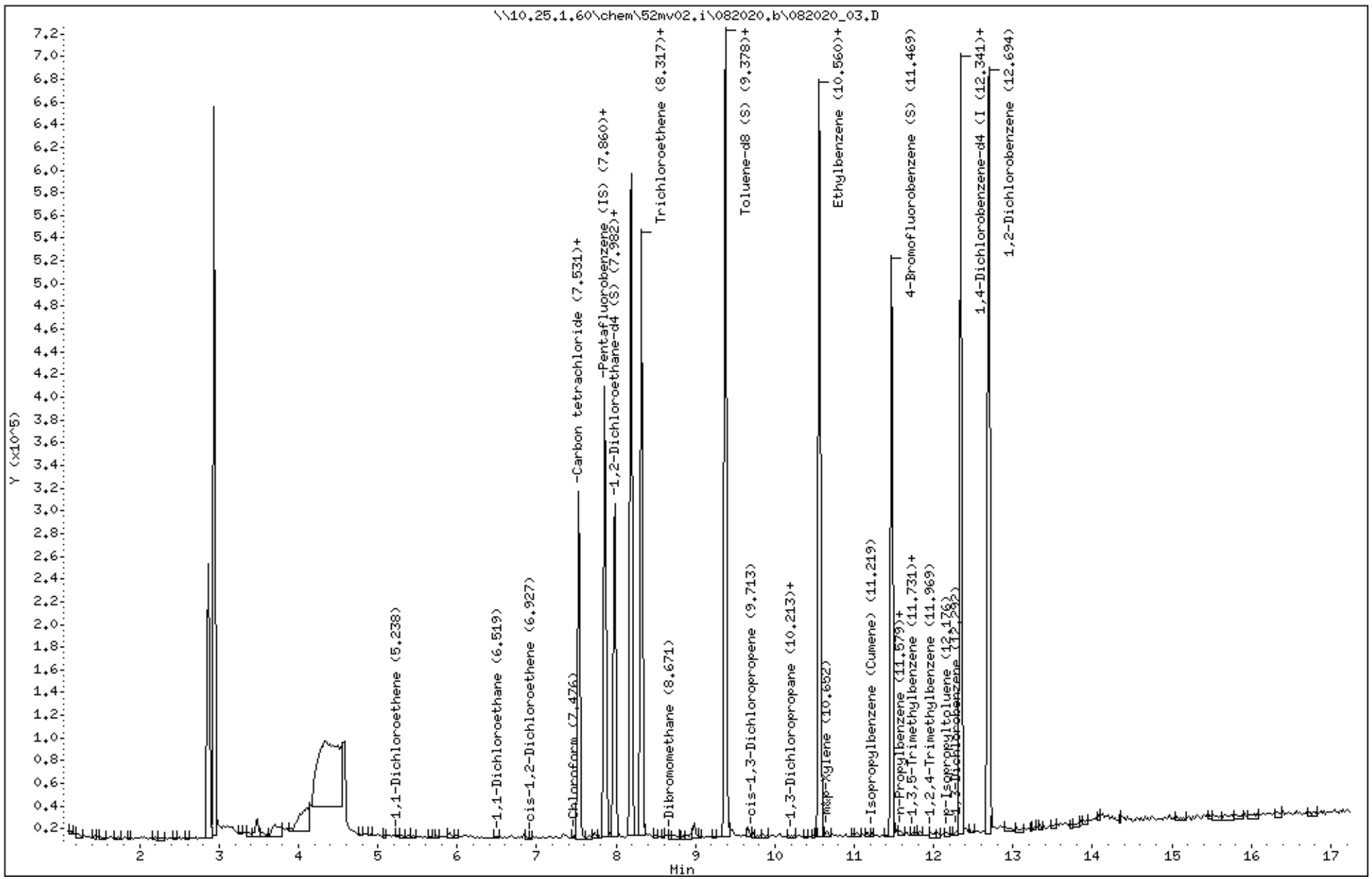
T - Target compound detected outside RT window.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_03.D
Date : 20-AUG-2020 10:50
Client ID: CAL1
Sample Info: CAL1,27237:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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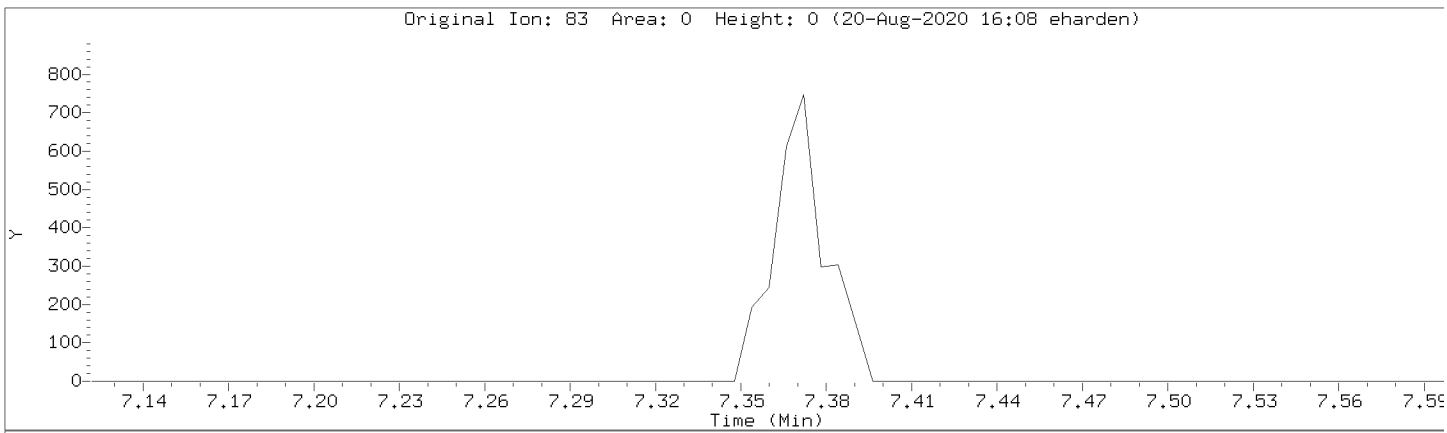
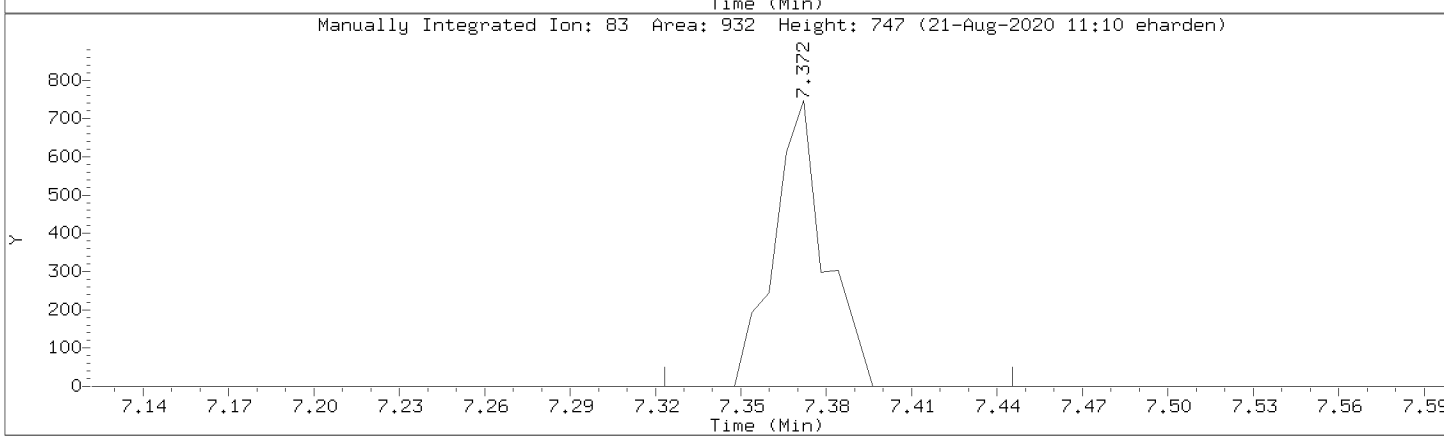
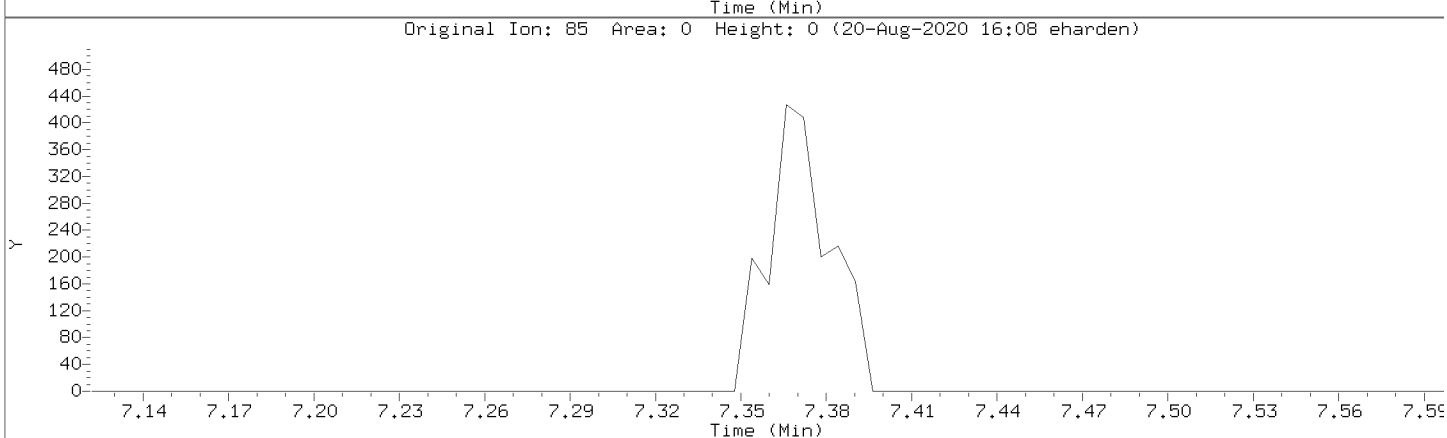
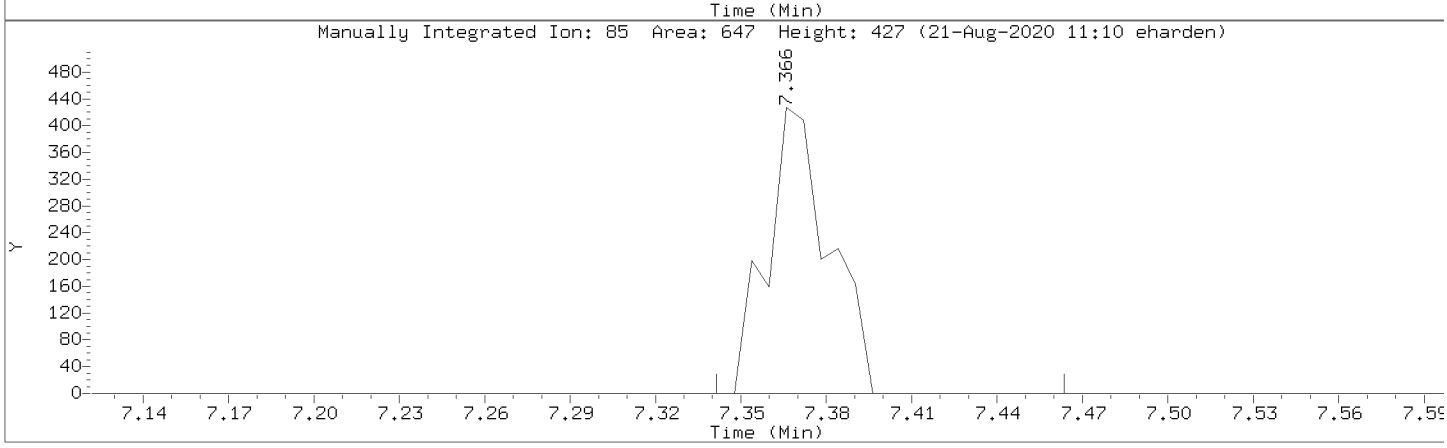
Injection Date: 20-AUG-2020 10:50
Instrument: 52mv02.i
Lab Sample ID: CAL1

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3









Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_04.D
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 20-AUG-2020 11:15
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal2,27238:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 11:15 Cal File: 082020_04.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.226	(0.408)	1253	0.50000	0.745(MH)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	3571	0.50000	1.04	
3 Vinyl chloride	62	3.708	3.702	(0.472)	1505	0.50000	0.604(M)	LT
4 1,3-Butadiene	39	3.708	3.708	(0.472)	1520	0.50000	0.683	
5 Bromomethane	94	4.195	4.195	(0.534)	5381	0.50000	1.82	
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						(D)
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	1311	0.50000	0.466	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	1053	0.50000	0.567(M)	LT
11 Carbon disulfide	76	5.293	5.293	(0.673)	3309	0.50000	0.531	
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						(D)
14 Allyl chloride	76	5.780	5.787	(0.736)	303	0.50000	0.350	
15 Methylene Chloride	49	5.908	5.902	(0.752)	2179	0.50000	0.634(M)	NI
16 Acetone	43	5.988	5.976	(0.762)	5178	1.00000	2.84	
17 Methyl acetate	43	6.073	6.067	(0.773)	3562	1.00000	1.60	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	1161	0.50000	0.611	
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	6.171	6.165	(0.785)	2190	0.50000	0.493(T)	
21 Acetonitrile	41	Compound Not Detected.						
22 Chloroprene	53	6.646	6.640	(0.846)	1072	0.50000	0.397	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	1886	0.50000	0.510	
	24 Acrylonitrile	53	Compound Not Detected.						(D)
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	1298	0.50000	0.477	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	1659	0.50000	0.592(T)	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	663	0.50000	0.557	
	29 Cyclohexane	56	7.335	7.335	(0.882)	767	0.50000	0.308	
	30 Chloroform	83	7.372	7.372	(0.938)	1921	0.50000	0.460(M)	NI
	31 Ethyl acetate	43	7.433	7.433	(0.946)	2623	1.00000	1.11(T)	
	32 Carbon tetrachloride	117	7.518	7.512	(0.904)	765	0.50000	0.262	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	1518	1.00000	2.16	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	133742	50.0000	55.4	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	1565	0.50000	0.452	
	36 2-Butanone (MEK)	43	Compound Not Detected.						(D)
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	1004	0.50000	0.417(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	209828	50.0000		
	39 Benzene	78	7.865	7.872	(0.946)	3569	0.50000	0.459	
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	2101	1.00000	1.15	
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	24908	50.0000	57.3	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	2134	0.50000	0.633	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	1482	0.50000	0.370	
	46 Trichloroethene	130	8.317	8.317	(1.000)	960	0.50000	0.452	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	303821	50.0000		
	48 Methylcyclohexane	98	8.329	8.317	(1.001)	565	0.50000	0.561(M)	LT
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.676	8.670	(1.043)	937	0.50000	0.518	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	1062	0.50000	0.479	
	52 Bromodichloromethane	83	8.774	8.768	(1.055)	1133	0.50000	0.356	
	53 Methyl methacrylate	69	8.835	8.823	(1.062)	345	0.50000	0.308(TH)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	996	0.50000	0.321	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	324729	50.0000	49.6	
	58 Toluene	91	9.420	9.414	(1.133)	3318	0.50000	0.438	
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	996	0.50000	0.315(M)	NI
	62 Tetrachloroethene	164	9.713	9.719	(0.920)	770	0.50000	0.420	
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	1129	0.50000	0.588	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	1044	0.50000	0.411(M)	NI
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	962	0.50000	0.328	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	1067	0.50000	0.489	
	68 2-Hexanone	43	Compound Not Detected.						(D)
	69 Ethylbenzene	91	10.560	10.554	(1.000)	3125	0.50000	0.447	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	267272	50.0000		
	71 Chlorobenzene	112	10.572	10.578	(1.001)	2681	0.50000	0.520	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	1062	0.50000	0.488	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	3816	1.00000	0.730	
	74 o-Xylene	106	10.993	10.993	(1.041)	984	0.50000	0.402	
	75 Styrene	104	11.029	11.029	(1.044)	1379	0.50000	0.337	
	76 Bromoform	173	11.103	11.103	(1.051)	1163	0.50000	0.482(M)	NI

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.231	11.225	(1.063)	1438	0.50000	0.387	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	104078	50.0000	47.4	
79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)
80 n-Propylbenzene	91	11.529	11.523	(1.092)	3151	0.50000	0.368	
81 Bromobenzene	156	11.584	11.578	(1.097)	1181	0.50000	0.431	
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						(D)
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	1752	0.50000	0.364(H)	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	548	0.50000	0.295	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	807	0.50000	0.443	
86 Isopropylbenzene (Cumene)	105	11.206	11.212	(1.061)	1956	0.50000	0.316	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	1491	0.50000	0.508	
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	1540	0.50000	0.324	
91 1,2,4-Trimethylbenzene	105	11.974	11.968	(0.970)	1871	0.50000	0.385	
92 sec-Butylbenzene	105	12.066	12.060	(0.978)	1733	0.50000	0.300	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	1540	0.50000	0.324	
94 1,3-Dichlorobenzene	146	12.297	12.291	(0.997)	1683	0.50000	0.437	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	145926	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	2405	0.50000	0.563	
97 n-Butylbenzene	91	12.480	12.486	(1.011)	1826	0.50000	0.359	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	2394	0.50000	0.570	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	415	0.50000	0.870	
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						(D)
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	852	0.50000	0.308	
102 Naphthalene	128	14.206	14.193	(1.151)	1897	0.50000	0.399(M)	NI
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	1244	0.50000	0.466	

QC Flag Legend

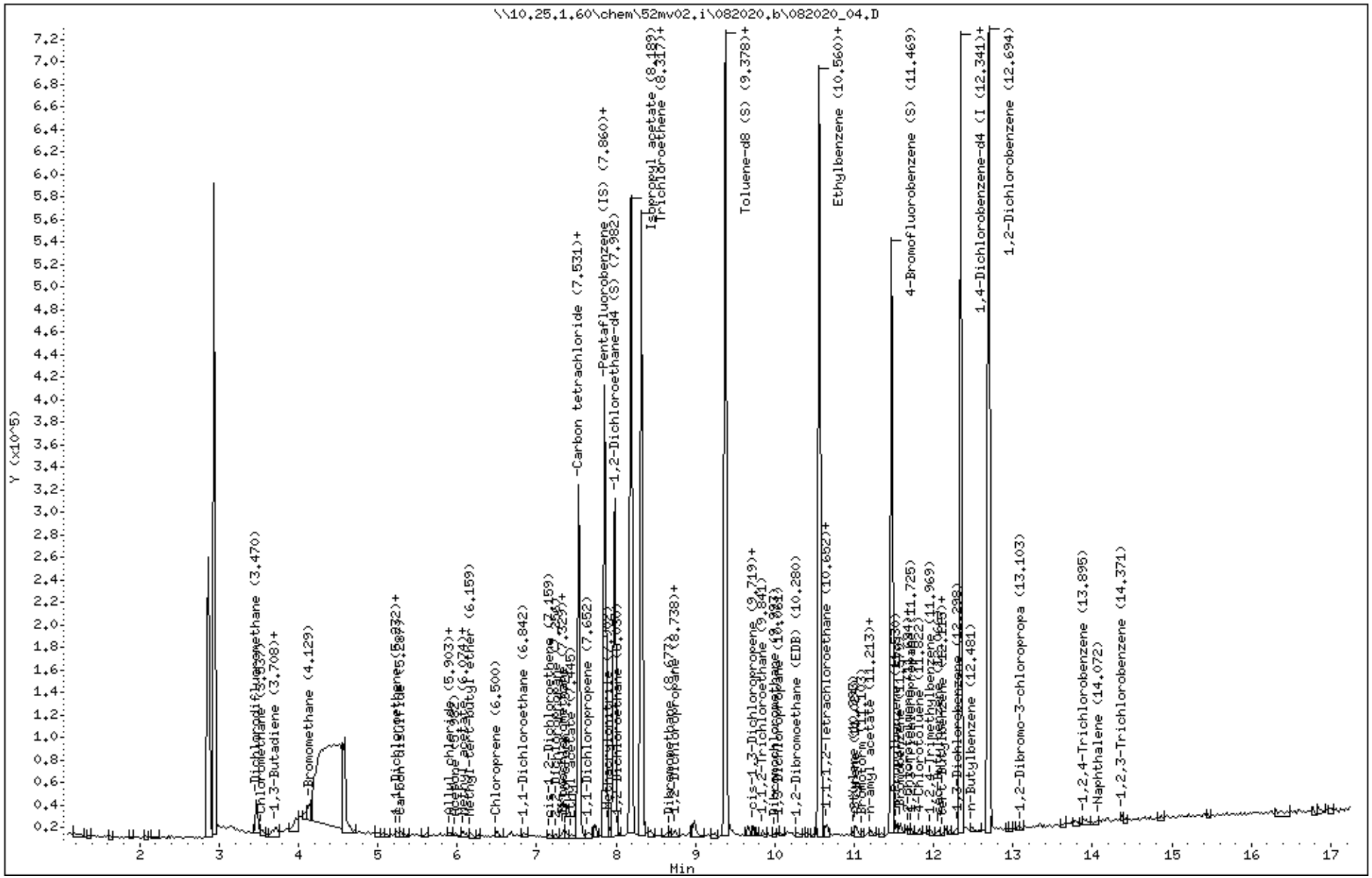
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.

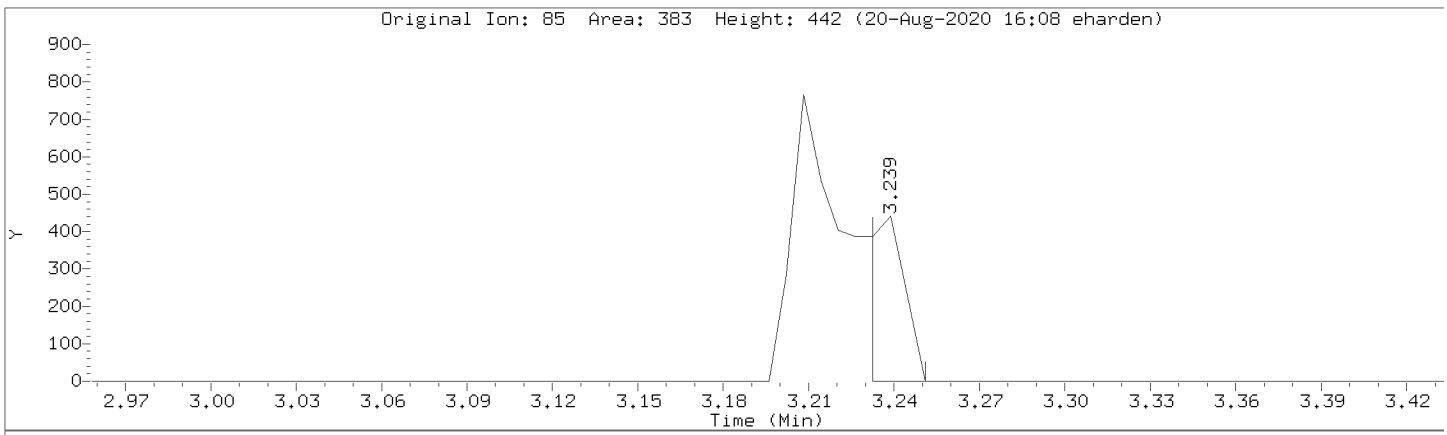
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_04.D
Date : 20-AUG-2020 11:15
Client ID: CAL2
Sample Info: CAL2,27238:1
Purge Volume: 5.0
Column phase: RTX-VMS

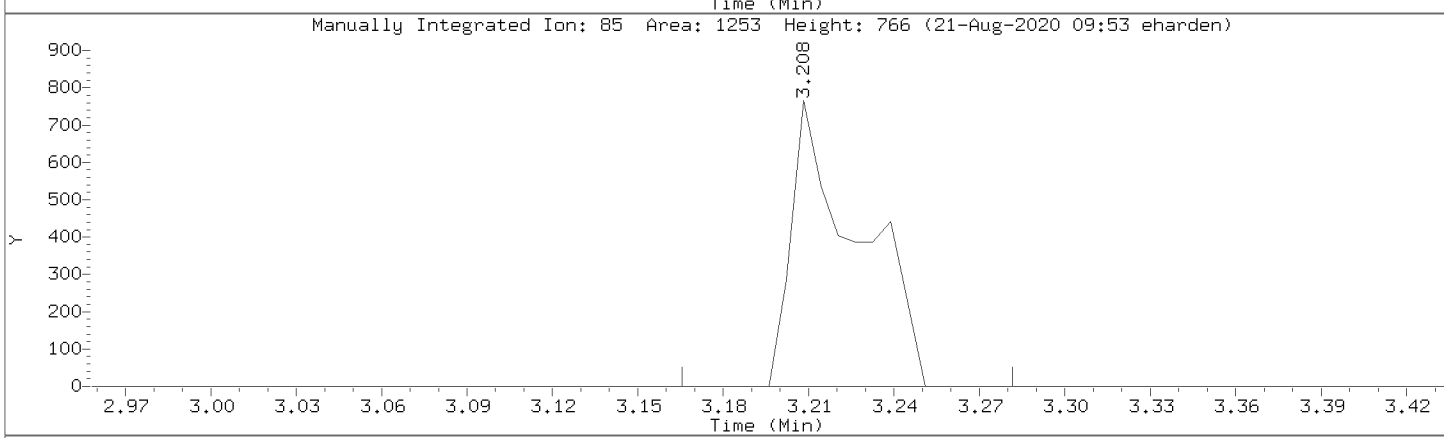
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

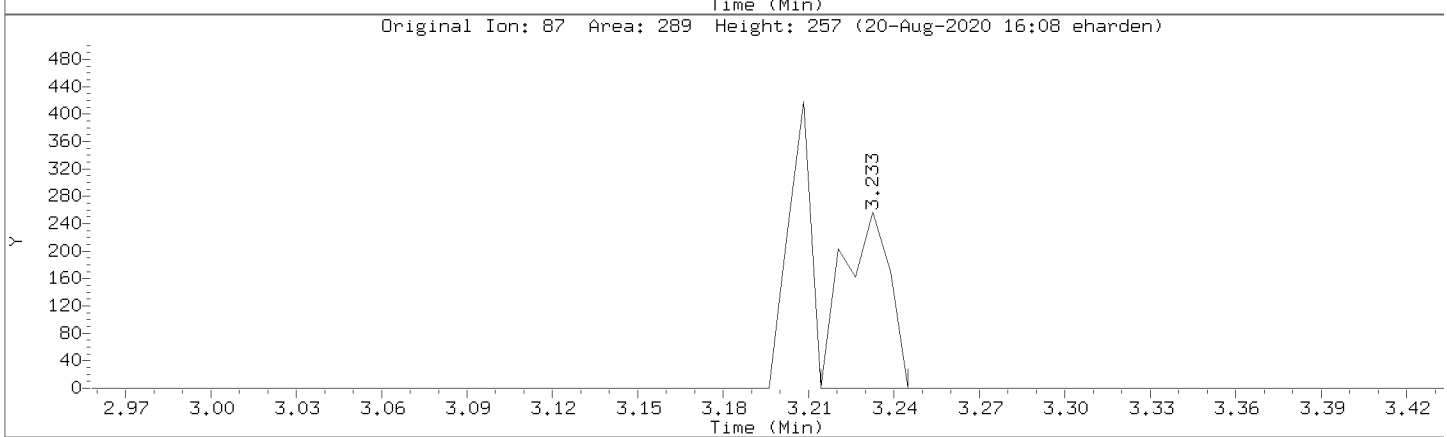


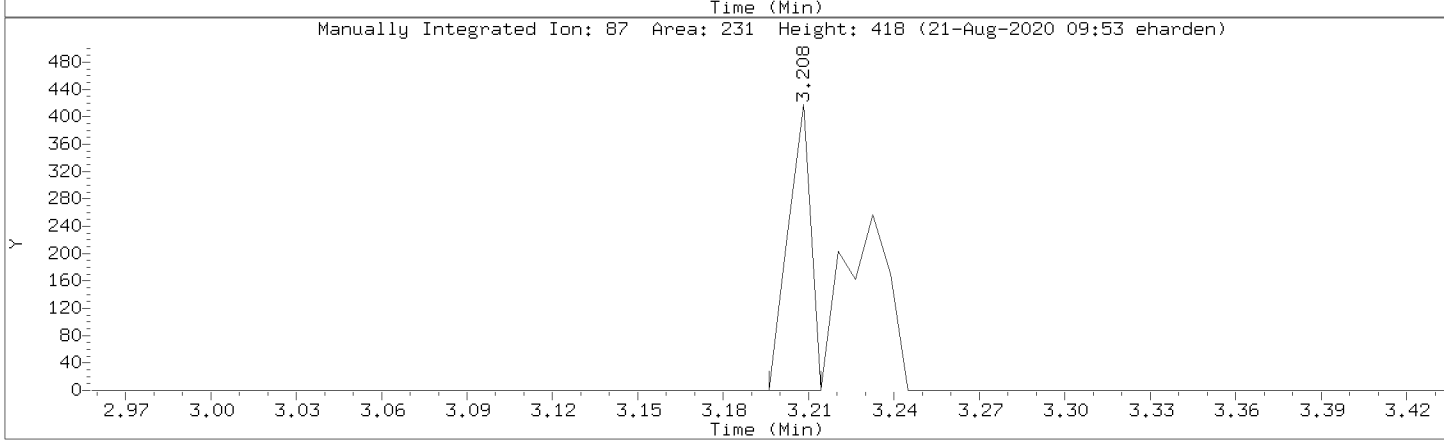
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



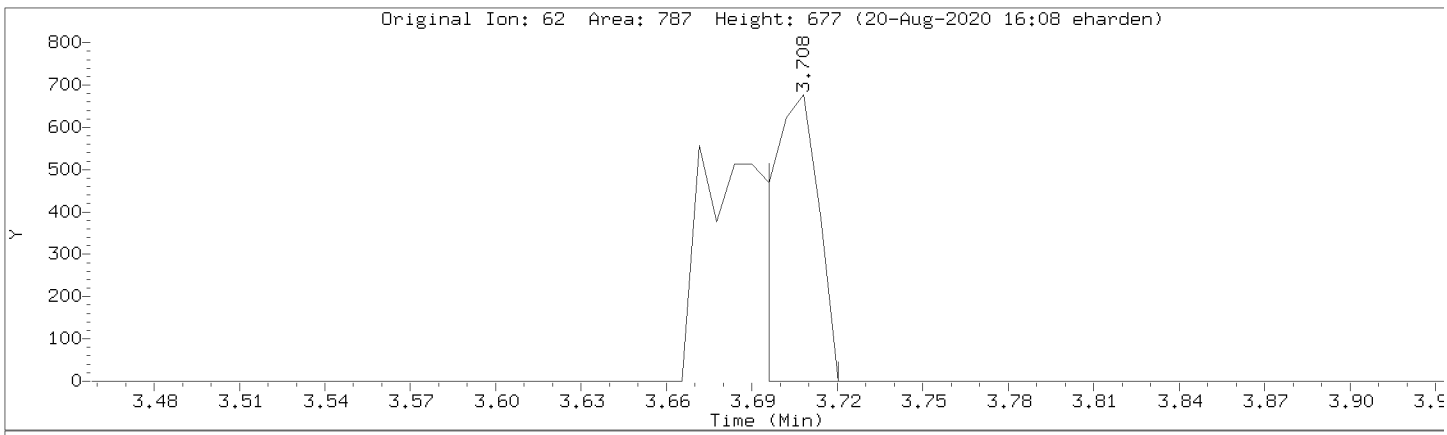


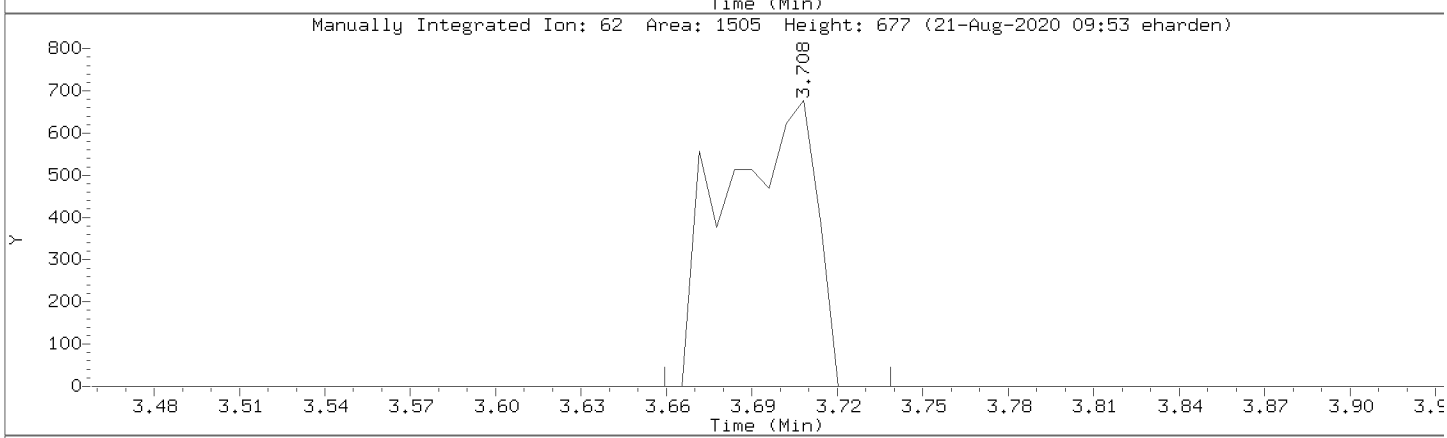


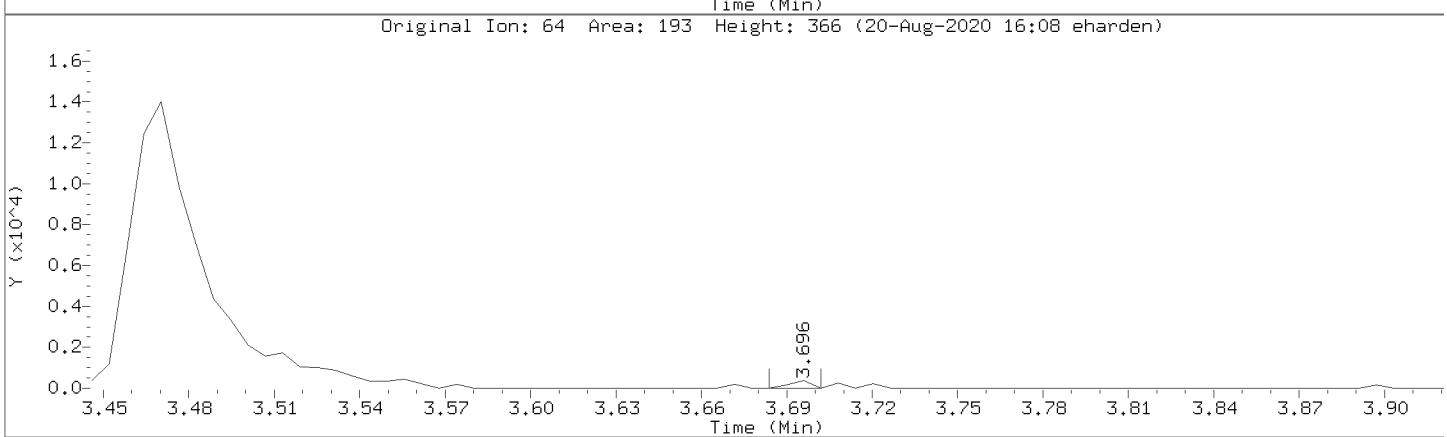


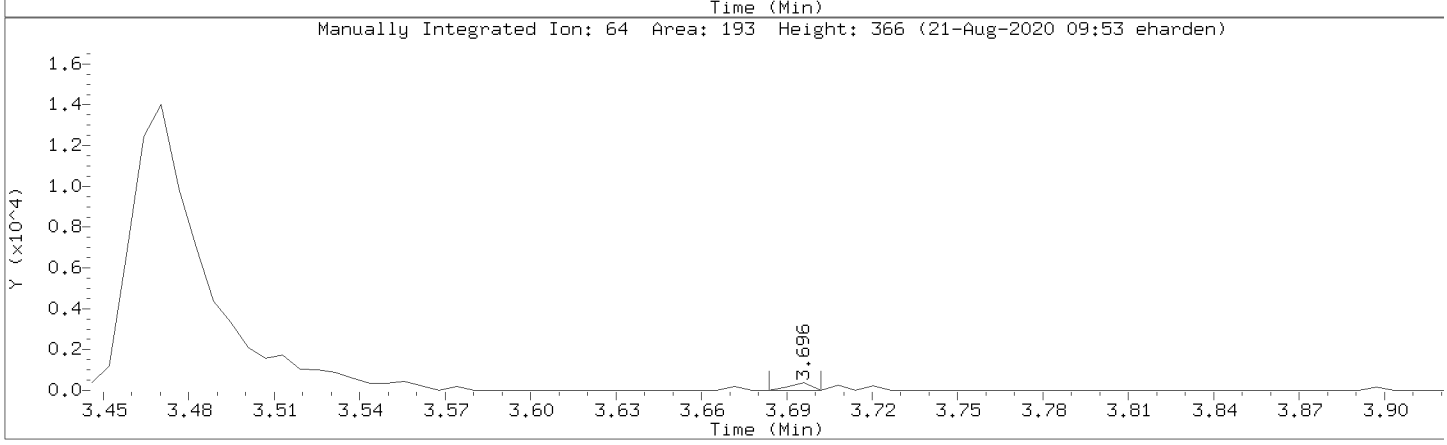
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4



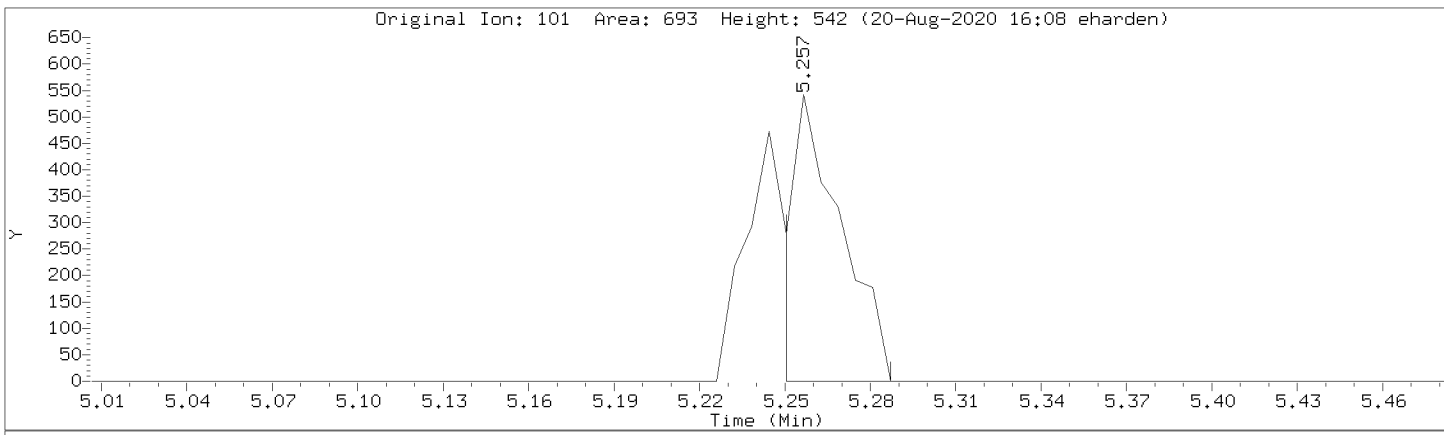


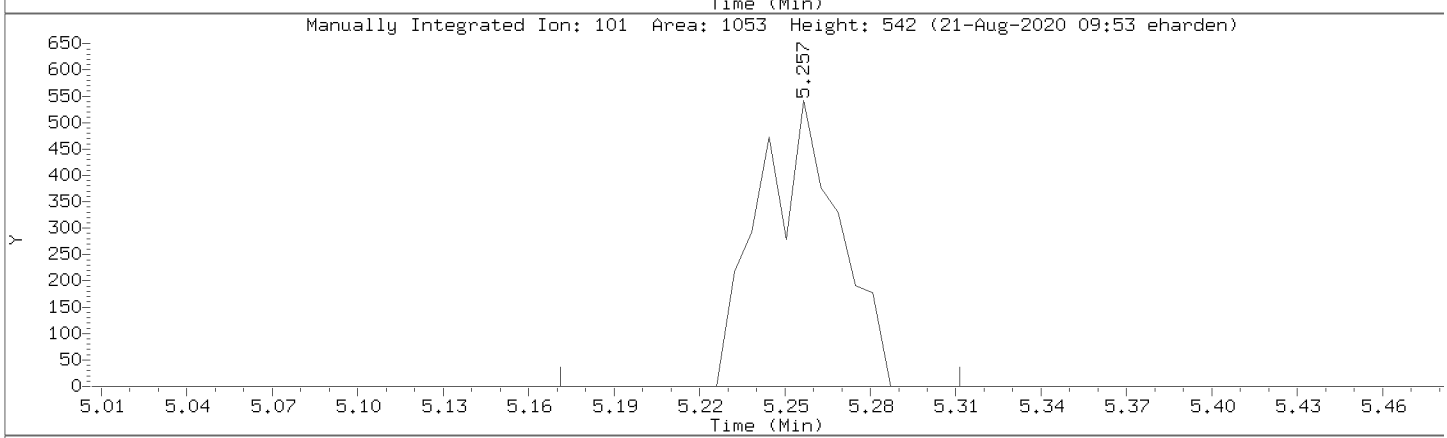


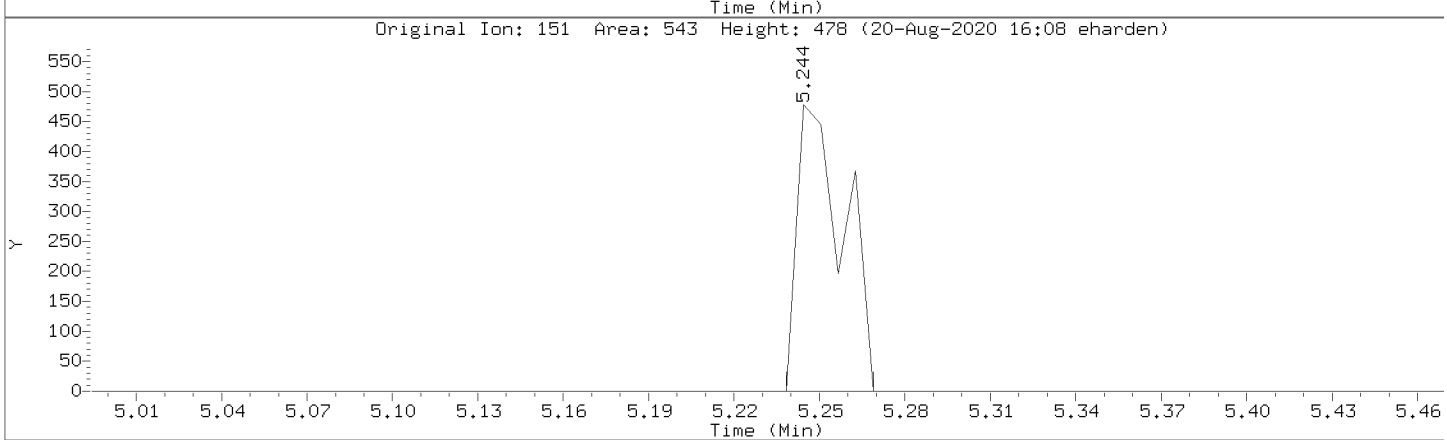


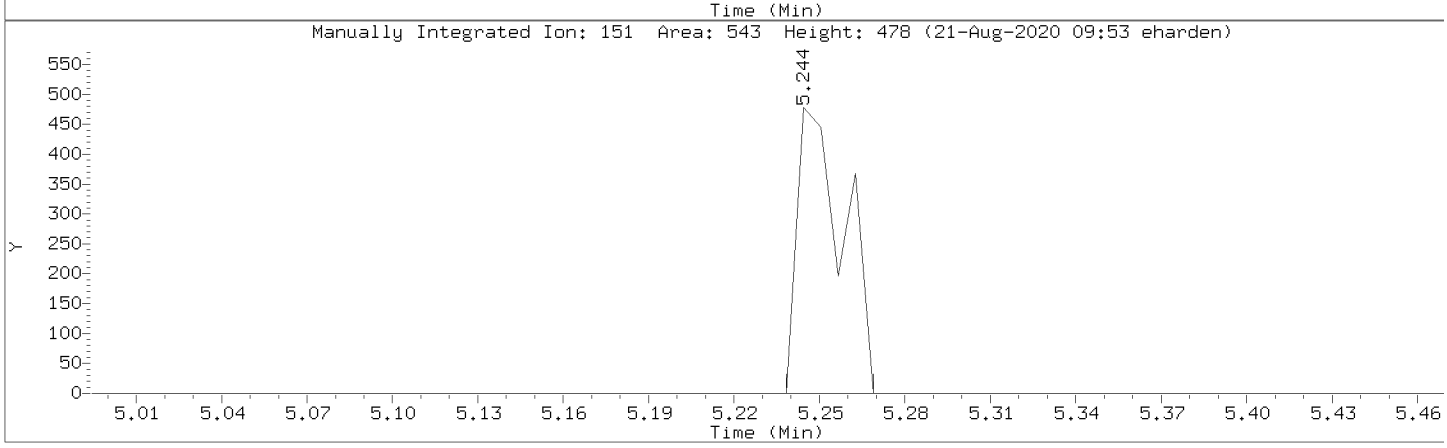
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: 1,1,2-Trichlorotrifluoroethane Review Code: LT
CAS Number: 76-13-1

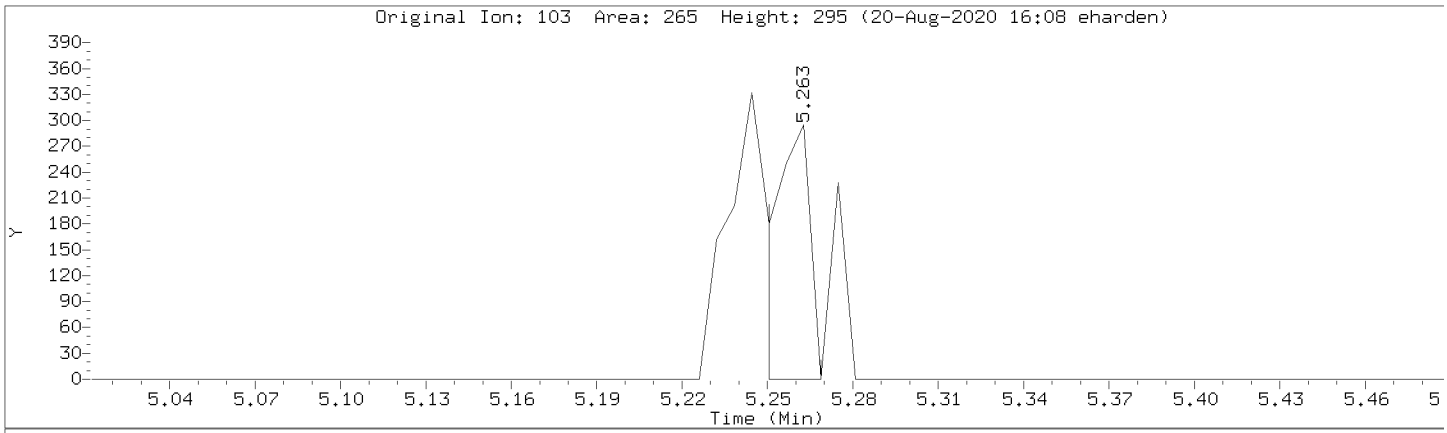


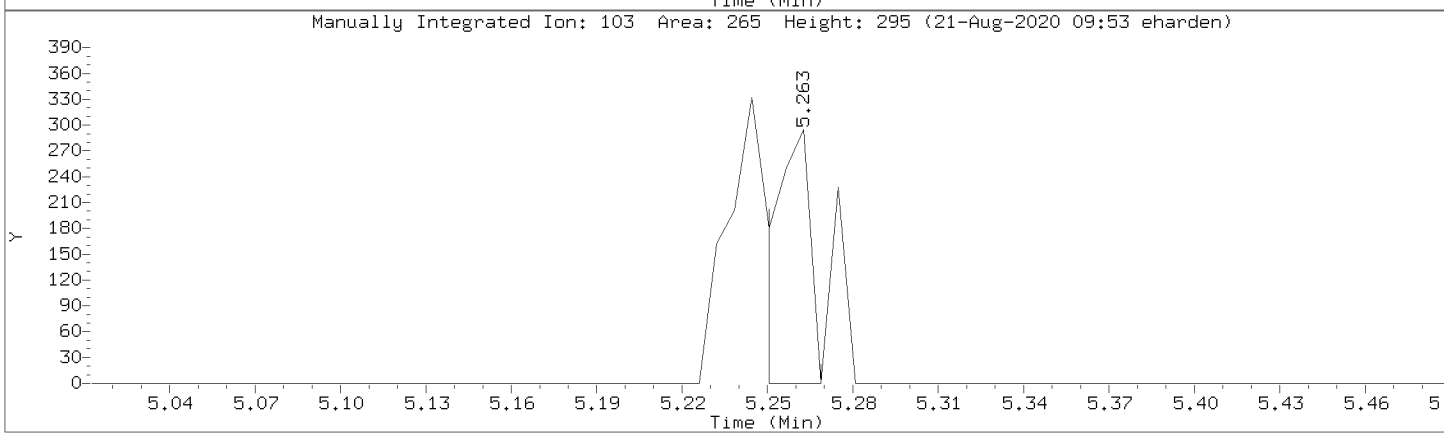






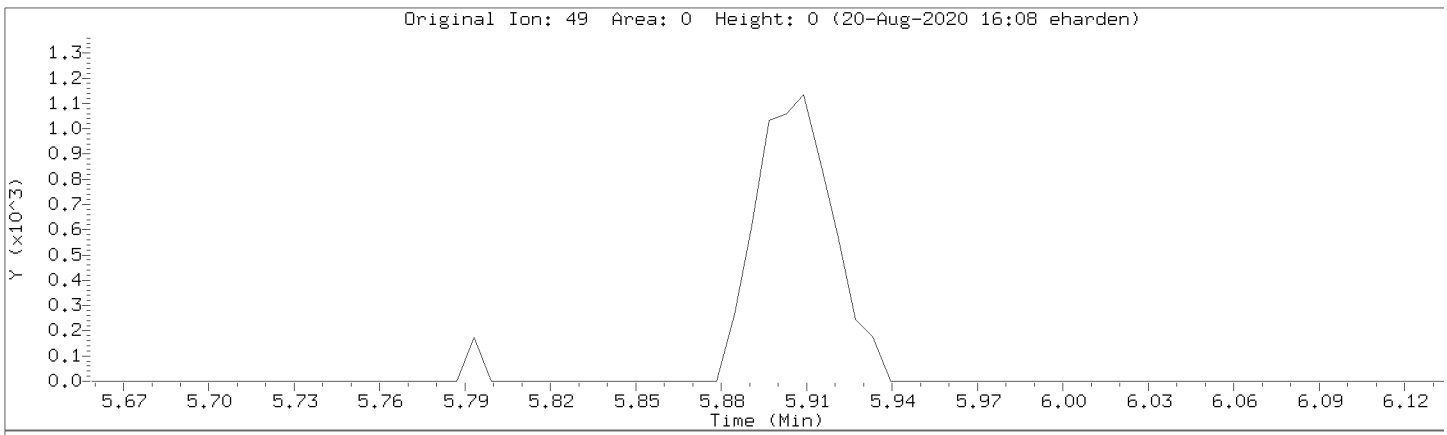
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

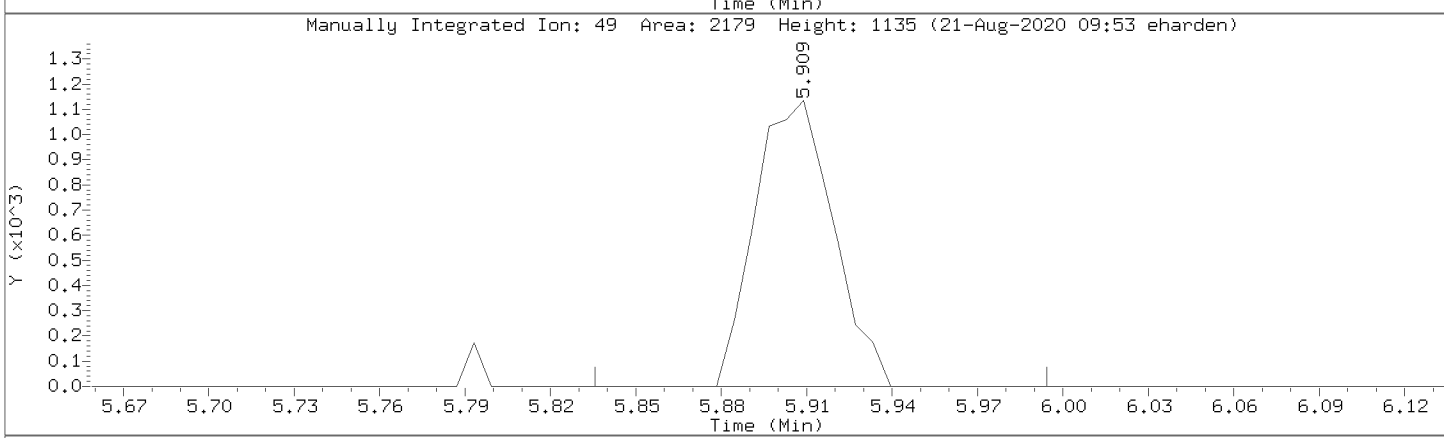


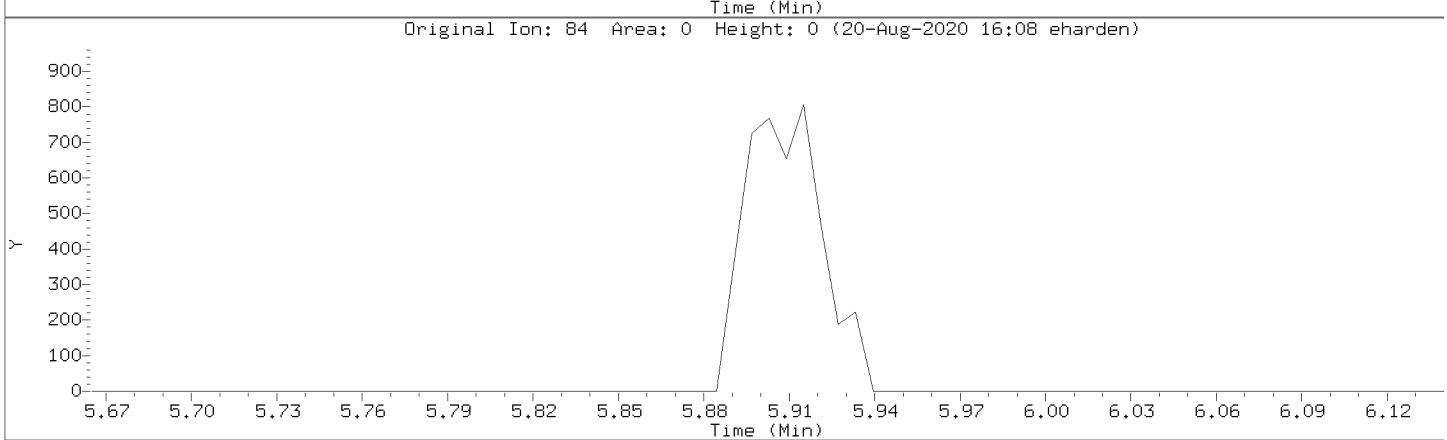


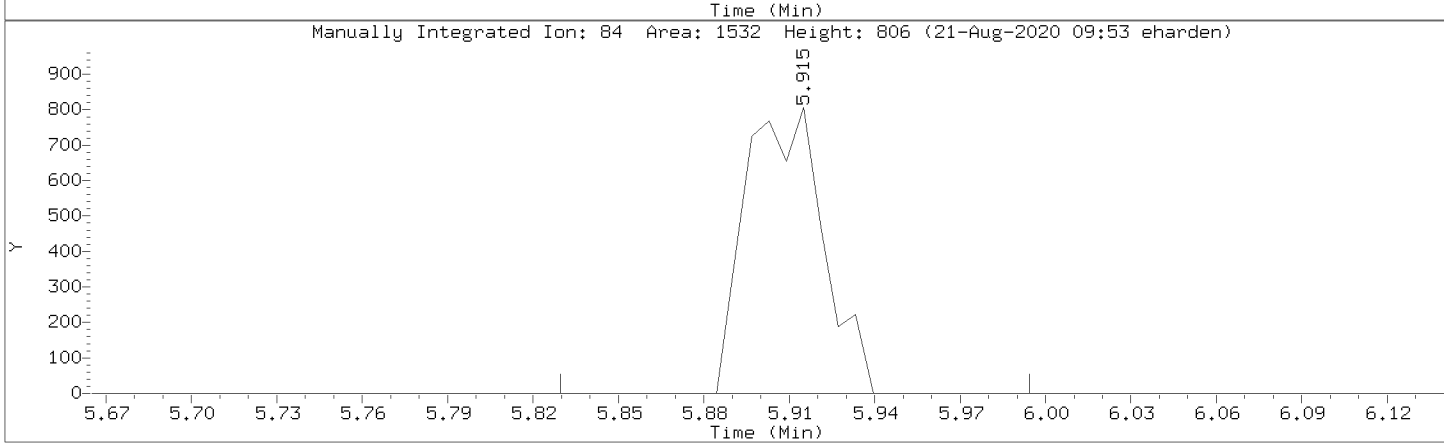
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2

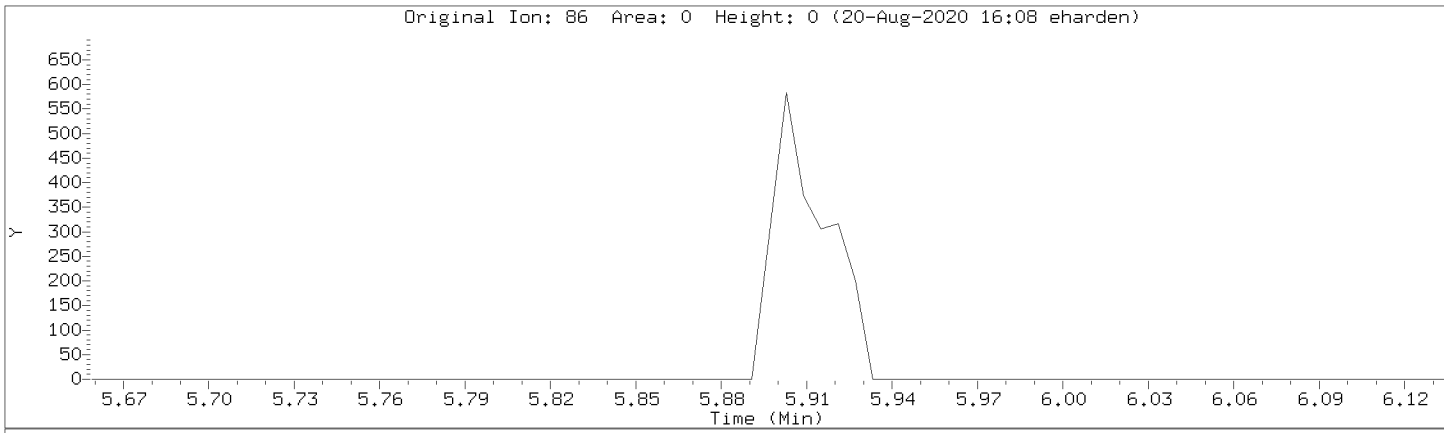


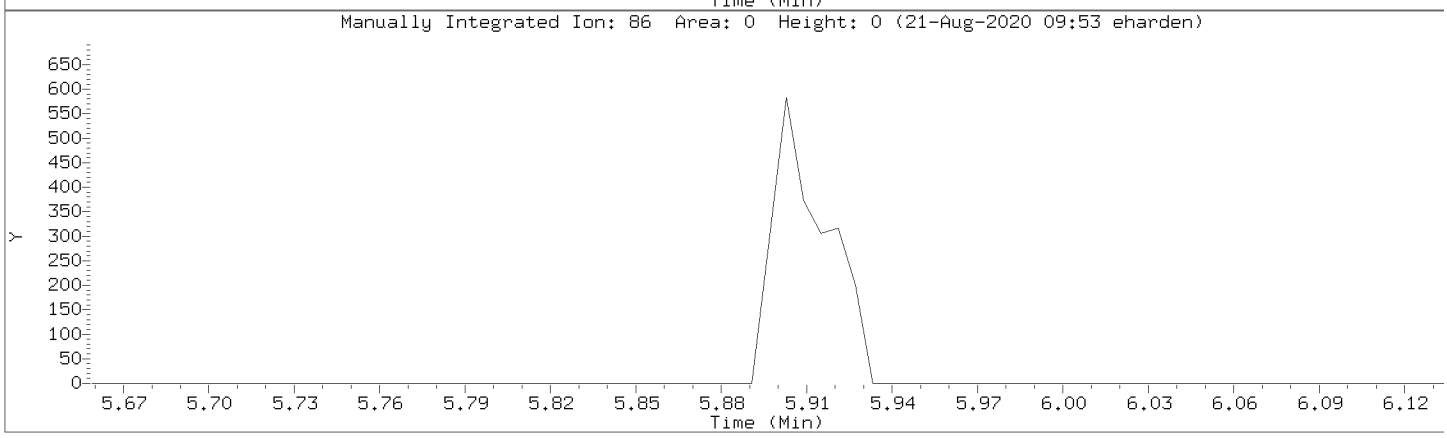






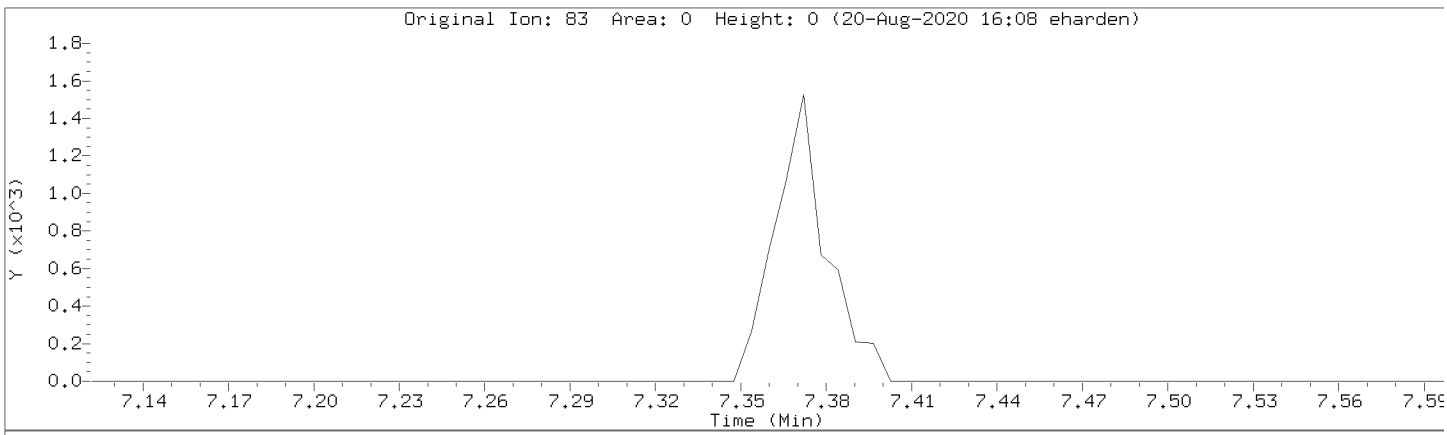
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

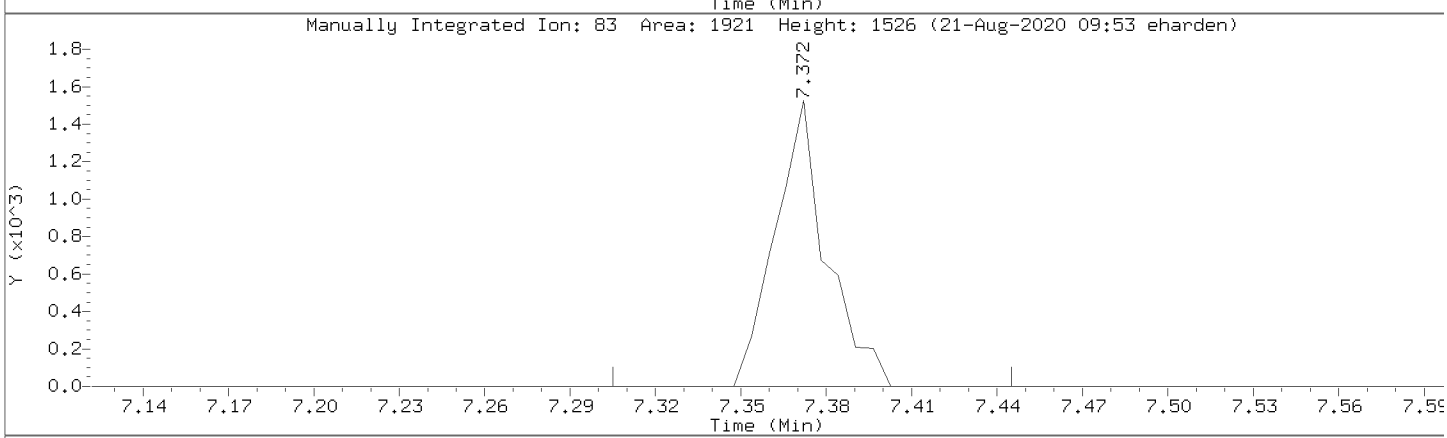


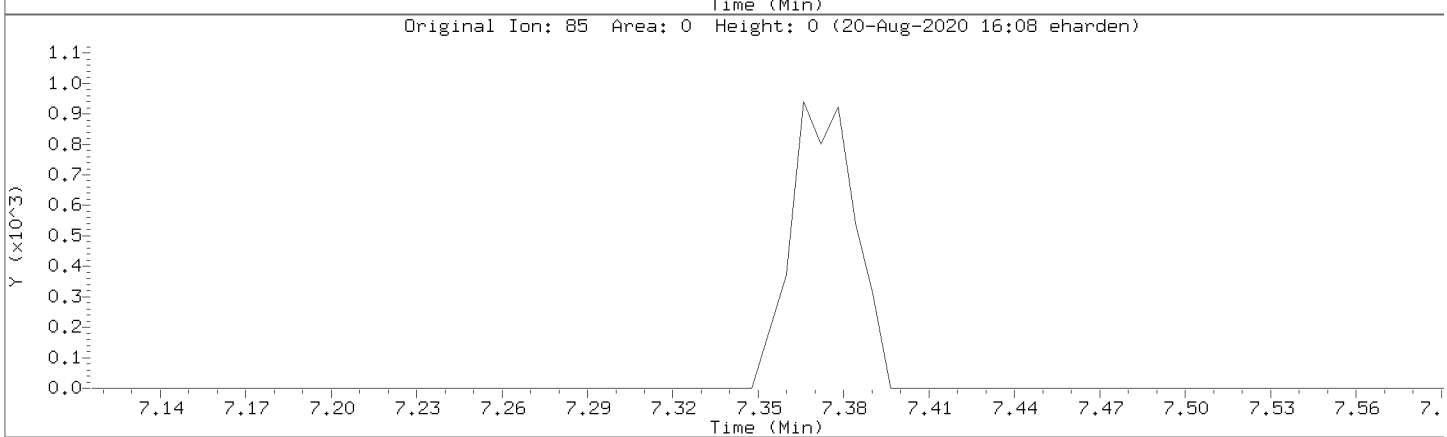


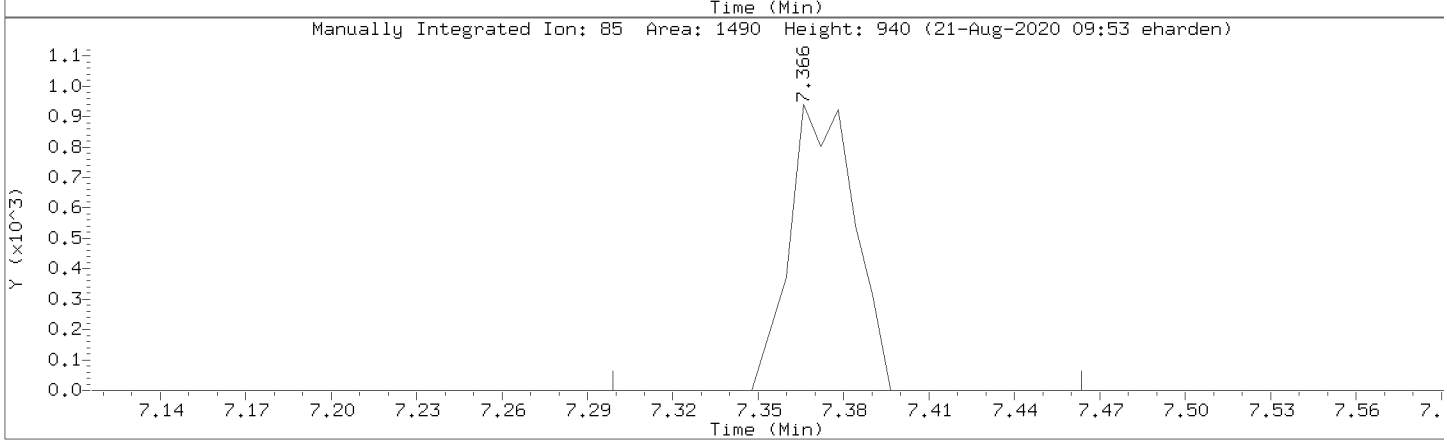
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3



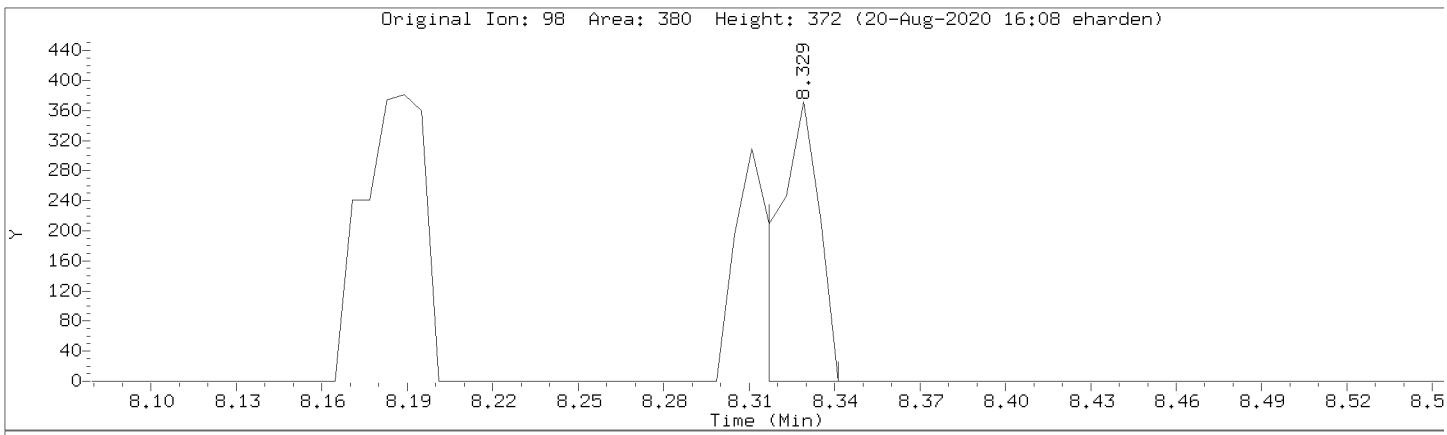


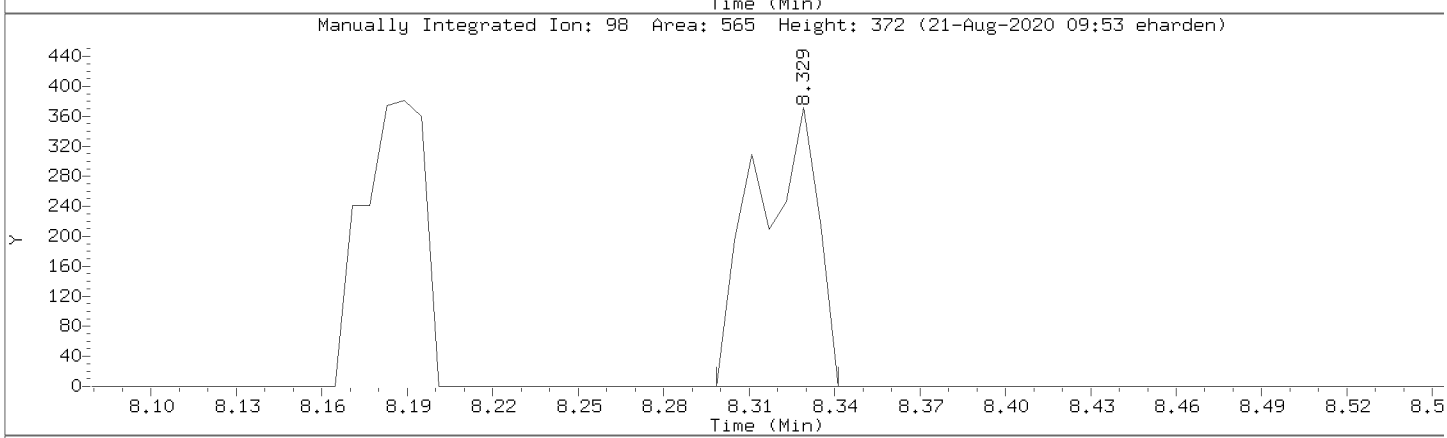


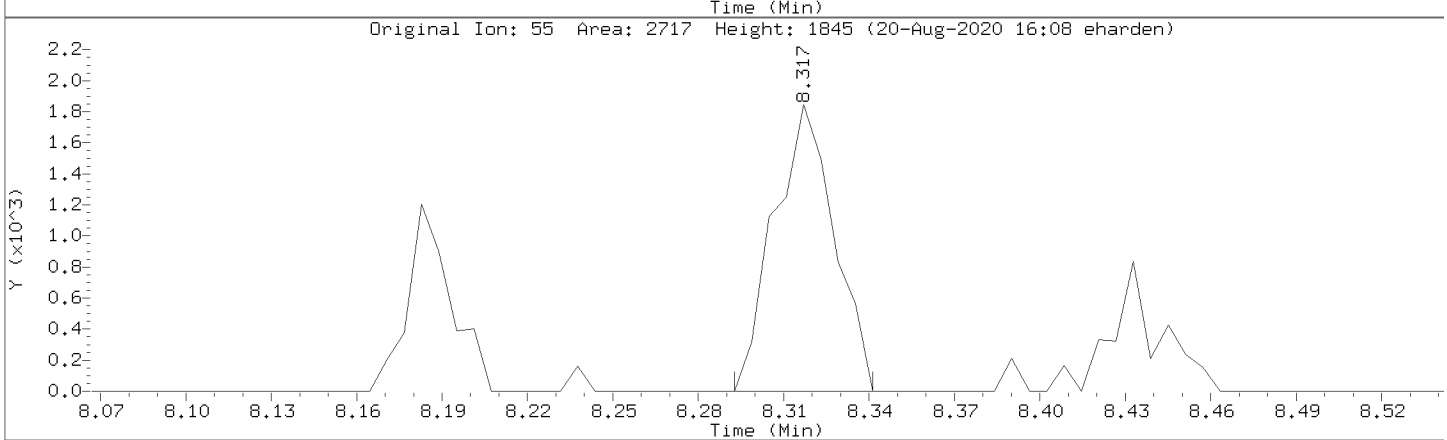


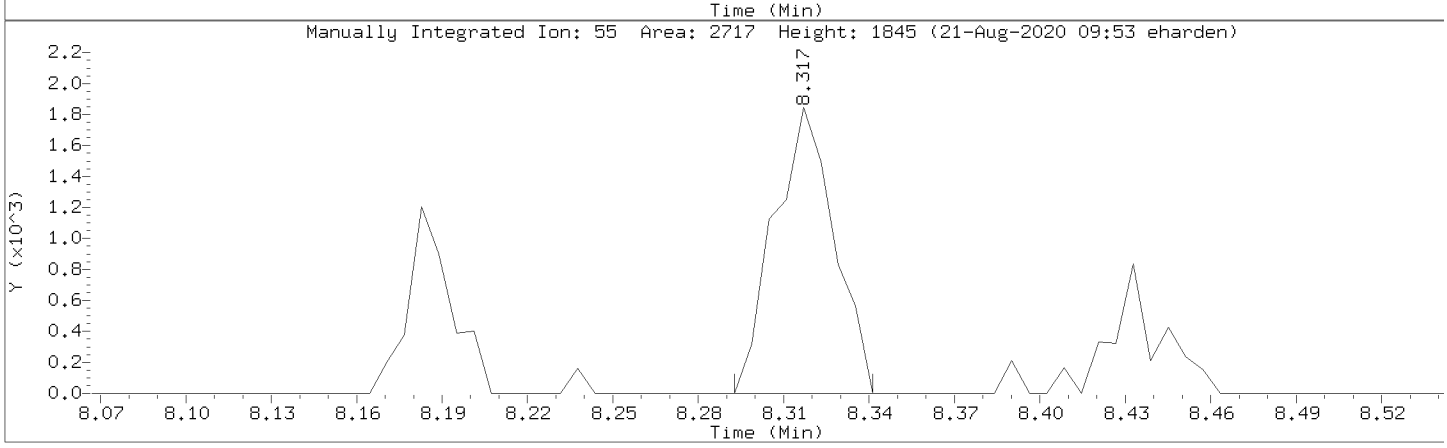
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Methylcyclohexane Review Code: LT
CAS Number: 108-87-2

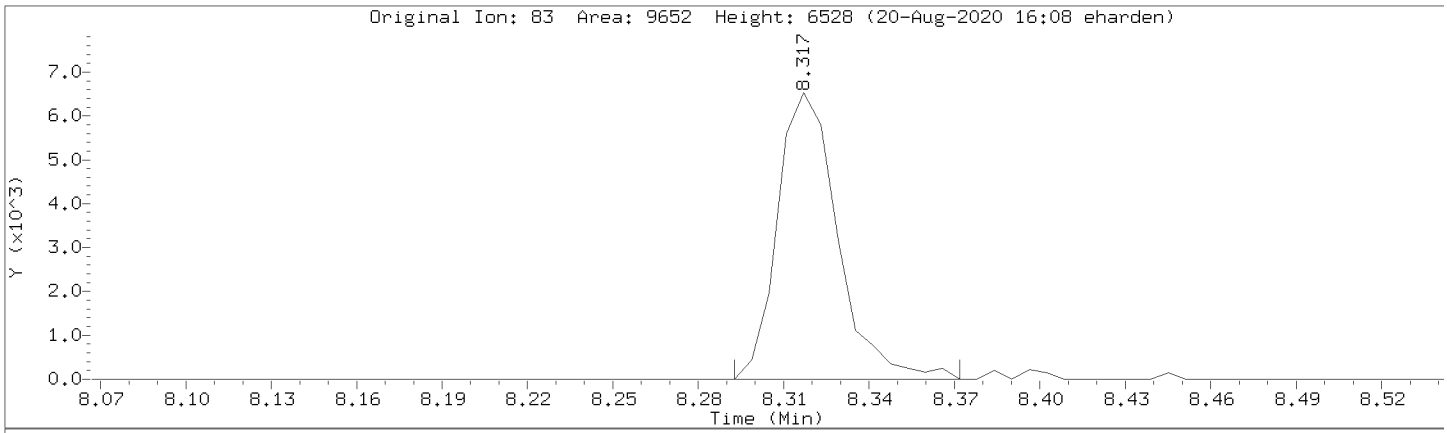


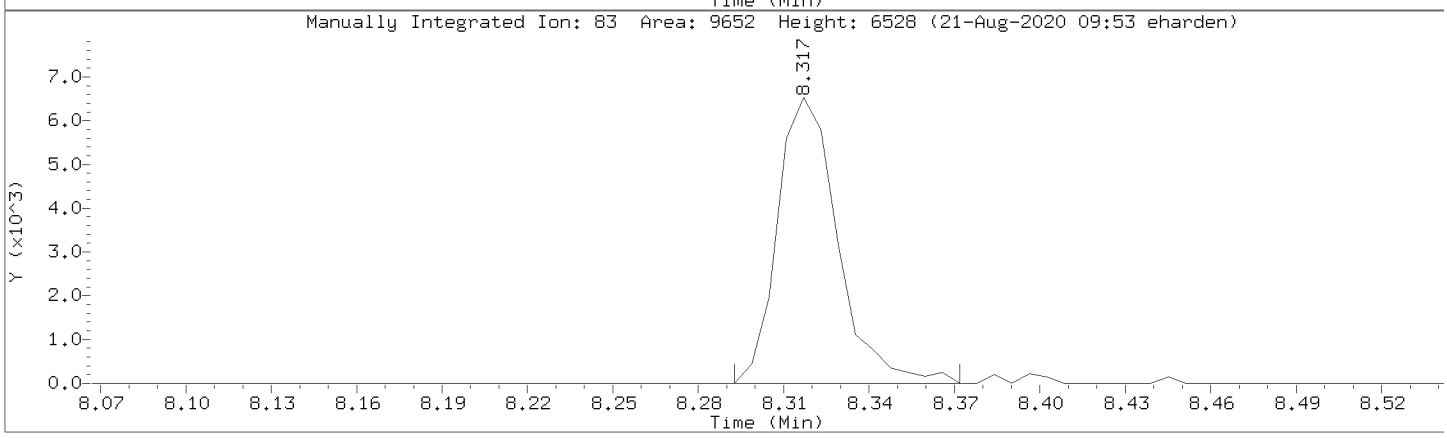






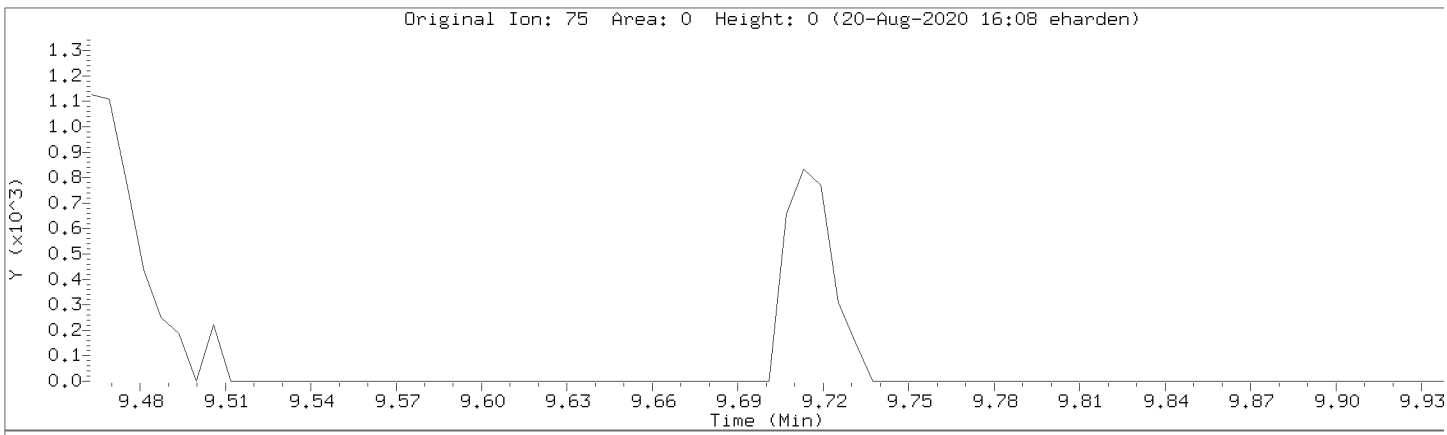
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

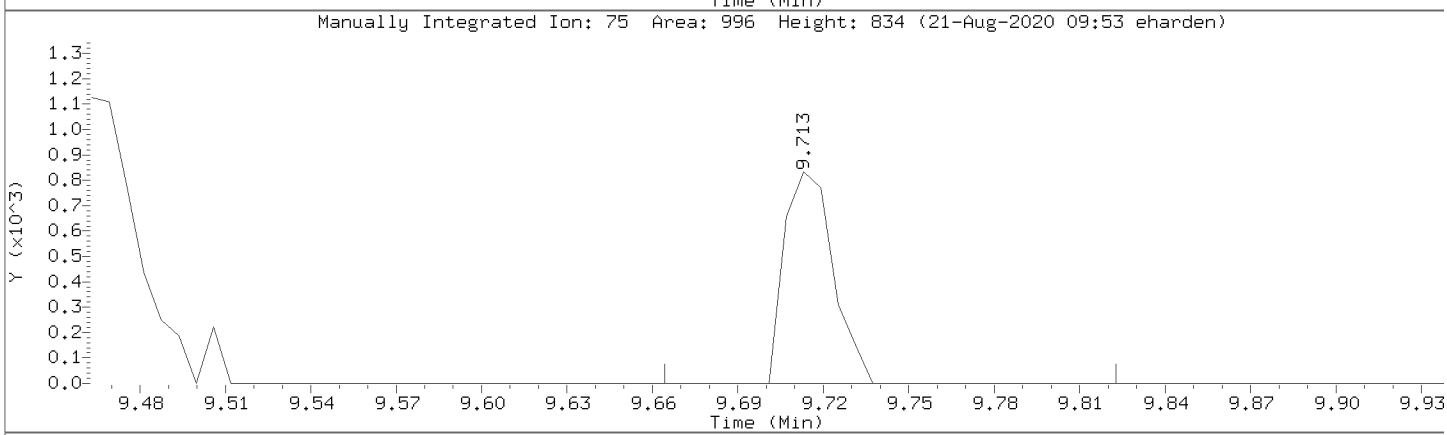


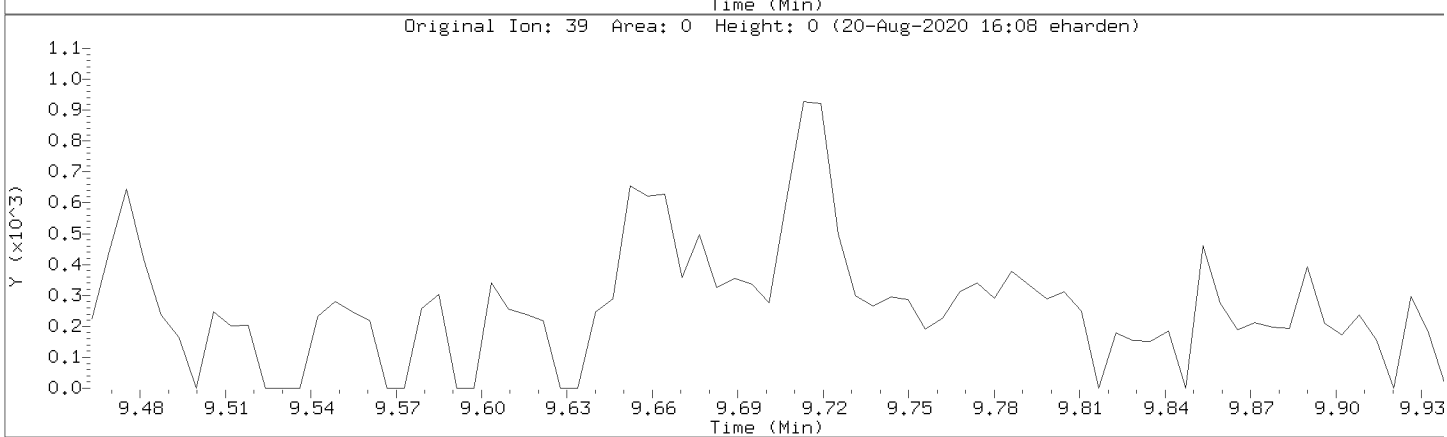


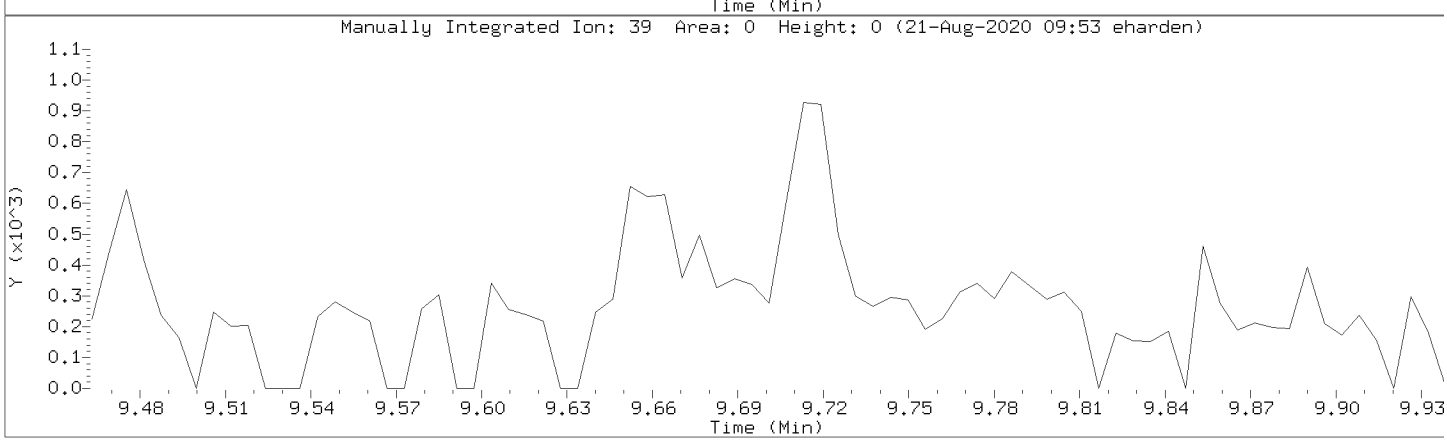
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: trans-1,3-Dichloropropene Review Code: NI
CAS Number: 10061-02-6

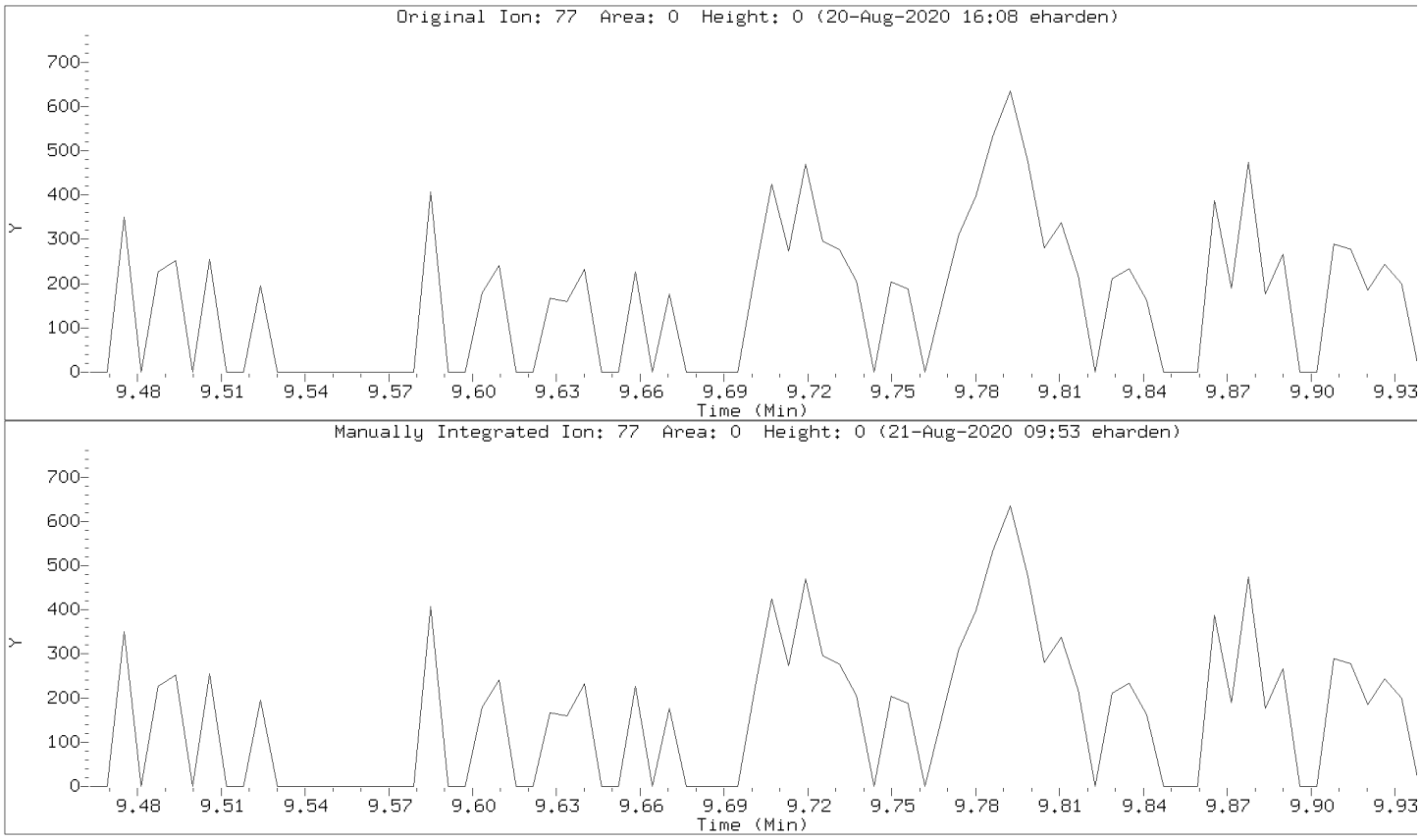






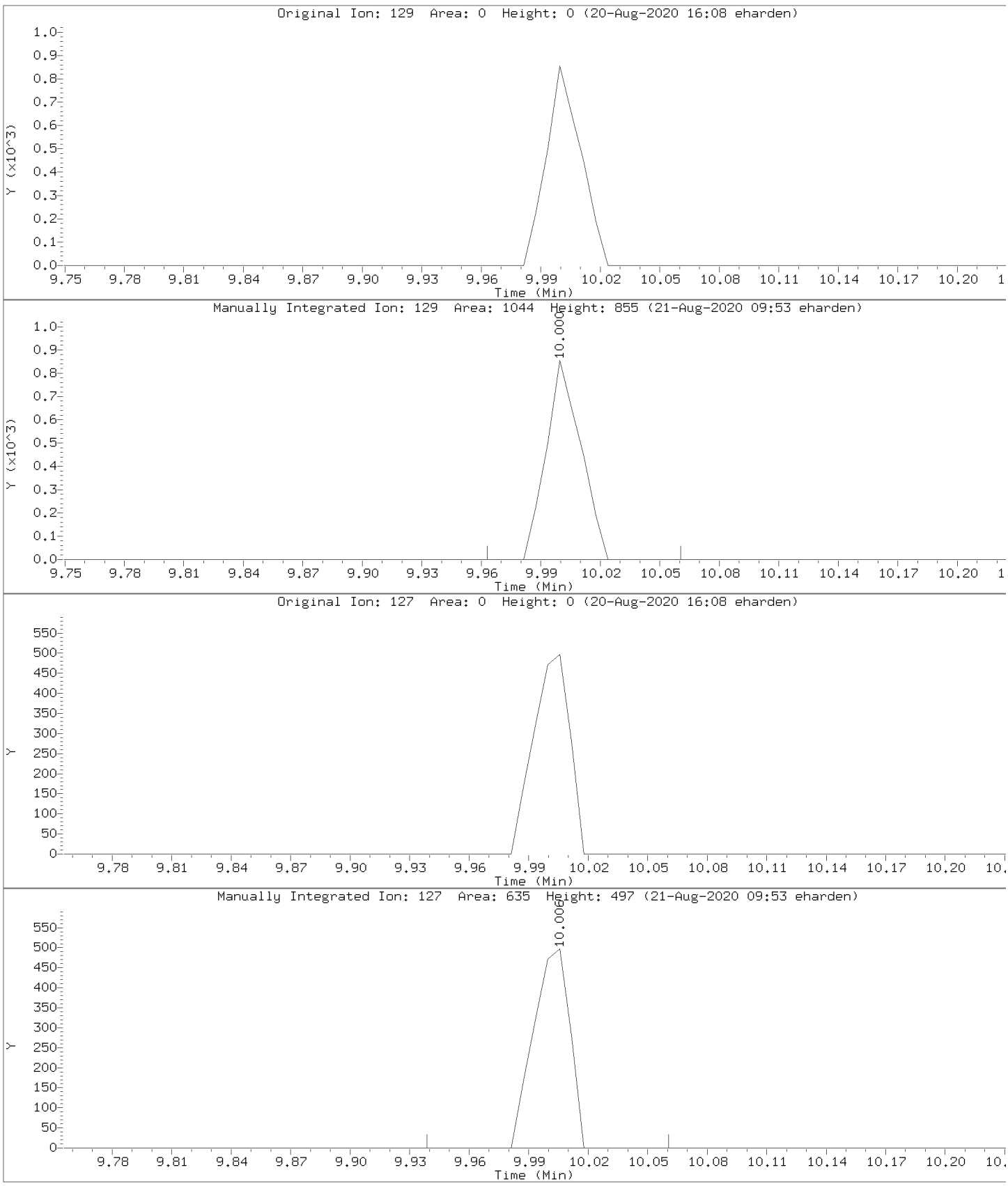


Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2



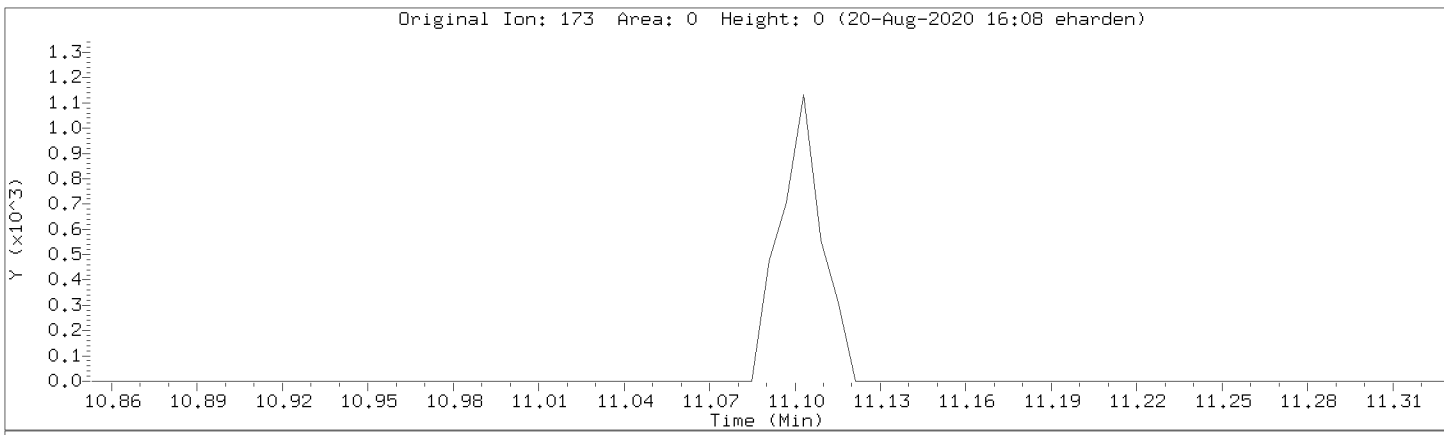
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

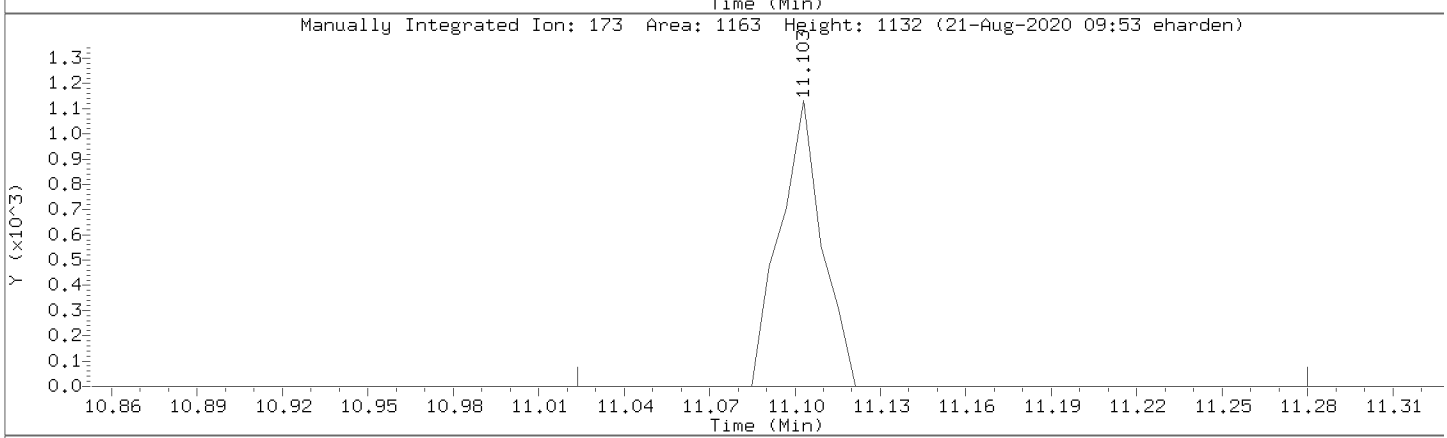
Compound: Dibromochloromethane Review Code: NI
CAS Number: 124-48-1

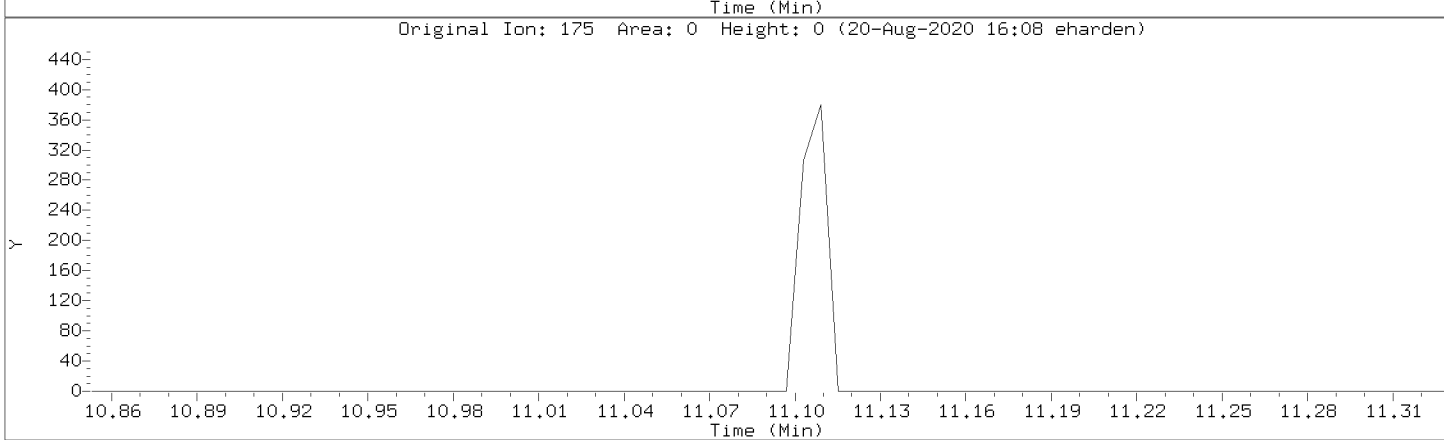


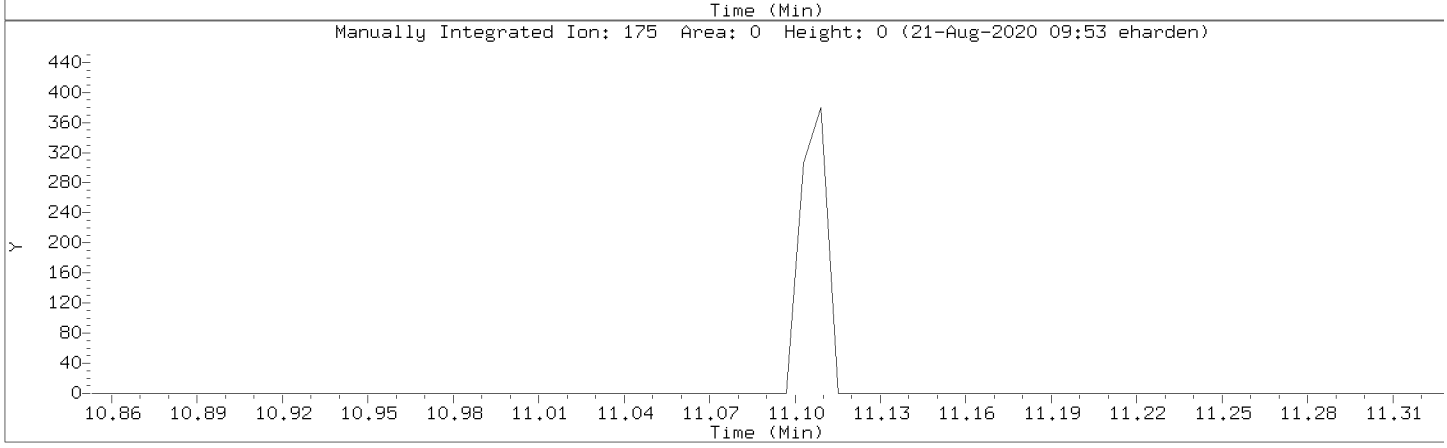
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2

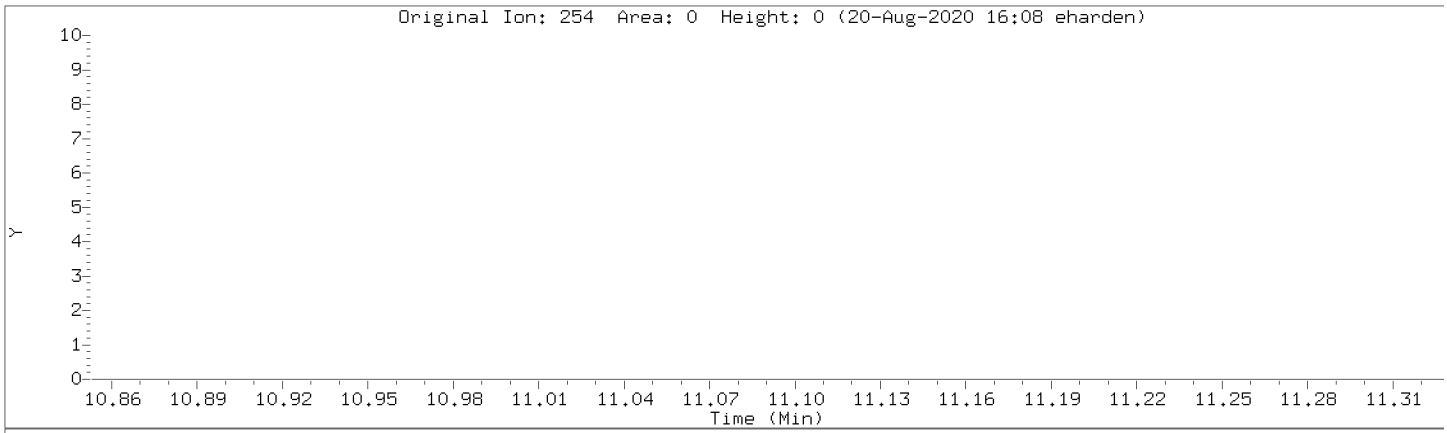


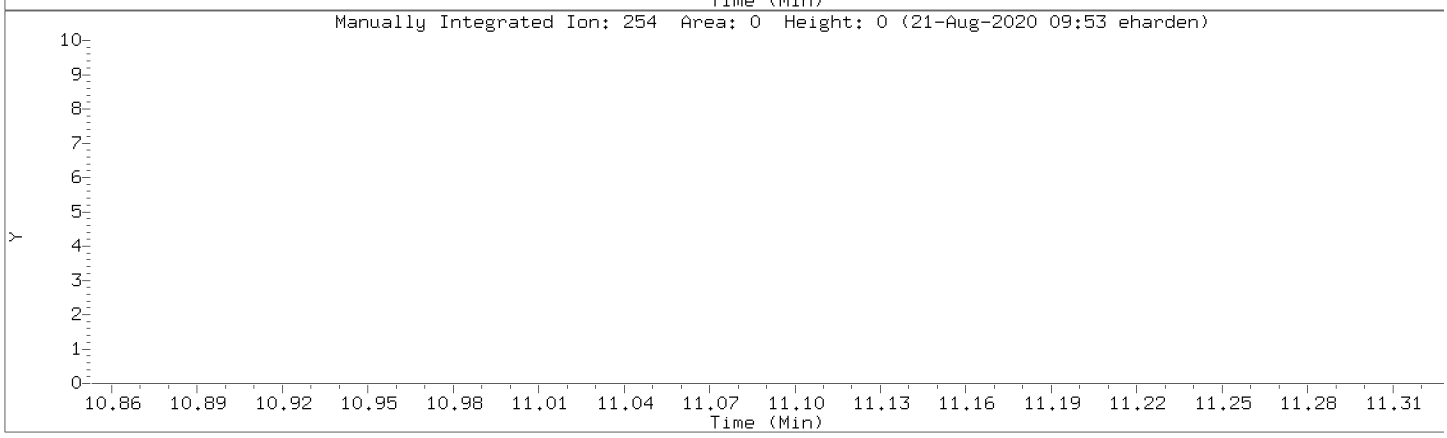






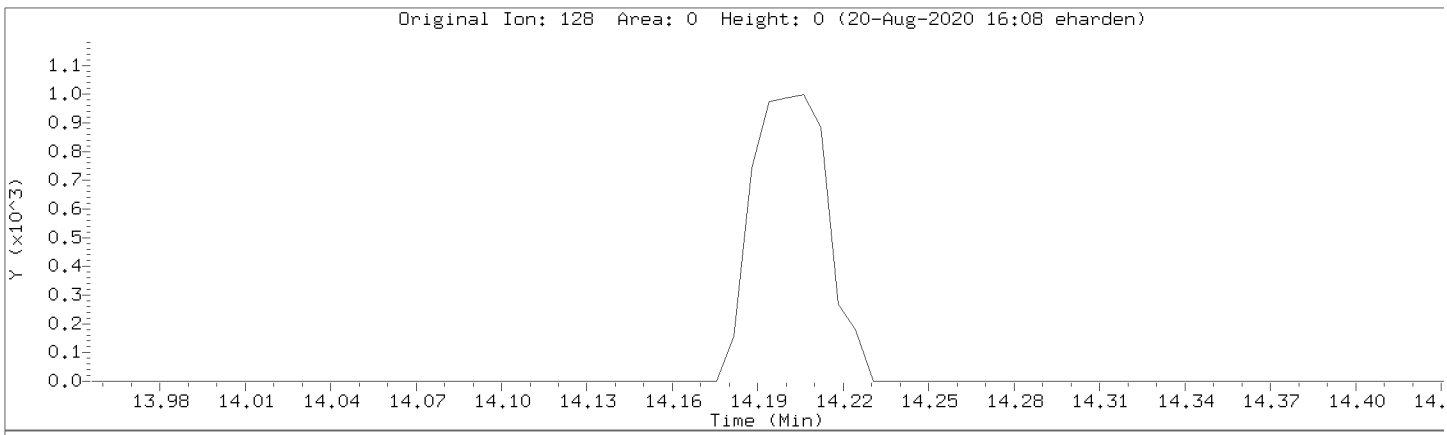
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

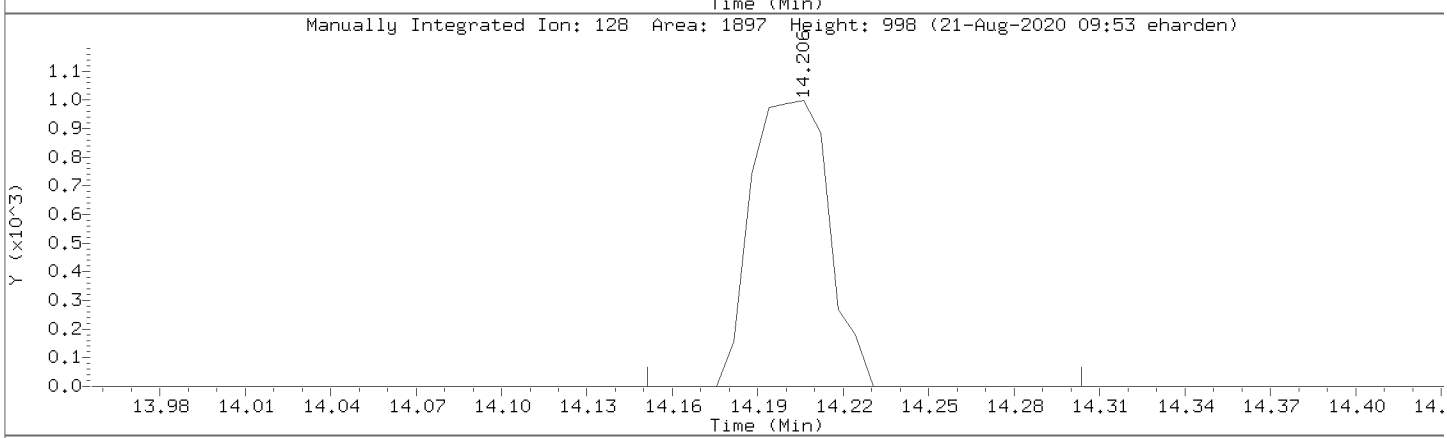


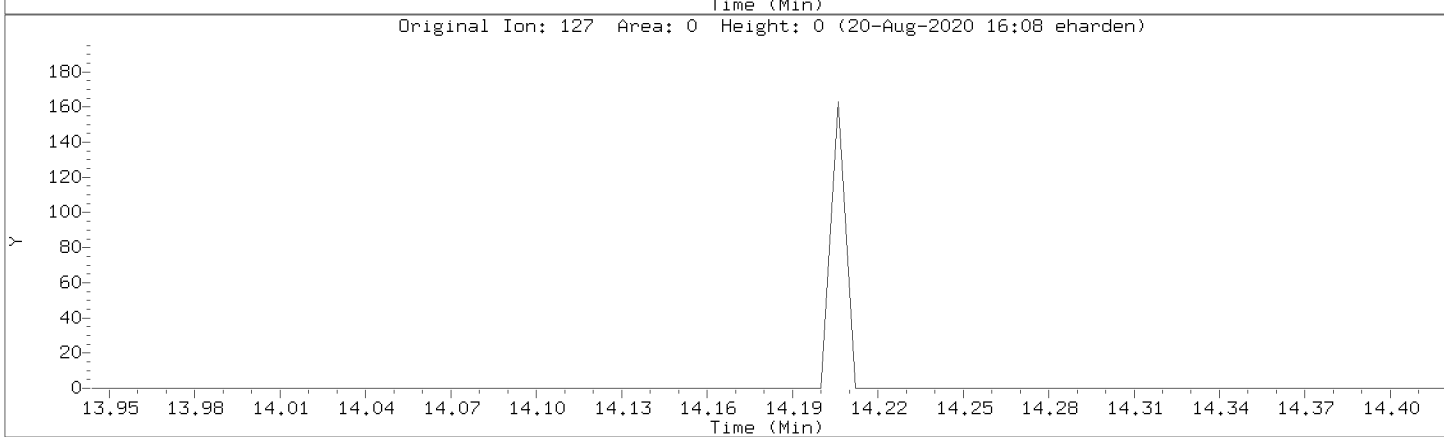


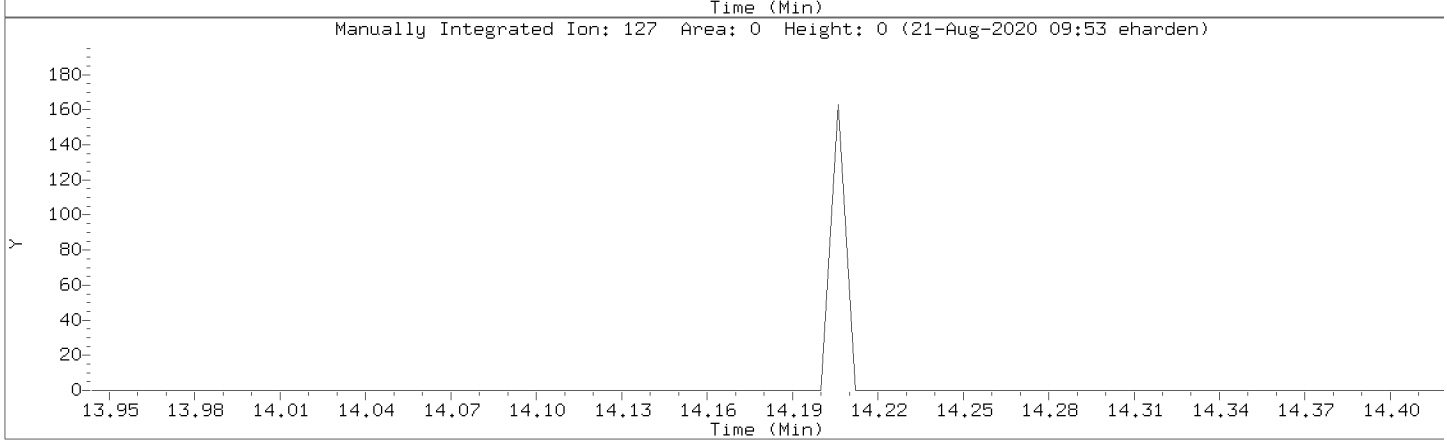
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Naphthalene Review Code: NI
CAS Number: 91-20-3









Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_05.D
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 20-AUG-2020 11:40
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal3,27239:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 11:40 Cal File: 082020_05.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.226	(0.409)	2789	1.00000	1.10(M)	LT
2 Chloromethane	50	3.537	3.543	(0.450)	5128	1.00000	0.923	
3 Vinyl chloride	62	3.696	3.702	(0.470)	2738	1.00000	1.09	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	2410	1.00000	1.08	
5 Bromomethane	94	4.195	4.195	(0.534)	6425	1.00000	0.381	
6 Chloroethane	64	4.360	4.360	(0.555)	891	1.00000	0.409(H)	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	2057	1.00000	1.29	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	810	1.00000	0.924	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	2503	1.00000	0.884	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	1938	1.00000	1.04	
11 Carbon disulfide	76	5.293	5.293	(0.673)	6625	1.00000	1.06	
12 Iodomethane	142	5.433	5.439	(0.691)	1071	1.00000	5.29(M)	NI
13 Acrolein	56	5.671	5.659	(0.722)	662	2.00000	2.27	
14 Allyl chloride	76	5.780	5.787	(0.736)	1021	1.00000	1.17	
15 Methylene Chloride	49	5.908	5.902	(0.752)	4045	1.00000	1.20(M)	NI
16 Acetone	43	5.982	5.976	(0.761)	5308	2.00000	1.50	
17 Methyl acetate	43	6.073	6.067	(0.773)	4622	2.00000	1.59	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	1993	1.00000	1.04	
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	6.158	6.165	(0.784)	4160	1.00000	0.933(T)	
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	6.640	6.640	(0.845)	2223	1.00000	0.834	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	3668	1.00000	0.987	
	24 Acrylonitrile	53	6.744	6.738	(0.858)	1850	2.00000	2.29	
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	2850	1.00000	1.04	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	3397	1.00000	1.18	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	1299	1.00000	1.08	
	29 Cyclohexane	56	7.335	7.335	(0.882)	1942	1.00000	0.757	
	30 Chloroform	83	7.378	7.372	(0.939)	4835	1.00000	1.15(M)	NI
	31 Ethyl acetate	43	7.439	7.433	(0.946)	4793	2.00000	2.02	
	32 Carbon tetrachloride	117	7.506	7.512	(0.902)	2447	1.00000	0.806	
	33 Tetrahydrofuran	42	7.536	7.536	(0.959)	2431	2.00000	1.81	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	134298	50.0000	55.3	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	3365	1.00000	0.978	
	36 2-Butanone (MEK)	43	7.634	7.628	(0.971)	4274	2.00000	2.36	
	37 1,1-Dichloropropene	75	7.664	7.658	(0.922)	2129	1.00000	0.891(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	210970	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	6671	1.00000	0.865	
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	3260	2.00000	1.78	
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25649	50.0000	58.7	
	44 1,2-Dichloroethane	62	8.042	8.036	(1.023)	3985	1.00000	1.21	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	3749	1.00000	0.954	
	46 Trichloroethene	130	8.317	8.317	(1.000)	2071	1.00000	0.982	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	301510	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	802	1.00000	0.802	
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.670	8.670	(1.043)	1683	1.00000	0.937	
	51 1,2-Dichloropropane	63	8.743	8.737	(1.051)	2197	1.00000	0.998	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	2455	1.00000	0.776	
	53 Methyl methacrylate	69	8.829	8.823	(1.062)	871	1.00000	1.43(TH)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	1689	2.00000	3.22	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	2472	1.00000	0.804	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	322180	50.0000	49.6	
	58 Toluene	91	9.414	9.414	(1.132)	7222	1.00000	0.960	
	59 2-Nitropropane	43	9.609	9.603	(1.155)	1386	1.00000	1.35(MH)	LT
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	2471	1.00000	0.805(M)	NI
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	1805	1.00000	0.983	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	1570	1.00000	0.810(M)	WP
	64 1,1,2-Trichloroethane	83	9.841	9.847	(1.183)	1831	1.00000	0.961	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	2212	1.00000	0.869	
	66 1,3-Dichloropropane	76	10.066	10.060	(1.210)	2595	1.00000	0.893	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	2135	1.00000	0.978	
	68 2-Hexanone	43	10.280	10.280	(1.236)	3979	2.00000	1.56	
	69 Ethylbenzene	91	10.560	10.554	(1.000)	5759	1.00000	0.823	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	267604	50.0000		
	71 Chlorobenzene	112	10.572	10.578	(1.001)	4923	1.00000	0.954	
	72 1,1,1,2-Tetrachloroethane	131	10.603	10.609	(1.004)	2420	1.00000	1.11	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	7396	2.00000	1.41	
	74 o-Xylene	106	10.987	10.993	(1.040)	1785	1.00000	0.729	
	75 Styrene	104	11.036	11.029	(1.045)	2626	1.00000	0.641	
	76 Bromoform	173	11.103	11.103	(1.051)	2312	1.00000	0.956(M)	NI

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.231	11.225	(1.063)	2647	1.00000	0.712	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	104502	50.0000	47.6	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	1137	1.00000	1.29	
80 n-Propylbenzene	91	11.529	11.523	(1.092)	6737	1.00000	0.785	
81 Bromobenzene	156	11.584	11.578	(1.097)	2261	1.00000	0.825	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	2955	1.00000	1.03(H)	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	3733	1.00000	0.775	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	1264	1.00000	0.680	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	1146	1.00000	0.628	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	3865	1.00000	0.624	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	2680	1.00000	0.912	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	456	1.00000	0.662(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	3605	1.00000	0.760	
91 1,2,4-Trimethylbenzene	105	11.974	11.968	(0.970)	3078	1.00000	0.634	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	3627	1.00000	0.628	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	3605	1.00000	0.760	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	3270	1.00000	0.850	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	145817	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	4290	1.00000	1.00	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	4060	1.00000	0.799	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	4197	1.00000	1.00	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	659	1.00000	1.38	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	1405	1.00000	1.08	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	2610	1.00000	0.944	
102 Naphthalene	128	14.200	14.193	(1.151)	3463	1.00000	0.729	
103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	2401	1.00000	0.899	

QC Flag Legend

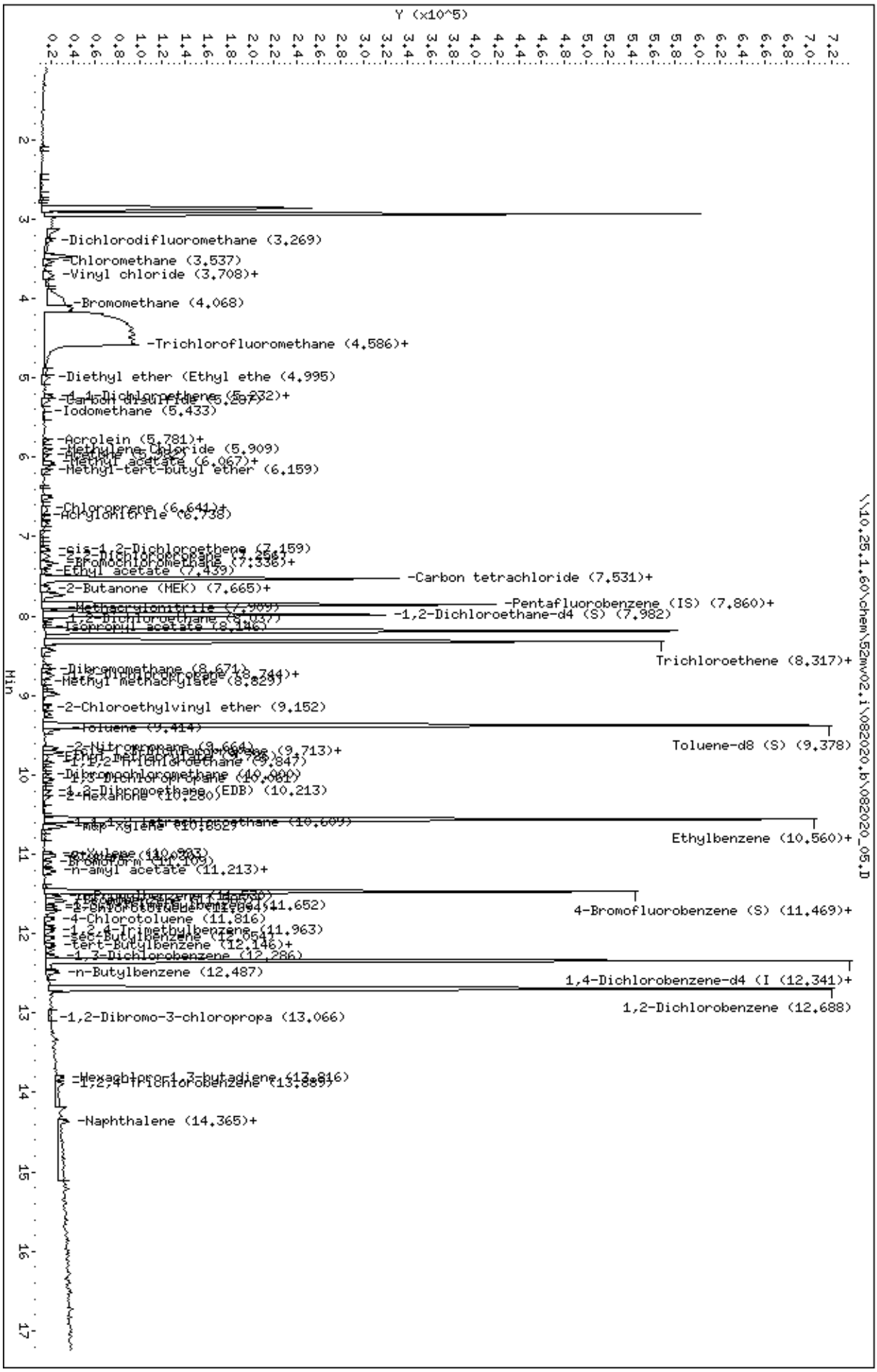
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_05.D
Date : 20-AUG-2020 11:40
Client ID: CAL3
Sample Info: CAL3,27239:1
Purge Volume: 5.0
Column phase: RTX-VMS

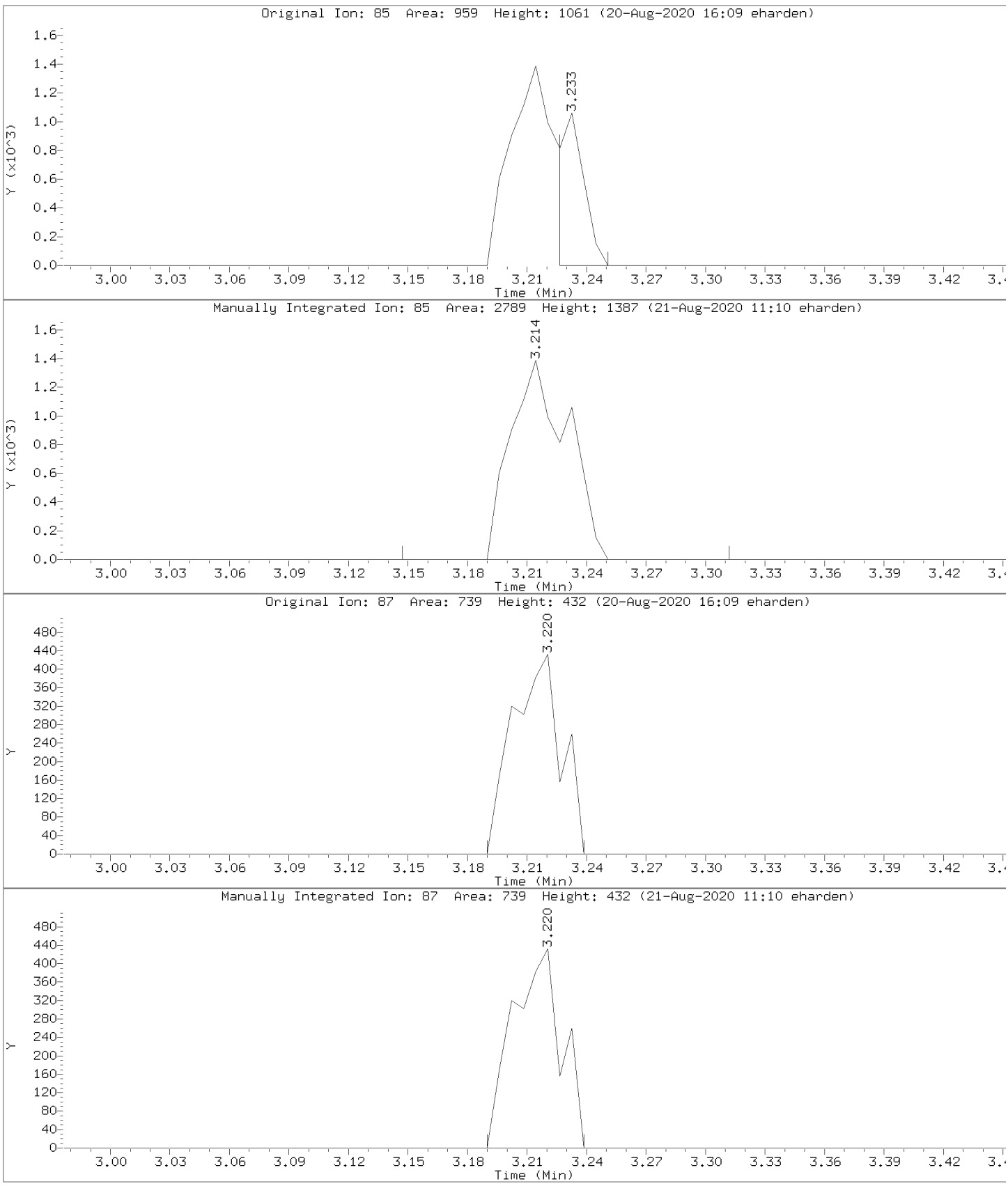
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Page 4

Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_05.D
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



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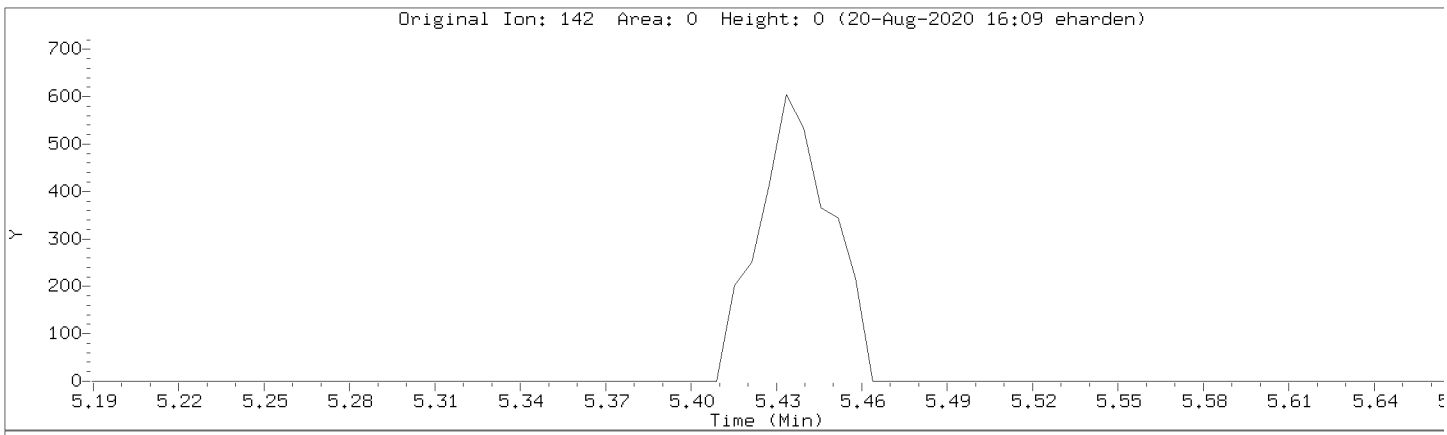
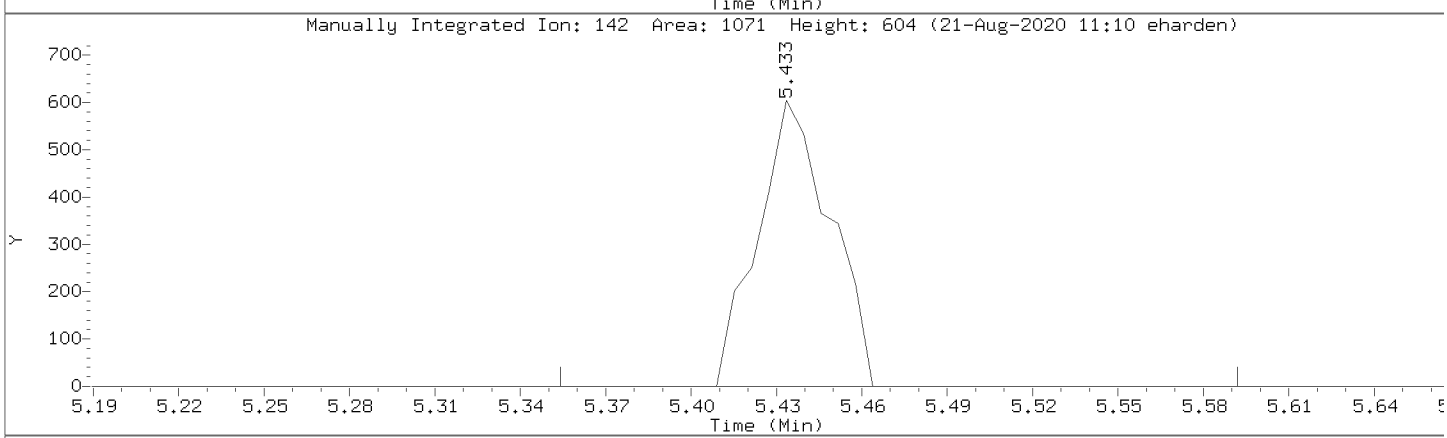
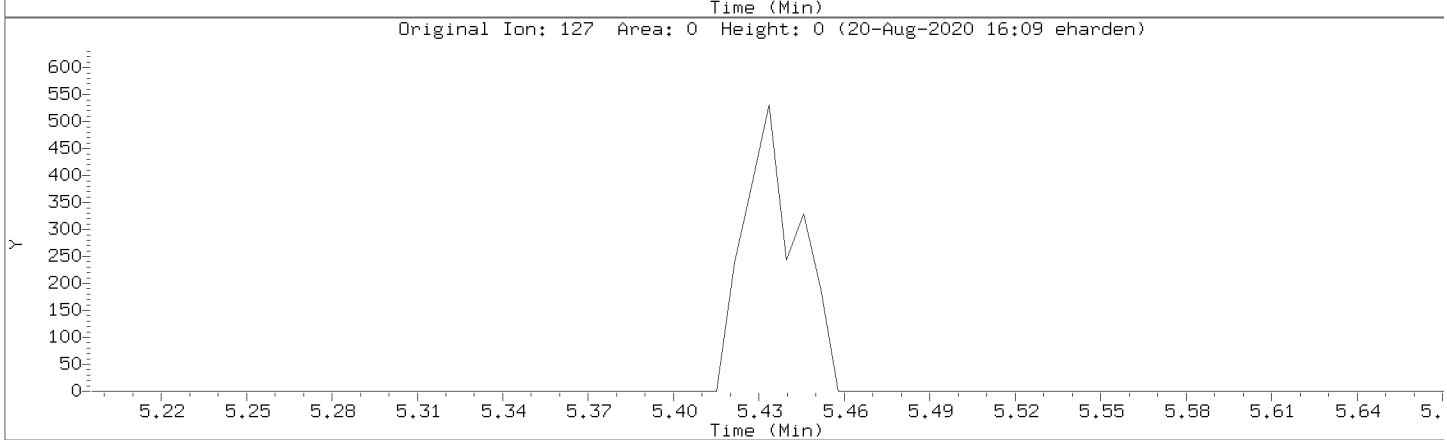
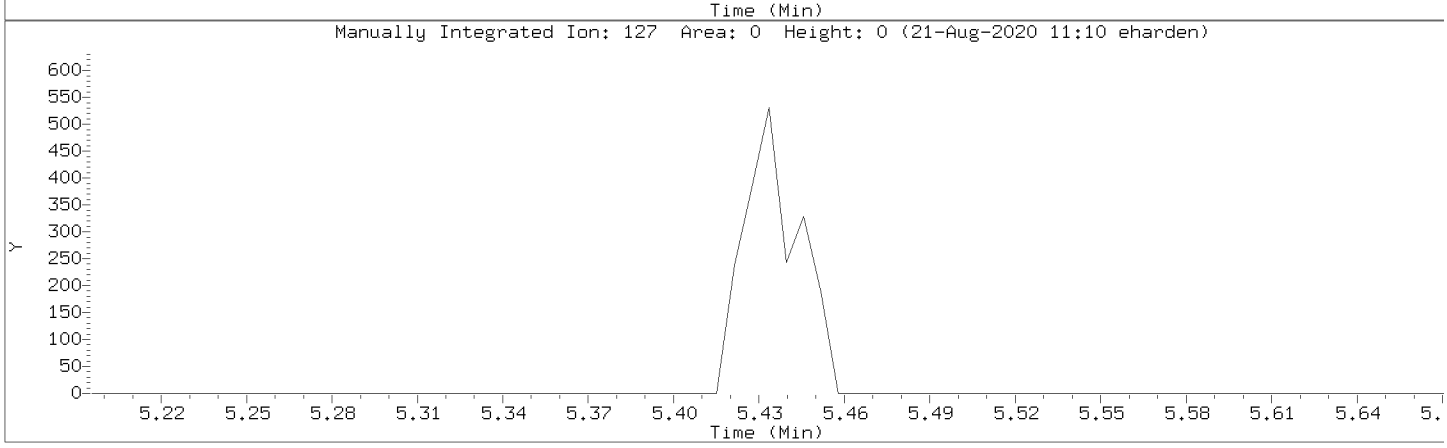
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4









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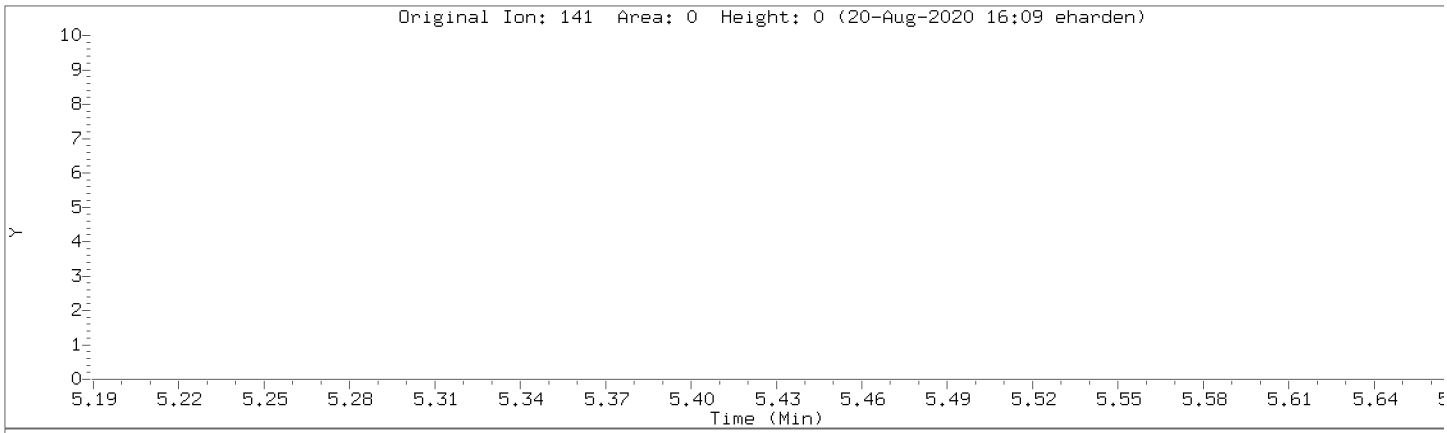
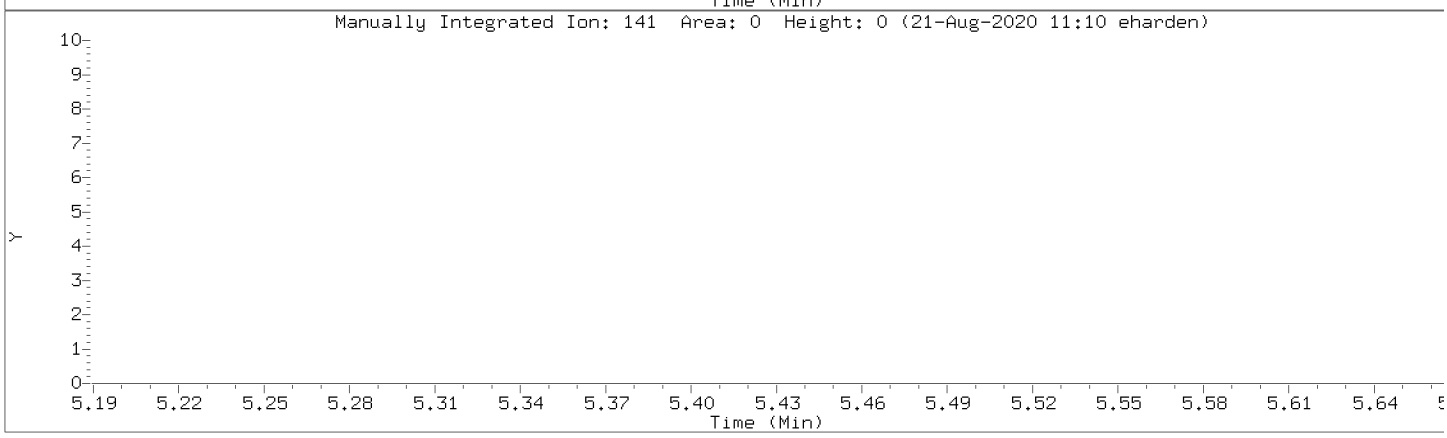
Instrument: 52mv02.i
Lab Sample ID: CAL3





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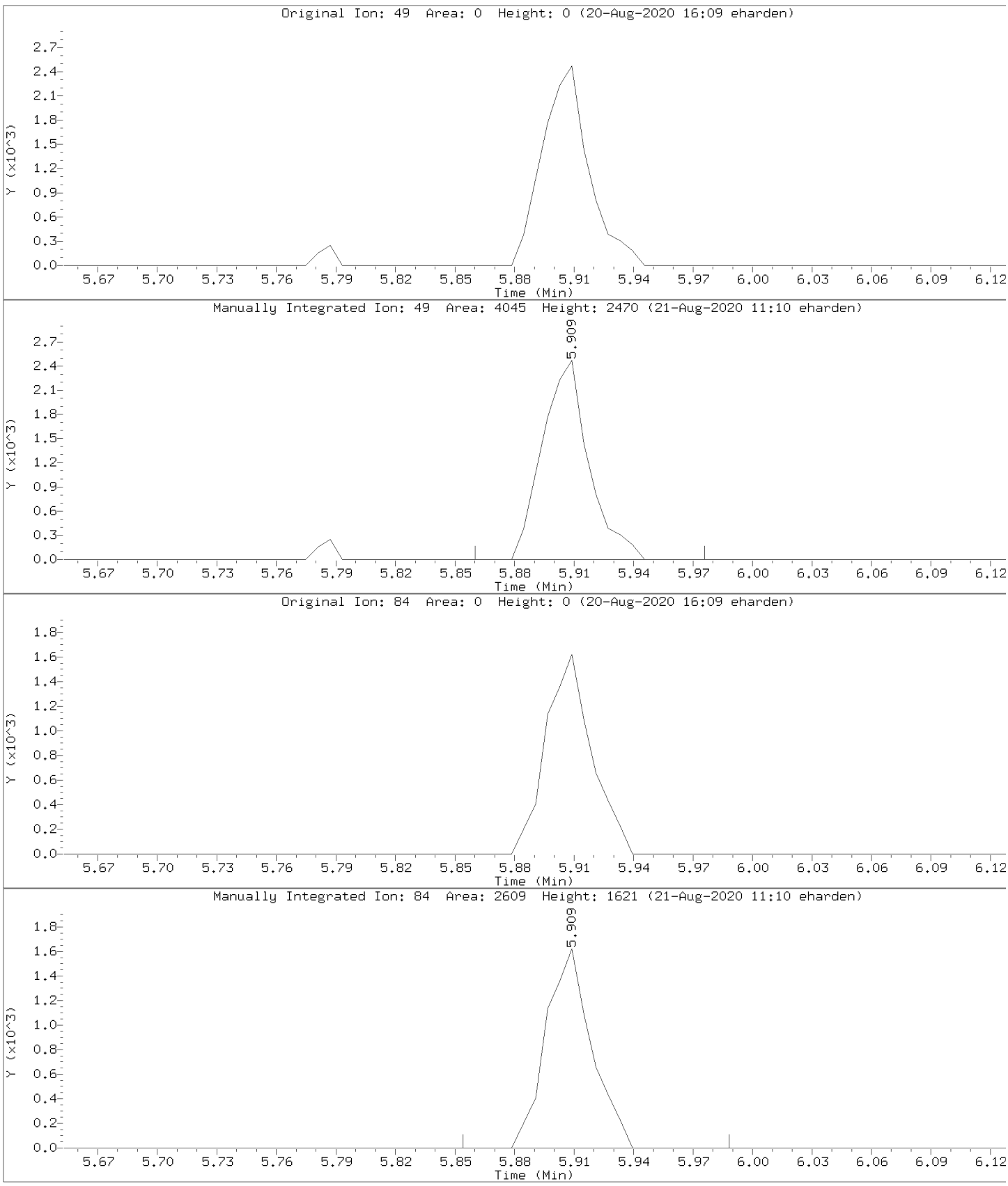
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2



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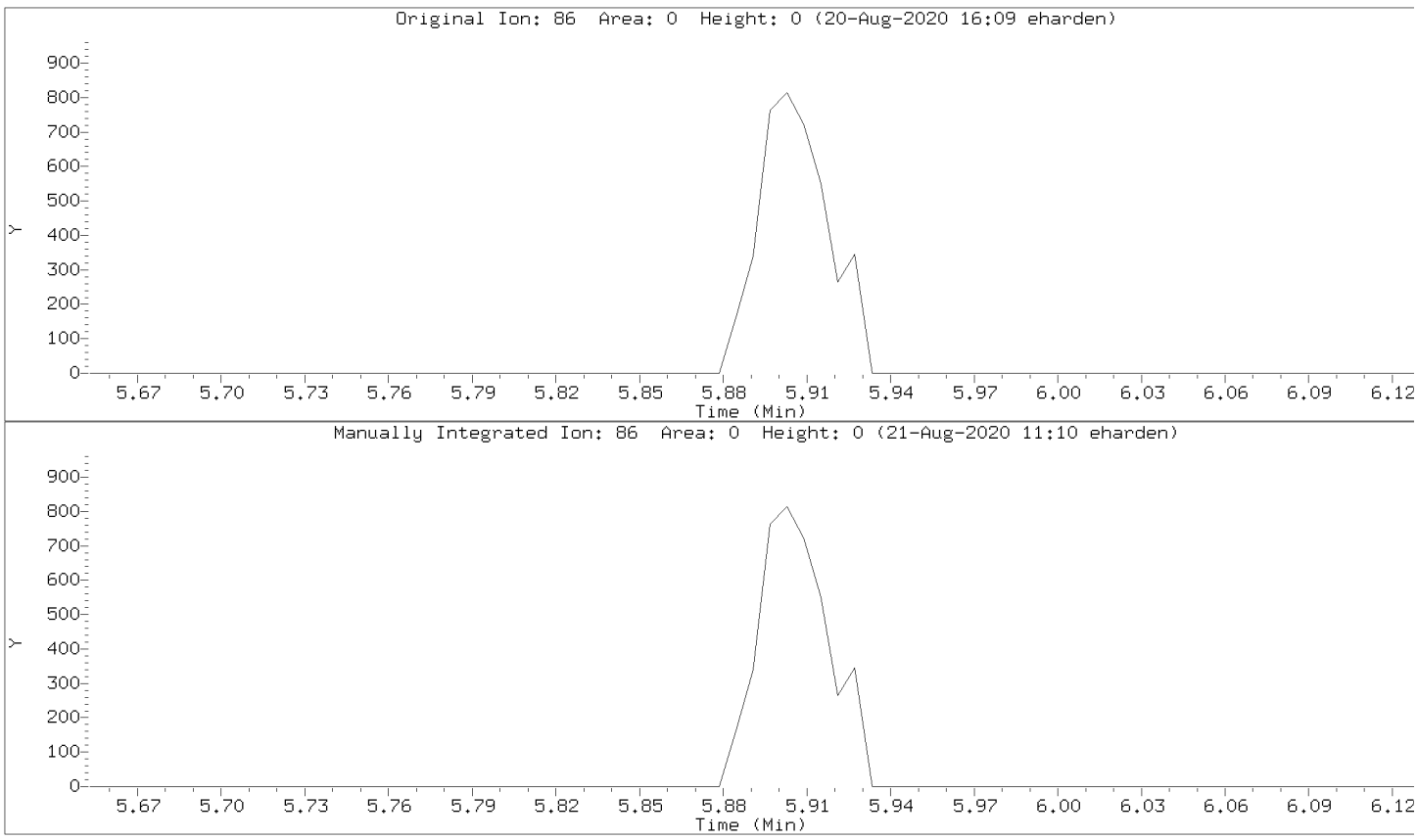
Instrument: 52mv02.i
Lab Sample ID: CAL3



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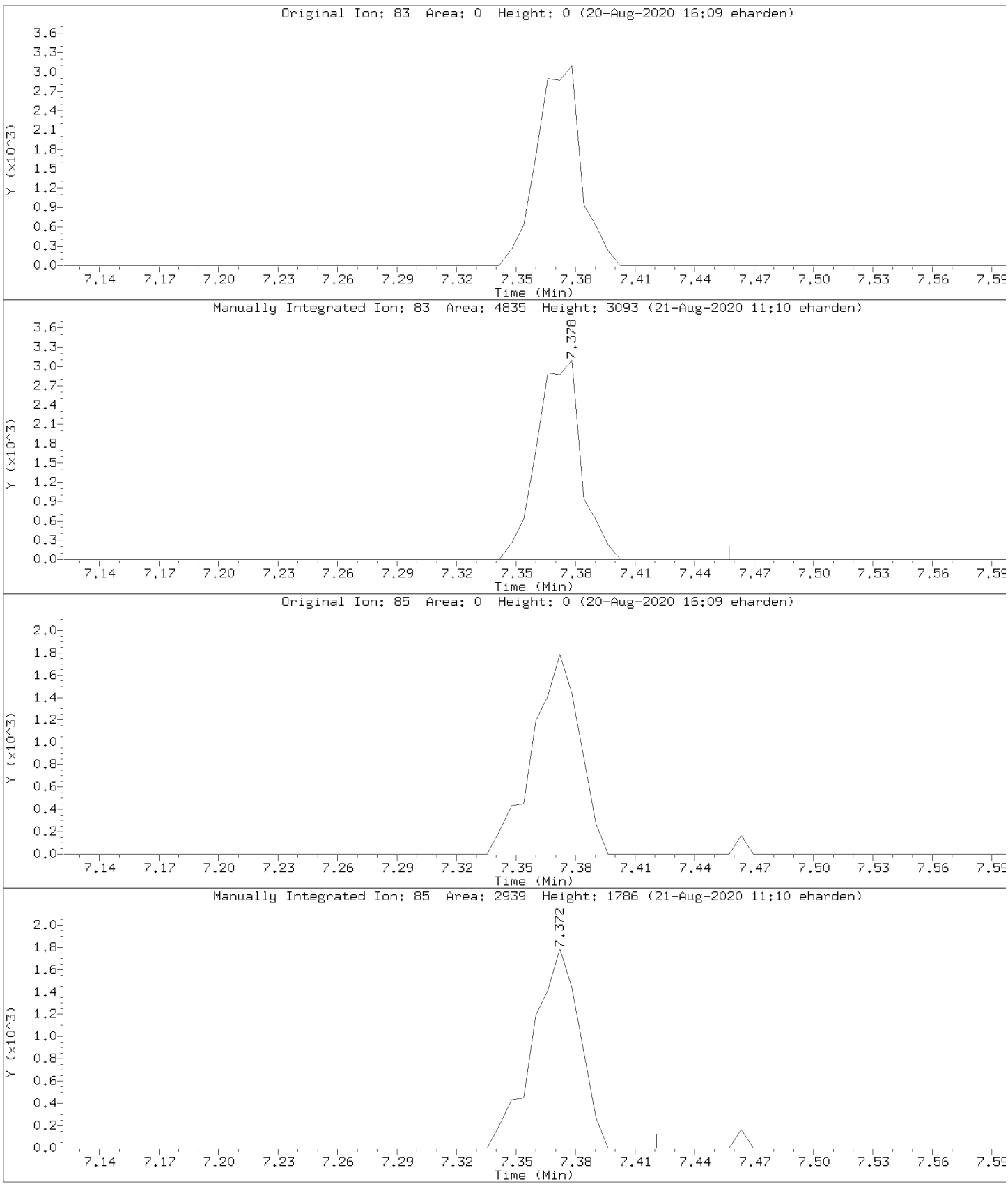
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3



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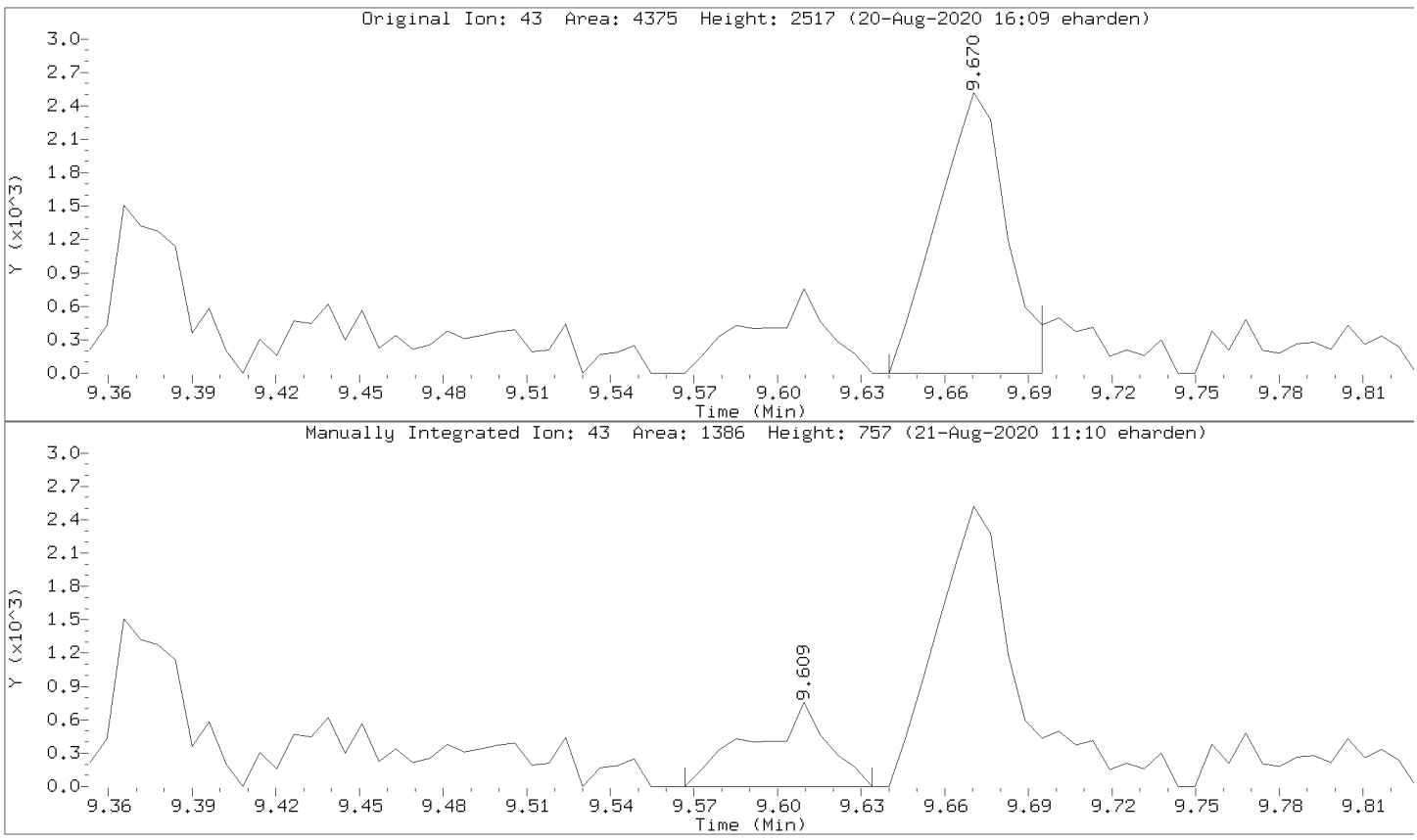
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: 2-Nitropropane Review Code: LT
CAS Number: 79-46-9



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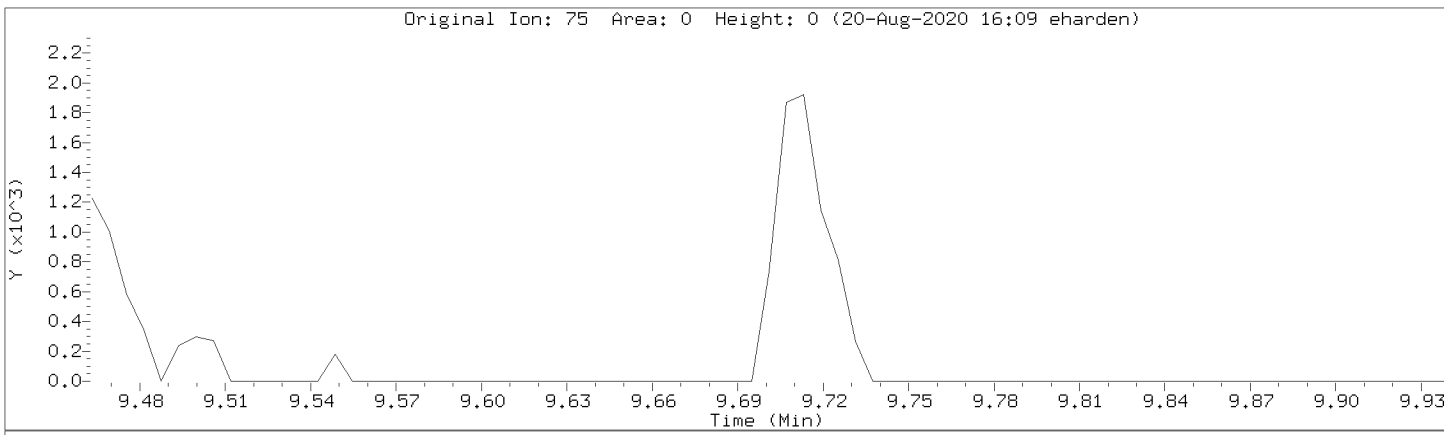
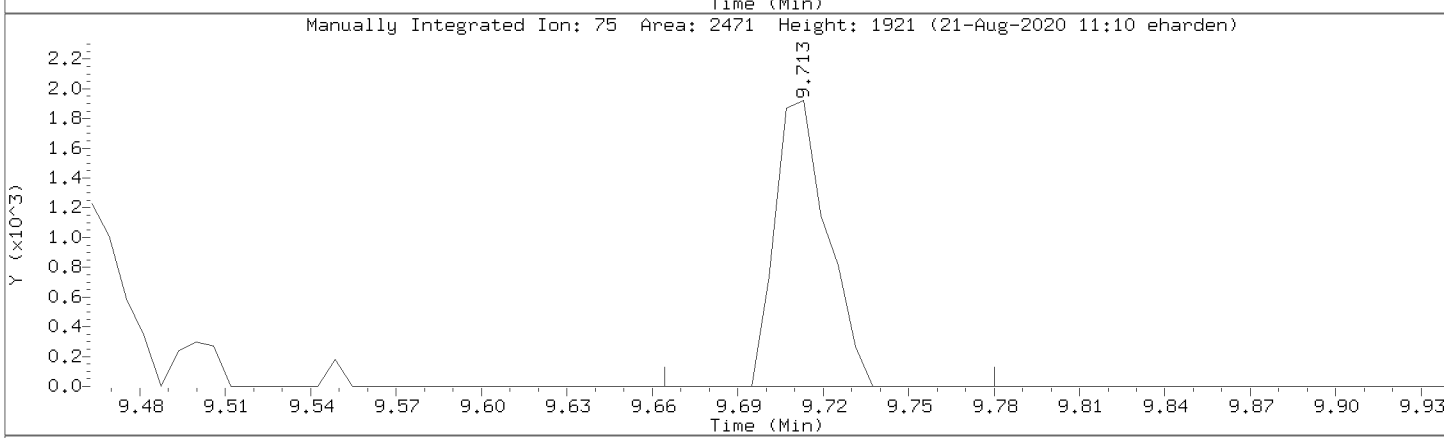
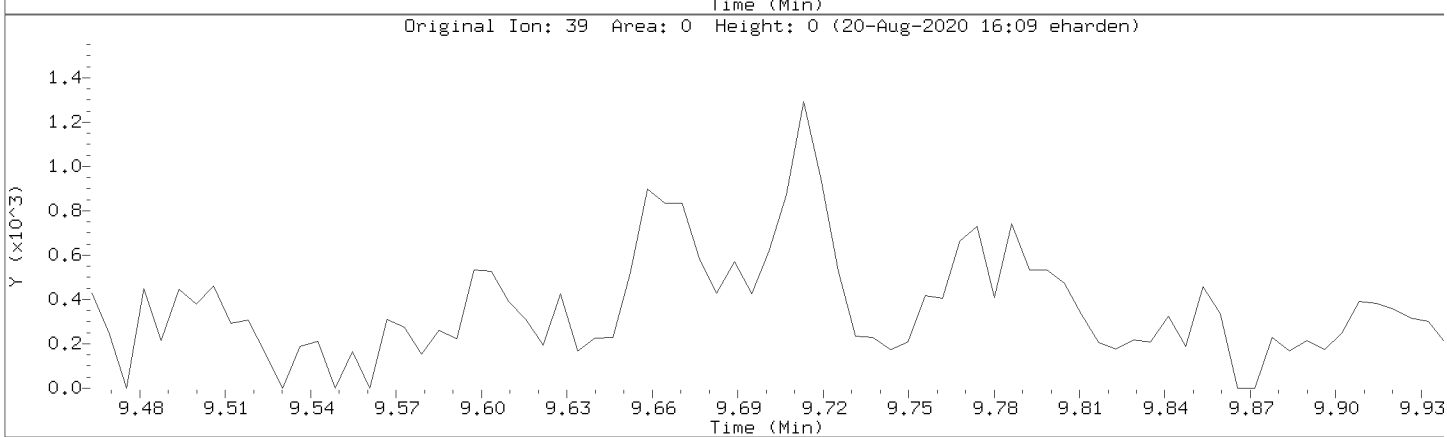
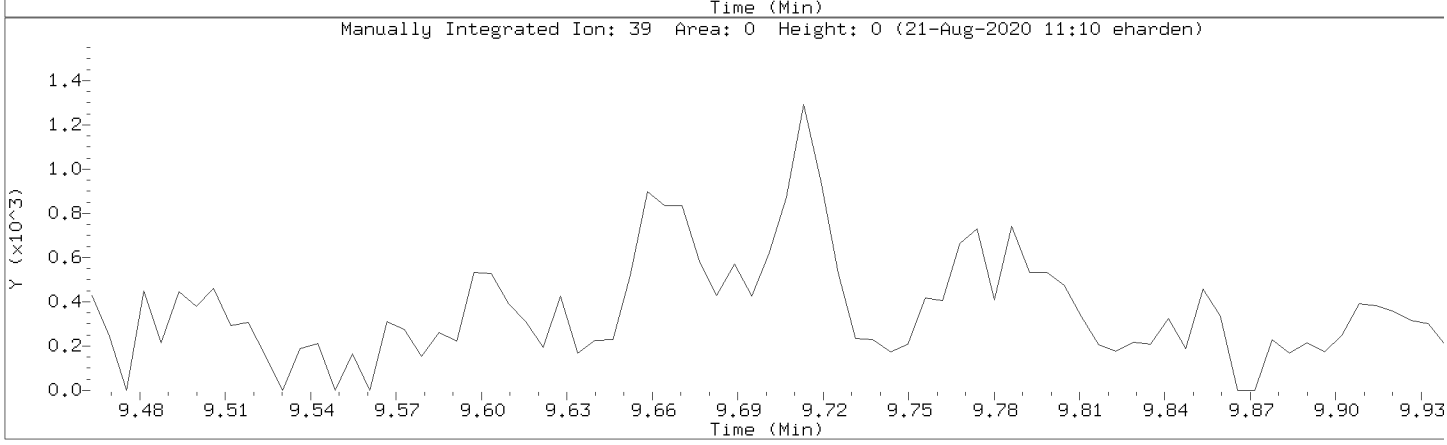
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: trans-1,3-Dichloropropene Review Code: NI
CAS Number: 10061-02-6









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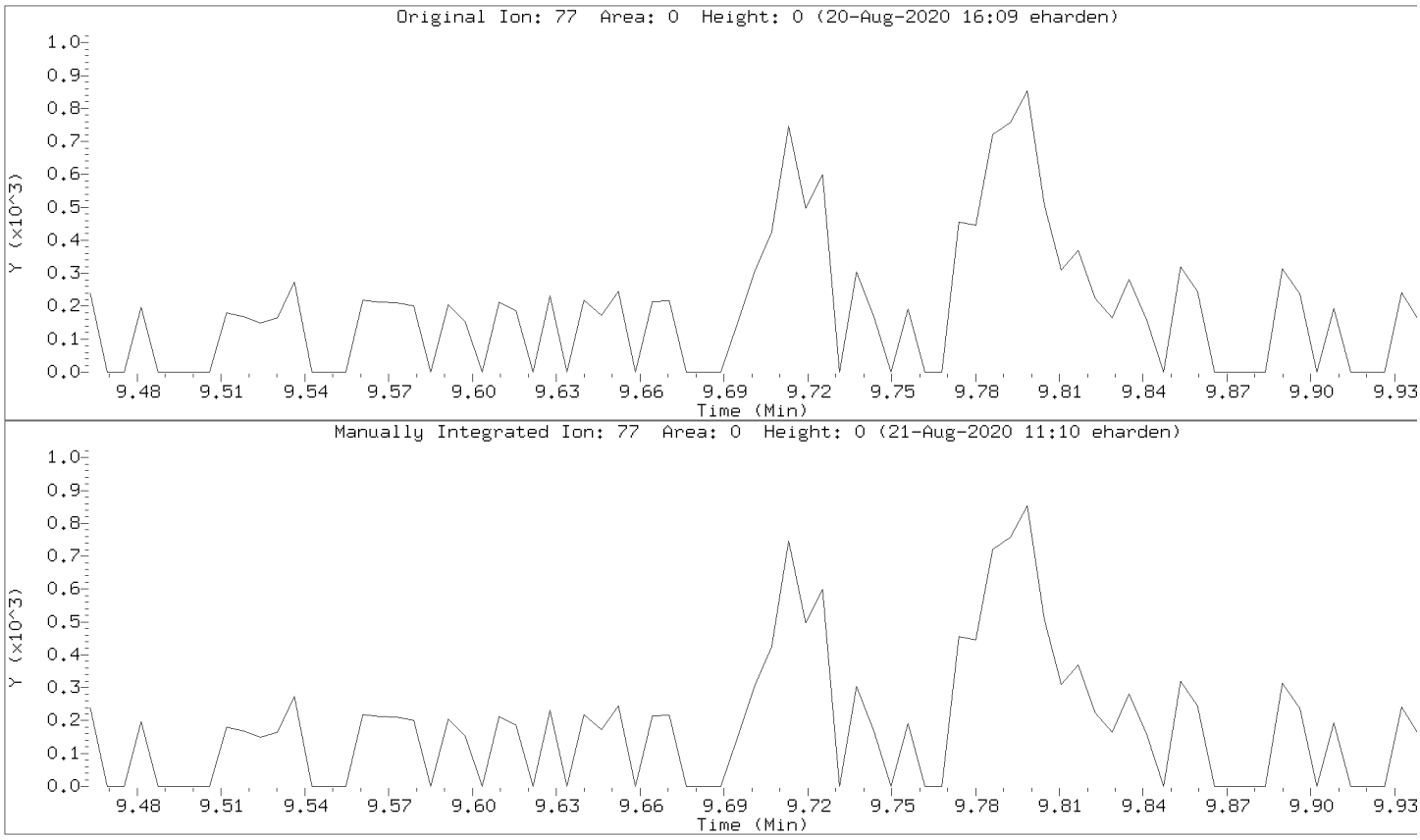
Instrument: 52mv02.i
Lab Sample ID: CAL3



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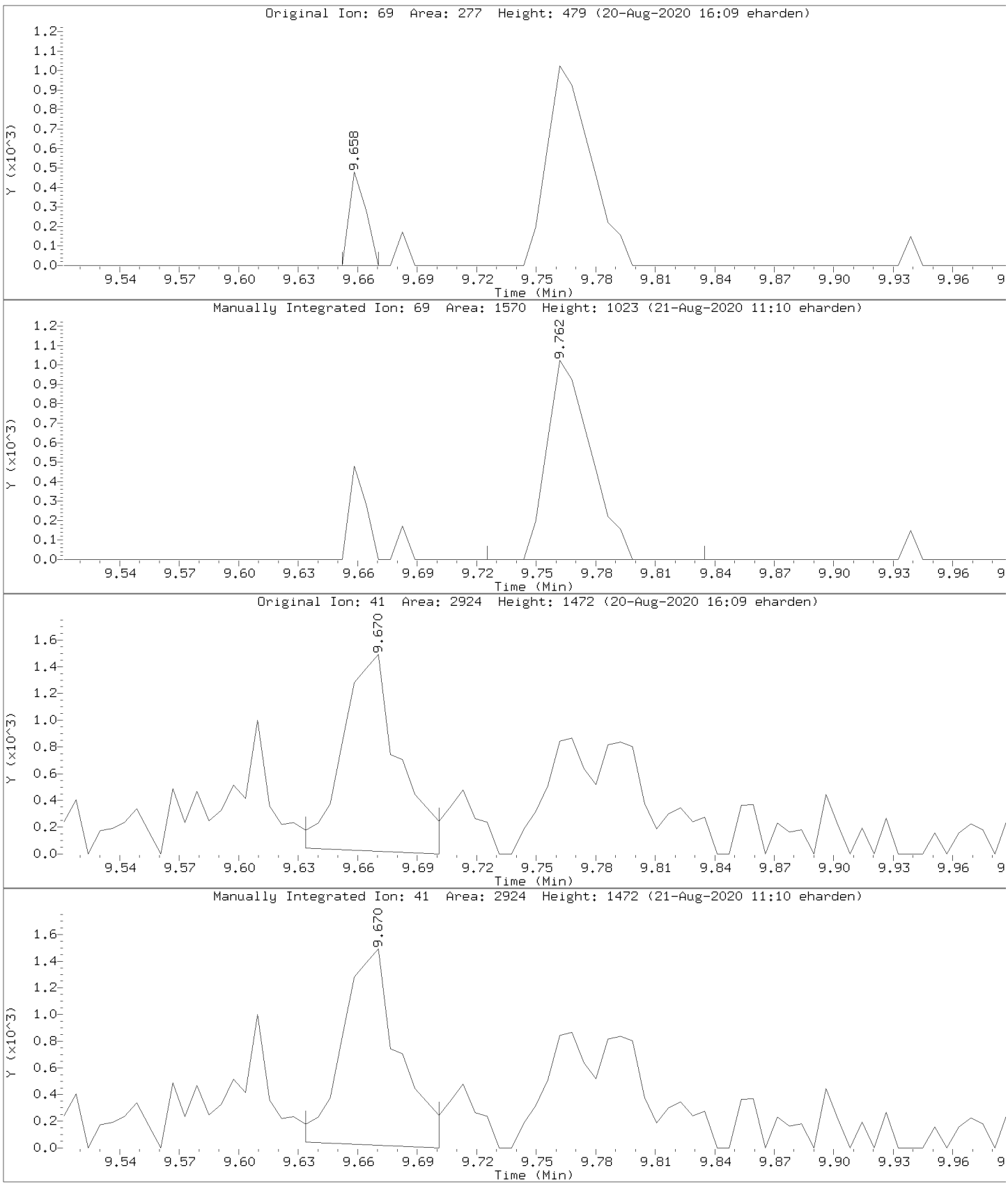
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Ethyl methacrylate Review Code: WP
CAS Number: 97-63-2



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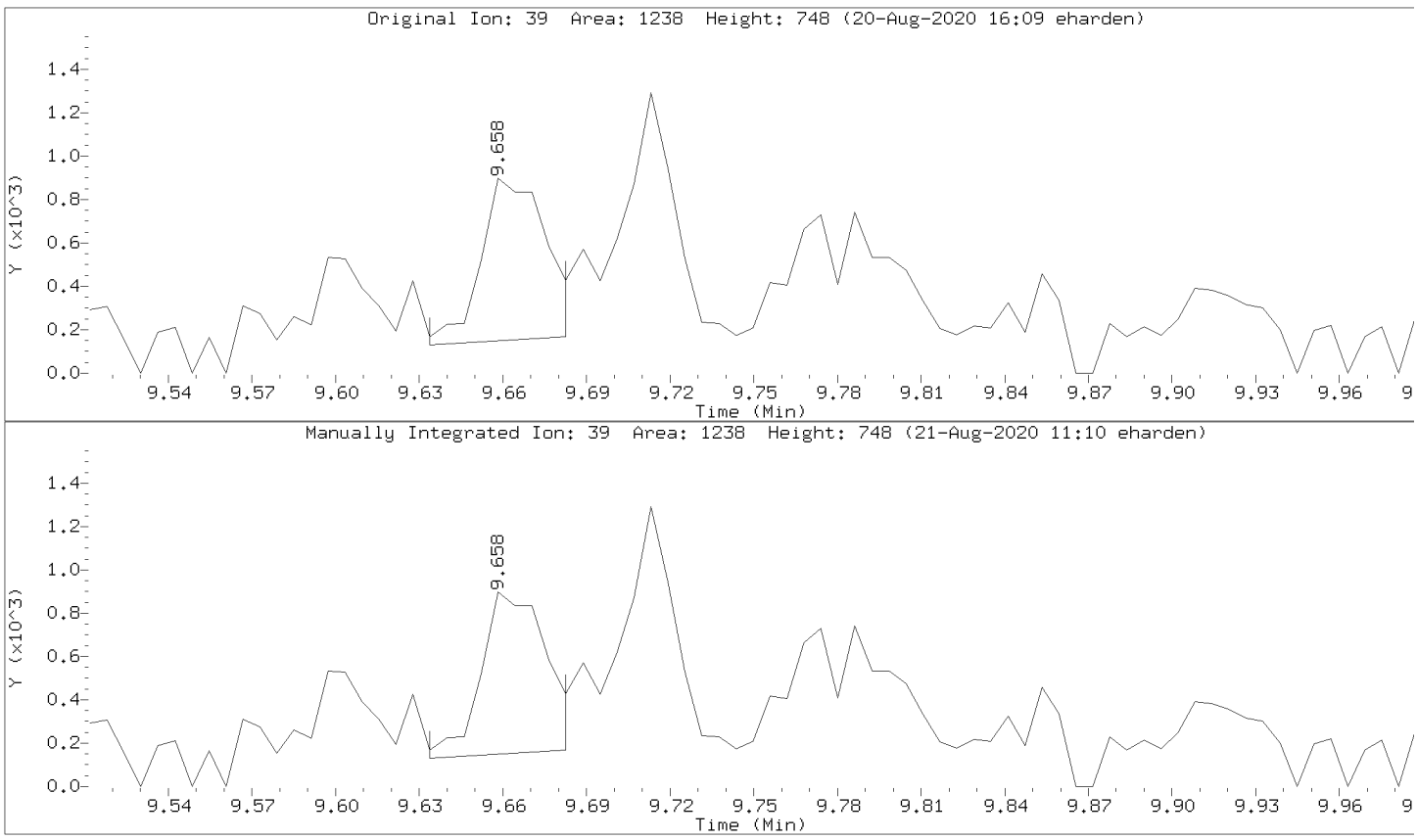
Instrument: 52mv02.i
Lab Sample ID: CAL3



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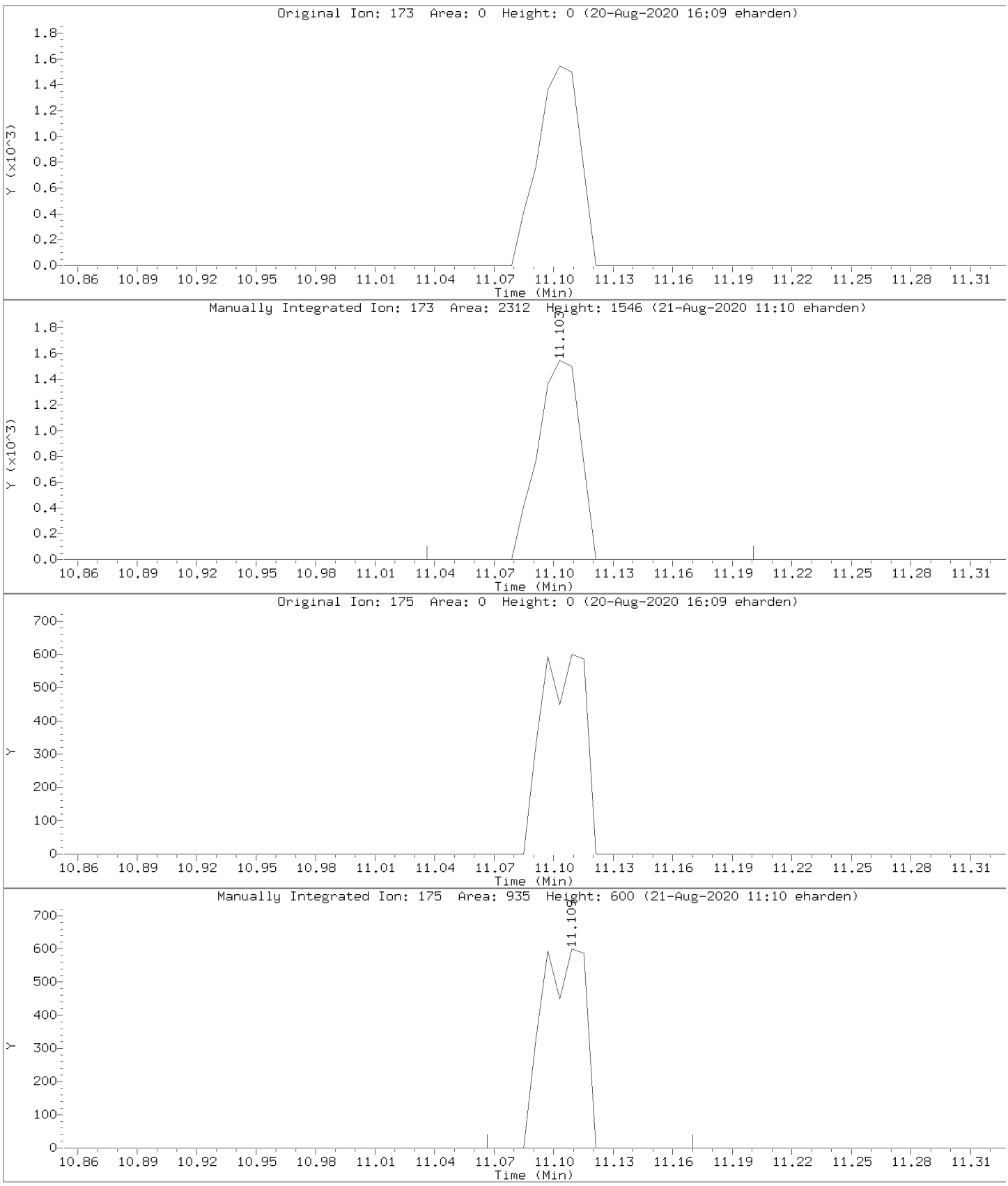
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2



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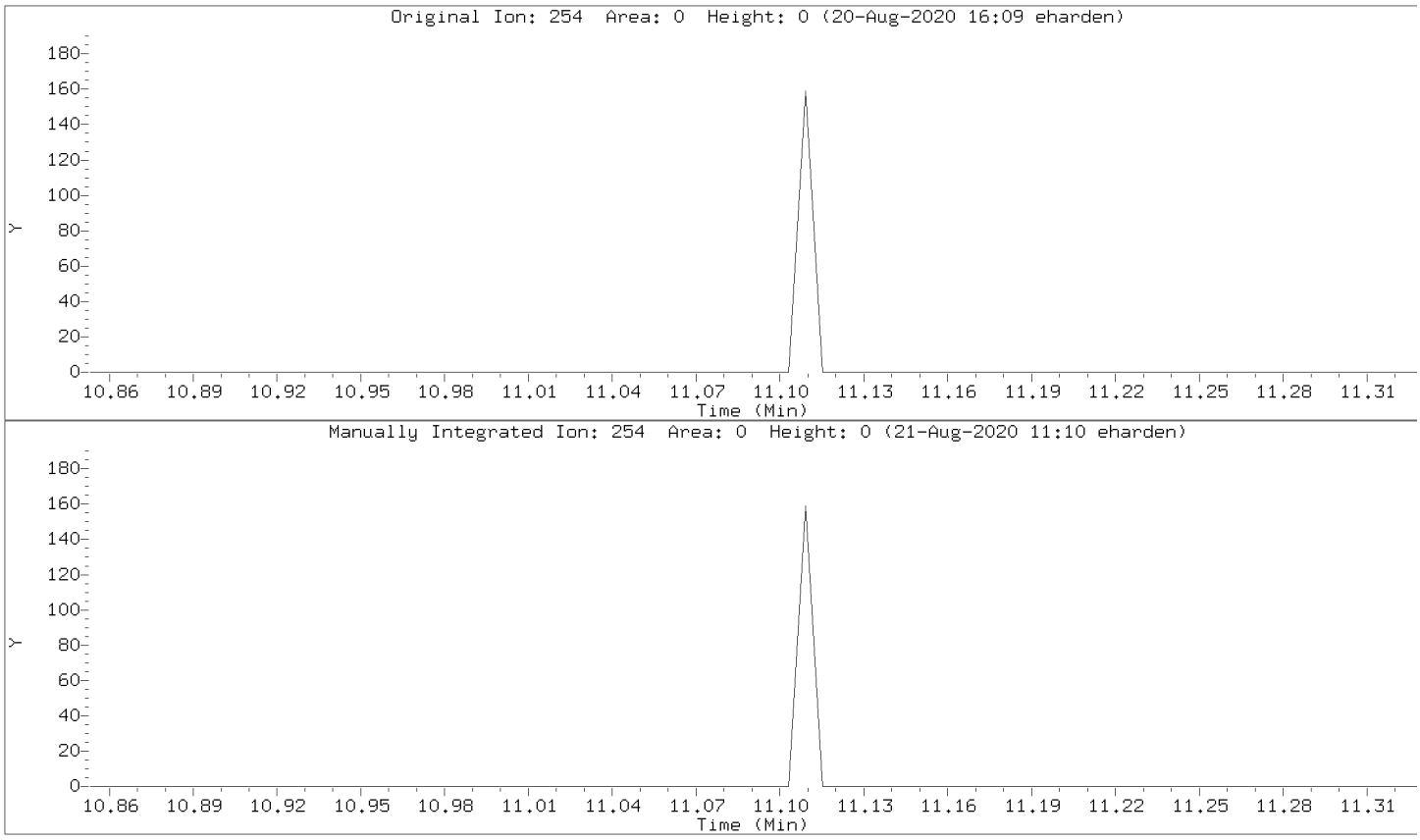
Instrument: 52mv02.i
Lab Sample ID: CAL3



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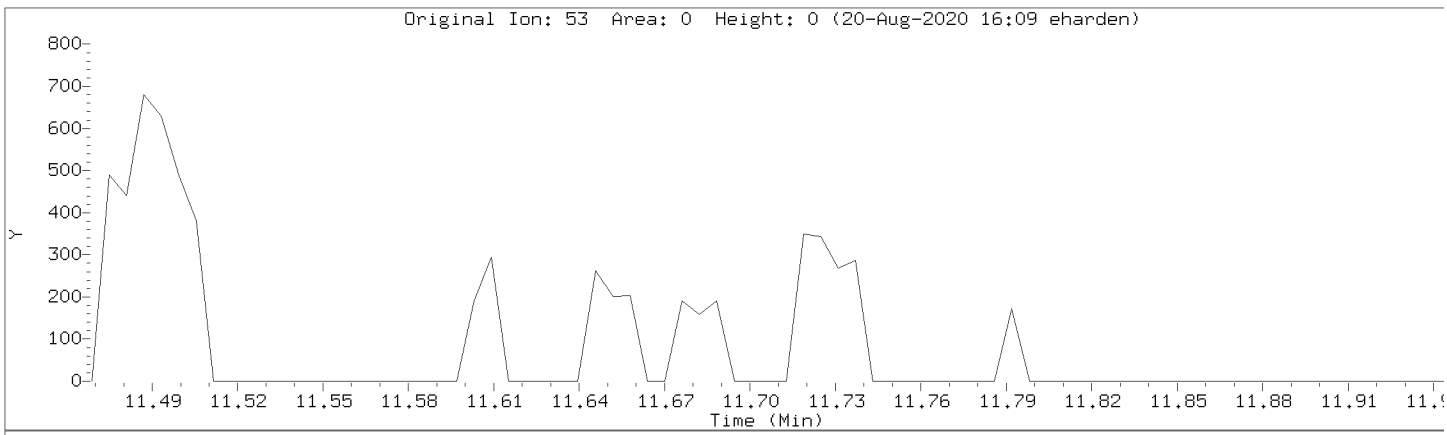
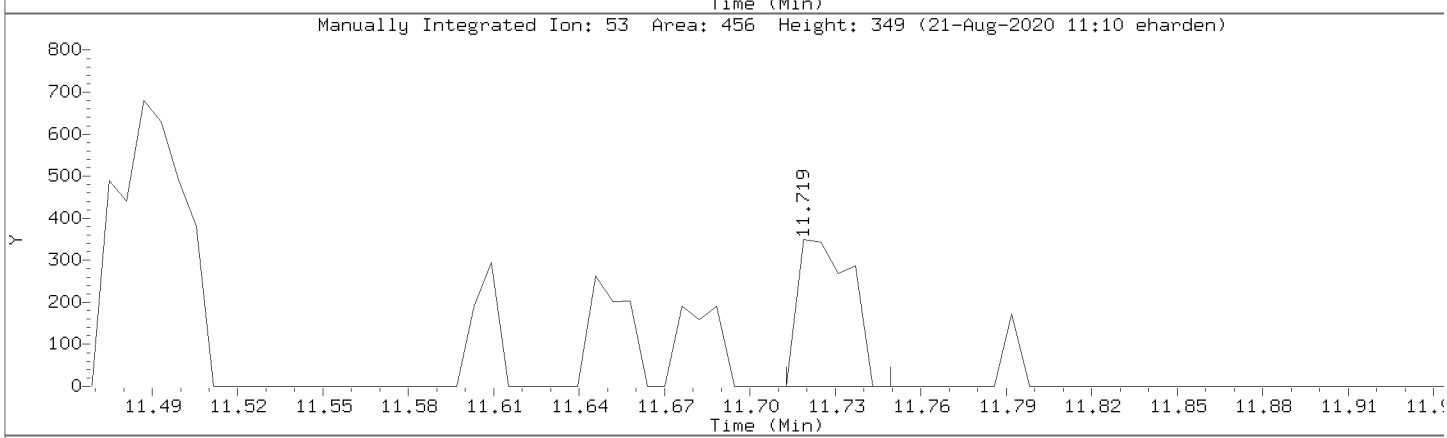
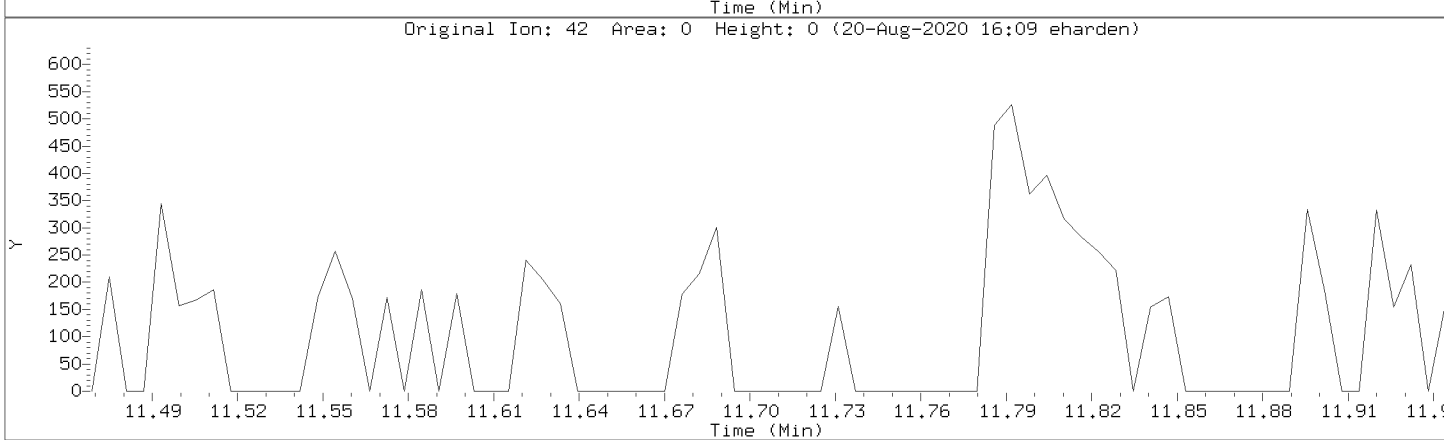
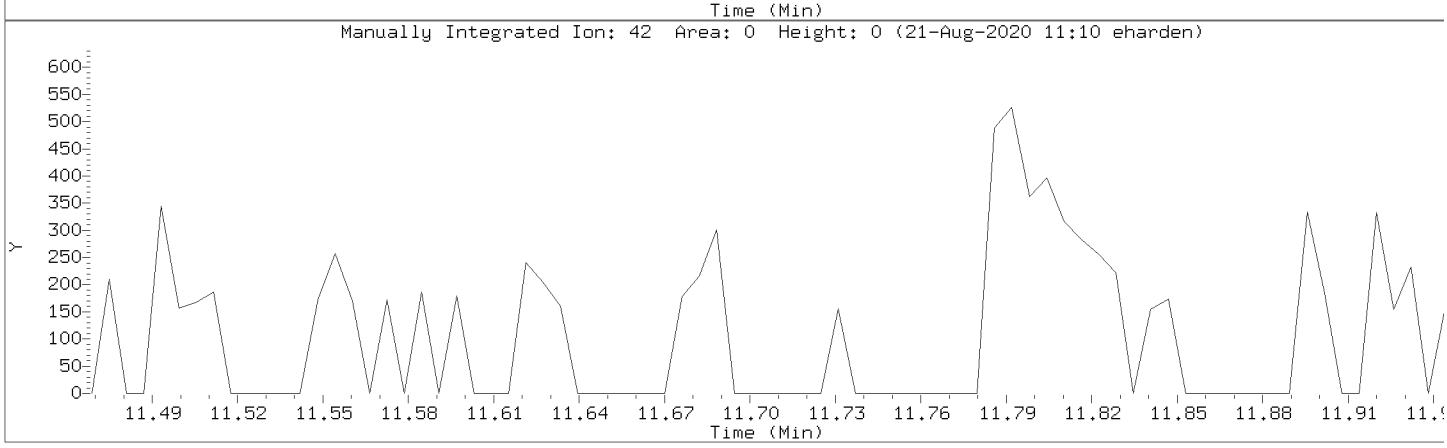
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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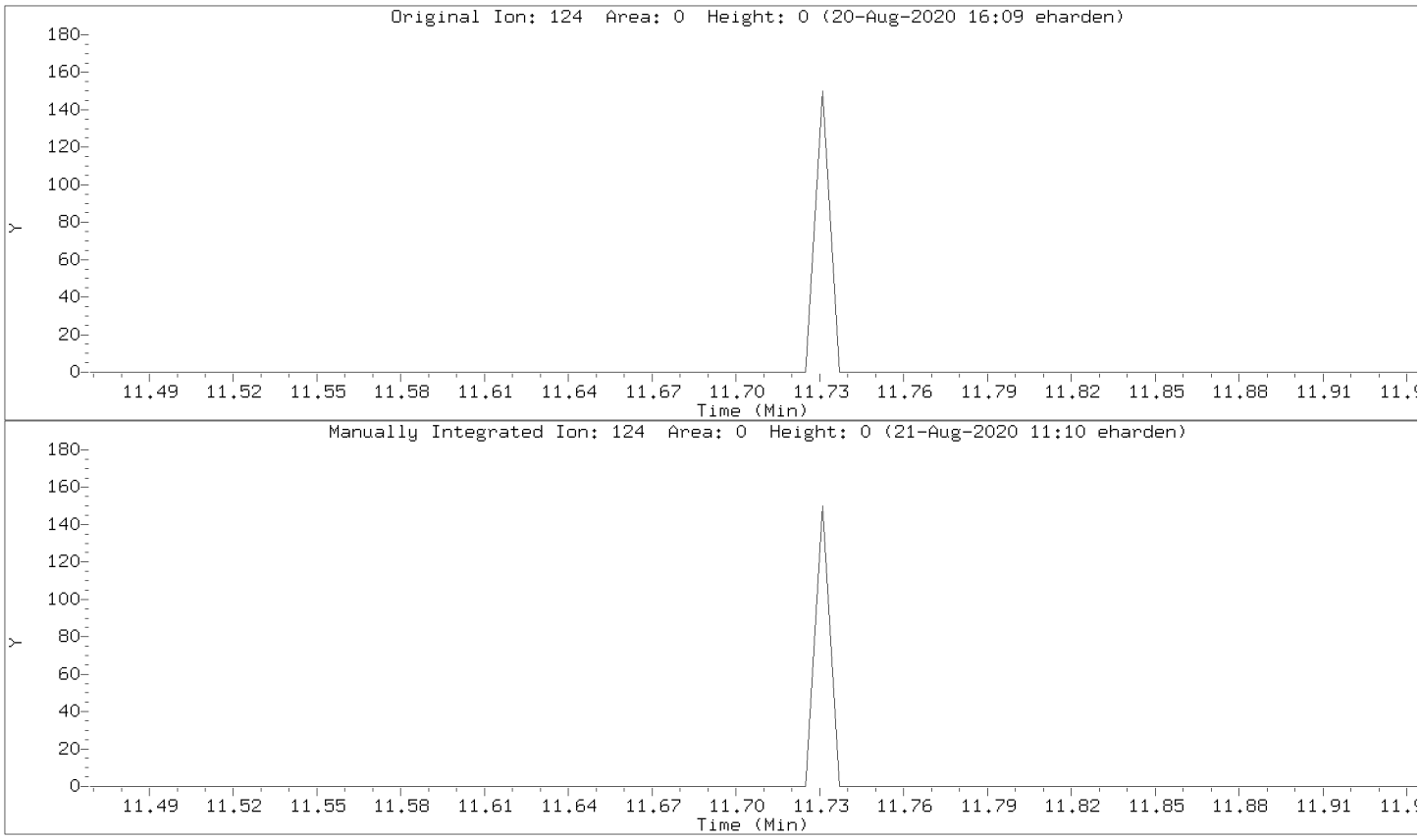
Instrument: 52mv02.i
Lab Sample ID: CAL3



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_06.D
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 20-AUG-2020 12:05
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal4,27240:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 12:05 Cal File: 082020_06.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.226	(0.408)	5284	2.00000	2.00	
2 Chloromethane	50	3.537	3.543	(0.450)	8846	2.00000	2.07	
3 Vinyl chloride	62	3.690	3.702	(0.469)	5370	2.00000	2.06	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	4686	2.00000	2.01	
5 Bromomethane	94	4.196	4.195	(0.534)	10118	2.00000	2.22	
6 Chloroethane	64	4.360	4.360	(0.555)	2737	2.00000	2.94	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	3591	2.00000	2.17	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	1948	2.00000	2.13	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	6532	2.00000	2.22	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	4079	2.00000	2.10	
11 Carbon disulfide	76	5.293	5.293	(0.673)	15221	2.00000	2.33	
12 Iodomethane	142	5.433	5.439	(0.691)	1612	2.00000	5.60(M)	NI
13 Acrolein	56	5.671	5.659	(0.722)	1479	4.00000	4.86	
14 Allyl chloride	76	5.787	5.787	(0.736)	2084	2.00000	2.30	
15 Methylene Chloride	49	5.902	5.902	(0.751)	8758	2.00000	2.50(M)	NI
16 Acetone	43	5.976	5.976	(0.760)	9840	4.00000	4.07	
17 Methyl acetate	43	6.073	6.067	(0.773)	8873	4.00000	3.62	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	4249	2.00000	2.13	
19 n-Hexane	86	6.128	6.110	(0.780)	343	2.00000	1.63(M)	LT
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	9856	2.00000	2.12	
21 Acetonitrile	41	6.463	6.463	(0.822)	1215	4.00000	6.91(H)	WP
22 Chloroprene	53	6.640	6.640	(0.845)	5232	2.00000	1.85	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	8968	2.00000	2.32	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	3596	4.00000	4.28	
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	6321	2.00000	2.22	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	6905	2.00000	2.35	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	2780	2.00000	2.23	
	29 Cyclohexane	56	7.341	7.335	(0.883)	4834	2.00000	1.88	
	30 Chloroform	83	7.372	7.372	(0.938)	10330	2.00000	2.36(M)	NI
	31 Ethyl acetate	43	7.439	7.433	(0.946)	10734	4.00000	4.35	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	6350	2.00000	2.11	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	4093	4.00000	5.58	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	138125	50.0000	54.6	
	35 1,1,1-Trichloroethane	97	7.573	7.567	(0.911)	7971	2.00000	2.23	
	36 2-Butanone (MEK)	43	7.634	7.628	(0.971)	7051	4.00000	3.74(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	4937	2.00000	1.99(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	219667	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	17998	2.00000	2.25	
	40 Propionitrile	54	7.896	7.902	(1.005)	1674	4.00000	4.47	
	41 Methacrylonitrile	41	7.908	7.902	(1.006)	8204	4.00000	4.31	
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25790	50.0000	56.7	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	8740	2.00000	2.48	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	8630	2.00000	2.06	
	46 Trichloroethene	130	8.323	8.317	(1.001)	4932	2.00000	2.25	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	313187	50.0000		
	48 Methylcyclohexane	98	8.329	8.317	(1.001)	1819	2.00000	1.75	
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.670	8.670	(1.043)	3983	2.00000	2.14	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	4922	2.00000	2.15	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	7260	2.00000	2.21	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	1992	2.00000	1.72(H)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	9.152	9.146	(1.100)	3154	4.00000	3.14	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	5882	2.00000	1.84	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	334441	50.0000	49.6	
	58 Toluene	91	9.414	9.414	(1.132)	16357	2.00000	2.09	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	1870	2.00000	2.21(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	5882	2.00000	1.81	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	3682	2.00000	1.93	
	63 Ethyl methacrylate	69	9.762	9.761	(1.174)	3660	2.00000	1.82(H)	
	64 1,1,2-Trichloroethane	83	9.841	9.847	(1.183)	4739	2.00000	2.39	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	5598	2.00000	2.12	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	6725	2.00000	2.23	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	4938	2.00000	2.18	
	68 2-Hexanone	43	10.280	10.280	(1.236)	8262	4.00000	3.12	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	12871	2.00000	1.77	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	277286	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	12050	2.00000	2.25	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	5405	2.00000	2.39	
	73 m&p-Xylene	91	10.652	10.651	(1.009)	19281	4.00000	3.56	
	74 o-Xylene	106	10.993	10.993	(1.041)	4165	2.00000	1.64	
	75 Styrene	104	11.030	11.029	(1.044)	6689	2.00000	1.58	
	76 Bromoform	173	11.103	11.103	(1.051)	5395	2.00000	2.15(M)	NI

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.225	11.225	(1.063)	7161	2.00000	1.86	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	106130	50.0000	46.6	
	79 cis-1,4-Dichloro-2-butene	53	11.493	11.487	(1.088)	2265	2.00000	2.49	
	80 n-Propylbenzene	91	11.523	11.523	(1.091)	16464	2.00000	1.85	
	81 Bromobenzene	156	11.578	11.578	(1.096)	5521	2.00000	1.94	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	6338	2.00000	2.14	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	8731	2.00000	1.66	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	3046	2.00000	1.58	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	3382	2.00000	1.79	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	9830	2.00000	1.53	
	87 1,2,3-Trichloropropane	75	11.725	11.724	(1.110)	6678	2.00000	2.19	
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	1815	2.00000	2.54	
	89 Cyclohexanone	98	Compound Not Detected.						(D)
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	7956	2.00000	1.54	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	7998	2.00000	1.51	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	10675	2.00000	1.70	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	7956	2.00000	1.54	
	94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	8844	2.00000	2.11	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	158950	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	10039	2.00000	2.16	
	97 n-Butylbenzene	91	12.487	12.486	(1.012)	9280	2.00000	1.68	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	10161	2.00000	2.22	
	99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	1371	2.00000	2.64	
	100 Hexachloro-1,3-butadiene	225	13.816	13.822	(1.120)	2915	2.00000	2.06	
	101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	5591	2.00000	1.85	
	102 Naphthalene	128	14.194	14.193	(1.150)	8687	2.00000	1.68	
	103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	5329	2.00000	1.83	

QC Flag Legend

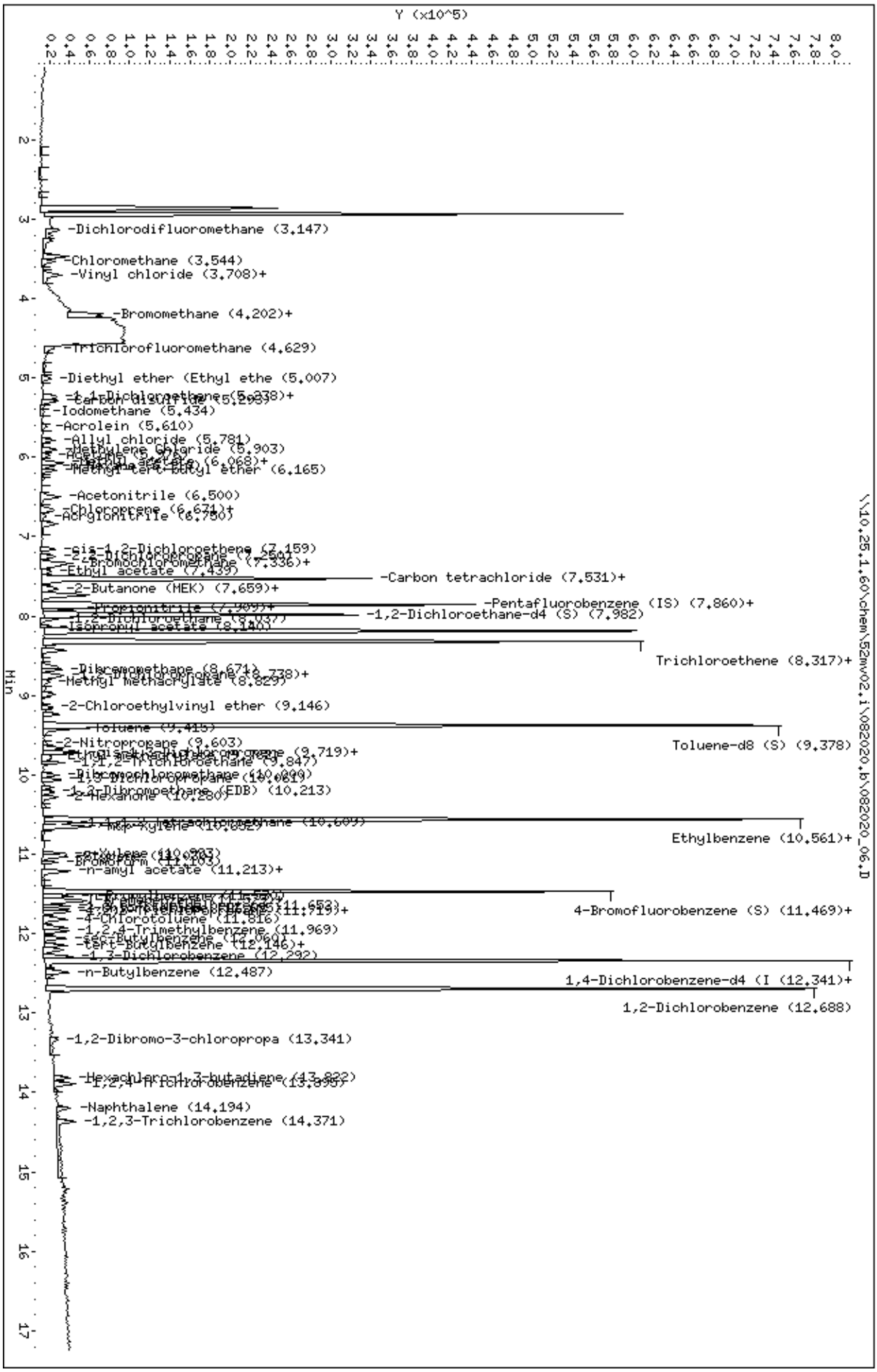
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
NI: Indicates that the peak was not integrated at all by the computer software.
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_06.D
Date : 20-AUG-2020 12:05
Client ID: CAL4
Sample Info: CAL4,27240:1
Purge Volume: 5.0
Column phase: RTX-VMS

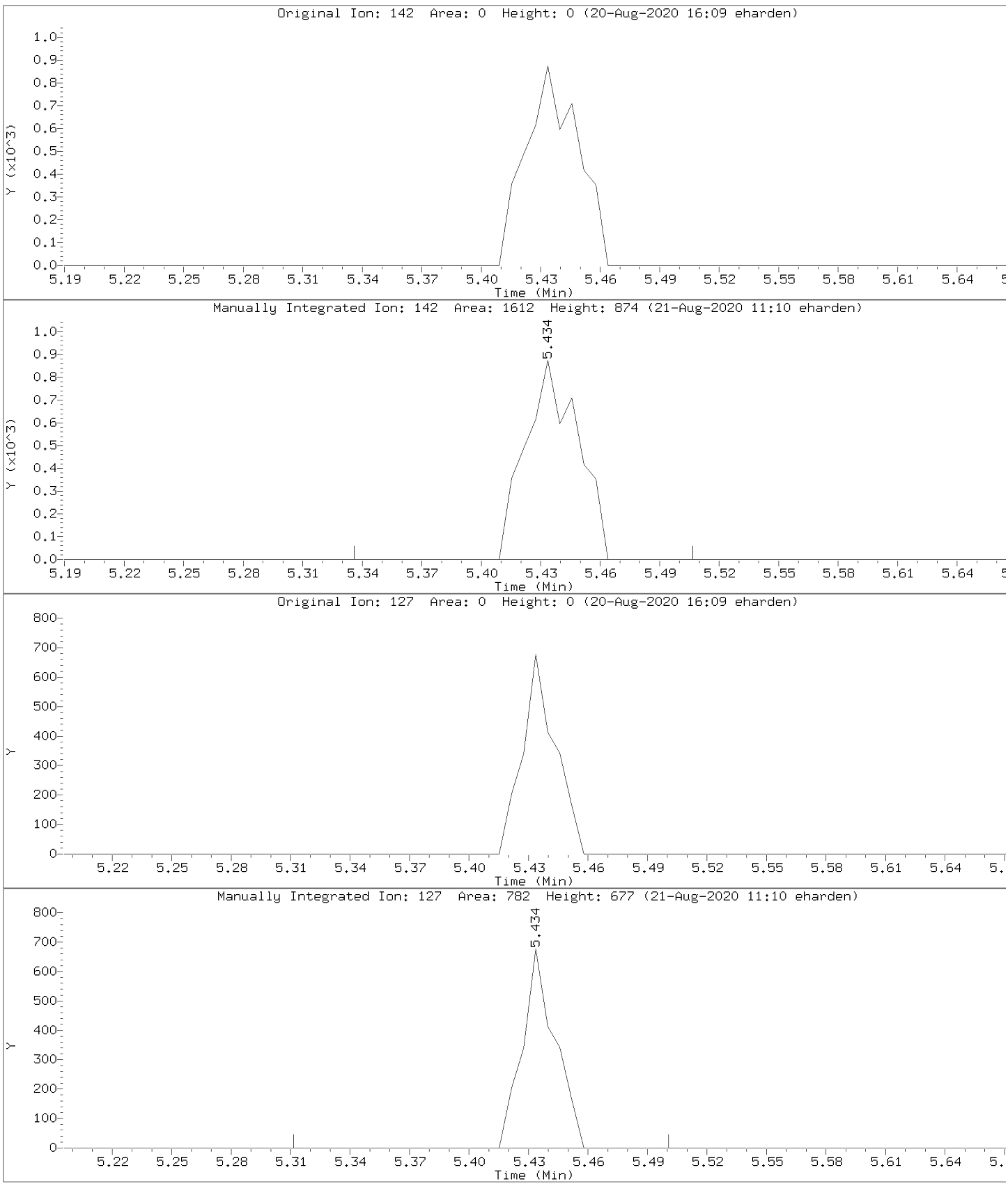
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Page 4

Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_06.D
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4



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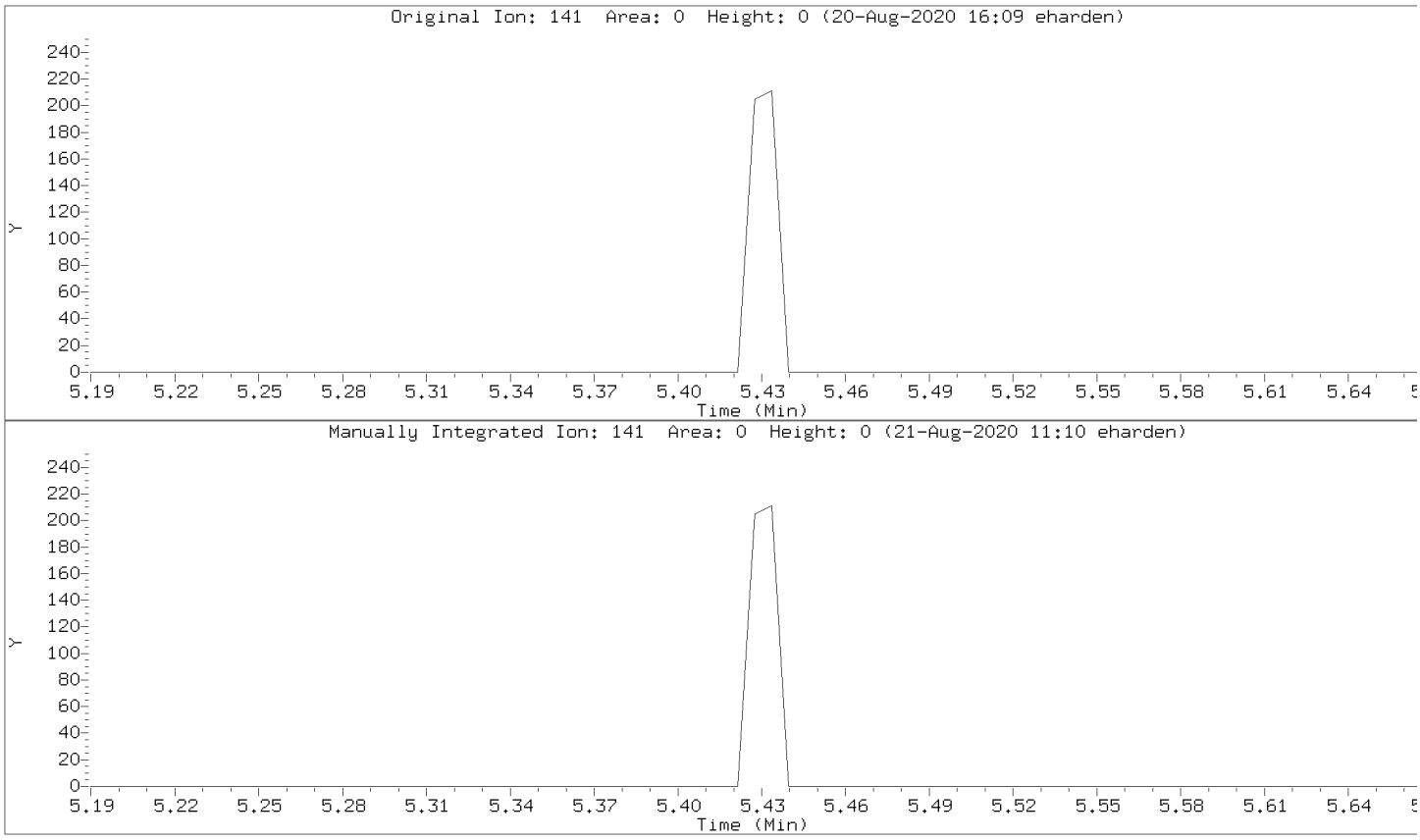
Lab Sample ID: CAL4



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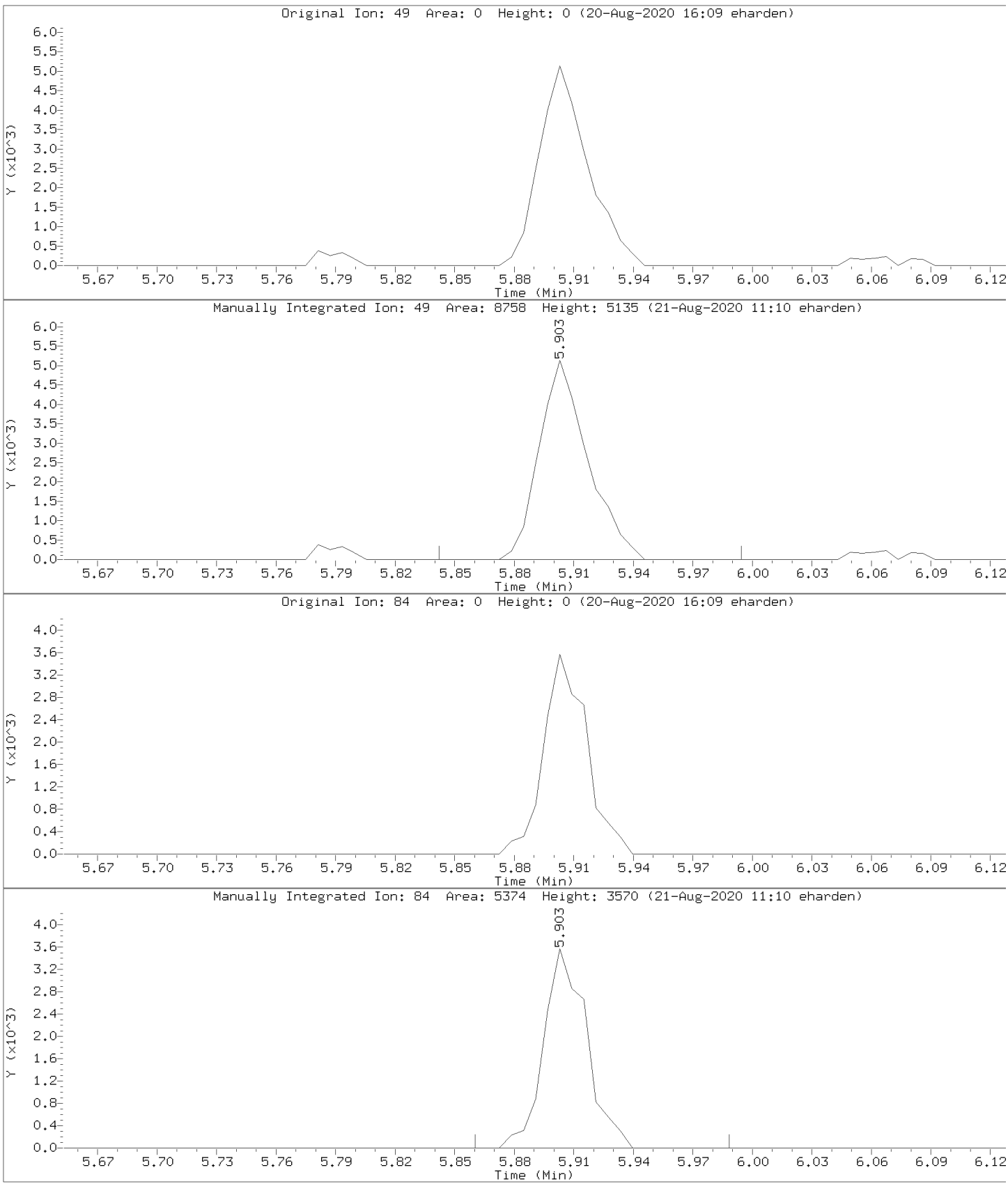
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2



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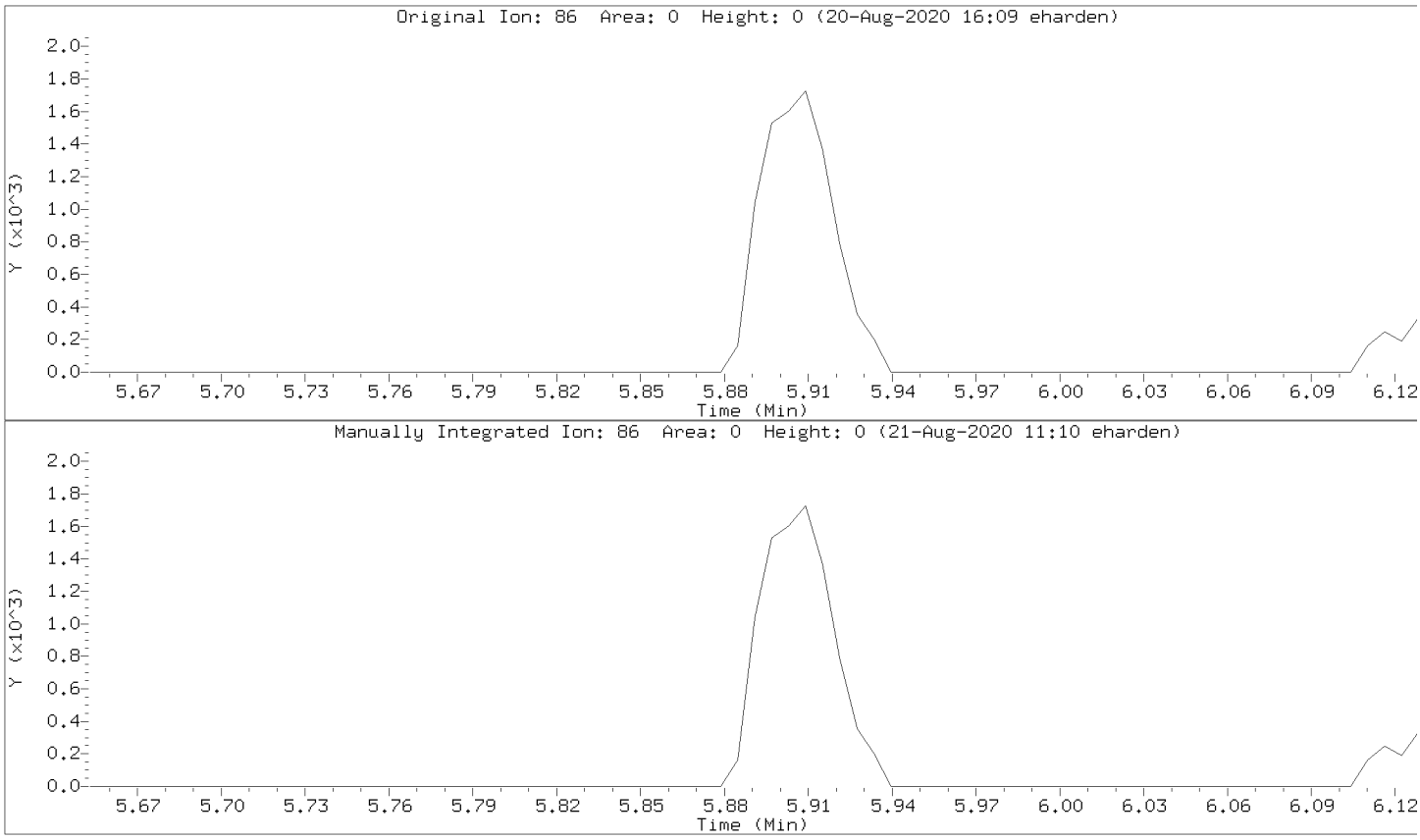
Instrument: 52mv02.i
Lab Sample ID: CAL4



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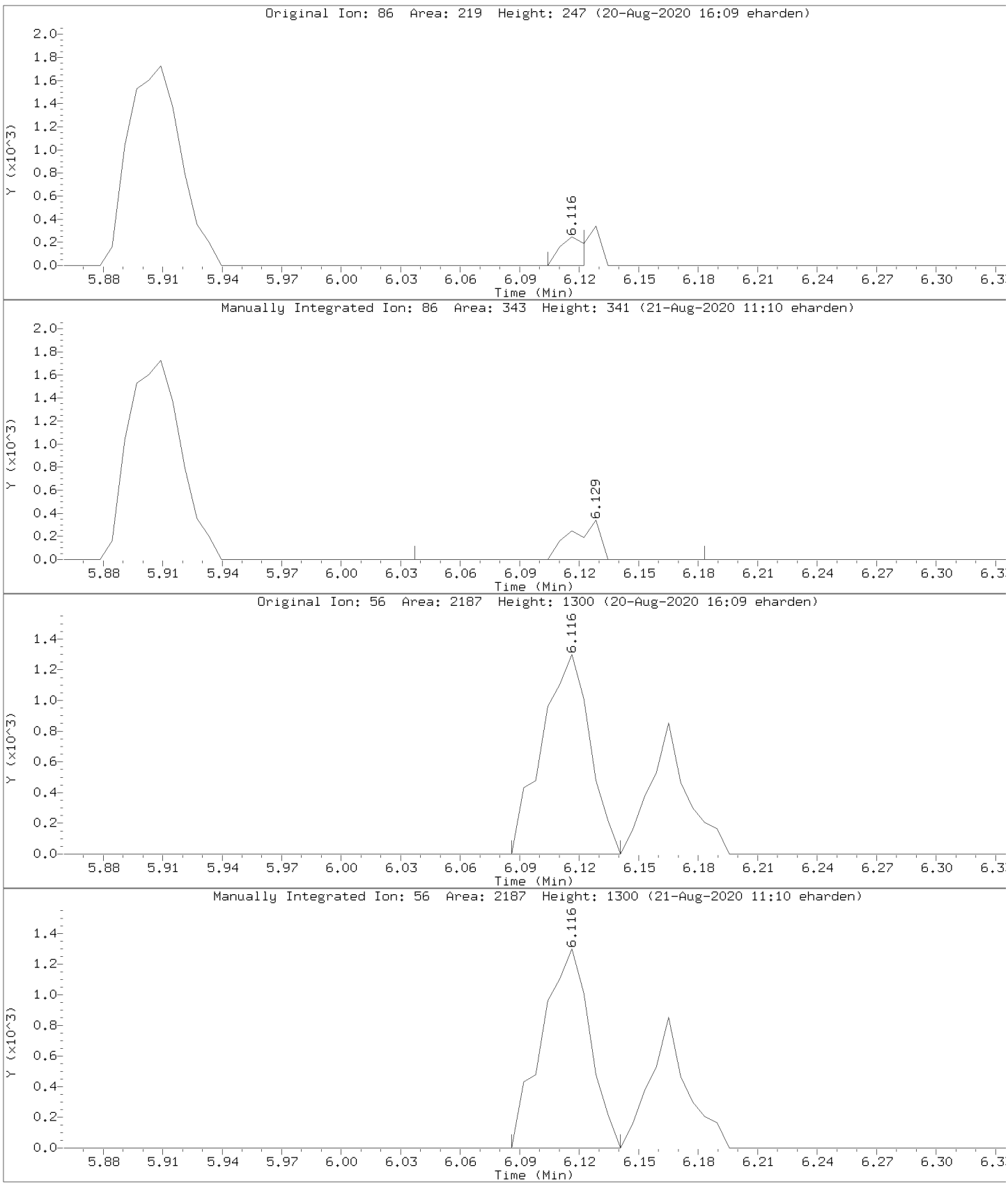
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: n-Hexane Review Code: LT
CAS Number: 110-54-03



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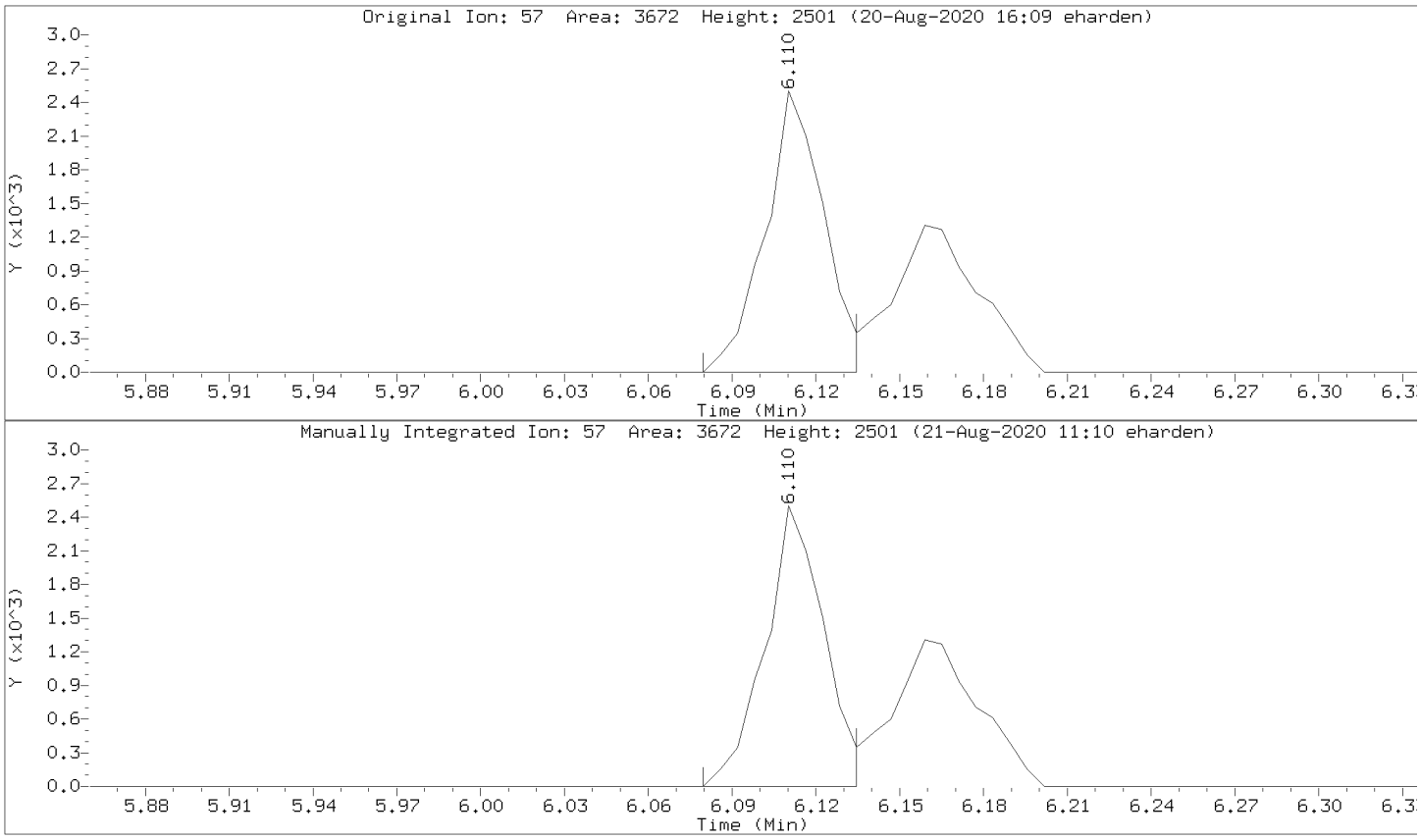
Instrument: 52mv02.i
Lab Sample ID: CAL4



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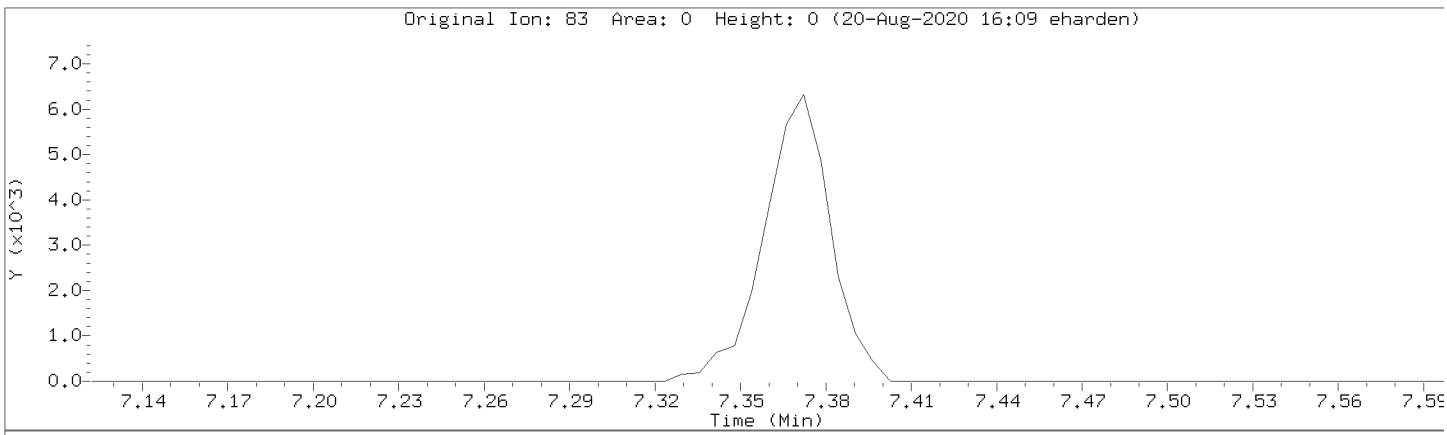
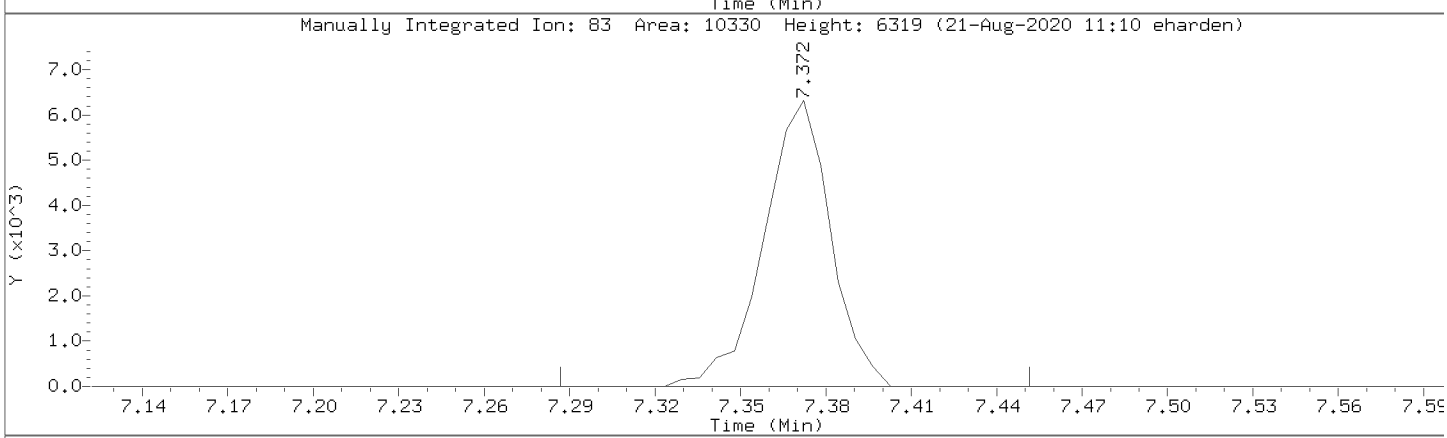
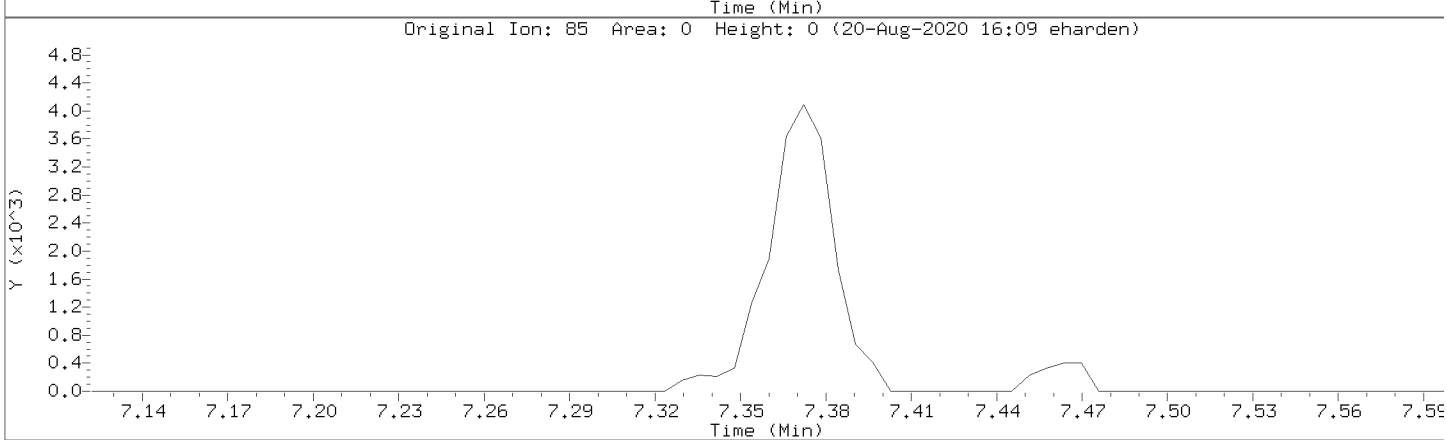
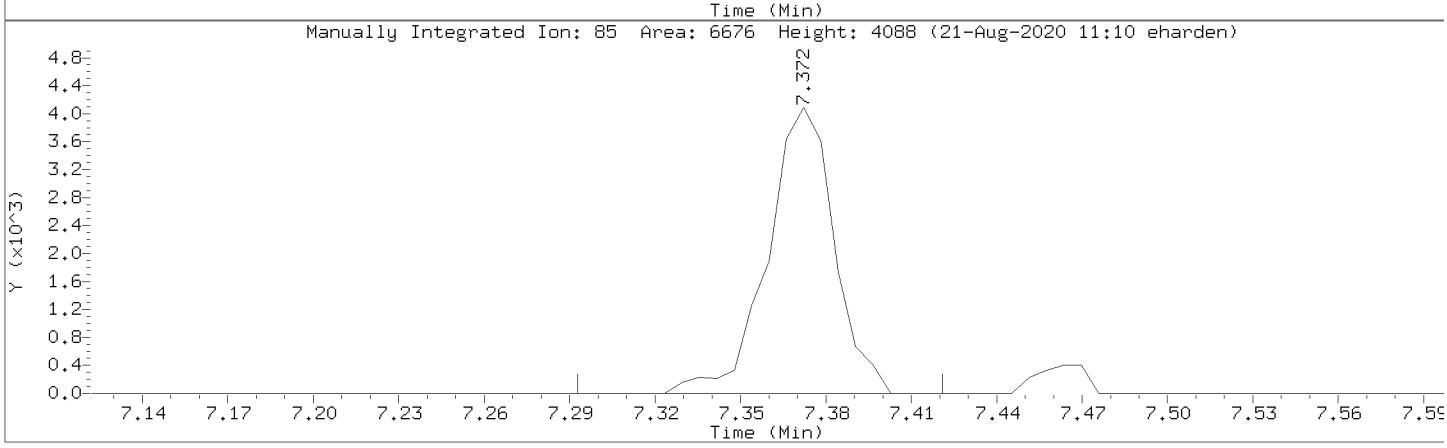
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3









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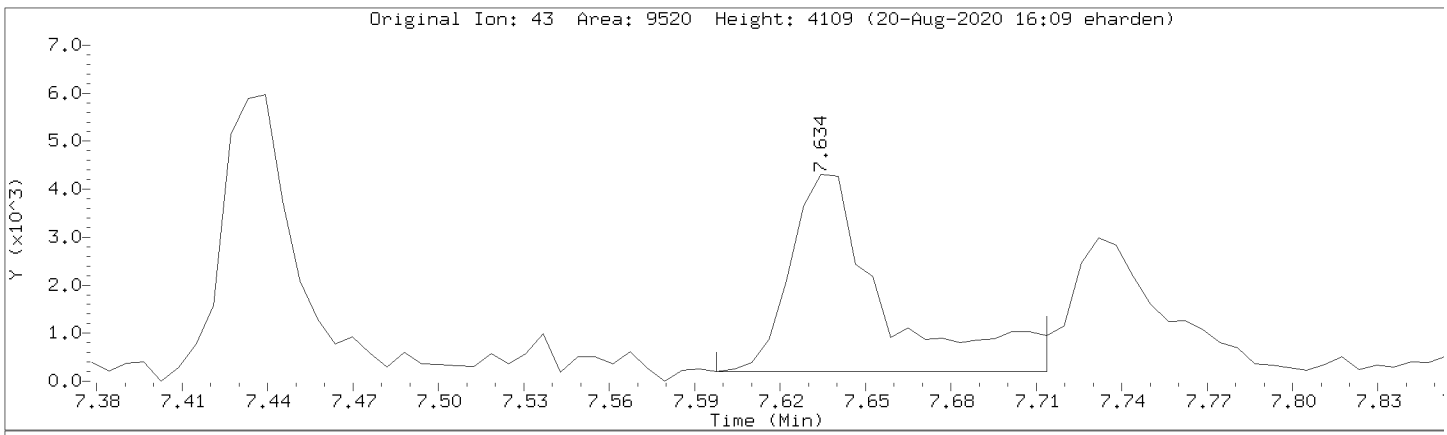
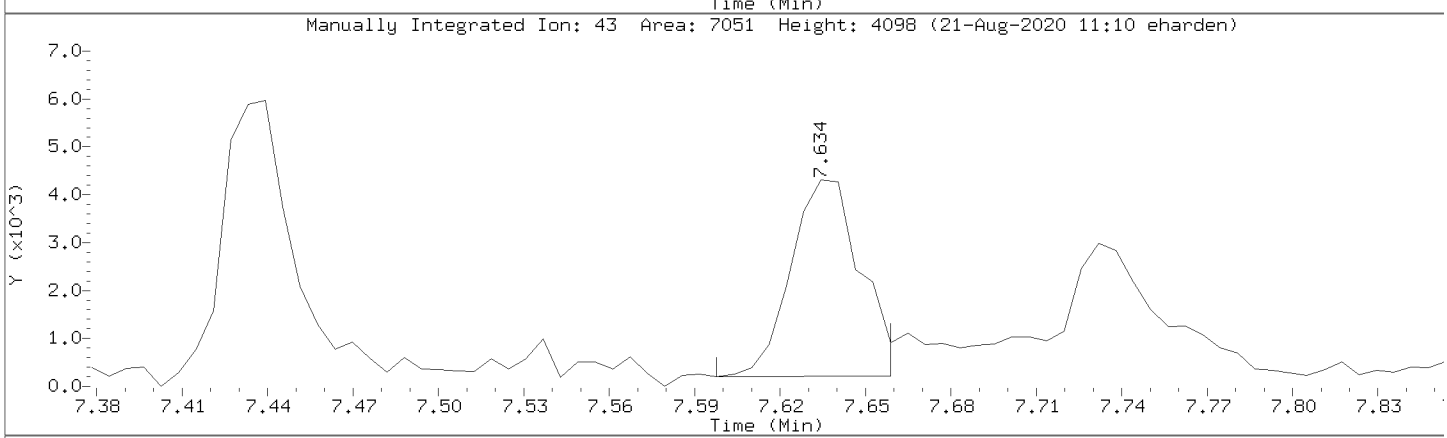
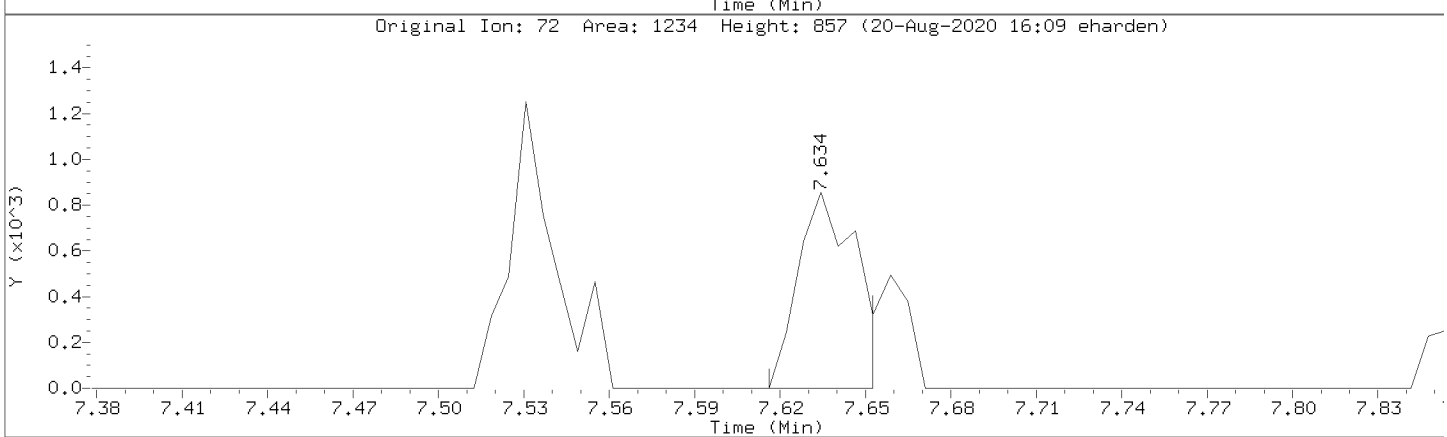
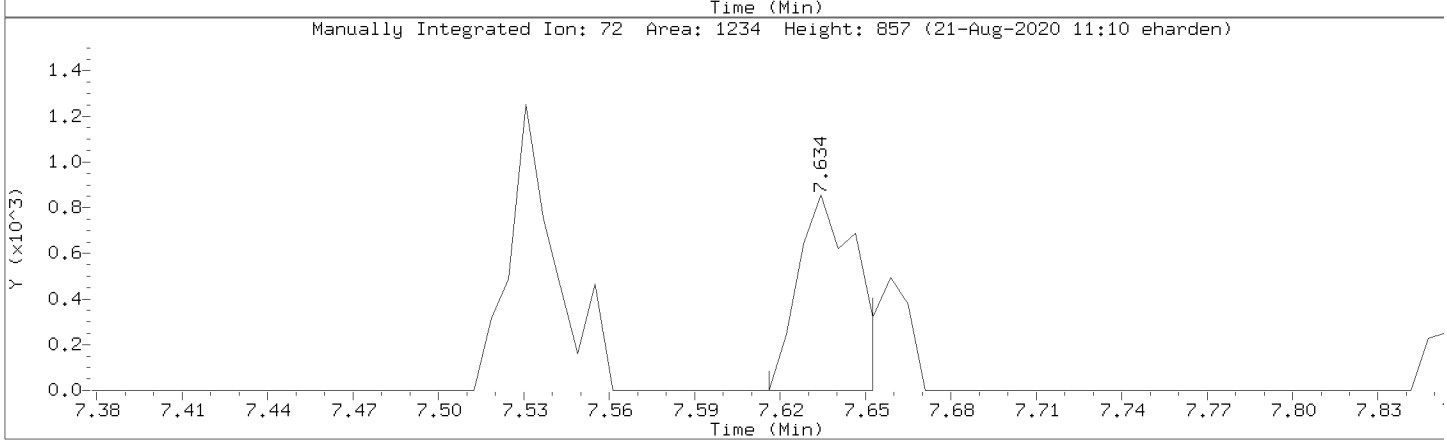
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3



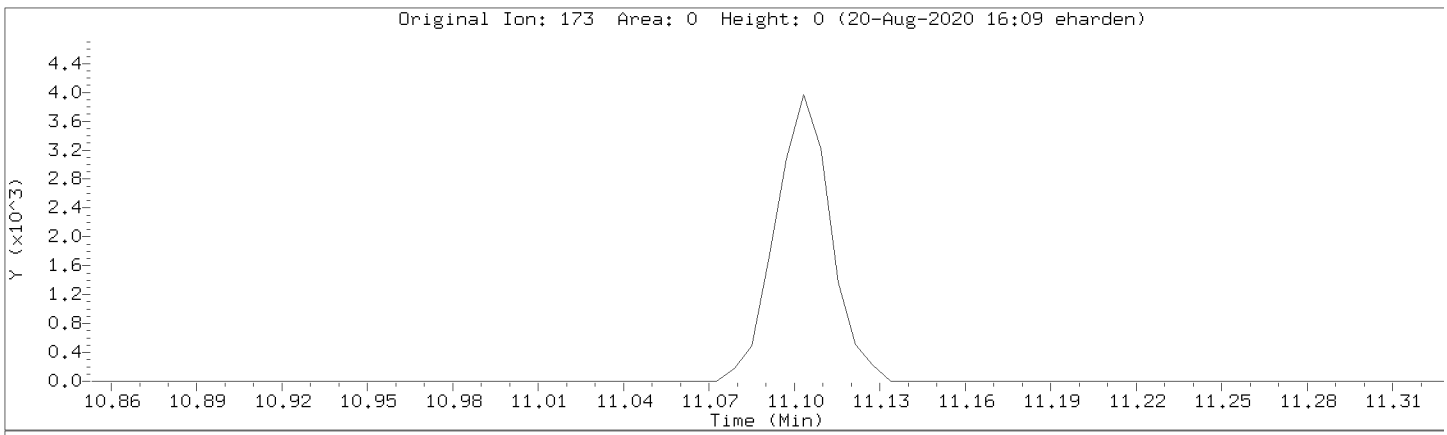


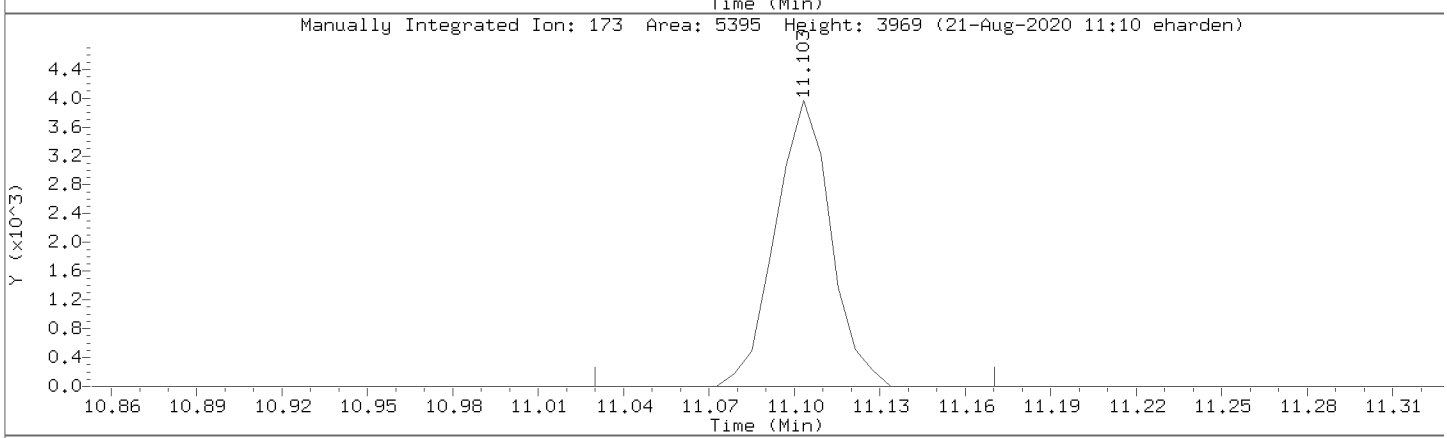


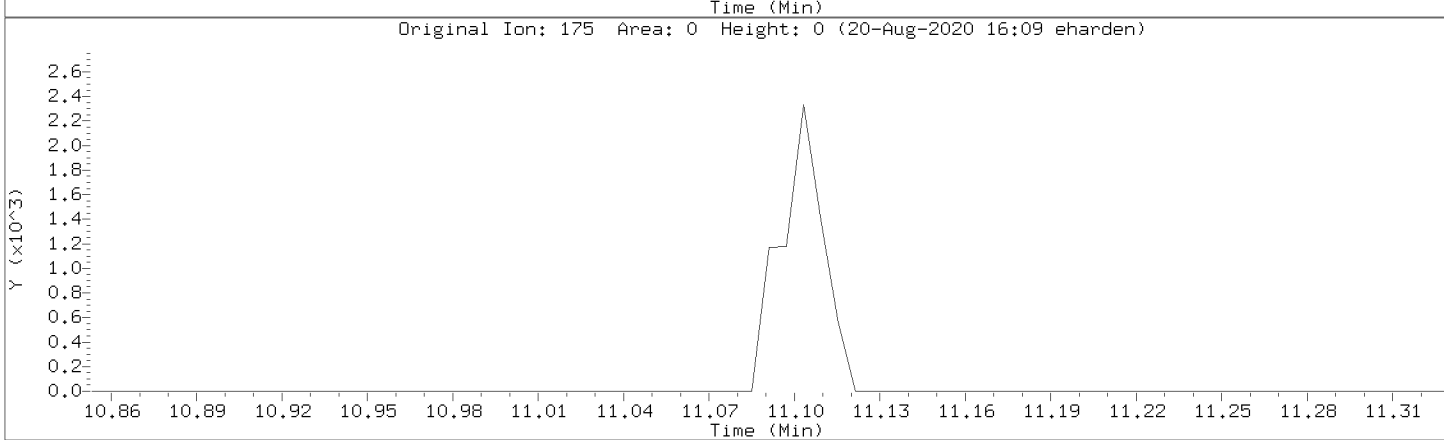


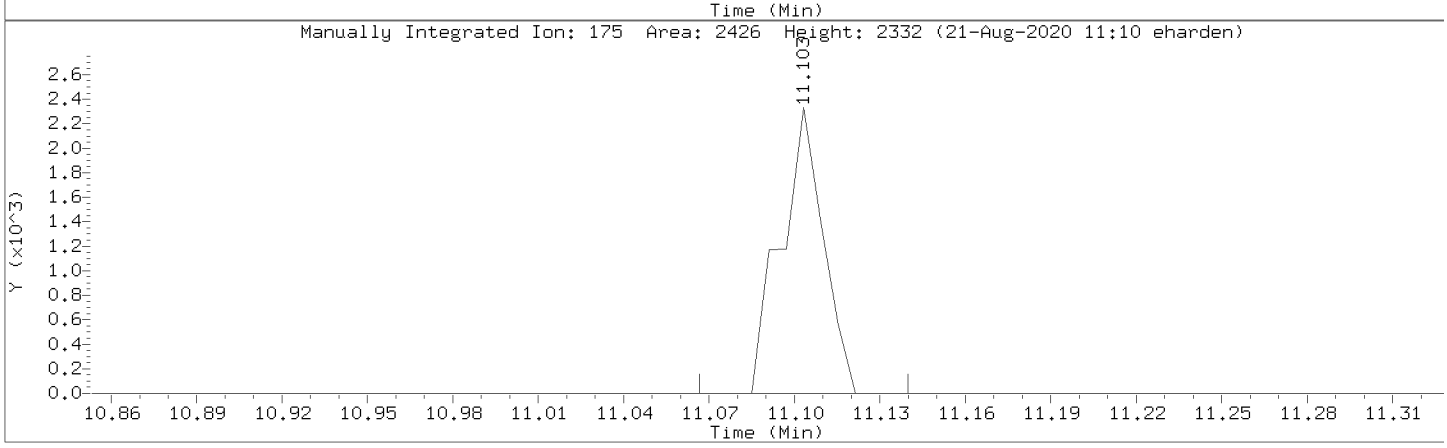
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_06.D
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2









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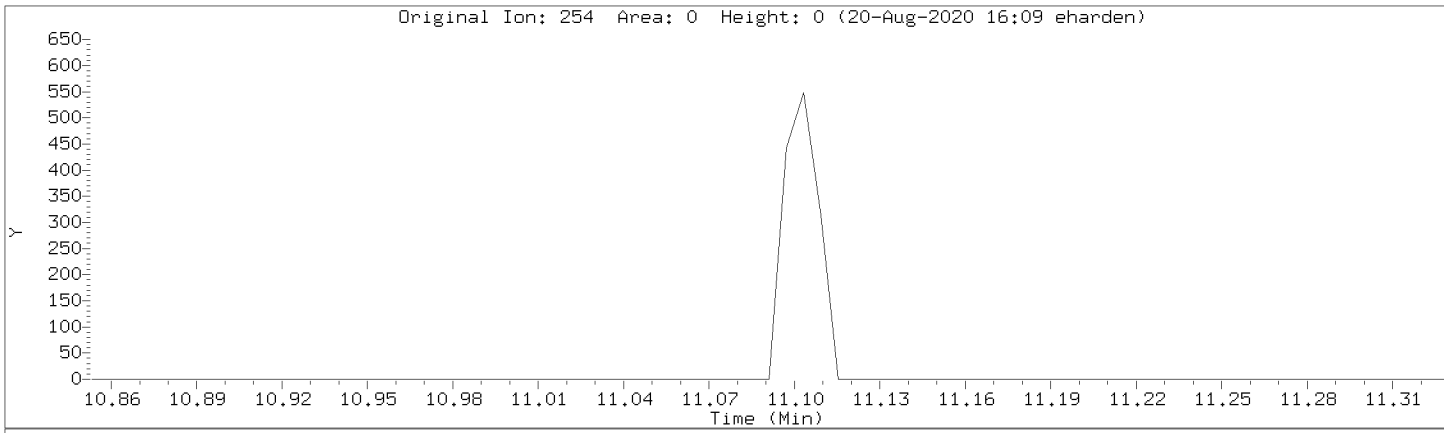
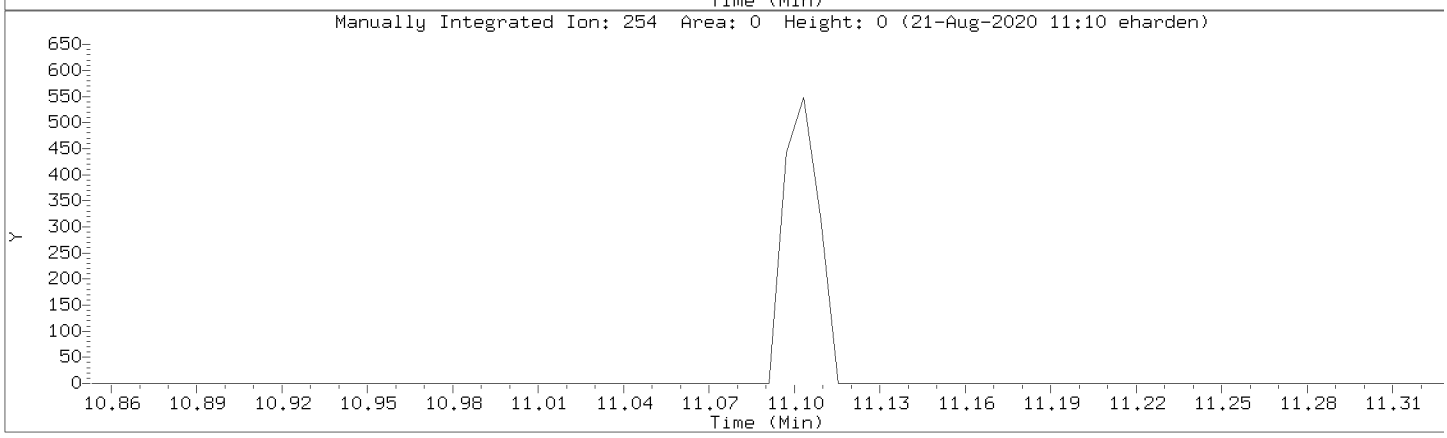
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_07.D
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 20-AUG-2020 12:30
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal5,27241:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 12:30 Cal File: 082020_07.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.226	(0.408)	14553	5.00000	6.57(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	19435	5.00000	5.07	
3 Vinyl chloride	62	3.702	3.702	(0.471)	14015	5.00000	5.05	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	11700	5.00000	4.71	
5 Bromomethane	94	4.195	4.195	(0.534)	17914	5.00000	5.43	
6 Chloroethane	64	4.366	4.360	(0.556)	4115	5.00000	4.60	
7 Trichlorofluoromethane	101	4.525	4.531	(0.576)	9164	5.00000	5.38	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	5183	5.00000	5.33	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	15697	5.00000	5.00	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	11299	5.00000	5.46	
11 Carbon disulfide	76	5.287	5.293	(0.673)	34632	5.00000	4.99	
12 Iodomethane	142	5.433	5.439	(0.691)	3620	5.00000	2.40(M)	NI
13 Acrolein	56	5.665	5.659	(0.721)	3065	10.0000	9.72	
14 Allyl chloride	76	5.787	5.787	(0.736)	4947	5.00000	5.12	
15 Methylene Chloride	49	5.902	5.902	(0.751)	19166	5.00000	5.00(M)	NI
16 Acetone	43	5.976	5.976	(0.760)	23424	10.0000	11.5	
17 Methyl acetate	43	6.073	6.067	(0.773)	24665	10.0000	9.97	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	9707	5.00000	4.58	
19 n-Hexane	86	6.110	6.110	(0.777)	987	5.00000	4.39	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	22885	5.00000	4.62	
21 Acetonitrile	41	6.457	6.463	(0.822)	1316	10.0000	7.03(H)	
22 Chloroprene	53	6.646	6.640	(0.846)	13100	5.00000	4.35	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	21699	5.00000	5.27	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	9200	10.0000	10.3	
	25 Vinyl acetate	43	6.866	6.860	(0.874)	13650	5.00000	3.35(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	14788	5.00000	4.87	
	27 2,2-Dichloropropane	77	7.256	7.250	(0.923)	16052	5.00000	5.14	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	6858	5.00000	5.17	
	29 Cyclohexane	56	7.335	7.335	(0.882)	11423	5.00000	4.31	
	30 Chloroform	83	7.372	7.372	(0.938)	25117	5.00000	5.39	
	31 Ethyl acetate	43	7.433	7.433	(0.946)	24568	10.0000	9.34	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	16017	5.00000	5.16	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	7403	10.0000	9.47	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	142646	50.0000	53.0	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	18128	5.00000	4.92	
	36 2-Butanone (MEK)	43	7.634	7.628	(0.971)	20760	10.0000	10.3(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	11218	5.00000	4.38(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	233975	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	42206	5.00000	5.11	
	40 Propionitrile	54	7.908	7.902	(1.006)	4081	10.0000	10.2	
	41 Methacrylonitrile	41	7.908	7.902	(1.006)	19063	10.0000	9.40	
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	24458	50.0000	50.5	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	19145	5.00000	5.10	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	20765	5.00000	4.65	
	46 Trichloroethene	130	8.323	8.317	(1.001)	10658	5.00000	4.72	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	323174	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	4857	5.00000	4.53	
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.670	8.670	(1.043)	9900	5.00000	5.14	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	11583	5.00000	4.91	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	16004	5.00000	4.72	
	53 Methyl methacrylate	69	8.829	8.823	(1.062)	4271	5.00000	3.58(H)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	7311	10.0000	7.06	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	14819	5.00000	4.50	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	347863	50.0000	50.0	
	58 Toluene	91	9.414	9.414	(1.132)	39430	5.00000	4.89	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	3643	5.00000	4.18(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	2047	10.0000	8.85(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	14819	5.00000	4.41	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	10094	5.00000	5.08	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	8601	5.00000	4.14(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	9557	5.00000	4.68	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	13805	5.00000	5.01	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	15130	5.00000	4.86	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	11170	5.00000	4.72	
	68 2-Hexanone	43	10.280	10.280	(1.236)	23734	10.0000	8.70	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	32827	5.00000	4.33	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	289782	50.0000		
	71 Chlorobenzene	112	10.572	10.578	(1.001)	26354	5.00000	4.71	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	11764	5.00000	4.98	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	49356	10.0000	8.71	
	74 o-Xylene	106	10.993	10.993	(1.041)	10438	5.00000	3.93	
	75 Styrene	104	11.029	11.029	(1.044)	16739	5.00000	3.77	
	76 Bromoform	173	11.103	11.103	(1.051)	12410	5.00000	4.74(M)	NI

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.224	11.225	(1.063)	15978	5.00000	3.97	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	114113	50.0000	48.0	
	79 cis-1,4-Dichloro-2-butene	53	11.493	11.487	(1.088)	4646	5.00000	4.88	
	80 n-Propylbenzene	91	11.529	11.523	(1.092)	41636	5.00000	4.48	
	81 Bromobenzene	156	11.578	11.578	(1.096)	13586	5.00000	4.58	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	15768	5.00000	5.08	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	23455	5.00000	4.15	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	8976	5.00000	4.46	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	8467	5.00000	4.29	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	24864	5.00000	3.71	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	15868	5.00000	4.99	
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	3621	5.00000	4.85(M)	NI
	89 Cyclohexanone	98	Compound Not Detected.						(D)
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	19573	5.00000	3.52	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	22168	5.00000	3.89	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	26110	5.00000	3.85	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	19573	5.00000	3.52	
	94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	20960	5.00000	4.64	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	171143	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	24168	5.00000	4.83	
	97 n-Butylbenzene	91	12.486	12.486	(1.012)	24705	5.00000	4.14	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	22957	5.00000	4.66	
	99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	2892	5.00000	5.17	
	100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	6852	5.00000	4.49	
	101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	15217	5.00000	4.69	
	102 Naphthalene	128	14.200	14.193	(1.151)	22100	5.00000	3.96	
	103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	13936	5.00000	4.45	

QC Flag Legend

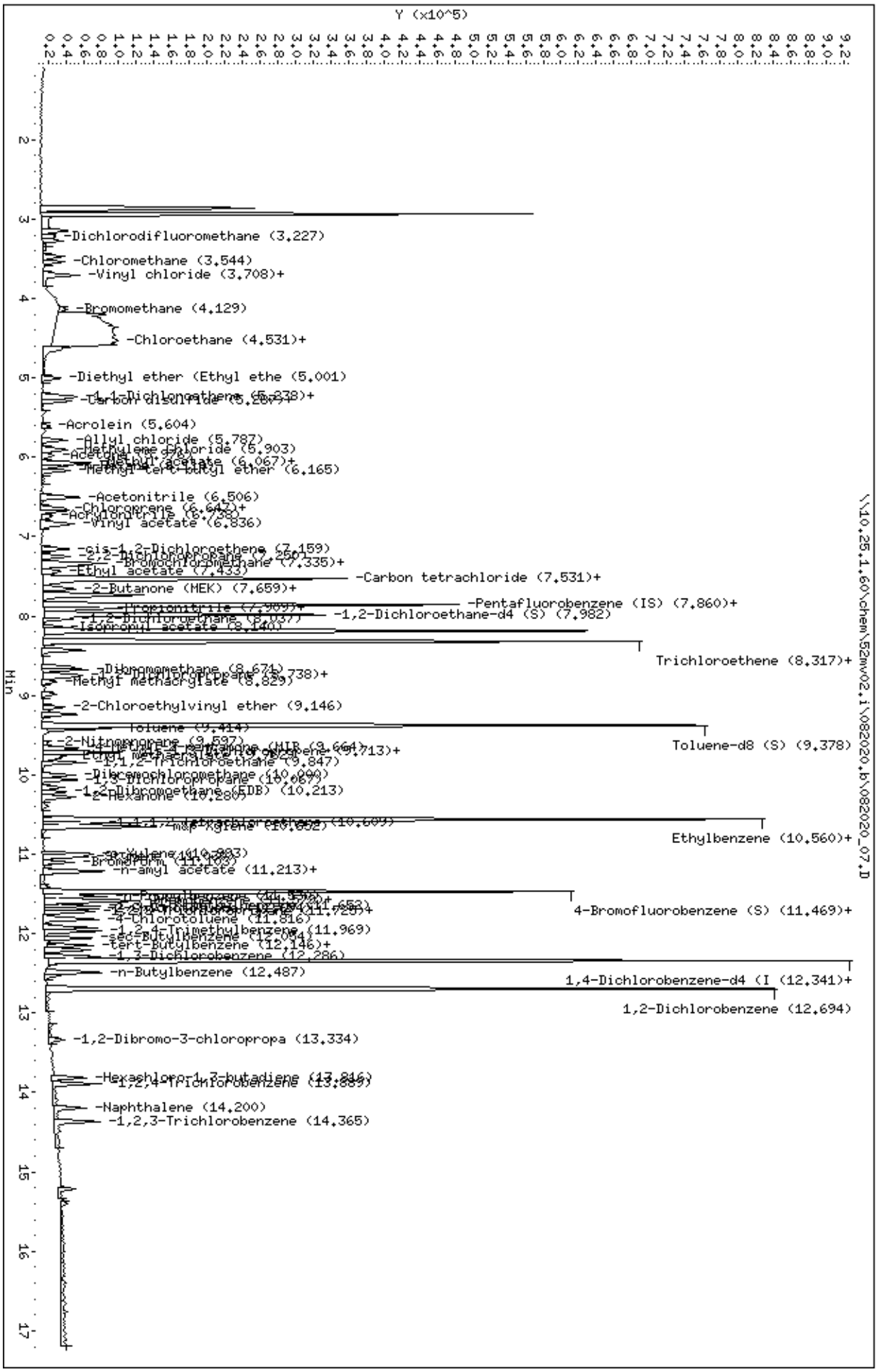
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_07.D
Date : 20-AUG-2020 12:30
Client ID: CAL5
Sample Info: CAL5,27241:1
Purge Volume: 5.0
Column phase: RTX-VMS

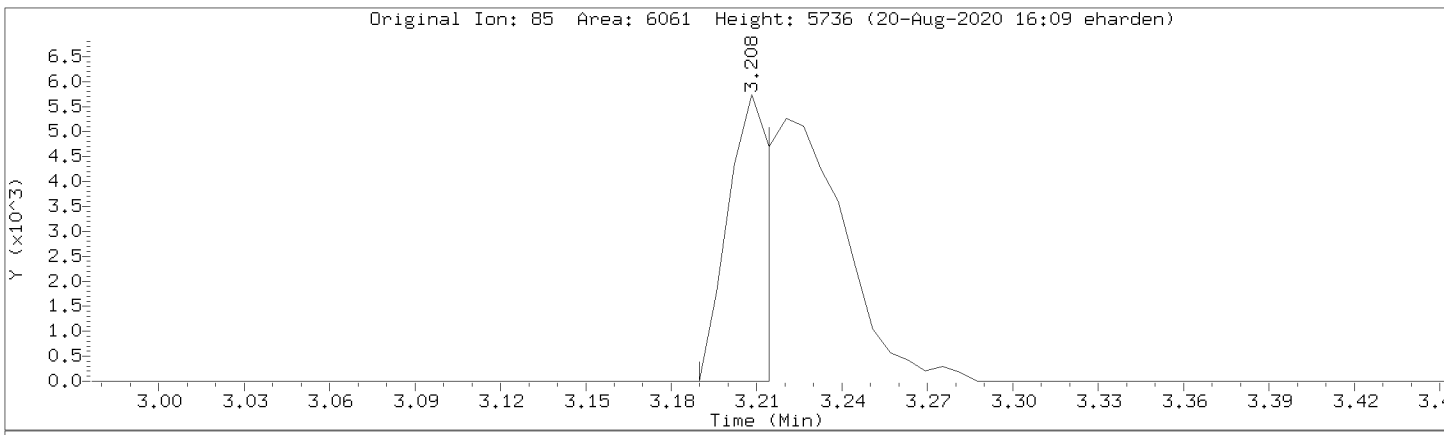
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

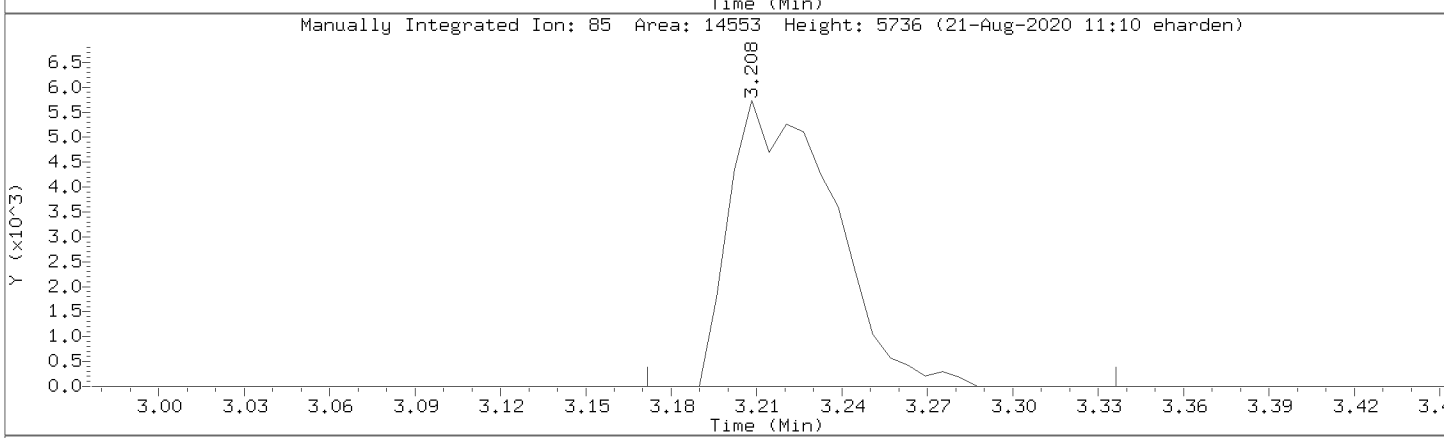


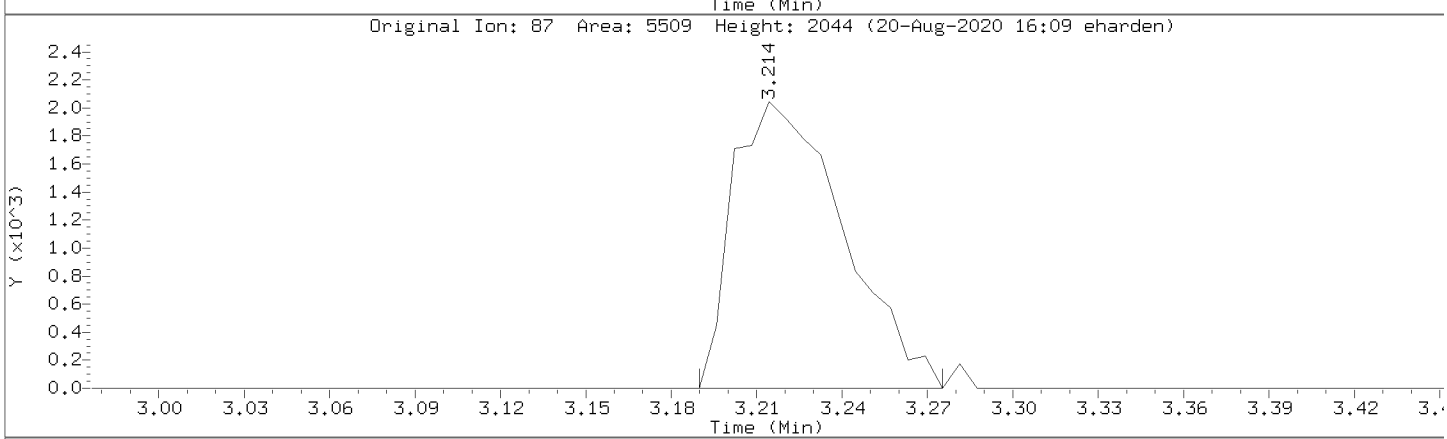
Page 4

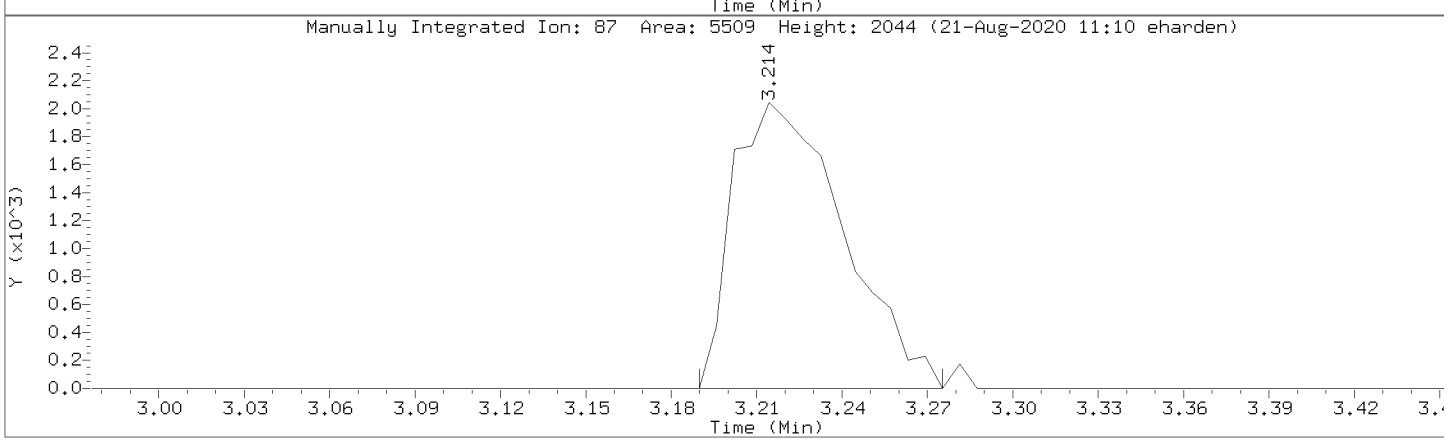
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_07.D
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



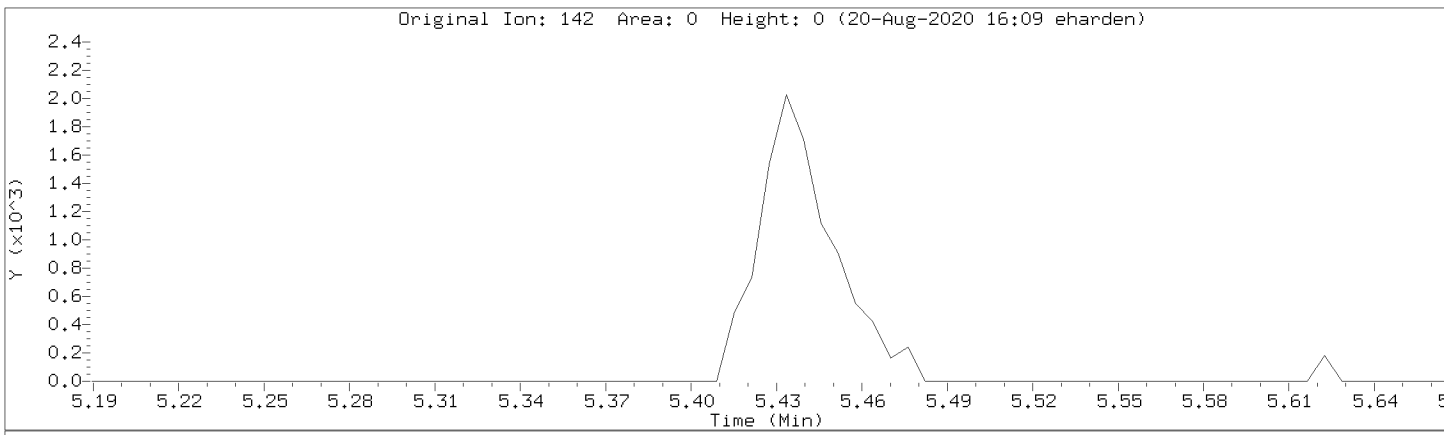


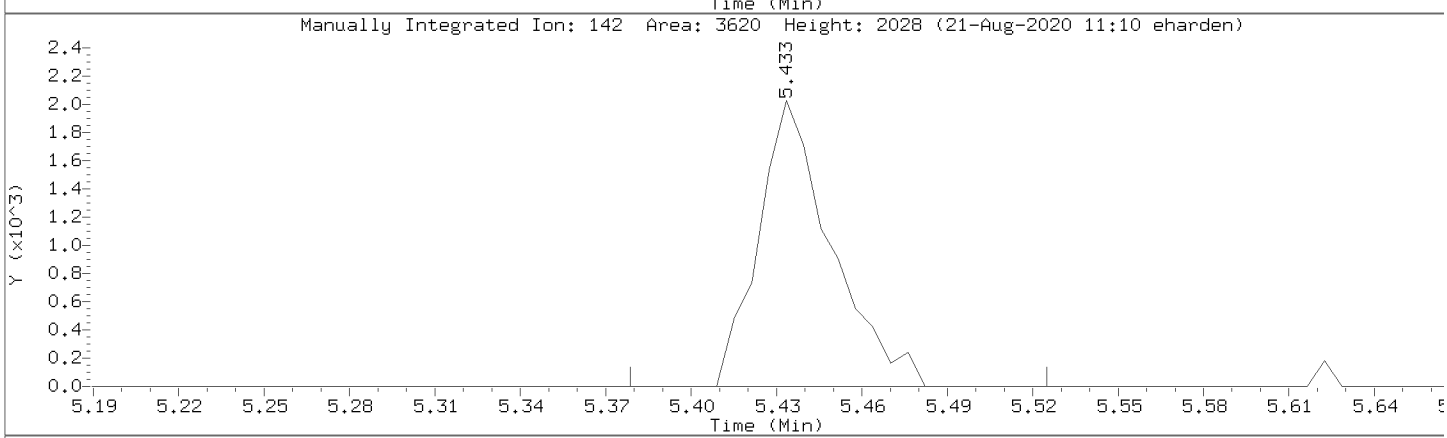


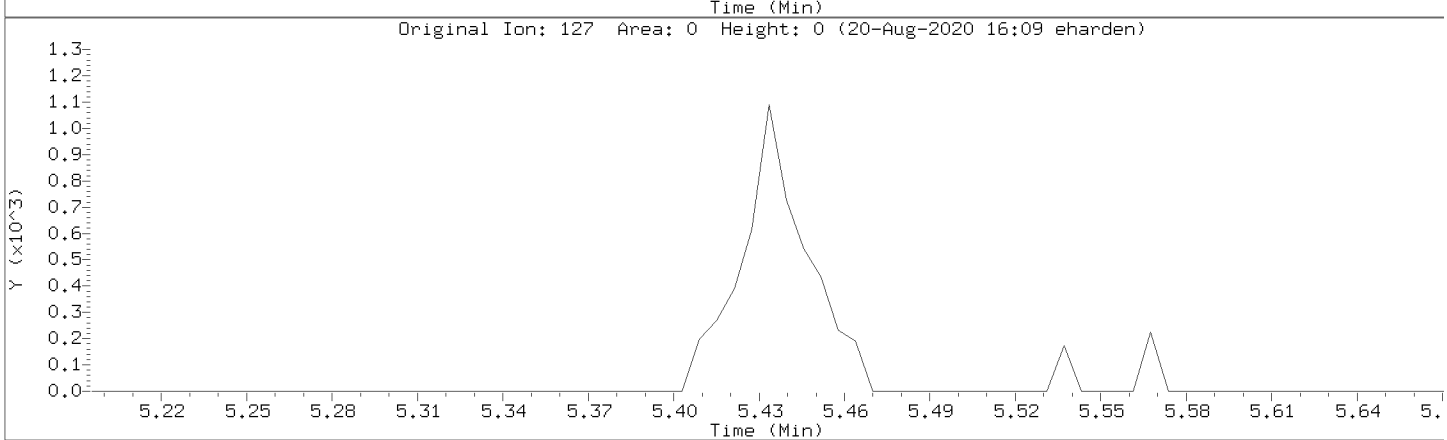


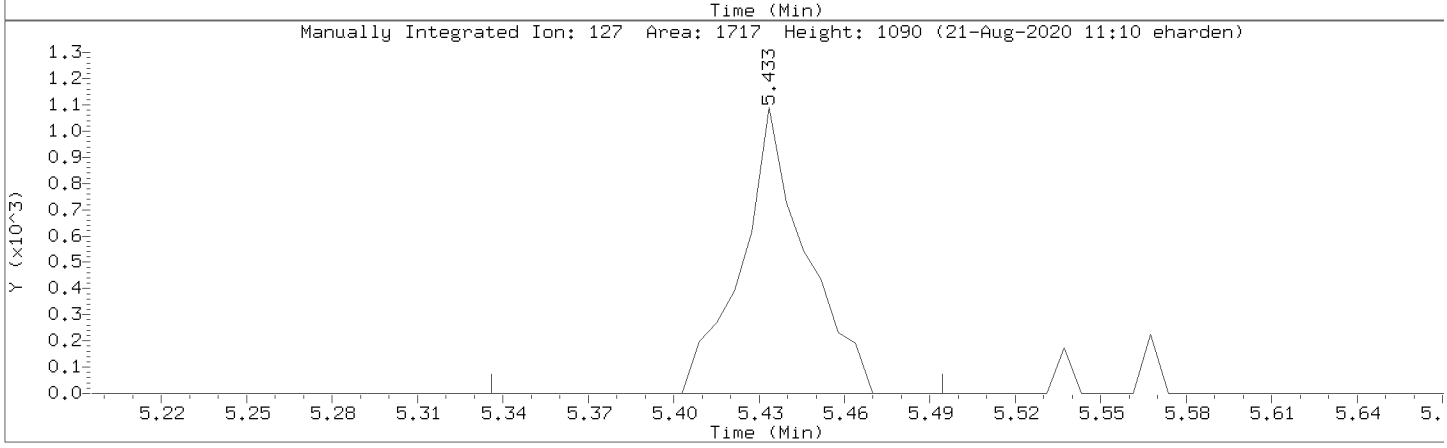
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_07.D
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4

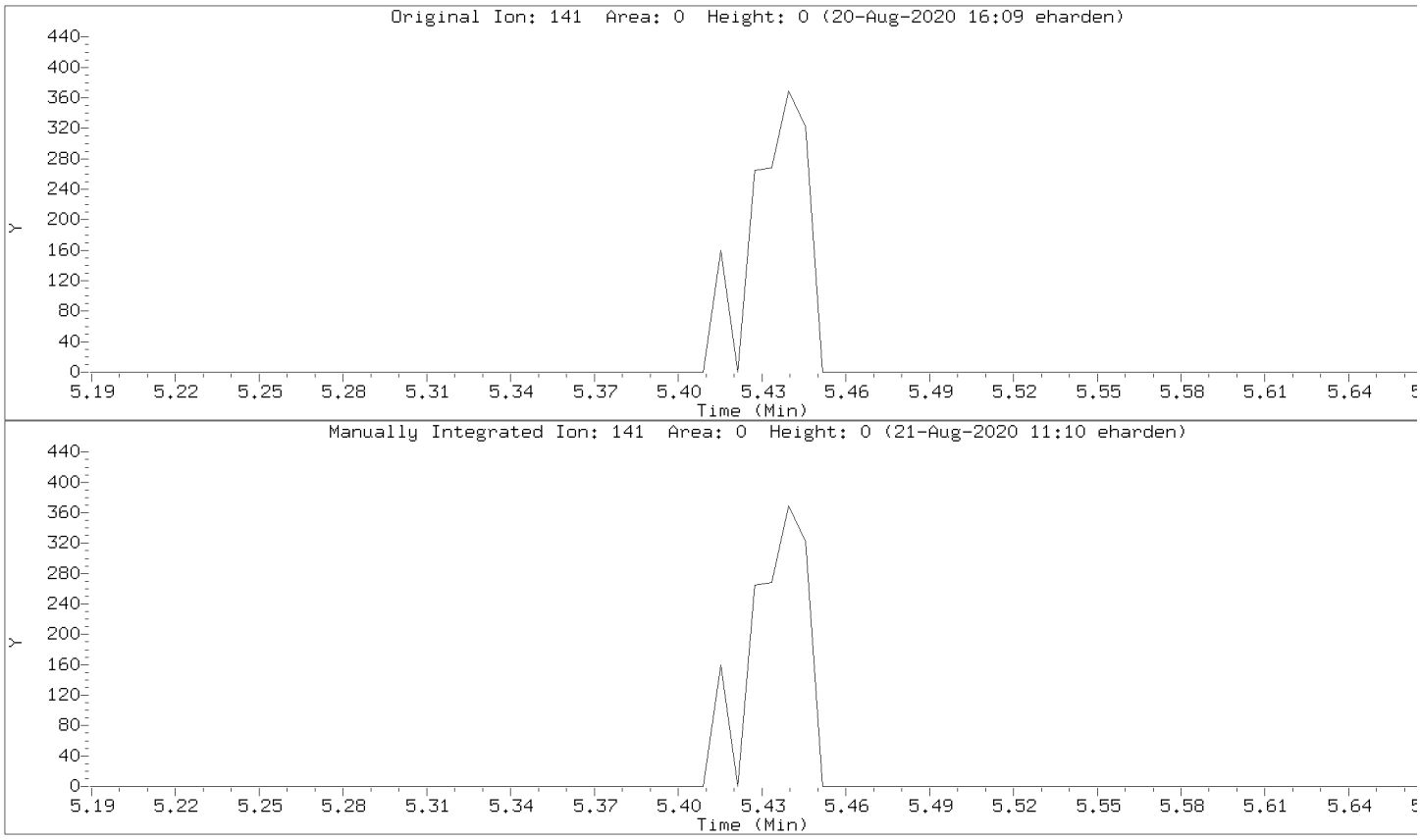








Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_07.D
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5



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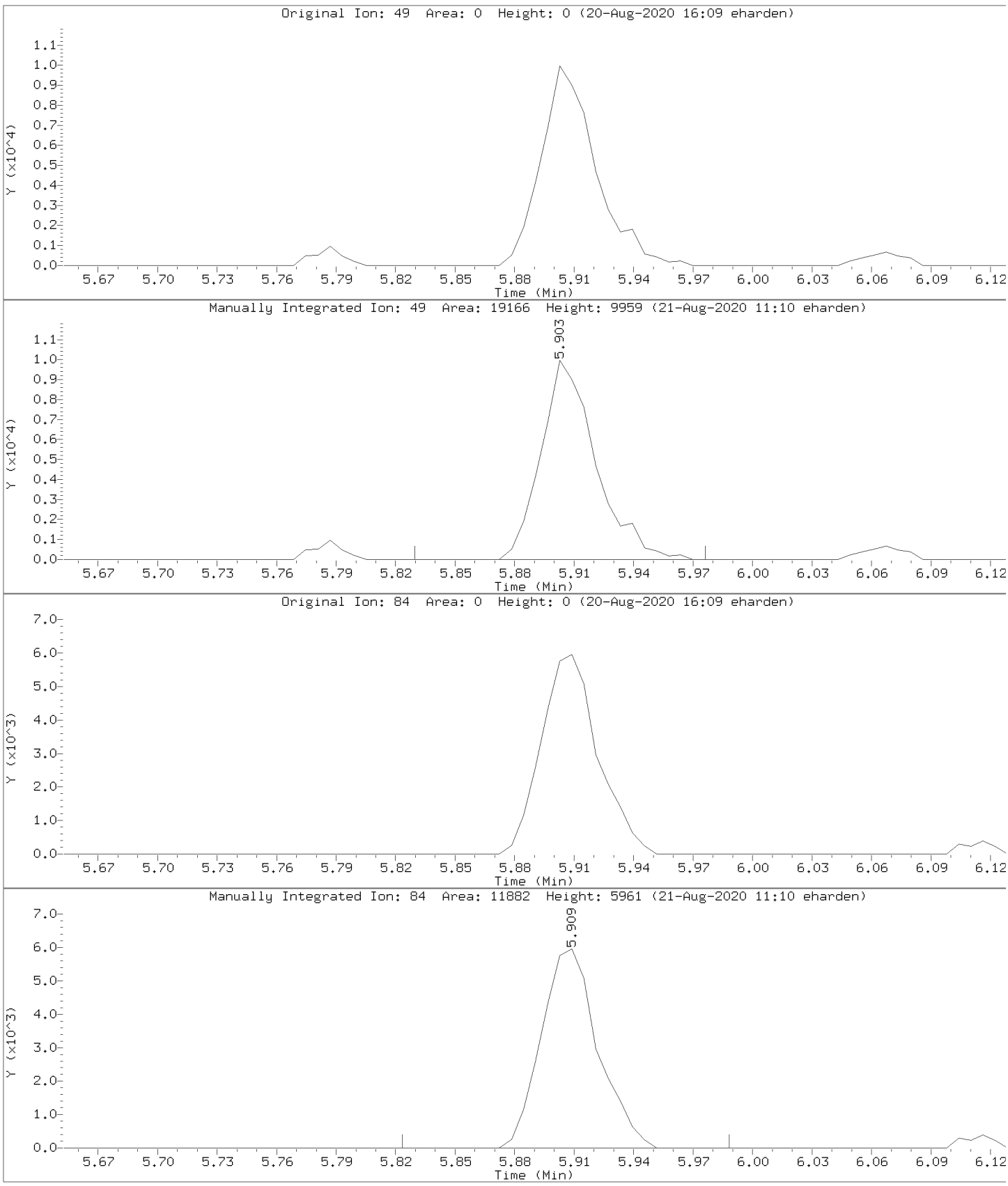
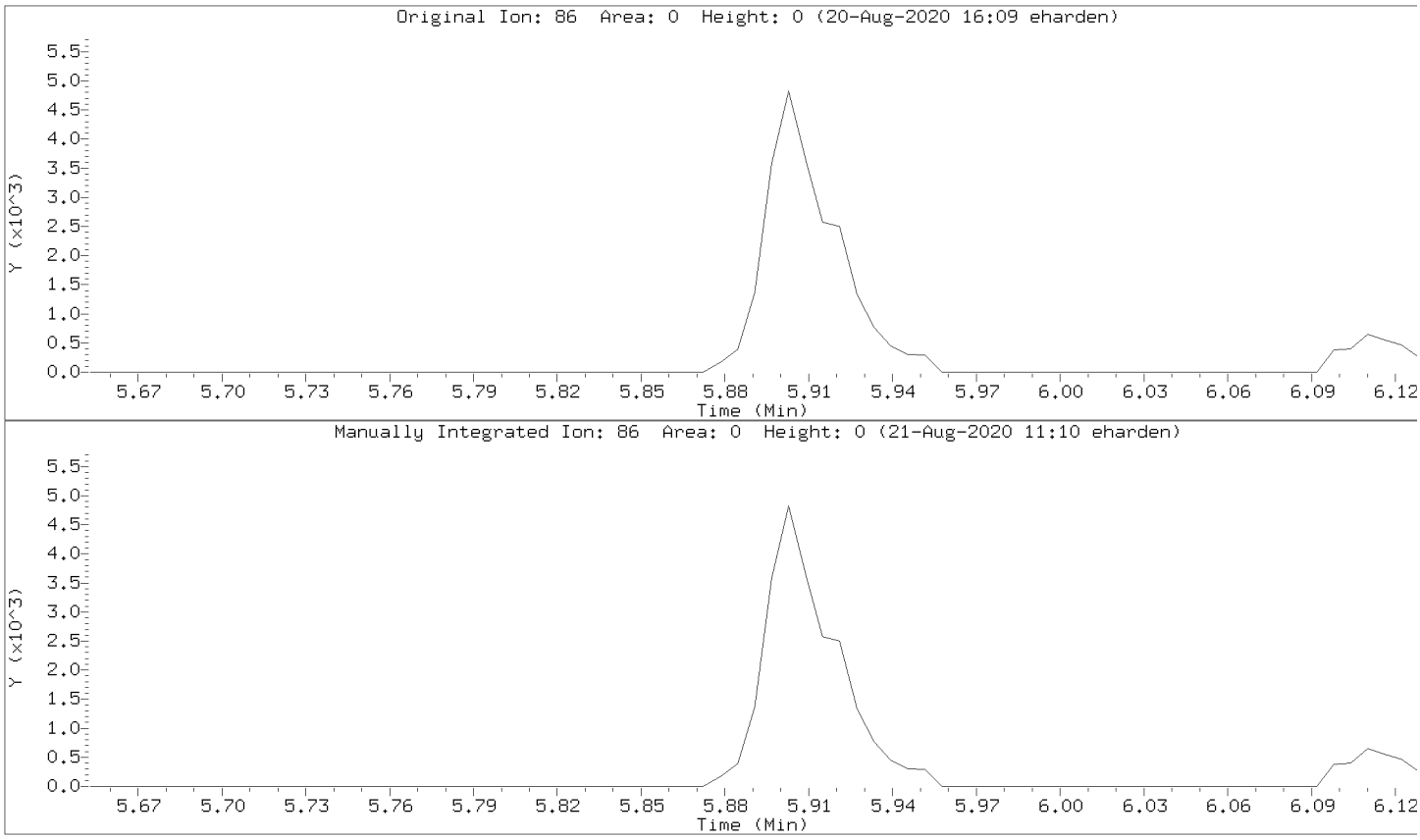
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2



Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_07.D
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5



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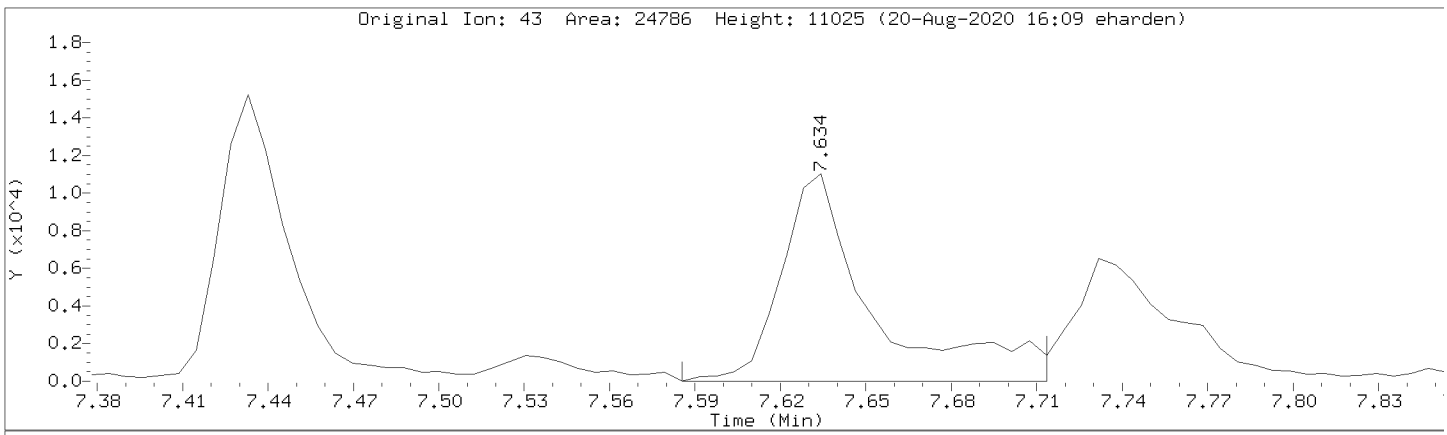
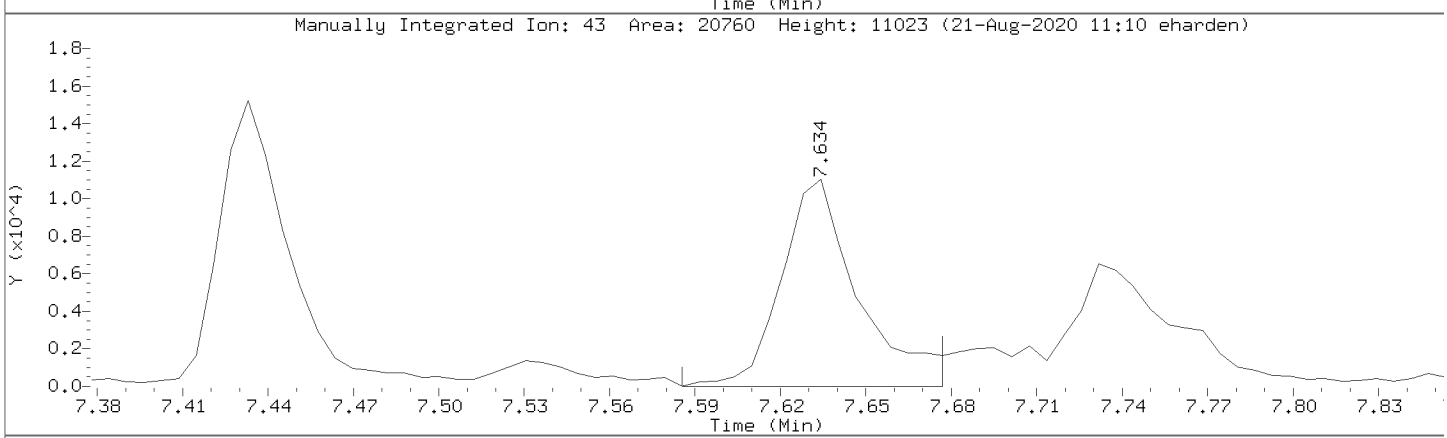
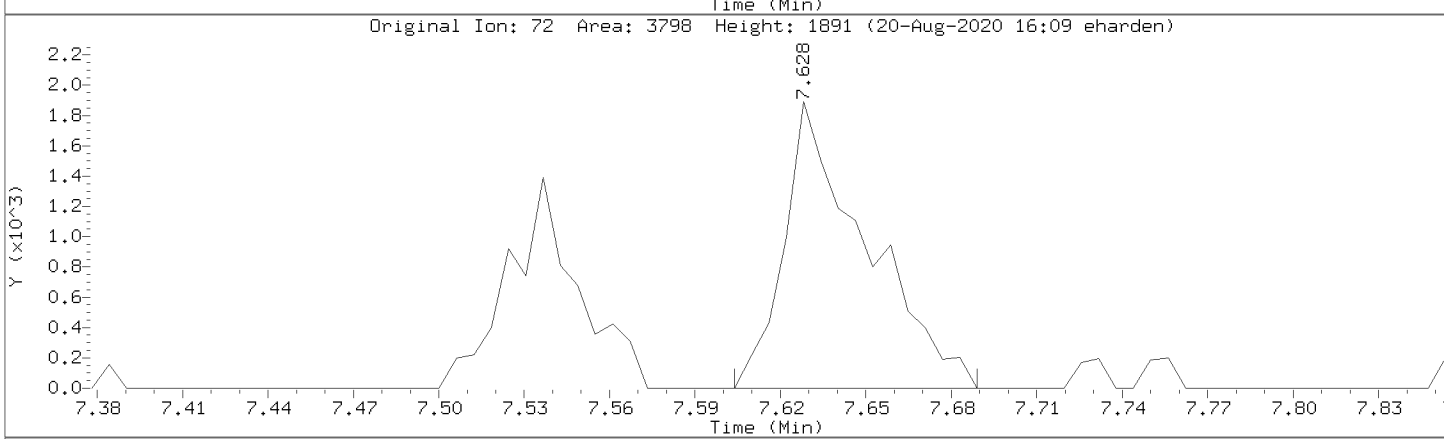
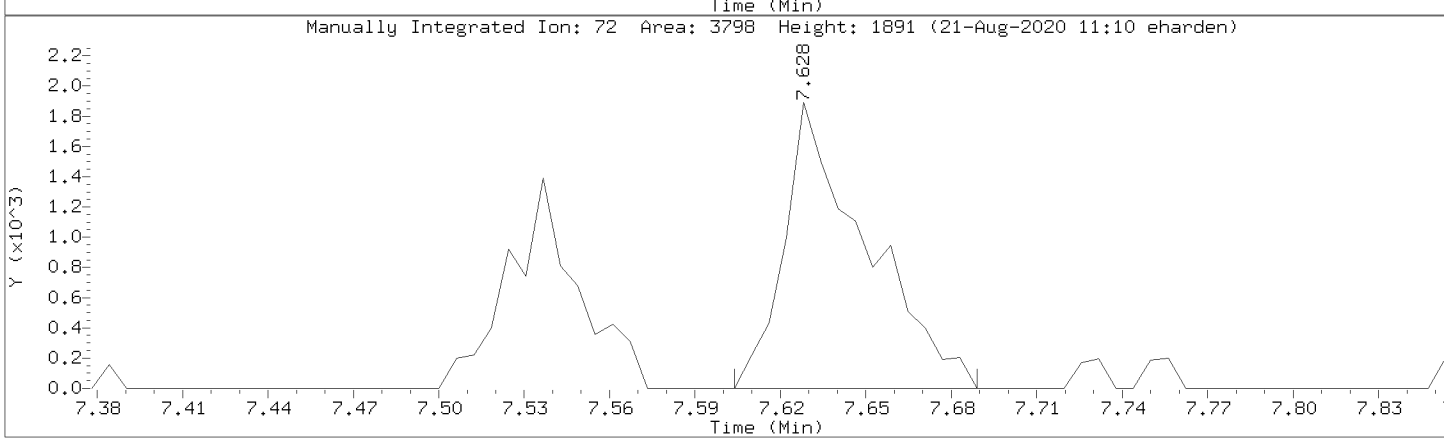
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3









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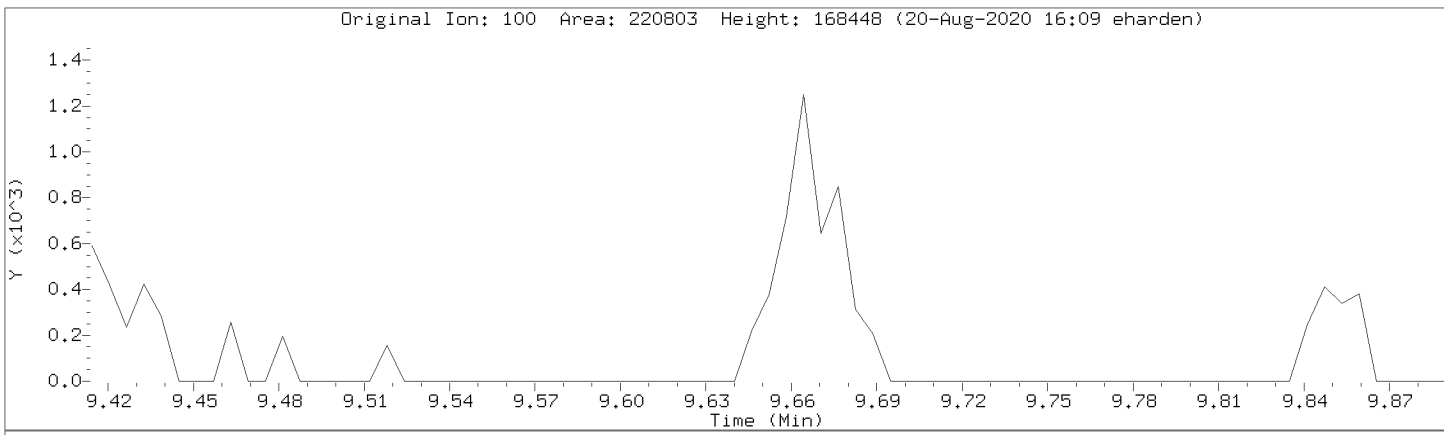
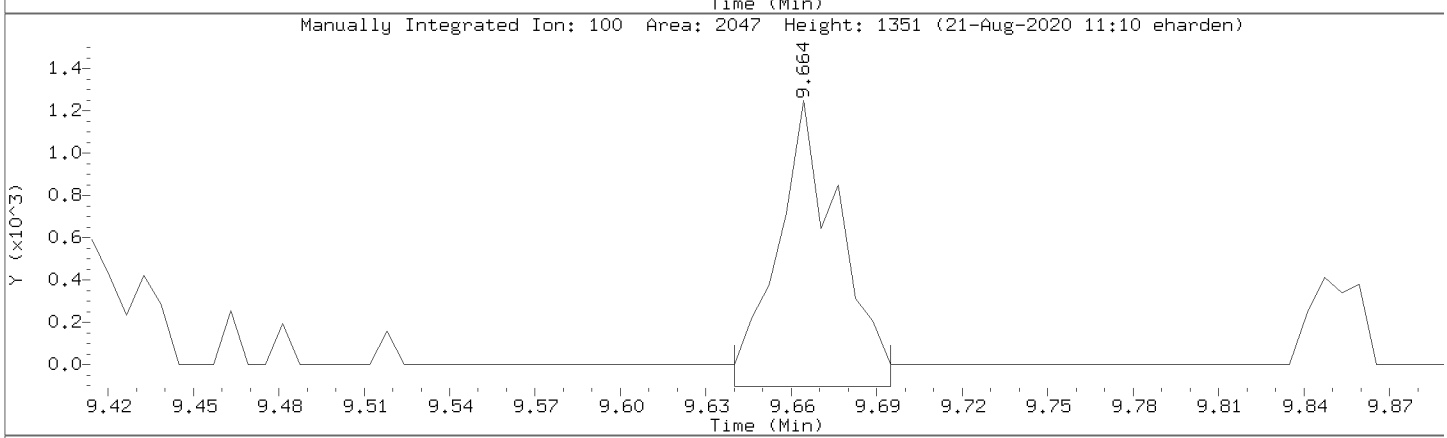
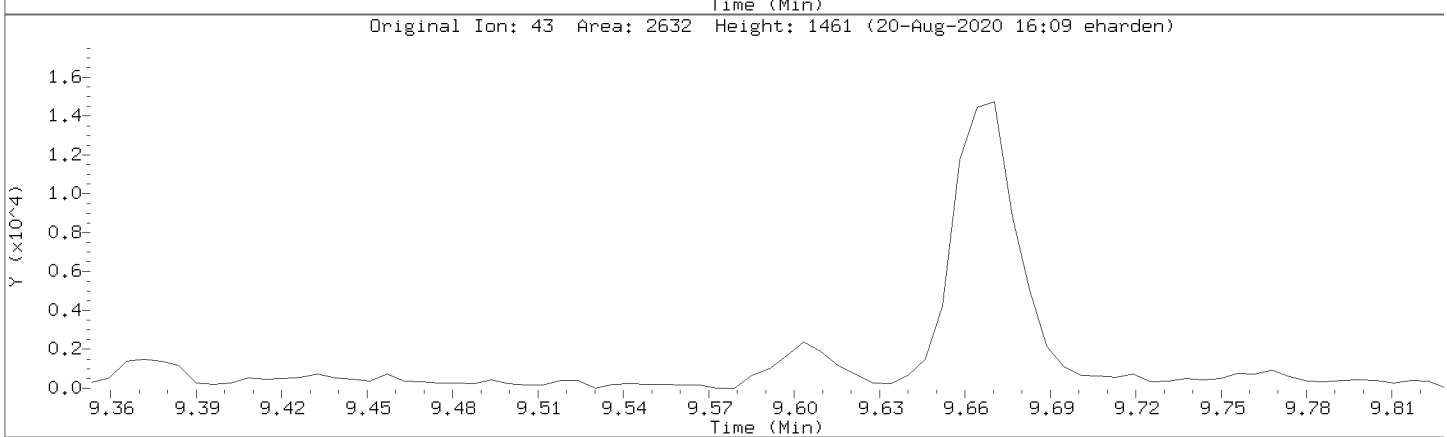
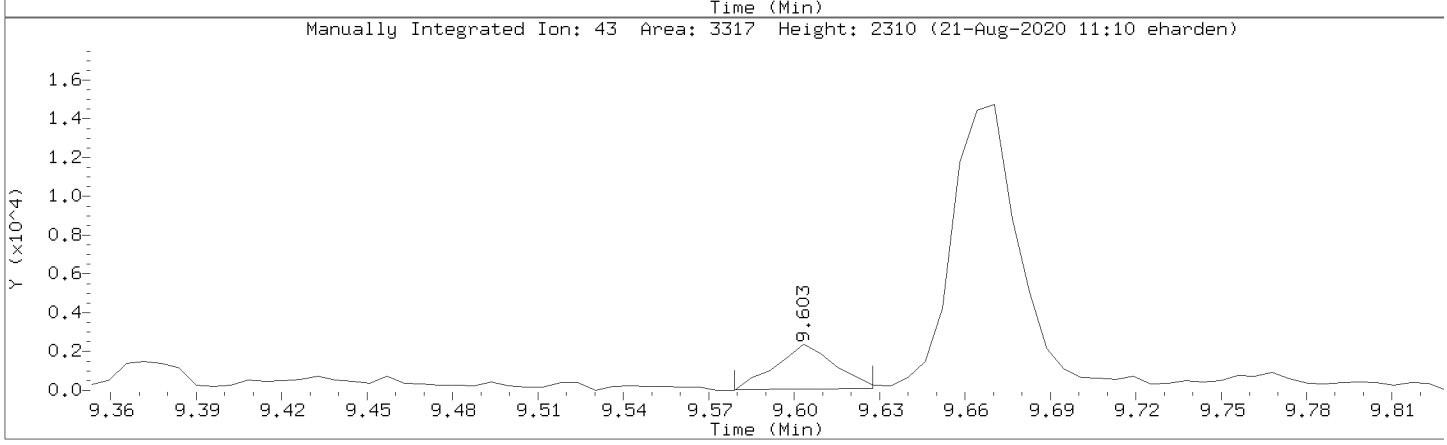
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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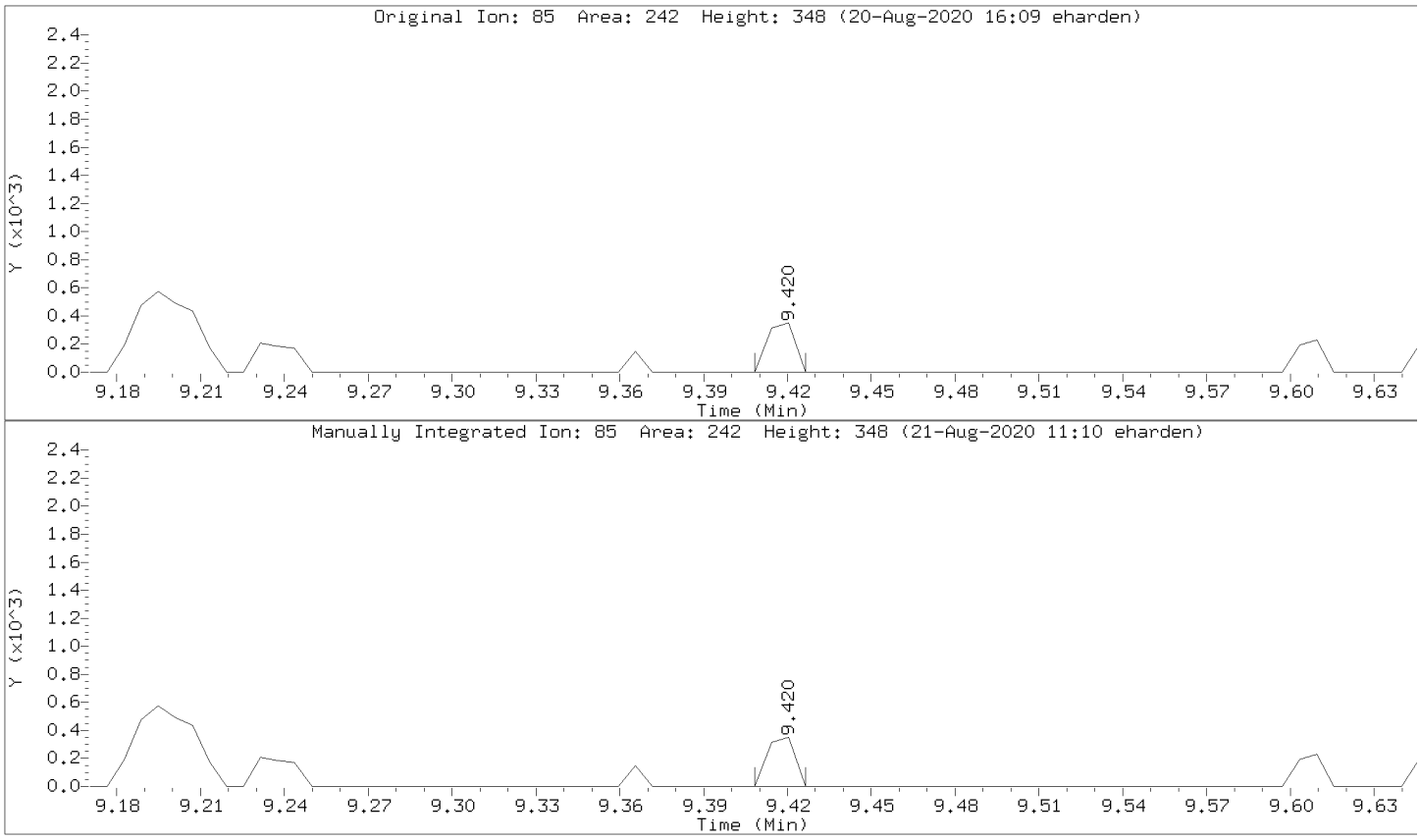
Lab Sample ID: CAL5



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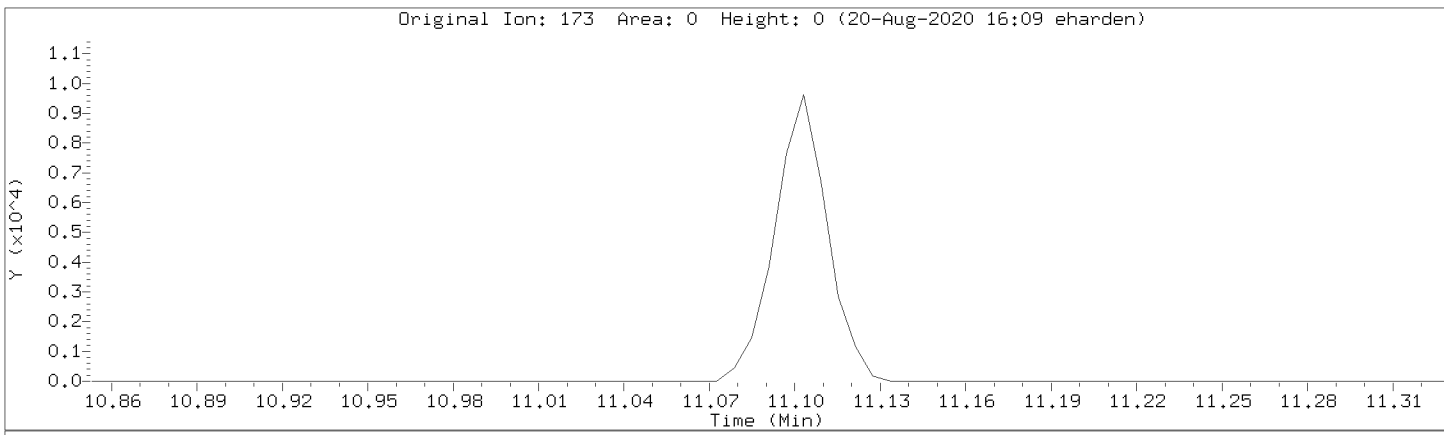
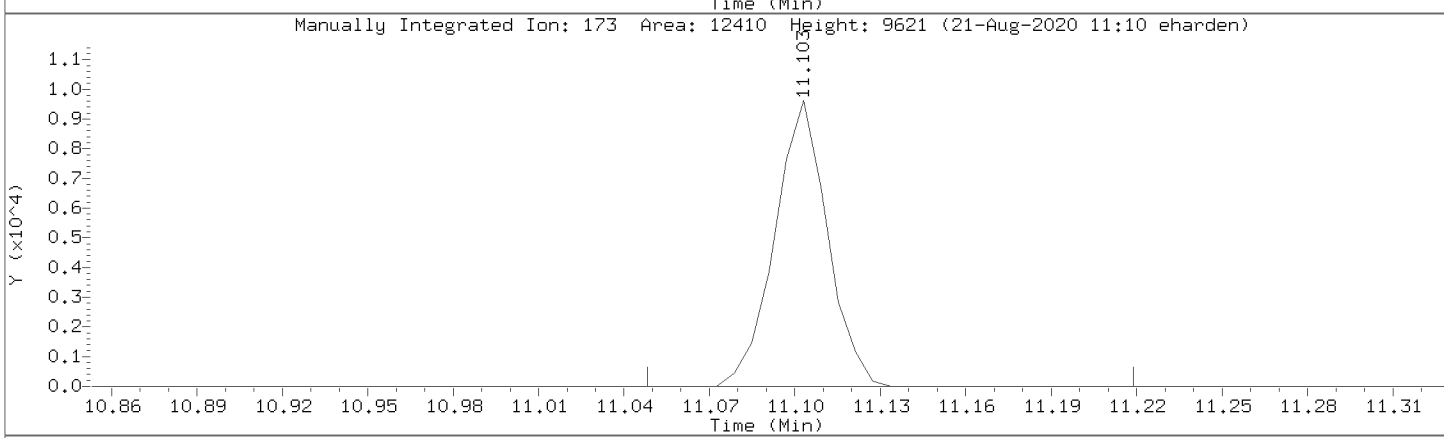
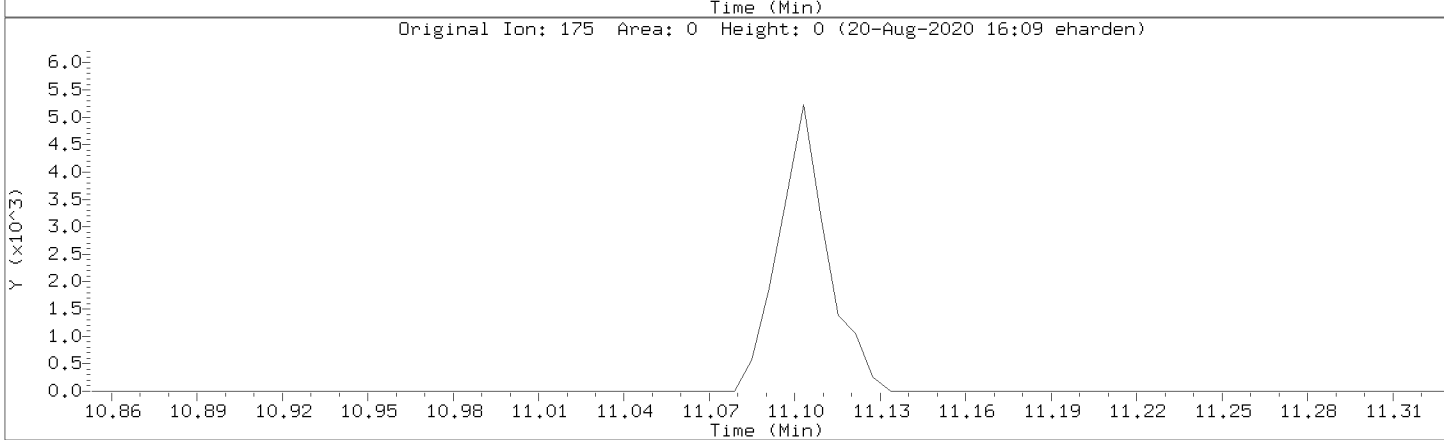
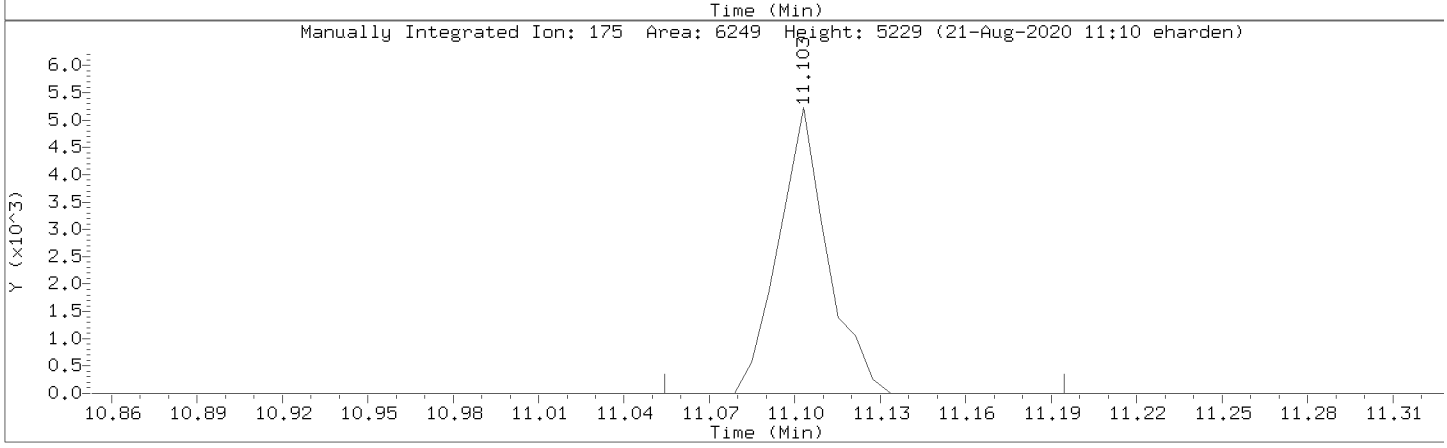
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2









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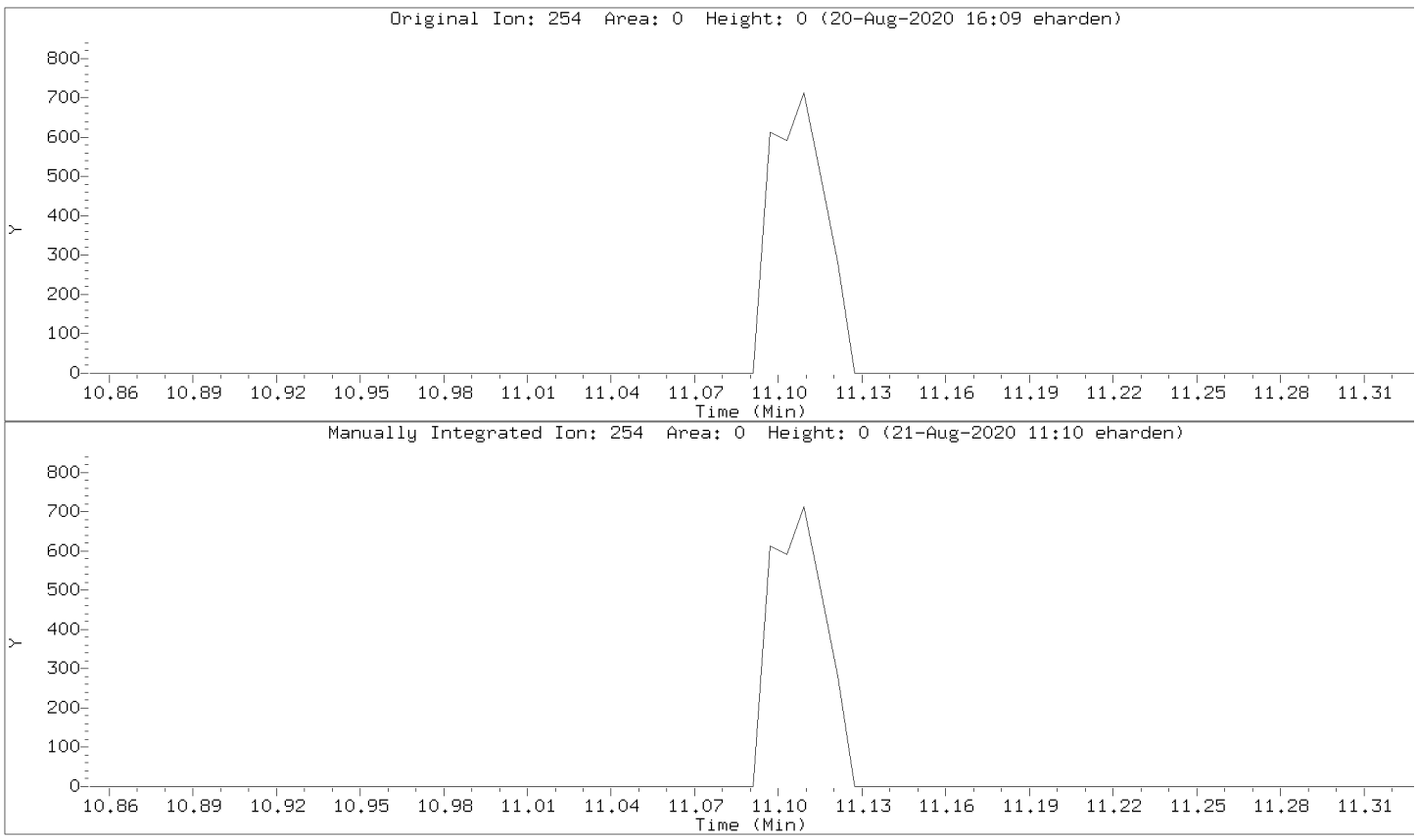
Lab Sample ID: CAL5



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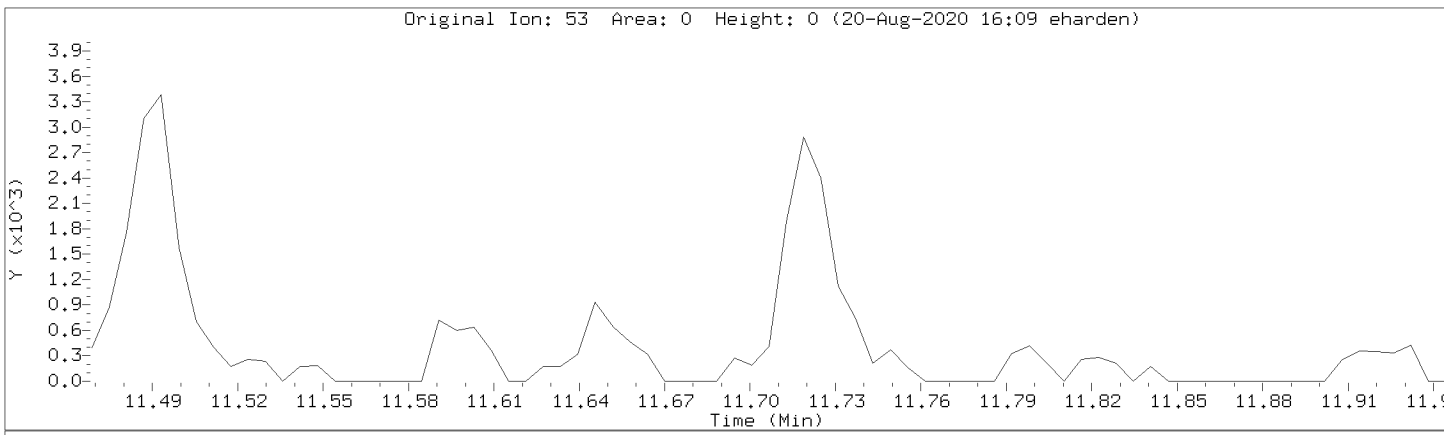
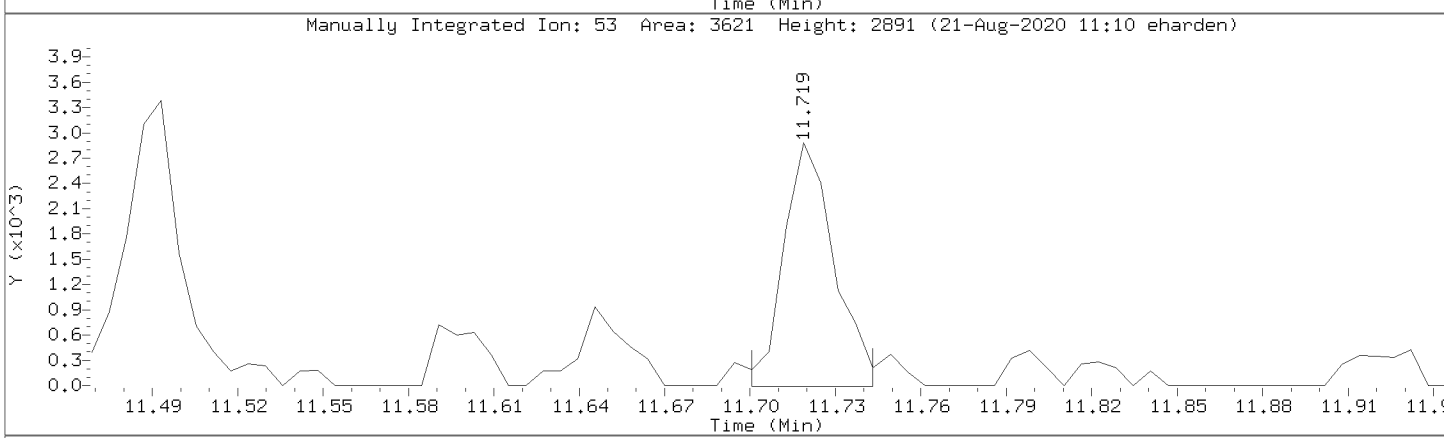
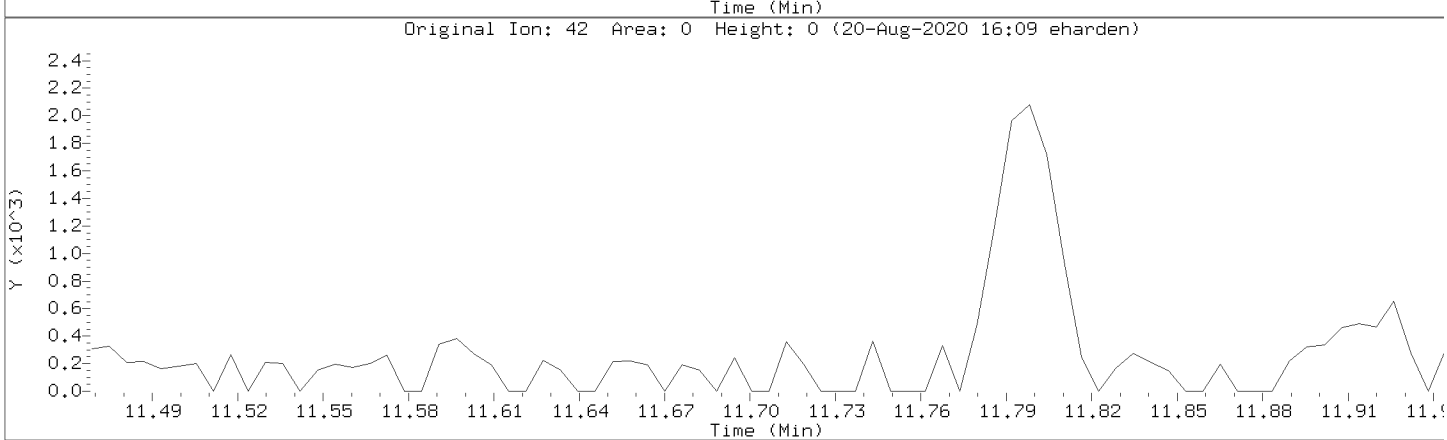
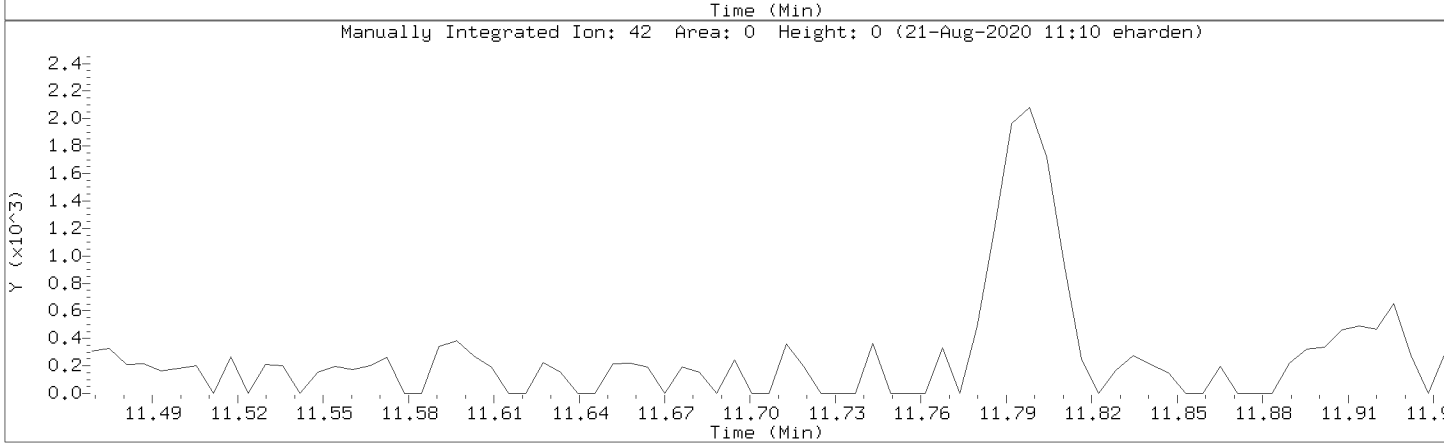
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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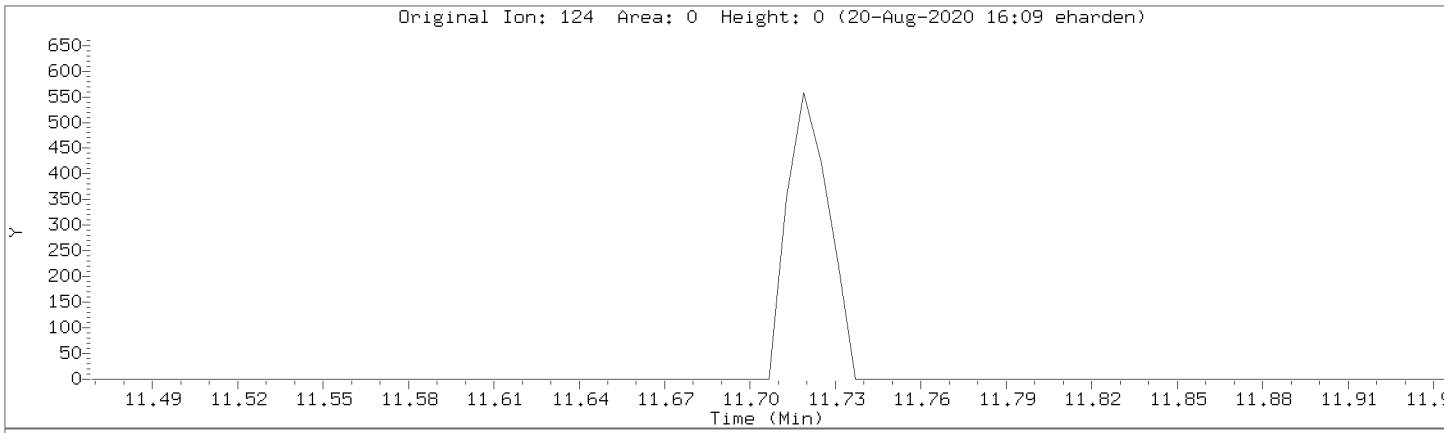
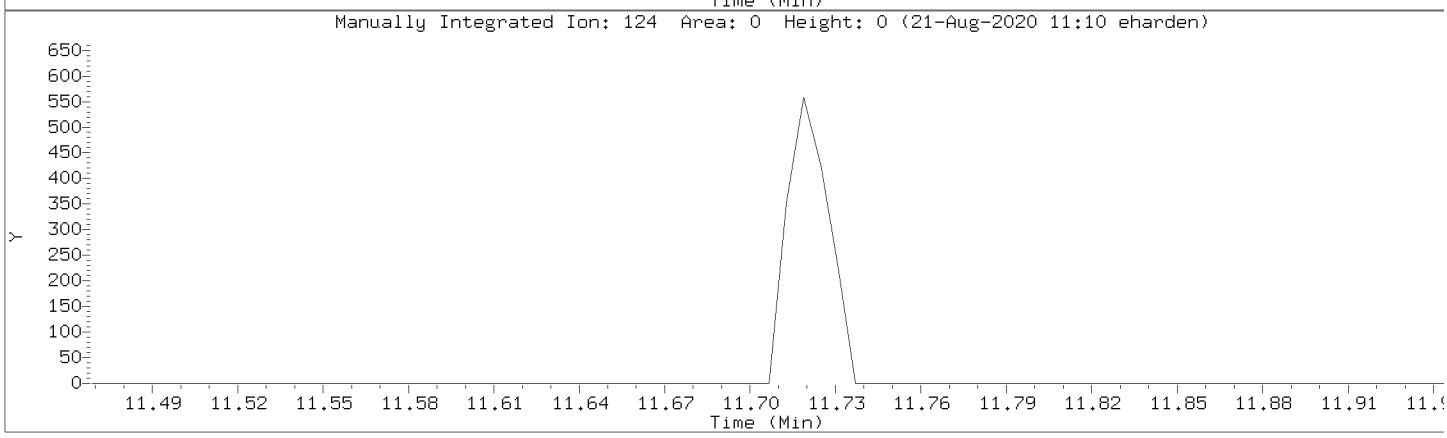
Lab Sample ID: CAL5





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_08.D
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Inj Date : 20-AUG-2020 12:55
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal6,27242:1
Misc Info : 2957,
Comment :
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Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 12:55 Cal File: 082020_08.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.226	(0.409)	29295	10.0000	9.84	
2 Chloromethane	50	3.543	3.543	(0.451)	39151	10.0000	10.6	
3 Vinyl chloride	62	3.689	3.702	(0.469)	28051	10.0000	9.58	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	27387	10.0000	10.4	
5 Bromomethane	94	4.195	4.195	(0.534)	32621	10.0000	12.4	
6 Chloroethane	64	4.360	4.360	(0.555)	10189	10.0000	11.8	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	18512	10.0000	9.94	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	11455	10.0000	11.2	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	37044	10.0000	11.2	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	23374	10.0000	10.7	
11 Carbon disulfide	76	5.293	5.293	(0.673)	81296	10.0000	11.1	
12 Iodomethane	142	5.433	5.439	(0.691)	8958	10.0000	9.59(T)	
13 Acrolein	56	5.659	5.659	(0.720)	6578	20.0000	19.2	
14 Allyl chloride	76	5.780	5.787	(0.736)	10499	10.0000	10.3	
15 Methylene Chloride	49	5.902	5.902	(0.751)	42293	10.0000	10.8(T)	
16 Acetone	43	5.969	5.976	(0.760)	44985	20.0000	22.1	
17 Methyl acetate	43	6.073	6.067	(0.773)	48220	20.0000	20.6	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	24253	10.0000	10.8	
19 n-Hexane	86	6.110	6.110	(0.777)	2234	10.0000	9.43	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	51088	10.0000	9.80	
21 Acetonitrile	41	6.457	6.463	(0.822)	3493	20.0000	16.2(H)	
22 Chloroprene	53	6.640	6.640	(0.845)	30445	10.0000	9.77	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	47900	10.0000	11.0	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	17593	20.0000	18.6	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	44750	10.0000	10.4(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	33510	10.0000	10.5	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	36245	10.0000	10.8	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	15015	10.0000	10.7	
	29 Cyclohexane	56	7.335	7.335	(0.882)	26642	10.0000	9.35	
	30 Chloroform	83	7.372	7.372	(0.938)	52677	10.0000	10.7	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	56268	20.0000	20.3	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	36580	10.0000	10.8	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	14388	20.0000	19.0	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	146283	50.0000	51.5	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	41497	10.0000	10.8	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	42963	20.0000	20.3	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	26914	10.0000	10.1(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	246807	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	92640	10.0000	10.8	
	40 Propionitrile	54	7.890	7.902	(1.004)	9386	20.0000	22.3	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	44057	20.0000	20.6	
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25345	50.0000	49.6	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	40332	10.0000	10.4	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	46853	10.0000	10.2	
	46 Trichloroethene	130	8.323	8.317	(1.001)	25650	10.0000	11.0	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	334966	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	10846	10.0000	9.77	
	49 n-Butanol	56	8.518	8.524	(1.024)	718	20.0000	14.0(MH)	LT
	50 Dibromomethane	93	8.670	8.670	(1.043)	22088	10.0000	11.1	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	26011	10.0000	10.6	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	41201	10.0000	11.7	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	11241	10.0000	8.54(H)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						(D)
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	17674	20.0000	15.5	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	34756	10.0000	10.2	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	363232	50.0000	50.4	
	58 Toluene	91	9.414	9.414	(1.132)	87179	10.0000	10.4	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	8683	10.0000	10.0(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.670	9.664	(1.163)	4550	20.0000	19.0(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	34380	10.0000	10.1	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	22100	10.0000	10.4	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	20969	10.0000	8.39(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	22063	10.0000	10.4	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	32178	10.0000	11.0	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	34242	10.0000	10.6	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	27035	10.0000	10.7	
	68 2-Hexanone	43	10.273	10.280	(1.235)	55414	20.0000	19.6	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	77797	10.0000	9.64	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	308495	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	63961	10.0000	10.7	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	26243	10.0000	10.4	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	122019	20.0000	17.6	
	74 o-Xylene	106	10.993	10.993	(1.041)	25872	10.0000	8.21	
	75 Styrene	104	11.029	11.029	(1.044)	44191	10.0000	8.11	
	76 Bromoform	173	11.103	11.103	(1.051)	29236	10.0000	10.5	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.225	11.225	(1.063)	38823	10.0000	8.40	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	123406	50.0000	48.7	
	79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	9323	10.0000	9.20	
	80 n-Propylbenzene	91	11.523	11.523	(1.091)	101972	10.0000	10.3	
	81 Bromobenzene	156	11.578	11.578	(1.096)	33652	10.0000	10.8	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	36166	10.0000	11.0	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	61206	10.0000	9.66	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	22961	10.0000	10.0	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	19627	10.0000	8.56	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	66445	10.0000	8.28	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	34384	10.0000	9.96(M)	CO
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	7978	10.0000	10.0(M)	NI
	89 Cyclohexanone	98	Compound Not Detected.						
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	55461	10.0000	7.95	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	61898	10.0000	8.71	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	70909	10.0000	8.45	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	55461	10.0000	7.95	
	94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	52511	10.0000	10.3	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	191833	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	58586	10.0000	10.2	
	97 n-Butylbenzene	91	12.486	12.486	(1.012)	61276	10.0000	9.17	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	56996	10.0000	10.2	
	99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	5508	10.0000	8.78	
	100 Hexachloro-1,3-butadiene	225	13.815	13.822	(1.120)	17340	10.0000	10.1	
	101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	35572	10.0000	9.42	
	102 Naphthalene	128	14.193	14.193	(1.150)	52461	10.0000	7.46	
	103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	31470	10.0000	8.96	

QC Flag Legend

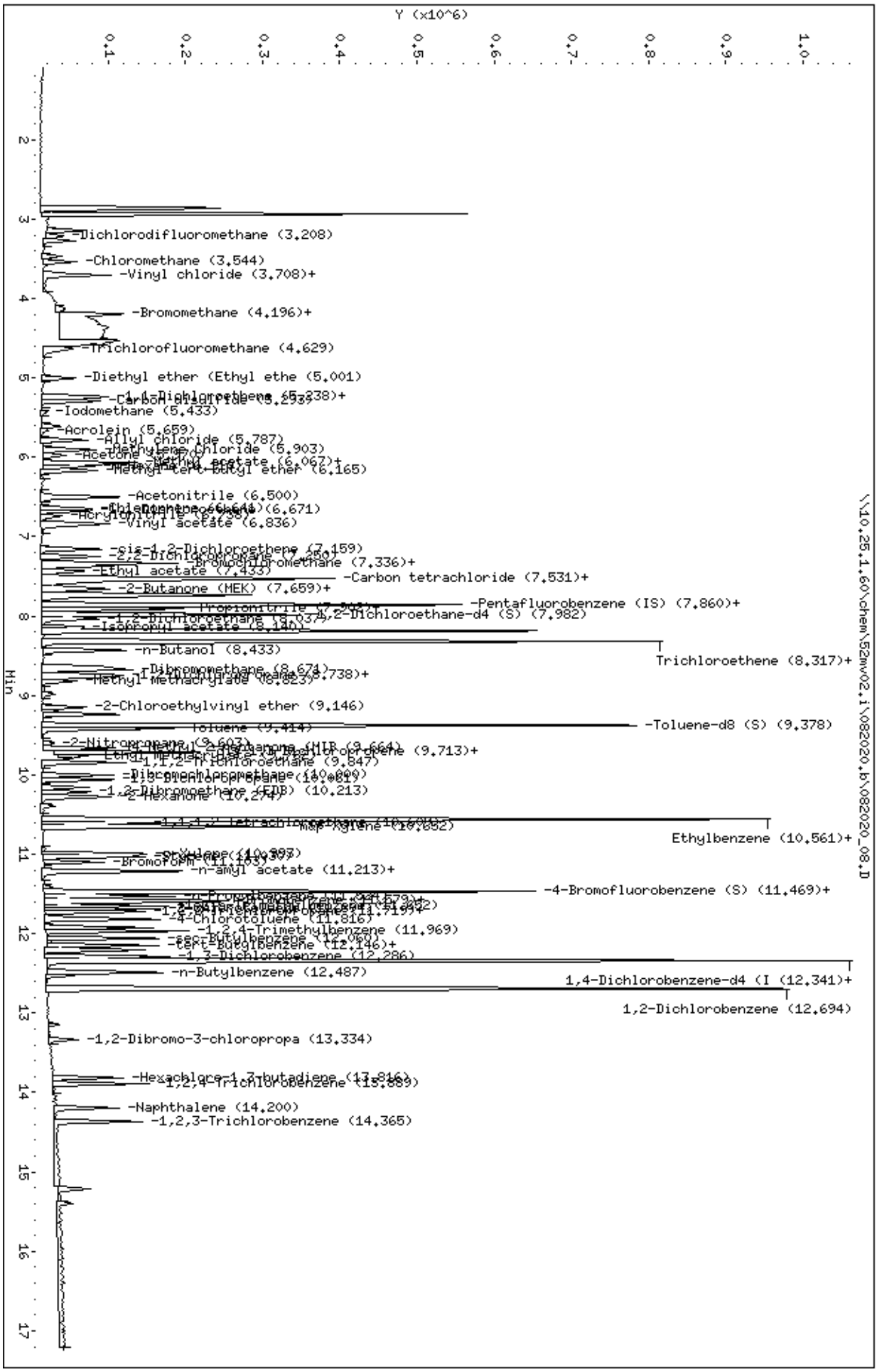
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_08.D
Date : 20-AUG-2020 12:55
Client ID: CAL6
Sample Info: CAL6,27242:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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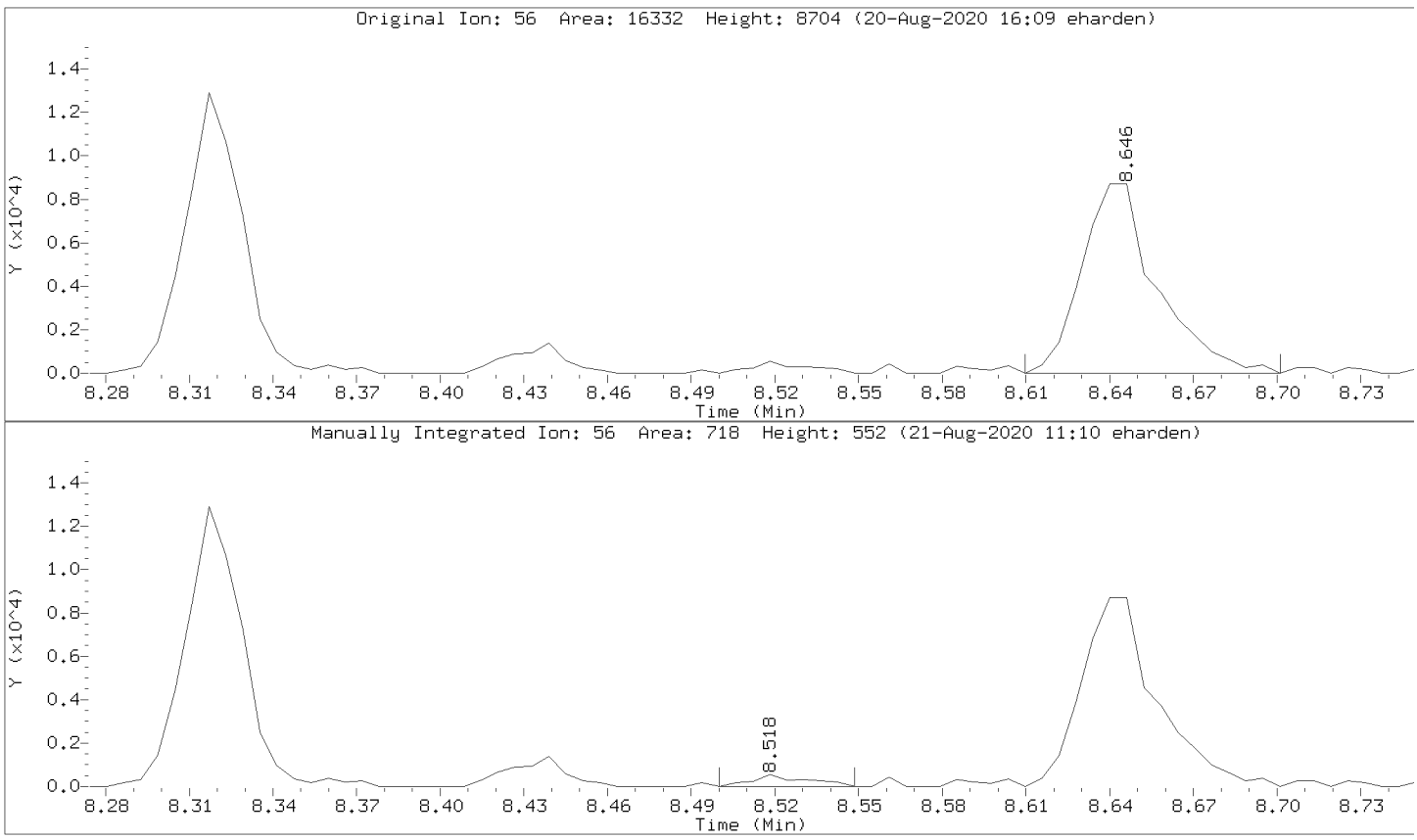
Page 4

Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_08.D
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: n-Butanol Review Code: LT
CAS Number: 71-36-3



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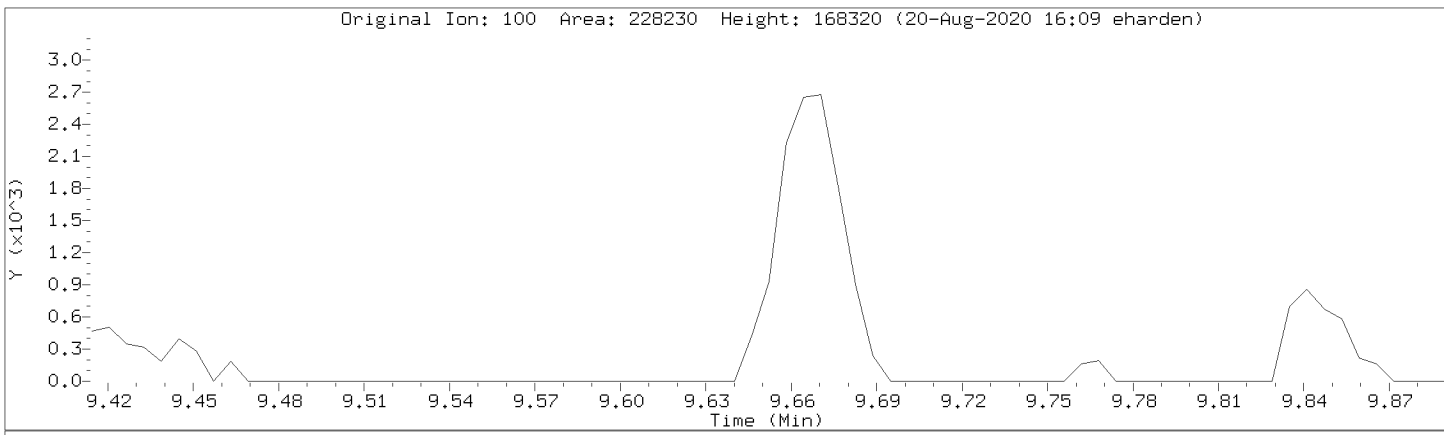
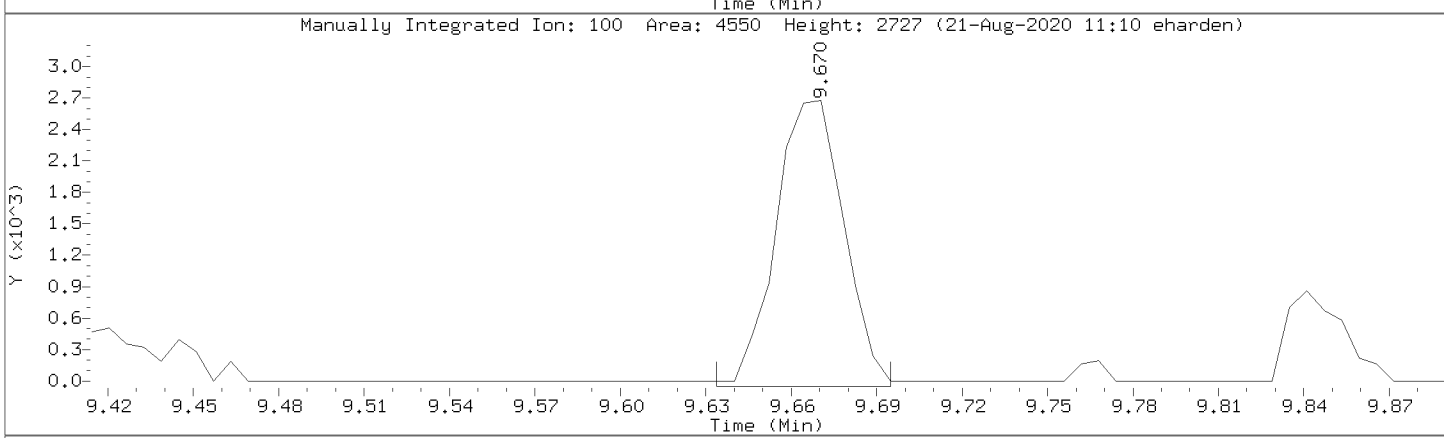
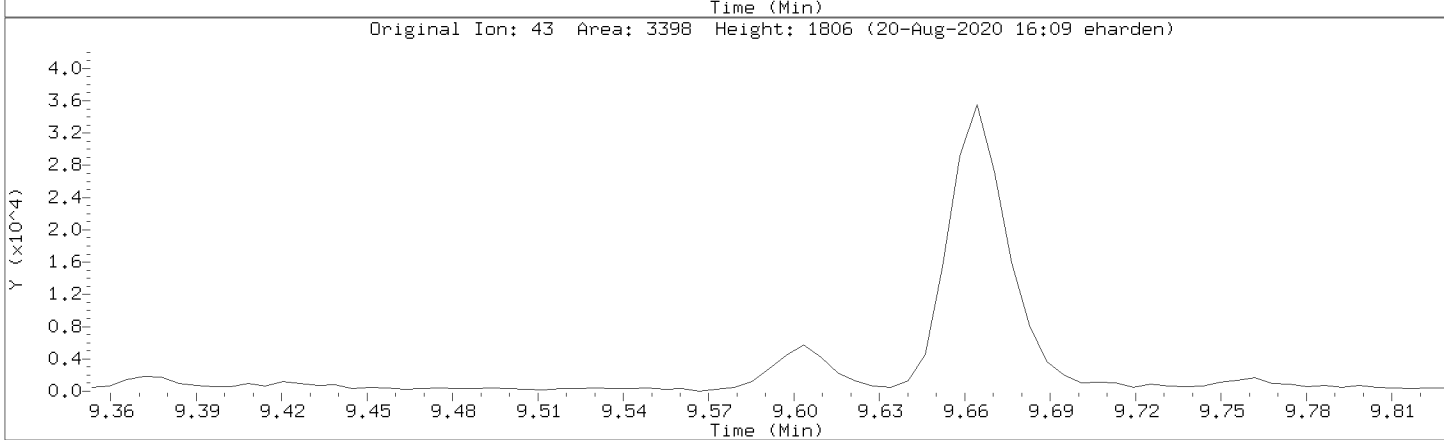
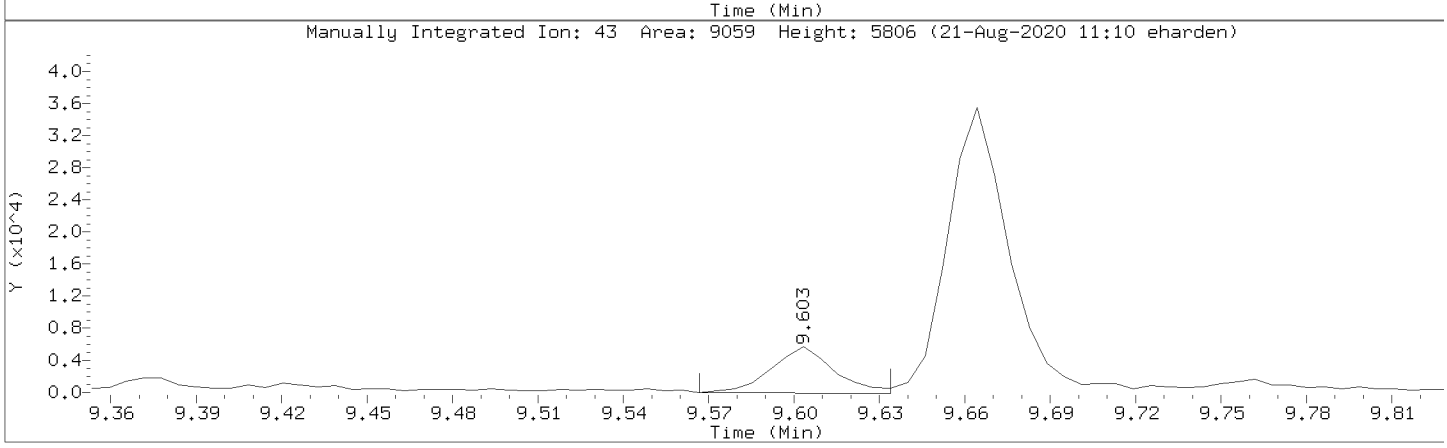
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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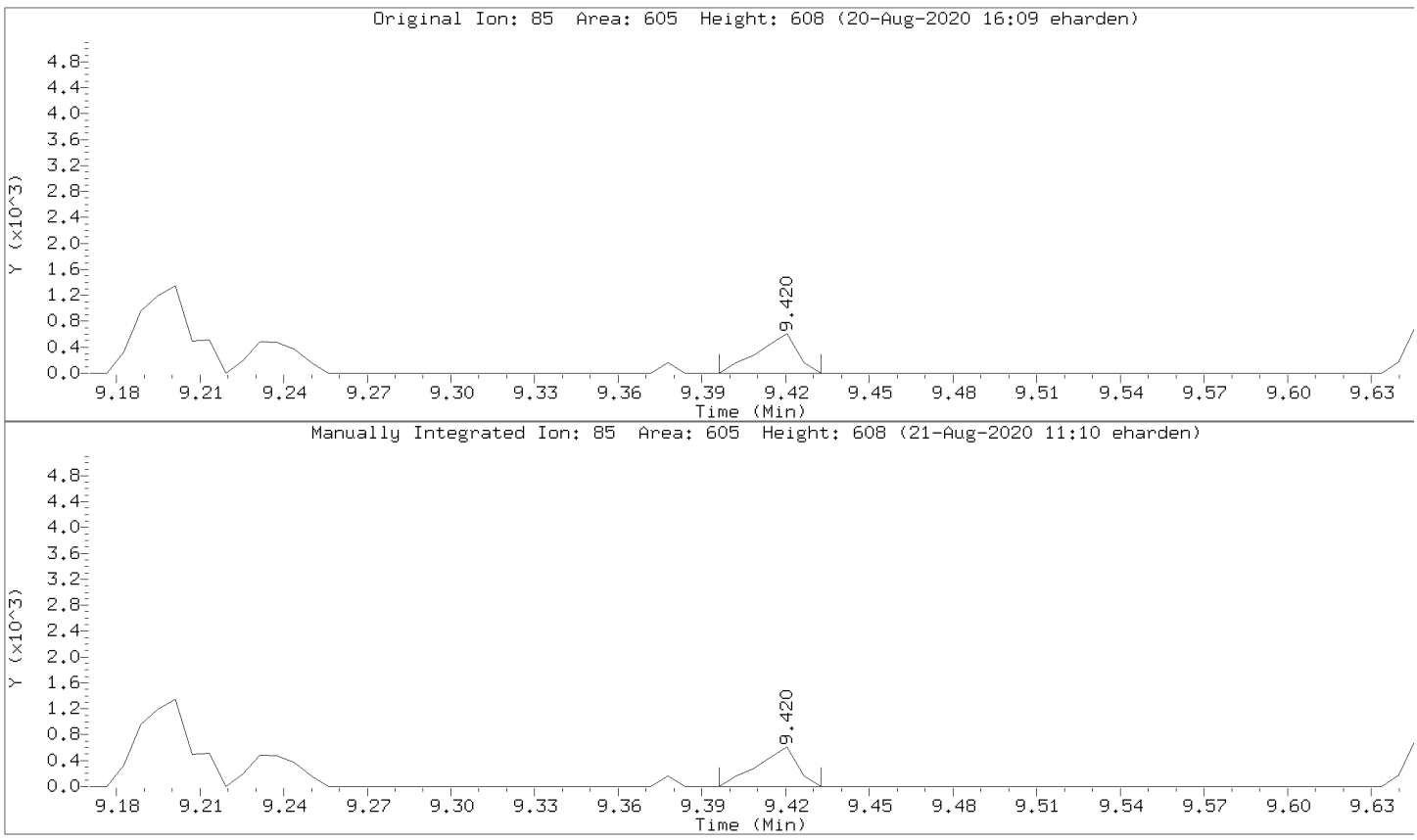
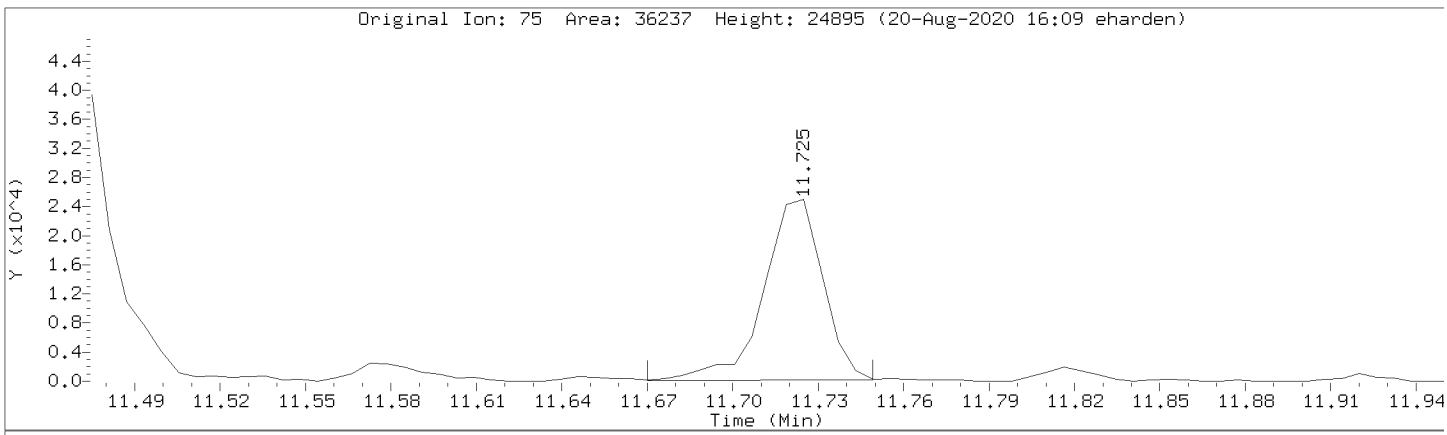
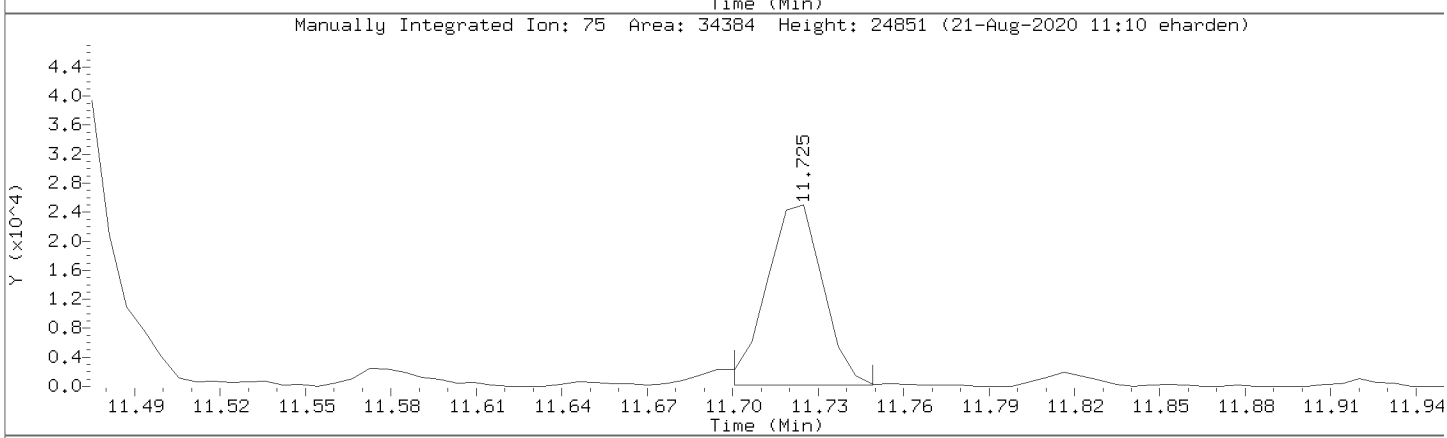
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

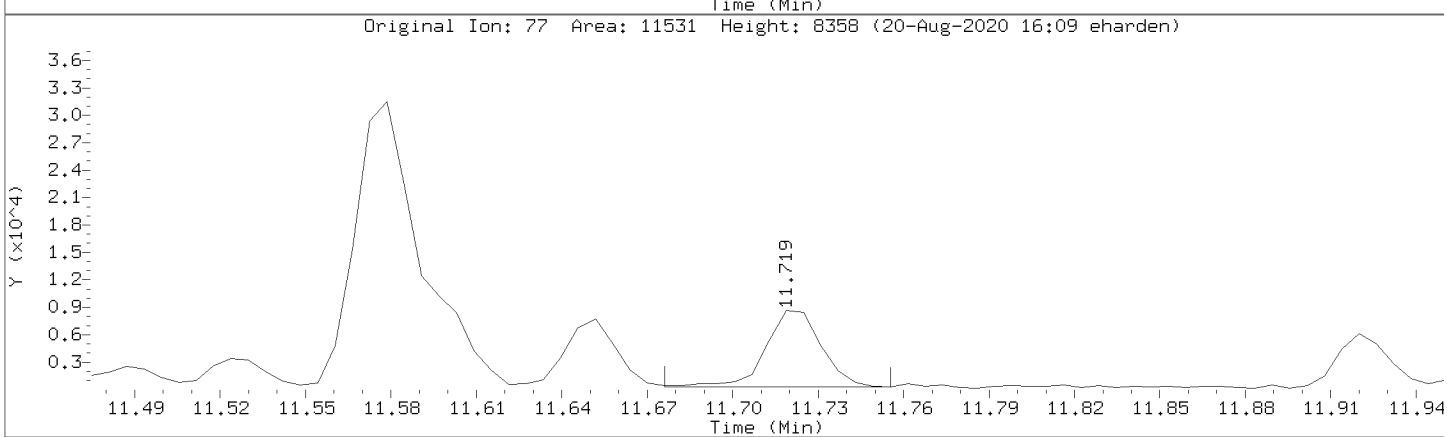


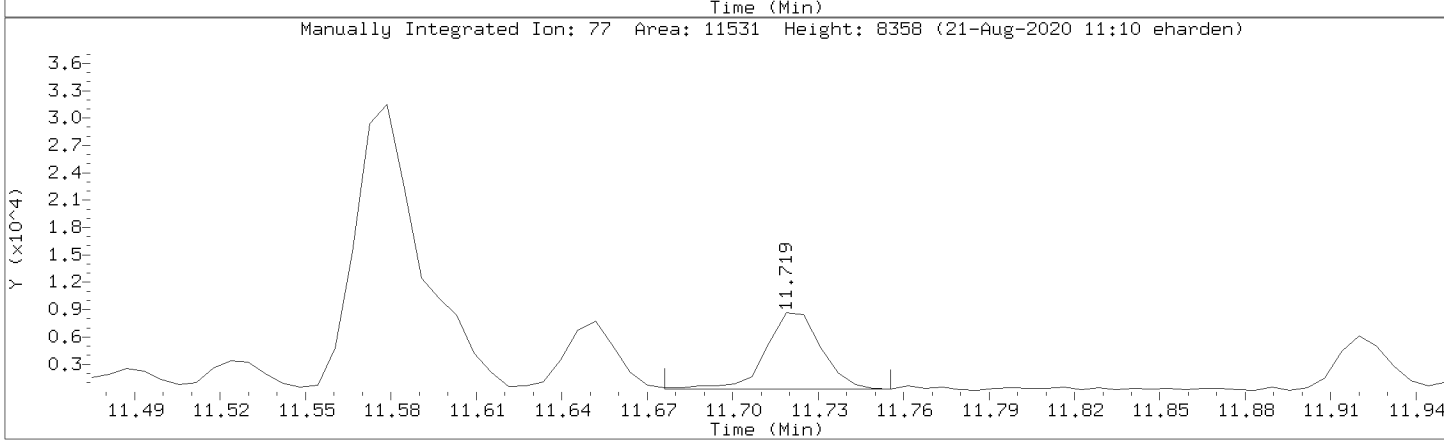
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_08.D
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: 1,2,3-Trichloropropane Review Code: CO
CAS Number: 96-18-4









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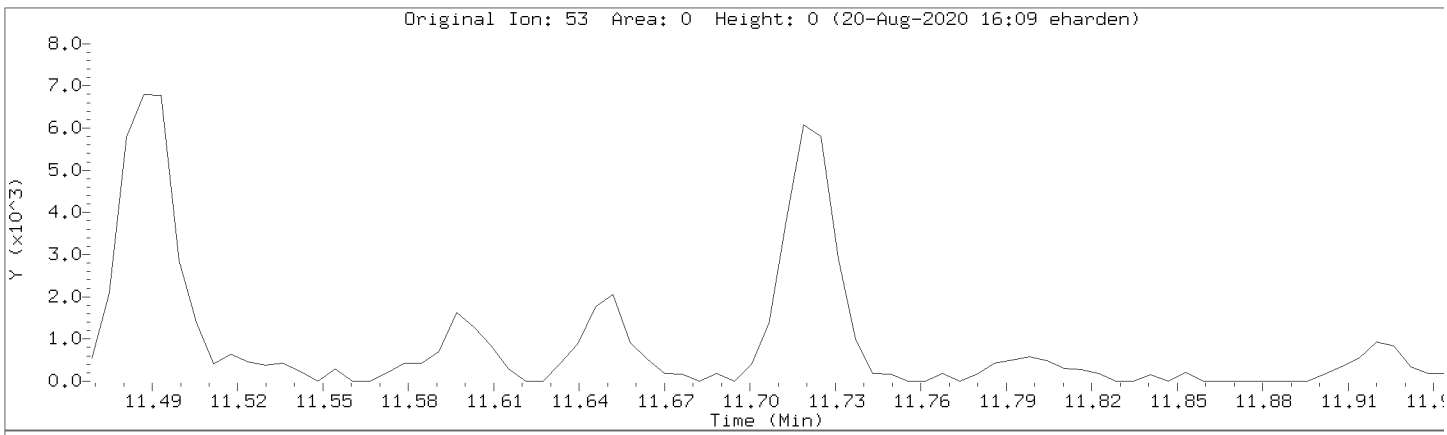
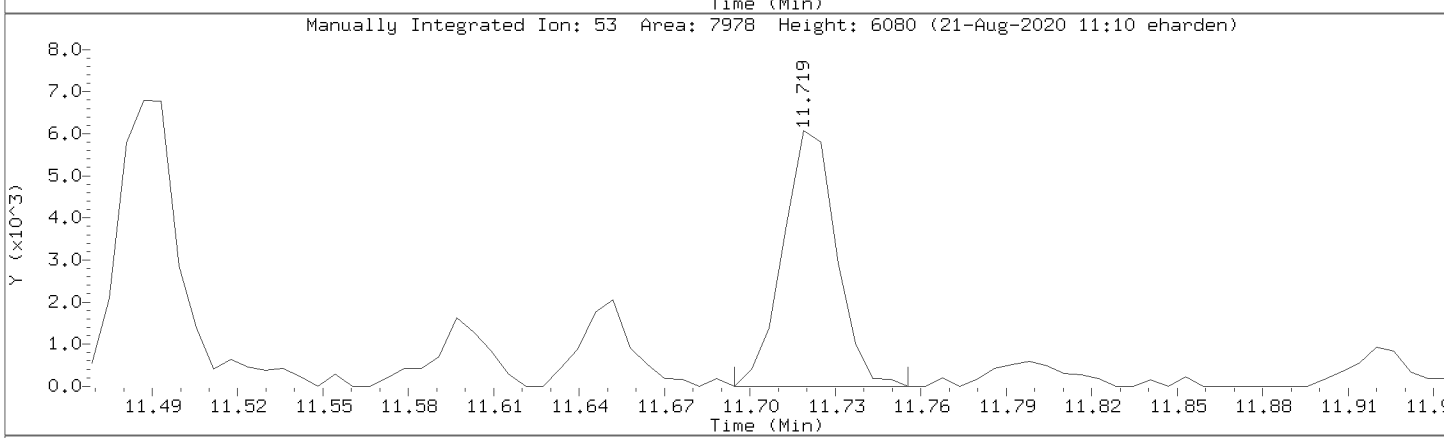
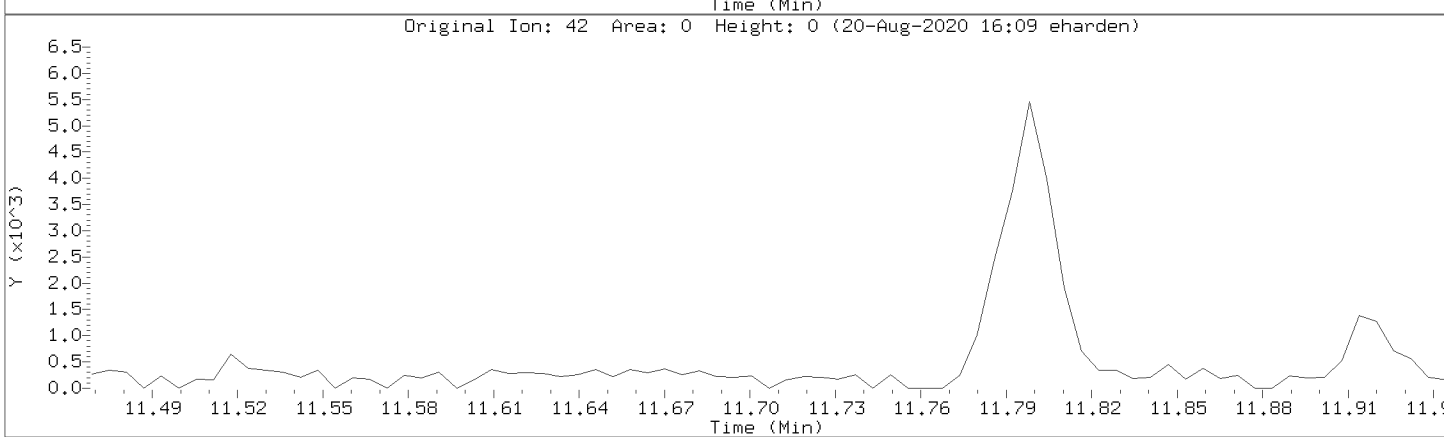
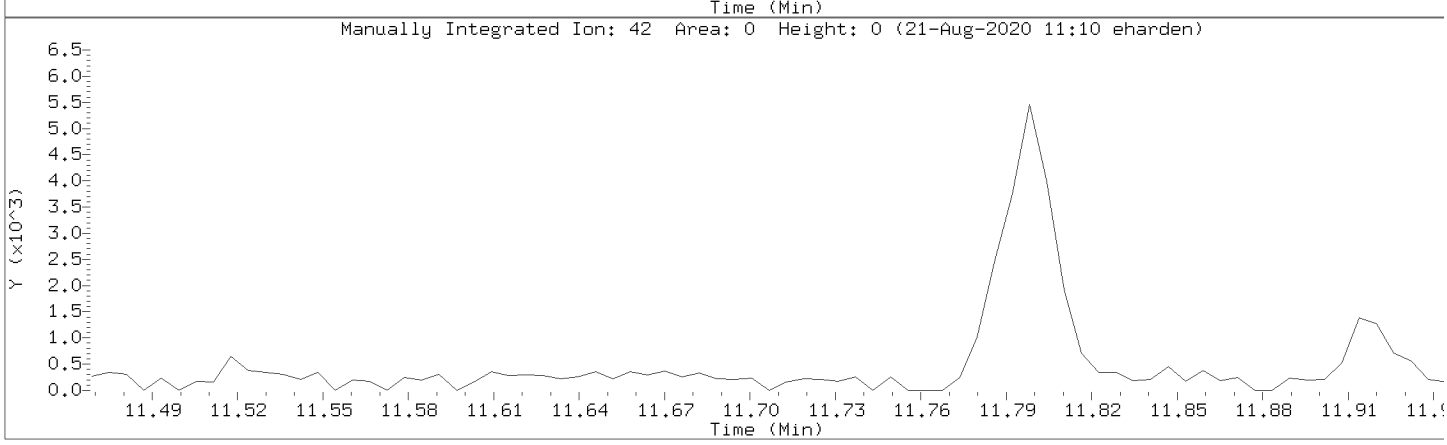
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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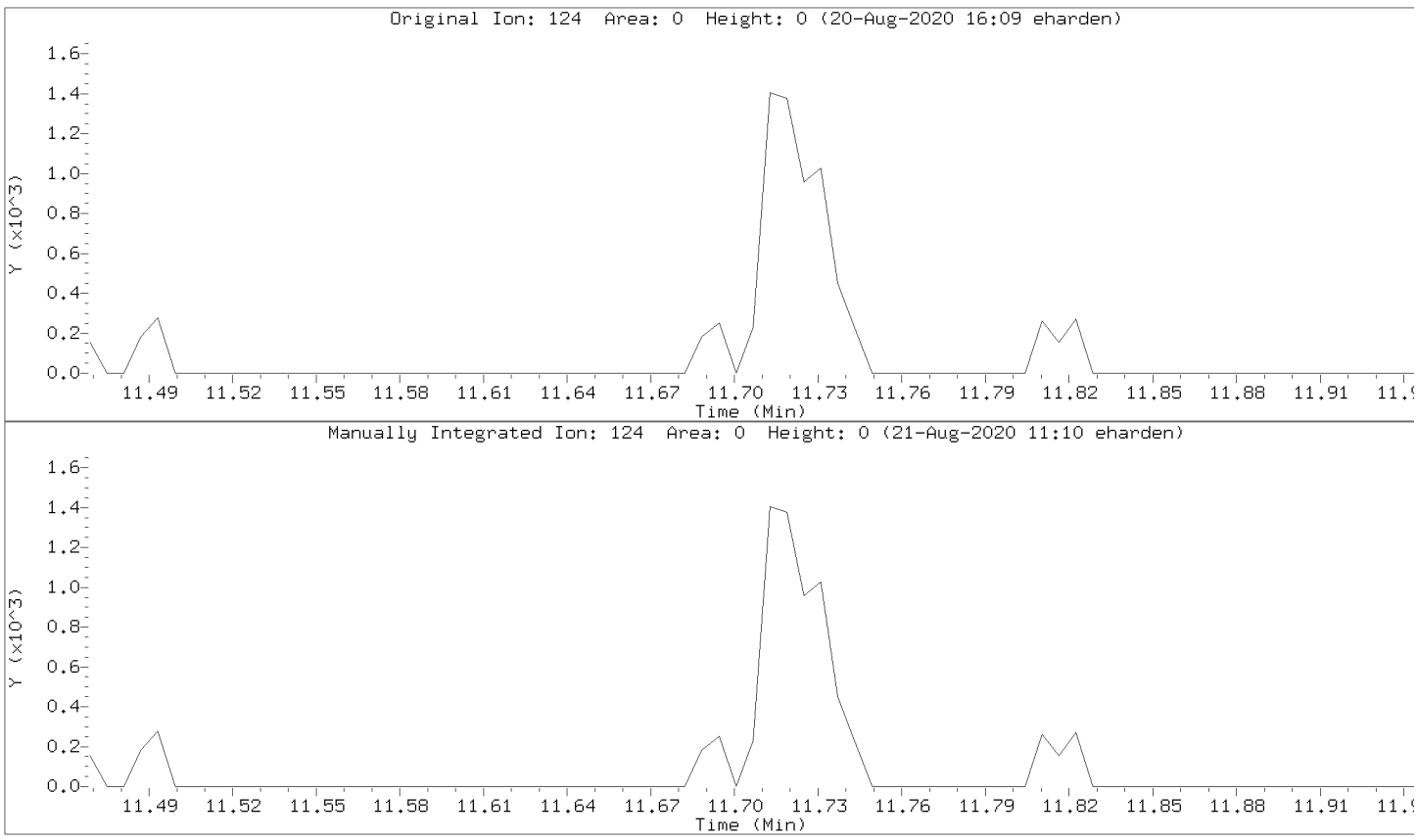
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_09.D
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 20-AUG-2020 13:20
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal7,27243:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 13:20 Cal File: 082020_09.D
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.410)	66551	20.0000	21.2(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	81131	20.0000	21.6	
3 Vinyl chloride	62	3.702	3.702	(0.471)	61034	20.0000	19.8	
4 1,3-Butadiene	39	3.714	3.708	(0.473)	53829	20.0000	19.5	
5 Bromomethane	94	4.201	4.195	(0.535)	59646	20.0000	23.8	
6 Chloroethane	64	4.360	4.360	(0.555)	18003	20.0000	20.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	39067	20.0000	19.9	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	21772	20.0000	20.1	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	72854	20.0000	20.9	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	49223	20.0000	21.4	
11 Carbon disulfide	76	5.293	5.293	(0.673)	161348	20.0000	20.9	
12 Iodomethane	142	5.433	5.439	(0.691)	23205	20.0000	16.7	
13 Acrolein	56	5.659	5.659	(0.720)	14345	40.0000	39.8	
14 Allyl chloride	76	5.787	5.787	(0.736)	19759	20.0000	18.4	
15 Methylene Chloride	49	5.902	5.902	(0.751)	83879	20.0000	20.2	
16 Acetone	43	5.976	5.976	(0.760)	85965	40.0000	41.5	
17 Methyl acetate	43	6.067	6.067	(0.772)	105076	40.0000	43.5	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	47201	20.0000	20.0	
19 n-Hexane	86	6.116	6.110	(0.778)	4689	20.0000	18.8	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	110621	20.0000	20.1	
21 Acetonitrile	41	6.457	6.463	(0.822)	7995	40.0000	36.1(H)	
22 Chloroprene	53	6.646	6.640	(0.846)	66082	20.0000	20.1	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	95363	20.0000	20.8	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	41455	40.0000	41.6	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	94090	20.0000	20.8(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	66700	20.0000	19.8	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	69400	20.0000	19.6	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	31223	20.0000	21.2	
	29 Cyclohexane	56	7.335	7.335	(0.882)	58345	20.0000	19.6	
	30 Chloroform	83	7.372	7.372	(0.938)	106759	20.0000	20.6	
	31 Ethyl acetate	43	7.433	7.433	(0.946)	117599	40.0000	40.2	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	76046	20.0000	21.6	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	31173	40.0000	41.7	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	149580	50.0000	49.9	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	85319	20.0000	21.4	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	94574	40.0000	42.3	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	58568	20.0000	21.1(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	260205	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	184702	20.0000	20.6	
	40 Propionitrile	54	7.896	7.902	(1.005)	18434	40.0000	41.6	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	92418	40.0000	41.0	
	42 Isobutanol	43	7.993	7.987	(1.017)	3297	40.0000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	27279	50.0000	50.6	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	81970	20.0000	20.2	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	100475	20.0000	20.7	
	46 Trichloroethene	130	8.317	8.317	(1.000)	52418	20.0000	21.4	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	349844	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	23561	20.0000	20.3	
	49 n-Butanol	56	8.512	8.524	(1.023)	2226	40.0000	41.6(H)	
	50 Dibromomethane	93	8.670	8.670	(1.043)	43883	20.0000	21.0	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	54314	20.0000	21.3	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	81003	20.0000	22.1	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	25633	20.0000	17.7	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	1026	40.0000	(M)	LT
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	40736	40.0000	32.0	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	73456	20.0000	20.6	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	379010	50.0000	50.3	
	58 Toluene	91	9.414	9.414	(1.132)	176320	20.0000	20.2	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	16319	20.0000	18.5(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	8556	40.0000	34.2(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	73456	20.0000	20.6	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	46748	20.0000	20.6	
	63 Ethyl methacrylate	69	9.755	9.761	(1.173)	47723	20.0000	17.4(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	46024	20.0000	20.8	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	66111	20.0000	21.0	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	70284	20.0000	20.8	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	55408	20.0000	20.5	
	68 2-Hexanone	43	10.273	10.280	(1.235)	121220	40.0000	41.0	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	164499	20.0000	19.0	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	330753	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	128596	20.0000	20.2	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	54617	20.0000	20.3	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	280615	40.0000	37.3	
	74 o-Xylene	106	10.993	10.993	(1.041)	56802	20.0000	16.3	
	75 Styrene	104	11.029	11.029	(1.044)	103176	20.0000	17.0	
	76 Bromoform	173	11.103	11.103	(1.051)	60029	20.0000	20.1	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	92598	20.0000	17.8	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	136161	50.0000	50.2	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	19403	20.0000	17.9	
80 n-Propylbenzene	91	11.529	11.523	(1.092)	212436	20.0000	20.0	
81 Bromobenzene	156	11.578	11.578	(1.096)	70823	20.0000	21.2	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	73479	20.0000	20.8	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	142512	20.0000	20.4	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	50034	20.0000	20.0	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	45527	20.0000	18.1	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	150389	20.0000	16.8	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	76477	20.0000	20.7	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	16946	20.0000	19.9	
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	132498	20.0000	16.6	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	145095	20.0000	17.9	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	171564	20.0000	17.9	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	132498	20.0000	16.6	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	112298	20.0000	19.9	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	212042	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	118836	20.0000	18.7	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	139939	20.0000	18.9	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	117112	20.0000	19.0	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	12299	20.0000	17.7	
100 Hexachloro-1,3-butadiene	225	13.815	13.822	(1.120)	34339	20.0000	18.2	
101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	73609	20.0000	17.6	
102 Naphthalene	128	14.193	14.193	(1.150)	120284	20.0000	14.9	
103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	74200	20.0000	19.1	

QC Flag Legend

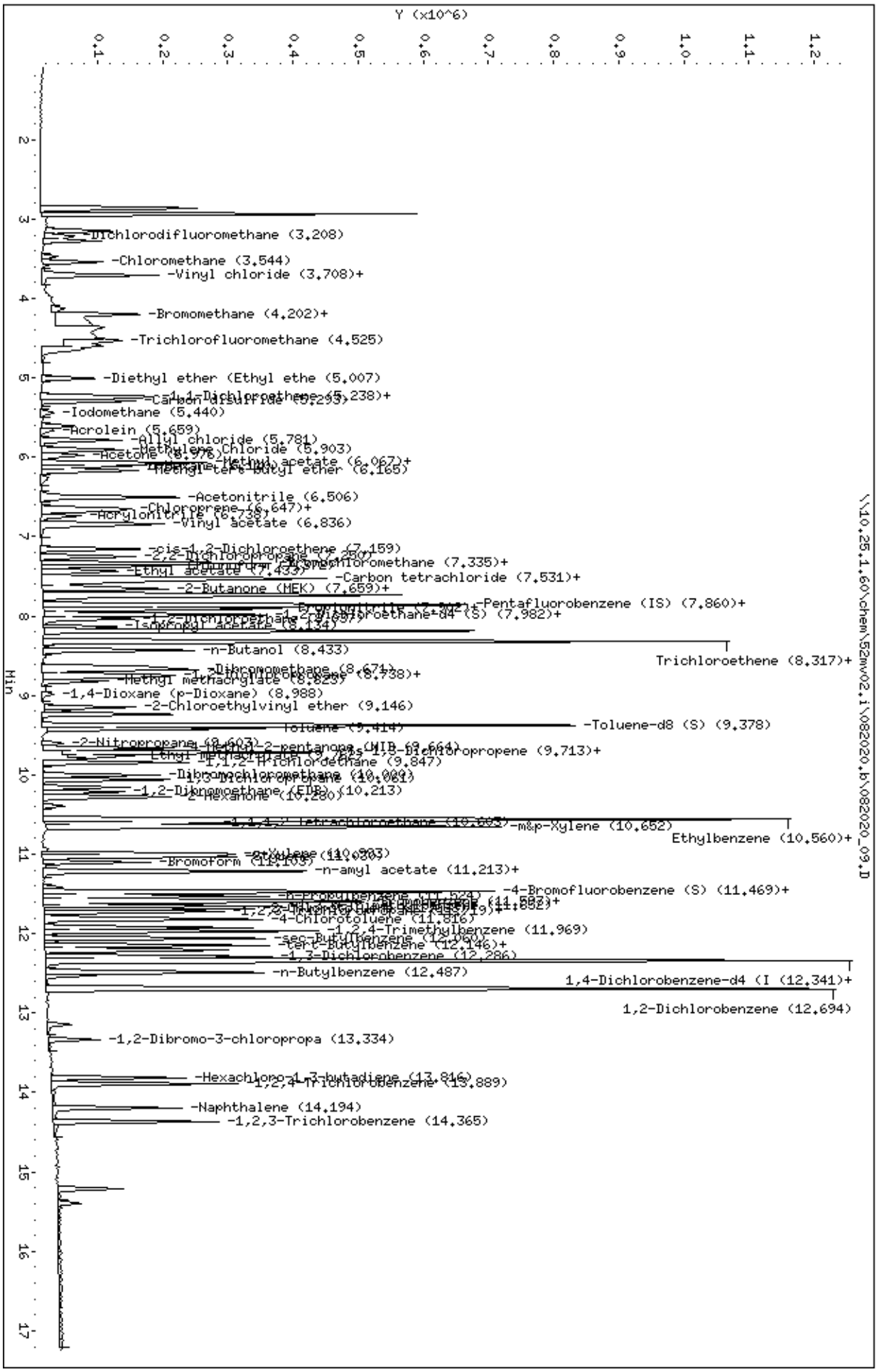
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_09.D
Date : 20-AUG-2020 13:20
Client ID: CAL7
Sample Info: CAL7,27243:1
Purge Volume: 5.0
Column phase: RTX-VMS

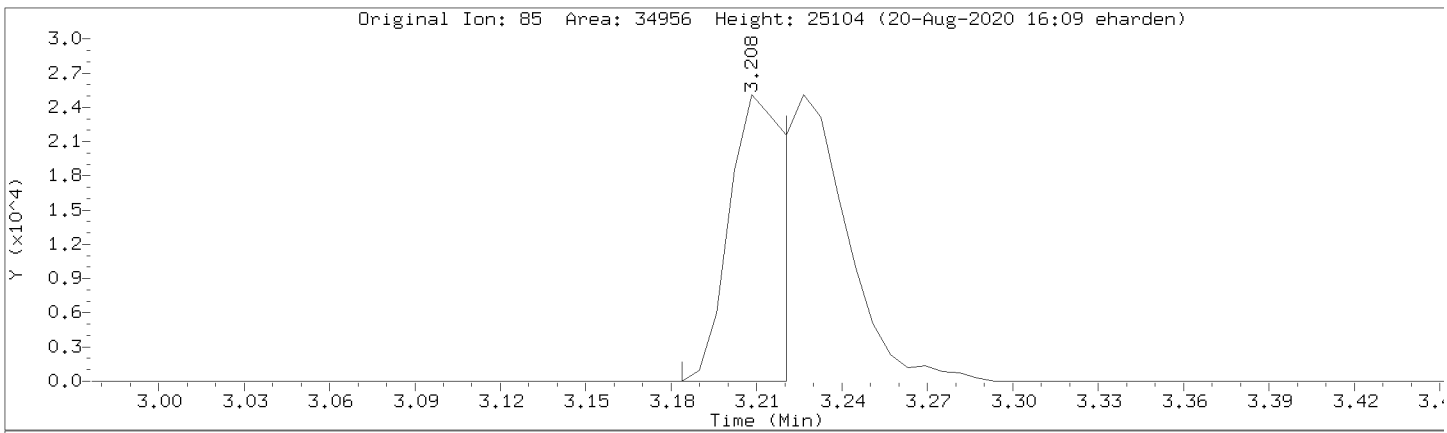
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

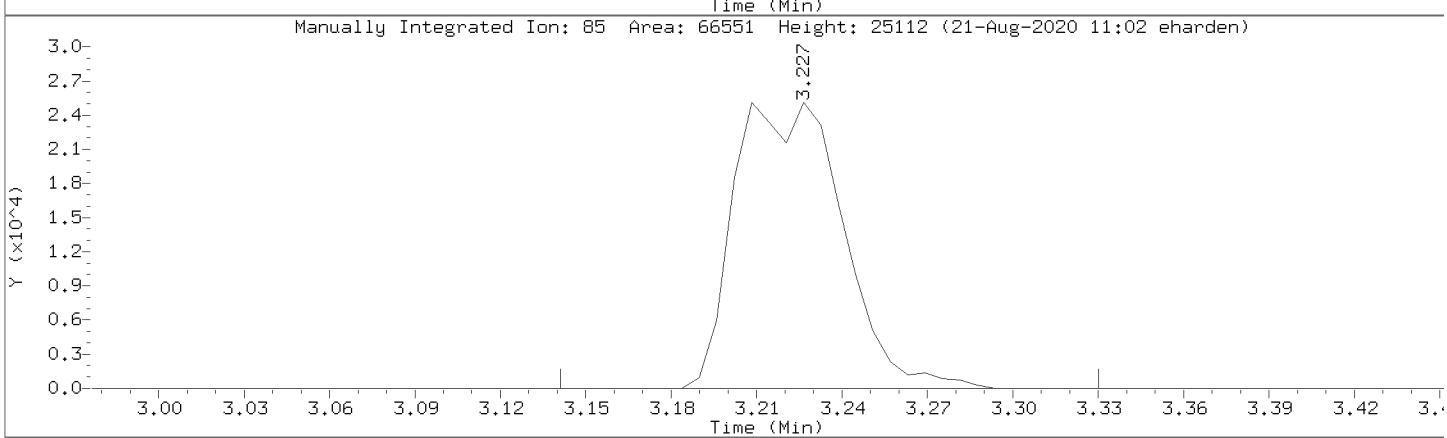


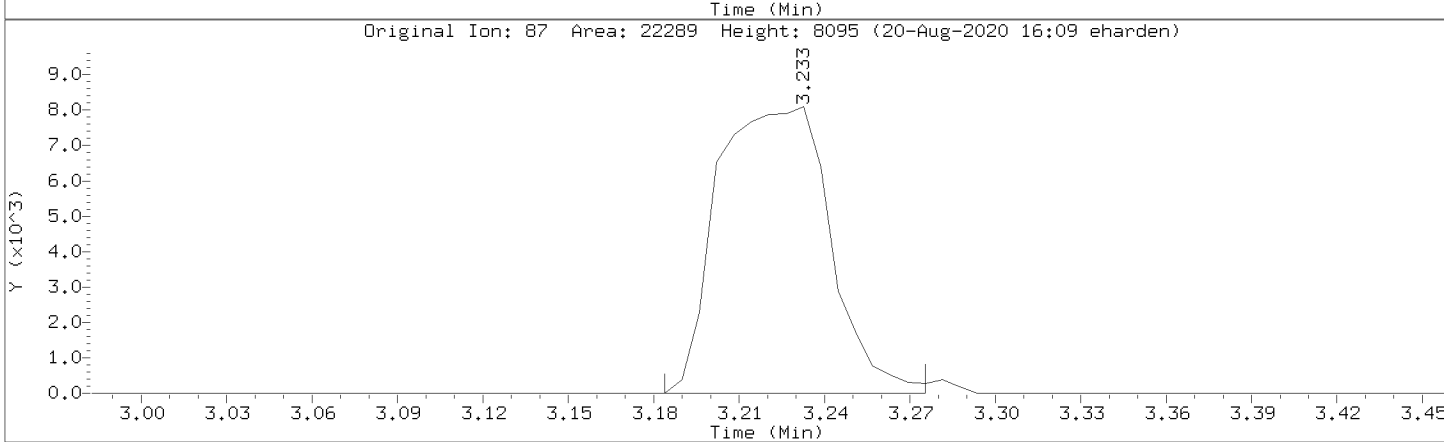
Page 4

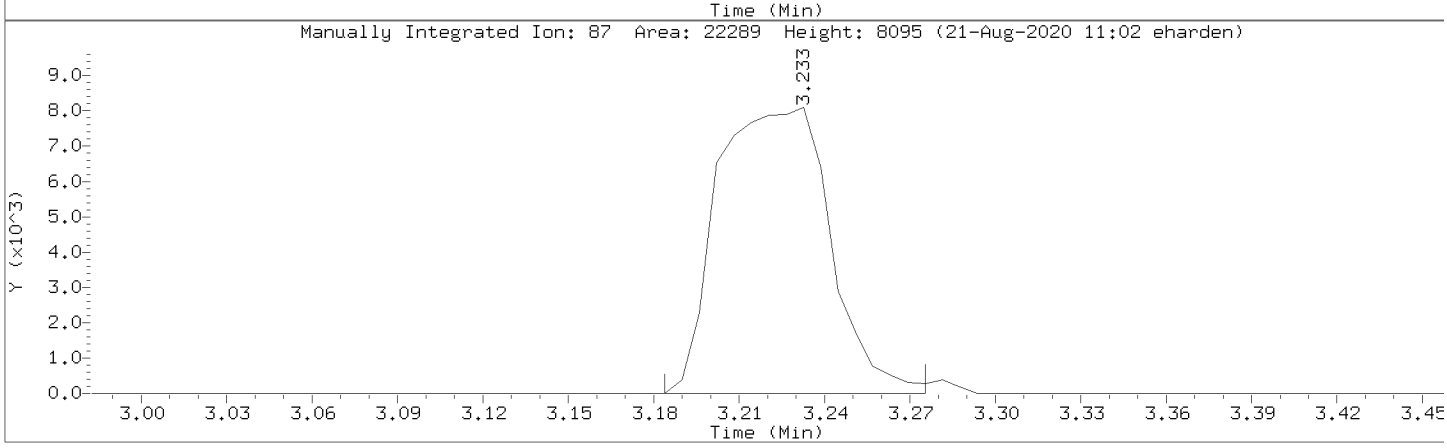
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_09.D
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



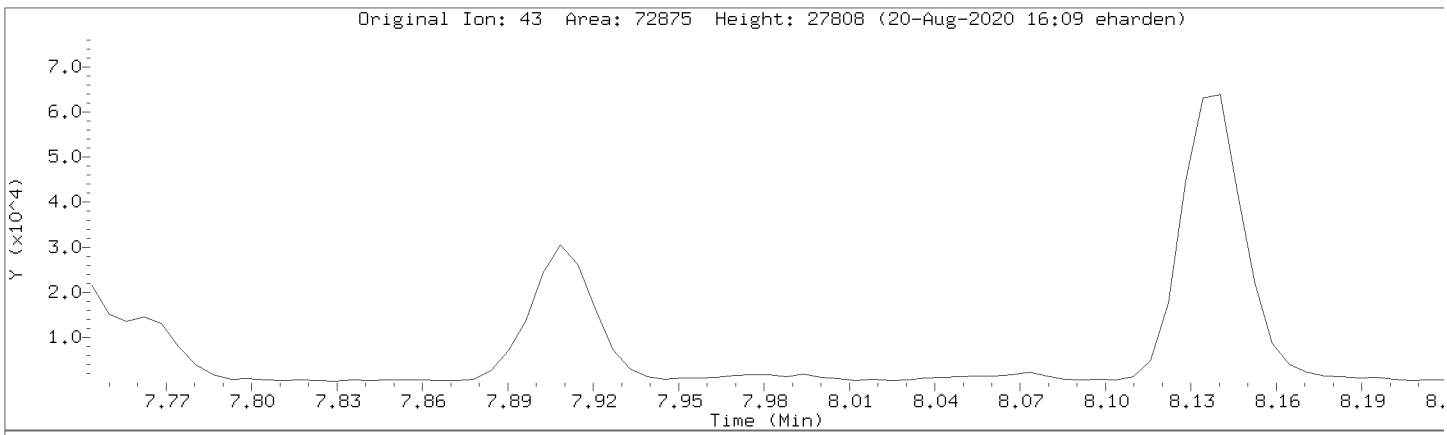


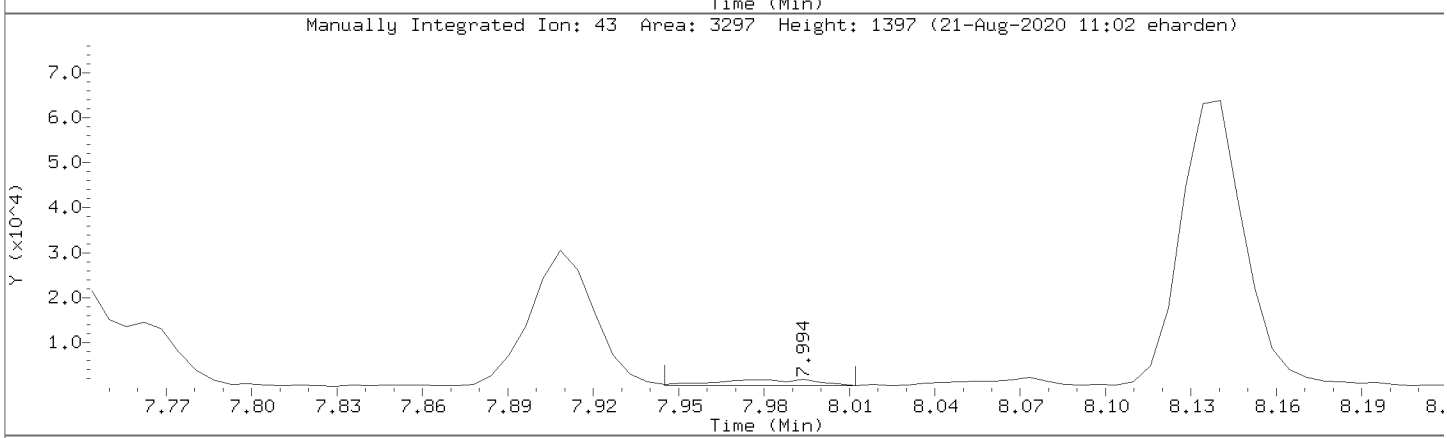


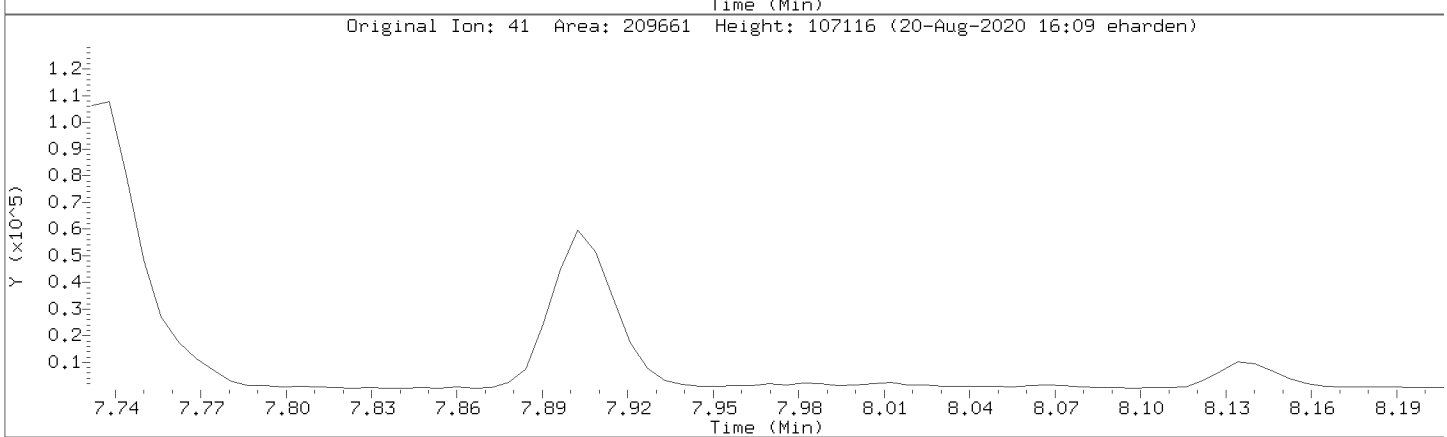


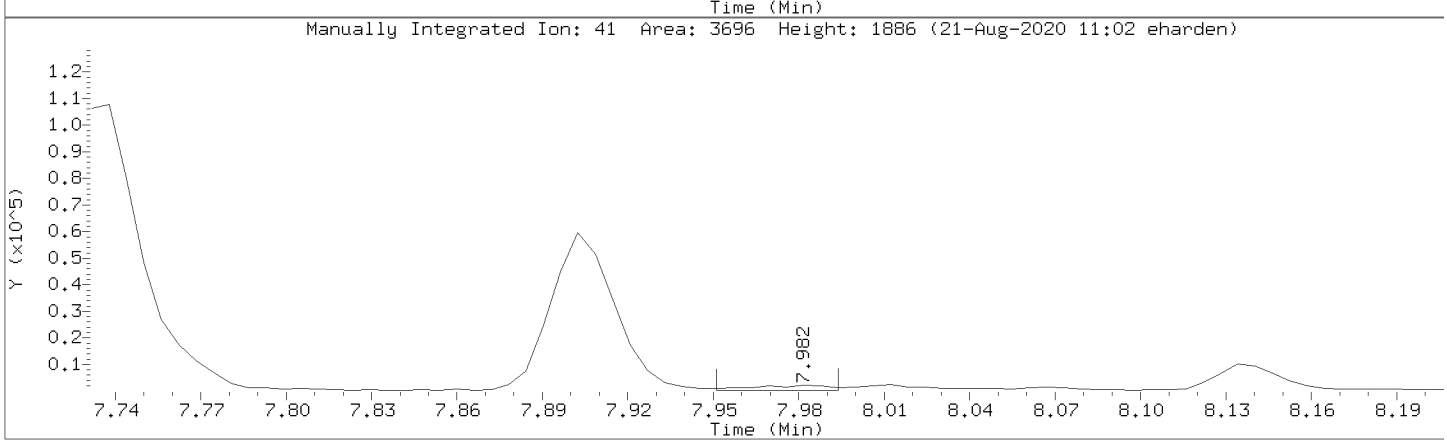
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_09.D
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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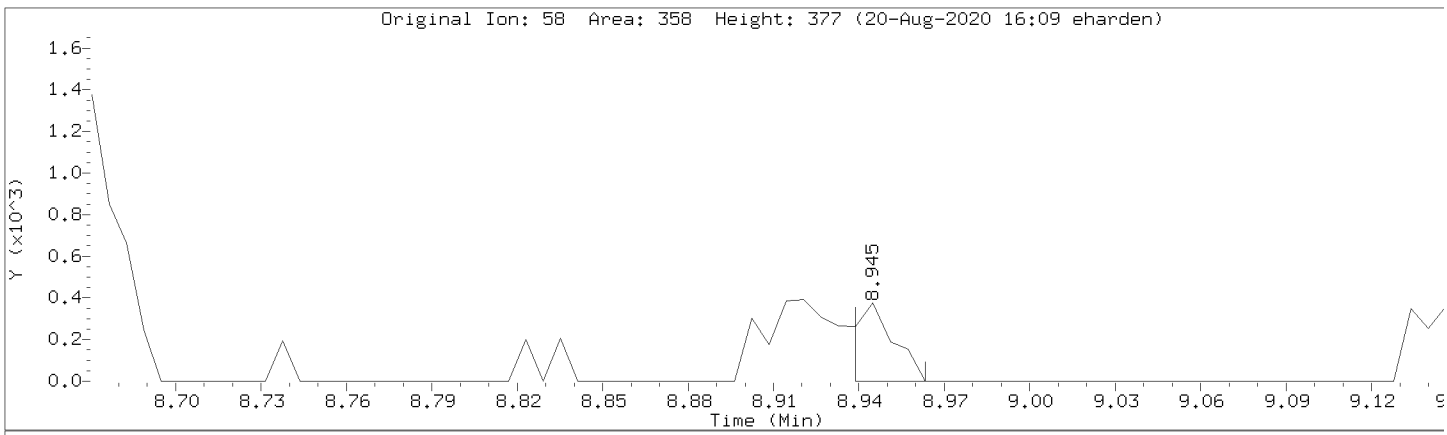
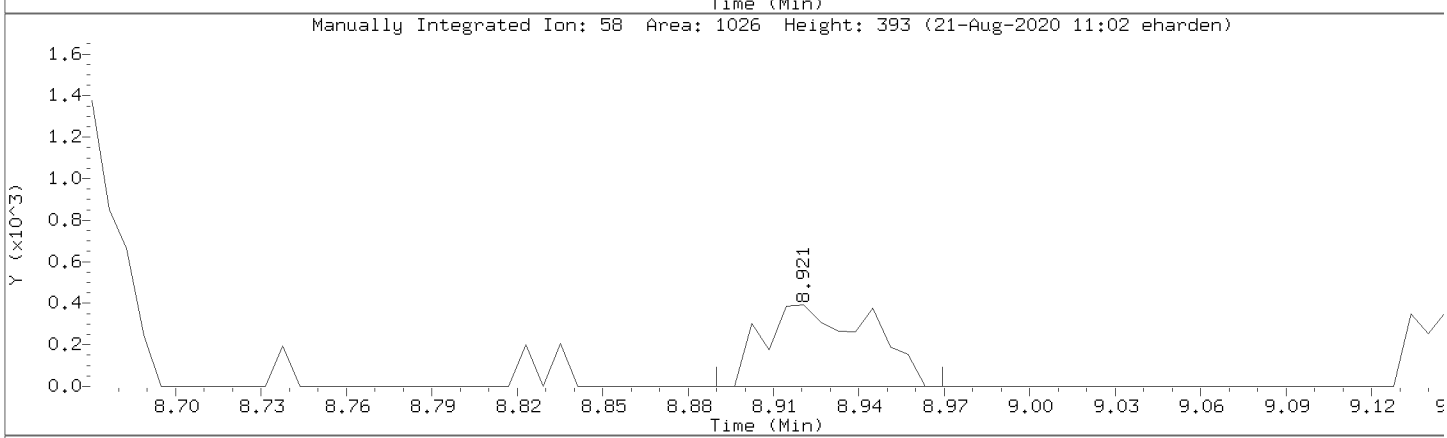
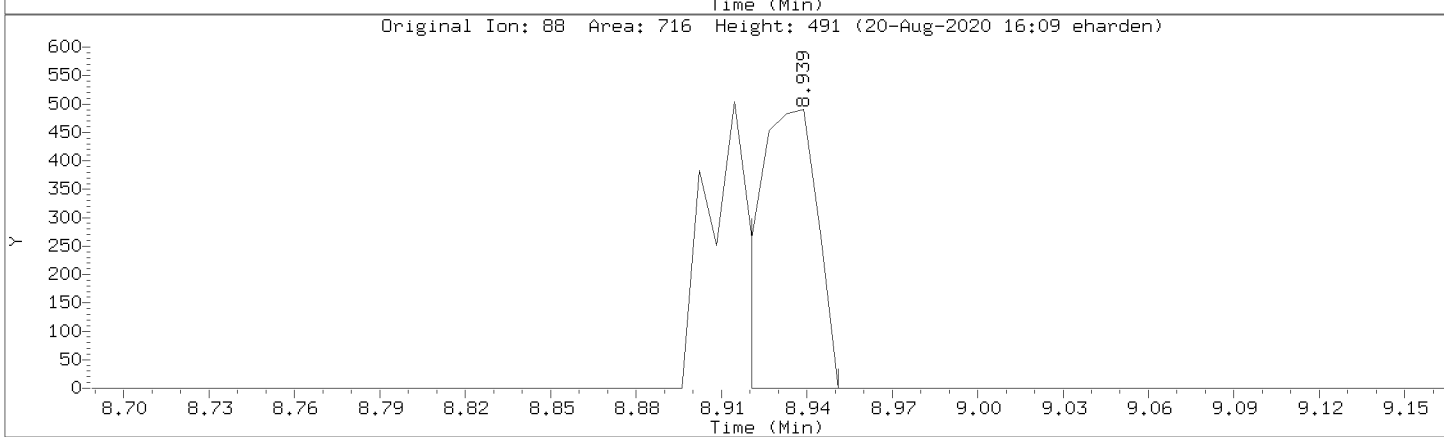
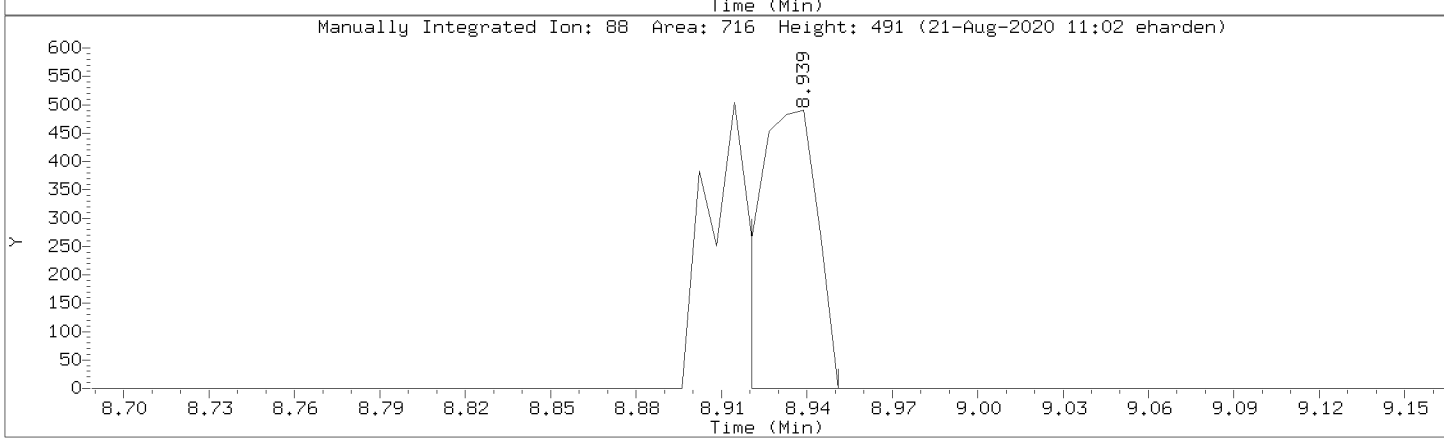
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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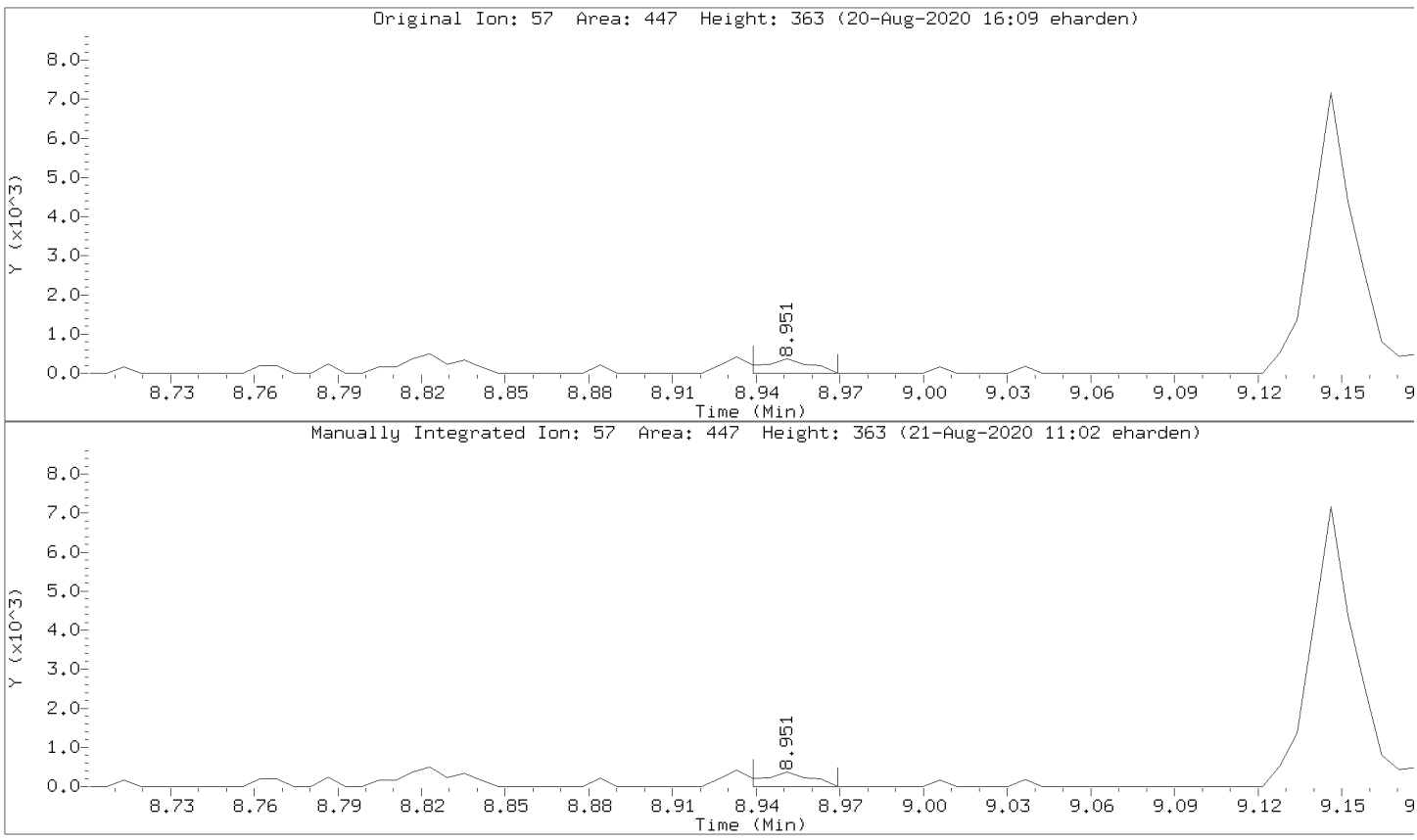
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7



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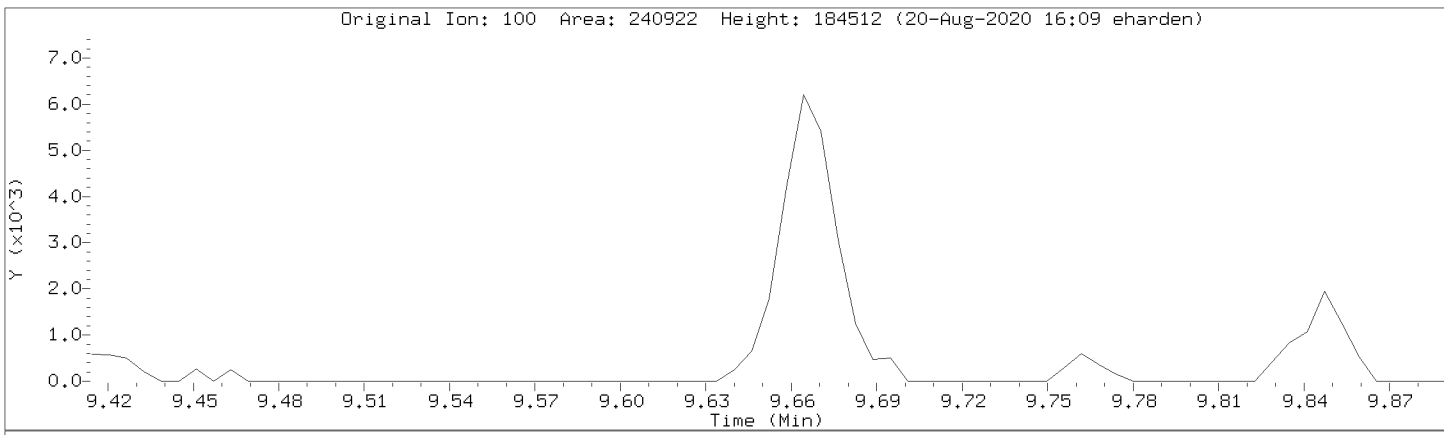
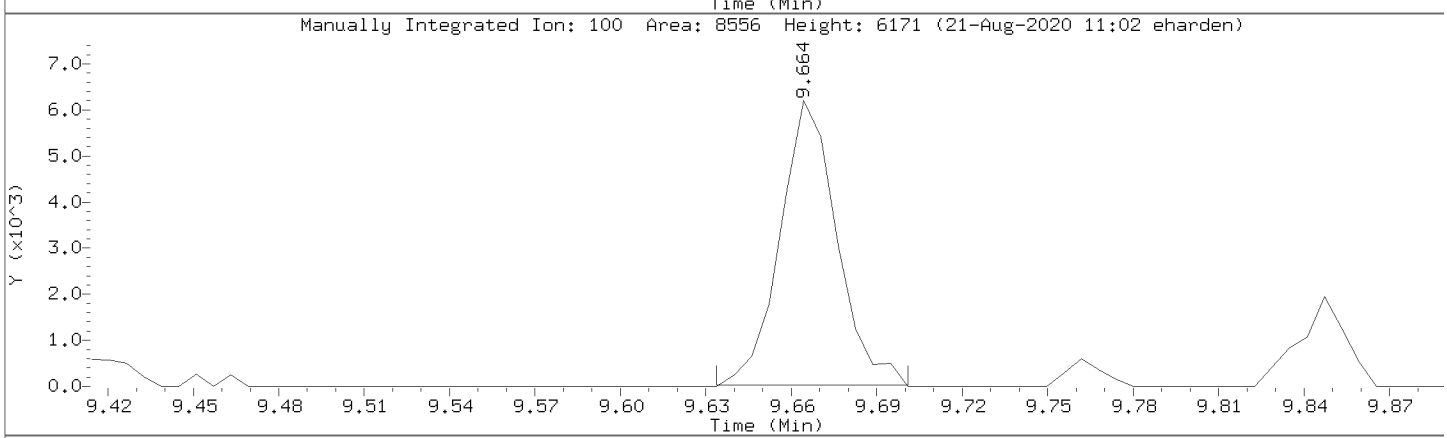
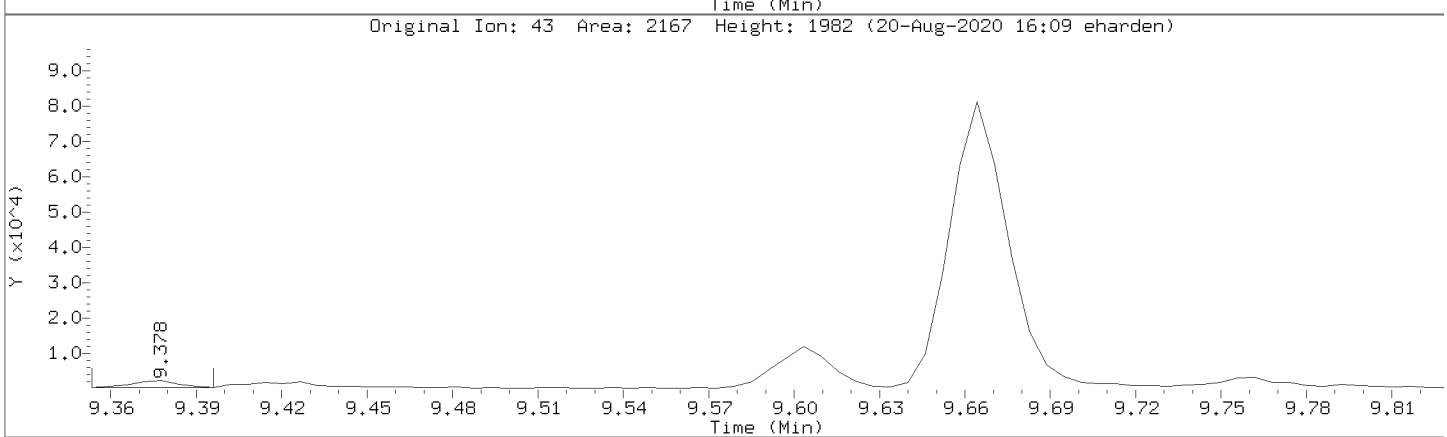
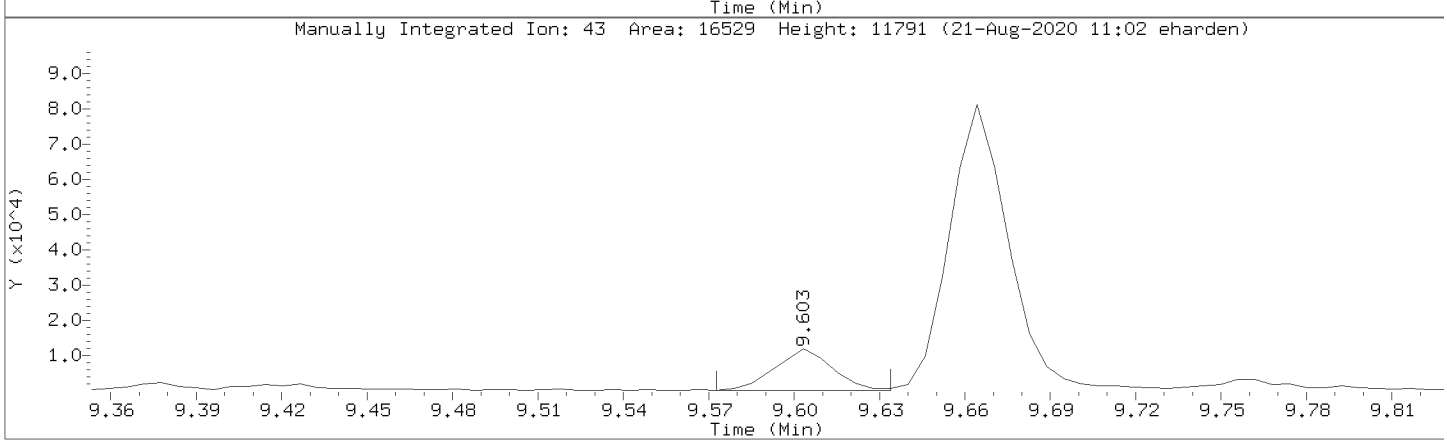
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1

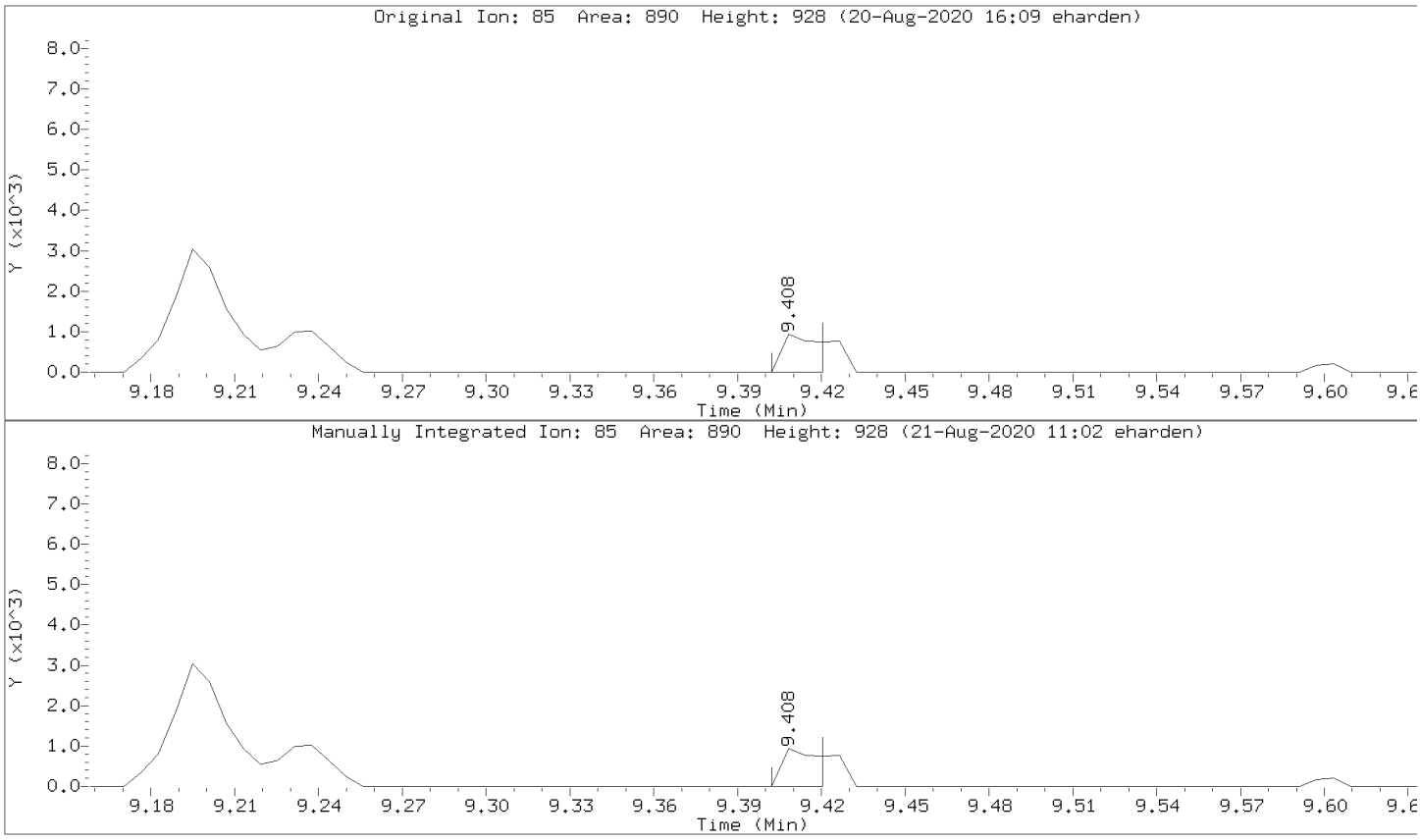








Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_09.D
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_10.D
Lab Smp Id: CAL8 Client Smp ID: CAL8
Inj Date : 20-AUG-2020 13:45
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal8,27244:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 13:45 Cal File: 082020_10.D
Als bottle: 8 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.220	3.226	(0.410)	173079	50.0000	49.6(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	212550	50.0000	52.0	
3 Vinyl chloride	62	3.695	3.702	(0.470)	166119	50.0000	48.4	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	144991	50.0000	47.2	
5 Bromomethane	94	4.201	4.195	(0.535)	130011	50.0000	49.7	
6 Chloroethane	64	4.366	4.360	(0.556)	50765	50.0000	53.1	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	100155	50.0000	45.9	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	58875	50.0000	48.9	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	192156	50.0000	49.5	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	122394	50.0000	47.8	
11 Carbon disulfide	76	5.287	5.293	(0.673)	413695	50.0000	48.1	
12 Iodomethane	142	5.439	5.439	(0.692)	89679	50.0000	44.8	
13 Acrolein	56	5.658	5.659	(0.720)	37965	100.000	94.7	
14 Allyl chloride	76	5.780	5.787	(0.736)	56951	50.0000	47.7	
15 Methylene Chloride	49	5.902	5.902	(0.751)	216337	50.0000	46.9	
16 Acetone	43	5.969	5.976	(0.760)	217508	100.000	96.6	
17 Methyl acetate	43	6.067	6.067	(0.772)	274607	100.000	103	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	124266	50.0000	47.4	
19 n-Hexane	86	6.110	6.110	(0.777)	14689	50.0000	52.8	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	314639	50.0000	51.4	
21 Acetonitrile	41	6.457	6.463	(0.822)	27093	100.000	111(H)	
22 Chloroprene	53	6.640	6.640	(0.845)	195675	50.0000	53.5	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	251927	50.0000	49.4	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	102650	100.000	92.7	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	281798	50.0000	55.9	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	185024	50.0000	49.2	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	182412	50.0000	46.4	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	78756	50.0000	48.0	
	29 Cyclohexane	56	7.335	7.335	(0.882)	177735	50.0000	54.3	
	30 Chloroform	83	7.372	7.372	(0.938)	280462	50.0000	48.6	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	323030	100.000	99.3	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	200727	50.0000	51.8	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	79823	100.000	99.2	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	159185	50.0000	47.8	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	220636	50.0000	50.3	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	237312	100.000	95.5(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	162055	50.0000	53.2(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	289504	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	489899	50.0000	49.8	
	40 Propionitrile	54	7.890	7.902	(1.004)	49807	100.000	101	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	257917	100.000	103	
	42 Isobutanol	43	7.963	7.987	(1.013)	9414	100.000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	27652	50.0000	46.1	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	209549	50.0000	46.3	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	280793	50.0000	52.1	
	46 Trichloroethene	130	8.316	8.317	(1.000)	136449	50.0000	50.7	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	384566	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	63924	50.0000	50.2	
	49 n-Butanol	56	8.518	8.524	(1.024)	6256	100.000	106(M)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	115423	50.0000	50.4	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	141305	50.0000	50.3	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	214260	50.0000	53.1	
	53 Methyl methacrylate	69	8.822	8.823	(1.061)	75413	50.0000	46.2	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	1885	100.000		
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	131862	100.000	90.8	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	204555	50.0000	52.2	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	414998	50.0000	50.1	
	58 Toluene	91	9.414	9.414	(1.132)	484269	50.0000	50.5	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	44089	50.0000	46.2(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	28658	100.000	104(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	204310	50.0000	52.2	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	126445	50.0000	50.1	
	63 Ethyl methacrylate	69	9.755	9.761	(1.173)	146188	50.0000	47.0(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	115505	50.0000	47.5	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	175886	50.0000	50.3	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	193129	50.0000	52.1	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	146153	50.0000	48.8	
	68 2-Hexanone	43	10.280	10.280	(1.236)	360382	100.000	111	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	498717	50.0000	51.9	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	367527	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	344375	50.0000	48.6	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	141151	50.0000	47.1	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	829841	100.000	98.6	
	74 o-Xylene	106	10.993	10.993	(1.041)	177926	50.0000	45.1	
	75 Styrene	104	11.029	11.029	(1.044)	324197	50.0000	47.1	
	76 Bromoform	173	11.103	11.103	(1.051)	159603	50.0000	48.1	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	289017	50.0000	48.8	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	155822	50.0000	51.7	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	54700	50.0000	45.3	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	638613	50.0000	54.2	
81 Bromobenzene	156	11.578	11.578	(1.096)	189432	50.0000	50.9	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	190650	50.0000	48.5	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	416577	50.0000	53.1	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	136445	50.0000	48.6	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	136492	50.0000	48.2	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	469102	50.0000	46.3	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	204905	50.0000	49.8	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	49228	50.0000	52.0(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	419415	50.0000	45.8	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	442492	50.0000	48.1	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	512642	50.0000	46.9	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	419415	50.0000	45.8	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	318067	50.0000	50.3	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	237436	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	327228	50.0000	45.9	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	445646	50.0000	53.9	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	323974	50.0000	46.9	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	35137	50.0000	45.2	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	100028	50.0000	47.2	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	228410	50.0000	48.8	
102 Naphthalene	128	14.199	14.193	(1.151)	399832	50.0000	43.2	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	218926	50.0000	50.4	

QC Flag Legend

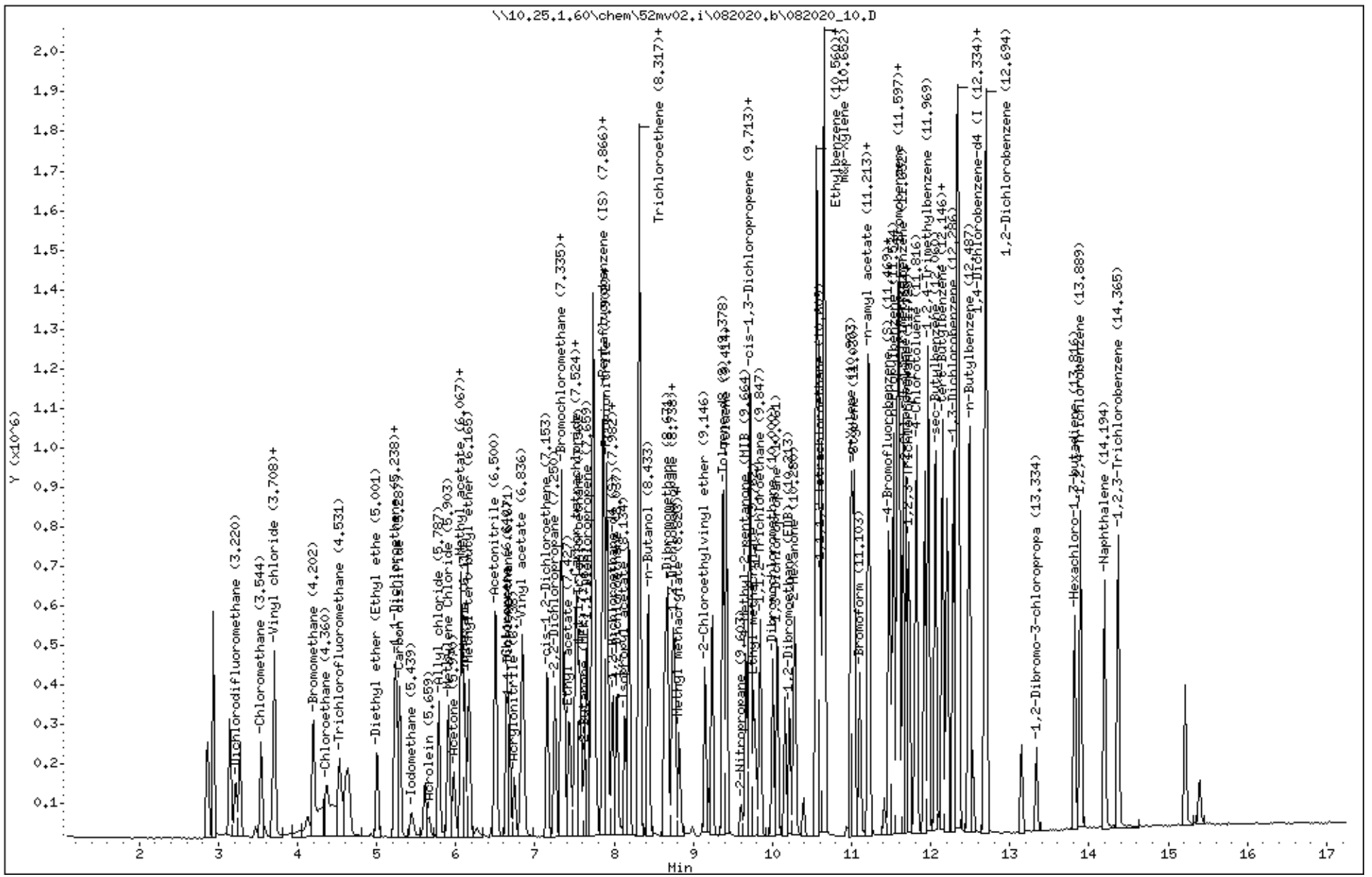
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

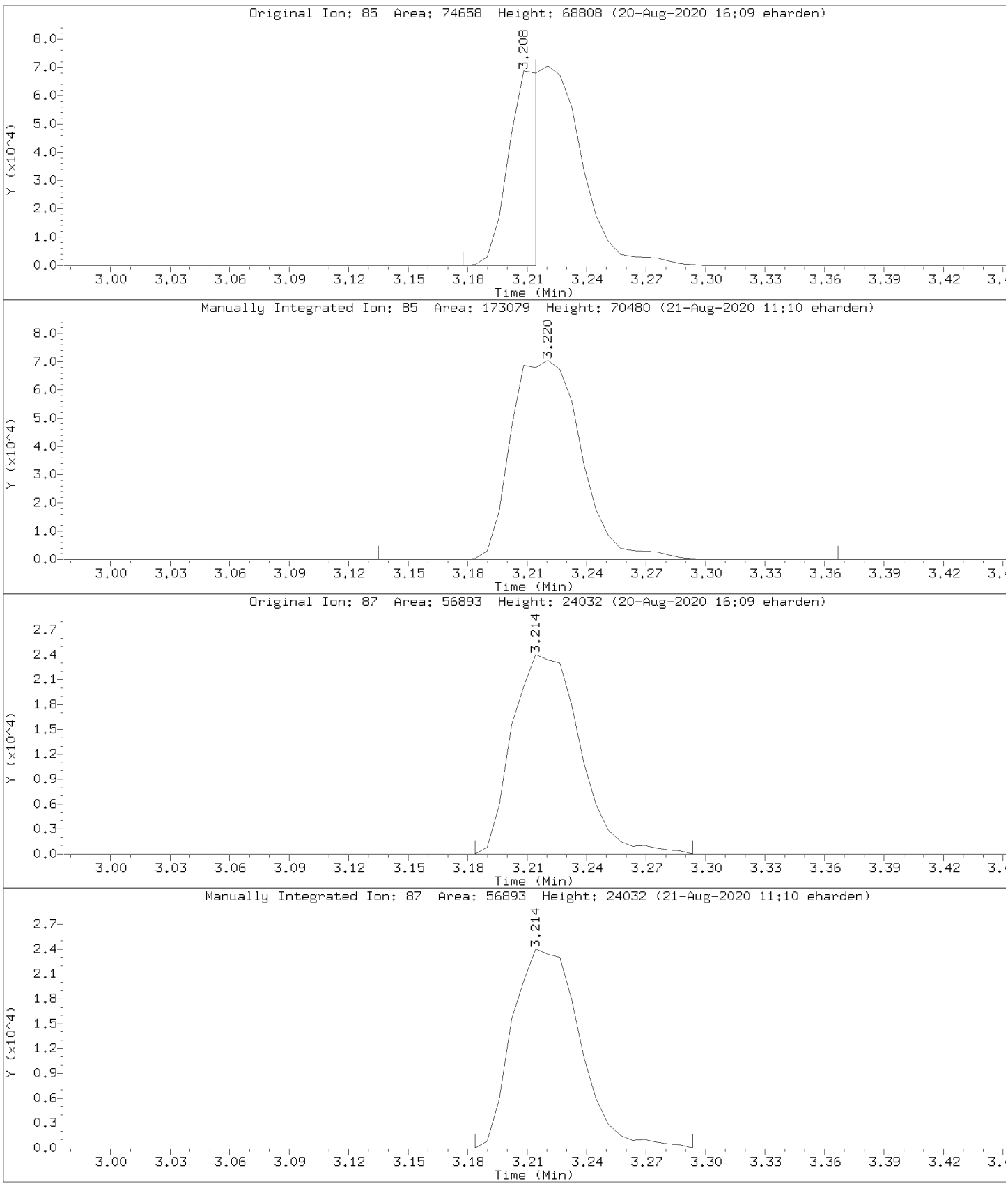
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_10.D
Date : 20-AUG-2020 13:45
Client ID: CAL8
Sample Info: CAL8,27244:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



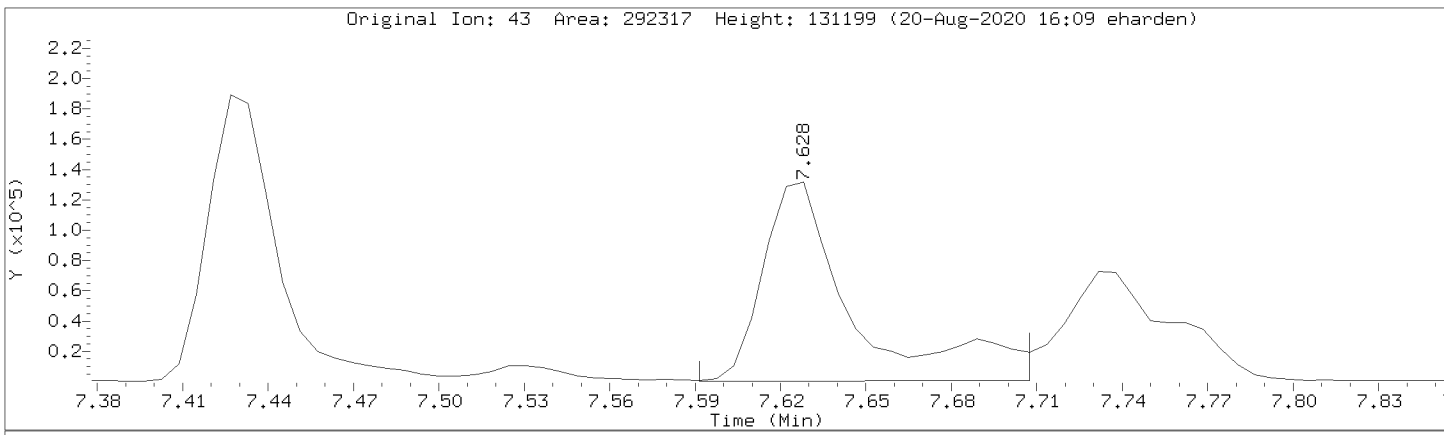
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

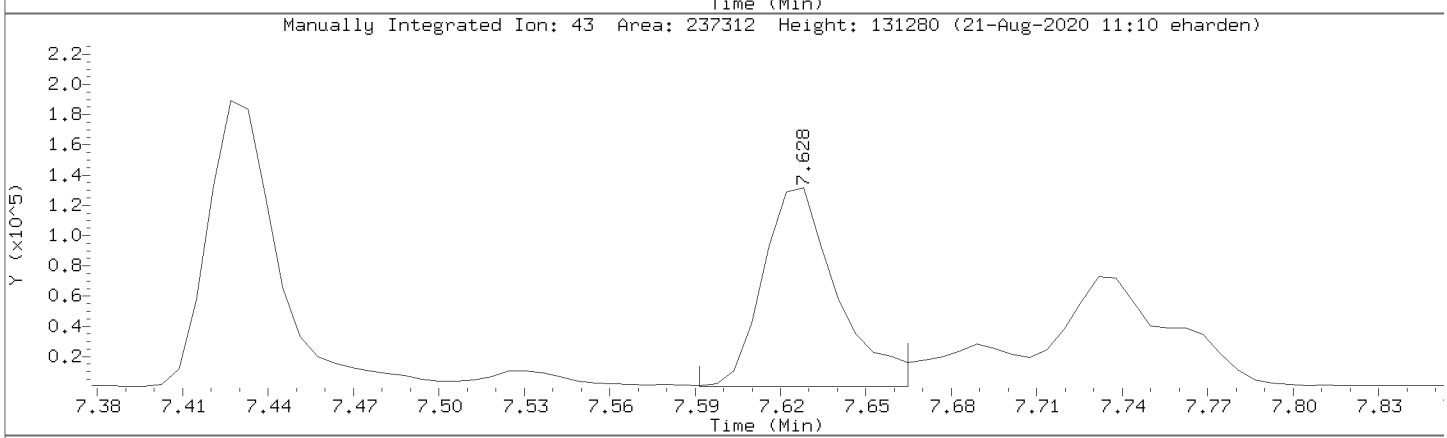
Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8

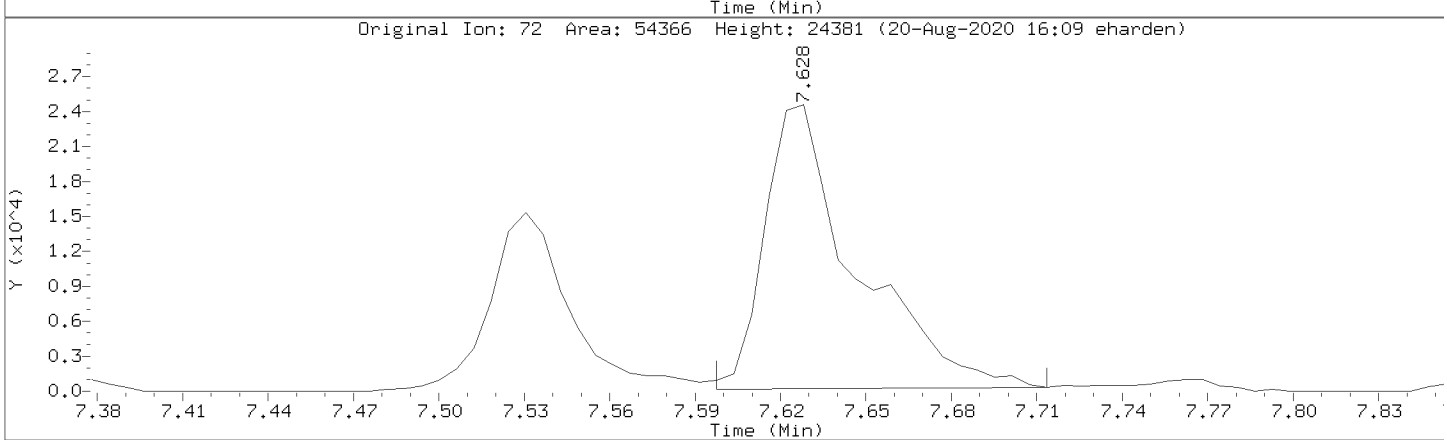


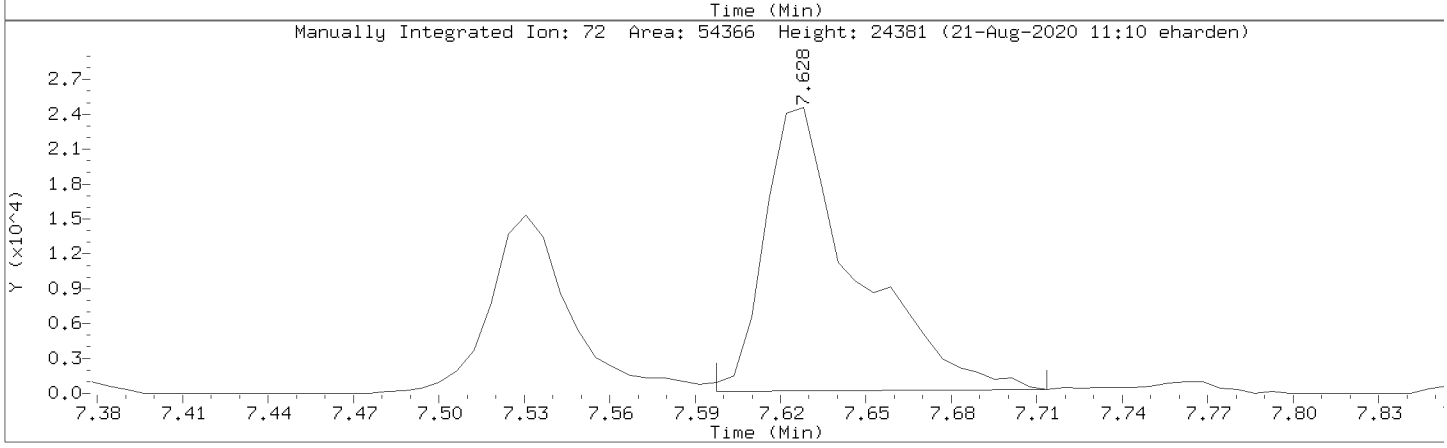
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3



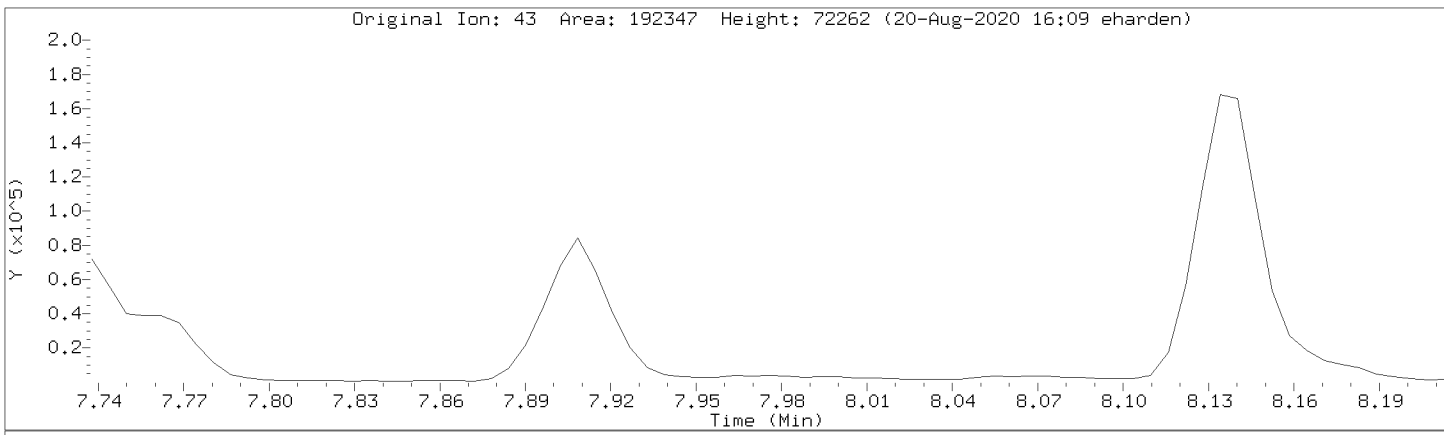


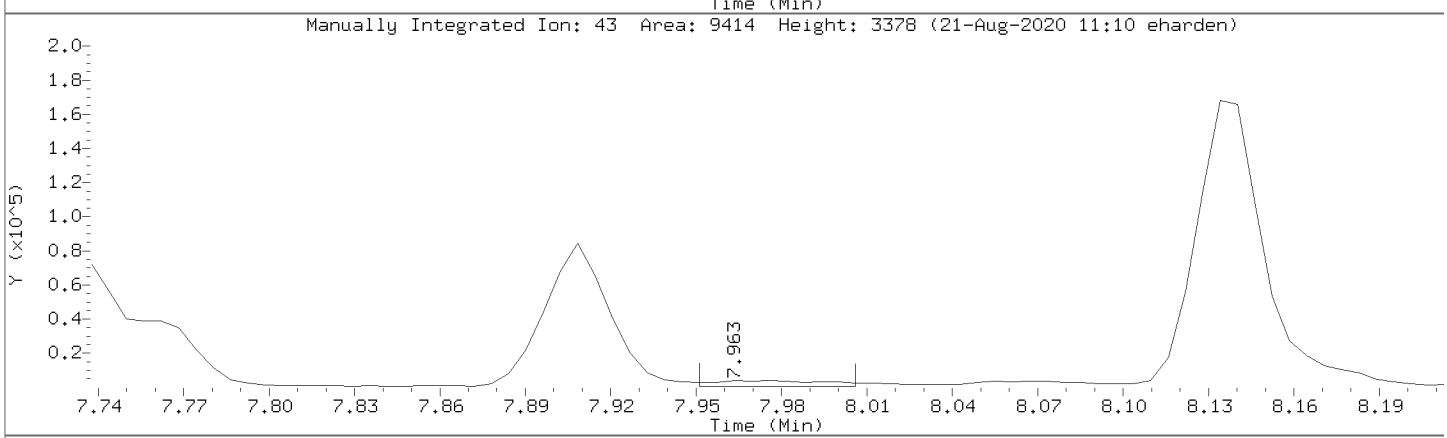


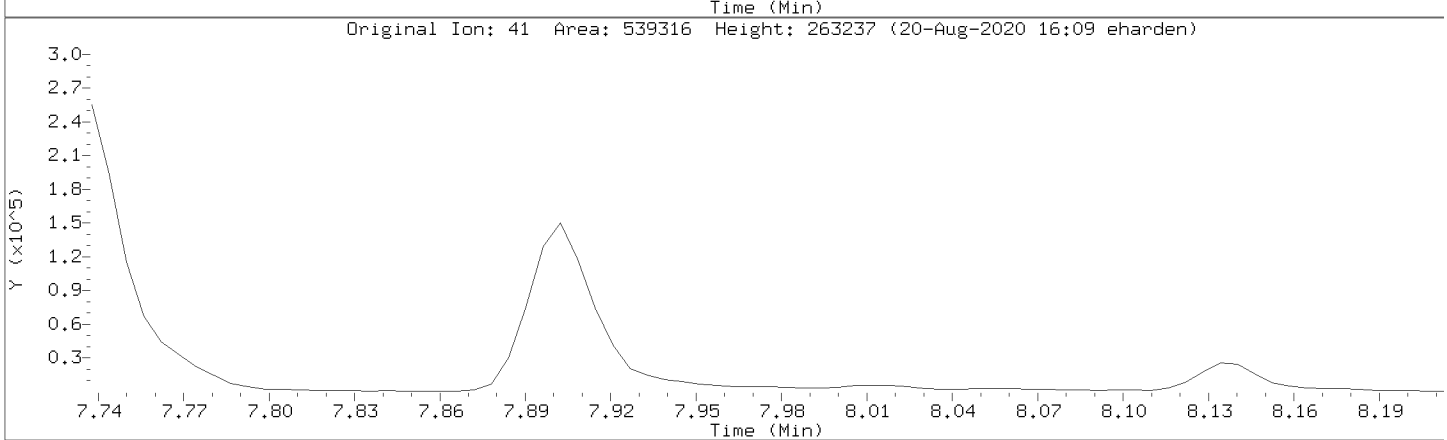


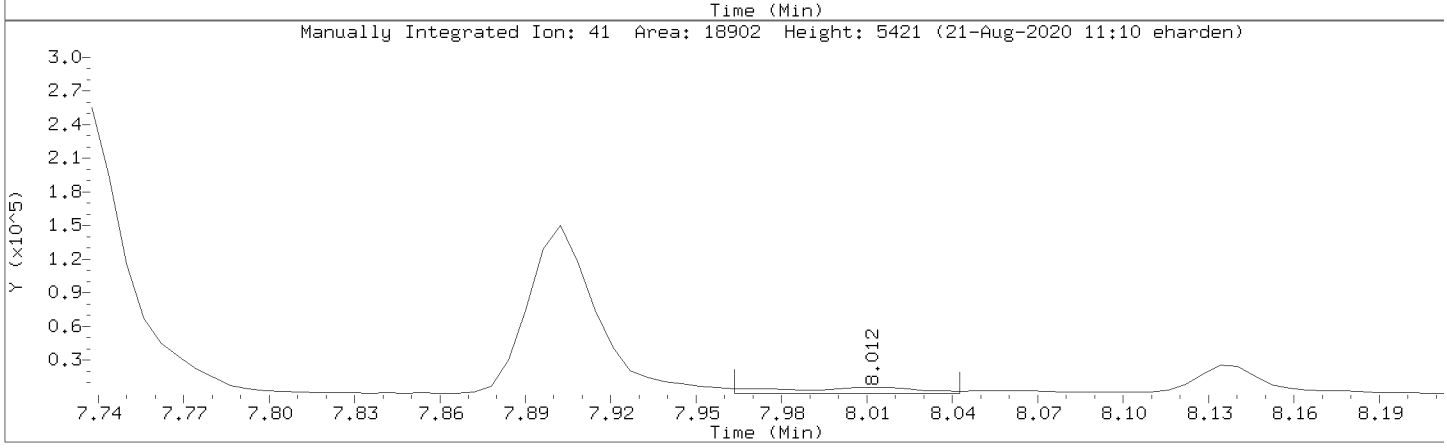
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1



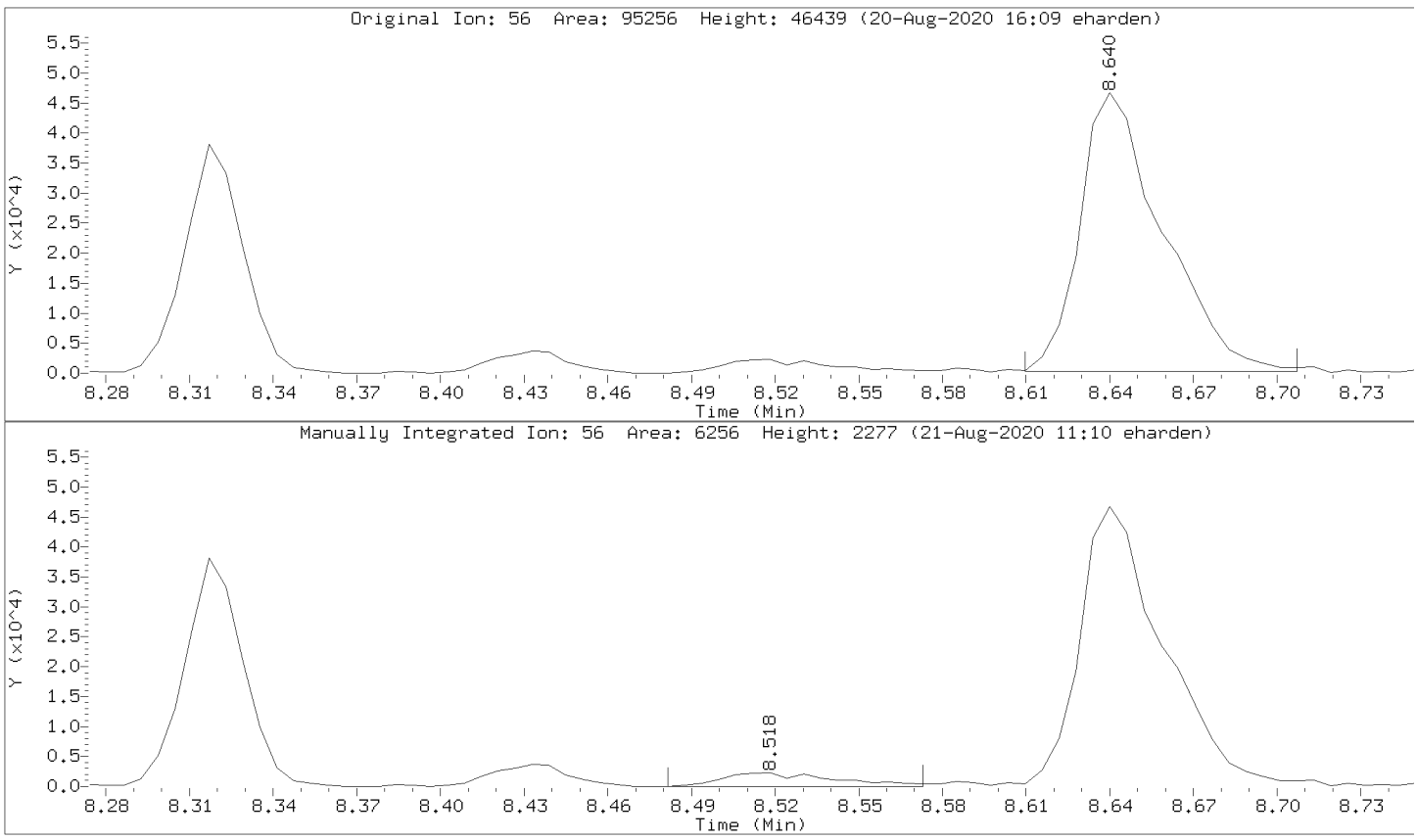






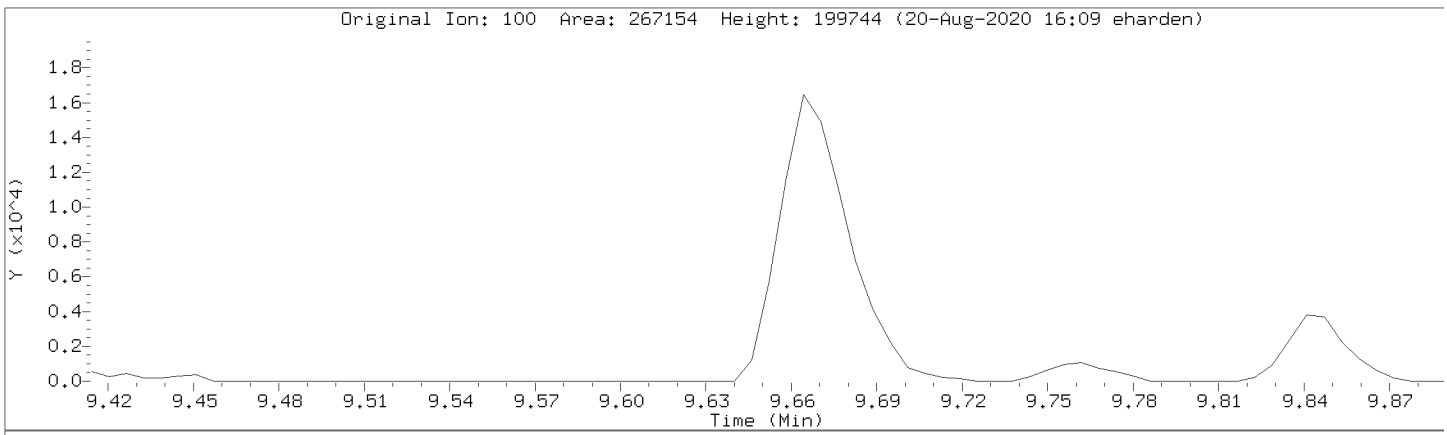
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

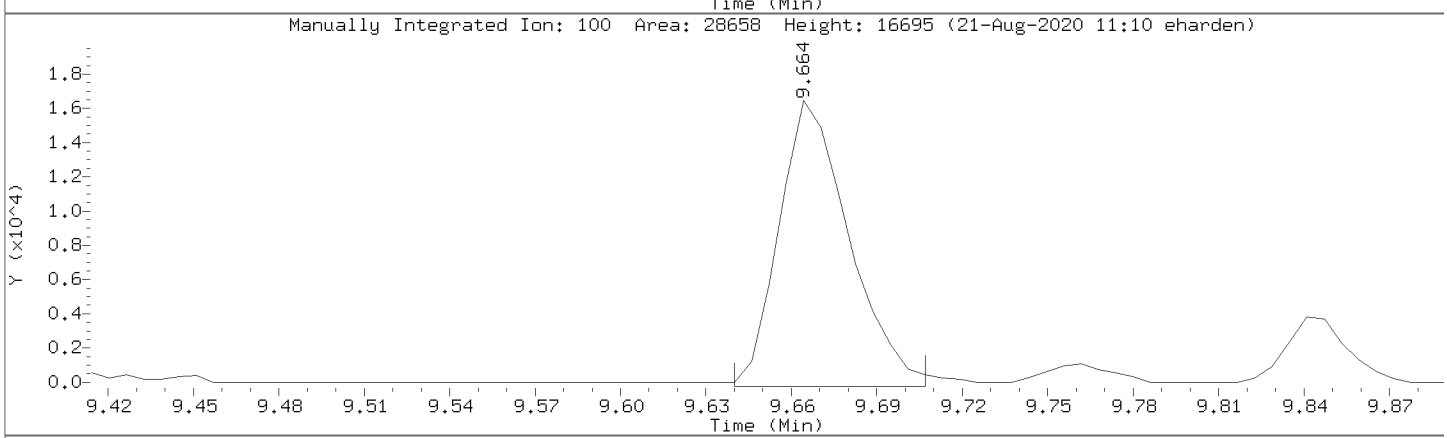
Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3

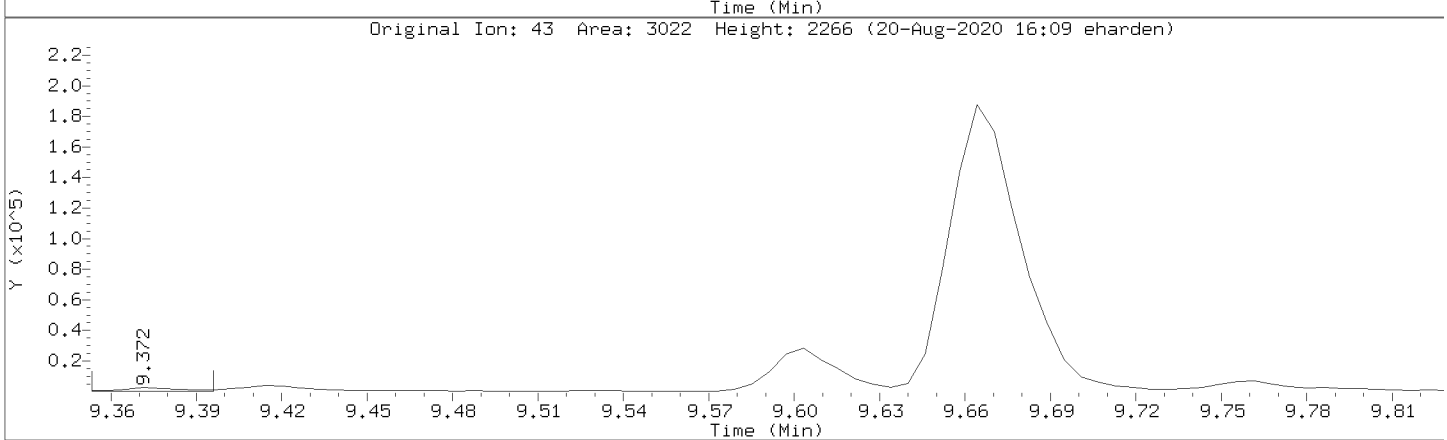


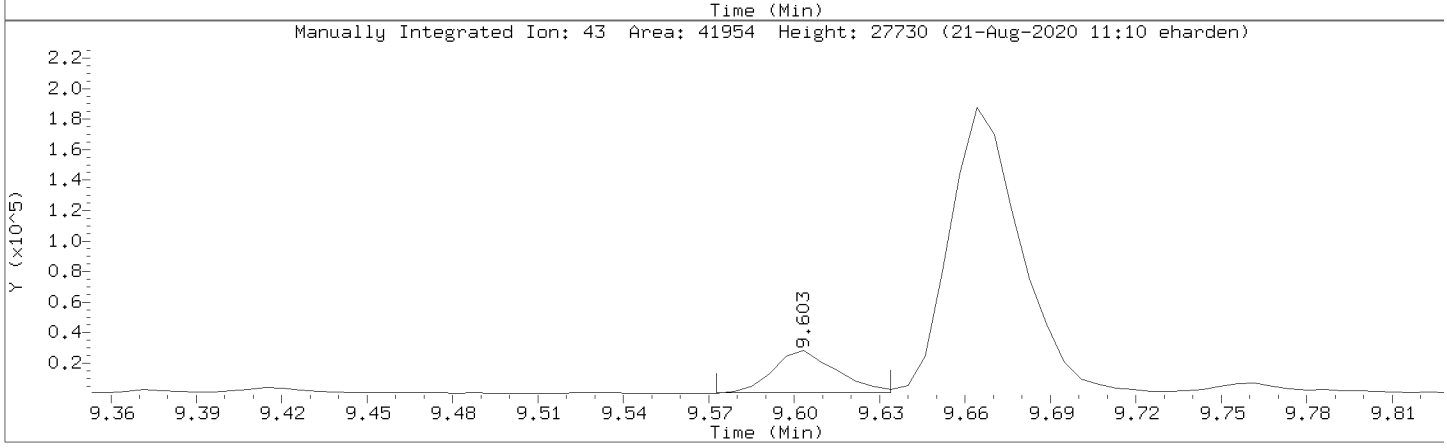
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1

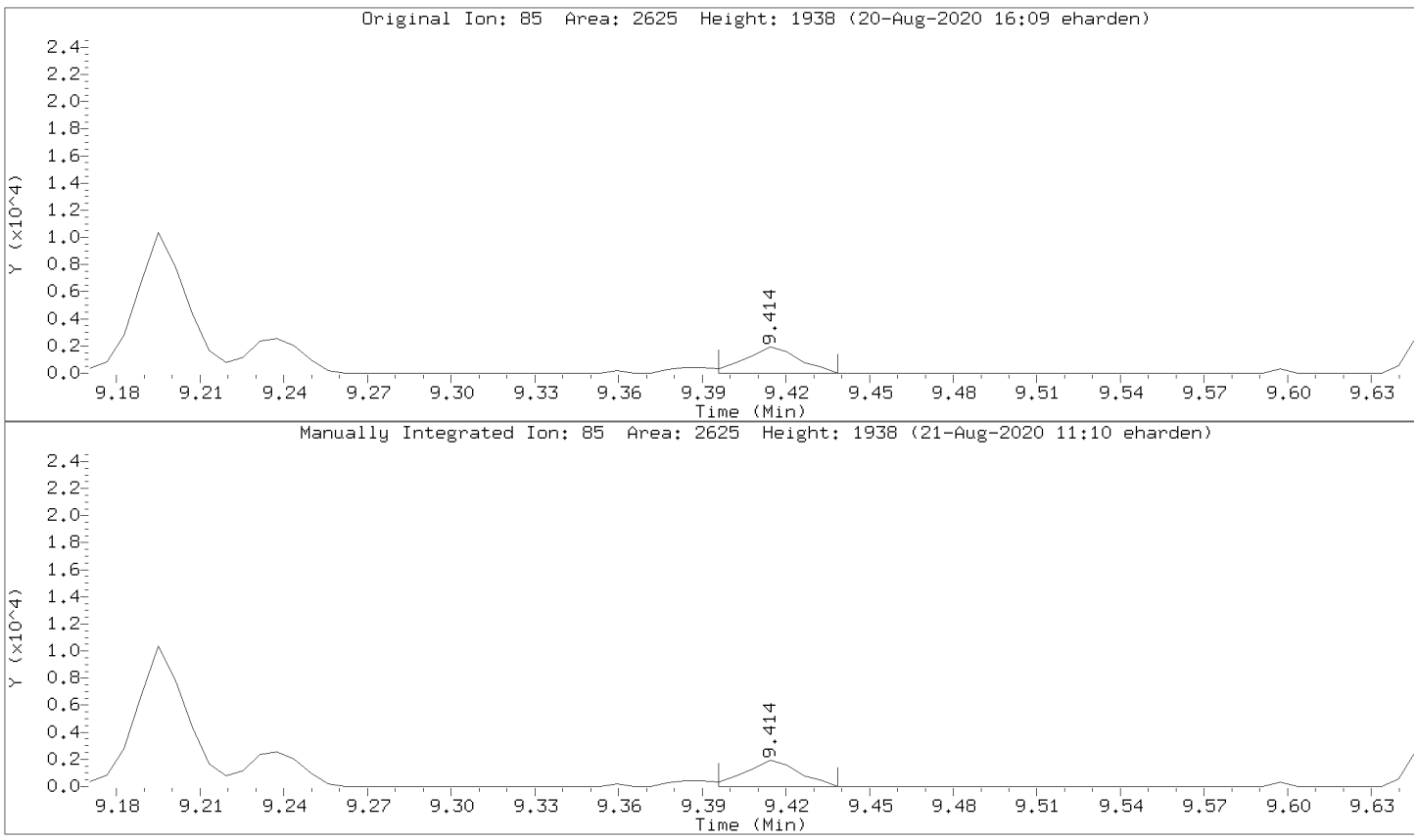






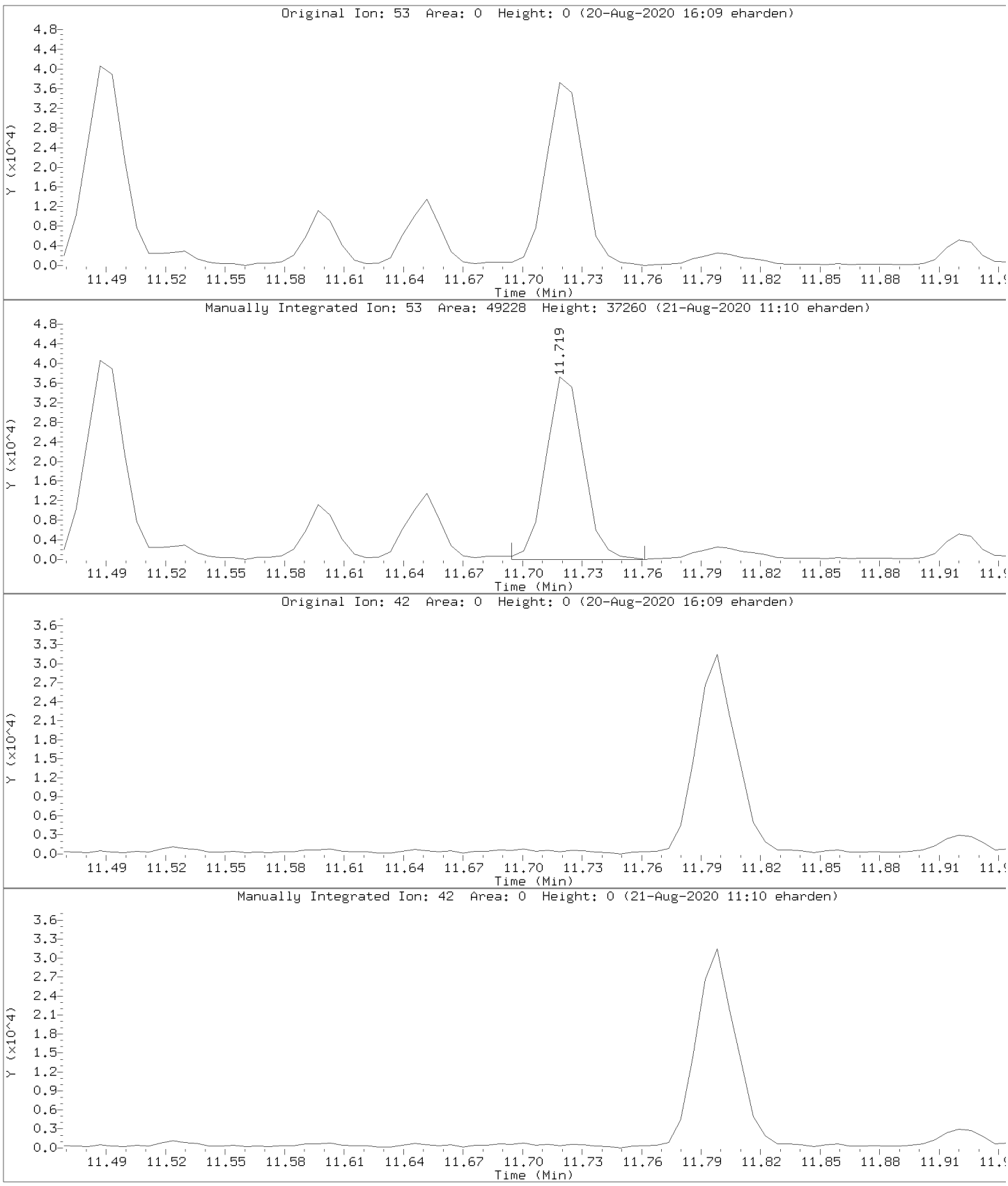


Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8



Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6



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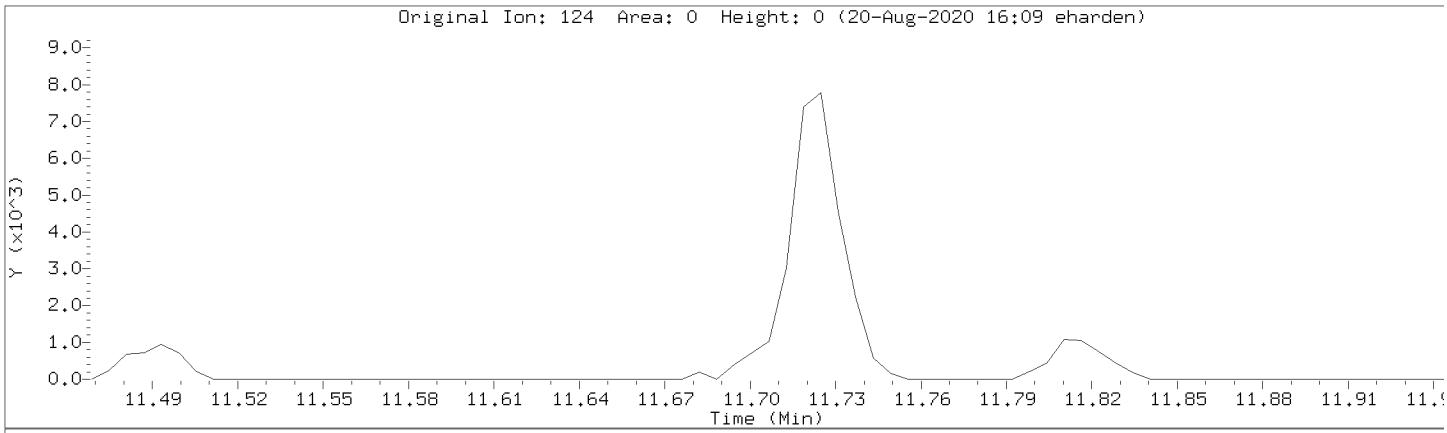
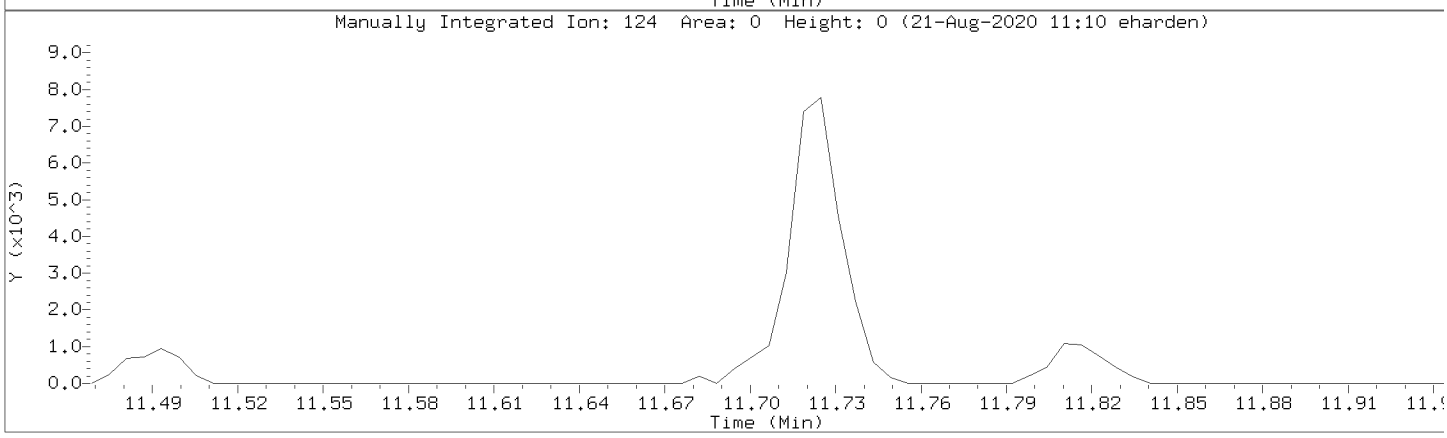
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_11.D
Lab Smp Id: CAL9 Client Smp ID: CAL9
Inj Date : 20-AUG-2020 14:11
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal9,27245:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 14:11 Cal File: 082020_11.D
Als bottle: 9 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.410)	283760	75.0000	76.1(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	346933	75.0000	79.8	
3 Vinyl chloride	62	3.702	3.702	(0.471)	266129	75.0000	72.5	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	229006	75.0000	69.8	
5 Bromomethane	94	4.201	4.195	(0.535)	197842	75.0000	72.1	
6 Chloroethane	64	4.366	4.360	(0.556)	76609	75.0000	75.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	152397	75.0000	65.3	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	95070	75.0000	73.9	
9 1,1-Dichloroethene	61	5.226	5.226	(0.665)	307254	75.0000	74.0	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	190336	75.0000	69.5	
11 Carbon disulfide	76	5.287	5.293	(0.673)	644187	75.0000	70.1	
12 Iodomethane	142	5.445	5.439	(0.693)	174575	75.0000	74.4	
13 Acrolein	56	5.658	5.659	(0.720)	65220	150.000	152	
14 Allyl chloride	76	5.786	5.787	(0.736)	91135	75.0000	71.4	
15 Methylene Chloride	49	5.902	5.902	(0.751)	342732	75.0000	69.5	
16 Acetone	43	5.969	5.976	(0.760)	359242	150.000	150	
17 Methyl acetate	43	6.067	6.067	(0.772)	445182	150.000	157	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	200360	75.0000	71.5	
19 n-Hexane	86	6.110	6.110	(0.777)	24817	75.0000	83.6	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	507129	75.0000	77.6	
21 Acetonitrile	41	6.457	6.463	(0.822)	43661	150.000	168(H)	
22 Chloroprene	53	6.640	6.640	(0.845)	329381	75.0000	84.3	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	394304	75.0000	72.4	
24 Acrylonitrile	53	6.731	6.738	(0.857)	183534	150.000	155	
25 Vinyl acetate	43	6.859	6.860	(0.873)	438519	75.0000	81.4	
26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	296515	75.0000	73.9	
27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	277755	75.0000	66.1	
28 Bromochloromethane	128	7.335	7.335	(0.933)	121740	75.0000	69.4	
29 Cyclohexane	56	7.335	7.335	(0.882)	289677	75.0000	82.8	
30 Chloroform	83	7.372	7.372	(0.938)	435835	75.0000	70.8	
31 Ethyl acetate	43	7.426	7.433	(0.945)	516261	150.000	148	
32 Carbon tetrachloride	117	7.506	7.512	(0.902)	317911	75.0000	76.8	
33 Tetrahydrofuran	42	7.530	7.536	(0.958)	139651	150.000	164	
$ 34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	168498	50.0000	47.3	
35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	346786	75.0000	73.9	
36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	407706	150.000	154	
37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	260917	75.0000	80.1(H)	
* 38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	309362	50.0000		
39 Benzene	78	7.871	7.872	(0.946)	777686	75.0000	73.9	
40 Propionitrile	54	7.896	7.902	(1.005)	76528	150.000	145	
41 Methacrylonitrile	41	7.902	7.902	(1.005)	401655	150.000	150	
42 Isobutanol	43	7.975	7.987	(1.015)	20414	150.000	(MH)	WP
$ 43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	29467	50.0000	46.0	
44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	328819	75.0000	68.0	
45 Isopropyl acetate	43	8.134	8.134	(1.035)	448742	75.0000	77.9	
46 Trichloroethene	130	8.316	8.317	(1.000)	215771	75.0000	75.0	
* 47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	411283	50.0000		
48 Methylcyclohexane	98	8.316	8.317	(1.000)	104652	75.0000	76.8	
49 n-Butanol	56	8.512	8.524	(1.023)	10615	150.000	169(H)	
50 Dibromomethane	93	8.670	8.670	(1.043)	178140	75.0000	72.7	
51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	221116	75.0000	73.6	
52 Bromodichloromethane	83	8.768	8.768	(1.054)	335188	75.0000	77.7	
53 Methyl methacrylate	69	8.822	8.823	(1.061)	128004	75.0000	72.9	
54 1,4-Dioxane (p-Dioxane)	58	8.932	8.920	(1.074)	3243	150.000	(MH)	LT
55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	229530	150.000	147	
56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	334526	75.0000	79.8	
$ 57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	447242	50.0000	50.5	
58 Toluene	91	9.414	9.414	(1.132)	781683	75.0000	76.2	
59 2-Nitropropane	43	9.603	9.603	(1.155)	75539	75.0000	74.4(H)	
60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	44292	150.000	150(M)	WP
61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	333917	75.0000	79.8	
62 Tetrachloroethene	164	9.719	9.719	(0.920)	205799	75.0000	76.6	
63 Ethyl methacrylate	69	9.761	9.761	(1.174)	245737	75.0000	73.4(H)	
64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	182207	75.0000	70.1	
65 Dibromochloromethane	129	9.999	9.999	(0.947)	280478	75.0000	75.3	
66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	312981	75.0000	79.0	
67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	231783	75.0000	72.6	
68 2-Hexanone	43	10.273	10.280	(1.235)	571212	150.000	164	
69 Ethylbenzene	91	10.554	10.554	(0.999)	846583	75.0000	82.6	
* 70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	391574	50.0000		
71 Chlorobenzene	112	10.578	10.578	(1.002)	554970	75.0000	73.5	
72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	225655	75.0000	70.7	
73 m&p-Xylene	91	10.651	10.651	(1.009)	1353204	150.000	151	
74 o-Xylene	106	10.993	10.993	(1.041)	299124	75.0000	70.9	
75 Styrene	104	11.029	11.029	(1.044)	546784	75.0000	74.2	
76 Bromoform	173	11.103	11.103	(1.051)	260722	75.0000	73.7	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	479165	75.0000	75.6	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	166582	50.0000	51.8	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	91712	75.0000	71.3	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	1052699	75.0000	83.8	
81 Bromobenzene	156	11.578	11.578	(1.096)	312070	75.0000	78.8	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	302282	75.0000	72.2	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	695519	75.0000	83.9	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	220722	75.0000	73.6	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	228636	75.0000	75.5	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	797567	75.0000	73.6	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	319085	75.0000	72.8	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	78111	75.0000	77.5(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	710565	75.0000	73.0	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	731346	75.0000	74.8	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	858491	75.0000	74.0	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	710565	75.0000	73.0	
94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	523242	75.0000	78.3	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	251122	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	532968	75.0000	70.7	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	748624	75.0000	85.5	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	517606	75.0000	70.9	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	59552	75.0000	72.5	
100 Hexachloro-1,3-butadiene	225	13.815	13.822	(1.120)	164678	75.0000	73.6	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	399731	75.0000	80.8	
102 Naphthalene	128	14.193	14.193	(1.150)	711974	75.0000	72.4	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	369768	75.0000	80.4	

QC Flag Legend

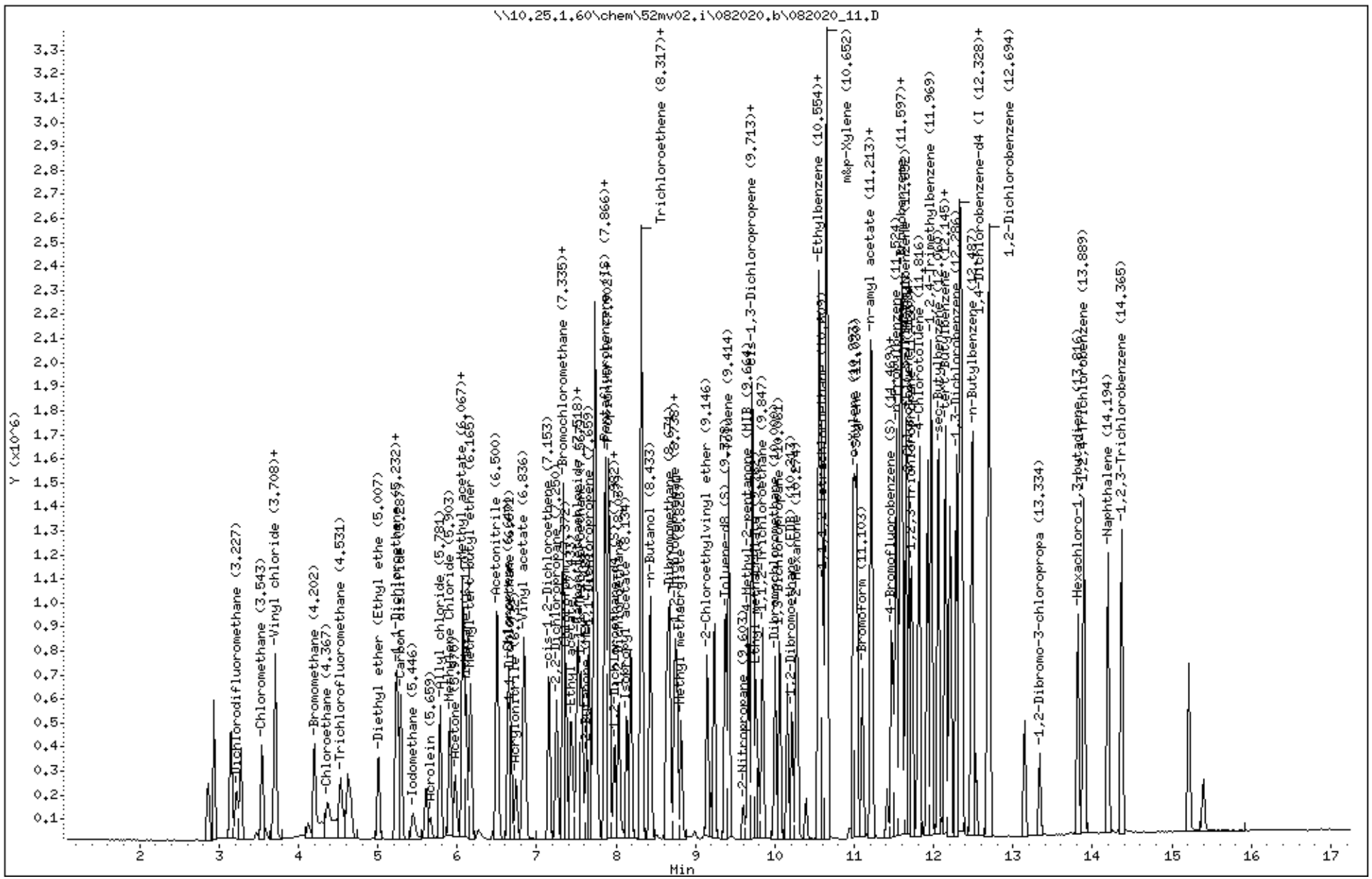
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

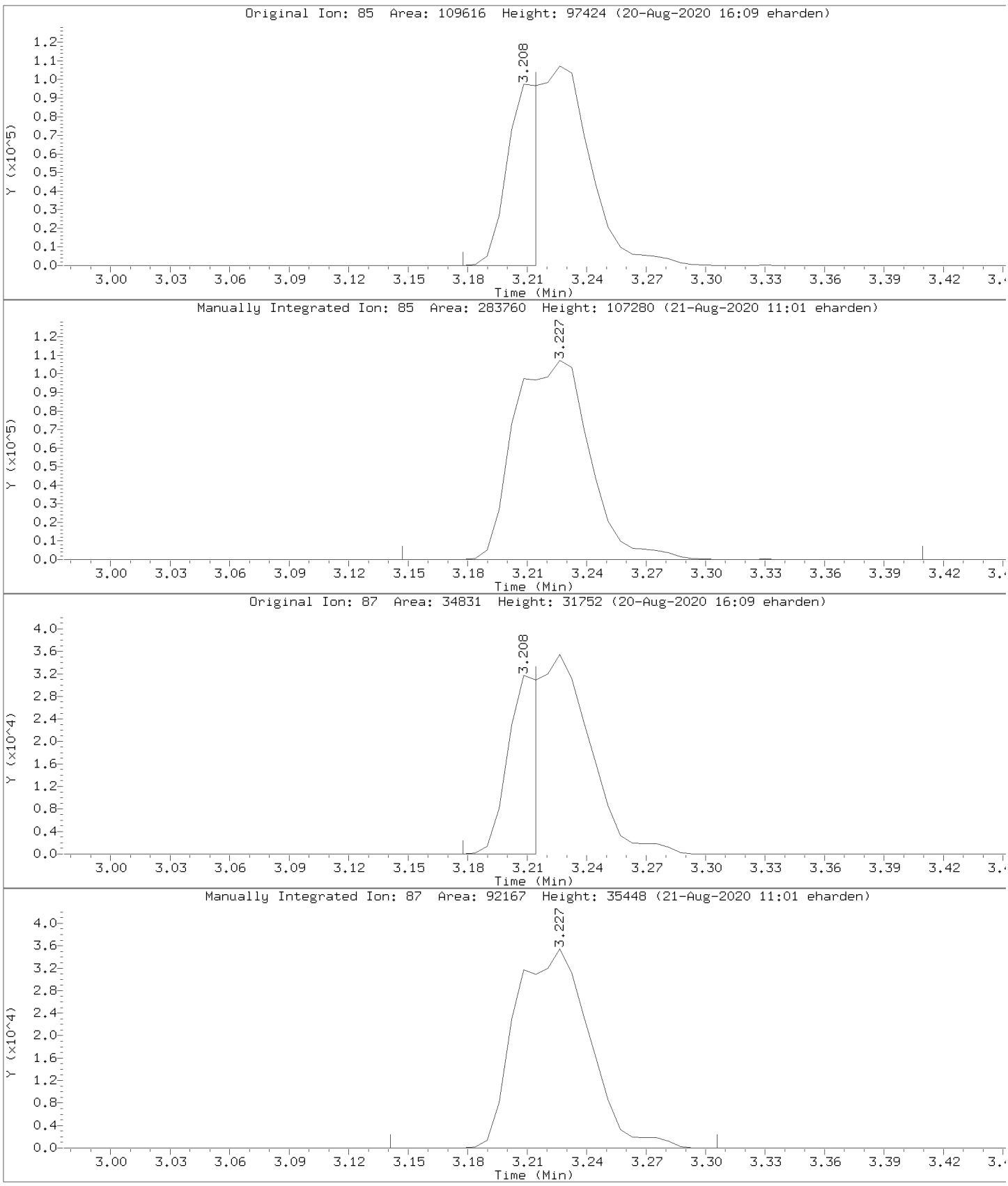
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_11.D
Date : 20-AUG-2020 14:11
Client ID: CAL9
Sample Info: CAL9,27245:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_11.D
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



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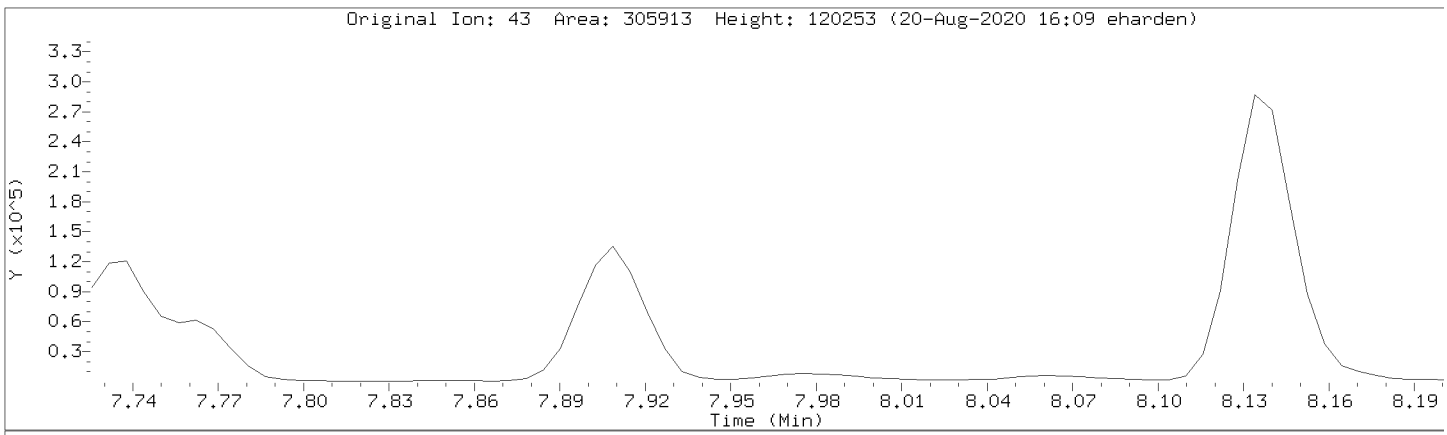
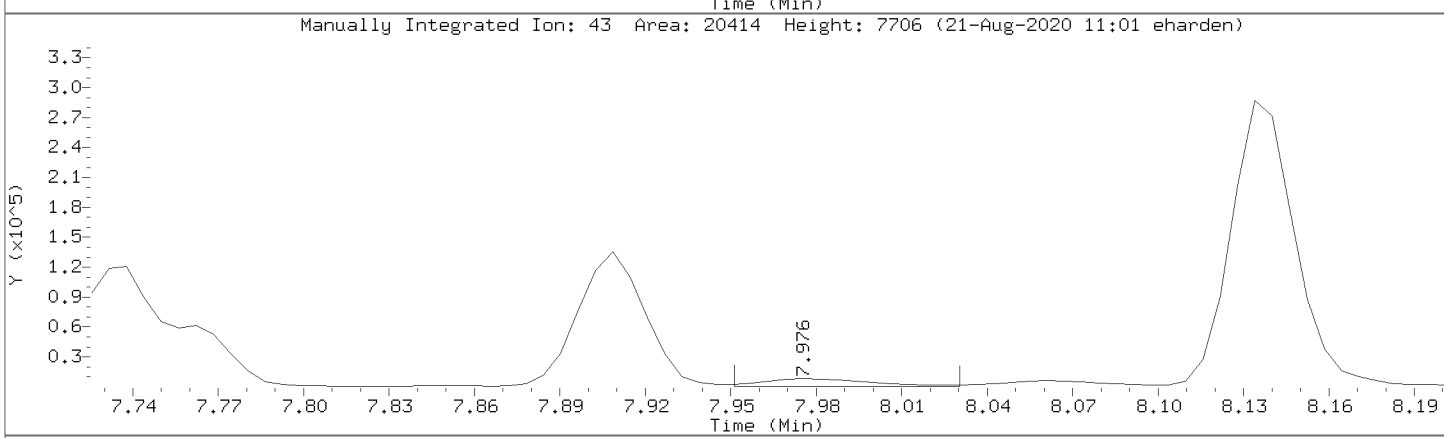
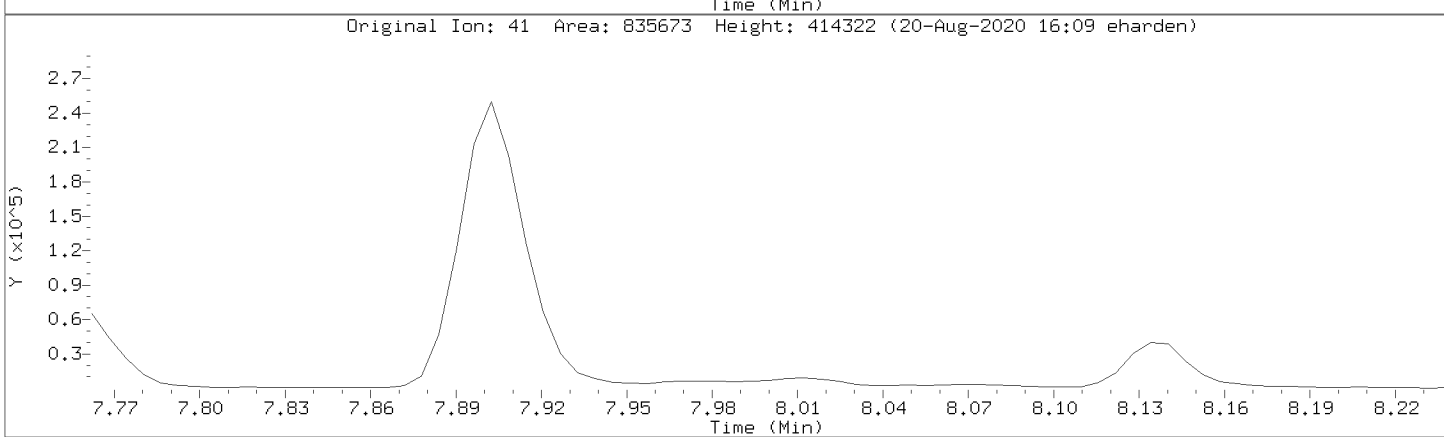
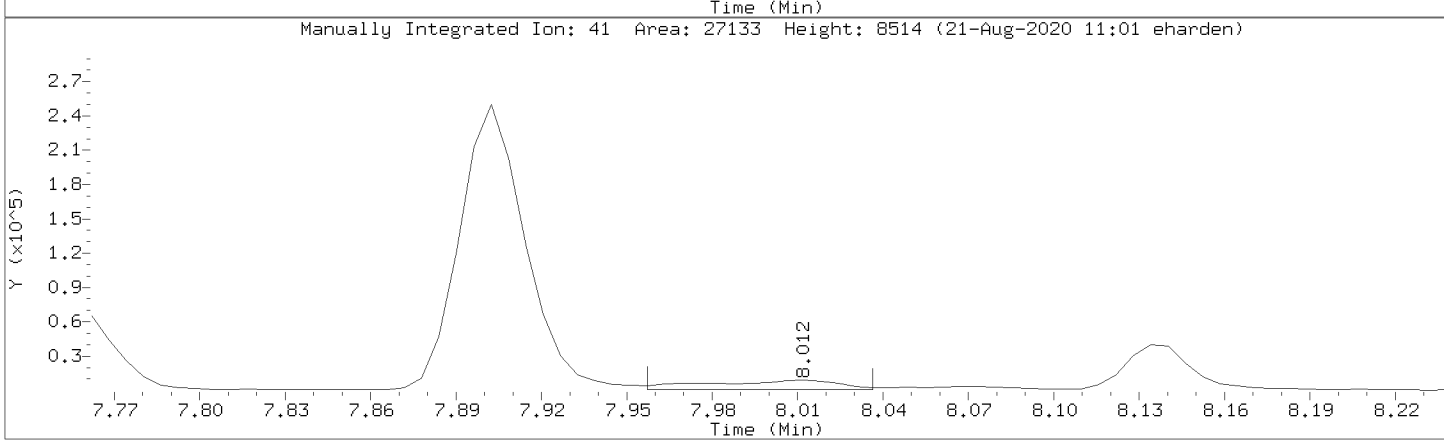
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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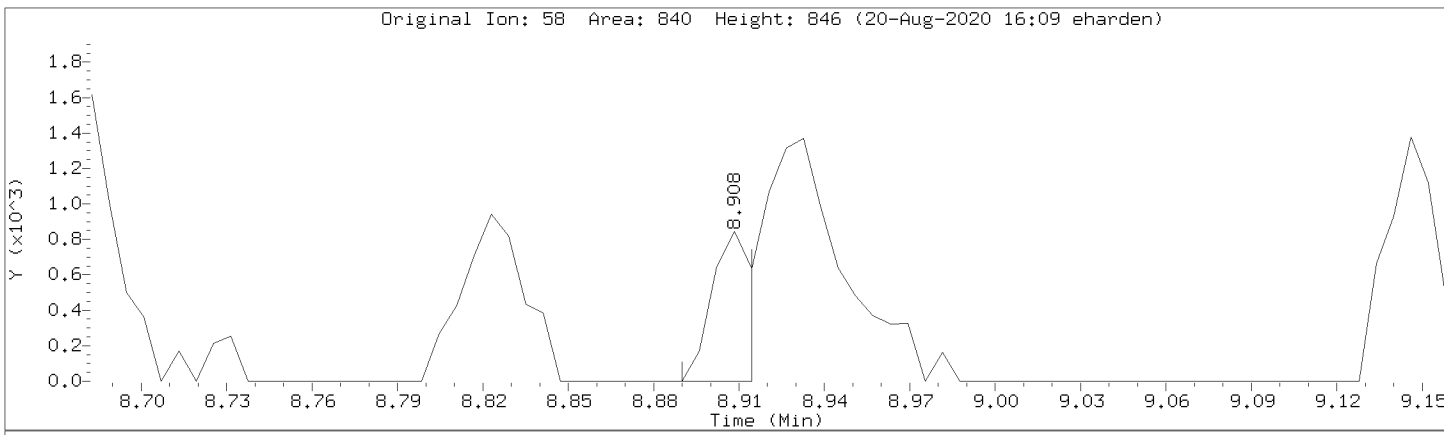
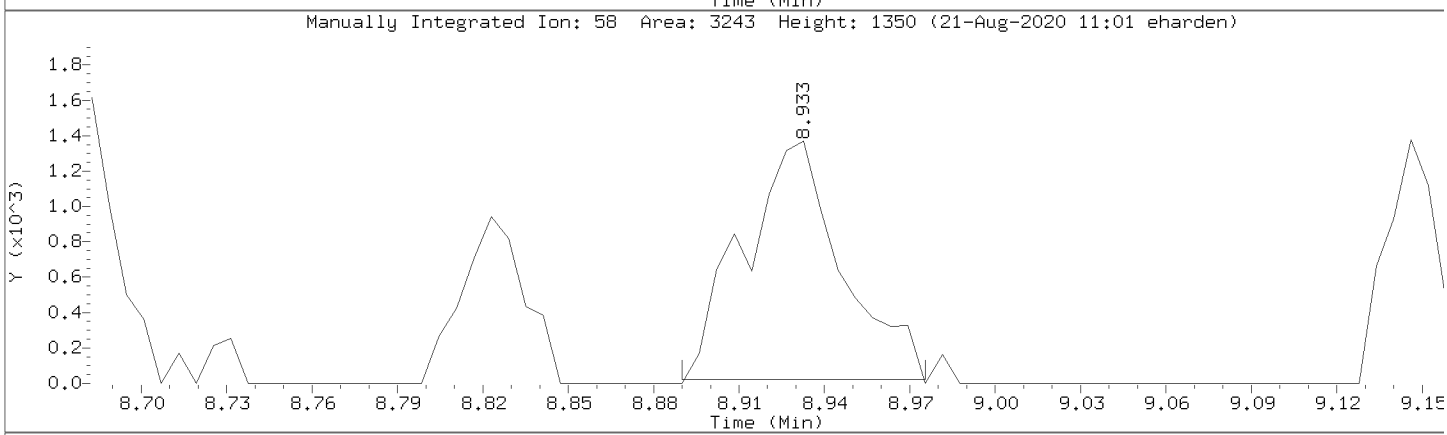
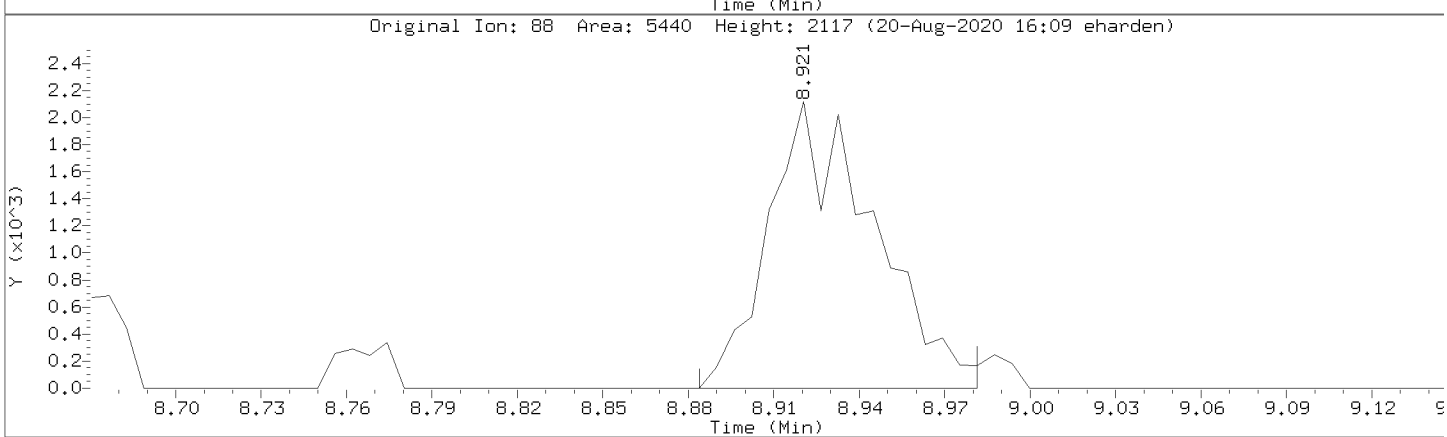
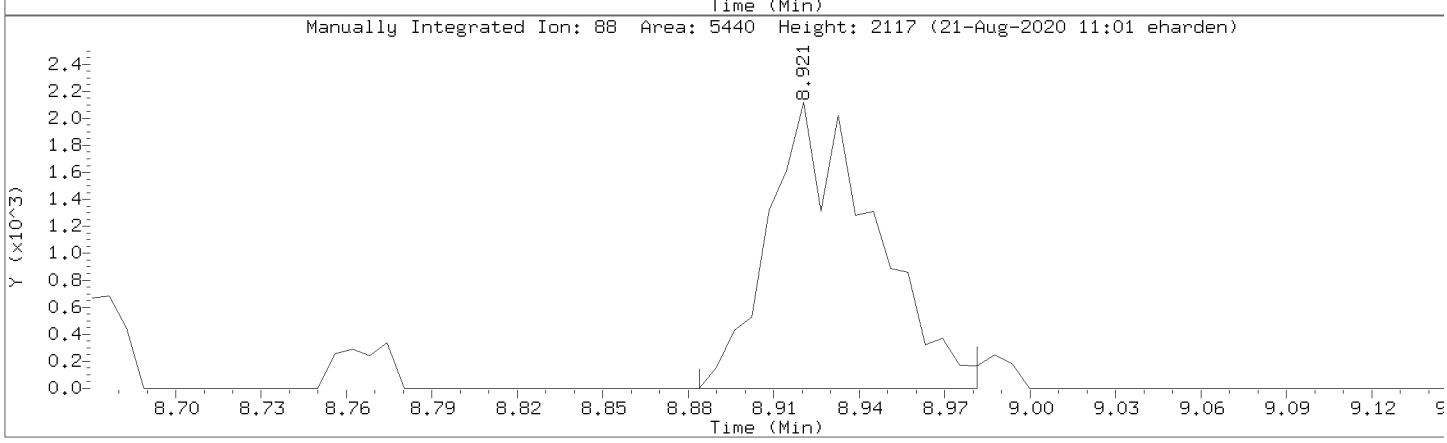
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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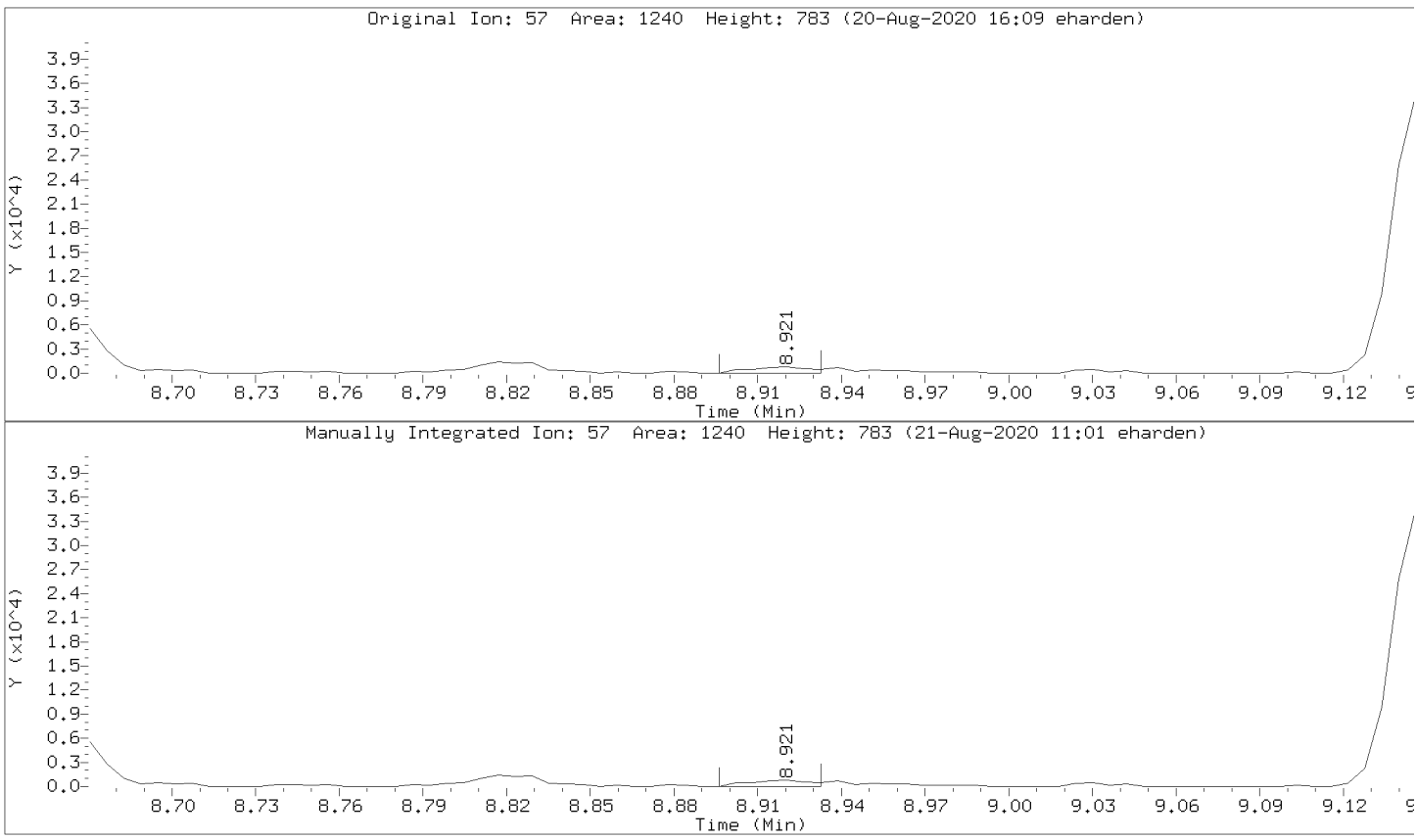
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9



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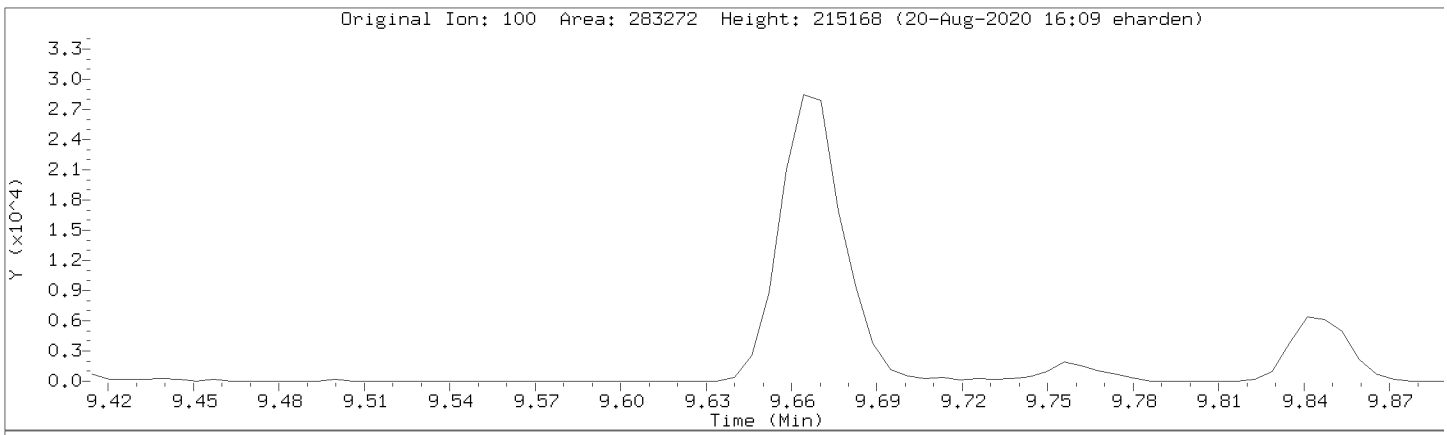
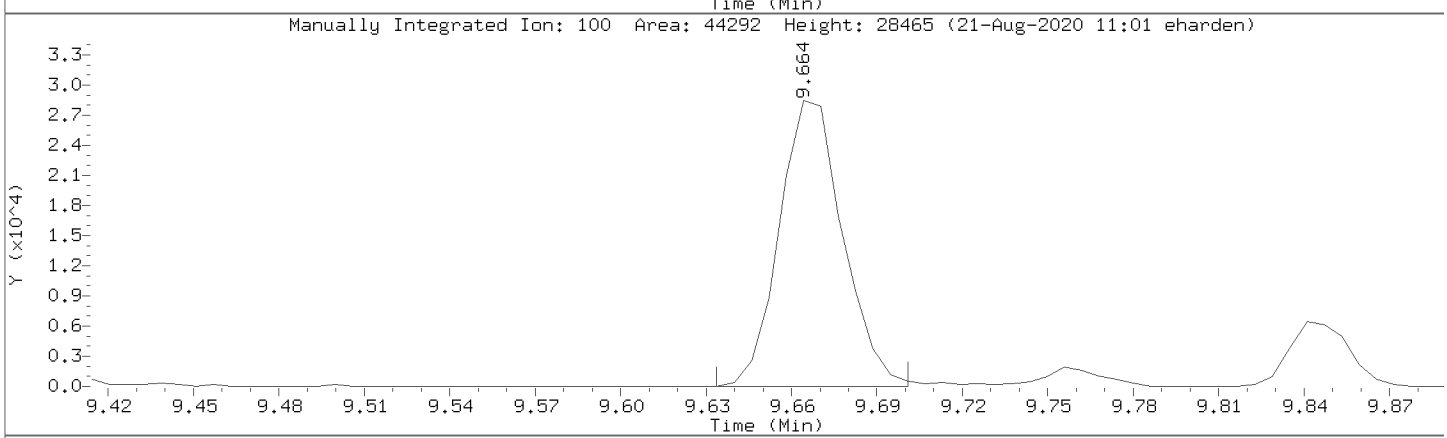
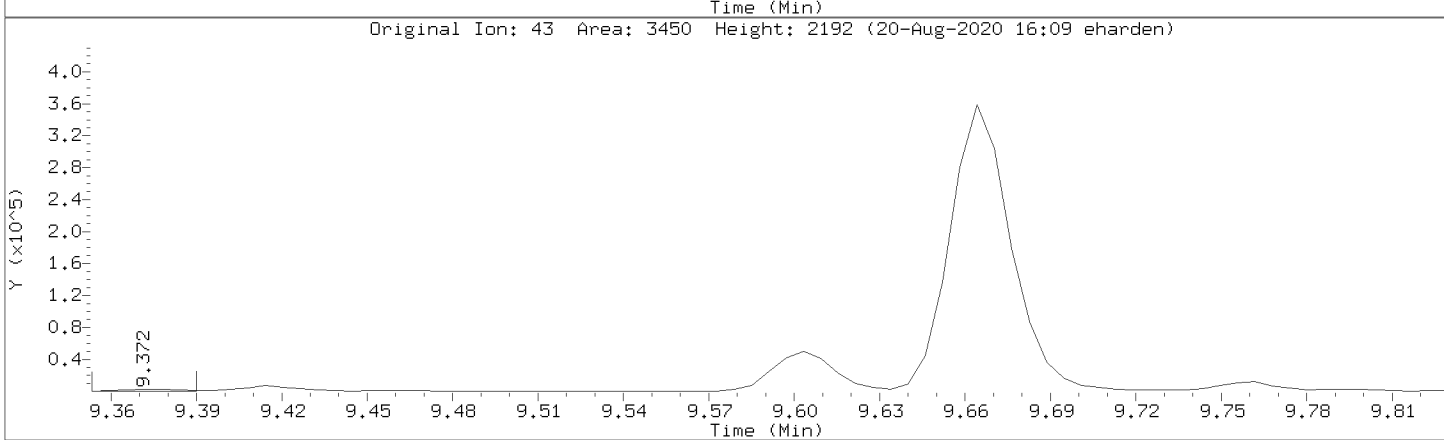
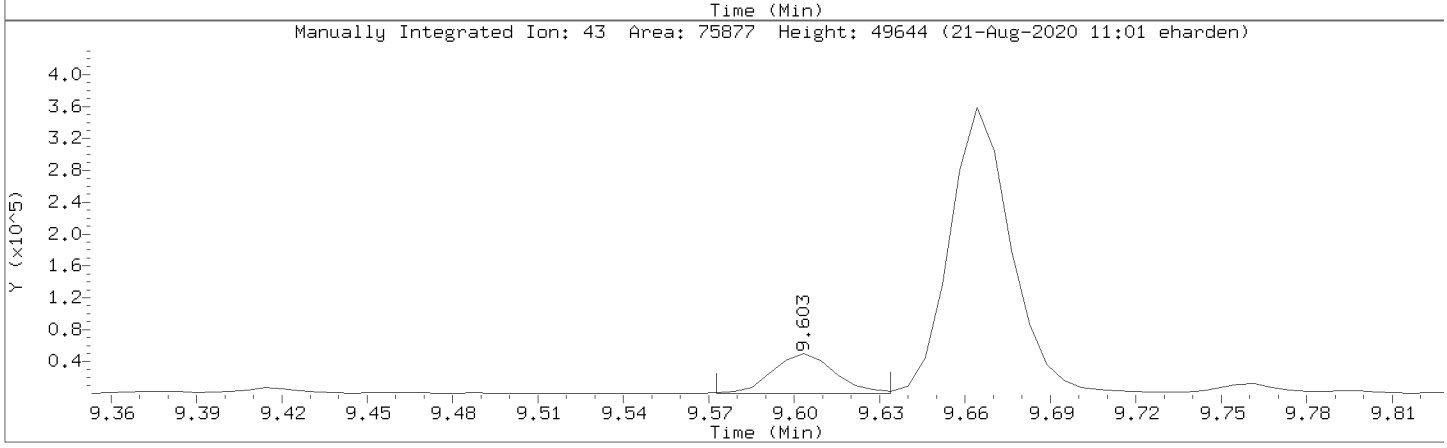
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1

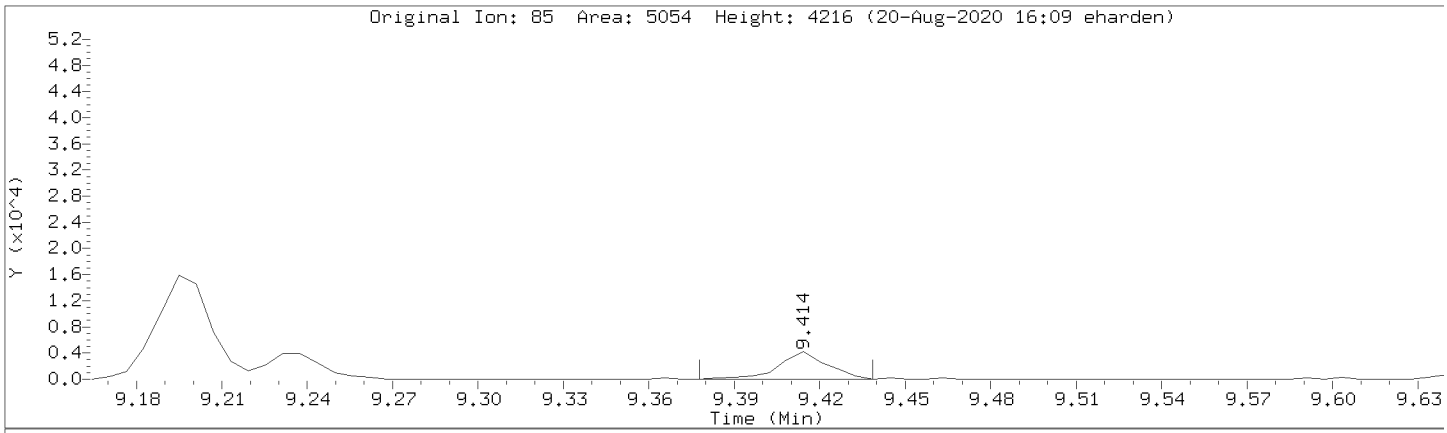


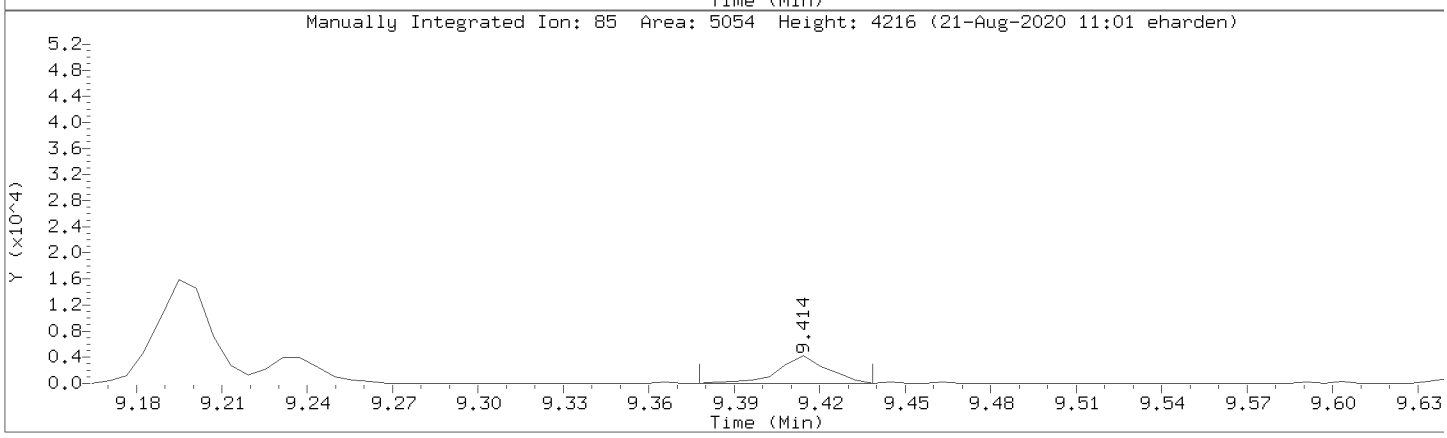






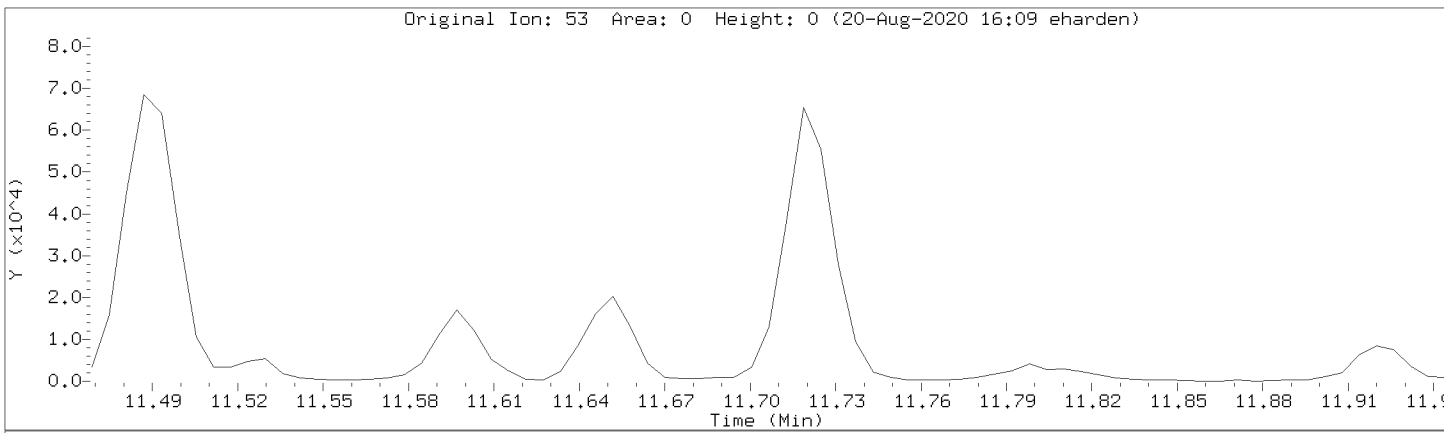
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_11.D
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

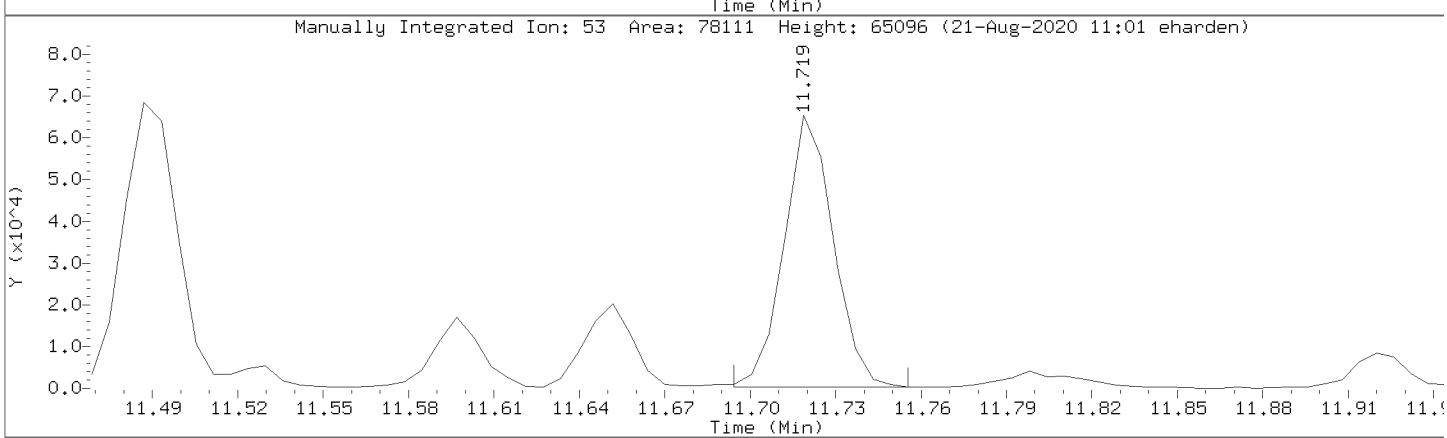


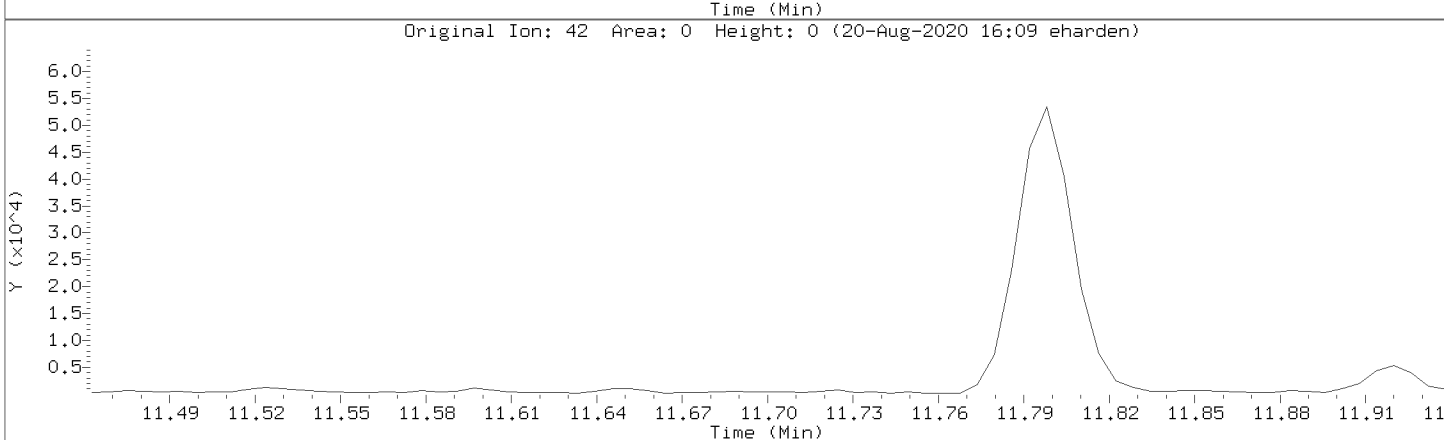


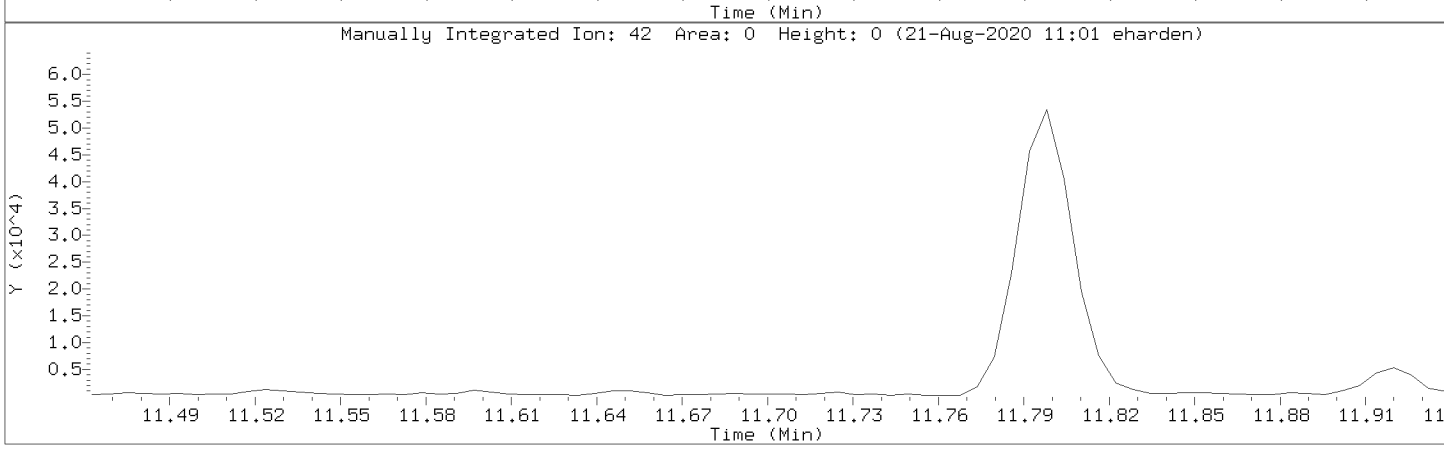
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_11.D
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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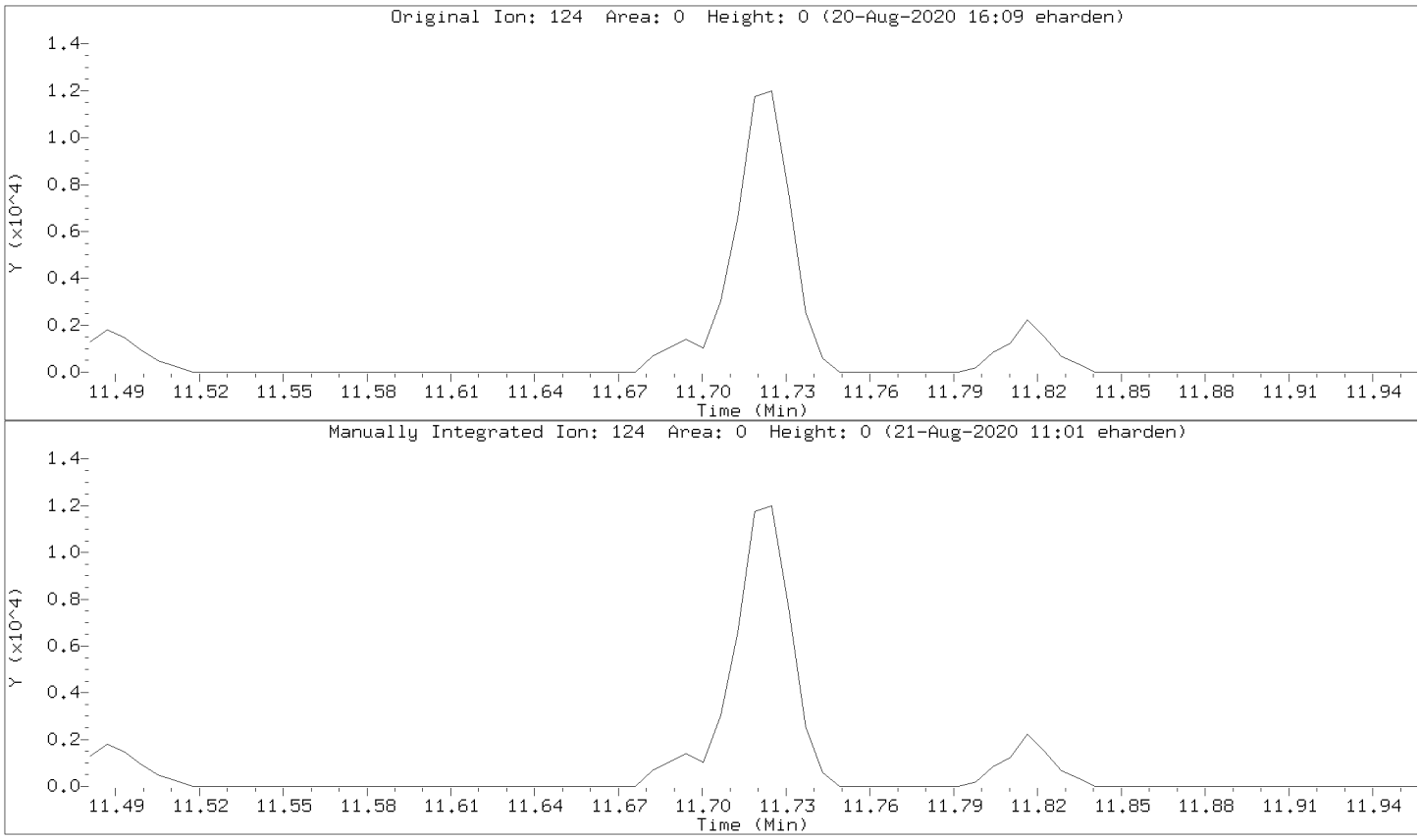
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_12.D
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Inj Date : 20-AUG-2020 14:36
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal10,27246:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 14:36 Cal File: 082020_12.D
Als bottle: 10 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.232	3.226	(0.411)	408577	100.000	102(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	484636	100.000	105	
3 Vinyl chloride	62	3.702	3.702	(0.471)	387049	100.000	98.7	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	337639	100.000	96.3	
5 Bromomethane	94	4.201	4.195	(0.535)	280008	100.000	96.6	
6 Chloroethane	64	4.366	4.360	(0.556)	102291	100.000	94.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	201296	100.000	80.8	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	132497	100.000	96.5	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	447052	100.000	101	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	271477	100.000	92.9	
11 Carbon disulfide	76	5.287	5.293	(0.673)	903417	100.000	92.1	
12 Iodomethane	142	5.445	5.439	(0.693)	281734	100.000	105	
13 Acrolein	56	5.659	5.659	(0.720)	92978	200.000	203	
14 Allyl chloride	76	5.787	5.787	(0.736)	131327	100.000	96.3	
15 Methylene Chloride	49	5.902	5.902	(0.751)	464439	100.000	88.2	
16 Acetone	43	5.969	5.976	(0.760)	504949	200.000	198	
17 Methyl acetate	43	6.067	6.067	(0.772)	615823	200.000	204(A)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	281562	100.000	94.1	
19 n-Hexane	86	6.110	6.110	(0.777)	34191	100.000	108	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	722402	100.000	103	
21 Acetonitrile	41	6.463	6.463	(0.822)	59347	200.000	214(AH)	
22 Chloroprene	53	6.640	6.640	(0.845)	465931	100.000	112	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	538565	100.000	92.6	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	257393	200.000	204(A)	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	592348	100.000	103	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	420353	100.000	98.0	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	400045	100.000	89.2	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	170642	100.000	91.1	
	29 Cyclohexane	56	7.335	7.335	(0.882)	419057	100.000	113	
	30 Chloroform	83	7.372	7.372	(0.938)	604780	100.000	92.0	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	715243	200.000	193	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	438244	100.000	99.7	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	196080	200.000	216(A)	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	173193	50.0000	45.5	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	483513	100.000	97.1	
	36 2-Butanone (MEK)	43	7.622	7.628	(0.970)	582167	200.000	205	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	369324	100.000	107(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	330367	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	1069569	100.000	95.8	
	40 Propionitrile	54	7.896	7.902	(1.005)	106137	200.000	188	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	553697	200.000	193	
	42 Isobutanol	43	7.981	7.987	(1.016)	27725	200.000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	30521	50.0000	44.6	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	462341	100.000	89.5	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	647452	100.000	105	
	46 Trichloroethene	130	8.317	8.317	(1.000)	309121	100.000	101	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	436570	50.0000		
	48 Methylcyclohexane	98	8.317	8.317	(1.000)	158128	100.000	109	
	49 n-Butanol	56	8.512	8.524	(1.023)	14392	200.000	216(AH)	
	50 Dibromomethane	93	8.670	8.670	(1.043)	246347	100.000	94.7	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	303772	100.000	95.3	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	472990	100.000	103	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	186585	100.000	99.8	
	54 1,4-Dioxane (p-Dioxane)	58	8.932	8.920	(1.074)	5966	200.000		
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	331081	200.000	199	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	477231	100.000	107	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	469795	50.0000	50.0	
	58 Toluene	91	9.414	9.414	(1.132)	1103221	100.000	101	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	107110	100.000	99.6(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	67349	200.000	216(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	476057	100.000	107	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	293850	100.000	102	
	63 Ethyl methacrylate	69	9.755	9.761	(1.173)	357290	100.000	100(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	256256	100.000	92.9	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	402726	100.000	100	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	445948	100.000	106	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	331903	100.000	96.5	
	68 2-Hexanone	43	10.273	10.280	(1.235)	835017	200.000	226	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	1239031	100.000	112	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	421679	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	778798	100.000	95.7	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	313159	100.000	91.1	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	1926275	200.000	199	
	74 o-Xylene	106	10.993	10.993	(1.041)	447143	100.000	98.2	
	75 Styrene	104	11.029	11.029	(1.044)	787917	100.000	99.1	
	76 Bromoform	173	11.103	11.103	(1.051)	373847	100.000	98.1	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	674839	100.000	98.7	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	181905	50.0000	52.6	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	126903	100.000	91.6	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	1515194	100.000	112	
81 Bromobenzene	156	11.578	11.578	(1.096)	444066	100.000	104	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	420224	100.000	93.1	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	994488	100.000	112	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	318275	100.000	98.4	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	325711	100.000	99.8	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	1159541	100.000	99.1	
87 1,2,3-Trichloropropane	75	11.718	11.724	(1.110)	452394	100.000	95.9	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	107903	100.000	99.4(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	1046010	100.000	100	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	1050761	100.000	100	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	1234948	100.000	99.0	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	1046010	100.000	100	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	748097	100.000	104	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	269551	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	761377	100.000	94.0	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	1072153	100.000	114	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	743908	100.000	94.9	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	85330	100.000	96.8	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	240583	100.000	100	
101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	573550	100.000	108	
102 Naphthalene	128	14.193	14.193	(1.150)	1058070	100.000	100	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	534252	100.000	108	

QC Flag Legend

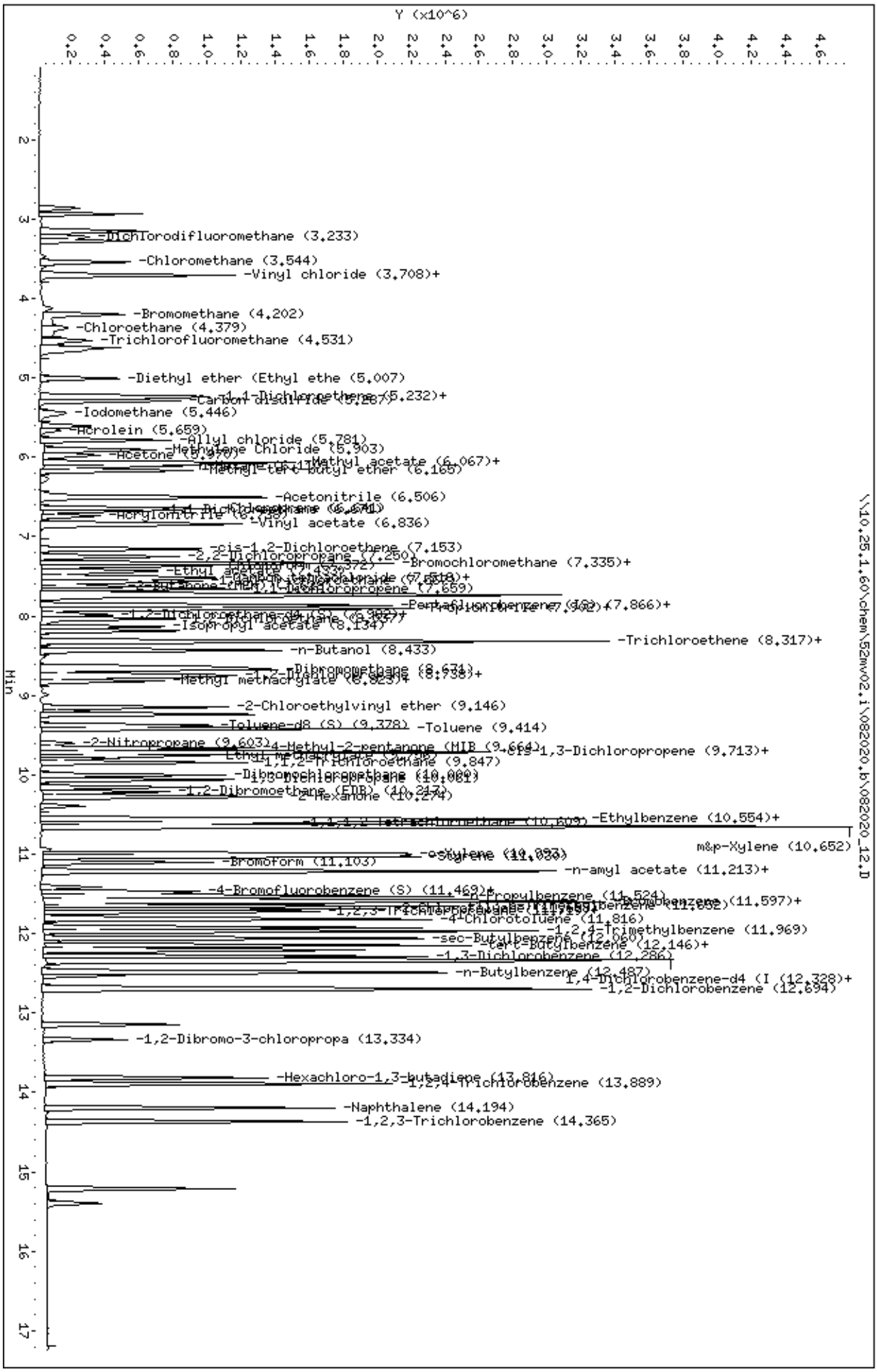
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_12.D
Date : 20-AUG-2020 14:36
Client ID: CAL10
Sample Info: CAL10,27246:1
Purge Volume: 5.0
Column phase: RTX-VMS

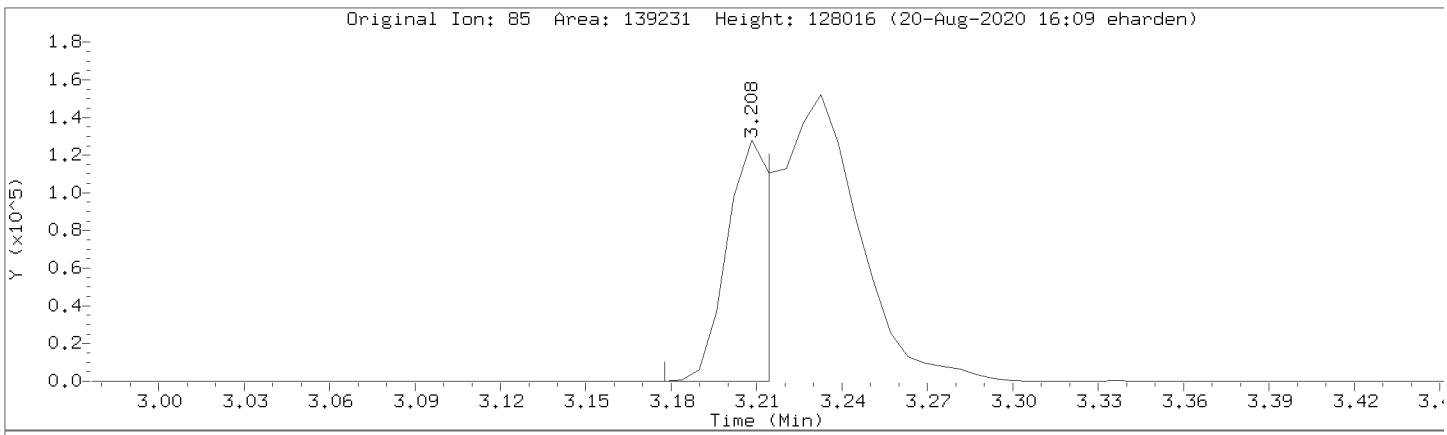
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

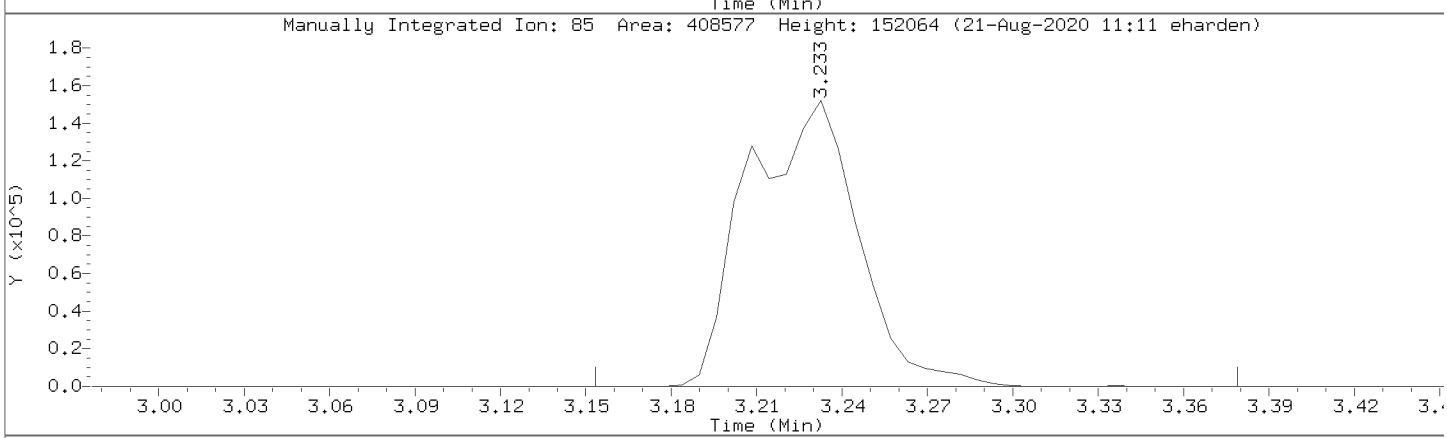


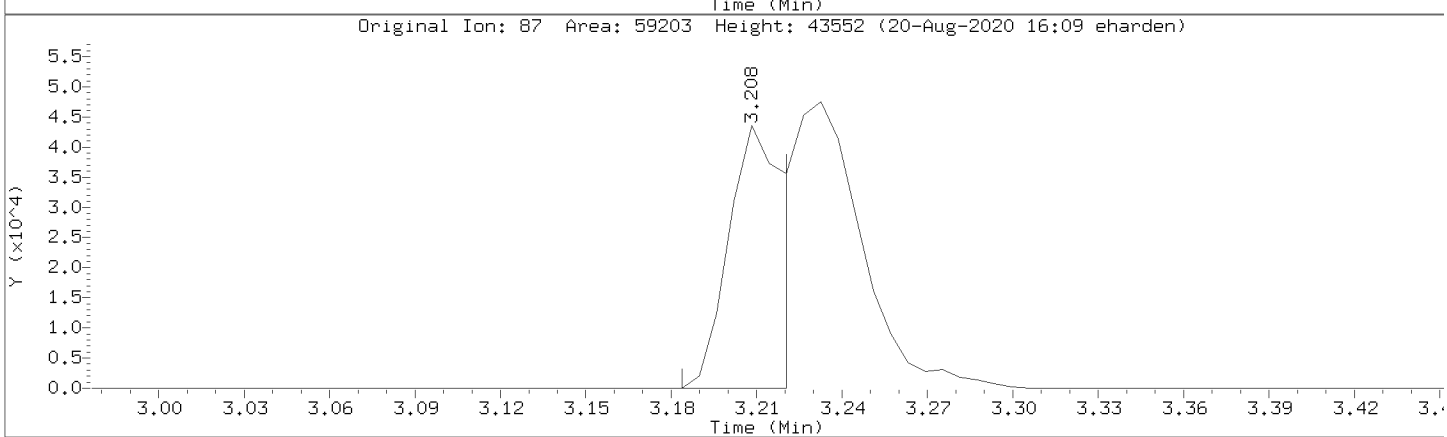
Page 4

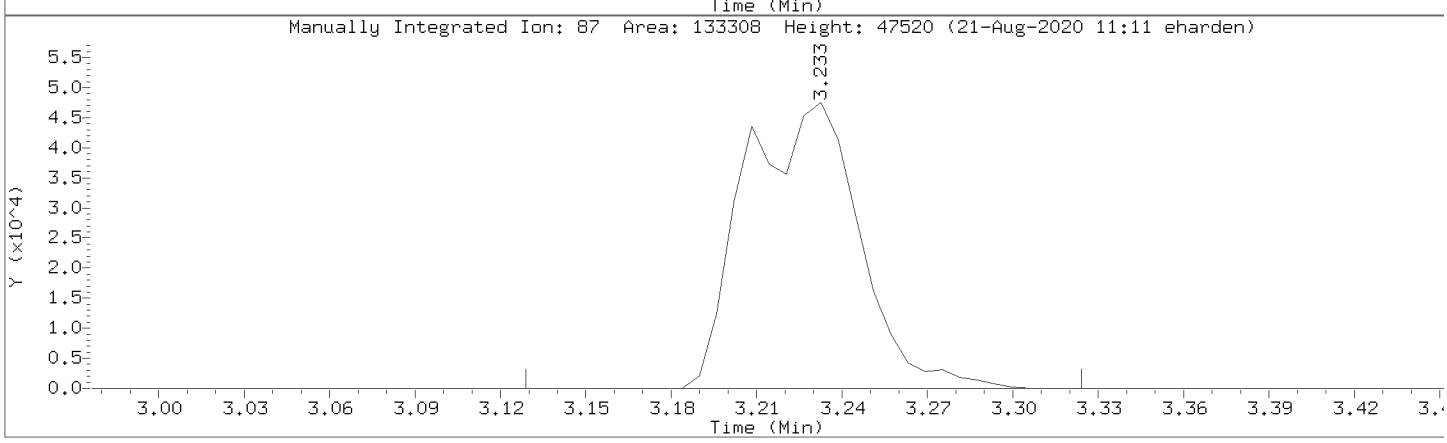
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_12.D
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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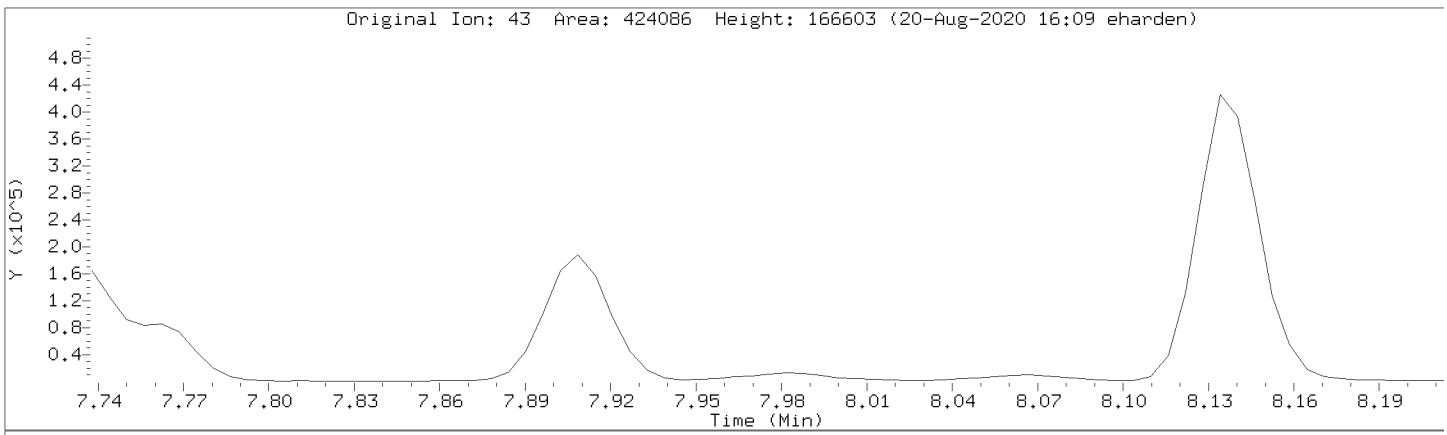
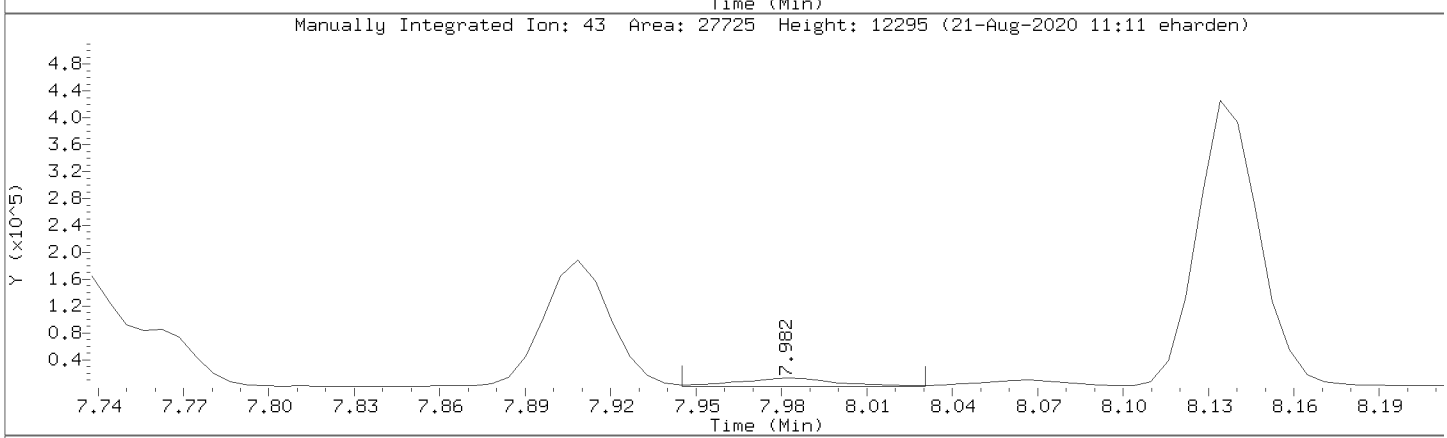
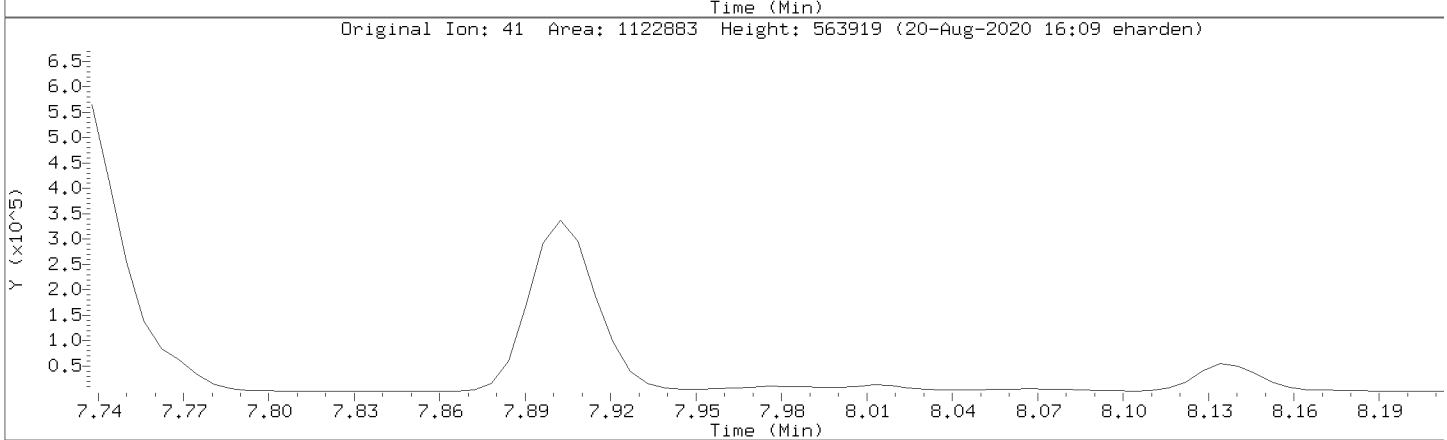
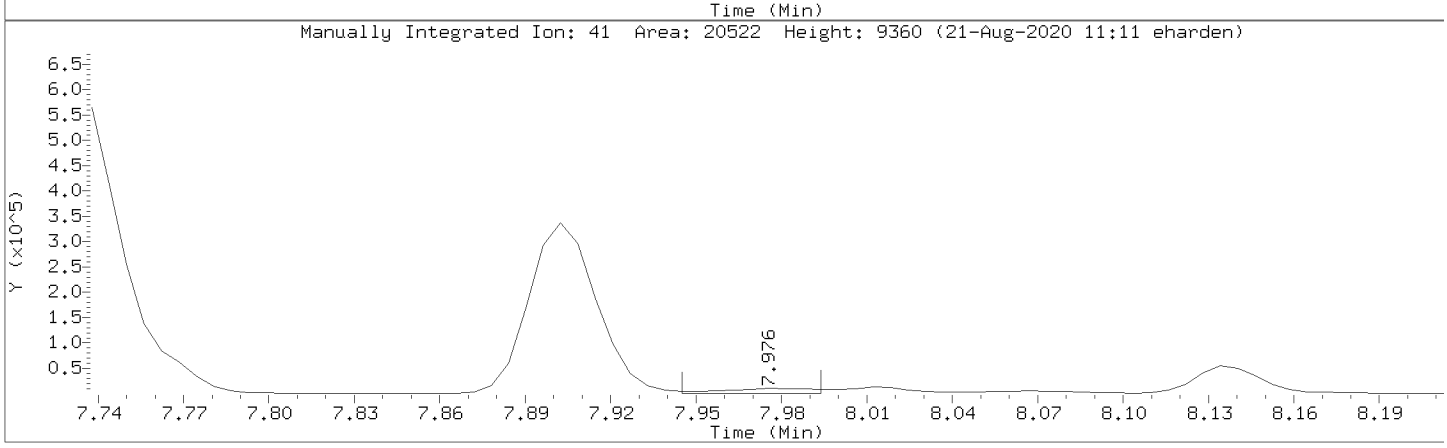
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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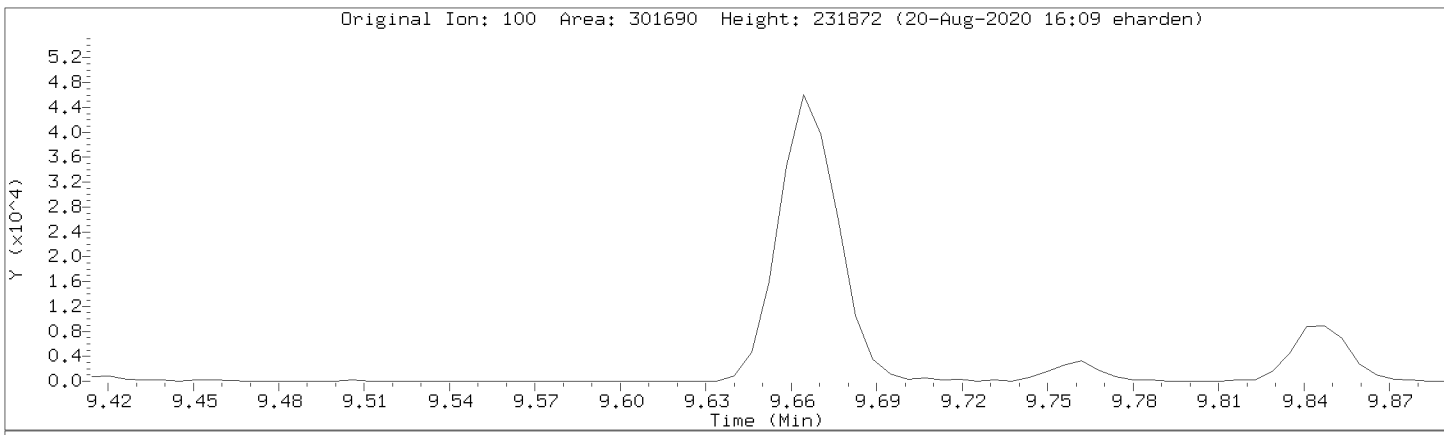
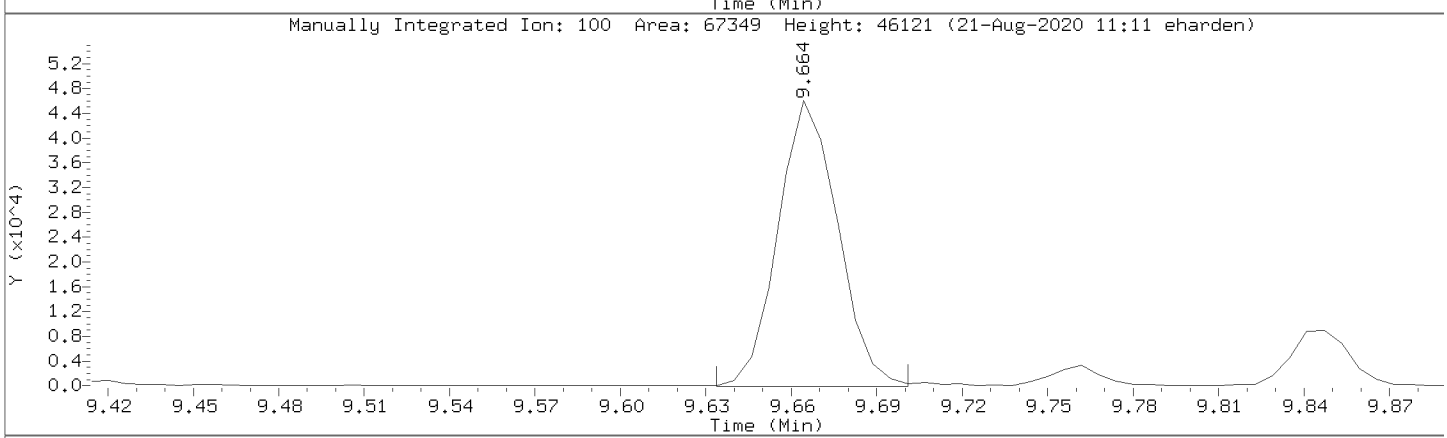
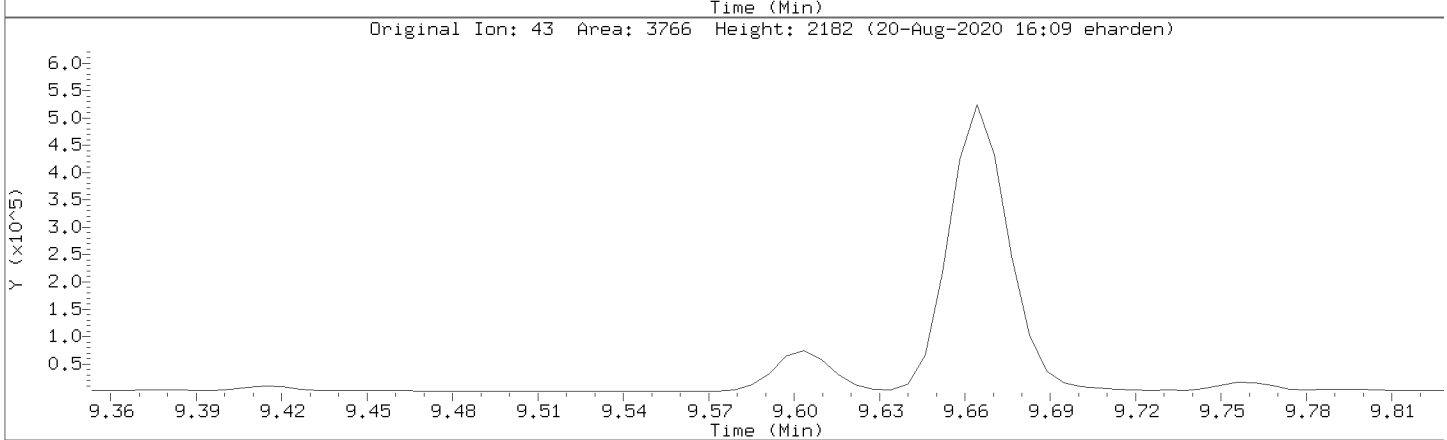
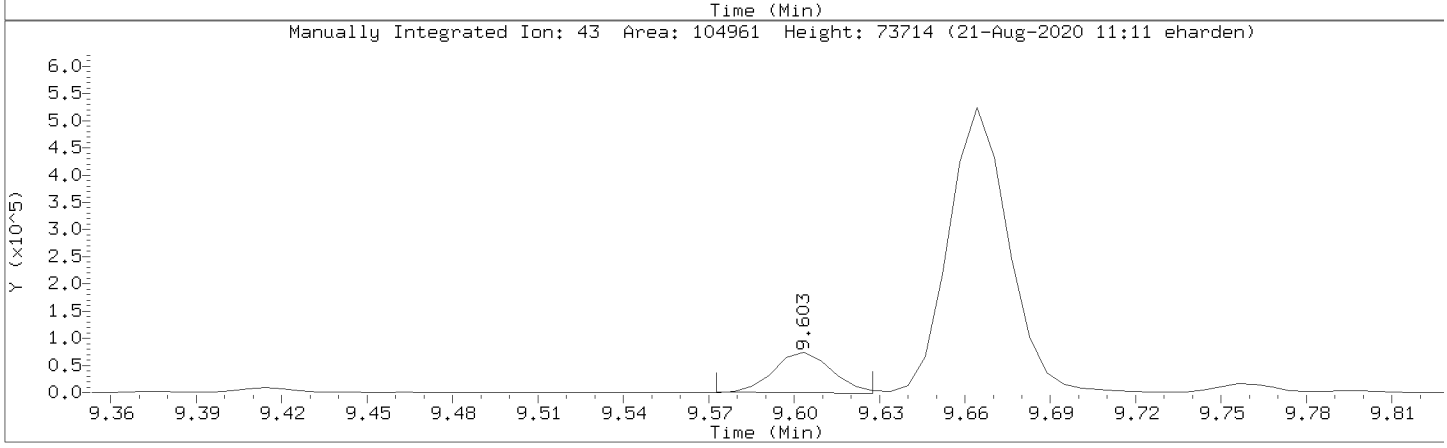
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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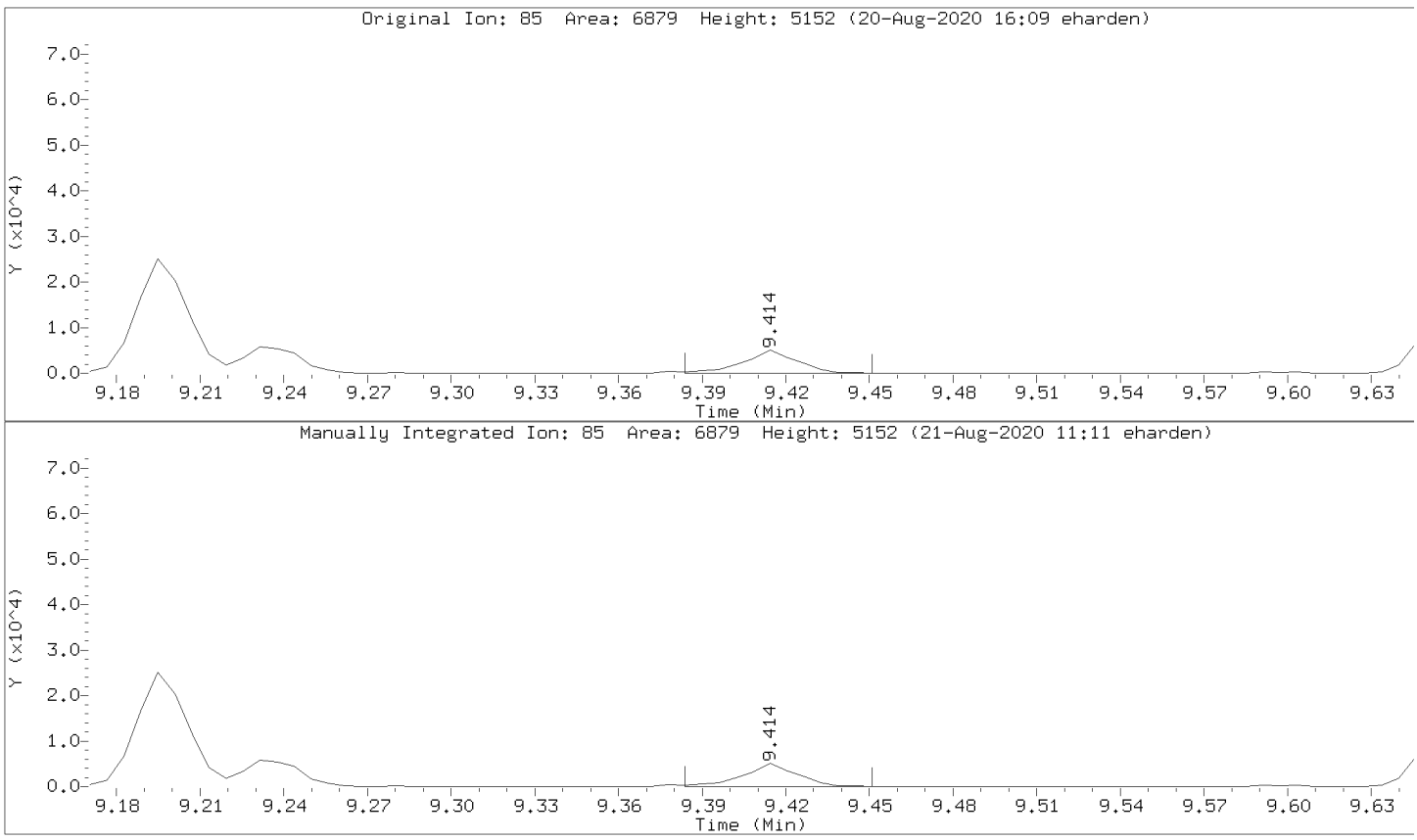
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10



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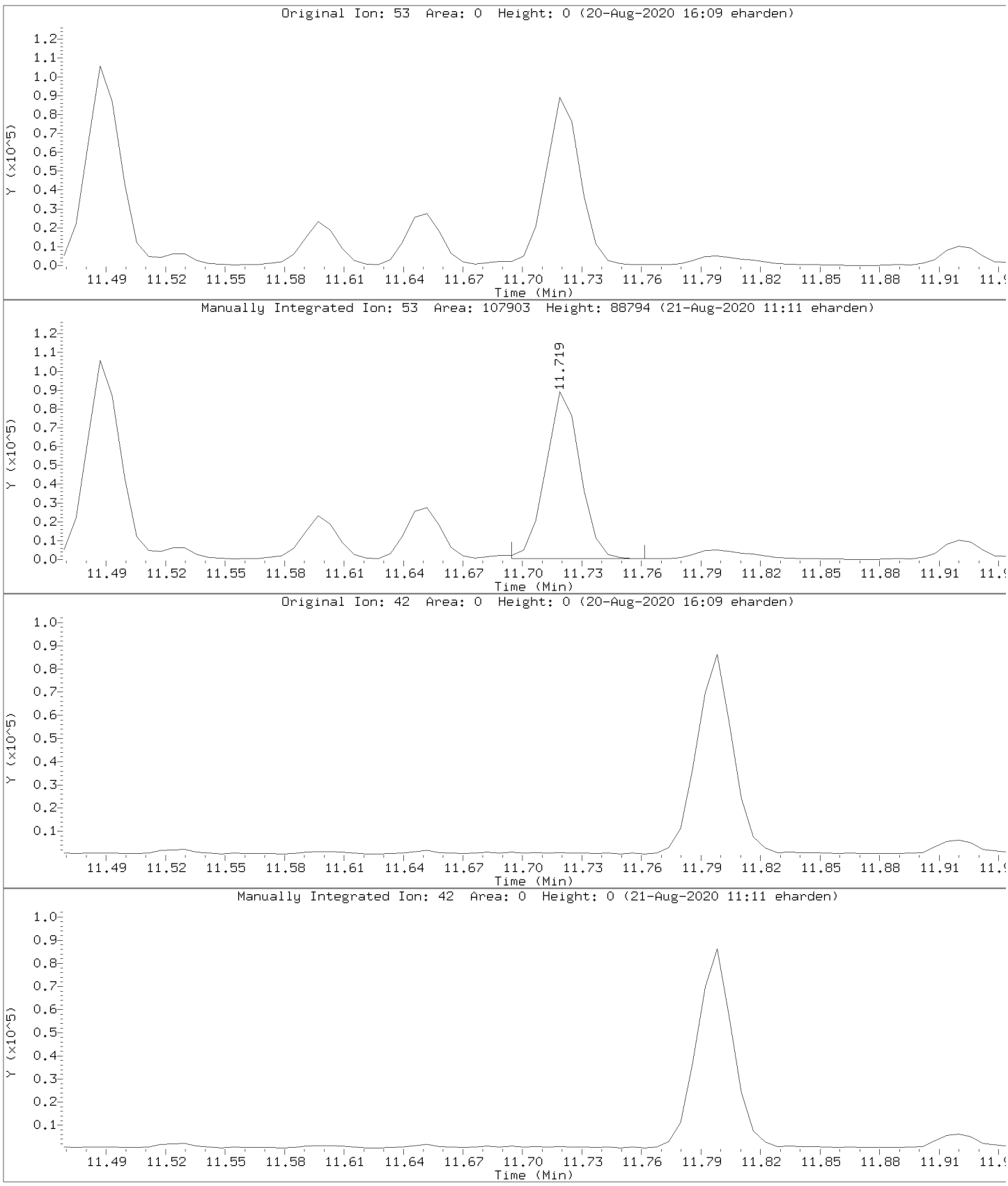
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6



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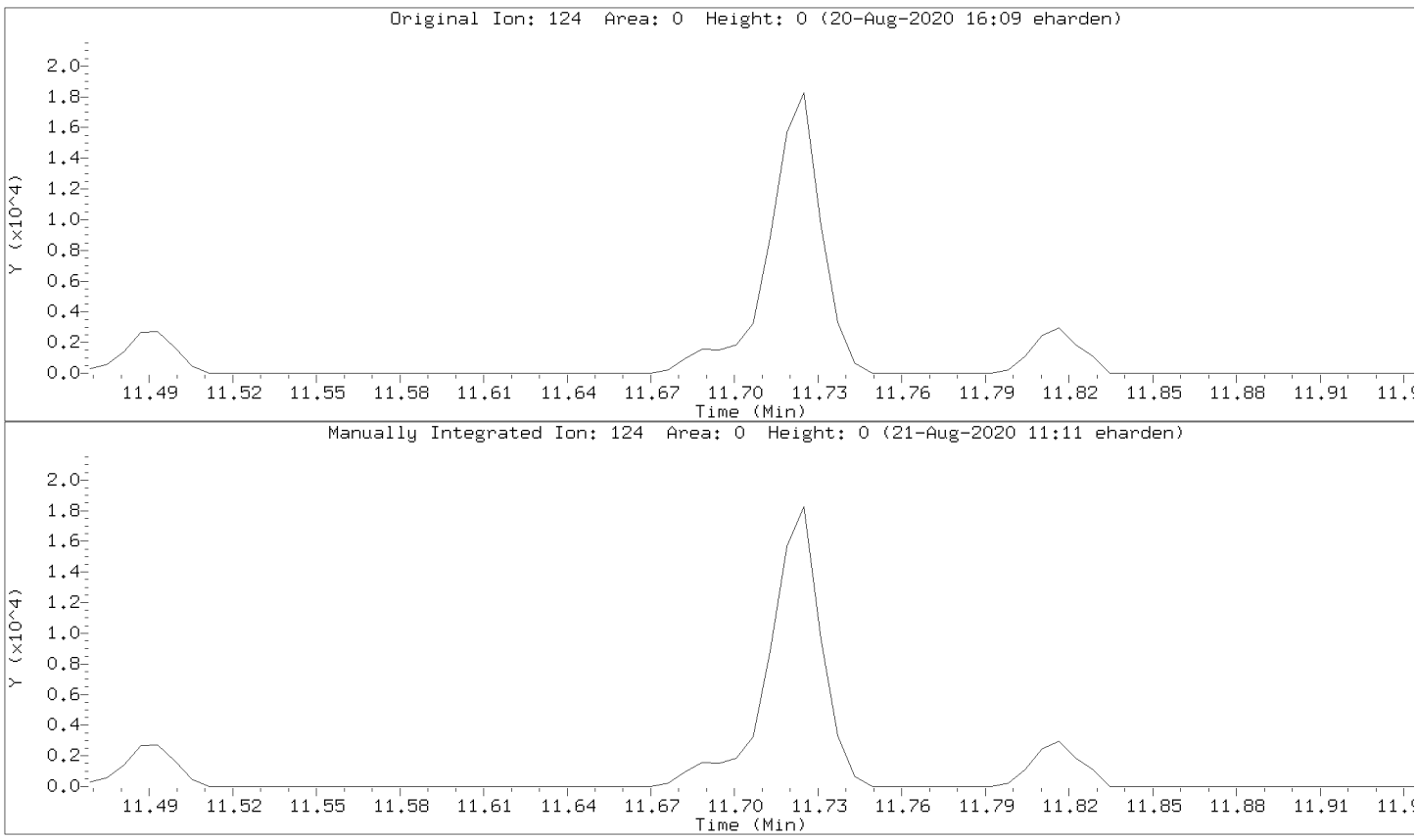
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_13.D
Lab Smp Id: CAL11 Client Smp ID: CAL11
Inj Date : 20-AUG-2020 15:01
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal11,27247:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 11 Calibration Sample, Level: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.411)	596195	150.000	136	
2 Chloromethane	50	3.543	3.543	(0.451)	739356	150.000	145	
3 Vinyl chloride	62	3.696	3.702	(0.470)	576689	150.000	133	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	505231	150.000	131	
5 Bromomethane	94	4.202	4.195	(0.535)	405786	150.000	128	
6 Chloroethane	64	4.372	4.360	(0.556)	160377	150.000	135	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	281645	150.000	102	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	213435	150.000	141	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	700428	150.000	143	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	416914	150.000	129	
11 Carbon disulfide	76	5.293	5.293	(0.673)	1405135	150.000	130	
12 Iodomethane	142	5.445	5.439	(0.693)	477239	150.000	149	
13 Acrolein	56	5.653	5.659	(0.719)	138935	300.000	275	
14 Allyl chloride	76	5.781	5.787	(0.736)	206328	150.000	137	
15 Methylene Chloride	49	5.903	5.902	(0.751)	727096	150.000	125	
16 Acetone	43	5.970	5.976	(0.760)	656255	300.000	234	
17 Methyl acetate	43	6.067	6.067	(0.772)	970273	300.000	292(A)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	446654	150.000	135	
19 n-Hexane	86	6.110	6.110	(0.777)	56907	150.000	163	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	1130159	150.000	147	
21 Acetonitrile	41	6.457	6.463	(0.822)	86780	300.000	285(AH)	
22 Chloroprene	53	6.640	6.640	(0.845)	759997	150.000	165	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	841882	150.000	131	
	24 Acrylonitrile	53	6.732	6.738	(0.857)	345438	300.000	248(A)	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	953920	150.000	150	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	675979	150.000	143	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	639550	150.000	129	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	262219	150.000	127	
	29 Cyclohexane	56	7.335	7.335	(0.882)	673959	150.000	169	
	30 Chloroform	83	7.372	7.372	(0.938)	938653	150.000	129	
	31 Ethyl acetate	43	7.427	7.433	(0.945)	1167339	300.000	285(A)	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	693313	150.000	147	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	267882	300.000	269(A)	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	173692	50.0000	41.4	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	769482	150.000	144	
	36 2-Butanone (MEK)	43	7.622	7.628	(0.970)	813342	300.000	260	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	593514	150.000	160(H)	
*	38 Pentafluorobenzene (IS)	168	7.860	7.859	(1.000)	364284	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	1687076	150.000	140	
	40 Propionitrile	54	7.896	7.902	(1.005)	166664	300.000	268(A)	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	899644	300.000	285(A)	
	42 Isobutanol	43	7.939	7.987	(1.010)	51350	300.000	326(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	31193	50.0000	41.3	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	727644	150.000	128	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	1065124	150.000	157	
	46 Trichloroethene	130	8.317	8.317	(1.000)	502843	150.000	153	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	469326	50.0000		
	48 Methylcyclohexane	98	8.317	8.317	(1.000)	251607	150.000	162	
	49 n-Butanol	56	8.506	8.524	(1.023)	20257	300.000	282(AM)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	389827	150.000	139	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	498266	150.000	145	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	761518	150.000	155	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	310093	150.000	154	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	8913	300.000	(M)	LT
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	556411	300.000	310(A)	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	771157	150.000	161	
$	57 Toluene-d8 (S)	98	9.378	9.377	(1.128)	506560	50.0000	50.1	
	58 Toluene	91	9.414	9.414	(1.132)	1804467	150.000	154	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	173571	150.000	150(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	110057	300.000	328(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	770276	150.000	161	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	474671	150.000	157	
	63 Ethyl methacrylate	69	9.762	9.761	(1.174)	589423	150.000	153(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	411208	150.000	139	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	661080	150.000	158	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	718701	150.000	159	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	540700	150.000	151	
	68 2-Hexanone	43	10.280	10.280	(1.236)	1321811	300.000	334	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	2030868	150.000	176	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	440117	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	1246902	150.000	147	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	502389	150.000	140	
	73 m&p-Xylene	91	10.652	10.651	(1.009)	3087209	300.000	306	
	74 o-Xylene	106	10.993	10.993	(1.041)	749110	150.000	157	
	75 Styrene	104	11.030	11.029	(1.044)	1284674	150.000	154	
	76 Bromoform	173	11.103	11.103	(1.051)	620516	150.000	156	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.225	11.225	(1.063)	1097042	150.000	153	
$ 78 4-Bromofluorobenzene (S)	95	11.469	11.468	(1.086)	197928	50.0000	54.8	
79 cis-1,4-Dichloro-2-butene	53	11.493	11.487	(1.088)	206357	150.000	143	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	2449319	150.000	173	
81 Bromobenzene	156	11.578	11.578	(1.096)	711831	150.000	160	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	670344	150.000	142	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	1583363	150.000	167	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	512053	150.000	151	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	520832	150.000	153	
86 Isopropylbenzene (Cumene)	105	11.213	11.212	(1.062)	1881332	150.000	154	
87 1,2,3-Trichloropropane	75	11.725	11.724	(1.110)	714757	150.000	145	
88 trans-1,4-Dichloro-2-butene	53	11.725	11.718	(1.110)	175075	150.000	154(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	1701781	150.000	153	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	1675381	150.000	150	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	2013841	150.000	152	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	1701781	150.000	153	
94 1,3-Dichlorobenzene	146	12.292	12.291	(0.996)	1189514	150.000	156	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	286487	50.0000		
96 1,4-Dichlorobenzene	146	12.353	12.352	(1.001)	1209618	150.000	140	
97 n-Butylbenzene	91	12.487	12.486	(1.012)	1702056	150.000	170	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	1195470	150.000	143	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	140776	150.000	150	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	396371	150.000	155	
101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	959966	150.000	170	
102 Naphthalene	128	14.194	14.193	(1.150)	1728714	150.000	153	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	908509	150.000	173	

QC Flag Legend

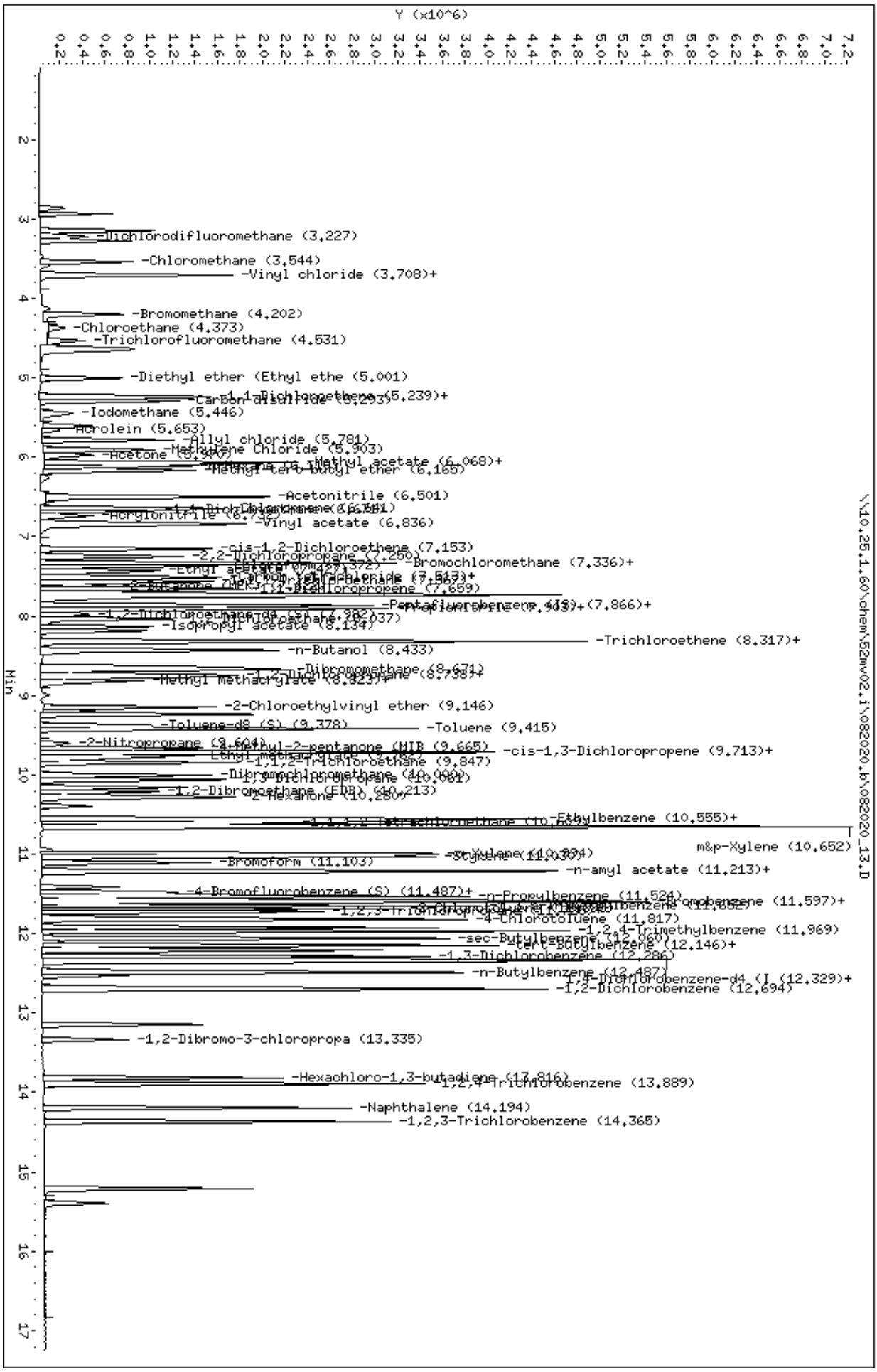
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_13.D
Date : 20-AUG-2020 15:01
Client ID: CAL11
Sample Info: CAL11,27247:1
Purge Volume: 5.0
Column phase: RTX-VMS

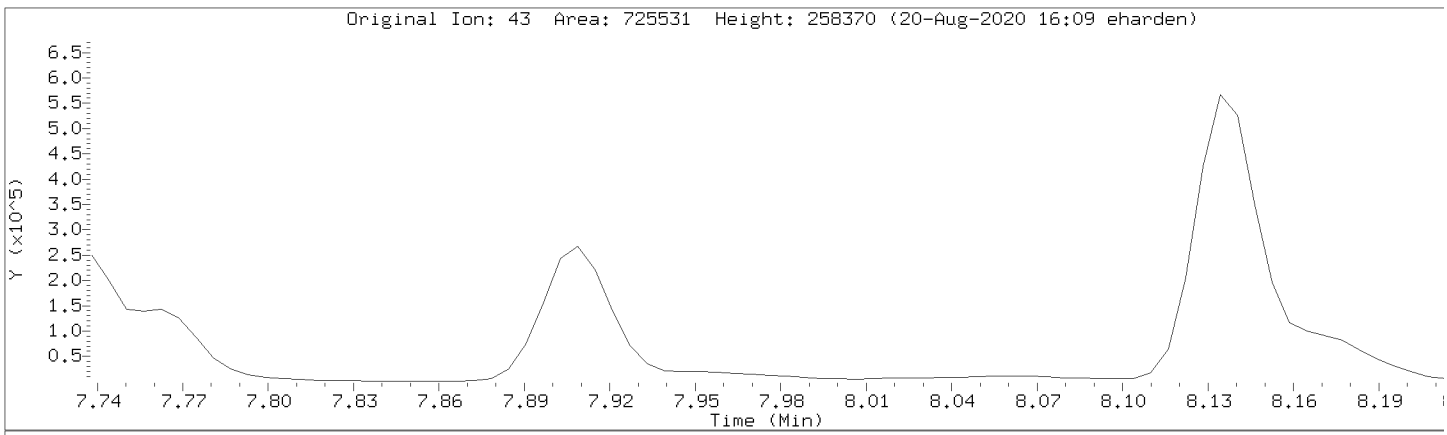
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

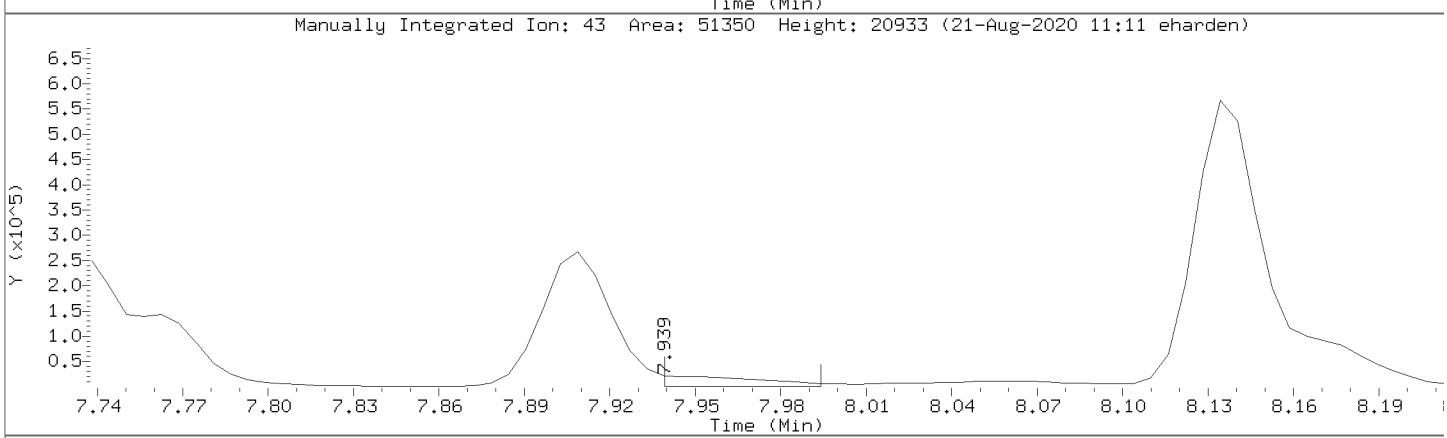


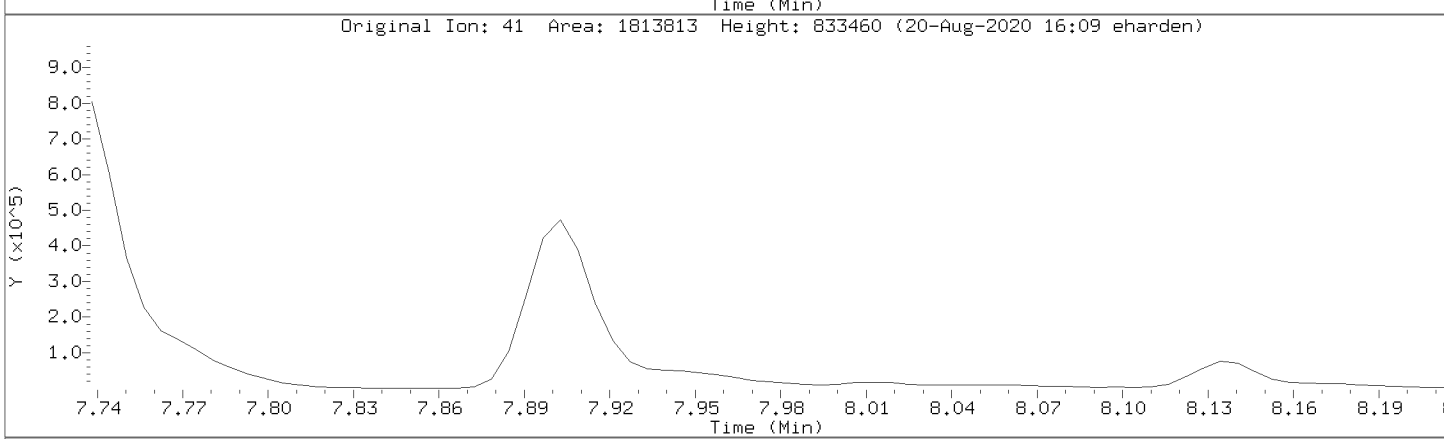
Page 4

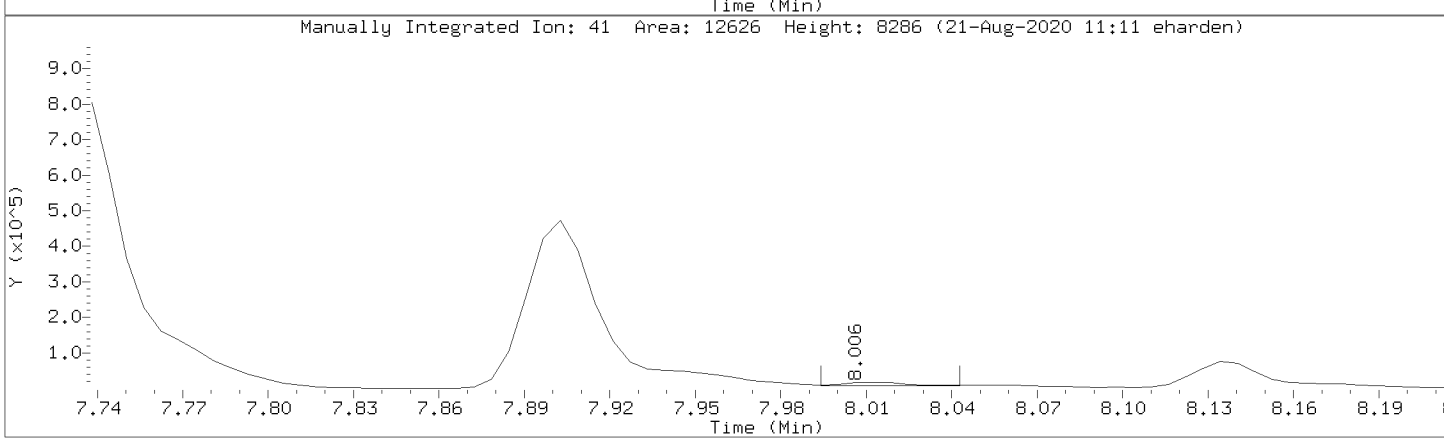
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_13.D
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1



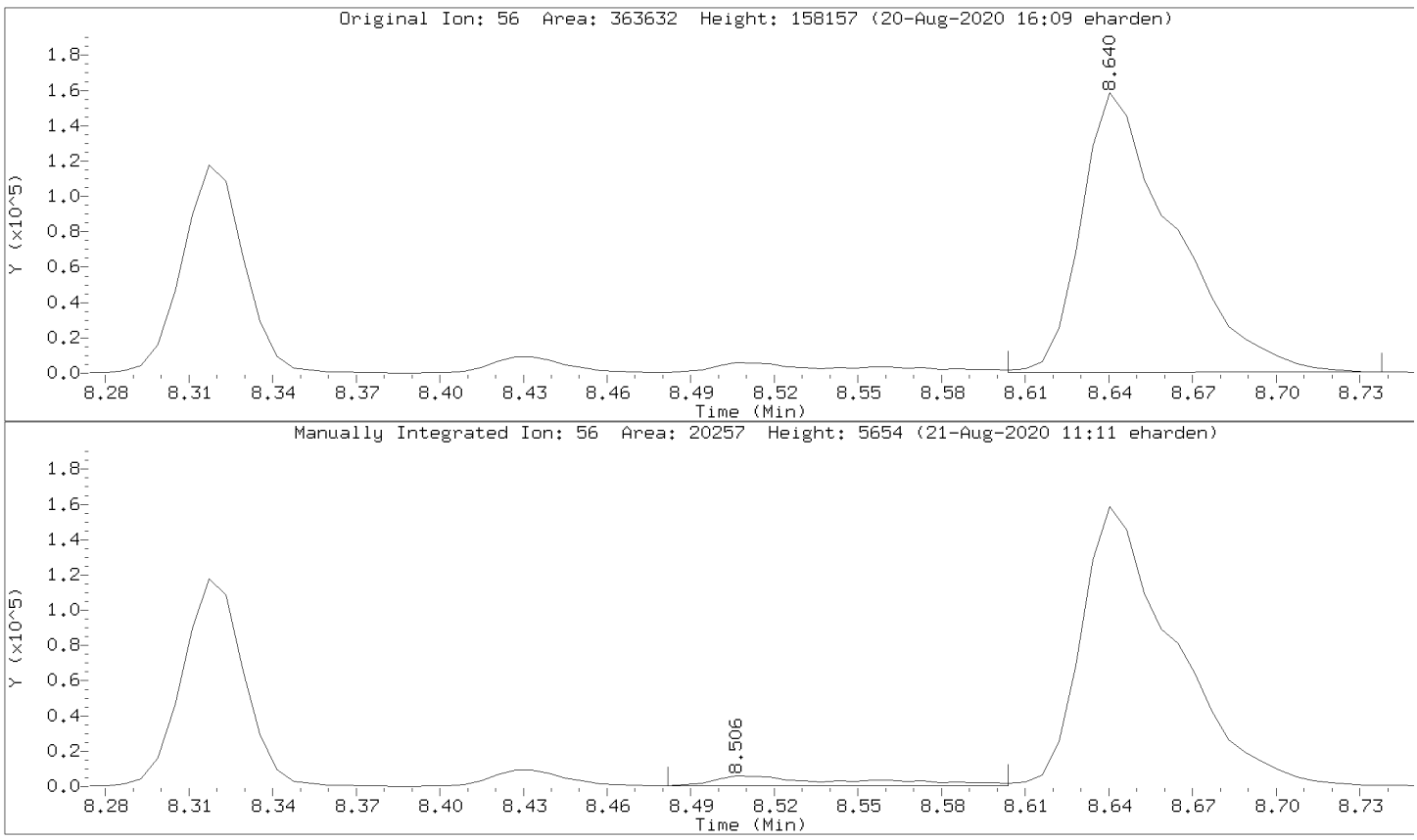






Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_13.D
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3



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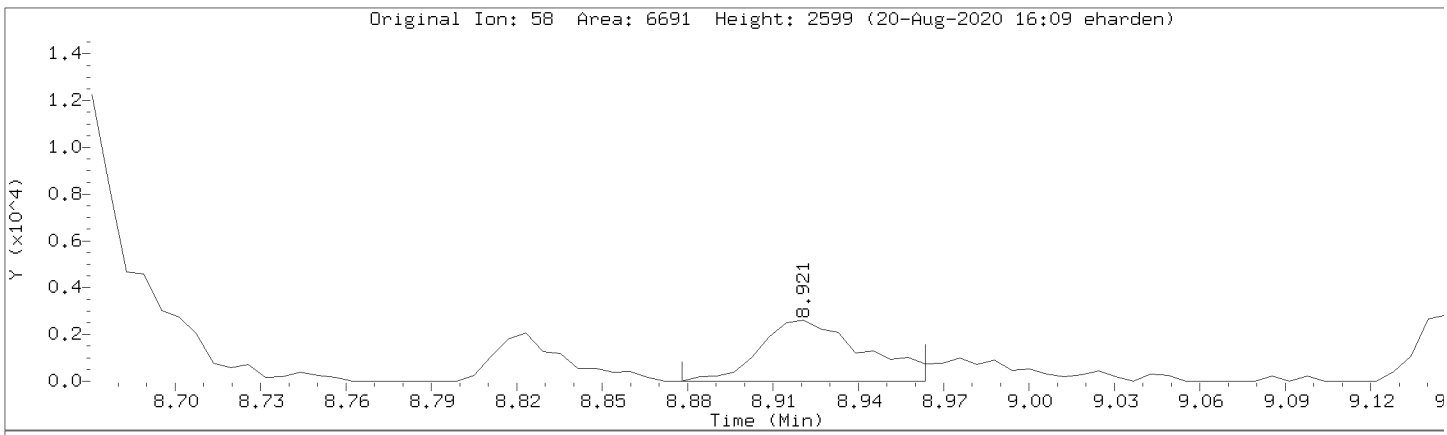
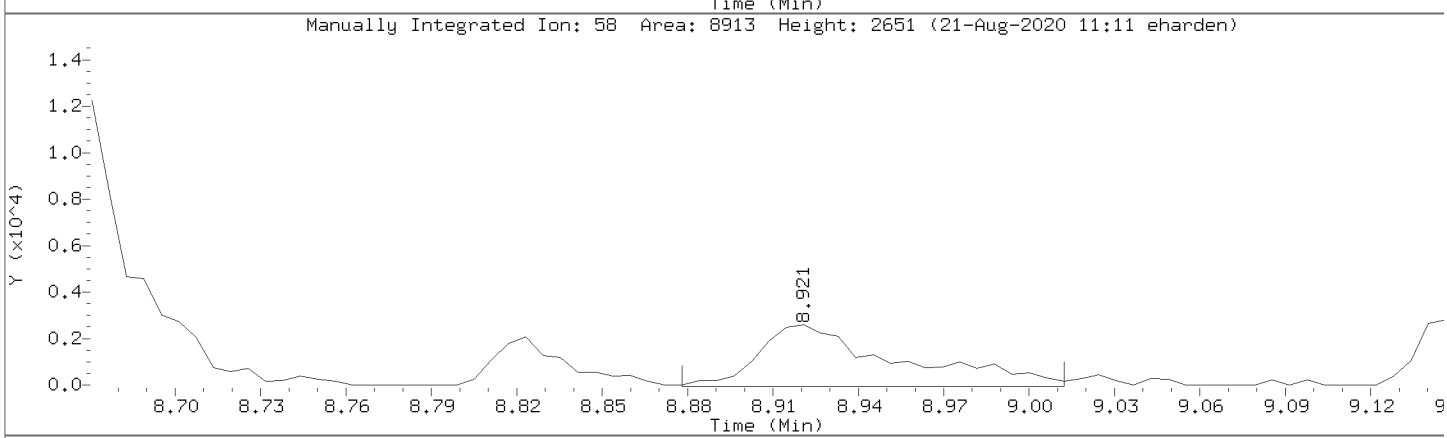
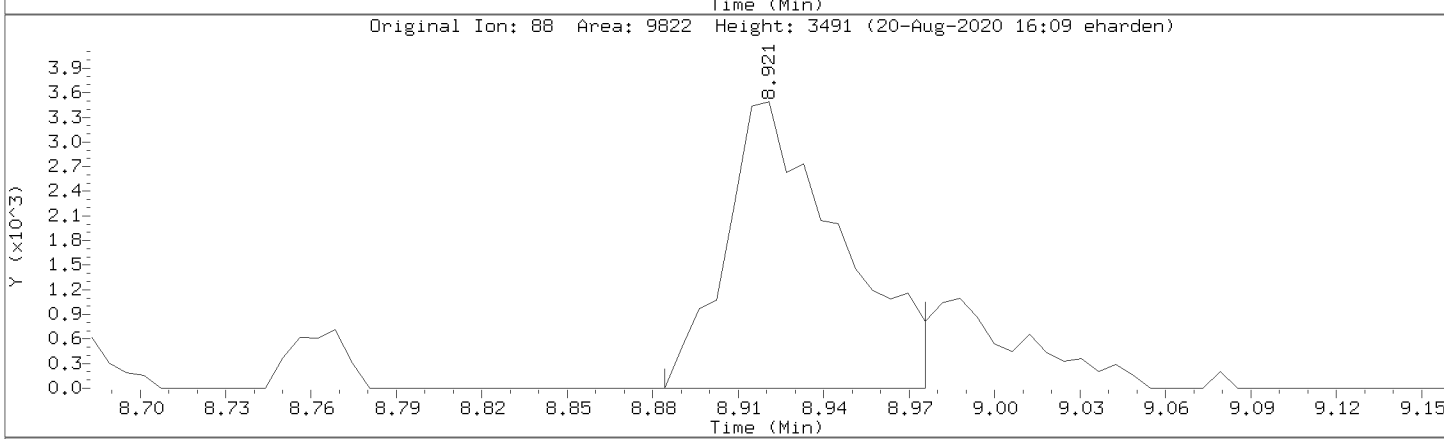
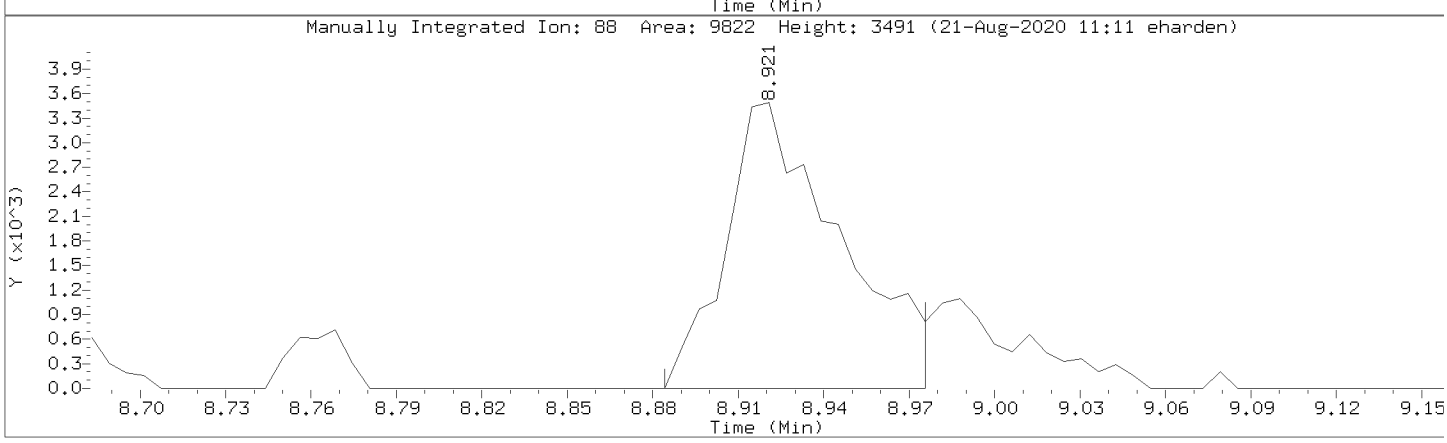
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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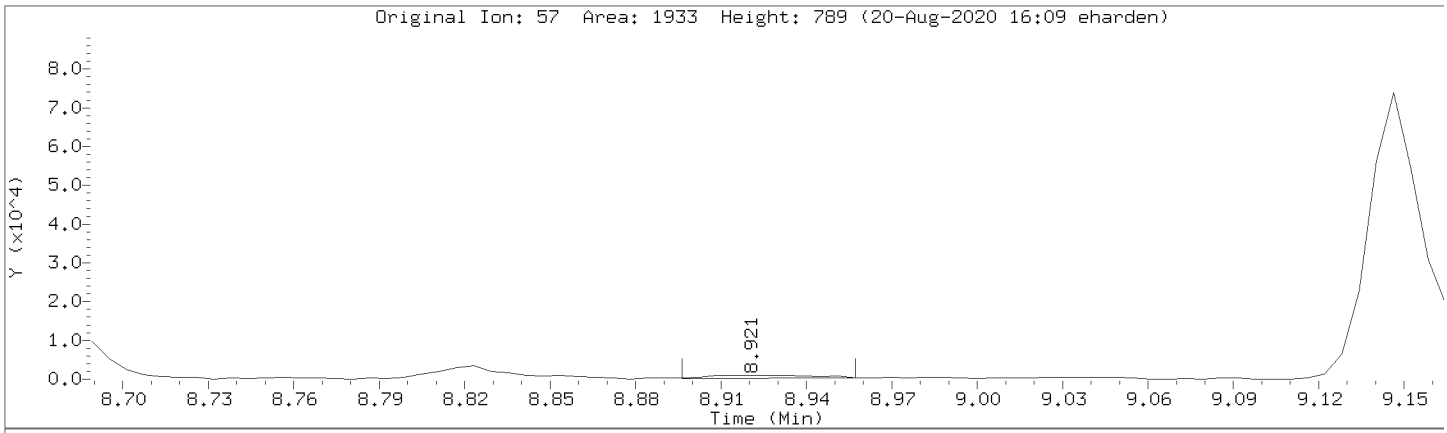
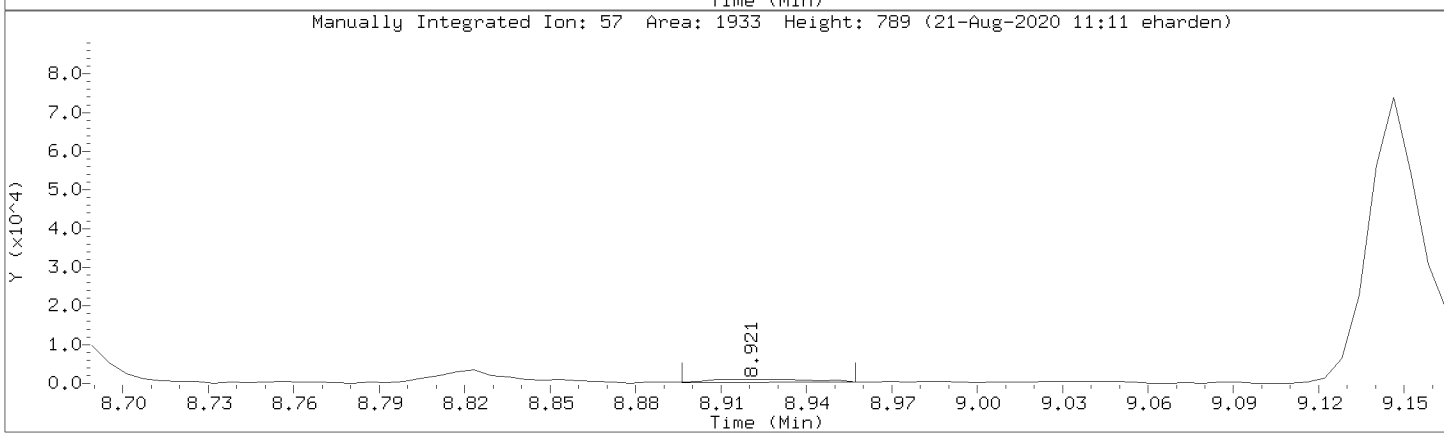
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11





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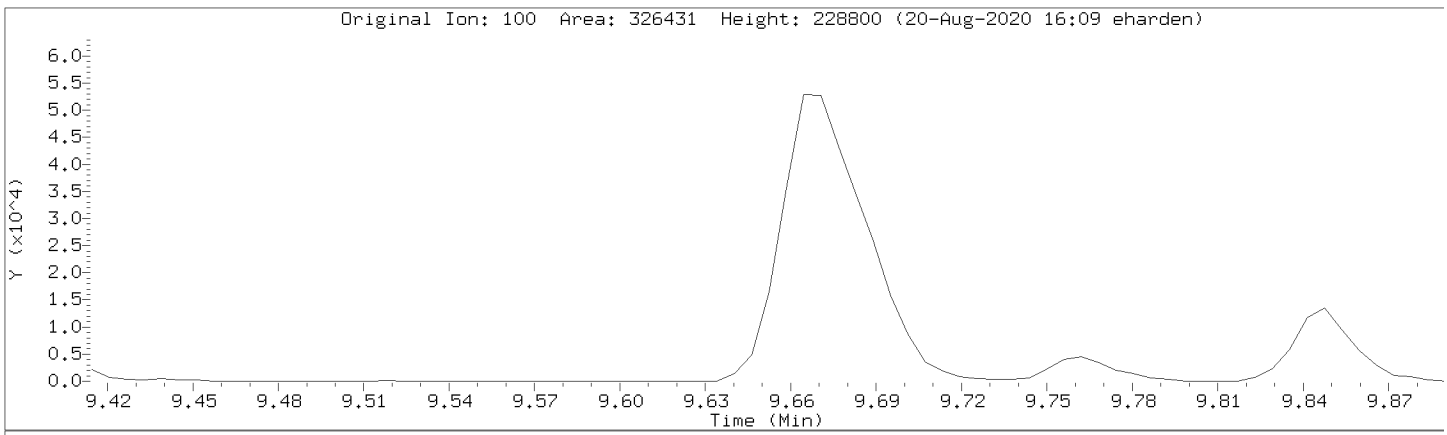
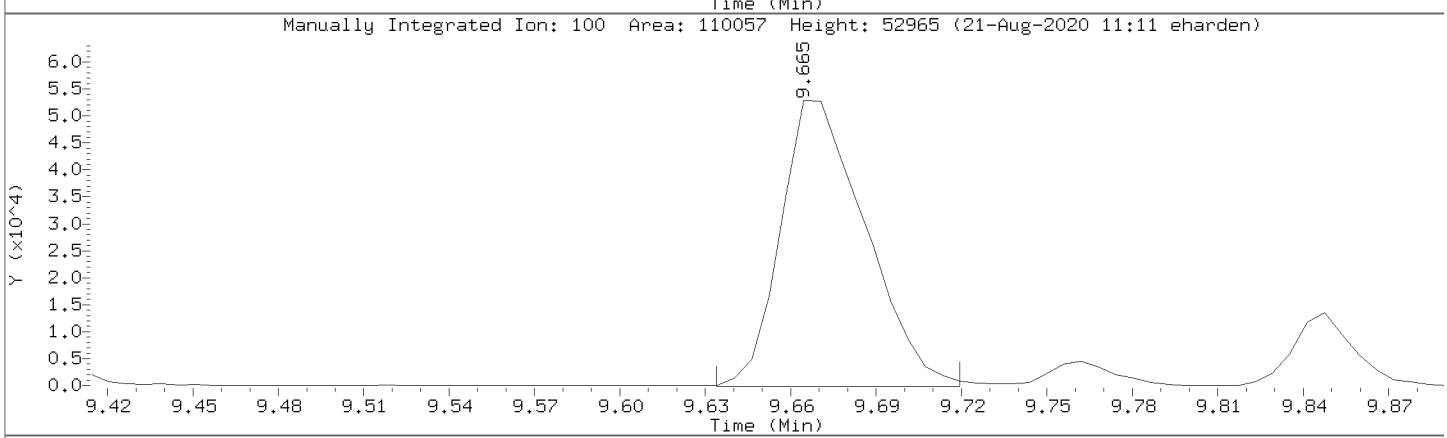
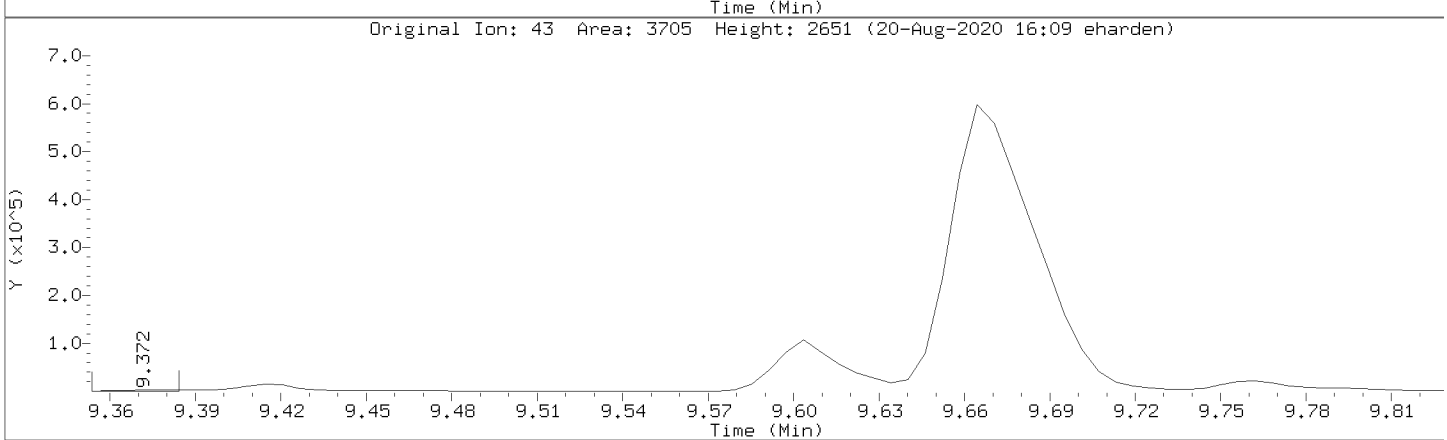
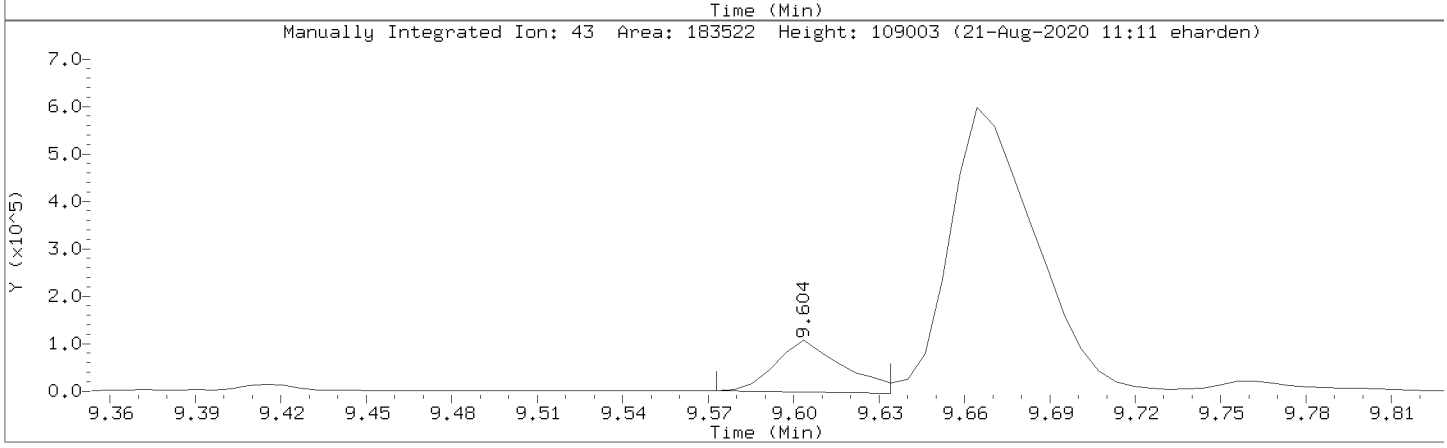
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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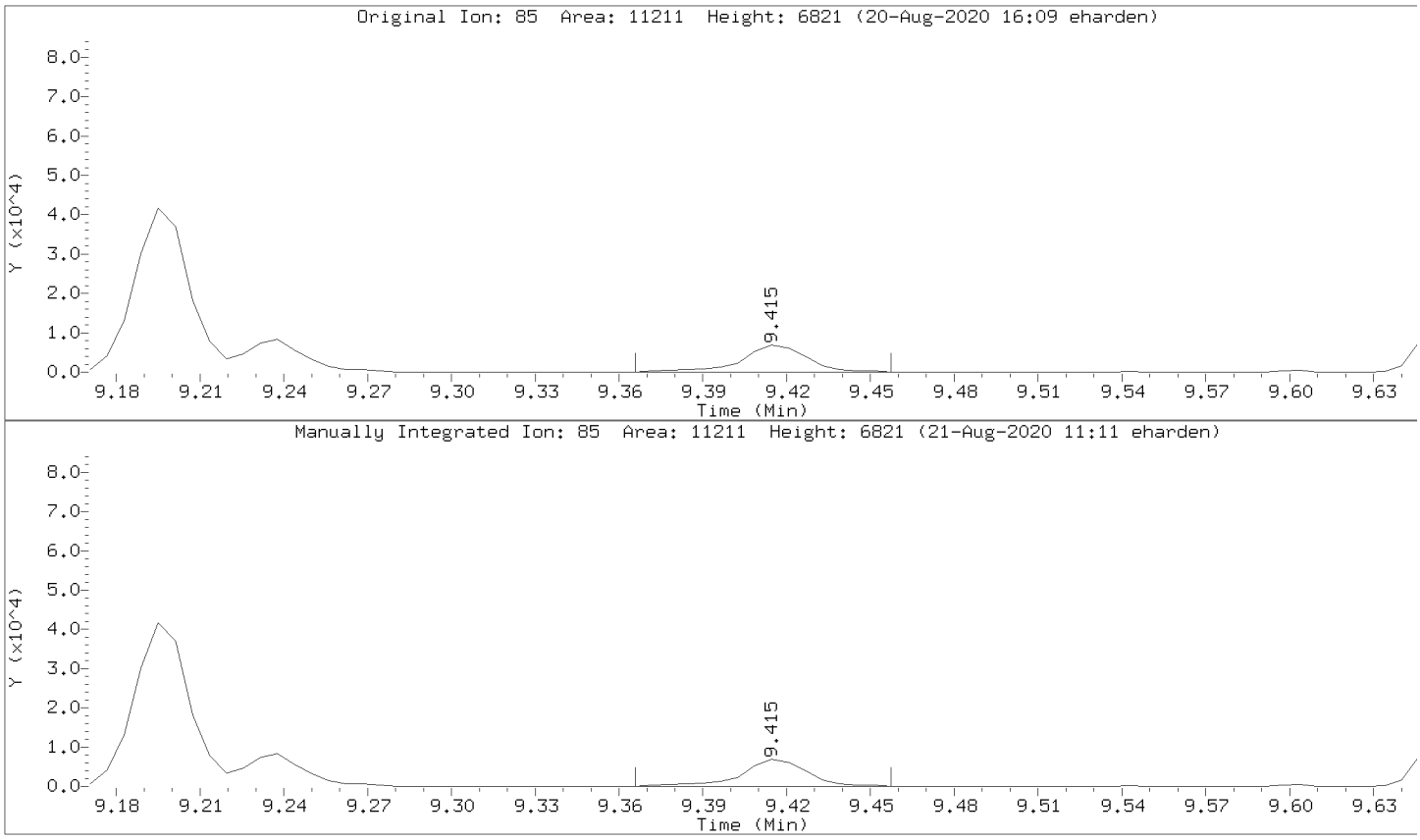
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11



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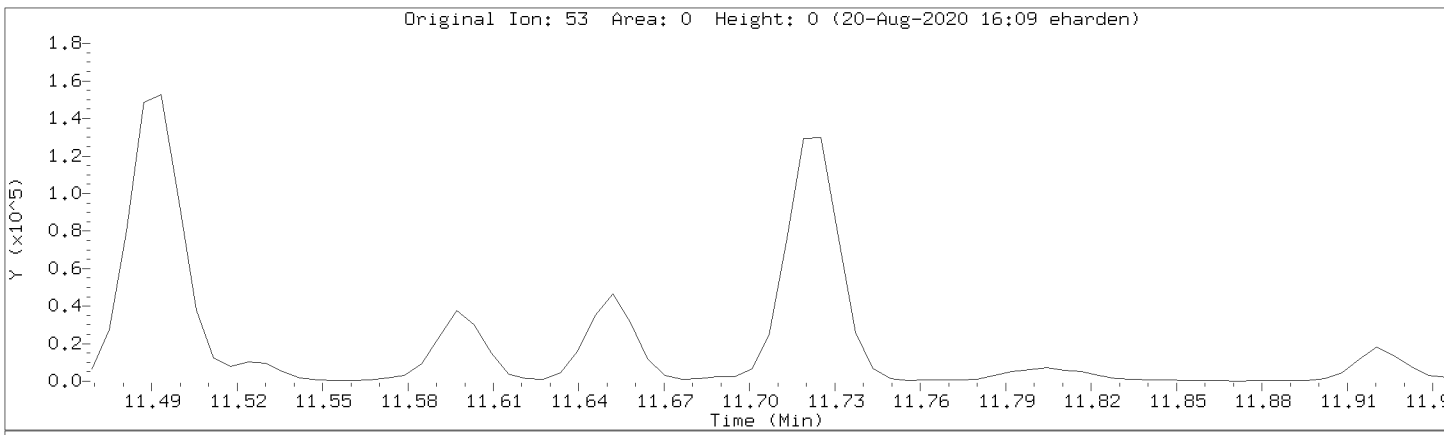
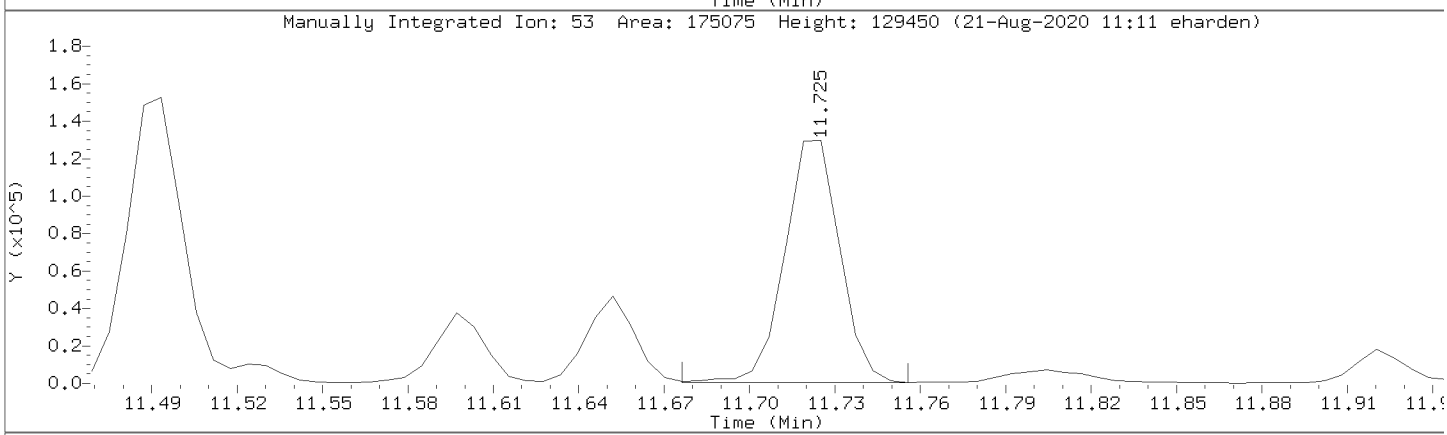
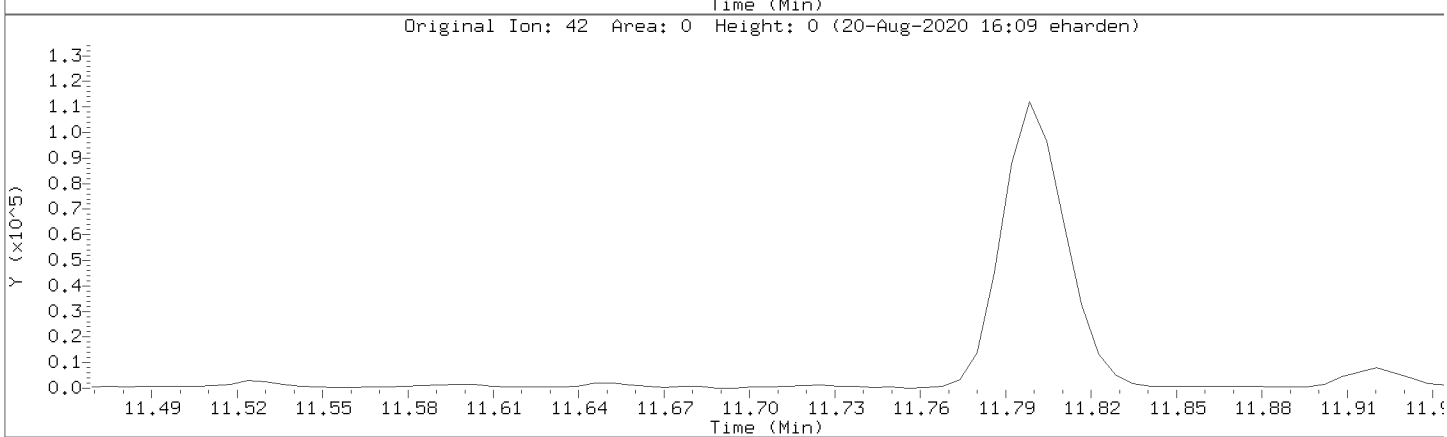
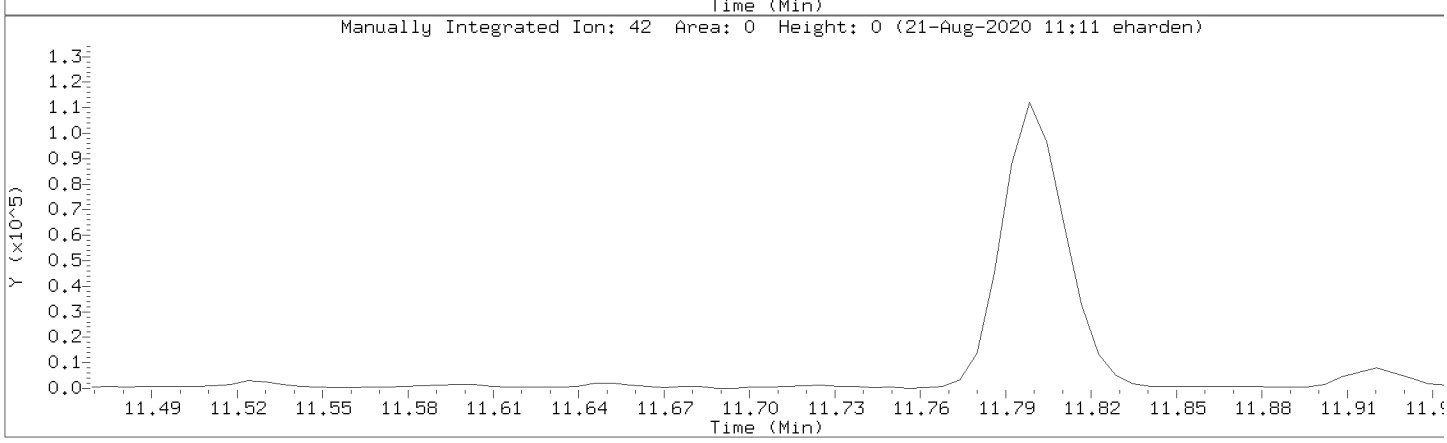
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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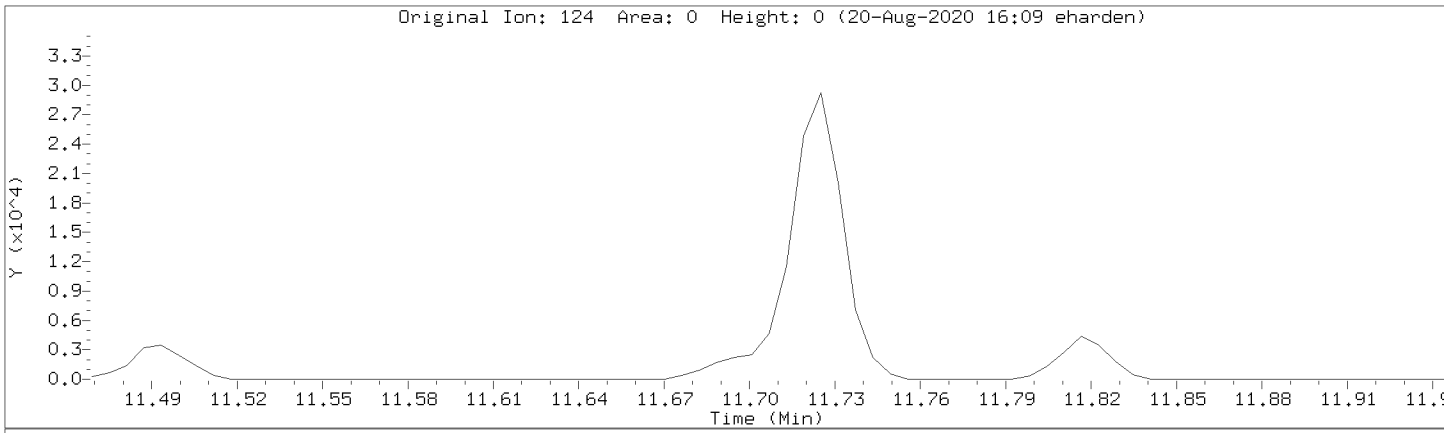
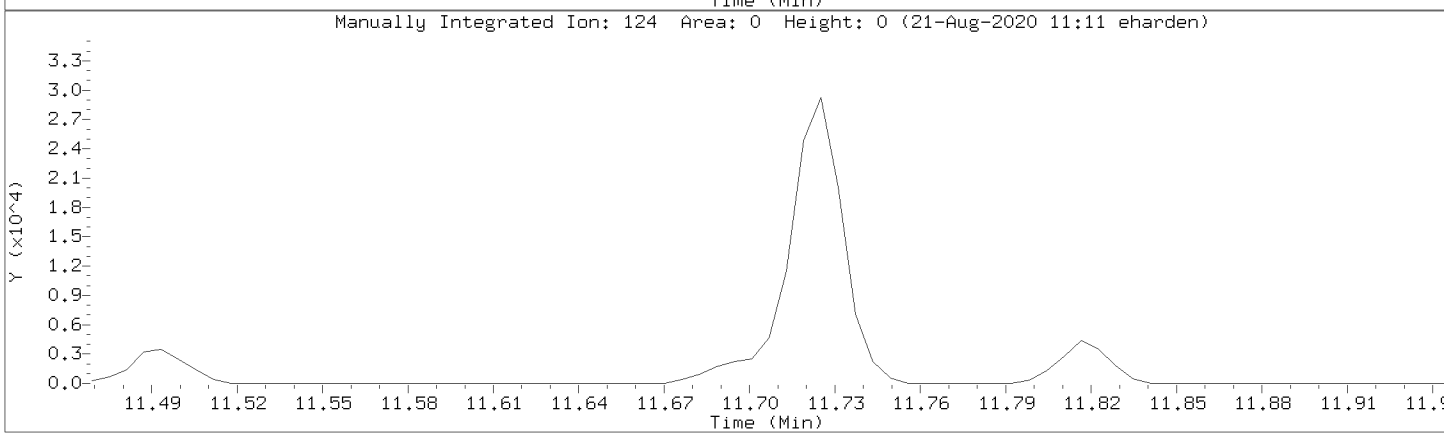
Instrument: 52mv02.i
Lab Sample ID: CAL11





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_14.D
Lab Smp Id: CAL12 Client Smp ID: CAL12
Inj Date : 20-AUG-2020 15:26
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal12,27248:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 15:26 Cal File: 082020_14.D
Als bottle: 12 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.410)	843624	200.000	180	
2 Chloromethane	50	3.543	3.543	(0.451)	1035862	200.000	191	
3 Vinyl chloride	62	3.702	3.702	(0.471)	829656	200.000	180	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	724882	200.000	176	
5 Bromomethane	94	4.201	4.195	(0.535)	575423	200.000	171	
6 Chloroethane	64	4.372	4.360	(0.556)	201667	200.000	159	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	390171	200.000	133	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	307440	200.000	190	
9 1,1-Dichloroethene	61	5.226	5.226	(0.665)	1011414	200.000	194	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	600631	200.000	175	
11 Carbon disulfide	76	5.287	5.293	(0.673)	2019084	200.000	175	
12 Iodomethane	142	5.451	5.439	(0.694)	734096	200.000	200	
13 Acrolein	56	5.658	5.659	(0.720)	211690	400.000	394	
14 Allyl chloride	76	5.786	5.787	(0.736)	294574	200.000	184	
15 Methylene Chloride	49	5.908	5.902	(0.752)	1050051	200.000	170	
16 Acetone	43	5.969	5.976	(0.760)	1032420	400.000	346	
17 Methyl acetate	43	6.067	6.067	(0.772)	1381491	400.000	390(A)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	650447	200.000	185	
19 n-Hexane	86	6.110	6.110	(0.777)	81559	200.000	219(A)	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	1688062	200.000	206(A)	
21 Acetonitrile	41	6.457	6.463	(0.822)	123656	400.000	381(AH)	
22 Chloroprene	53	6.640	6.640	(0.845)	1112304	200.000	227(A)	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	1205231	200.000	176	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	581161	400.000	391(A)	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	1375005	200.000	203(A)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	992534	200.000	197	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	903801	200.000	171	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	387279	200.000	176	
	29 Cyclohexane	56	7.335	7.335	(0.882)	980896	200.000	229(A)	
	30 Chloroform	83	7.372	7.372	(0.938)	1342881	200.000	174	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	1641965	400.000	376(A)	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	1014164	200.000	200(A)	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	425365	400.000	401(A)	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	196115	50.0000	43.8	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	1082414	200.000	189	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	1209413	400.000	363(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	852371	200.000	214(AH)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	388427	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	2390433	200.000	186	
	40 Propionitrile	54	7.896	7.902	(1.005)	235361	400.000	356(A)	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	1267856	400.000	376(A)	
	42 Isobutanol	43	8.006	7.987	(1.019)	63350	400.000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	34530	50.0000	42.9	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	1018325	200.000	168	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	1505636	200.000	208(A)	
	46 Trichloroethene	130	8.316	8.317	(1.000)	711450	200.000	202(A)	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	502471	50.0000		
	48 Methylcyclohexane	98	8.316	8.317	(1.000)	366667	200.000	220(A)	
	49 n-Butanol	56	8.524	8.524	(1.025)	32202	400.000	419(AH)	
	50 Dibromomethane	93	8.670	8.670	(1.043)	548606	200.000	183	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	697290	200.000	190	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	1076005	200.000	204(A)	
	53 Methyl methacrylate	69	8.822	8.823	(1.061)	445324	200.000	206(A)	
	54 1,4-Dioxane (p-Dioxane)	58	8.926	8.920	(1.073)	12627	400.000		
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	804281	400.000	417(A)	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	1101907	200.000	215(A)	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	535532	50.0000	49.5	
	58 Toluene	91	9.414	9.414	(1.132)	2545722	200.000	203(A)	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	254950	200.000	206(AH)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.670	9.664	(1.163)	157776	400.000	439(AM)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	1100485	200.000	215(A)	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	675307	200.000	207(A)	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	846262	200.000	206(AH)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	576866	200.000	182	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	932240	200.000	206(A)	
	66 1,3-Dichloropropane	76	10.066	10.060	(1.210)	1015605	200.000	210(A)	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	770644	200.000	199	
	68 2-Hexanone	43	10.280	10.280	(1.236)	1882914	400.000	444(A)	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	2928963	200.000	236(A)	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	475366	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	1776013	200.000	194	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	724011	200.000	187	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	4406208	400.000	404(A)	
	74 o-Xylene	106	10.993	10.993	(1.041)	1080392	200.000	210(A)	
	75 Styrene	104	11.029	11.029	(1.044)	1852119	200.000	206(A)	
	76 Bromoform	173	11.103	11.103	(1.051)	891644	200.000	208(A)	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	1568685	200.000	203(A)	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	213757	50.0000	54.8	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	295248	200.000	189	
80 n-Propylbenzene	91	11.529	11.523	(1.092)	3505994	200.000	230(A)	
81 Bromobenzene	156	11.578	11.578	(1.096)	1028329	200.000	214(A)	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	952451	200.000	187	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	2283486	200.000	233(AH)	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	743796	200.000	204(A)	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	747393	200.000	203(A)	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	2752818	200.000	208(A)	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	984420	200.000	185	
88 trans-1,4-Dichloro-2-butene	53	11.724	11.718	(1.110)	245006	200.000	200(AM)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	2429584	200.000	210(A)	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	2397637	200.000	207(A)	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	2866460	200.000	208(A)	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	2429584	200.000	210(A)	
94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	1695278	200.000	214(A)	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	296897	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	1711879	200.000	192	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	2431584	200.000	235(A)	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	1704224	200.000	197	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	202261	200.000	208(A)	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	587132	200.000	222(A)	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	1407142	200.000	241(A)	
102 Naphthalene	128	14.193	14.193	(1.150)	2506120	200.000	214(A)	
103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	1299349	200.000	239(A)	

QC Flag Legend

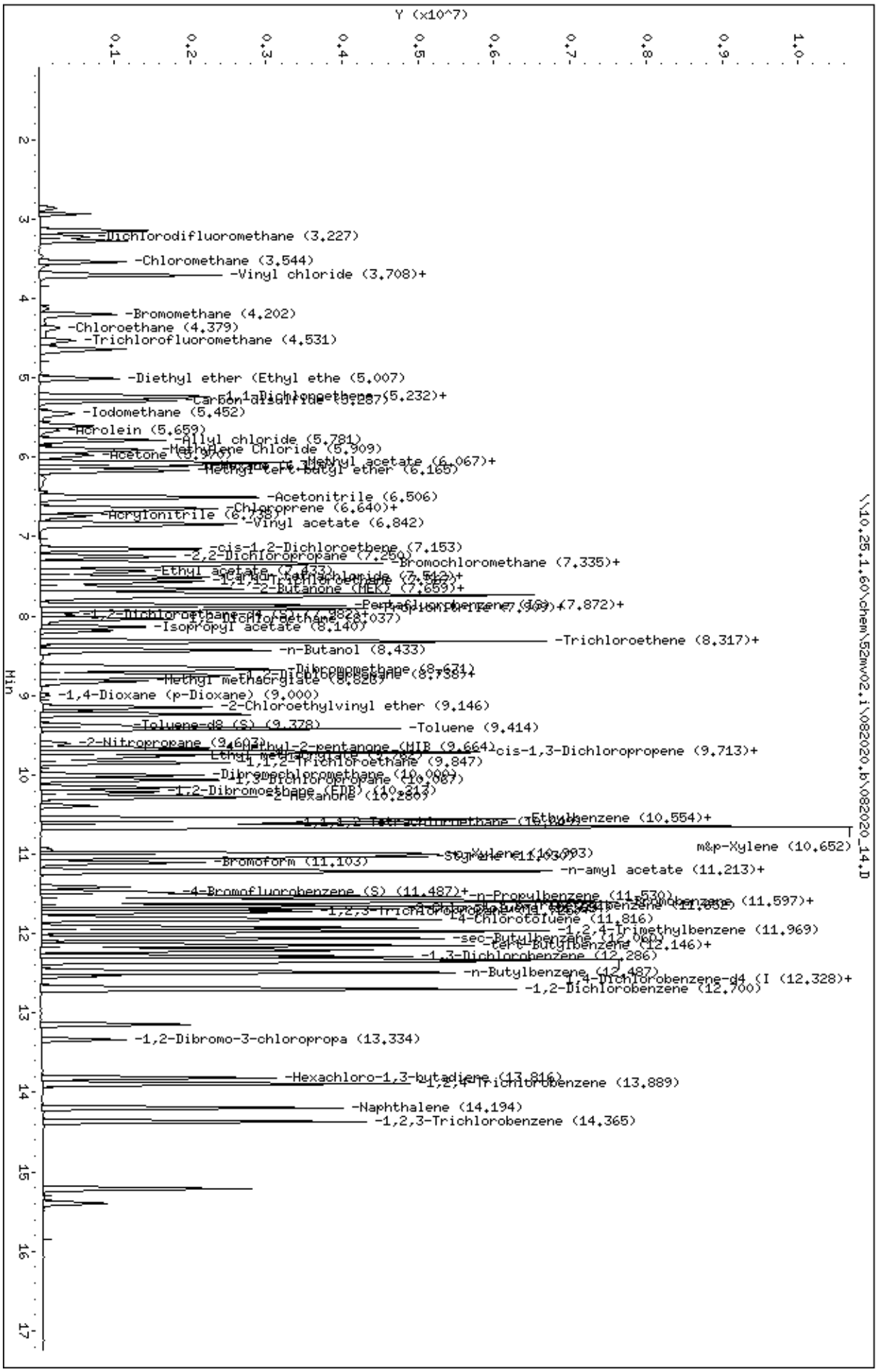
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_14.D
Date : 20-AUG-2020 15:26
Client ID: CAL12
Sample Info: CAL12,27248:1
Purge Volume: 5.0
Column phase: RTX-VMS

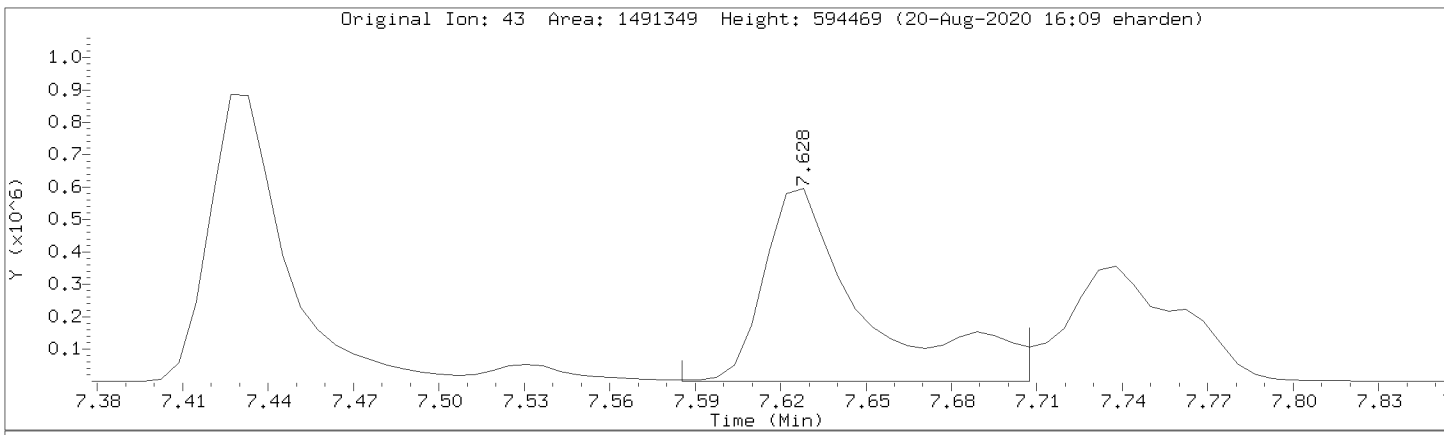
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

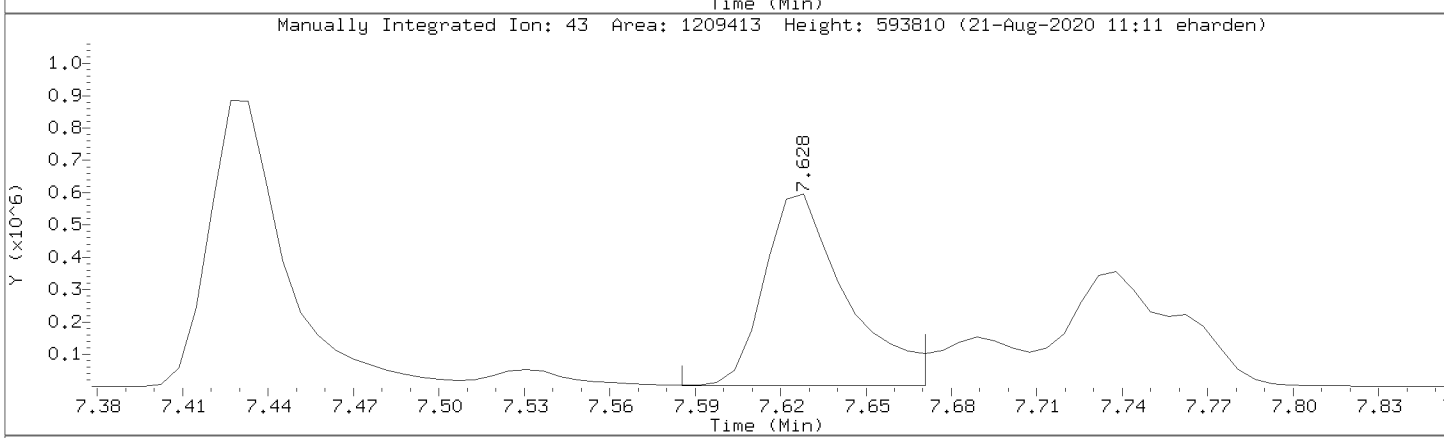


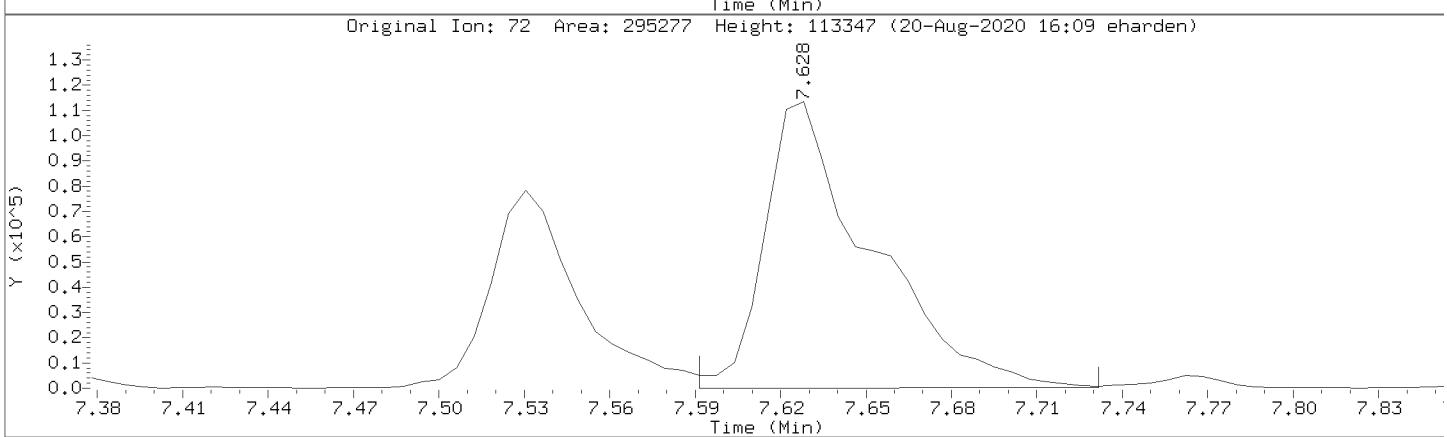
Page 4

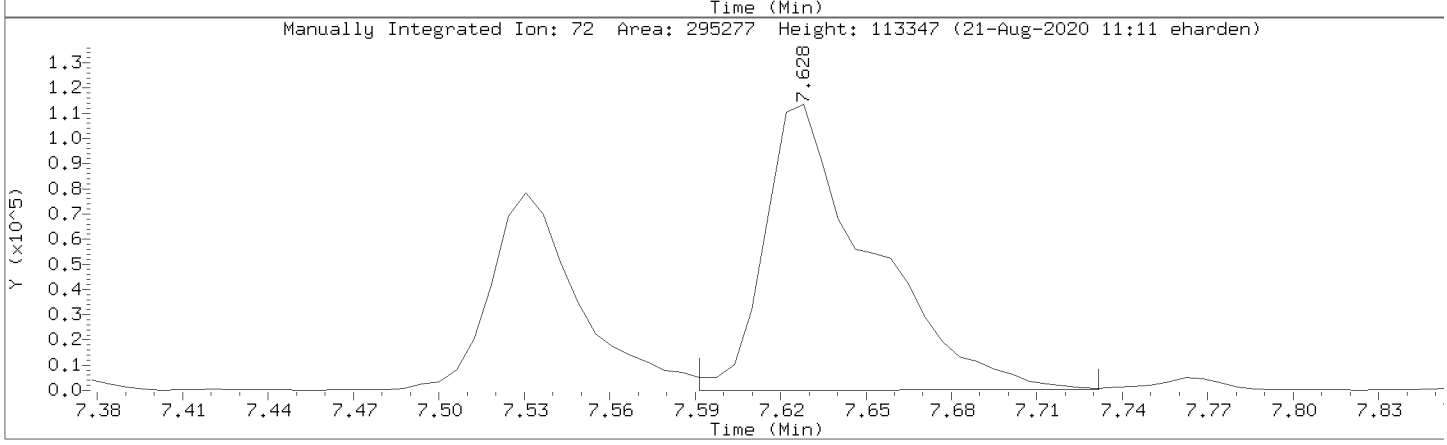
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_14.D
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3



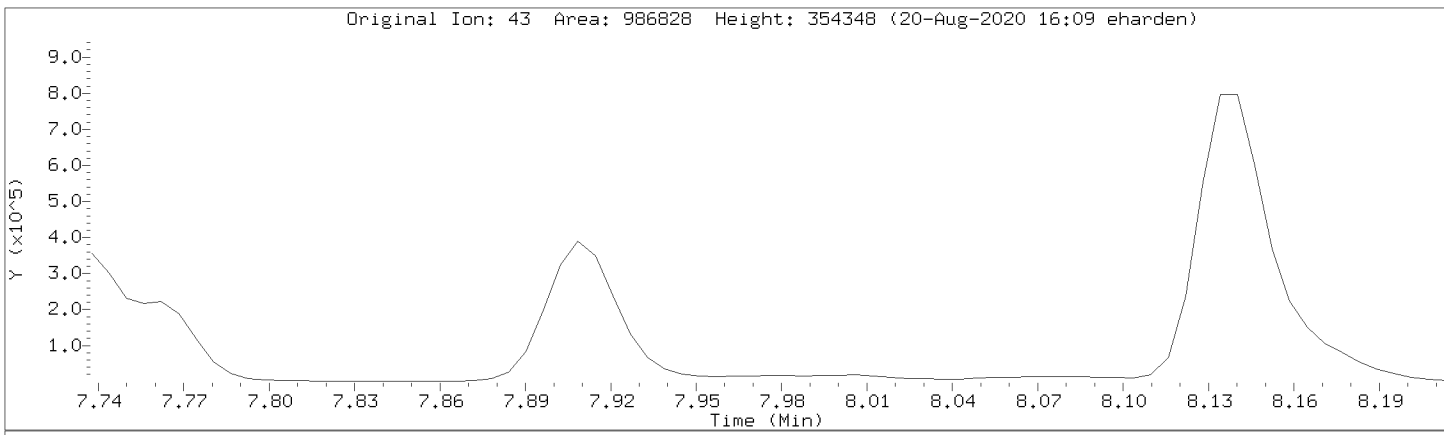


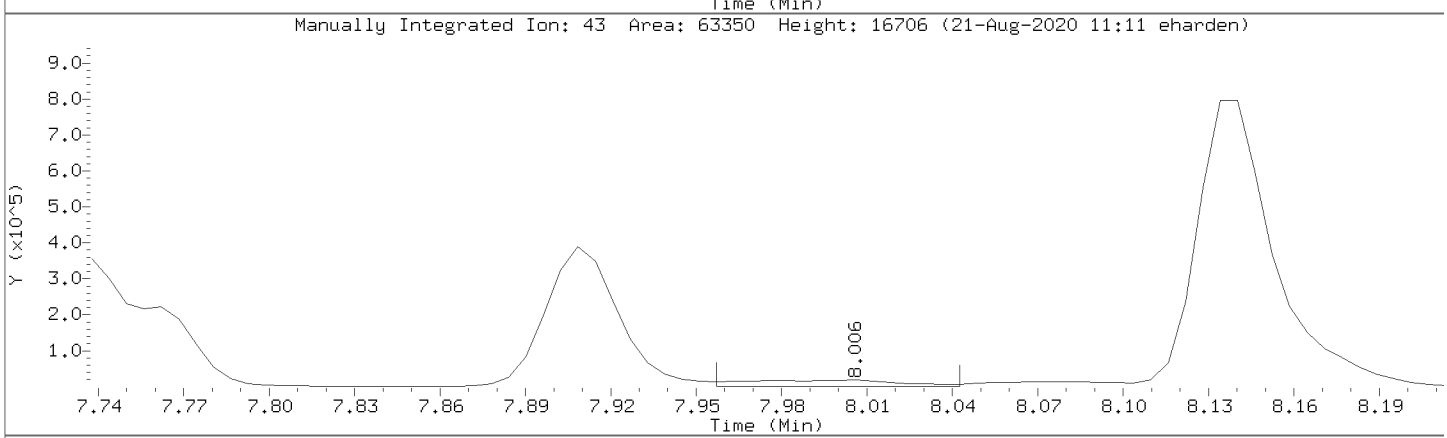


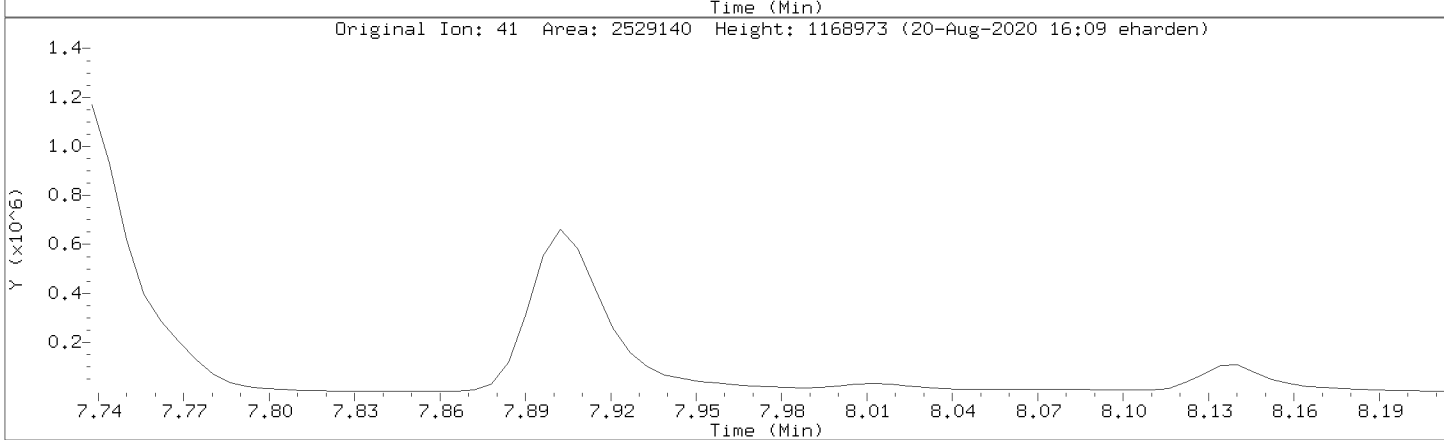


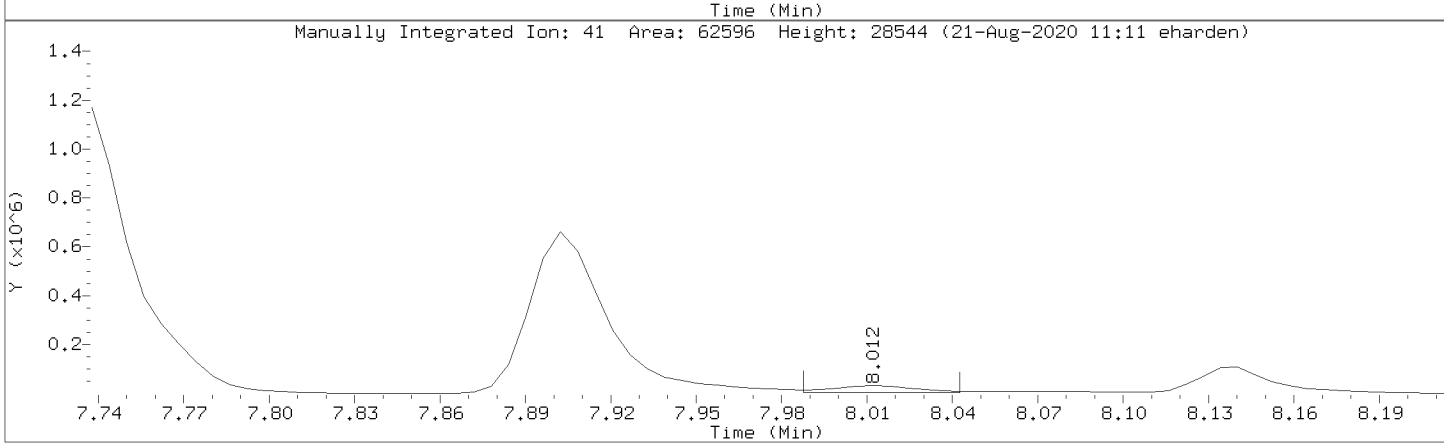
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_14.D
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1



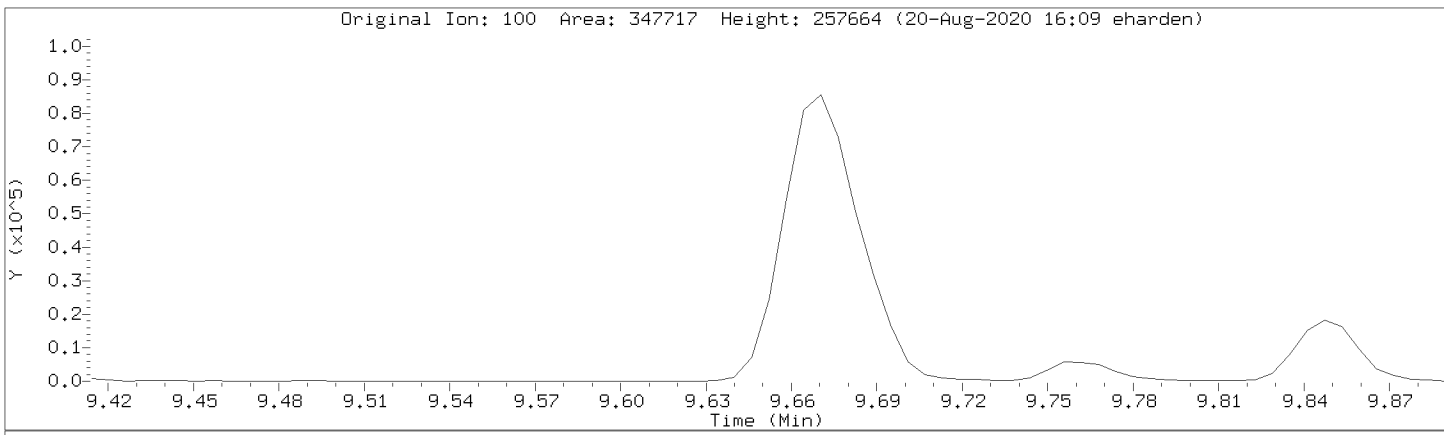


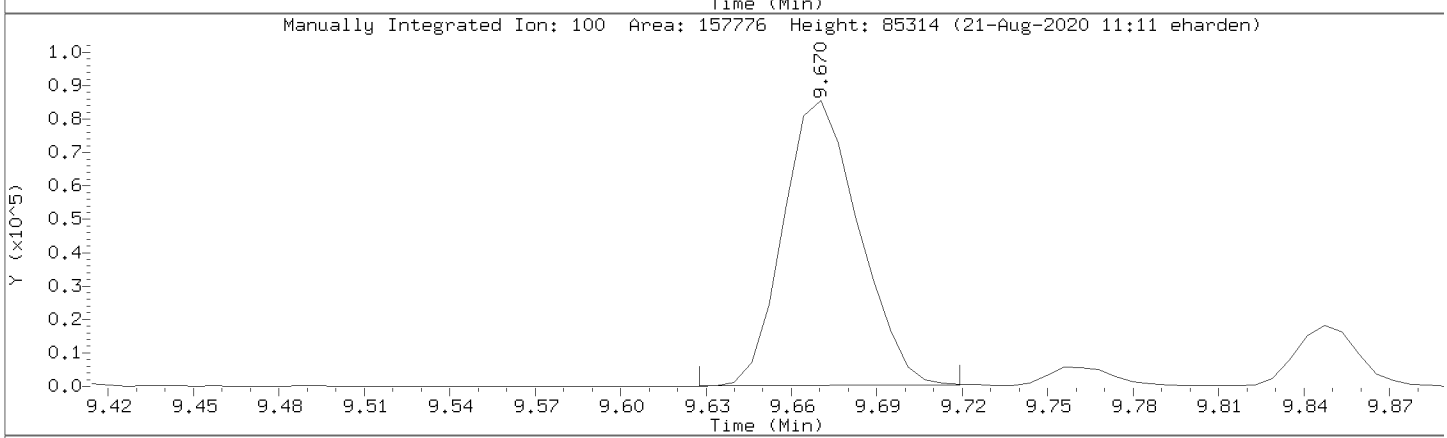


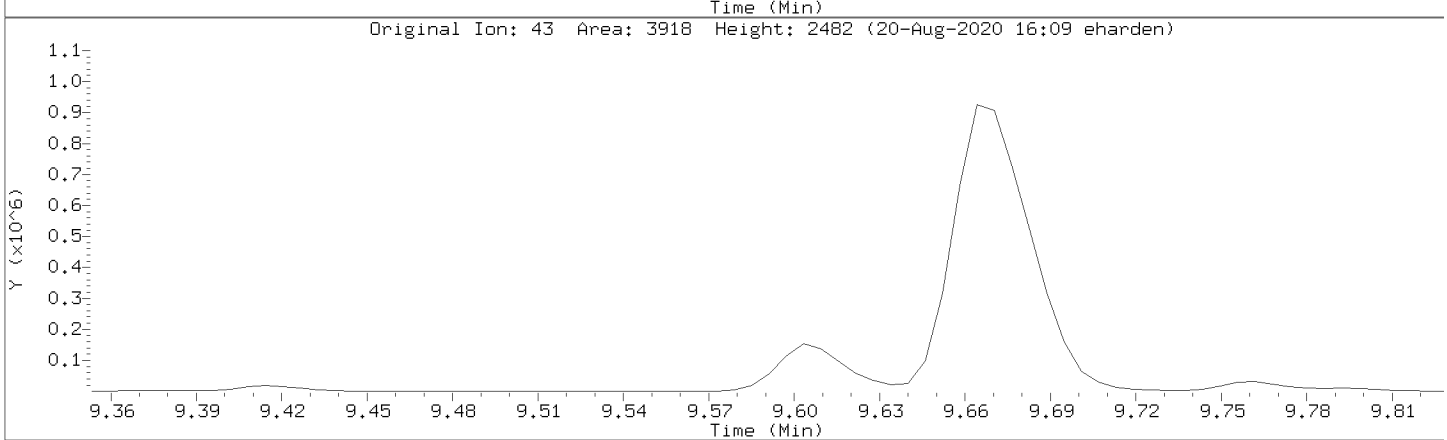


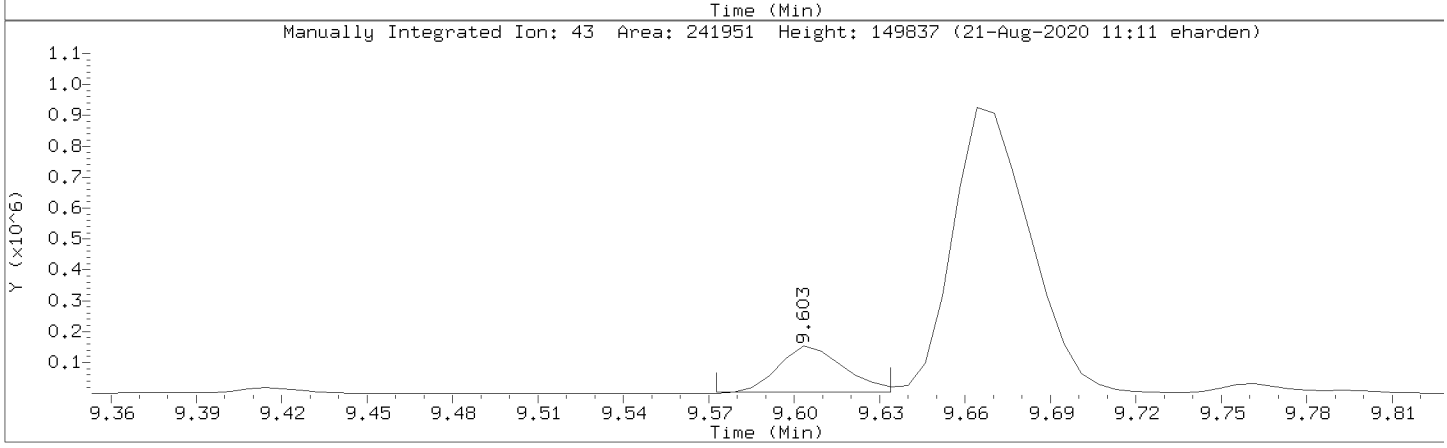
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_14.D
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1

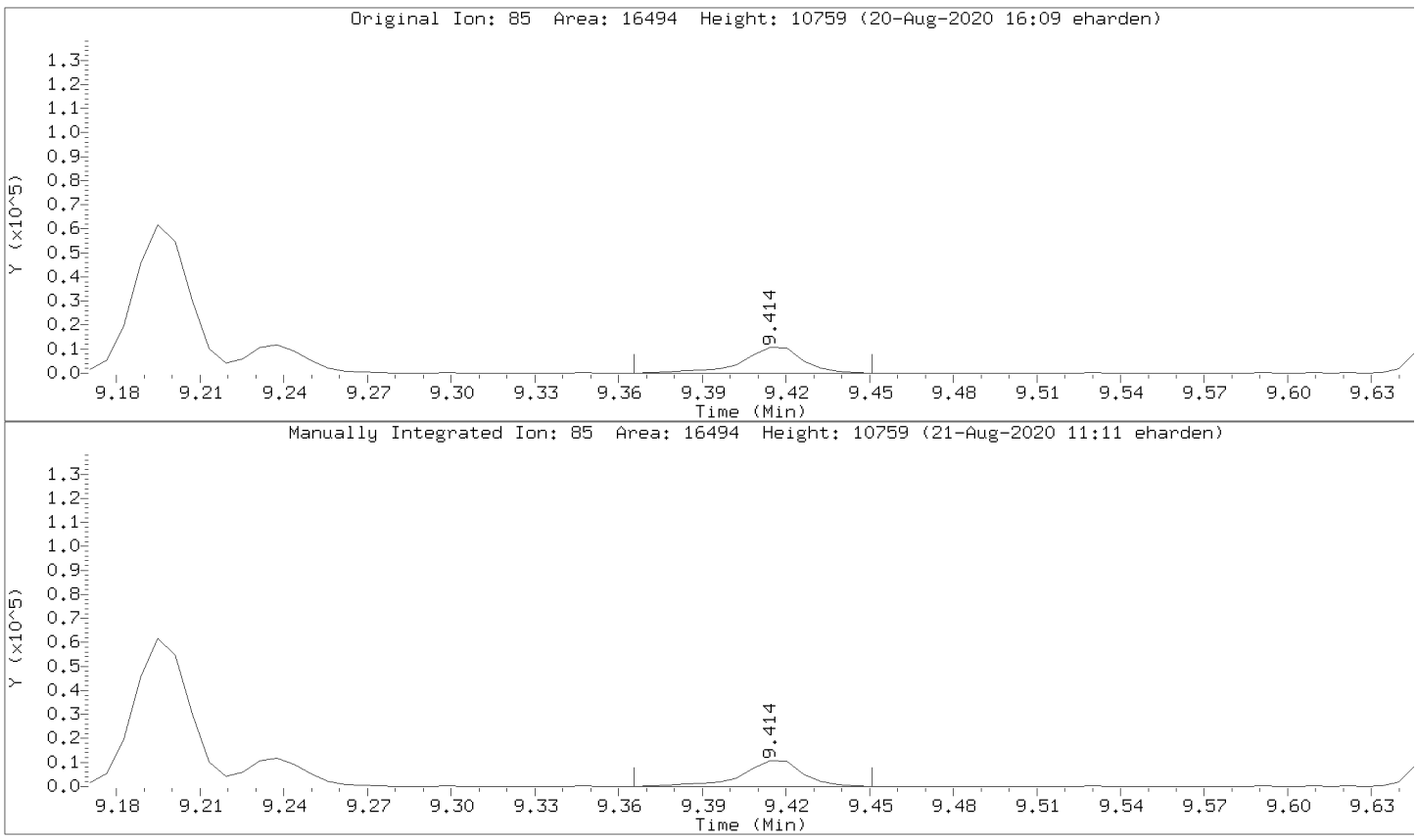






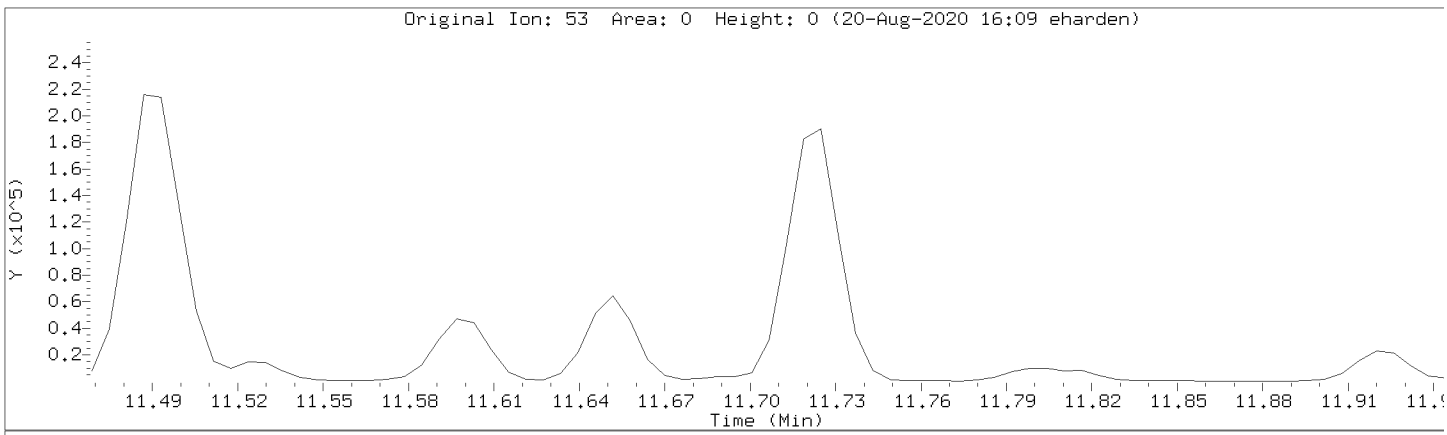


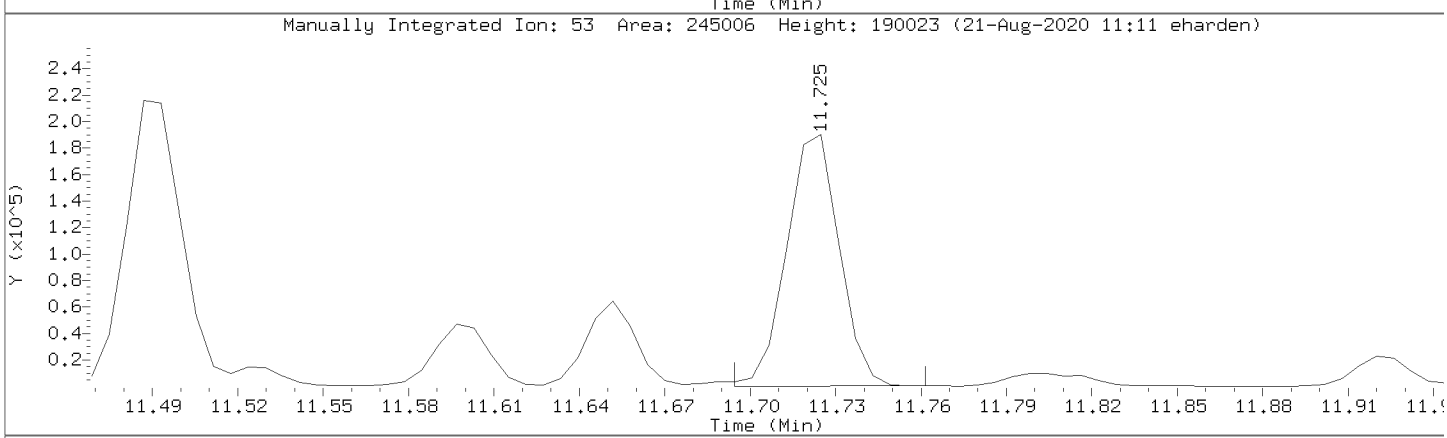
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_14.D
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

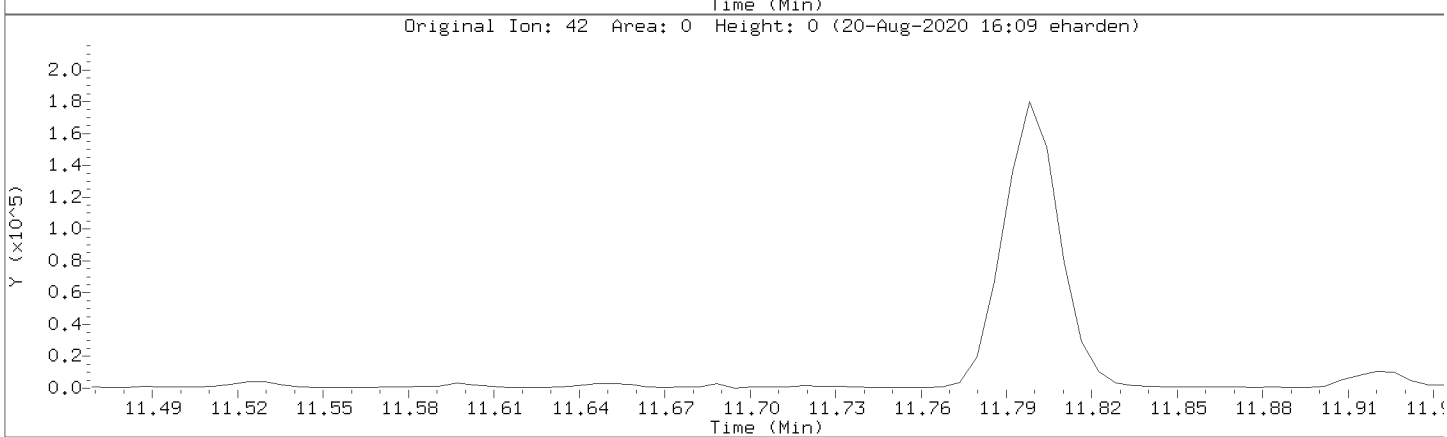


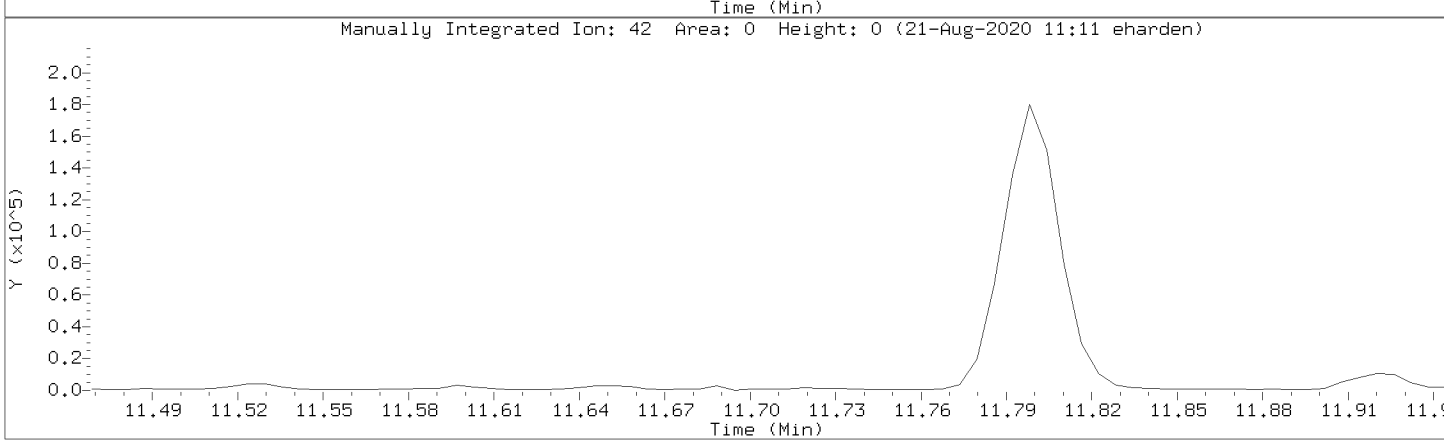
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_14.D
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6

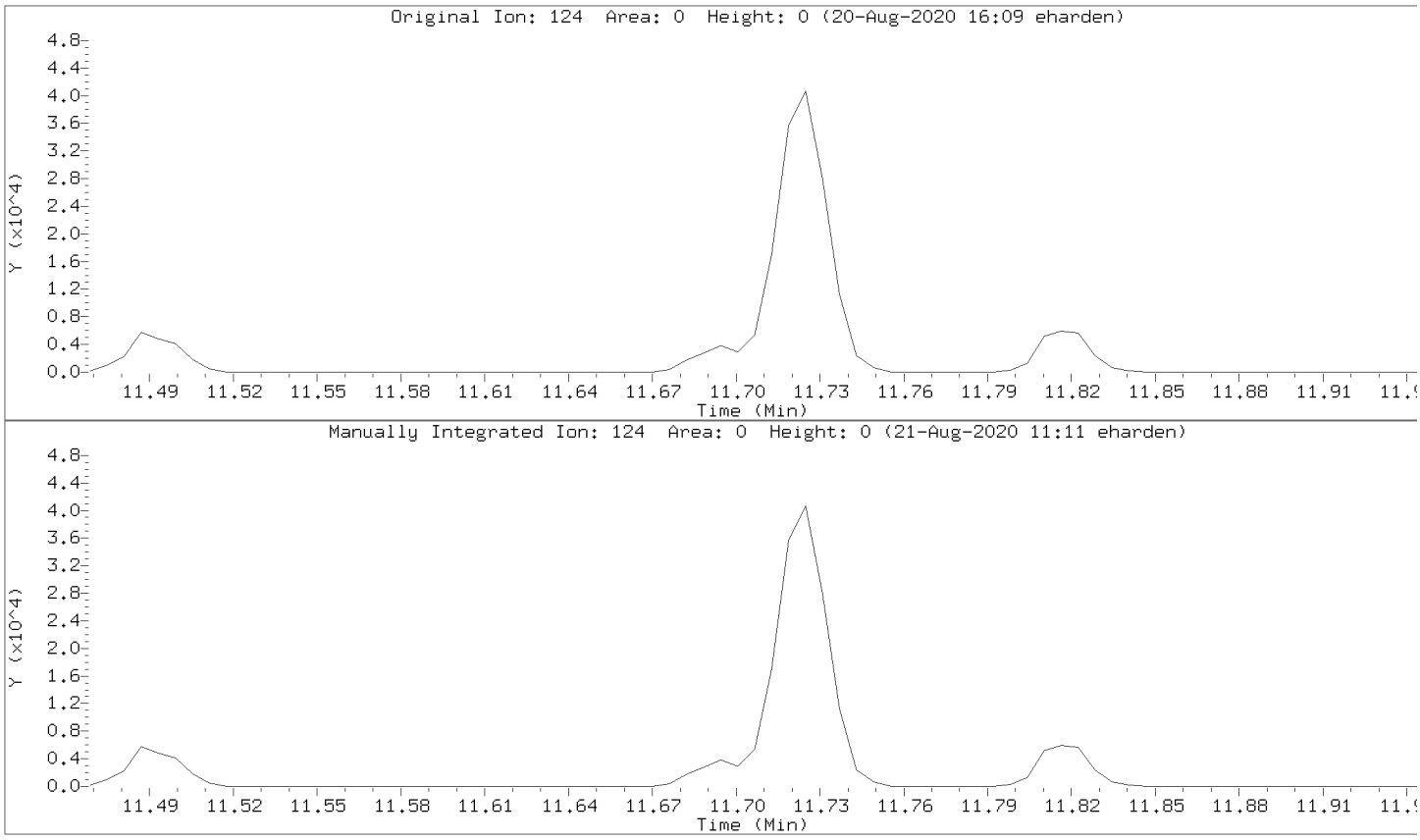








Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_14.D
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12



SAMPLE NO.

1419858ICV

MSV - FORM VII VOA-1
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/20/2020 Time: 17:06

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082020.B\082020_18.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249198

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Wt Linear	40	24.82310	0.0100	-37.9422	20.0000
Acetonitrile	Wt Linear	40	45.08252	0.0100	12.7063	20.0000
Acrolein	Averaged	0.06923	0.04113	0.0100	-40.5887	20.0000
Acrylonitrile	Averaged	0.19127	0.17352	0.0100	-9.2796	20.0000
Benzene	Averaged	1.27880	1.23471	0.0100	-3.4482	20.0000
Bromobenzene	Averaged	0.50590	0.52741	0.0100	4.2522	20.0000
Bromochloromethane	Averaged	0.28358	0.25650	0.0100	-9.5467	20.0000
Bromodichloromethane	Averaged	0.52427	0.53160	0.0100	1.3963	20.0000
Bromoform	Averaged	0.45179	0.43515	0.1000	-3.6837	20.0000
Bromomethane	Wt Linear	20	23.62960	0.0100	18.1480	20.0000
2-Butanone (MEK)	Averaged	0.42919	0.26923	0.0100	-37.2693	20.0000
n-Butylbenzene	Averaged	1.74233	1.59435	0.0100	-8.4931	20.0000
sec-Butylbenzene	Wt Linear	20	17.56000	0.0100	-12.2000	20.0000
tert-Butylbenzene	Wt Linear	20	16.89826	0.0100	-15.5087	20.0000
Carbon disulfide	Averaged	1.48423	1.27936	0.0100	-13.8029	20.0000
Carbon tetrachloride	Averaged	0.50339	0.50026	0.0100	-0.6221	20.0000
Chlorobenzene	Averaged	0.96465	0.93844	0.3000	-2.7167	20.0000
Chloroethane	Wt Linear	20	12.67107	0.0100	-36.6446	20.0000
Chloroform	Averaged	0.99545	0.88461	0.0100	-11.1349	20.0000
Chloromethane	Wt Linear	20	18.23379	0.1000	-8.8310	20.0000
2-Chlorotoluene	Wt Linear	20	19.57548	0.0100	-2.1226	20.0000
4-Chlorotoluene	Wt Linear	20	18.13182	0.0100	-9.3409	20.0000
1,2-Dibromo-3-chloropropane	Averaged	0.16352	0.13836	0.0100	-15.3871	20.0000
Dibromochloromethane	Averaged	0.47553	0.47473	0.0100	-0.1686	20.0000
1,2-Dibromoethane (EDB)	Averaged	0.40786	0.40623	0.0100	-0.3978	20.0000
Dibromomethane	Averaged	0.29781	0.28268	0.0100	-5.0799	20.0000
1,2-Dichlorobenzene	Averaged	1.45432	1.36425	0.0100	-6.1934	20.0000
1,3-Dichlorobenzene	Averaged	1.33091	1.33610	0.0100	0.3903	20.0000
1,4-Dichlorobenzene	Averaged	1.50164	1.35286	0.0100	-9.9078	20.0000
Dichlorodifluoromethane	Averaged	0.60278	0.50357	0.0100	-16.4588	20.0000
1,1-Dichloroethane	Averaged	0.88035	0.79945	0.1000	-9.1896	20.0000
1,2-Dichloroethane	Averaged	0.78154	0.68274	0.0100	-12.6415	20.0000
1,1-Dichloroethene	Averaged	0.67064	0.59964	0.0100	-10.5866	20.0000
cis-1,2-Dichloroethene	Averaged	0.64880	0.60018	0.0100	-7.4943	20.0000
trans-1,2-Dichloroethene	Averaged	0.45304	0.38891	0.0100	-14.1553	20.0000
1,2-Dichloropropane	Averaged	0.36511	0.36208	0.0100	-0.8301	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/01/2020 9:37

SAMPLE NO.

1419858ICV

MSV - FORM VII VOA-2
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/20/2020 Time: 17:06

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082020.B\082020_18.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249198

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,3-Dichloropropane	Averaged	0.48194	0.48242	0.0100	0.0987	20.0000
2,2-Dichloropropane	Averaged	0.67907	0.53477	0.0100	-21.2485	20.0000
1,1-Dichloropropene	Averaged	0.39618	0.37313	0.0100	-5.8167	20.0000
cis-1,3-Dichloropropene	Averaged	0.50984	0.49638	0.0100	-2.6405	20.0000
trans-1,3-Dichloropropene	Averaged	0.50883	0.49514	0.0100	-2.6903	20.0000
Ethyl acetate	Averaged	0.56197	0.49122	0.0100	-12.5887	20.0000
Ethylbenzene	Averaged	1.30807	1.28682	0.0100	-1.6246	20.0000
2-Hexanone	Averaged	0.42211	0.28352	0.0100	-32.8334	20.0000
Isopropylbenzene (Cumene)	Wt Linear	20	17.85189	0.0100	-10.7405	20.0000
p-Isopropyltoluene	Wt Linear	20	16.89826	0.0100	-15.5087	20.0000
Methylene Chloride	Averaged	0.79672	0.68891	0.0100	-13.5314	20.0000
4-Methyl-2-pentanone (MIBK)	Averaged	0.03578	0.03144	0.0100	-12.1476	20.0000
Methyl-tert-butyl ether	Averaged	1.05644	1.01790	0.0100	-3.6480	20.0000
Naphthalene	Wt Linear	20	16.32090	0.0100	-18.3955	20.0000
n-Propylbenzene	Averaged	1.60388	1.60259	0.0100	-0.0803	20.0000
Styrene	Wt Linear	20	17.64204	0.0100	-11.7898	20.0000
1,1,1,2-Tetrachloroethane	Averaged	0.40743	0.38534	0.3000	-5.4218	20.0000
1,1,2,2-Tetrachloroethane	Averaged	0.53495	0.49291	0.3000	-7.8595	20.0000
Tetrachloroethene	Averaged	0.34315	0.35395	0.0100	3.1459	20.0000
Toluene	Averaged	1.24680	1.24992	0.0100	0.2497	20.0000
1,2,3-Trichlorobenzene	Averaged	0.91538	0.87148	0.0100	-4.7954	20.0000
1,2,4-Trichlorobenzene	Averaged	0.98474	0.93125	0.0100	-5.4317	20.0000
1,1,1-Trichloroethane	Averaged	0.57038	0.54382	0.0100	-4.6553	20.0000
1,1,2-Trichloroethane	Averaged	0.31598	0.29895	0.0100	-5.3888	20.0000
Trichloroethene	Averaged	0.34963	0.35653	0.0100	1.9739	20.0000
Trichlorofluoromethane	Averaged	0.37716	0.28883	0.0100	-23.4190	20.0000
1,2,3-Trichloropropane	Averaged	0.55922	0.53202	0.0100	-4.8654	20.0000
1,2,4-Trimethylbenzene	Wt Linear	20	17.70907	0.0100	-11.4546	20.0000
1,3,5-Trimethylbenzene	Averaged	1.65100	1.59405	0.0100	-3.4490	20.0000
Vinyl acetate	Averaged	0.87084	0.47990	0.0100	-44.8924	20.0000
Vinyl chloride	Averaged	0.59325	0.47996	0.0100	-19.0961	20.0000
m&p-Xylene	Wt Linear	40	36.62116	0.0100	-8.4471	20.0000
o-Xylene	Wt Linear	20	17.08013	0.0100	-14.5993	20.0000
4-Bromofluorobenzene (S)	Averaged	0.41034	0.41596	0.0100	1.3689	20.0000
Dibromofluoromethane (S)	Averaged	0.57568	0.52418	0.0100	-8.9462	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.10356	0.09167	0.0100	-11.4833	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/01/2020 9:37

SAMPLE NO.

1419858ICV

MSV - FORM VII VOA-3
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton

Calibration Date: 08/20/2020 Time: 17:06

Instrument ID: 52MV02 GC Column: Col 1

Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082020.B\082020_18.D

Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249198

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Toluene-d8 (S)	Averaged	1.07633	1.07582	0.0100	-0.0475	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

1434121CCV

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/25/2020 Time: 11:08

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082520.B\082520_03.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249198

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Wt Linear	40	42.03815	0.0100	5.0954	20.0000
Acetonitrile	Wt Linear	40	61.00742	0.0100	52.5186	20.0000
Acrolein	Averaged	0.06923	0.06117	0.0100	-11.6438	20.0000
Acrylonitrile	Averaged	0.19127	0.18564	0.0100	-2.9430	20.0000
Benzene	Averaged	1.27880	1.26265	0.0100	-1.2631	20.0000
Bromobenzene	Averaged	0.50590	0.47952	0.0100	-5.2137	20.0000
Bromochloromethane	Averaged	0.28358	0.27604	0.0100	-2.6577	20.0000
Bromodichloromethane	Averaged	0.52427	0.56553	0.0100	7.8682	20.0000
Bromoform	Averaged	0.45179	0.43473	0.1000	-3.7760	20.0000
Bromomethane	Wt Linear	20	24.48894	0.0100	22.4447	20.0000
2-Butanone (MEK)	Averaged	0.42919	0.41329	0.0100	-3.7037	20.0000
n-Butylbenzene	Averaged	1.74233	1.55074	0.0100	-10.9958	20.0000
sec-Butylbenzene	Wt Linear	20	15.98041	0.0100	-20.0979	20.0000
tert-Butylbenzene	Wt Linear	20	14.76712	0.0100	-26.1644	20.0000
Carbon disulfide	Averaged	1.48423	1.36593	0.0100	-7.9703	20.0000
Carbon tetrachloride	Averaged	0.50339	0.55339	0.0100	9.9316	20.0000
Chlorobenzene	Averaged	0.96465	0.91213	0.3000	-5.4443	20.0000
Chloroethane	Wt Linear	20	26.54867	0.0100	32.7434	20.0000
Chloroform	Averaged	0.99545	0.96720	0.0100	-2.8373	20.0000
Chloromethane	Wt Linear	20	20.79619	0.1000	3.9810	20.0000
2-Chlorotoluene	Wt Linear	20	17.62198	0.0100	-11.8901	20.0000
4-Chlorotoluene	Wt Linear	20	17.47196	0.0100	-12.6402	20.0000
1,2-Dibromo-3-chloropropane	Averaged	0.16352	0.13592	0.0100	-16.8774	20.0000
Dibromochloromethane	Averaged	0.47553	0.48927	0.0100	2.8887	20.0000
1,2-Dibromoethane (EDB)	Averaged	0.40786	0.39555	0.0100	-3.0176	20.0000
Dibromomethane	Averaged	0.29781	0.30794	0.0100	3.4015	20.0000
1,2-Dichlorobenzene	Averaged	1.45432	1.26469	0.0100	-13.0393	20.0000
1,3-Dichlorobenzene	Averaged	1.33091	1.21311	0.0100	-8.8507	20.0000
1,4-Dichlorobenzene	Averaged	1.50164	1.34653	0.0100	-10.3298	20.0000
Dichlorodifluoromethane	Averaged	0.60278	0.57301	0.0100	-4.9391	20.0000
1,1-Dichloroethane	Averaged	0.88035	0.85878	0.1000	-2.4501	20.0000
1,2-Dichloroethane	Averaged	0.78154	0.73666	0.0100	-5.7428	20.0000
1,1-Dichloroethene	Averaged	0.67064	0.63163	0.0100	-5.8167	20.0000
cis-1,2-Dichloroethene	Averaged	0.64880	0.61338	0.0100	-5.4602	20.0000
trans-1,2-Dichloroethene	Averaged	0.45304	0.41381	0.0100	-8.6583	20.0000
1,2-Dichloropropane	Averaged	0.36511	0.36046	0.0100	-1.2731	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/01/2020 9:37

SAMPLE NO.

1434121CCV

MSV - FORM VII VOA-2
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/25/2020 Time: 11:08

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082520.B\082520_03.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249198

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,3-Dichloropropane	Averaged	0.48194	0.49581	0.0100	2.8782	20.0000
2,2-Dichloropropane	Averaged	0.67907	0.67630	0.0100	-0.4069	20.0000
1,1-Dichloropropene	Averaged	0.39618	0.38454	0.0100	-2.9367	20.0000
cis-1,3-Dichloropropene	Averaged	0.50984	0.50649	0.0100	-0.6578	20.0000
trans-1,3-Dichloropropene	Averaged	0.50883	0.50649	0.0100	-0.4610	20.0000
Ethyl acetate	Averaged	0.56197	0.49194	0.0100	-12.4615	20.0000
Ethylbenzene	Averaged	1.30807	1.19865	0.0100	-8.3649	20.0000
2-Hexanone	Averaged	0.42211	0.47024	0.0100	11.4026	20.0000
Isopropylbenzene (Cumene)	Wt Linear	20	15.65474	0.0100	-21.7263	20.0000
p-Isopropyltoluene	Wt Linear	20	14.76712	0.0100	-26.1644	20.0000
Methylene Chloride	Averaged	0.79672	0.75016	0.0100	-5.8438	20.0000
4-Methyl-2-pentanone (MIBK)	Averaged	0.03578	0.03354	0.0100	-6.2769	20.0000
Methyl-tert-butyl ether	Averaged	1.05644	0.95041	0.0100	-10.0363	20.0000
Naphthalene	Wt Linear	20	13.45425	0.0100	-32.7287	20.0000
n-Propylbenzene	Averaged	1.60388	1.49709	0.0100	-6.6585	20.0000
Styrene	Wt Linear	20	15.17621	0.0100	-24.1189	20.0000
1,1,1,2-Tetrachloroethane	Averaged	0.40743	0.40573	0.3000	-0.4183	20.0000
1,1,2,2-Tetrachloroethane	Averaged	0.53495	0.52931	0.3000	-1.0537	20.0000
Tetrachloroethene	Averaged	0.34315	0.34325	0.0100	0.0275	20.0000
Toluene	Averaged	1.24680	1.23951	0.0100	-0.5852	20.0000
1,2,3-Trichlorobenzene	Averaged	0.91538	0.76328	0.0100	-16.6163	20.0000
1,2,4-Trichlorobenzene	Averaged	0.98474	0.78947	0.0100	-19.8291	20.0000
1,1,1-Trichloroethane	Averaged	0.57038	0.59745	0.0100	4.7459	20.0000
1,1,2-Trichloroethane	Averaged	0.31598	0.29744	0.0100	-5.8655	20.0000
Trichloroethene	Averaged	0.34963	0.35788	0.0100	2.3589	20.0000
Trichlorofluoromethane	Averaged	0.37716	0.42037	0.0100	11.4565	20.0000
1,2,3-Trichloropropane	Averaged	0.55922	0.54663	0.0100	-2.2517	20.0000
1,2,4-Trimethylbenzene	Wt Linear	20	16.11523	0.0100	-19.4238	20.0000
1,3,5-Trimethylbenzene	Averaged	1.65100	1.51560	0.0100	-8.2011	20.0000
Vinyl acetate	Averaged	0.87084	0.82068	0.0100	-5.7598	20.0000
Vinyl chloride	Averaged	0.59325	0.55192	0.0100	-6.9676	20.0000
m&p-Xylene	Wt Linear	40	35.15031	0.0100	-12.1242	20.0000
o-Xylene	Wt Linear	20	15.10099	0.0100	-24.4950	20.0000
4-Bromofluorobenzene (S)	Averaged	0.41034	0.39358	0.0100	-4.0845	20.0000
Dibromofluoromethane (S)	Averaged	0.57568	0.57386	0.0100	-0.3153	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.10356	0.10596	0.0100	2.3139	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/01/2020 9:37

SAMPLE NO.

1434121CCV

MSV - FORM VII VOA-3
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Dayton

Calibration Date: 08/25/2020 Time: 11:08

Instrument ID: 52MV02 GC Column: Col 1

Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082520.B\082520_03.D

Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249198

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Toluene-d8 (S)	Averaged	1.07633	1.09534	0.0100	1.7658	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/01/2020 9:37

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_18.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 20-AUG-2020 17:06
Operator : EAH Inst ID: 52mv02.i
Smp Info : icv, 27249:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 11:40 Cal File: 082020_05.D
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.411)	62218	20.0000	16.7(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	81833	20.0000	18.2	
3 Vinyl chloride	62	3.702	3.702	(0.471)	59301	20.0000	16.2	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	43356	20.0000	13.2	
5 Bromomethane	94	4.195	4.195	(0.534)	70375	20.0000	23.6	
6 Chloroethane	64	4.360	4.360	(0.555)	13606	20.0000	12.7	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	35686	20.0000	15.3	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	23334	20.0000	18.2	
9 1,1-Dichloroethene	61	5.226	5.226	(0.665)	74088	20.0000	17.9	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	46759	20.0000	17.1	
11 Carbon disulfide	76	5.293	5.293	(0.673)	158069	20.0000	17.2	
12 Iodomethane	142	5.439	5.439	(0.692)	24702	20.0000	15.5	
13 Acrolein	56	5.659	5.659	(0.720)	10164	40.0000	23.8	
14 Allyl chloride	76	5.787	5.787	(0.736)	22210	20.0000	17.4	
15 Methylene Chloride	49	5.902	5.902	(0.751)	85117	20.0000	17.3	
16 Acetone	43	5.976	5.976	(0.760)	62754	40.0000	24.8	
17 Methyl acetate	43	6.067	6.067	(0.772)	104303	40.0000	36.3	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	48051	20.0000	17.2	
19 n-Hexane	86	6.110	6.110	(0.777)	5754	20.0000	19.4	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	125765	20.0000	19.3	
21 Acetonitrile	41	6.463	6.463	(0.822)	11809	40.0000	45.1	
22 Chloroprene	53	6.640	6.640	(0.845)	65755	20.0000	16.8	
23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	98775	20.0000	18.2	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	24 Acrylonitrile	53	6.738	6.738	(0.857)	42878	40.0000	36.3	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	59293	20.0000	11.0(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	74154	20.0000	18.5	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	66073	20.0000	15.8	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	31692	20.0000	18.1	
	29 Cyclohexane	56	7.335	7.335	(0.882)	61163	20.0000	18.4	
	30 Chloroform	83	7.372	7.372	(0.938)	109296	20.0000	17.8	
	31 Ethyl acetate	43	7.433	7.433	(0.946)	121384	40.0000	35.0	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	78185	20.0000	19.9	
	33 Tetrahydrofuran	42	7.536	7.536	(0.959)	32607	40.0000	36.5	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	161909	50.0000	45.5	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	84993	20.0000	19.1	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	66529	40.0000	25.1	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	58316	20.0000	18.8	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	308883	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	192970	20.0000	19.3	
	40 Propionitrile	54	7.902	7.902	(1.005)	18605	40.0000	35.3	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	97332	40.0000	36.3	
	42 Isobutanol	43	7.987	7.987	(1.016)	3741	40.0000	47.8(M)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	28315	50.0000	44.2	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	84355	20.0000	17.5	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	100534	20.0000	17.5	
	46 Trichloroethene	130	8.317	8.317	(1.000)	55722	20.0000	20.4	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	390720	50.0000		
	48 Methylcyclohexane	98	8.317	8.317	(1.000)	25333	20.0000	19.6	
	49 n-Butanol	56	8.524	8.524	(1.025)	2306	40.0000	38.6	
	50 Dibromomethane	93	8.670	8.670	(1.043)	44180	20.0000	19.0	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	56588	20.0000	19.8	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	83082	20.0000	20.3	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	27754	20.0000	17.2	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	950	40.0000	39.5	
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	45831	40.0000	32.2	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	77578	20.0000	19.5	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	420345	50.0000	50.0	
	58 Toluene	91	9.414	9.414	(1.132)	195347	20.0000	20.0	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	16542	20.0000	16.7	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	9826	40.0000	35.1(MH)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	77385	20.0000	19.5	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	52492	20.0000	20.6	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	52298	20.0000	17.0	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	46722	20.0000	18.9	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	70404	20.0000	20.0	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	75396	20.0000	20.0	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	60246	20.0000	19.9	
	68 2-Hexanone	43	10.280	10.280	(1.236)	88620	40.0000	26.9	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	190840	20.0000	19.7	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	370760	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	139175	20.0000	19.4	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	57148	20.0000	18.9	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	308621	40.0000	36.6	
	74 o-Xylene	106	10.993	10.993	(1.041)	66780	20.0000	17.1	
	75 Styrene	104	11.029	11.029	(1.044)	120102	20.0000	17.6	
	76 Bromoform	173	11.103	11.103	(1.051)	64534	20.0000	19.3	
	77 n-amyl acetate	43	11.225	11.225	(1.063)	96056	20.0000	16.6	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	154222	50.0000	50.7	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	22484	20.0000	18.5	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	237671	20.0000	20.0	
81 Bromobenzene	156	11.578	11.578	(1.096)	78217	20.0000	20.8	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	73100	20.0000	18.4	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	152266	20.0000	19.3	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	54826	20.0000	19.6	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	51146	20.0000	18.1	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	178840	20.0000	17.8	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	78900	20.0000	19.0	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	19932	20.0000	20.9(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	152436	20.0000	16.9	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	161183	20.0000	17.7	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	189442	20.0000	17.6	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	152436	20.0000	16.9	
94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	127626	20.0000	20.1	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	238803	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	129227	20.0000	18.0	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	152294	20.0000	18.3	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	130315	20.0000	18.8	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	13216	20.0000	16.9	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	39516	20.0000	18.6	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	88954	20.0000	18.9	
102 Naphthalene	128	14.193	14.193	(1.150)	148785	20.0000	16.3	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	83245	20.0000	19.0	

QC Flag Legend

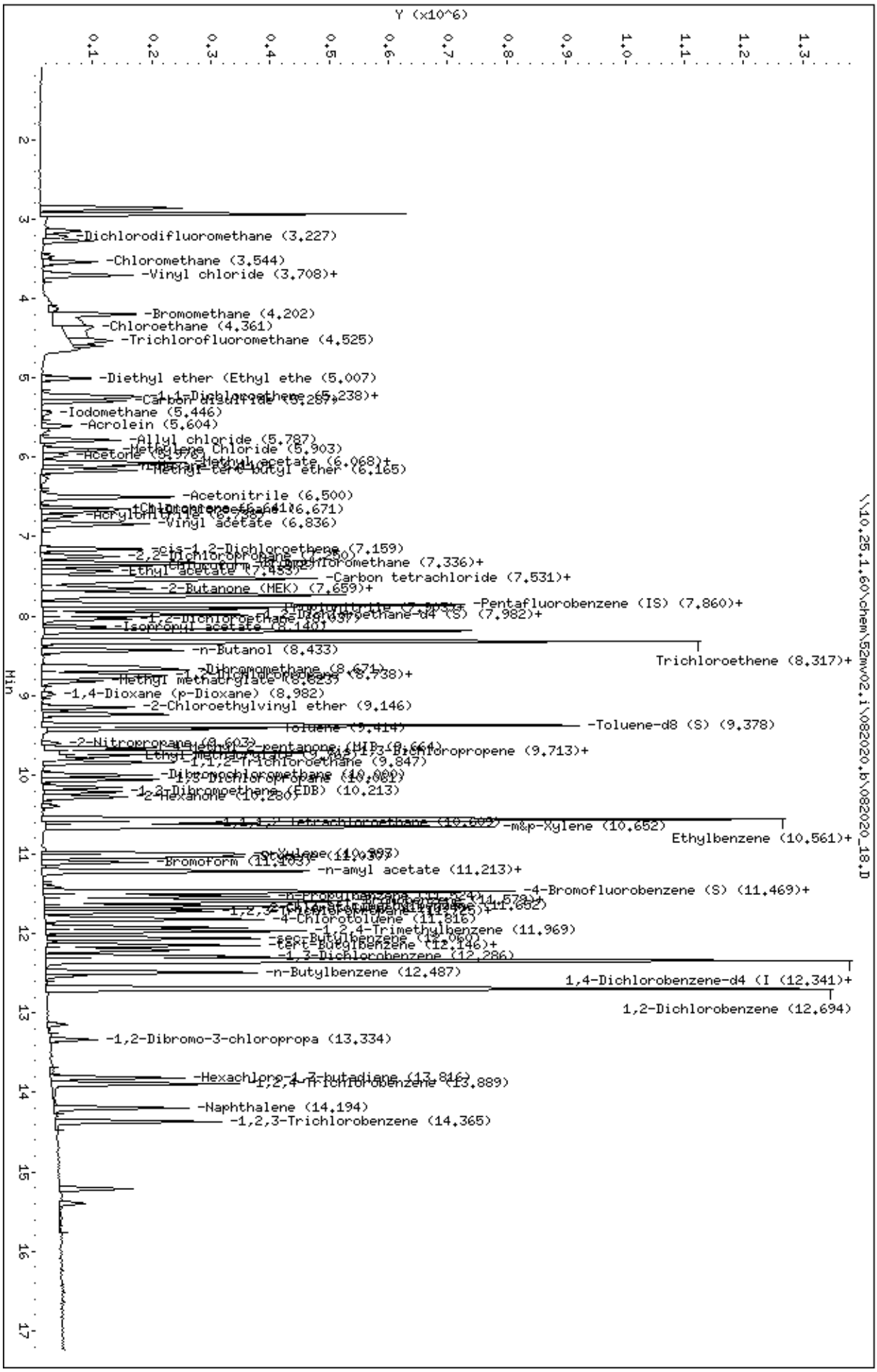
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

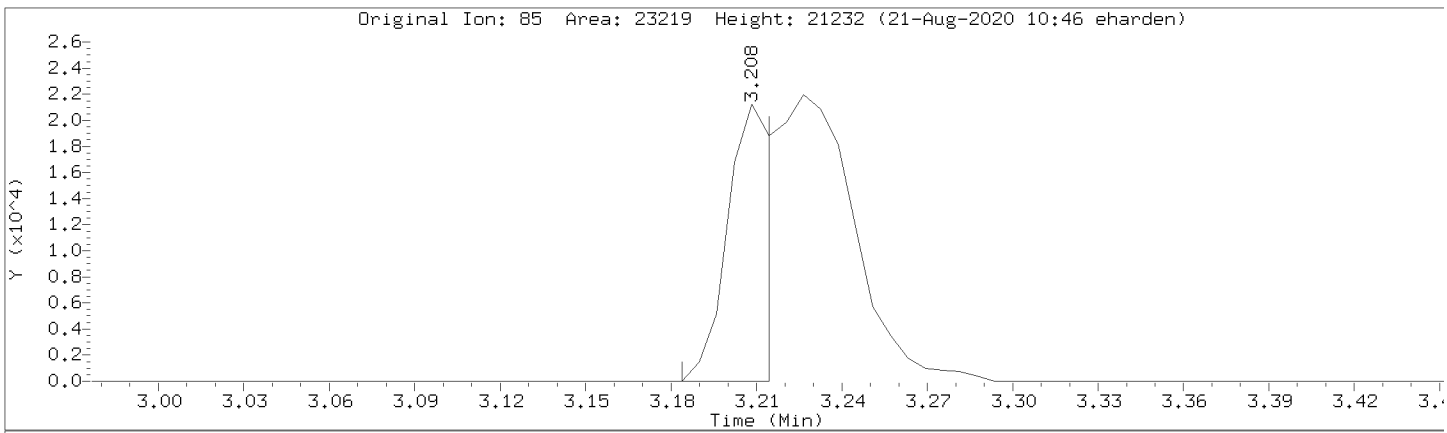
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_18.D
Date : 20-AUG-2020 17:06
Client ID: ICV
Sample Info: ICV, 27249:1
Purge Volume: 5.0
Column phase: RTX-VMS

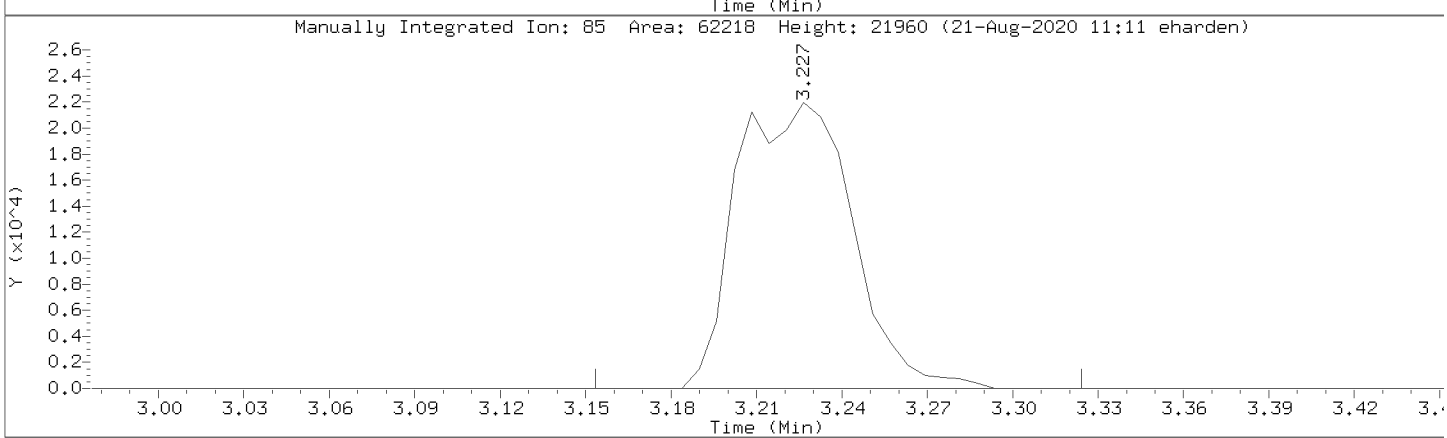
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

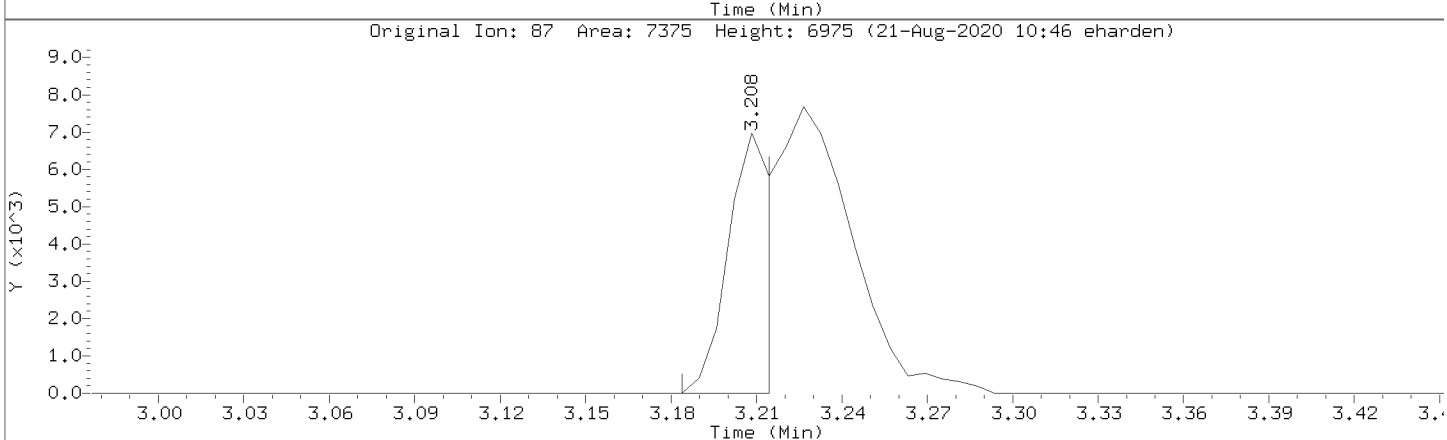


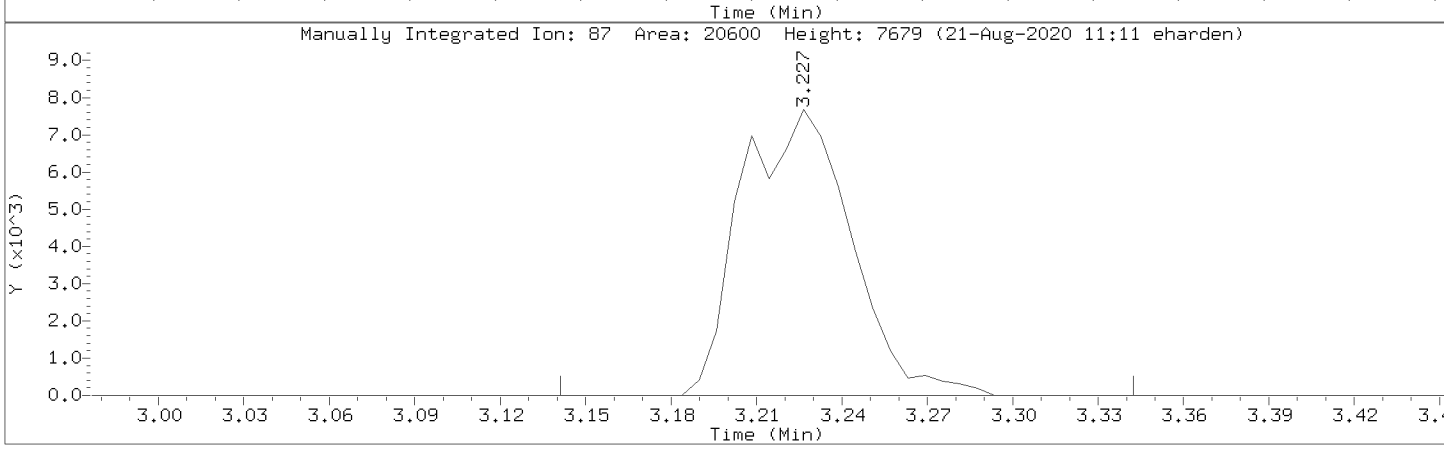
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_18.D
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



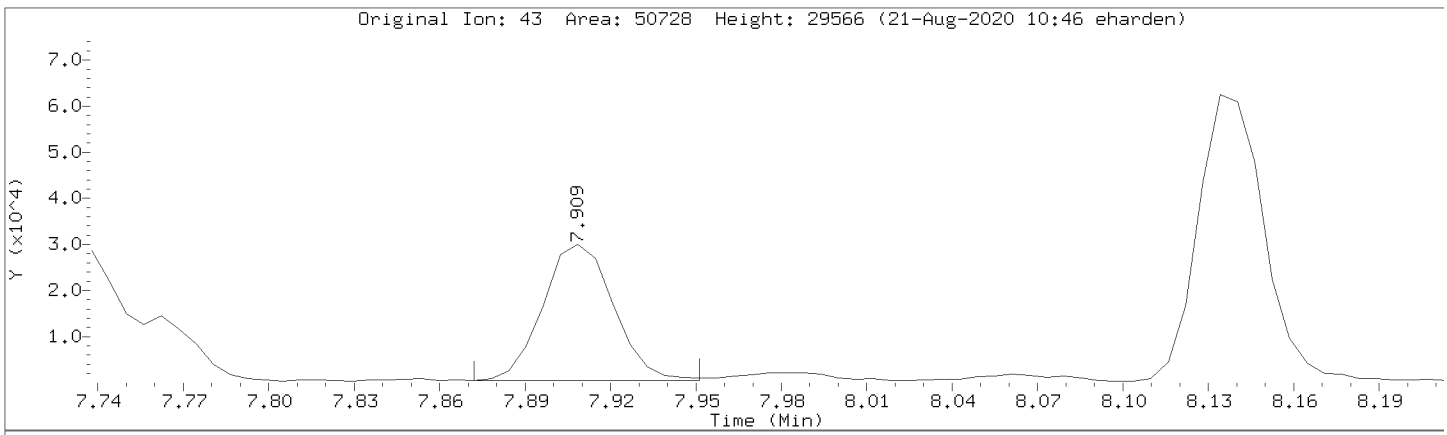


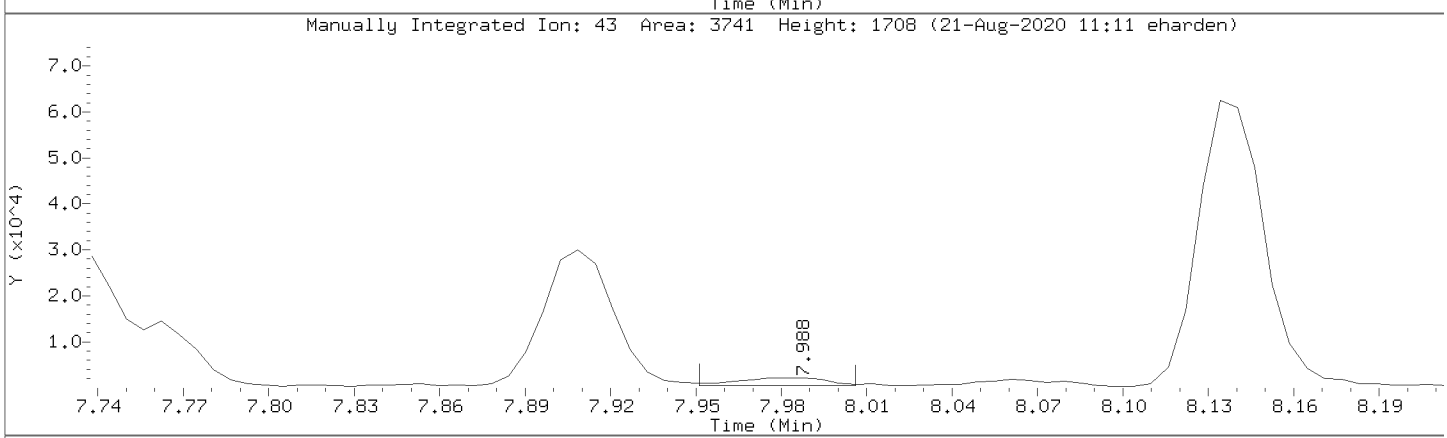


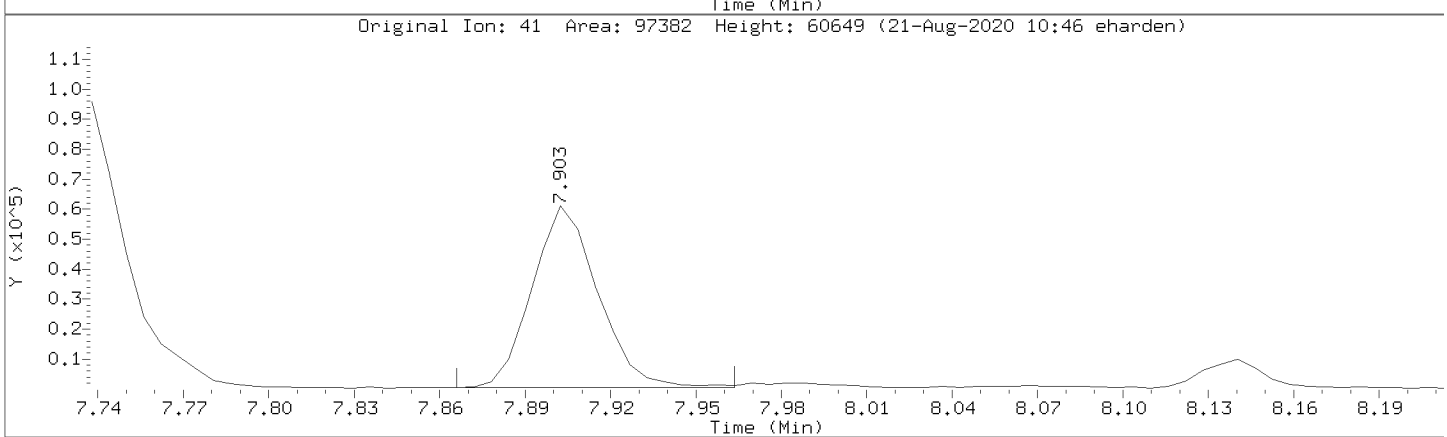


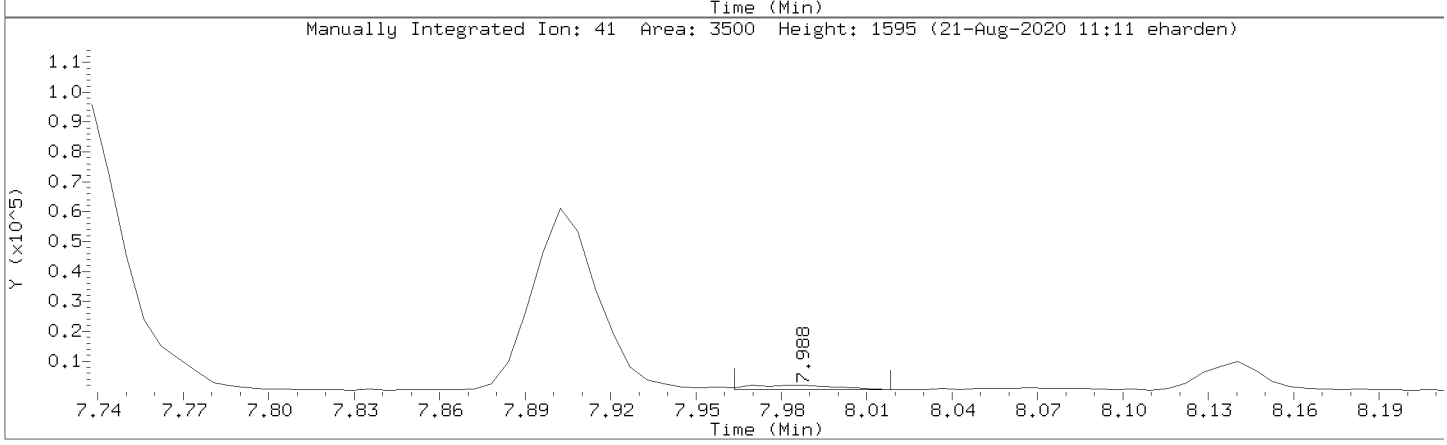
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_18.D
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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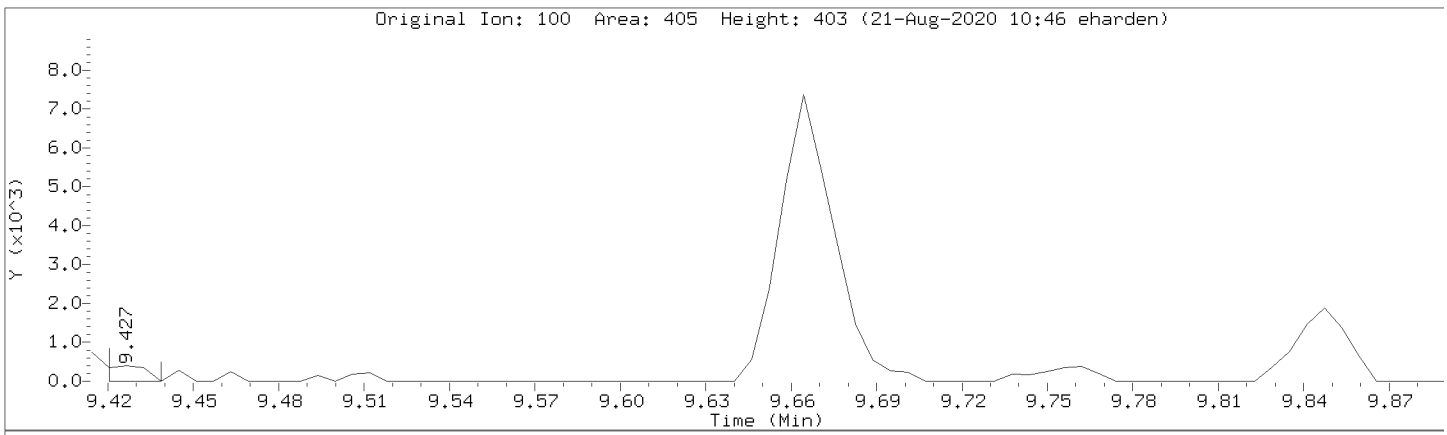
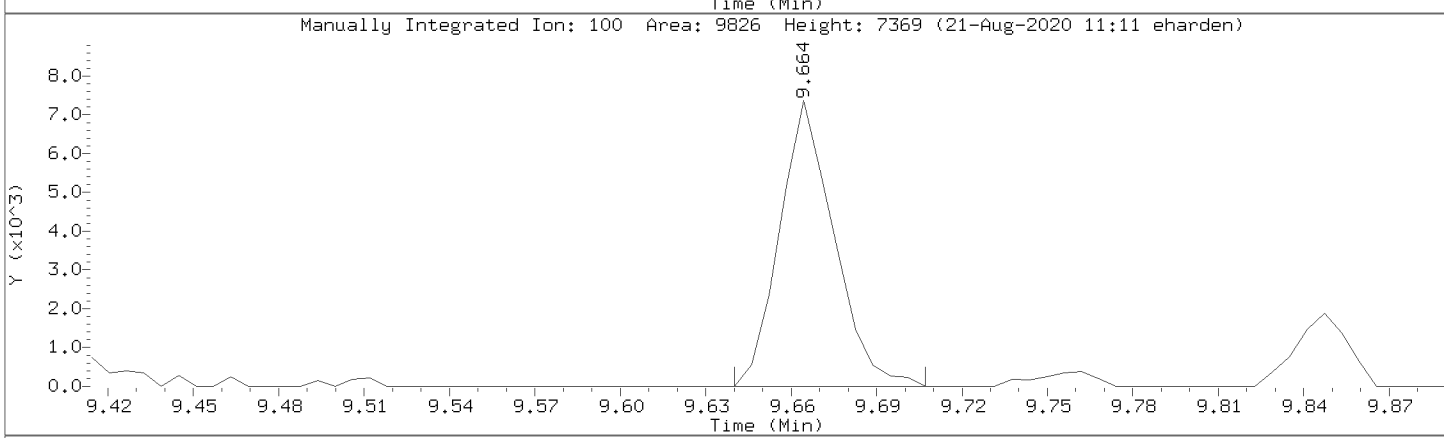
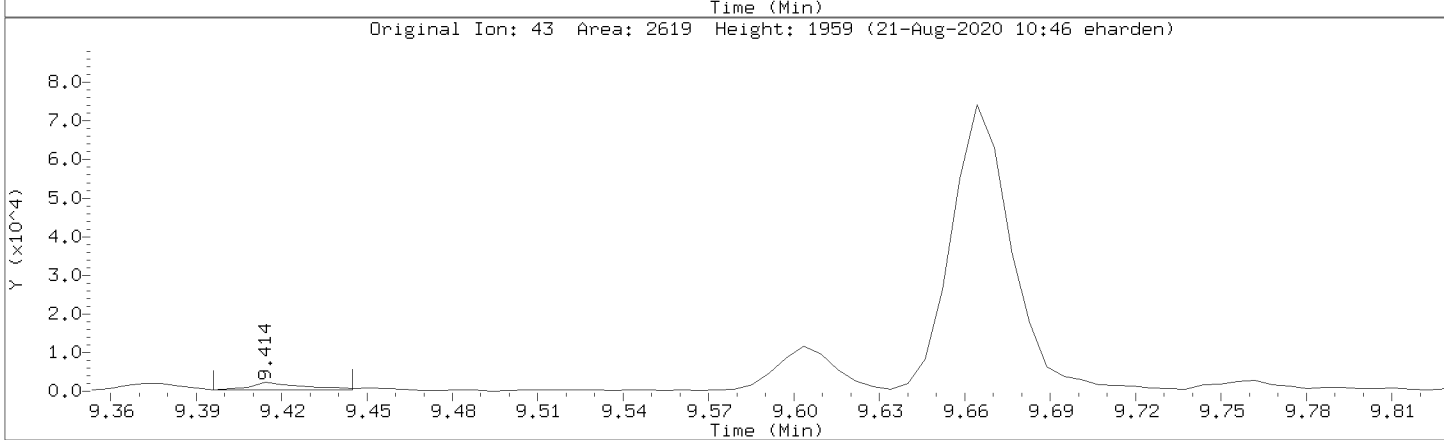
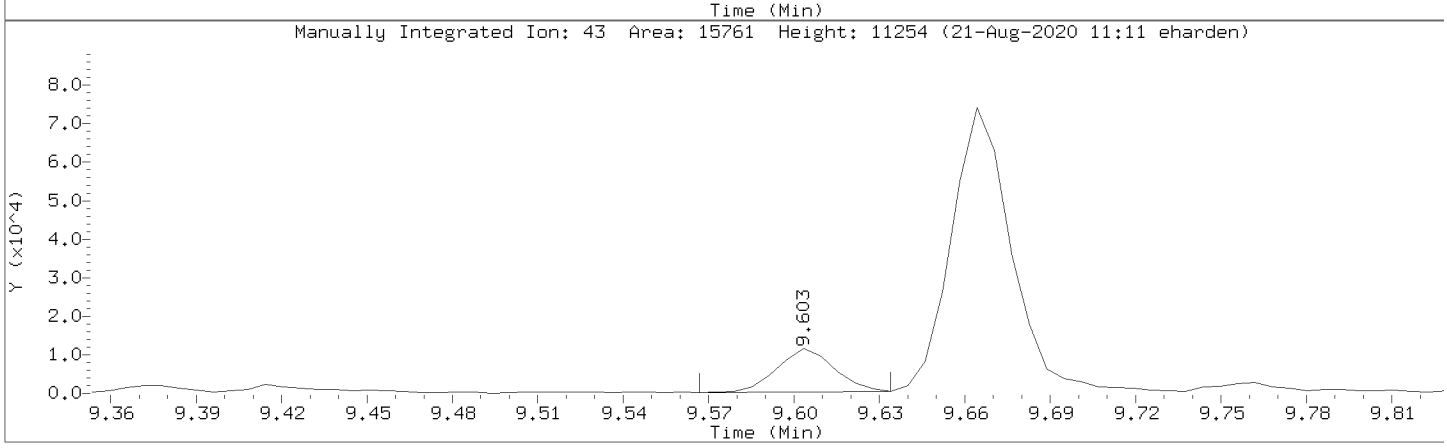
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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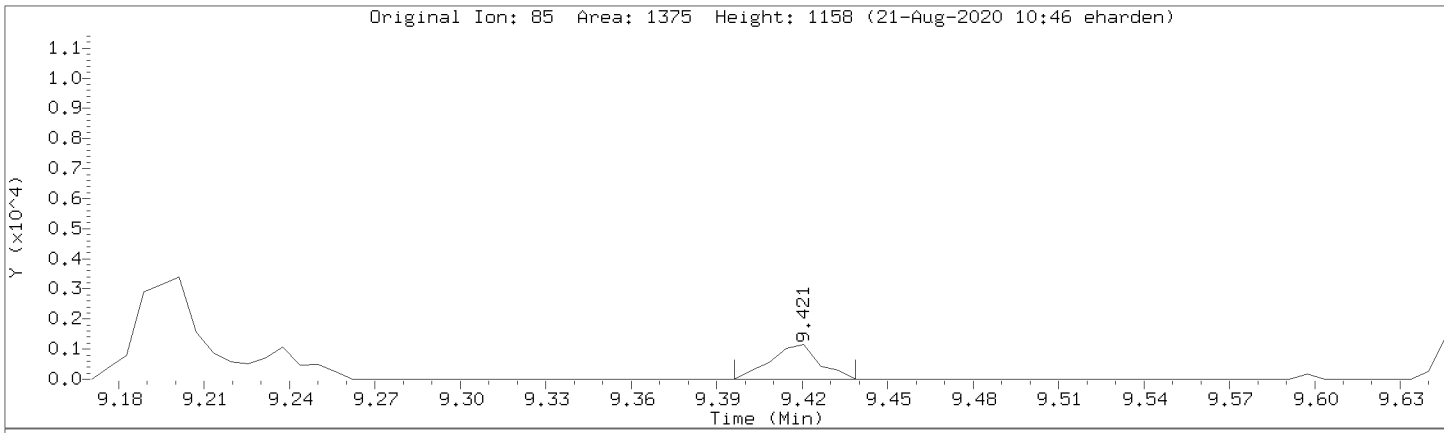
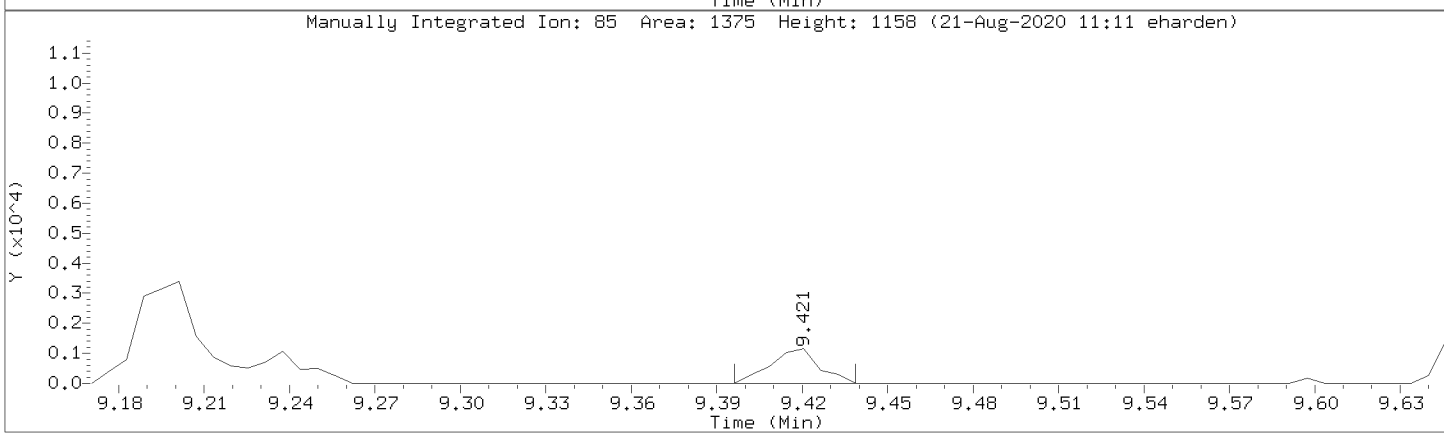
Instrument: 52mv02.i
Lab Sample ID: ICV





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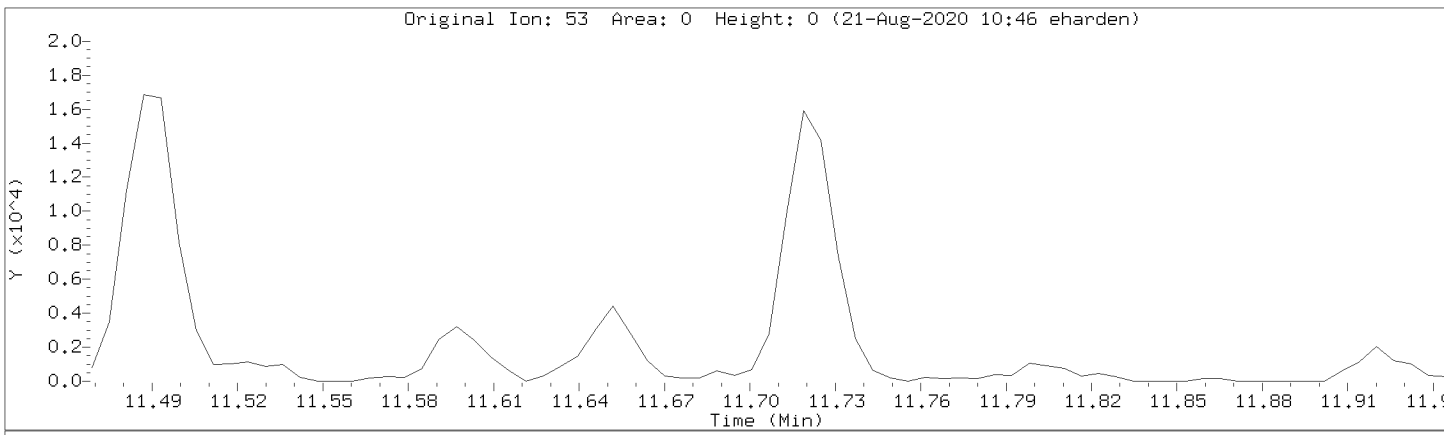
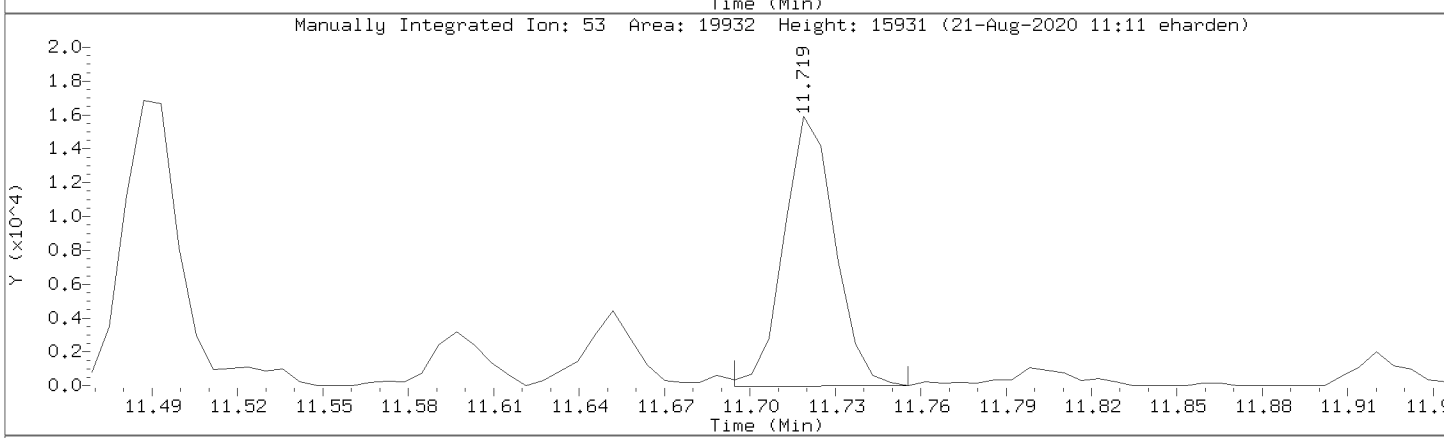
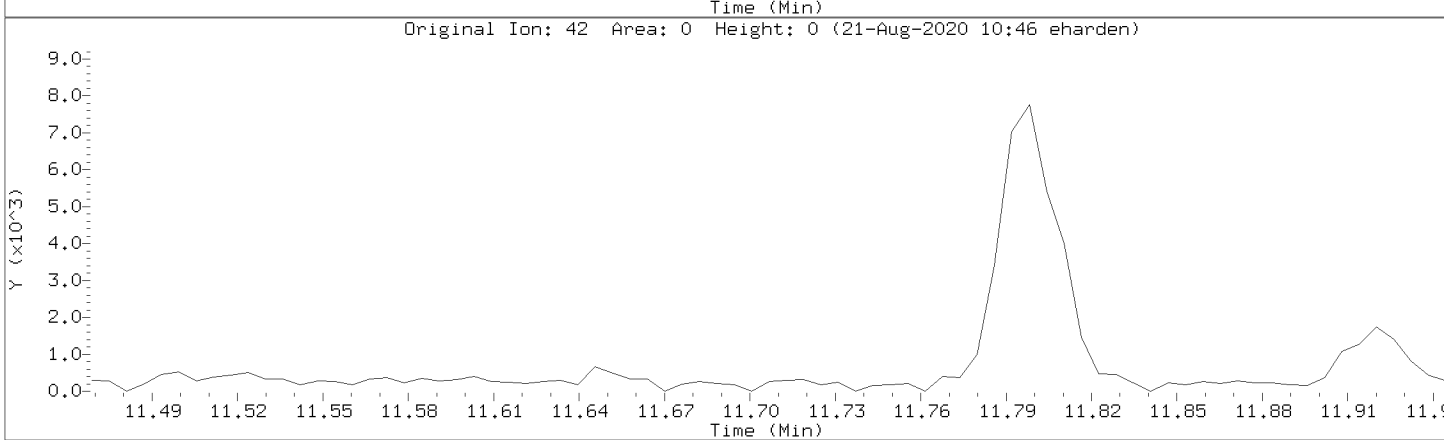
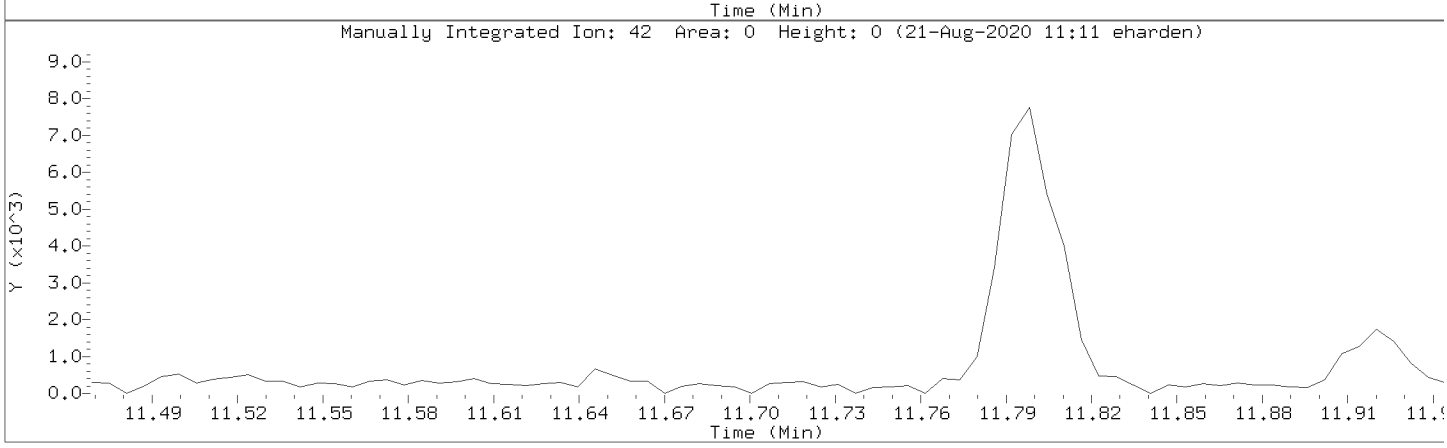
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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Injection Date: 20-AUG-2020 17:06
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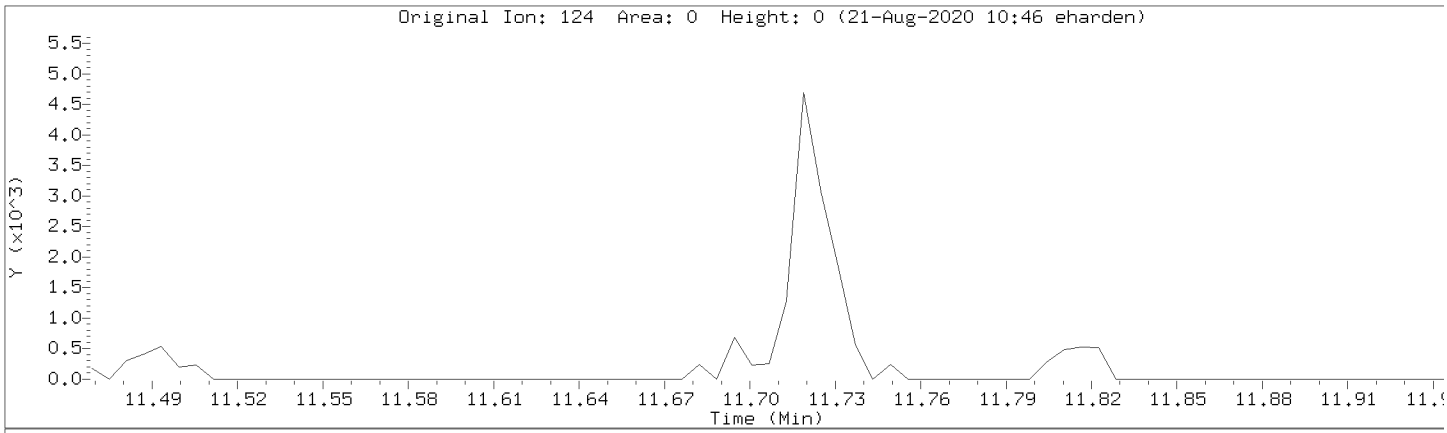
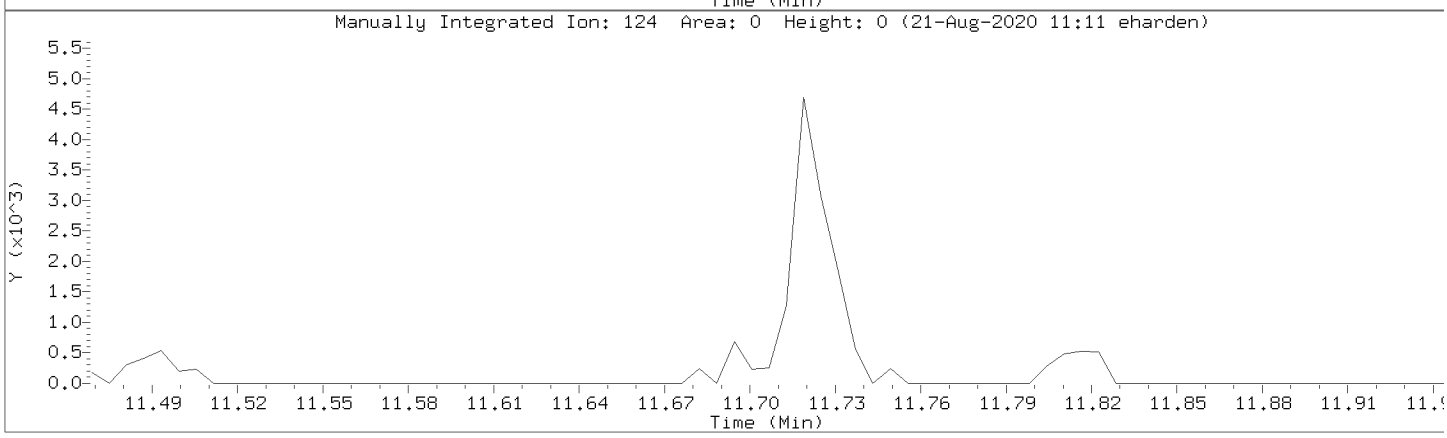
Lab Sample ID: ICV





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082520.b\082520_03.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 25-AUG-2020 11:08
Operator : EAH Inst ID: 52mv02.i
Smp Info : ccv,27136:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082520.b\8260BSM_082020.m
Meth Date : 25-Aug-2020 11:32 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.214	(0.409)	55520	20.0000	19.0	
2 Chloromethane	50	3.537	3.537	(0.450)	72802	20.0000	20.8	
3 Vinyl chloride	62	3.683	3.683	(0.469)	53476	20.0000	18.6	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	41855	20.0000	16.3	
5 Bromomethane	94	4.195	4.195	(0.534)	56956	20.0000	24.5	
6 Chloroethane	64	4.360	4.360	(0.555)	21588	20.0000	26.5	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	40730	20.0000	22.3	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	18045	20.0000	17.9	
9 1,1-Dichloroethene	61	5.238	5.238	(0.666)	61200	20.0000	18.8	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	42170	20.0000	19.7	
11 Carbon disulfide	76	5.293	5.293	(0.673)	132347	20.0000	18.4	
12 Iodomethane	142	5.439	5.439	(0.692)	16207	20.0000	13.7	
13 Acrolein	56	5.659	5.659	(0.720)	11854	40.0000	35.3	
14 Allyl chloride	76	5.780	5.780	(0.736)	17154	20.0000	17.2	
15 Methylene Chloride	49	5.902	5.902	(0.751)	72684	20.0000	18.8	
16 Acetone	43	5.963	5.963	(0.759)	81032	40.0000	42.0	
17 Methyl acetate	43	6.067	6.067	(0.772)	87547	40.0000	38.9	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	40095	20.0000	18.3	
19 n-Hexane	86	6.110	6.110	(0.777)	4096	20.0000	17.6	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	92087	20.0000	18.0	
21 Acetonitrile	41	6.457	6.457	(0.822)	12480	40.0000	61.0	
22 Chloroprene	53	6.640	6.640	(0.845)	55796	20.0000	18.2	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	83209	20.0000	19.5	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	35974	40.0000	38.8	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	79517	20.0000	18.8(TM)	CO
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	59431	20.0000	18.9	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	65528	20.0000	19.9	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	26746	20.0000	19.5	
	29 Cyclohexane	56	7.335	7.335	(0.882)	50060	20.0000	18.6	
	30 Chloroform	83	7.372	7.372	(0.938)	93714	20.0000	19.4	
	31 Ethyl acetate	43	7.426	7.426	(0.945)	95329	40.0000	35.0	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	69990	20.0000	22.0	
	33 Tetrahydrofuran	42	7.536	7.536	(0.959)	24537	40.0000	34.9	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	139006	50.0000	49.8	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	75562	20.0000	20.9	
	36 2-Butanone (MEK)	43	7.622	7.622	(0.970)	80089	40.0000	38.5	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	48635	20.0000	19.4	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	242229	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	159694	20.0000	19.7	
	40 Propionitrile	54	7.890	7.890	(1.004)	14760	40.0000	35.8	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	80137	40.0000	38.2	
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25666	50.0000	51.2	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	71376	20.0000	18.8	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	84710	20.0000	18.8	
	46 Trichloroethene	130	8.317	8.317	(1.000)	45263	20.0000	20.5	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	316188	50.0000		
	48 Methylcyclohexane	98	8.323	8.323	(1.001)	21018	20.0000	20.0	
	49 n-Butanol	56	8.518	8.518	(1.024)	1545	40.0000	32.0(M)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	38947	20.0000	20.7	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	45589	20.0000	19.7	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	71525	20.0000	21.6	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	21898	20.0000	16.8	
	54 1,4-Dioxane (p-Dioxane)	58	8.932	8.932	(1.074)	552	40.0000	28.4(M)	LT
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	35313	40.0000	30.8	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	64058	20.0000	19.9	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	346333	50.0000	50.9	
	58 Toluene	91	9.414	9.414	(1.132)	156767	20.0000	19.9	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	12312	20.0000	15.4	
	60 4-Methyl-2-pentanone (MIBK)	100	9.670	9.670	(1.163)	8483	40.0000	37.5	
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	64058	20.0000	19.9	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	41603	20.0000	20.0	
	63 Ethyl methacrylate	69	9.755	9.755	(1.173)	39886	20.0000	16.1	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	37619	20.0000	18.8	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	59301	20.0000	20.6	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	62708	20.0000	20.6	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	47942	20.0000	19.4	
	68 2-Hexanone	43	10.273	10.273	(1.235)	118947	40.0000	44.6	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	145281	20.0000	18.3	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	303010	50.0000		
	71 Chlorobenzene	112	10.572	10.572	(1.001)	110554	20.0000	18.9	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	49176	20.0000	19.9	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	241983	40.0000	35.2	
	74 o-Xylene	106	10.993	10.993	(1.041)	48069	20.0000	15.1	
	75 Styrene	104	11.029	11.029	(1.044)	83992	20.0000	15.2	
	76 Bromoform	173	11.103	11.103	(1.051)	52691	20.0000	19.2	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.218	11.218	(1.062)	78027	20.0000	16.5	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	119260	50.0000	48.0	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	18353	20.0000	18.4	
80 n-Propylbenzene	91	11.529	11.529	(1.092)	181453	20.0000	18.7	
81 Bromobenzene	156	11.578	11.578	(1.096)	58120	20.0000	19.0	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	64155	20.0000	19.8	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	120918	20.0000	18.4	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	40250	20.0000	17.6	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	40247	20.0000	17.5	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	127589	20.0000	15.6	
87 1,2,3-Trichloropropane	75	11.718	11.718	(1.110)	66254	20.0000	19.5	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	15526	20.0000	19.9(M)	WP
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	110727	20.0000	14.8	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	122178	20.0000	16.1	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	143573	20.0000	16.0	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	110727	20.0000	14.8	
94 1,3-Dichlorobenzene	146	12.285	12.285	(0.996)	96785	20.0000	18.2	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	199456	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	107429	20.0000	17.9	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	123722	20.0000	17.8	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	100900	20.0000	17.4	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	10844	20.0000	16.6	
100 Hexachloro-1,3-butadiene	225	13.815	13.815	(1.120)	30975	20.0000	17.4	
101 1,2,4-Trichlorobenzene	180	13.889	13.889	(1.125)	62986	20.0000	16.0	
102 Naphthalene	128	14.193	14.193	(1.150)	101704	20.0000	13.4	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	60896	20.0000	16.7	

QC Flag Legend

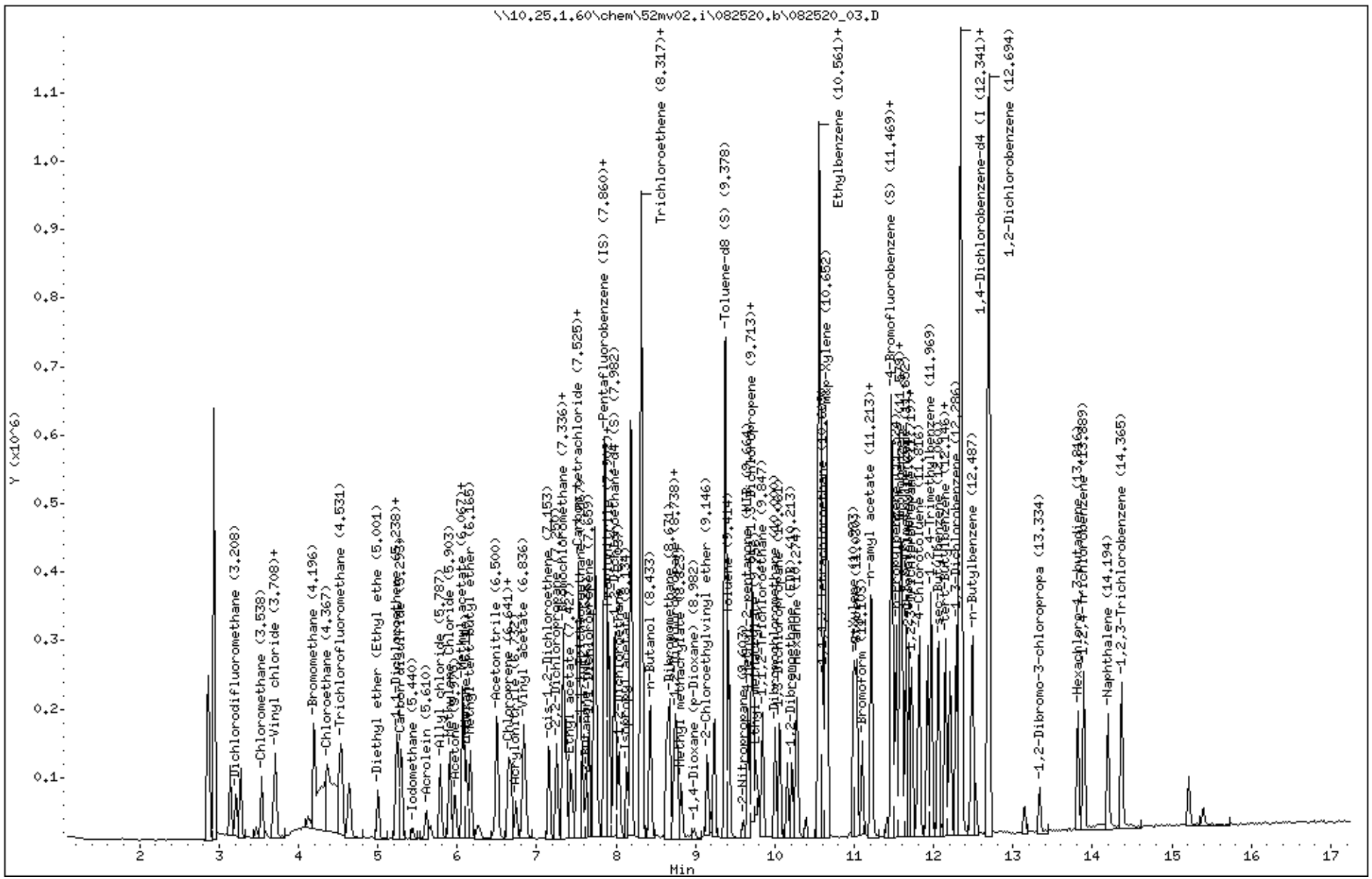
T - Target compound detected outside RT window.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\10.25.1.60\chem\52mv02.i\082520.b\082520_03.D
Date : 25-AUG-2020 11:08
Client ID: CCV
Sample Info: CCV,27136:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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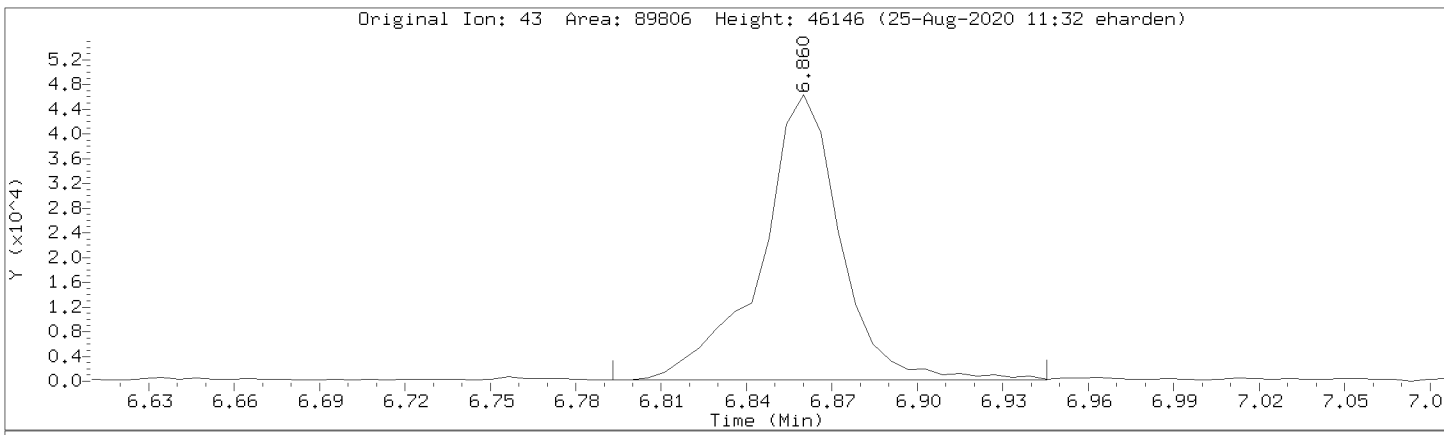
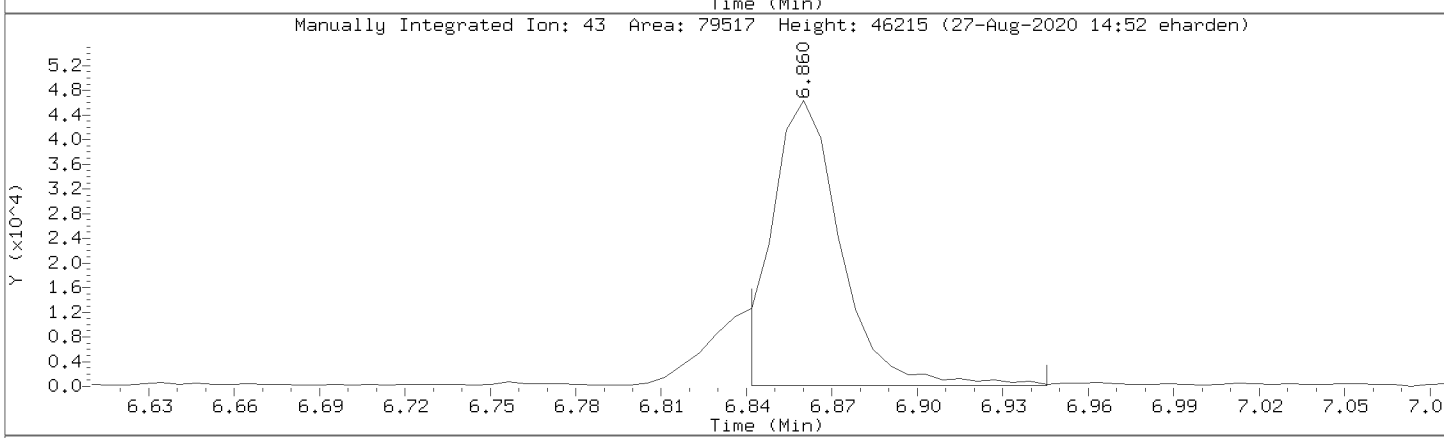
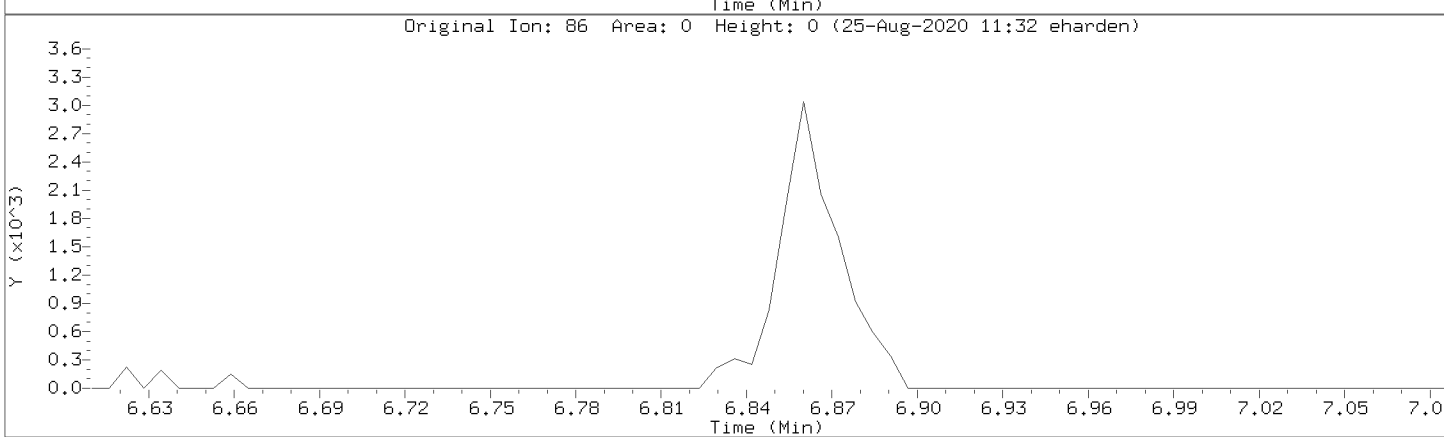
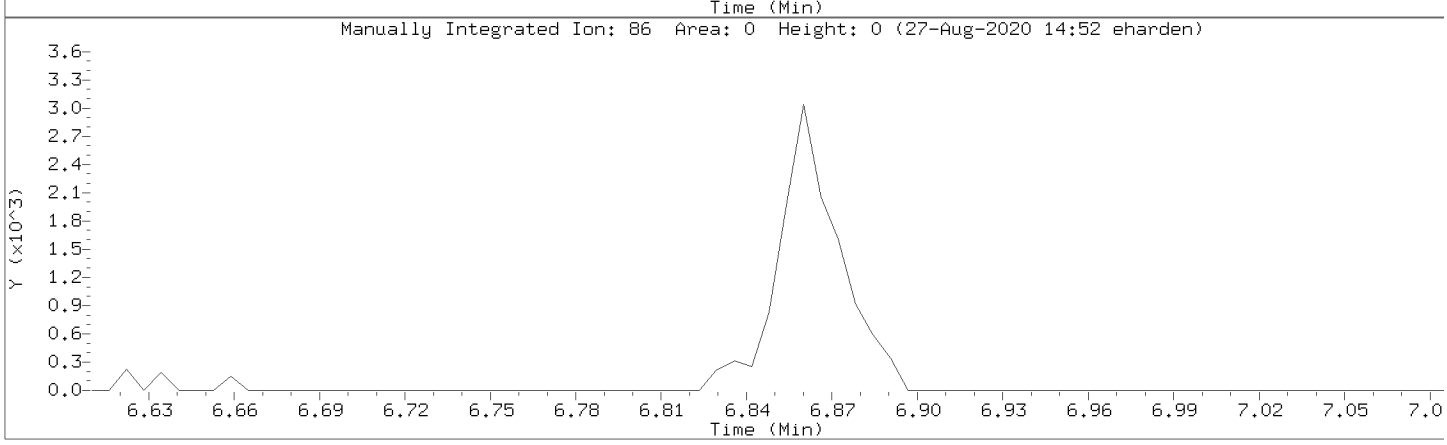
Injection Date: 25-AUG-2020 11:08
Instrument: 52mv02.i
Lab Sample ID: CCV

Compound: Vinyl acetate Review Code: CO
CAS Number: 108-05-4



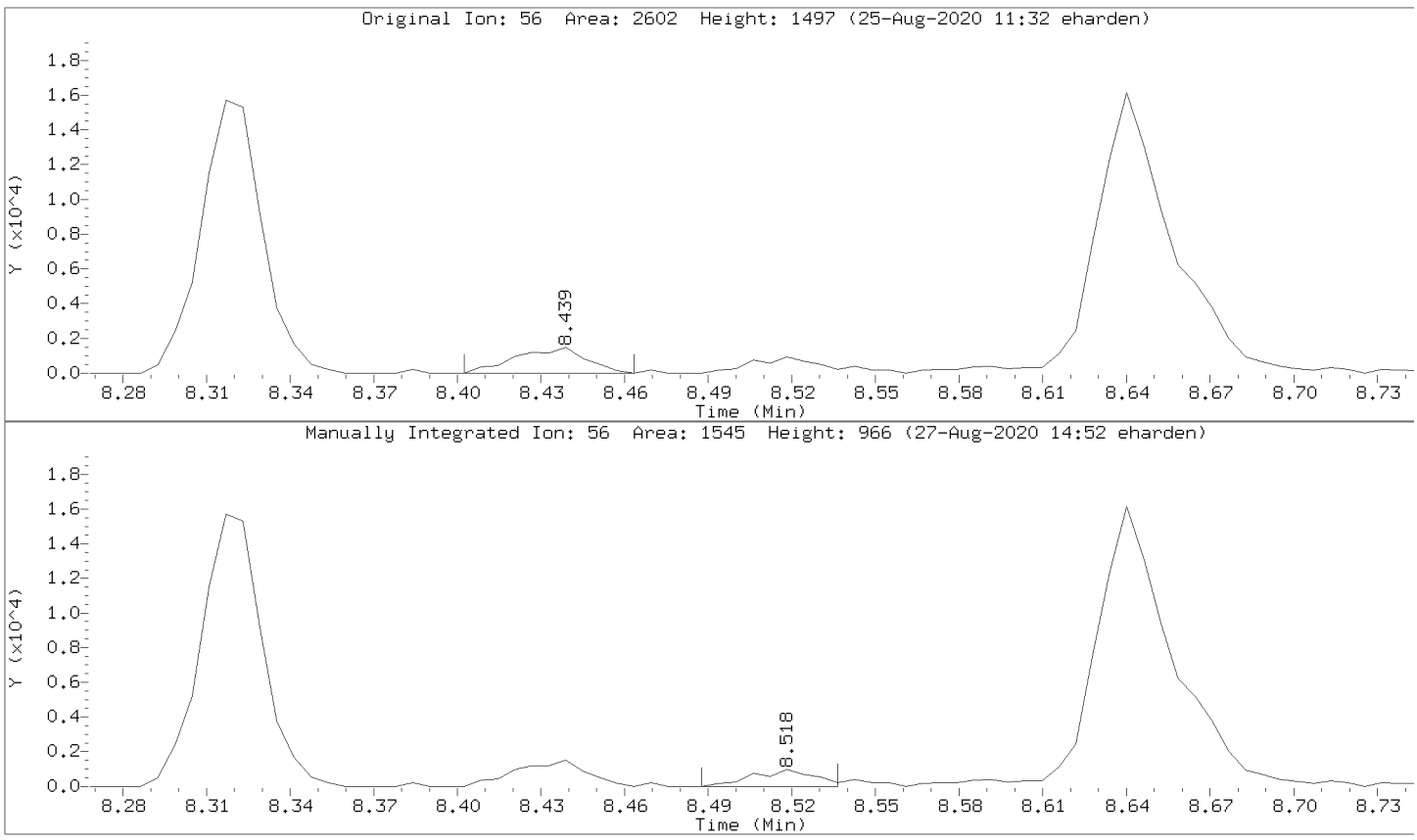






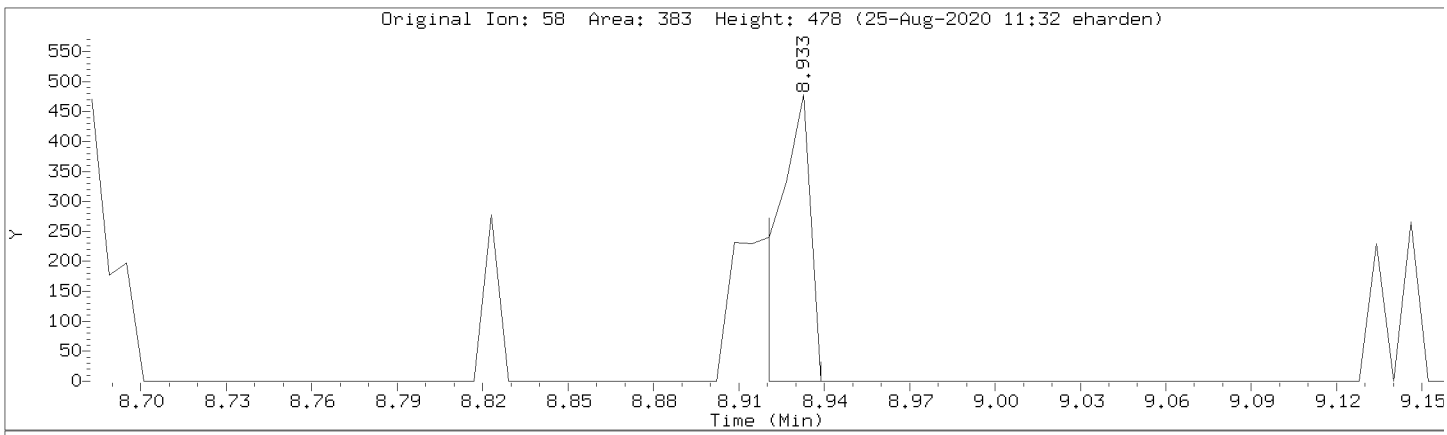
Data File: \\10.25.1.60\chem\52mv02.i\082520.b/082520_03.D
Injection Date: 25-AUG-2020 11:08
Instrument: 52mv02.i
Lab Sample ID: CCV

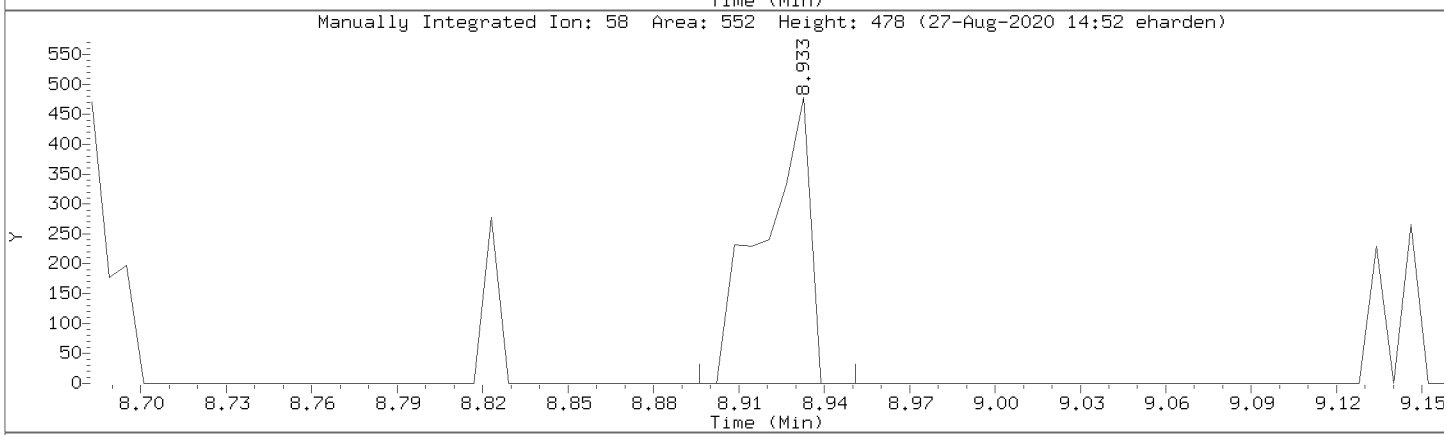
Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3

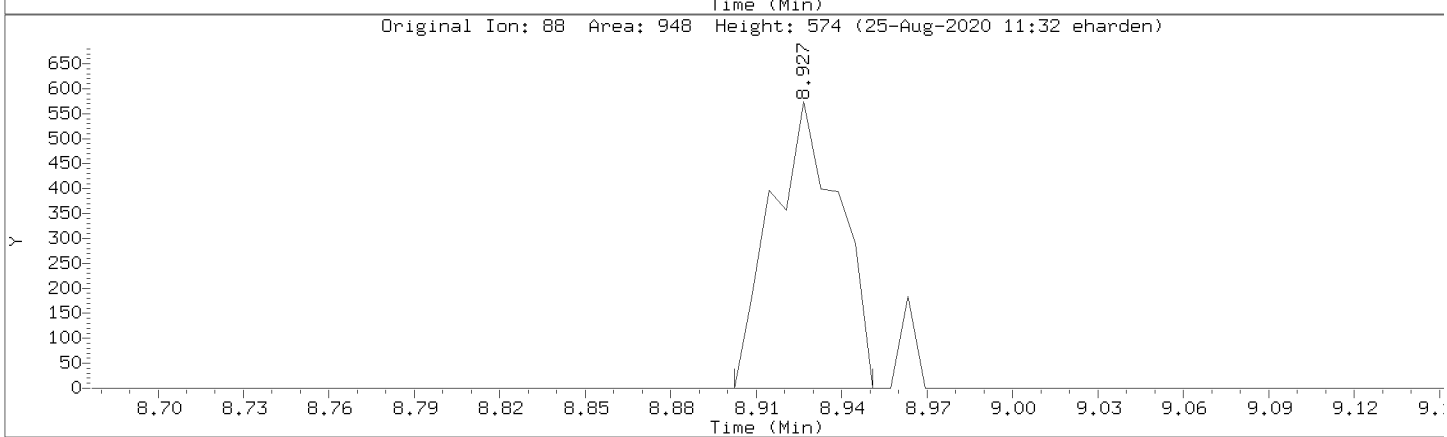


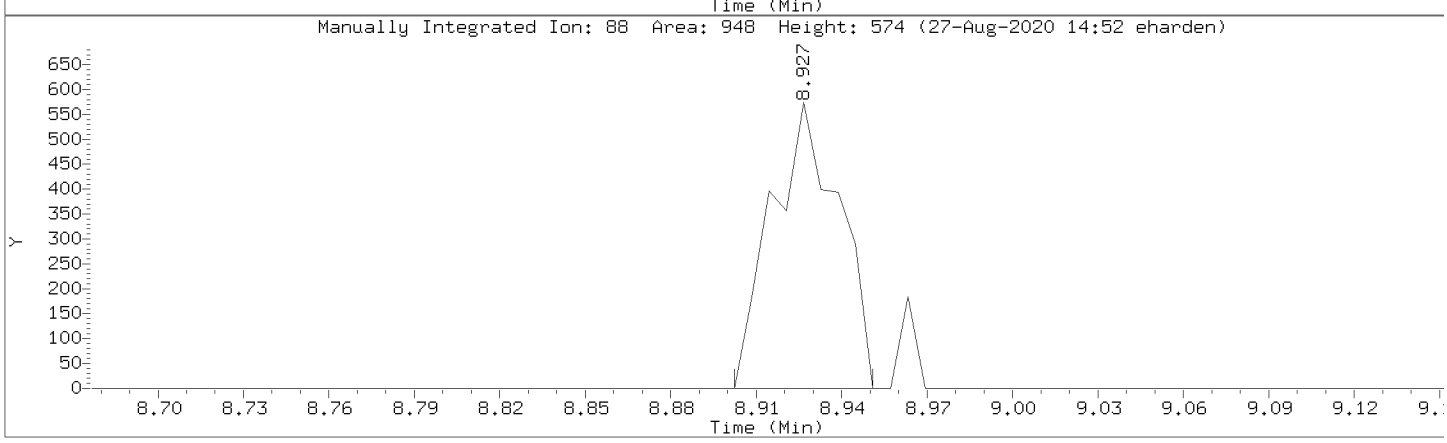
Data File: \\10.25.1.60\chem\52mv02.i\082520.b/082520_03.D
Injection Date: 25-AUG-2020 11:08
Instrument: 52mv02.i
Lab Sample ID: CCV

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1

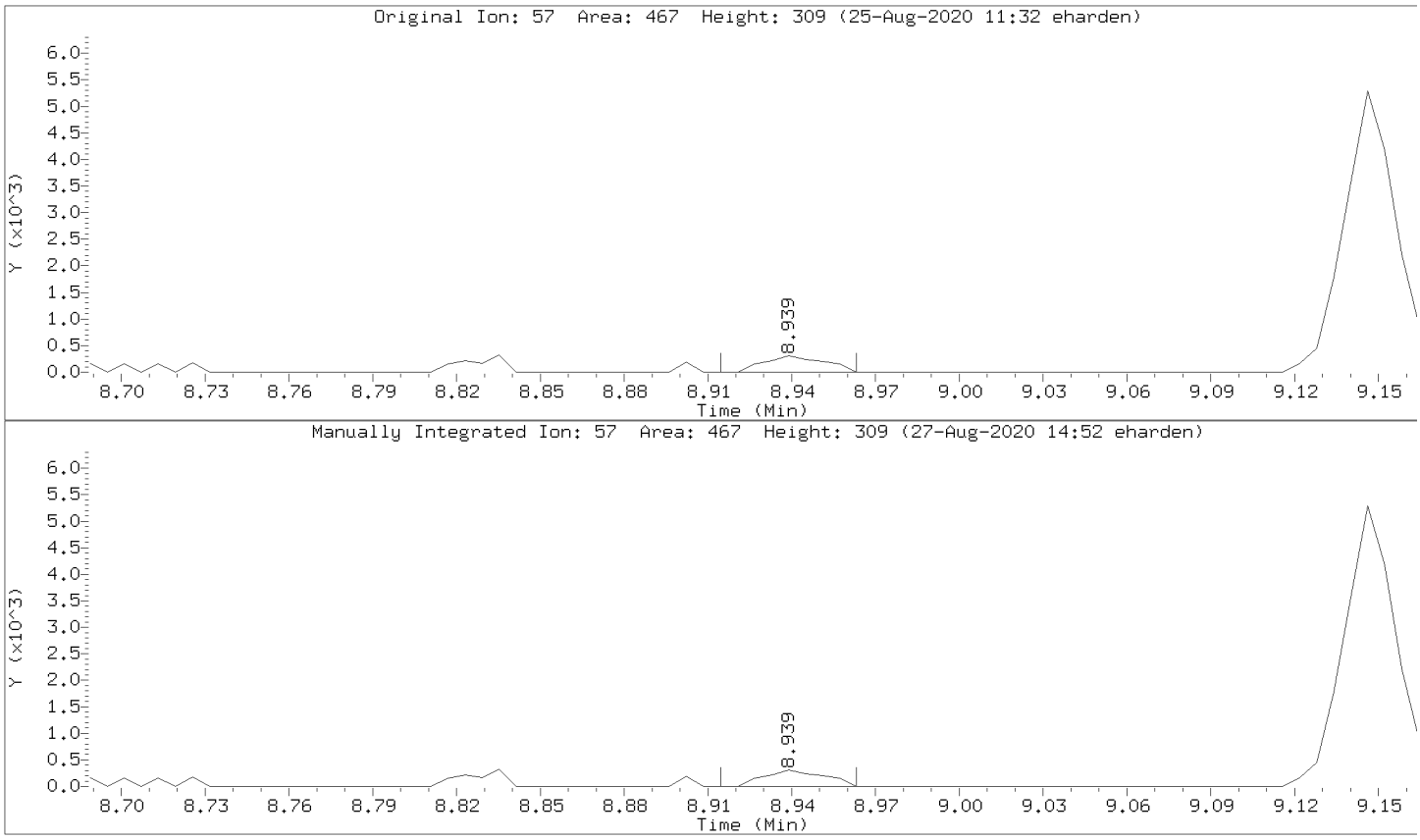






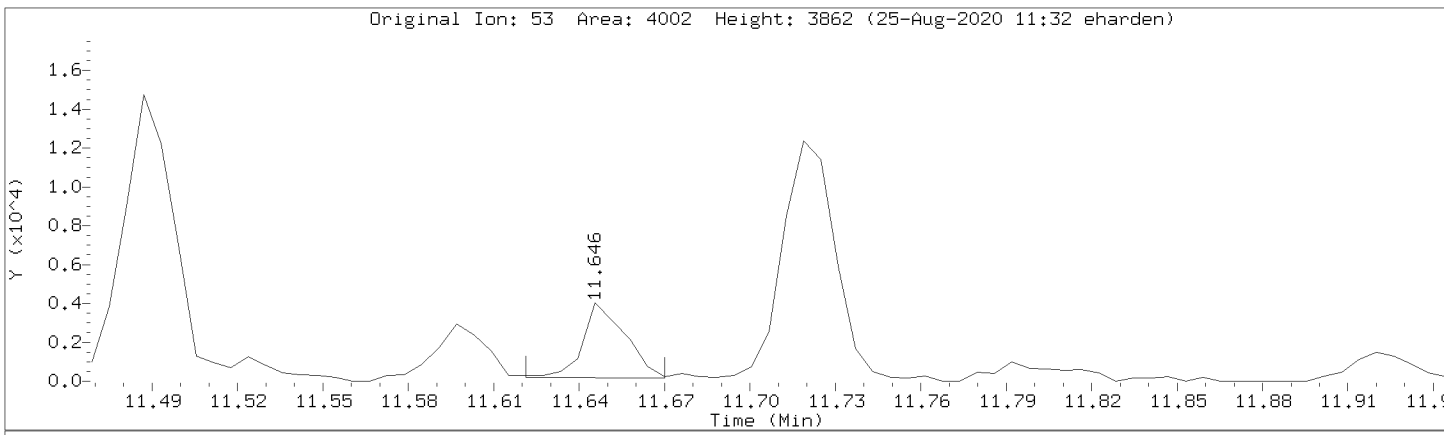


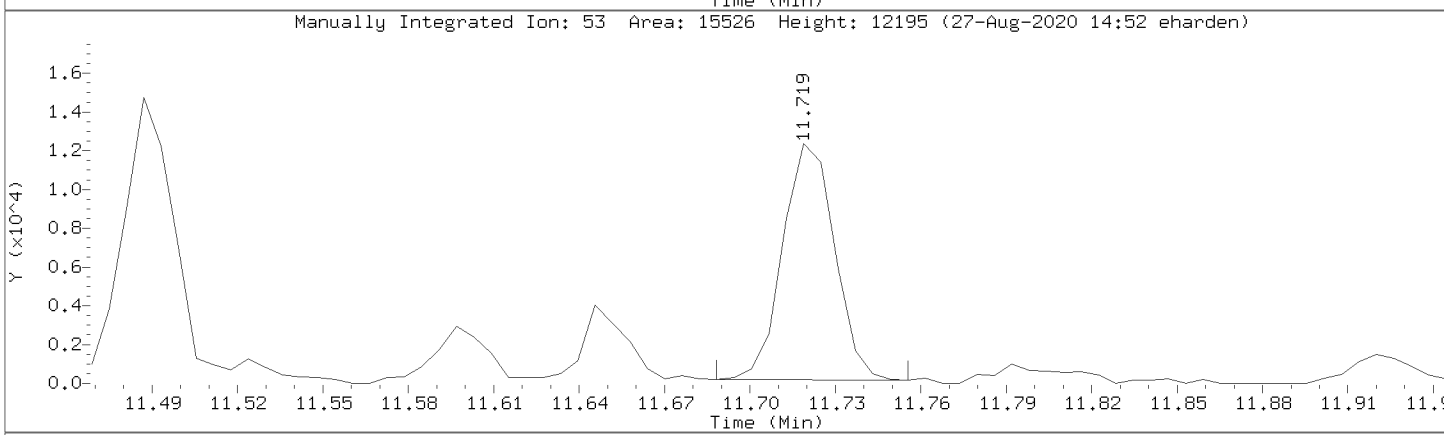
Data File: \\10.25.1.60\chem\52mv02.i\082520.b/082520_03.D
Injection Date: 25-AUG-2020 11:08
Instrument: 52mv02.i
Lab Sample ID: CCV

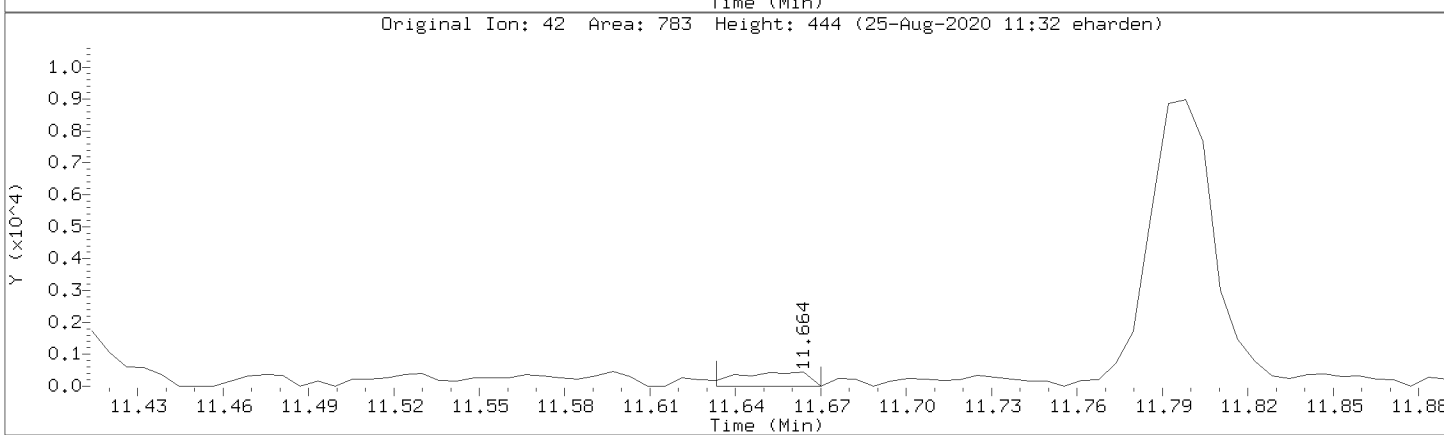


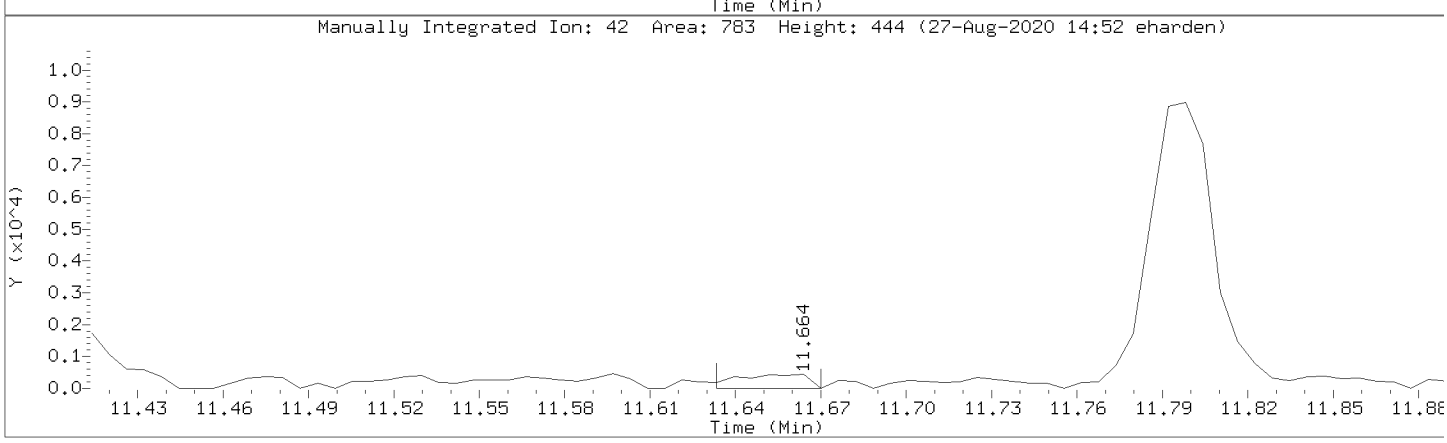
Data File: \\10.25.1.60\chem\52mv02.i\082520.b/082520_03.D
Injection Date: 25-AUG-2020 11:08
Instrument: 52mv02.i
Lab Sample ID: CCV

Compound: trans-1,4-Dichloro-2-butene Review Code: WP
CAS Number: 110-57-6

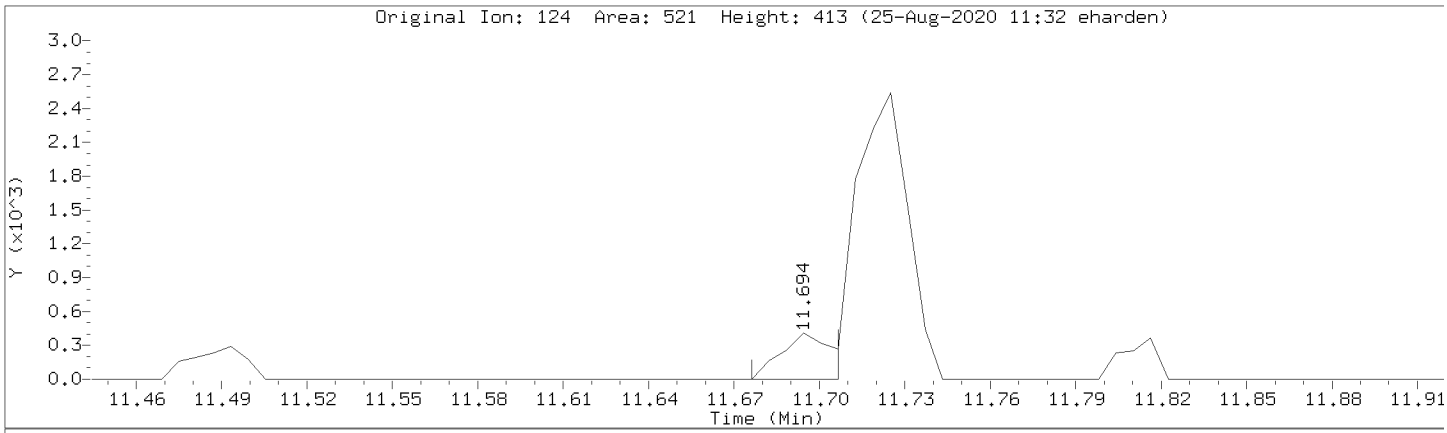


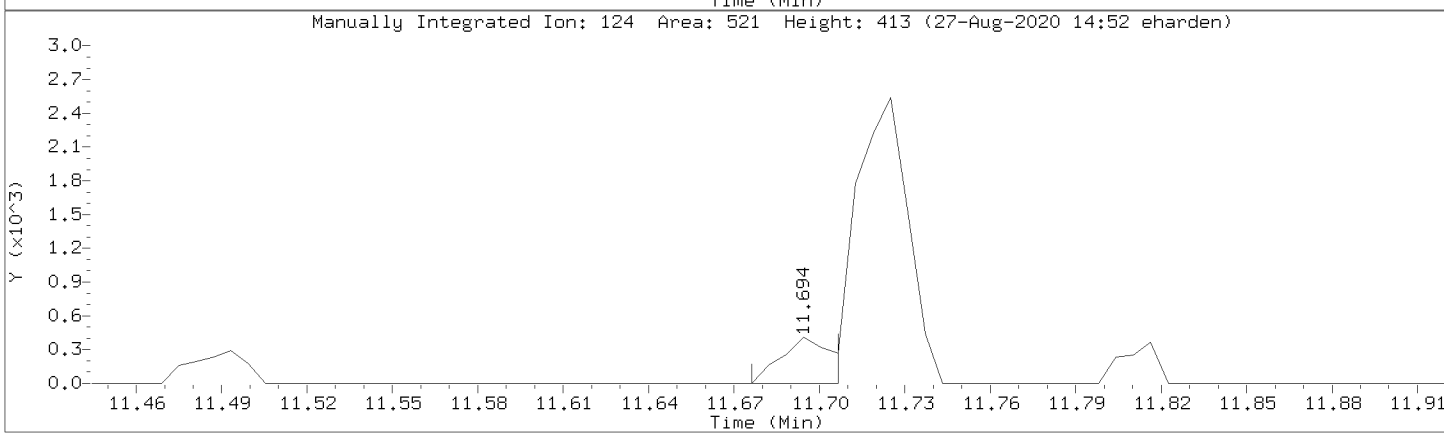






Data File: \\10.25.1.60\chem\52mv02.i\082520.b/082520_03.D
Injection Date: 25-AUG-2020 11:08
Instrument: 52mv02.i
Lab Sample ID: CCV





Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_01.D

Date : 20-AUG-2020 09:57

Client ID: BFB

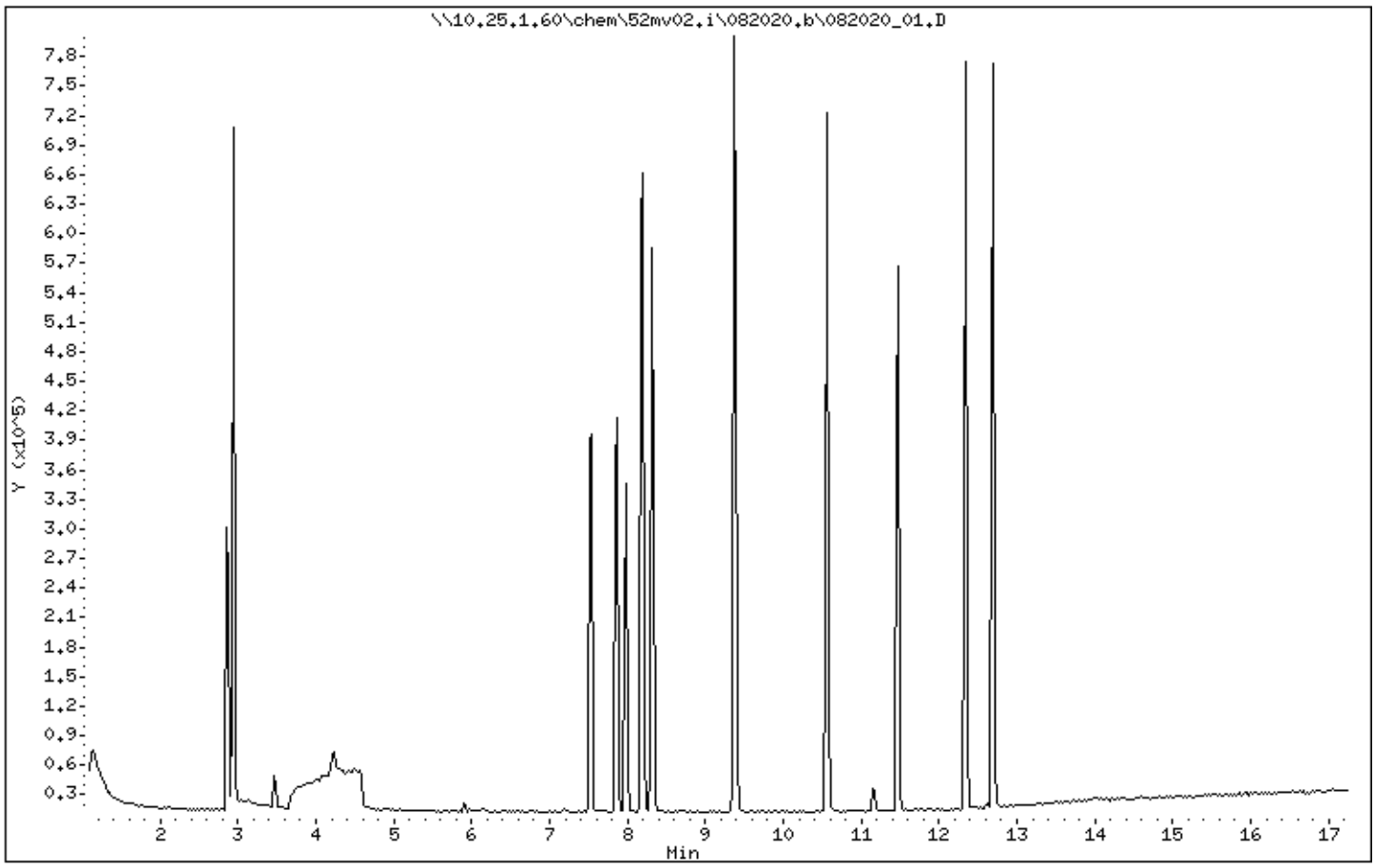
Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_01.D

Date : 20-AUG-2020 09:57

Client ID: BFB

Instrument: 52mv02.i

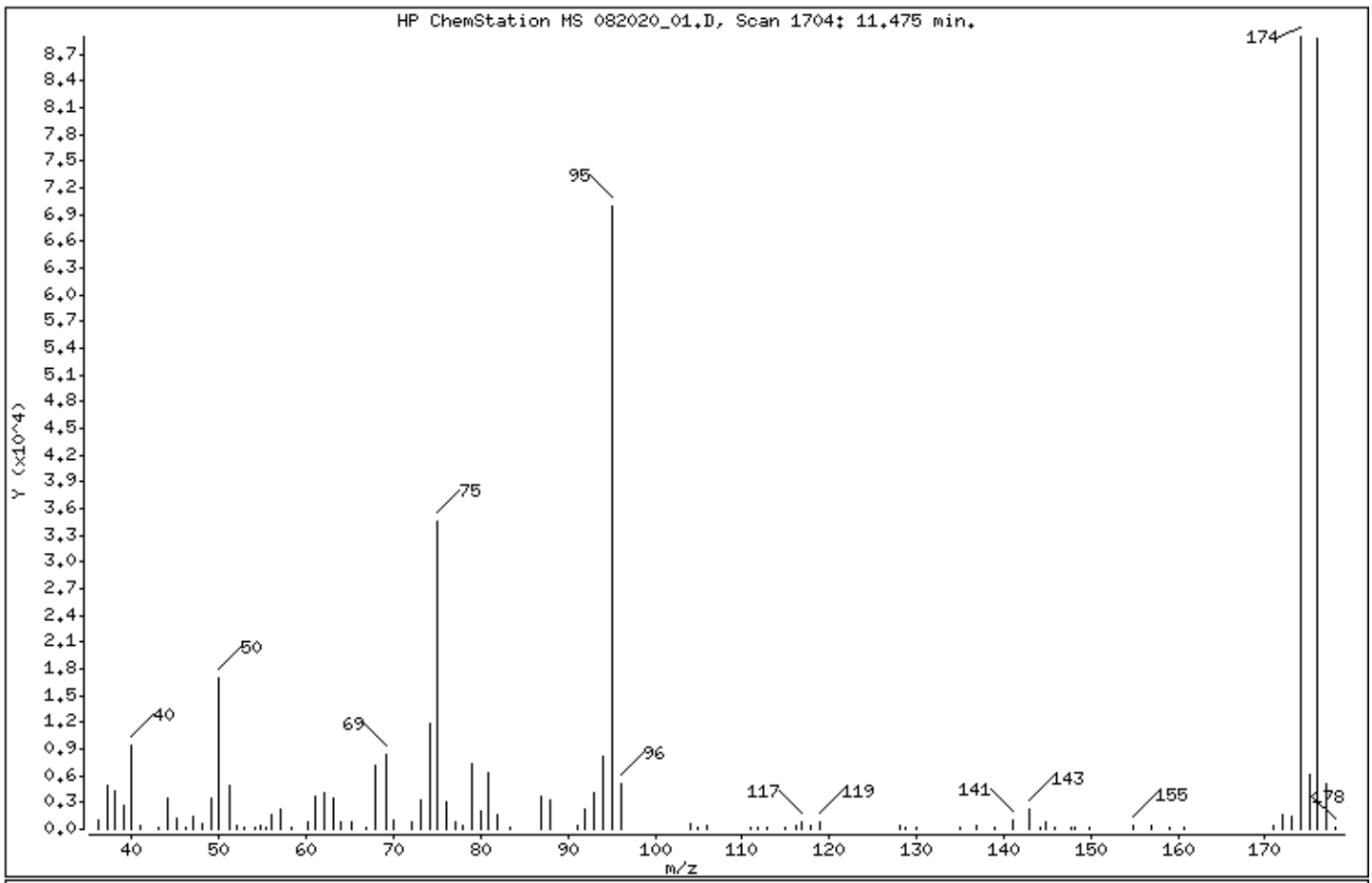
Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	24.30
75	30.00 - 60.00% of mass 95	49.31
96	5.00 - 9.00% of mass 95	7.36
173	Less than 2.00% of mass 174	2.18 (1.71)
174	Greater than 50.00% of mass 95	127.30
175	5.00 - 9.00% of mass 174	8.81 (6.92)
176	95.00 - 101.00% of mass 174	127.12 (99.86)
177	5.00 - 9.00% of mass 176	7.18 (5.65)

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_01.D

Date : 20-AUG-2020 09:57

Client ID: BFB

Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

Data File: 082020_01.D
Spectrum: HP ChemStation MS 082020_01.D, Scan 1704: 11.475 min.
Location of Maximum: 174.00
Number of points: 90

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	1098	60.10	905	87.90	3288	138.90	166
37.10	4897	61.10	3589	91.10	457	141.00	1123
38.10	4243	62.10	4175	92.00	2173	143.00	2215
39.00	2667	63.10	3523	93.00	4038	144.20	186
40.00	9368	63.90	778	94.10	8248	144.90	869
40.90	361	65.10	918	95.10	69920	145.90	188
43.00	292	66.90	193	96.10	5147	147.80	240
44.10	3452	68.00	7096	104.00	555	148.20	197
45.10	1204	69.10	8359	105.00	169	149.80	174
46.10	287	70.10	938	105.90	381	154.80	333
47.00	1467	72.00	732	110.90	175	156.90	307
48.00	627	73.10	3315	111.90	187	159.00	184
49.10	3548	74.10	11905	112.90	178	160.80	185
50.00	16992	75.10	34480	115.00	269	171.00	332
51.10	4943	76.00	3077	116.10	308	172.00	1687
52.00	318	77.10	845	116.90	765	173.00	1525
52.90	284	77.90	421	117.90	509	174.00	89008
54.10	194	78.90	7291	118.90	747	175.10	6163
54.80	315	80.00	1995	128.10	499	176.00	88880
55.30	249	80.90	6439	128.80	229	177.00	5023
56.10	1661	82.00	1621	130.00	283	178.10	199
57.10	2297	83.30	177	134.90	164		
58.20	201	87.00	3615	136.90	329		

Data File: \\10.25.1.60\chem\52mv02.i\082520.b\082520_03TUNE.D

Date : 25-AUG-2020 11:08

Client ID: BFB

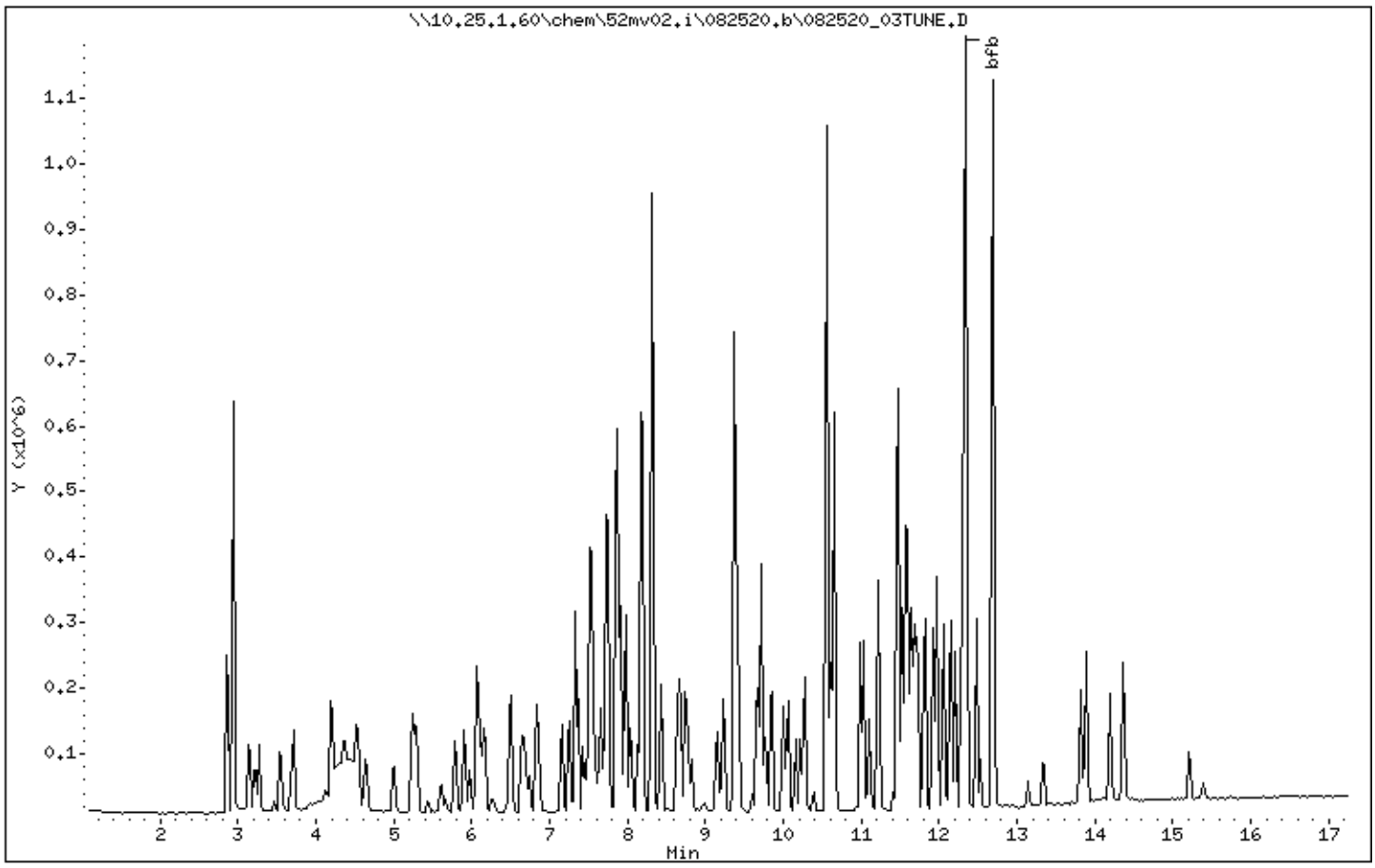
Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082520.b\082520_03TUNE.D

Date : 25-AUG-2020 11:08

Client ID: BFB

Instrument: 52mv02.i

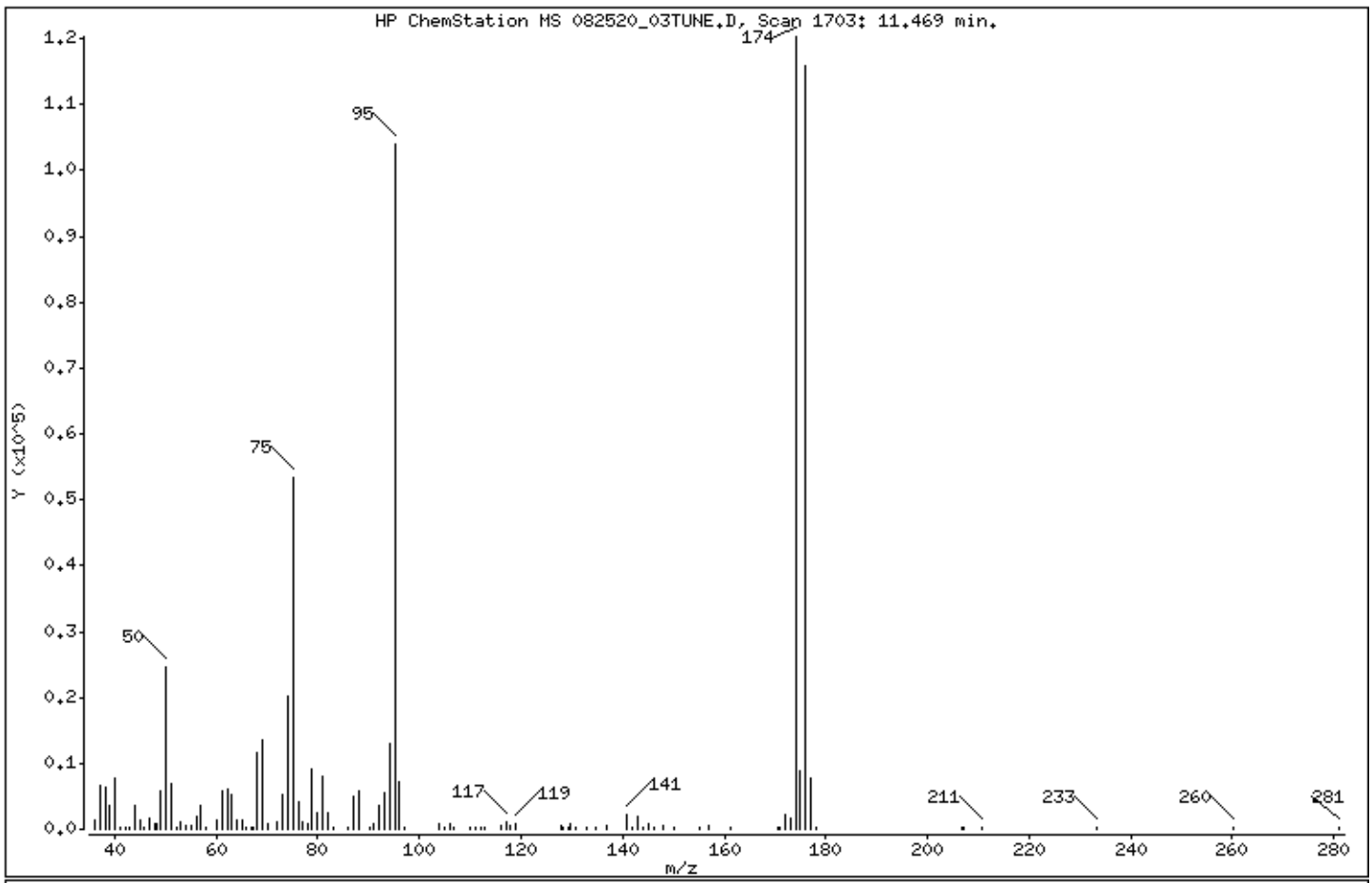
Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.70
75	30.00 - 60.00% of mass 95	51.42
96	5.00 - 9.00% of mass 95	6.87
173	Less than 2.00% of mass 174	1.66 (1.43)
174	Greater than 50.00% of mass 95	115.61
175	5.00 - 9.00% of mass 174	8.45 (7.31)
176	95.00 - 101.00% of mass 174	111.29 (96.26)
177	5.00 - 9.00% of mass 176	7.40 (6.65)

Data File: \\10.25.1.60\chem\52mv02.i\082520.b\082520_03TUNE.D

Date : 25-AUG-2020 11:08

Client ID: BFB

Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

Data File: 082520_03TUNE.D
Spectrum: HP ChemStation MS 082520_03TUNE.D, Scan 1703: 11.469 min.
Location of Maximum: 174.00
Number of points: 105

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1383	63.00	5245	93.10	5522	143.00	1900
37.10	6750	64.10	1458	94.10	13025	143.90	151
38.10	6487	65.00	1330	95.10	104072	145.10	858
39.10	3616	66.00	344	96.10	7153	146.00	164
40.00	7850	66.90	209	97.00	344	147.90	463
41.10	368	67.10	194	104.00	749	150.10	168
42.10	327	68.00	11698	105.00	338	155.10	378
43.00	267	69.10	13498	106.00	951	157.00	452
44.00	3577	70.10	954	106.80	211	161.10	236
45.10	1322	72.10	973	110.00	294	170.60	319
45.90	252	73.10	5173	111.10	180	171.00	344
46.90	1732	74.10	20088	112.00	240	171.90	2219
47.80	773	75.10	53512	113.00	161	173.00	1724
48.20	825	76.10	4067	116.00	447	174.00	120320
49.10	5702	77.10	1243	117.00	1109	175.00	8793
50.10	24664	77.90	793	118.00	596	176.00	115824
51.10	6987	78.90	9074	118.90	937	177.00	7698
52.10	401	80.00	2400	127.80	491	178.00	215
53.10	997	81.00	7943	128.20	257	206.80	164
54.10	503	82.00	2473	129.20	212	207.30	221
55.00	449	83.20	290	129.80	720	210.80	258
56.00	2022	86.10	207	130.90	192	233.20	256
57.00	3732	87.00	5061	133.00	157	260.20	265
58.10	195	88.00	5826	134.80	196	281.10	168
60.00	1445	90.20	248	137.00	567		
61.10	5943	90.90	755	140.90	2192		
62.10	6112	92.10	3630	142.00	251		

SAMPLE NO.

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MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249198
Date Extracted: 08/25/2020 10:12
Lab Sample ID: 204024
Date Analyzed: 08/25/2020 12:23
Lab File ID: 082520.B\082520_06.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	2.9	J
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

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MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249198
Date Extracted: 08/25/2020 10:12
Lab Sample ID: 204024
Date Analyzed: 08/25/2020 12:23
Lab File ID: 082520.B\082520_06.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082520.b\082520_06.D
Lab Smp Id: 204024 Client Smp ID: MB
Inj Date : 25-AUG-2020 12:23
Operator : EAH Inst ID: 52mv02.i
Smp Info : 204024,
Misc Info : 2977,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082520.b\8260BSM_082020.m
Meth Date : 25-Aug-2020 11:32 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	123639	55.9925	56.0	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.860	7.859	(1.000)	191786	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	22107	55.6526	55.6	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	347	0.11575	0.116	
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	274571	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.378	9.377	(1.128)	287079	48.5702	48.6	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	239816	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.469	11.468	(1.086)	92614	47.0565	47.0	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	133468	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

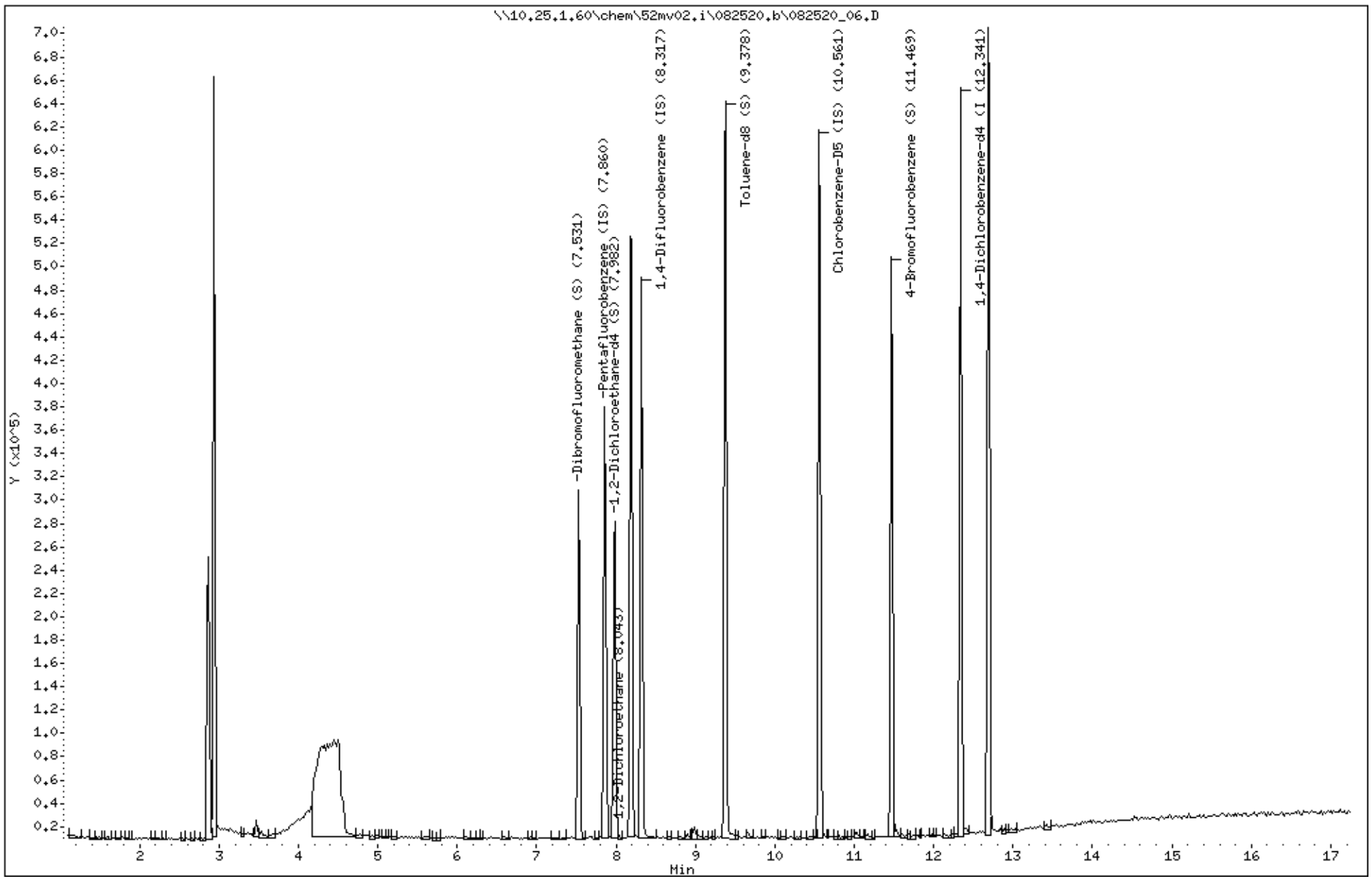
Data File: \\10.25.1.60\chem\52mv02.i\082520.b\082520_06.D
Date : 25-AUG-2020 12:23
Client ID: MB
Sample Info: 204024,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082520.b/082520_06.D
Injection Date: 25-AUG-2020 12:23
Instrument: 52mv02.i
Lab Sample ID: 204024
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LCS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249198
Date Extracted: 08/25/2020 10:12
Lab Sample ID: 204025
Date Analyzed: 08/25/2020 11:08
Lab File ID: 082520.B\082520_03B2977.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	1050	
75-05-8	Acetonitrile	1530	
107-02-8	Acrolein	884	
107-13-1	Acrylonitrile	971	
71-43-2	Benzene	494	
108-86-1	Bromobenzene	474	
74-97-5	Bromochloromethane	487	
75-27-4	Bromodichloromethane	539	
75-25-2	Bromoform	481	
74-83-9	Bromomethane	612	
78-93-3	2-Butanone (MEK)	963	
104-51-8	n-Butylbenzene	445	
135-98-8	sec-Butylbenzene	400	
98-06-6	tert-Butylbenzene	369	
75-15-0	Carbon disulfide	460	
56-23-5	Carbon tetrachloride	550	
108-90-7	Chlorobenzene	473	
75-00-3	Chloroethane	664	
67-66-3	Chloroform	486	
74-87-3	Chloromethane	520	
95-49-8	2-Chlorotoluene	441	
106-43-4	4-Chlorotoluene	437	
96-12-8	1,2-Dibromo-3-chloropropane	416	
124-48-1	Dibromochloromethane	514	
106-93-4	1,2-Dibromoethane (EDB)	485	
74-95-3	Dibromomethane	517	
95-50-1	1,2-Dichlorobenzene	435	
541-73-1	1,3-Dichlorobenzene	456	
106-46-7	1,4-Dichlorobenzene	448	
75-71-8	Dichlorodifluoromethane	475	
75-34-3	1,1-Dichloroethane	488	
107-06-2	1,2-Dichloroethane	471	
75-35-4	1,1-Dichloroethene	471	
156-59-2	cis-1,2-Dichloroethene	473	
156-60-5	trans-1,2-Dichloroethene	457	
78-87-5	1,2-Dichloropropane	494	
142-28-9	1,3-Dichloropropane	514	

SAMPLE NO.

LCS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249198
Date Extracted: 08/25/2020 10:12
Lab Sample ID: 204025
Date Analyzed: 08/25/2020 11:08
Lab File ID: 082520.B\082520_03B2977.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	498	
563-58-6	1,1-Dichloropropene	485	
10061-01-5	cis-1,3-Dichloropropene	497	
10061-02-6	trans-1,3-Dichloropropene	498	
141-78-6	Ethyl acetate	875	
100-41-4	Ethylbenzene	458	
591-78-6	2-Hexanone	1110	
98-82-8	Isopropylbenzene (Cumene)	391	
99-87-6	p-Isopropyltoluene	369	
75-09-2	Methylene Chloride	471	
108-10-1	4-Methyl-2-pentanone (MIBK)	937	
1634-04-4	Methyl-tert-butyl ether	450	
91-20-3	Naphthalene	336	
103-65-1	n-Propylbenzene	467	
100-42-5	Styrene	379	
630-20-6	1,1,1,2-Tetrachloroethane	498	
79-34-5	1,1,2,2-Tetrachloroethane	495	
127-18-4	Tetrachloroethene	500	
108-88-3	Toluene	497	
87-61-6	1,2,3-Trichlorobenzene	417	
120-82-1	1,2,4-Trichlorobenzene	401	
71-55-6	1,1,1-Trichloroethane	524	
79-00-5	1,1,2-Trichloroethane	471	
79-01-6	Trichloroethene	512	
75-69-4	Trichlorofluoromethane	557	
96-18-4	1,2,3-Trichloropropane	489	
95-63-6	1,2,4-Trimethylbenzene	403	
108-67-8	1,3,5-Trimethylbenzene	459	
108-05-4	Vinyl acetate	471	
75-01-4	Vinyl chloride	465	
1330-20-7	Xylene (Total)	1260	

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082520.b\082520_03B2977.D
Lab Smp Id: 204025 Client Smp ID: MBLCS
Inj Date : 25-AUG-2020 11:08
Operator : EAH Inst ID: 52mv02.i
Smp Info : 204025,
Misc Info : 2977,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082520.b\8260BSM_082020.m
Meth Date : 25-Aug-2020 11:32 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.214	(0.409)	55520	19.0122	19.0	
2 Chloromethane	50	3.537	3.537	(0.450)	72802	20.7962	20.8	
3 Vinyl chloride	62	3.683	3.683	(0.469)	53476	18.6065	18.6	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	41855	16.2867	16.3	
5 Bromomethane	94	4.195	4.195	(0.534)	56956	24.4889	24.5	
6 Chloroethane	64	4.360	4.360	(0.555)	21588	26.5487	26.5	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	40730	22.2913	22.3	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	18045	17.9216	17.9	
9 1,1-Dichloroethene	61	5.238	5.238	(0.666)	61200	18.8367	18.8	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	42170	19.6749	19.7	
11 Carbon disulfide	76	5.293	5.293	(0.673)	132347	18.4059	18.4	
12 Iodomethane	142	5.439	5.439	(0.692)	16207	13.7401	13.7	
13 Acrolein	56	5.659	5.659	(0.720)	11854	35.3425	35.3	
14 Allyl chloride	76	5.780	5.780	(0.736)	17154	17.1604	17.2	
15 Methylene Chloride	49	5.902	5.902	(0.751)	72684	18.8312	18.8	
16 Acetone	43	5.963	5.963	(0.759)	81032	42.0382	42.0	
17 Methyl acetate	43	6.067	6.067	(0.772)	87547	38.8746	38.9	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	40095	18.2683	18.3	
19 n-Hexane	86	6.110	6.110	(0.777)	4096	17.6117	17.6	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	92087	17.9927	18.0	
21 Acetonitrile	41	6.457	6.457	(0.822)	12480	61.0074	61.0	
22 Chloroprene	53	6.640	6.640	(0.845)	55796	18.2366	18.2	
23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	83209	19.5100	19.5	
24 Acrylonitrile	53	6.738	6.738	(0.857)	35974	38.8228	38.8	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
25 Vinyl acetate	43	6.860	6.860	(0.873)	79517	18.8480	18.8(TM)	CO
26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	59431	18.9080	18.9	
27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	65528	19.9186	19.9	
28 Bromochloromethane	128	7.335	7.335	(0.933)	26746	19.4685	19.5	
29 Cyclohexane	56	7.335	7.335	(0.882)	50060	18.6072	18.6	
30 Chloroform	83	7.372	7.372	(0.938)	93714	19.4325	19.4	
31 Ethyl acetate	43	7.426	7.426	(0.945)	95329	35.0154	35.0	
32 Carbon tetrachloride	117	7.512	7.512	(0.903)	69990	21.9863	22.0	
33 Tetrahydrofuran	42	7.536	7.536	(0.959)	24537	34.9137	34.9	
$ 34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	139006	49.8424	49.8(R)	
35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	75562	20.9492	20.9	
36 2-Butanone (MEK)	43	7.622	7.622	(0.970)	80089	38.5185	38.5	
37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	48635	19.4127	19.4	
* 38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	242229	50.0000		
39 Benzene	78	7.872	7.872	(0.946)	159694	19.7474	19.7	
40 Propionitrile	54	7.890	7.890	(1.004)	14760	35.7553	35.8	
41 Methacrylonitrile	41	7.902	7.902	(1.005)	80137	38.1602	38.2	
42 Isobutanol	43	Compound Not Detected.						(D)
$ 43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25666	51.1569	51.2(R)	
44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	71376	18.8514	18.8	
45 Isopropyl acetate	43	8.134	8.134	(1.035)	84710	18.7842	18.8	
46 Trichloroethene	130	8.317	8.317	(1.000)	45263	20.4718	20.5	
* 47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	316188	50.0000		
48 Methylcyclohexane	98	8.323	8.323	(1.001)	21018	20.0570	20.0	
49 n-Butanol	56	8.518	8.518	(1.024)	1545	31.9694	32.0(M)	WP
50 Dibromomethane	93	8.670	8.670	(1.043)	38947	20.6803	20.7	
51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	45589	19.7454	19.7	
52 Bromodichloromethane	83	8.768	8.768	(1.054)	71525	21.5736	21.6	
53 Methyl methacrylate	69	8.823	8.823	(1.061)	21898	16.8153	16.8	
54 1,4-Dioxane (p-Dioxane)	58	8.932	8.932	(1.074)	552	28.3594	28.4(M)	LT
55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	35313	30.7701	30.8	
56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	64058	19.8684	19.9	
$ 57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	346333	50.8829	50.9(R)	
58 Toluene	91	9.414	9.414	(1.132)	156767	19.8830	19.9	
59 2-Nitropropane	43	9.603	9.603	(1.155)	12312	15.3626	15.4	
60 4-Methyl-2-pentanone (MIBK)	100	9.670	9.670	(1.163)	8483	37.4892	37.5	
61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	64058	19.9078	19.9	
62 Tetrachloroethene	164	9.719	9.719	(0.920)	41603	20.0055	20.0	
63 Ethyl methacrylate	69	9.755	9.755	(1.173)	39886	16.1163	16.1	
64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	37619	18.8269	18.8	
65 Dibromochloromethane	129	9.999	9.999	(0.947)	59301	20.5777	20.6	
66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	62708	20.5756	20.6	
67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	47942	19.3965	19.4	
68 2-Hexanone	43	10.273	10.273	(1.235)	118947	44.5611	44.6	
69 Ethylbenzene	91	10.554	10.554	(0.999)	145281	18.3270	18.3	
* 70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	303010	50.0000		
71 Chlorobenzene	112	10.572	10.572	(1.001)	110554	18.9111	18.9	
72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	49176	19.9163	19.9	
73 m&p-Xylene	91	10.651	10.651	(1.009)	241983	35.1503	35.2	
74 o-Xylene	106	10.993	10.993	(1.041)	48069	15.1010	15.1	
75 Styrene	104	11.029	11.029	(1.044)	83992	15.1762	15.2	
76 Bromoform	173	11.103	11.103	(1.051)	52691	19.2448	19.2	
77 n-amyl acetate	43	11.218	11.218	(1.062)	78027	16.4630	16.5	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	119260	47.9578	48.0(R)	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	18353	18.4464	18.4	
80 n-Propylbenzene	91	11.529	11.529	(1.092)	181453	18.6683	18.7	
81 Bromobenzene	156	11.578	11.578	(1.096)	58120	18.9573	19.0	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	64155	19.7893	19.8	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	120918	18.3598	18.4	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	40250	17.6220	17.6	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	40247	17.4720	17.5	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	127589	15.6547	15.6	
87 1,2,3-Trichloropropane	75	11.718	11.718	(1.110)	66254	19.5497	19.5	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	15526	19.8986	19.9(M)	WP
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	110727	14.7671	14.8	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	122178	16.1152	16.1	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	143573	15.9804	16.0	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	110727	14.7671	14.8	
94 1,3-Dichlorobenzene	146	12.285	12.285	(0.996)	96785	18.2299	18.2	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	199456	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	107429	17.9340	17.9	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	123722	17.8008	17.8	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	100900	17.3921	17.4	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	10844	16.6245	16.6	
100 Hexachloro-1,3-butadiene	225	13.815	13.815	(1.120)	30975	17.4189	17.4	
101 1,2,4-Trichlorobenzene	180	13.889	13.889	(1.125)	62986	16.0342	16.0	
102 Naphthalene	128	14.193	14.193	(1.150)	101704	13.4543	13.4	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	60896	16.6767	16.7	

QC Flag Legend

T - Target compound detected outside RT window.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

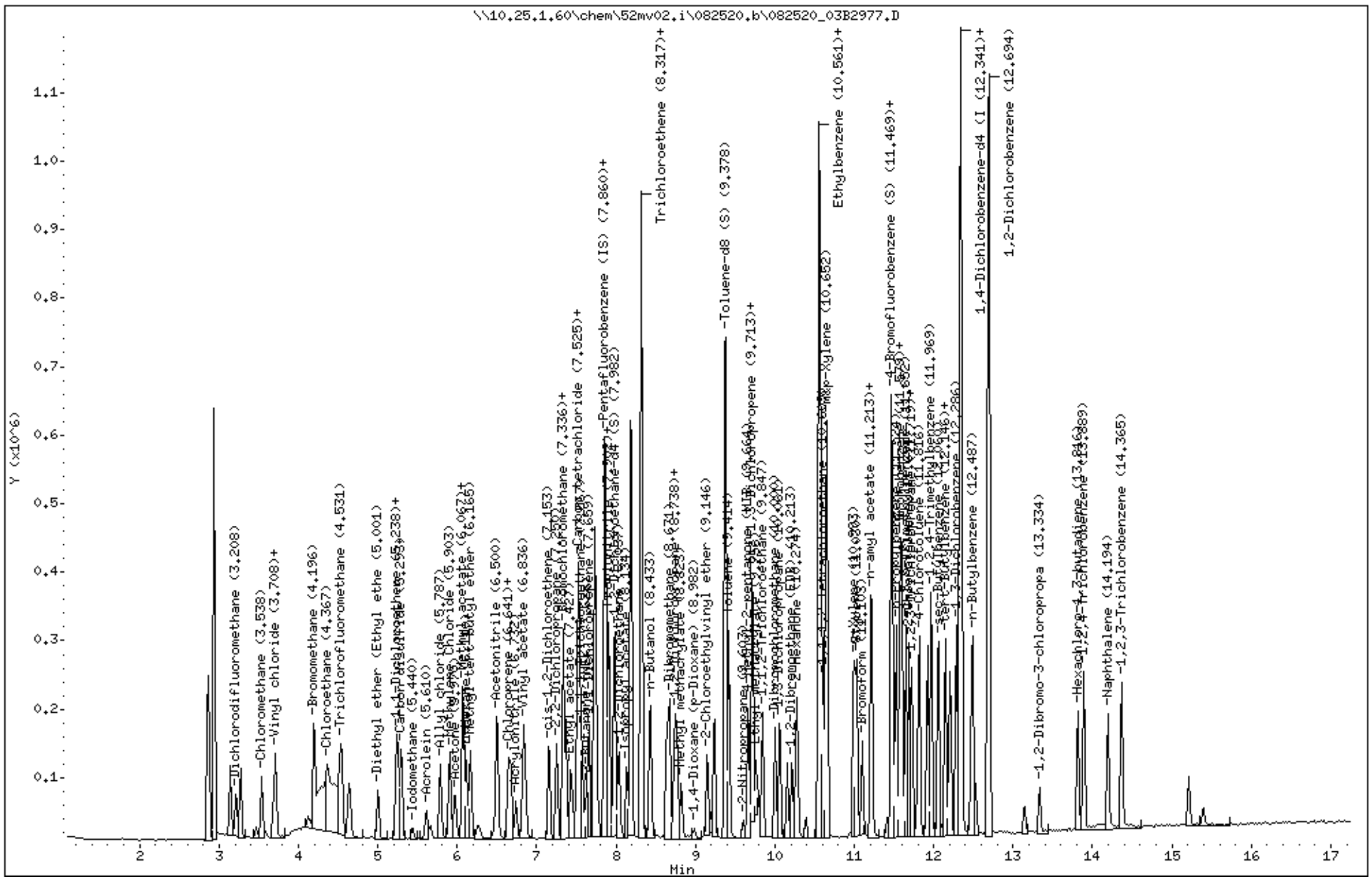
Data File: \\10.25.1.60\chem\52mv02.i\082520.b\082520_03B2977.D
Date : 25-AUG-2020 11:08
Client ID: MBLCS
Sample Info: 204025,

Instrument: 52mv02.i

Operator: EAH

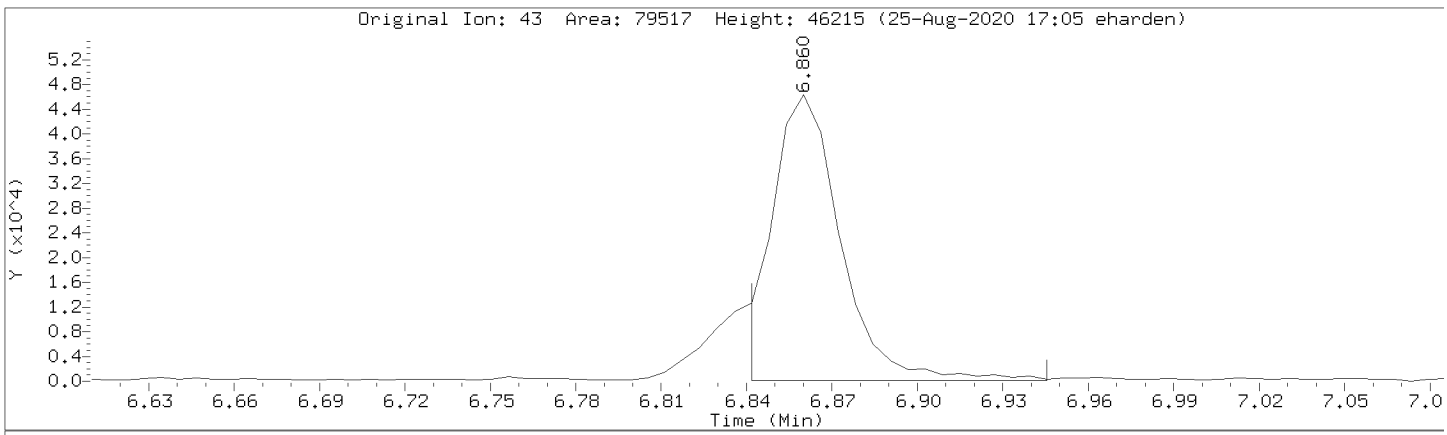
Column phase: RTX-VMS

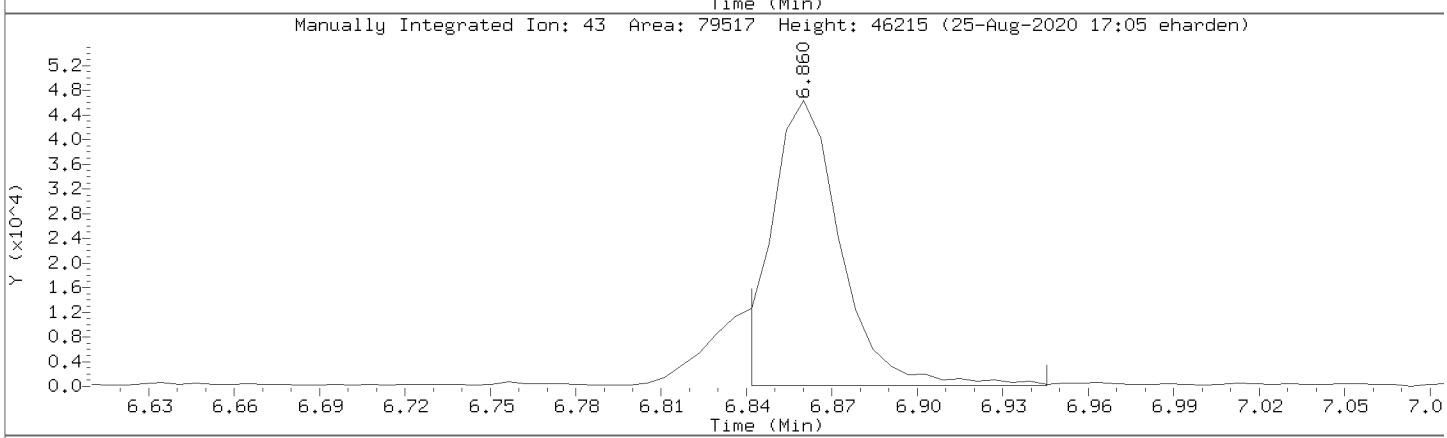
Column diameter: 0.18

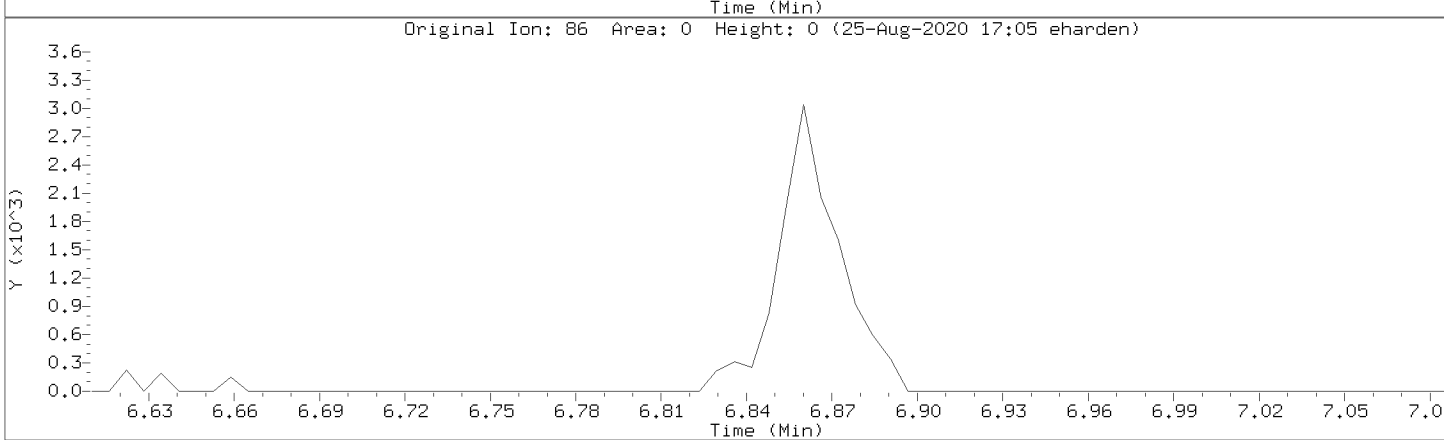


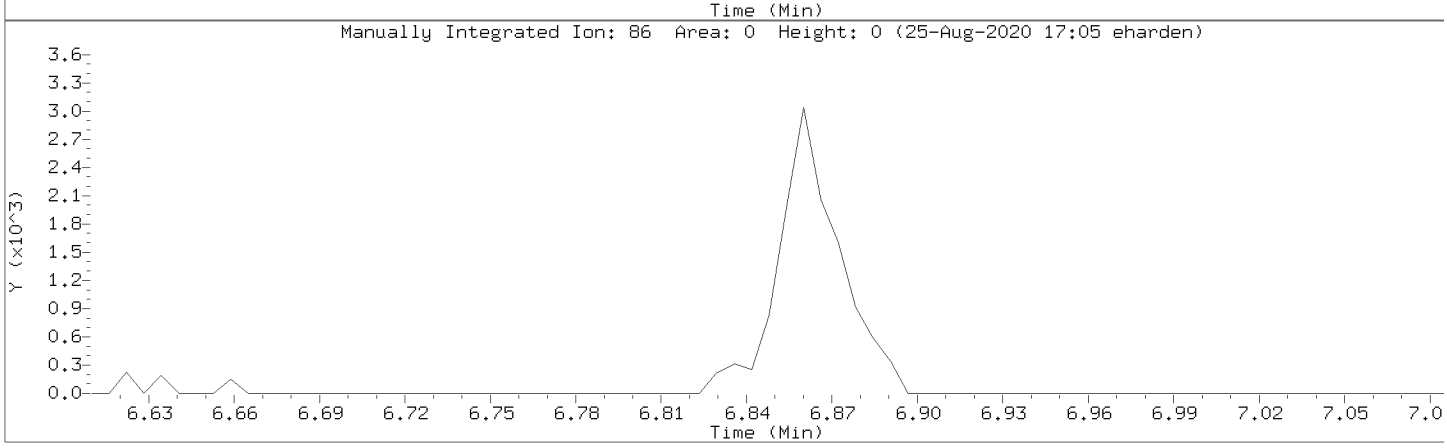
Data File: \\10.25.1.60\chem\52mv02.i\082520.b/082520_03B2977.D
Injection Date: 25-AUG-2020 11:08
Instrument: 52mv02.i
Lab Sample ID: 204025

Compound: Vinyl acetate Review Code: CO
CAS Number: 108-05-4



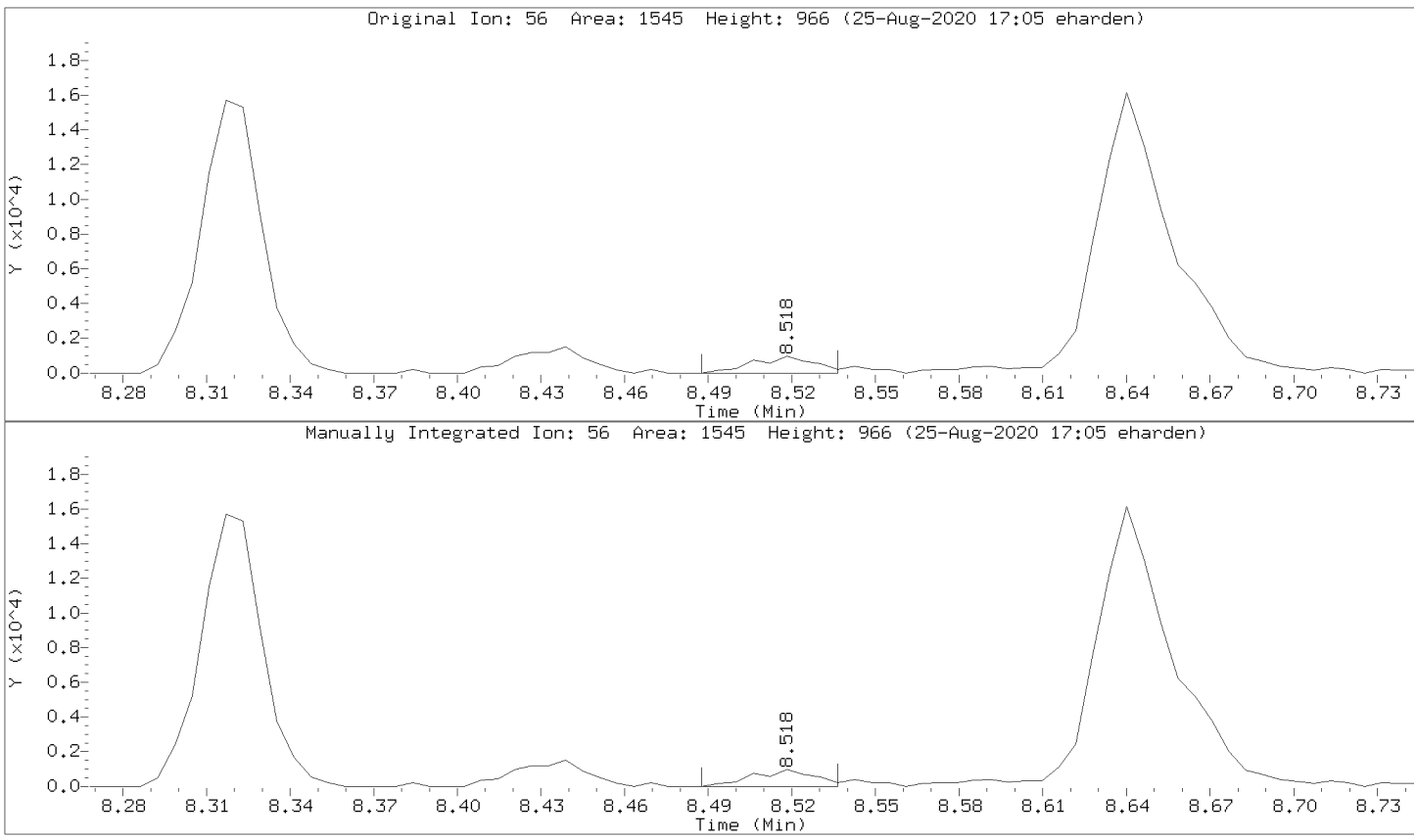






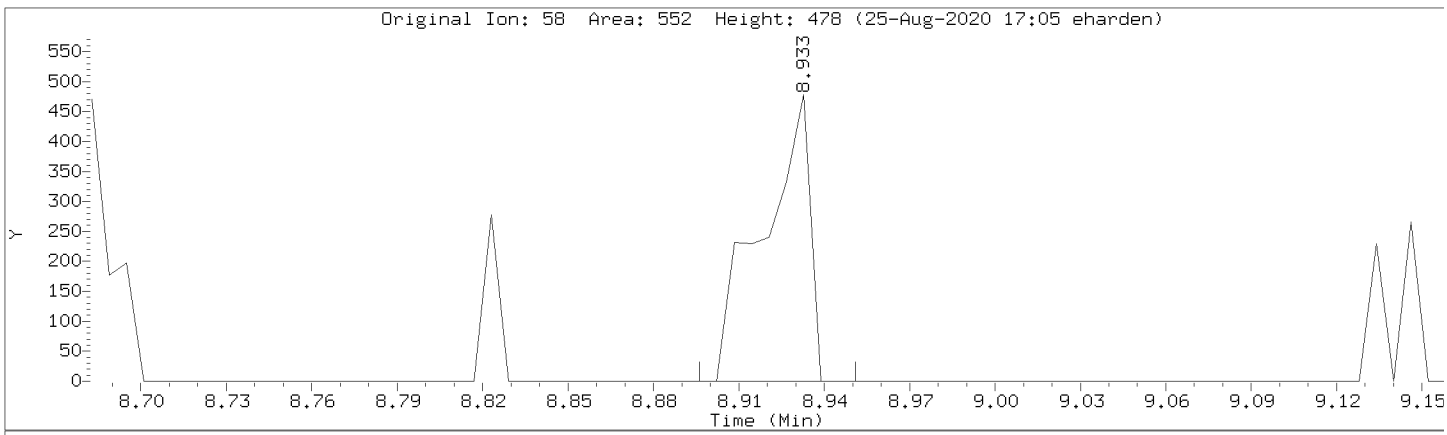
Data File: \\10.25.1.60\chem\52mv02.i\082520.b/082520_03B2977.D
Injection Date: 25-AUG-2020 11:08
Instrument: 52mv02.i
Lab Sample ID: 204025

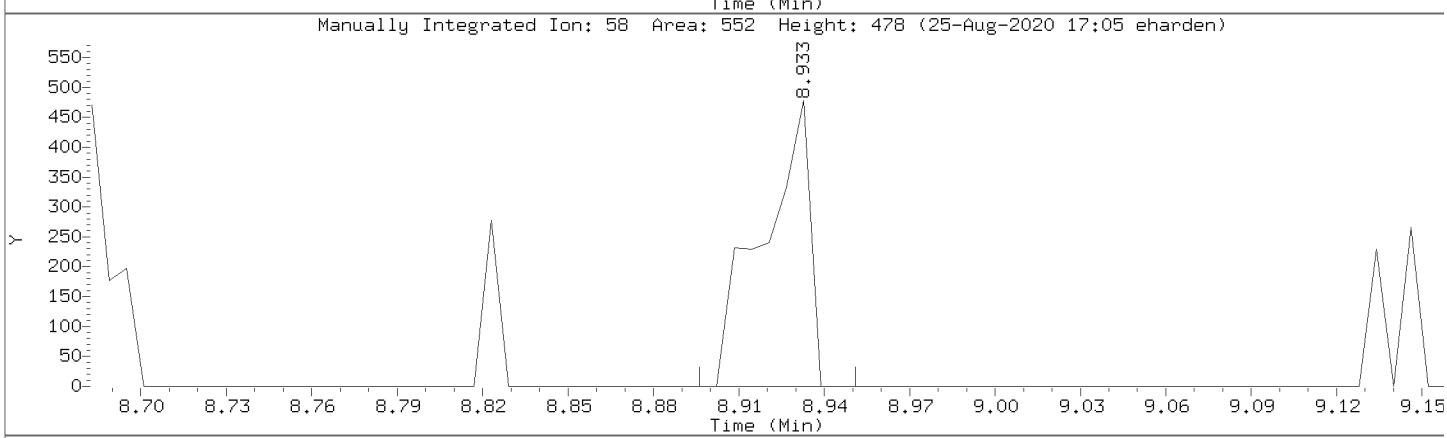
Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3

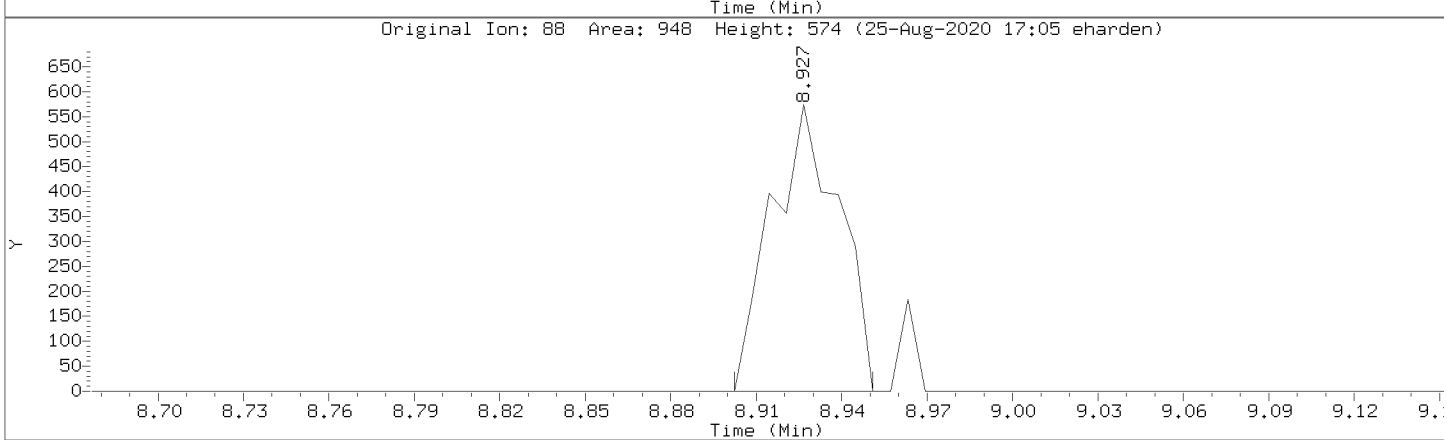


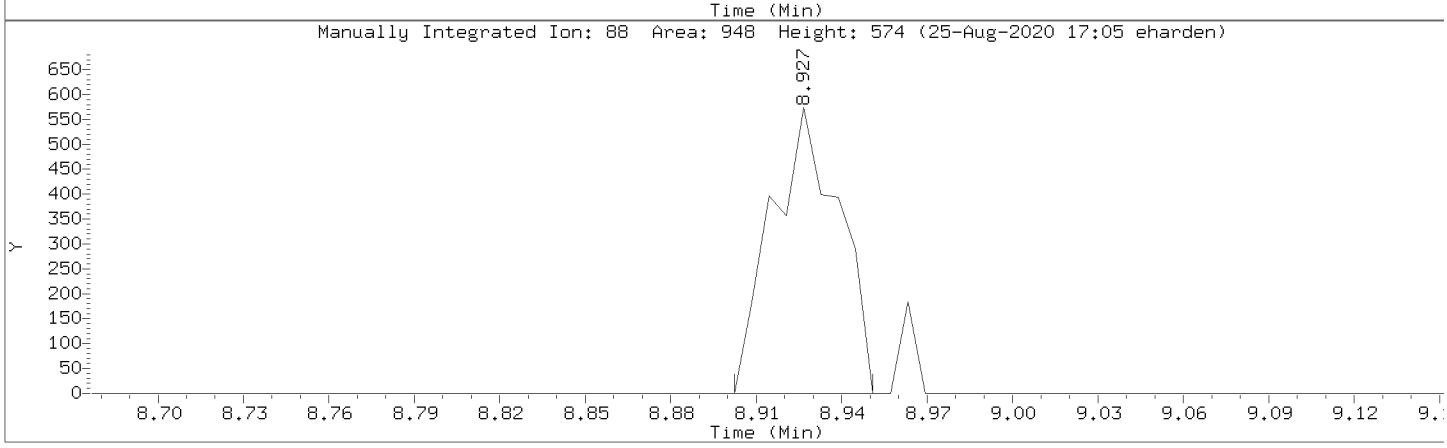
Data File: \\10.25.1.60\chem\52mv02.i\082520.b/082520_03B2977.D
Injection Date: 25-AUG-2020 11:08
Instrument: 52mv02.i
Lab Sample ID: 204025

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1

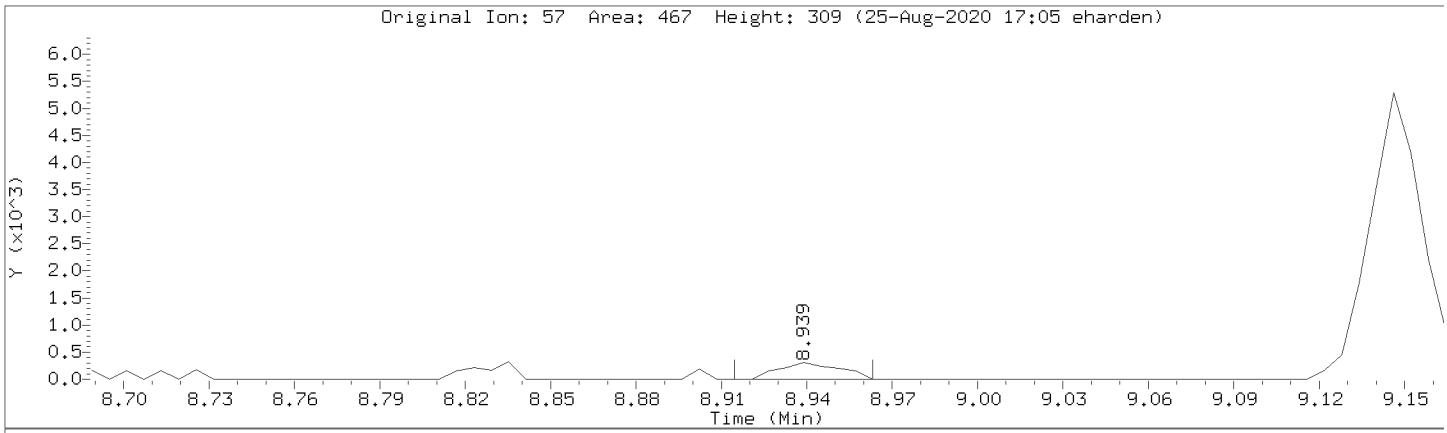


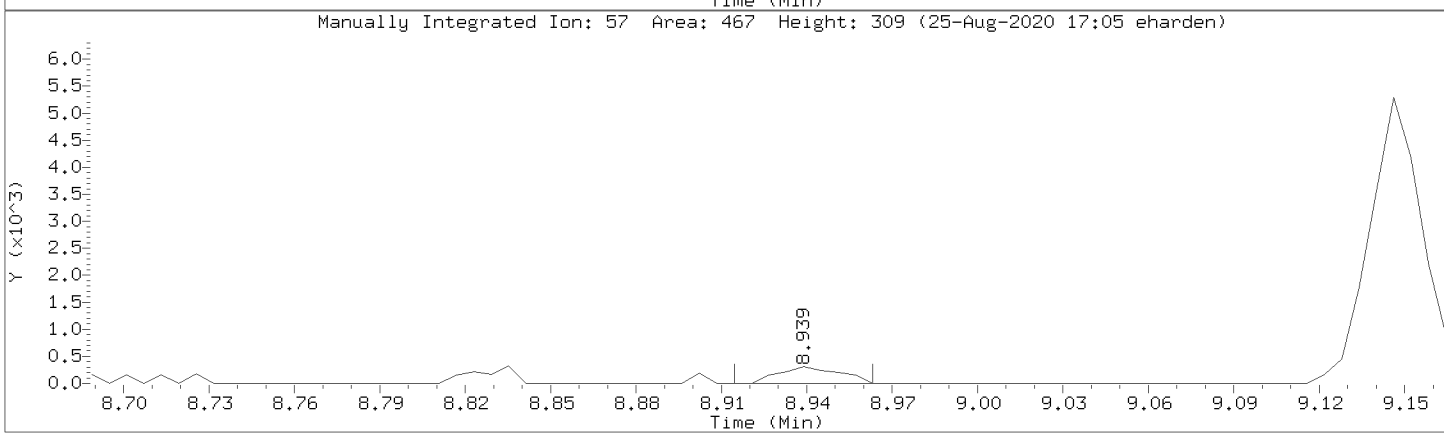






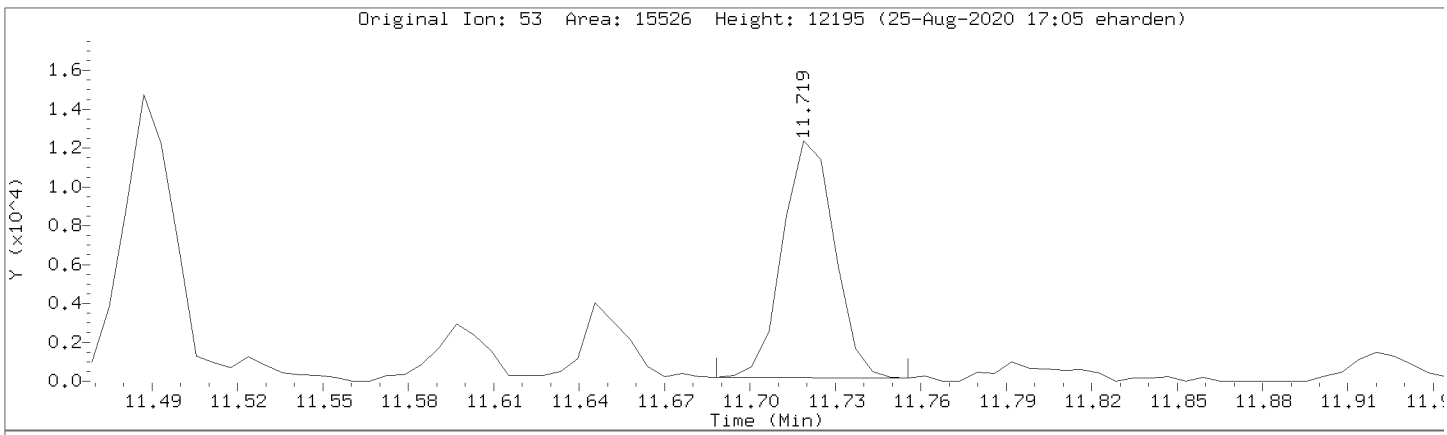
Data File: \\10.25.1.60\chem\52mv02.i\082520.b/082520_03B2977.D
Injection Date: 25-AUG-2020 11:08
Instrument: 52mv02.i
Lab Sample ID: 204025

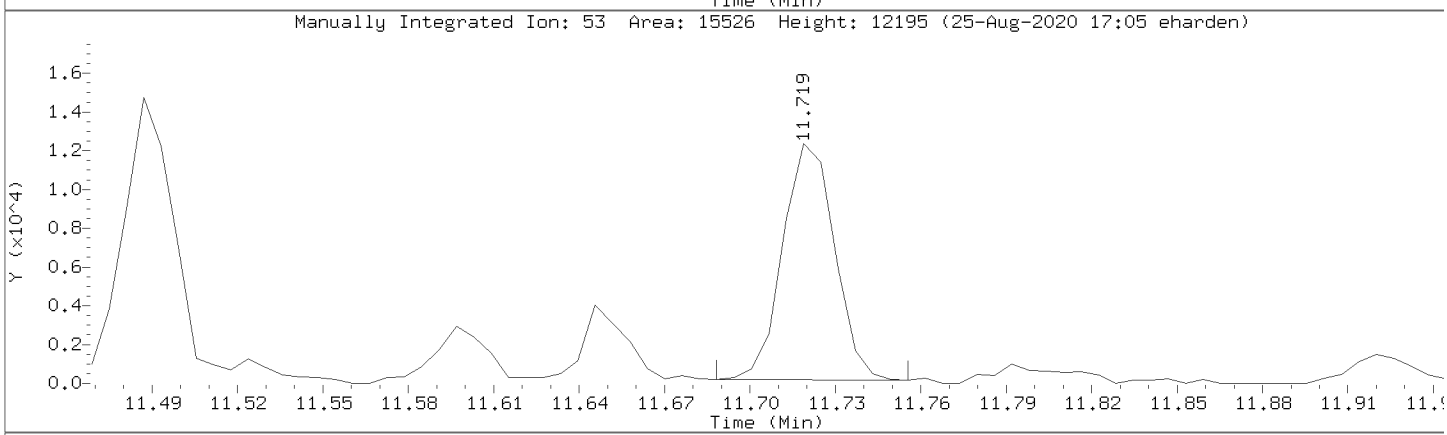


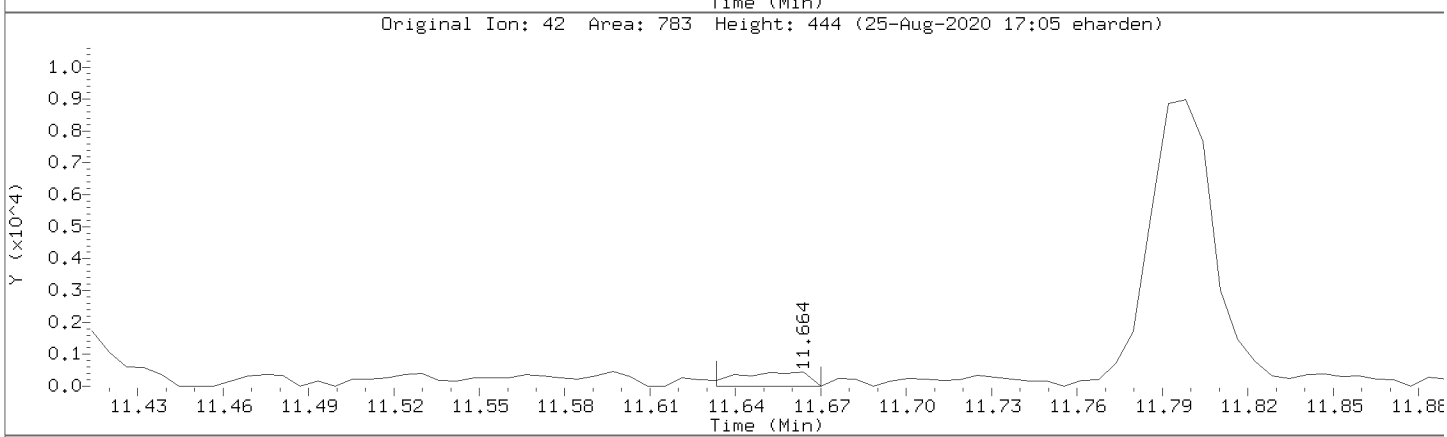


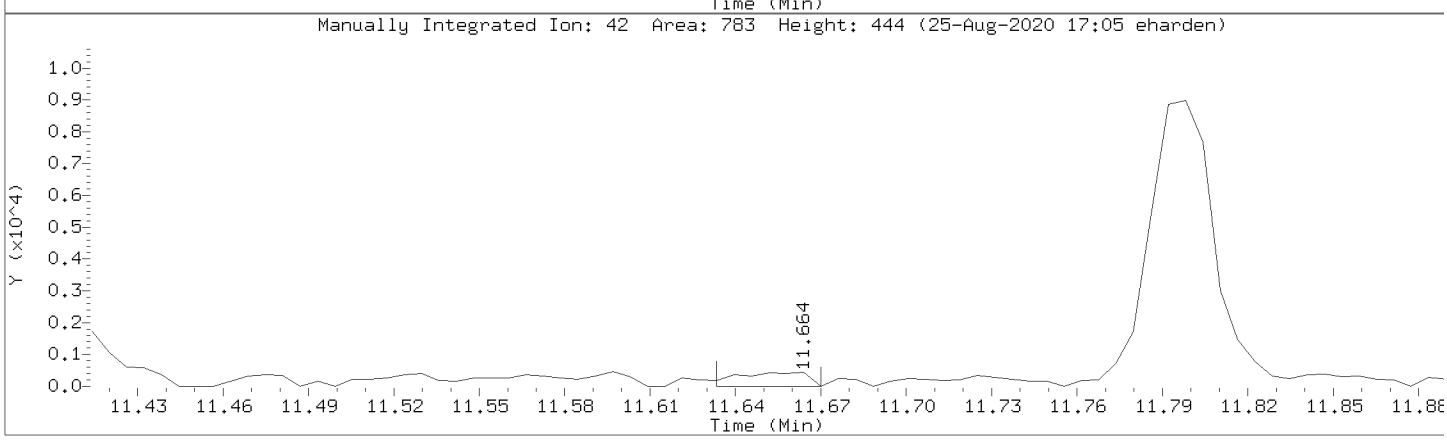
Data File: \\10.25.1.60\chem\52mv02.i\082520.b/082520_03B2977.D
Injection Date: 25-AUG-2020 11:08
Instrument: 52mv02.i
Lab Sample ID: 204025

Compound: trans-1,4-Dichloro-2-butene Review Code: WP
CAS Number: 110-57-6

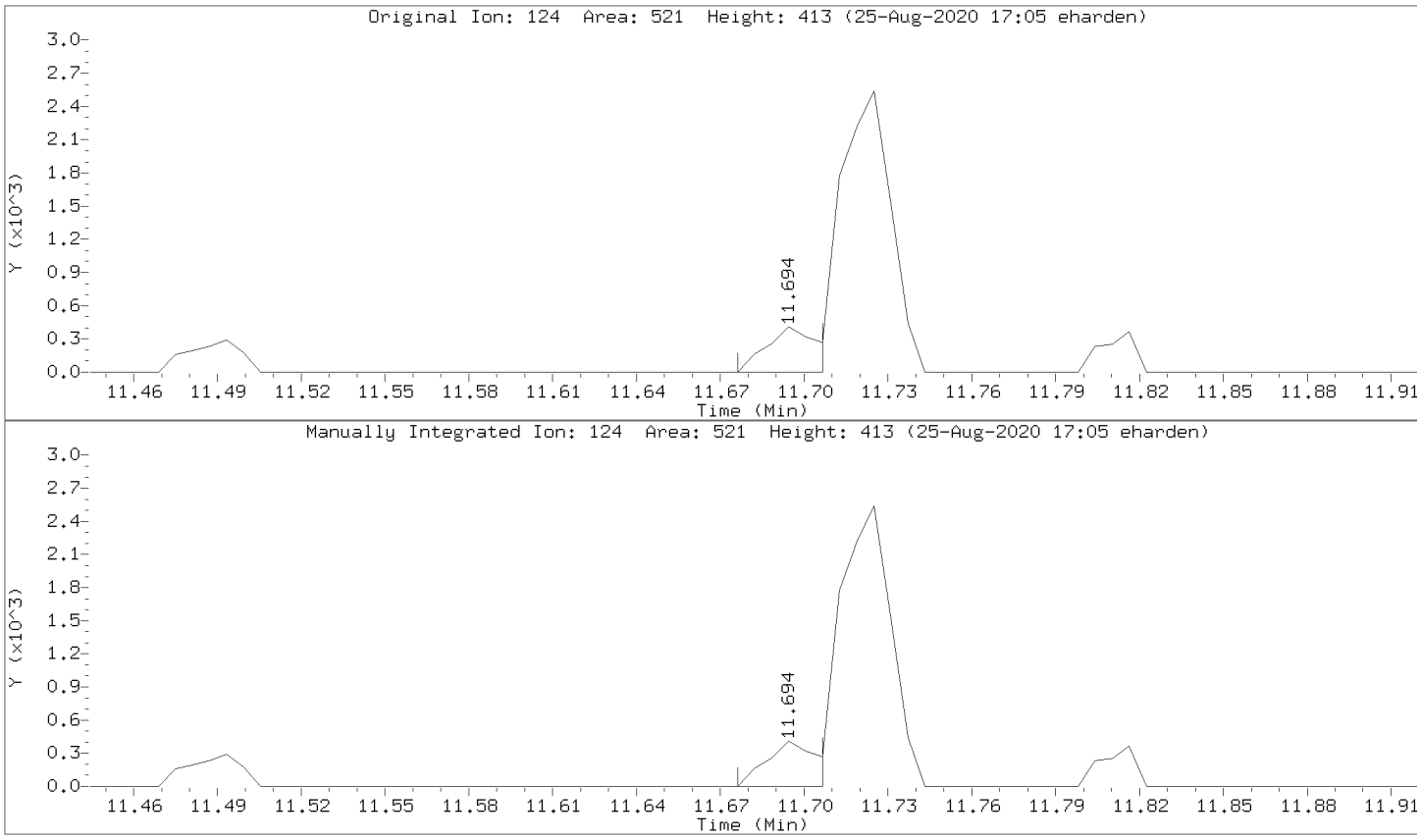








Data File: \\10.25.1.60\chem\52mv02.i\082520.b/082520_03B2977.D
Injection Date: 25-AUG-2020 11:08
Instrument: 52mv02.i
Lab Sample ID: 204025



Prep Log Report

Batch Information: MSV 8260B SM_P 48556 **Template Version: EF-DAYT-O-001-Rev.00 (02Nov2018)**

Prep Method	EPA 5035A	Analysis Method	EPA 8260B	Prepared By	EAH	Extracted Date/Time	08/25/2020 10:12:17:820
Instrument	52BL11	Ottawa Sand	8940	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Tare Weight (g)	Total Weight (g)	Initial Weight (g)	Final Volume (mL)	Preservation	Sample Notes
8260B SM_P	BLANK	**204024**	0	5	5.0000	5		
8260B SM_P	LCS	**204025**	0	5	5.0000	5		

Prep Log Report

Batch Information: MSV 8260B SM_P 48556 B **Template Version: EF-DAYT-O-001-Rev.00 (02Nov2018)**

Prep Method	EPA 5035A	Analysis Method	EPA 8260B	Prepared By	EAH	Extracted Date/Time	08/25/2020 11:49:32:175
Instrument	52BL11	Ottawa Sand	8940	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Tare Weight (g)	Total Weight (g)	Initial Weight (g)	Final Volume (mL)	Preservation	Sample Notes
8260B SM_P	PS	**5249083001**	0	5.38	5.3800	5		
8260B SM_P	PS	**5249083002**	0	5.12	5.1200	5		
8260B SM_P	PS	**5249083003**	0	5.27	5.2700	5		
8260B SM_P	PS	**5249083004**	0	5.4	5.4000	5		
8260B SM_P	PS	**5249083005**	0	5.1	5.1000	5		
8260B SM_P	PS	**5249083006**	0	5.26	5.2600	5		
8260B SM_P	PS	**5249083007**	0	5.11	5.1100	5		
8260B SM_P	PS	**5249083008**	0	5.25	5.2500	5		

Prep Log Report

Batch Information: MSV 8260B SM_P 48556 C **Template Version: EF-DAYT-O-001-Rev.00 (02Nov2018)**

Prep Method	EPA 5035A	Analysis Method	EPA 8260B	Prepared By	EAH	Extracted Date/Time	08/25/2020 13:50:25:332
Instrument	52BL11	Ottawa Sand	8940	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Tare Weight (g)	Total Weight (g)	Initial Weight (g)	Final Volume (mL)	Preservation	Sample Notes
8260B SM_P	MS	**204026**	0	5.05	5.0500	5		
8260B SM_P	MSD	**204027**	0	5.33	5.3300	5		
8260B SM_P	PS	**5249083009**	0	5.38	5.3800	5		
8260B SM_P	PS	**5249083010**	0	5.24	5.2400	5		
8260B SM_P	PS	**5249083011**	0	5.2	5.2000	5		
8260B SM_P	PS	**5249083012**	0	5.36	5.3600	5		
8260B SM_P	PS	**5249198001**	0	5.34	5.3400	5		
8260B SM_P	PS	**5249198002**	0	5.16	5.1600	5		
8260B SM_P	PS	**5249198003**	0	5.125	5.1250	5		
8260B SM_P	PS	**5249198004**	0	5.26	5.2600	5		
8260B SM_P	PS	**5249198005**	0	5.34	5.3400	5		

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
ISTD lot:
Lot:
Tune std: _____

Method: EPA 524.2
Surr. lot: 26400:1
Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/081920_02.D	TUNE,26558:1,	L/~~2919~~ 2933	BFB	1	7	BFB/all	8/19/20	09:34	EAH	
1/081920_03.D	CCV,27136:1	L/2860	CCALIB_7	1	7	8260BW_071720/	8/19/20	09:59	EAH	
1/081920_03TUNE.D	TUNE	L/2860	BFB	1	7	BFB/all	8/19/20	09:59	EAH	
1/081920_04.D	CCV,27137:1	L/2933	CCALIB_5	1	7	5242W_080720/a	8/19/20	10:24	EAH	
1/081920_04B2955.D	202255,	L/2955	LCS	1	7	5242W_080720/a	8/19/20	10:24	EAH	
1/081920_05.D	0.50 RLC	L/	RLC	1	<2	5242W_080720/a	8/19/20	10:49	EAH	
1/081920_06.D	0.40 RLC	L/	RLC	1	<2	5242W_080720/M	8/19/20	11:14	EAH	
1/081920_07.D	202254,	L/2955	BLANK	1	7	5242W_080720/a	8/19/20	11:39	EAH	
1/081920_08.D	5248591001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	12:06	EAH	
1/081920_09.D	5248591002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	12:32	EAH	
1/081920_10.D	5248591003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	12:57	EAH	
1/081920_11.D	5248591004,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	13:22	EAH	
1/081920_12.D	5248591005,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	13:47	EAH	
1/081920_13.D	5248713001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	14:12	EAH	
1/081920_14.D	5248713002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	14:37	EAH	
1/081920_15.D	5248713003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	15:02	EAH	
1/081920_16.D	5248588001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	15:27	EAH	
1/081920_17.D	5248588002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	15:52	EAH	
1/081920_18.D	5248588003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	16:17	EAH	
1/081920_19.D	5248590001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	16:42	EAH	
1/081920_20.D	5248590002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	17:07	EAH	
1/081920_21.D	5248590003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	17:32	EAH	
1/081920_22.D	5248650001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	17:57	EAH	
1/081920_23.D	5248650002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	18:22	EAH	
1/081920_24.D	5248792001,	L/~~2595~~ 2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	18:48	EAH	
1/081920_25.D	5248792002,	L/~~2595~~ 2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	19:13	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\081920.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 14:51 08/20/2020

Reviewed By/Date: _____ Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
ISTD lot:
Lot:
Tune std: _____

Method: SW846 8260
Surr. lot: 26400:5
Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/082020_01.D	TUNE,26400:1,	L/2957	BFB	1	7	BFB/all	8/20/20	09:57	EAH	
1/082020_02.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	10:23	EAH	
1/082020_03.D	CAL1,27237:1	L/2957	CALIB_1	1	<2	8260BSM_082020	8/20/20	10:50	EAH	
1/082020_04.D	CAL2,27238:1	L/2957	CALIB_2	1	<2	8260BSM_082020	8/20/20	11:15	EAH	
1/082020_05.D	CAL3,27239:1	L/2957	CALIB_3	1	<2	8260BSM_082020	8/20/20	11:40	EAH	
1/082020_06.D	CAL4,27240:1	L/2957	CALIB_4	1	<2	8260BSM_082020	8/20/20	12:05	EAH	
1/082020_07.D	CAL5,27241:1	L/2957	CALIB_5	1	<2	8260BSM_082020	8/20/20	12:30	EAH	
1/082020_08.D	CAL6,27242:1	L/2957	CALIB_6	1	<2	8260BSM_082020	8/20/20	12:55	EAH	
1/082020_09.D	CAL7,27243:1	L/2957	CALIB_7	1	<2	8260BSM_082020	8/20/20	13:20	EAH	
1/082020_10.D	CAL8,27244:1	L/2957	CALIB_8	1	<2	8260BSM_082020	8/20/20	13:45	EAH	
1/082020_11.D	CAL9,27245:1	L/2957	CALIB_9	1	<2	8260BSM_082020	8/20/20	14:11	EAH	
1/082020_12.D	CAL10,27246:1	L/2957	CALIB_10	1	<2	8260BSM_082020	8/20/20	14:36	EAH	
1/082020_13.D	CAL11,27247:1	L/2957	CALIB_11	1	<2	8260BSM_082020	8/20/20	15:01	EAH	
1/082020_14.D	CAL12,27248:1	L/2957	CALIB_12	1	<2	8260BSM_082020	8/20/20	15:26	EAH	
1/082020_15.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	15:51	EAH	
1/082020_16.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	16:16	EAH	
1/082020_17.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	16:41	EAH	
1/082020_18.D	ICV, 27249:1	L/2957	CCALIB_7	1	7	8260BSM_082020	8/20/20	17:06	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\082020.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 11:12 08/21/2020

Reviewed By/Date: _____ Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot:
Lot:
Tune std: _____

Method: SW846 8260

Surr. lot: 26400:5

Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/082420_01.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/24/20	10:47	EAH	
1/082420_02.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/24/20	11:12	EAH	
1/082420_03.D	CCV,27136:1	L/2957	CCALIB_7	1	7	8260BSM_082020	8/24/20	11:37	EAH	
1/082420_03B2971.D	203633,	S/2971	LCS	1		8260BSM_082020	8/24/20	11:37	EAH	
1/082420_03TUNE.D	TUNE,26400:1,	L/2957	BFB	1	7	BFB/all	8/24/20	11:37	EAH	
1/082420_06.D	203632,	S/2971	BLANK	1		8260BSM_082020	8/24/20	12:53	EAH	
1/082420_07.D	MEOH BLANK	L/	SAMPLE	1	<2	8260BSM_082020	8/24/20	13:18	EAH	
1/082420_08.D	MEOH BLANK	L/	SAMPLE	1	<2	8260BSM_082020	8/24/20	13:43	EAH	
1/082420_09.D	0.50 RLC	L/	SAMPLE	1	<2	8260BSM_082020	8/24/20	14:08	EAH	
1/082420_10.D	0.50 RLC	L/	SAMPLE	1	<2	8260BSM_082020	8/24/20	14:33	EAH	
1/082420_11.D	1.0 RLC	L/	SAMPLE	1	<2	8260BSM_082020	8/24/20	14:58	EAH	
1/082420_12.D	1.0 RLC	L/	SAMPLE	1	<2	8260BSM_082020	8/24/20	15:23	EAH	
1/082420_13.D	5249043001,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	15:48	EAH	
1/082420_14.D	203634,	S/2971	MS	1		8260BSM_082020	8/24/20	16:13	EAH	
1/082420_15.D	203635,	S/2971	MSD	1		8260BSM_082020	8/24/20	16:38	EAH	
1/082420_18.D	5249143001,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	17:54	EAH	
1/082420_19.D	5249143002,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	18:19	EAH	
1/082420_20.D	5249143003,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	18:44	EAH	
1/082420_21.D	5249143004,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	19:09	EAH	
1/082420_22.D	5249143005,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	19:34	EAH	
1/082420_23.D	5249143006,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	19:59	EAH	
1/082420_24.D	5249143007,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	20:24	EAH	
1/082420_25.D	5249143008,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	20:49	EAH	
1/082420_26.D	5249143009,	S/2971	SAMPLE	1		8260BSM_082020	8/24/20	21:14	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\082420.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:55 08/25/2020

Reviewed By/Date: _____ Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot:
Lot:
Tune std: _____

Method: SW846 8260

Surr. lot: 26400:5

Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/082520_01.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/25/20	10:18	EAH	
1/082520_02.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/25/20	10:43	EAH	
1/082520_03.D	CCV,27136:1	L/2957	CCALIB_7	1	7	8260BSM_082020	8/25/20	11:08	EAH	
1/082520_03B2977.D	204025,	S/2977	LCS	1		8260BSM_082020	8/25/20	11:08	EAH	
1/082520_03TUNE.D	TUNE,26400:1,	L/2957	BFB	1	7	BFB/all	8/25/20	11:08	EAH	
1/082520_04.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/25/20	11:33	EAH	
1/082520_05.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/25/20	11:58	EAH	
1/082520_06.D	204024,	S/2977	BLANK	1		8260BSM_082020	8/25/20	12:23	EAH	
1/082520_07.D	5249083001,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	12:48	EAH	
1/082520_08.D	5249083002,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	13:14	EAH	
1/082520_09.D	5249083003,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	13:39	EAH	
1/082520_10.D	5249083004,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	14:04	EAH	
1/082520_11.D	5249083005,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	14:29	EAH	
1/082520_12.D	5249198001,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	14:54	EAH	
1/082520_13.D	5249198002,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	15:19	EAH	
1/082520_14.D	5249198003,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	15:44	EAH	
1/082520_15.D	5249198004,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	16:09	EAH	
1/082520_16.D	5249198005,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	16:34	EAH	
1/082520_17.D	5249083006,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	16:59	EAH	
1/082520_18.D	5249083007,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	17:24	EAH	
1/082520_19.D	5249083008,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	17:49	EAH	
1/082520_20.D	5249083009,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	18:14	EAH	
1/082520_21.D	5249083010,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	18:40	EAH	
1/082520_22.D	5249083011,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	19:05	EAH	
1/082520_23.D	5249083012,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	19:30	EAH	
1/082520_24.D	204026,	S/2977	MS	1		8260BSM_082020	8/25/20	19:55	EAH	
1/082520_25.D	204027,	S/2977	MSD	1		8260BSM_082020	8/25/20	20:20	EAH	
1/082520_26.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/25/20	20:45	EAH	
1/082520_27.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/25/20	21:10	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\082520.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 14:53 08/27/2020

Reviewed By/Date: _____ Page: 1 of 1

Standard Log Report

Standards Log Information for Standard #27249

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-ICV

Notes:

MSV 8260 ICV

Compound Name and Concentration for Standard #27249

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	20 ug/L	1,1,1-Trichloroethane	20 ug/L
1,1,2,2-Tetrachloroethane	20 ug/L	1,1,2-Trichloroethane	20 ug/L
1,1,2-	20 ug/L	1,1-Dichloroethane	20 ug/L
1,1-Dichloroethene	20 ug/L	1,1-Dichloropropene	20 ug/L
1,2,3-Trichlorobenzene	20 ug/L	1,2,3-Trichloropropane	20 ug/L
1,2,4-Trichlorobenzene	20 ug/L	1,2,4-Trimethylbenzene	20 ug/L
1,2-Dibromo-3-	20 ug/L	1,2-Dibromoethane (EDB)	20 ug/L
1,2-Dichlorobenzene	20 ug/L	1,2-Dichloroethane	20 ug/L
1,2-Dichloropropane	20 ug/L	1,3,5-Trimethylbenzene	20 ug/L
1,3-Butadiene	20 ug/L	1,3-Dichlorobenzene	20 ug/L
1,3-Dichloropropane	20 ug/L	1,4-Dichlorobenzene	20 ug/L
1,4-Dioxane (p-Dioxane)	40 ug/L	2,2-Dichloropropane	20 ug/L
2-Butanone (MEK)	40 ug/L	2-Chloroethylvinyl ether	40 ug/L
2-Chlorotoluene	20 ug/L	2-Hexanone	40 ug/L
2-Nitropropane	20 ug/L	4-Chlorotoluene	20 ug/L
4-Methyl-2-pentanone	40 ug/L	Acetone	40 ug/L
Acetonitrile	40 ug/L	Acrolein	40 ug/L
Acrylonitrile	40 ug/L	Allyl chloride	20 ug/L
Benzene	20 ug/L	Bromobenzene	20 ug/L
Bromochloromethane	20 ug/L	Bromodichloromethane	20 ug/L
Bromoform	20 ug/L	Bromomethane	20 ug/L
Carbon disulfide	20 ug/L	Carbon tetrachloride	20 ug/L
Chlorobenzene	20 ug/L	Chloroethane	20 ug/L
Chloroform	20 ug/L	Chloromethane	20 ug/L
Chloroprene	20 ug/L	Cyclohexane	20 ug/L
Dibromochloromethane	20 ug/L	Dibromomethane	20 ug/L
Dichlorodifluoromethane	20 ug/L	Diethyl ether (Ethyl ether)	20 ug/L
Ethyl acetate	40 ug/L	Ethyl methacrylate	20 ug/L
Ethylbenzene	20 ug/L	Hexachloro-1,3-butadiene	20 ug/L
Iodomethane	20 ug/L	Isobutanol	40 ug/L
Isopropyl acetate	20 ug/L	Isopropylbenzene	20 ug/L
Methacrylonitrile	40 ug/L	Methanol	ug/L
Methyl acetate	40 ug/L	Methyl acrylate	20 ug/L
Methyl methacrylate	20 ug/L	Methyl-tert-butyl ether	20 ug/L
Methylcyclohexane	20 ug/L	Methylene Chloride	20 ug/L
Naphthalene	20 ug/L	Propionitrile	40 ug/L
Styrene	20 ug/L	TOTAL BTEX	120 ug/L
Tetrachloroethene	20 ug/L	Tetrahydrofuran	40 ug/L
Toluene	20 ug/L	Total Trihalomethanes	80 ug/L
Trichloroethene	20 ug/L	Trichlorofluoromethane	20 ug/L
Vinyl acetate	20 ug/L	Vinyl chloride	20 ug/L
Xylene (Total)	60 ug/L	cis-1,2-Dichloroethene	20 ug/L
cis-1,3-Dichloropropene	20 ug/L	cis-1,4-Dichloro-2-butene	20 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	40 ug/L	n-Butanol	40 ug/L
n-Butylbenzene	20 ug/L	n-Hexane	20 ug/L
n-Propylbenzene	20 ug/L	n-amyl acetate	20 ug/L
o-Xylene	20 ug/L	p-Isopropyltoluene	20 ug/L
sec-Butylbenzene	20 ug/L	tert-Butylbenzene	20 ug/L
trans-1,2-Dichloroethene	20 ug/L	trans-1,3-Dichloropropene	20 ug/L
trans-1,4-Dichloro-2-	20 ug/L		

Composed of Information for Standard #27249

Composed of Standard Seq	Volume	Units
27116	0.02	mL
26718	0.02	mL
1	49.96	mL

Standard Log Report

Standards Log Information for Standard #27248

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL12

Notes:

MSV 8260 200PPB

Compound Name and Concentration for Standard #27248

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	200 ug/L	1,1,1-Trichloroethane	200 ug/L
1,1,2,2-Tetrachloroethane	200 ug/L	1,1,2-Trichloroethane	200 ug/L
1,1,2-	200 ug/L	1,1-Dichloroethane	200 ug/L
1,1-Dichloroethene	200 ug/L	1,1-Dichloropropene	200 ug/L
1,2,3-Trichlorobenzene	200 ug/L	1,2,3-Trichloropropane	200 ug/L
1,2,4-Trichlorobenzene	200 ug/L	1,2,4-Trimethylbenzene	200 ug/L
1,2-Dibromo-3-	200 ug/L	1,2-Dibromoethane (EDB)	200 ug/L
1,2-Dichlorobenzene	200 ug/L	1,2-Dichloroethane	200 ug/L
1,2-Dichloropropane	200 ug/L	1,3,5-Trimethylbenzene	200 ug/L
1,3-Butadiene	200 ug/L	1,3-Dichlorobenzene	200 ug/L
1,3-Dichloropropane	200 ug/L	1,4-Dichlorobenzene	200 ug/L
1,4-Dioxane (p-Dioxane)	400 ug/L	2,2-Dichloropropane	200 ug/L
2-Butanone (MEK)	400 ug/L	2-Chloroethylvinyl ether	400 ug/L
2-Chlorotoluene	200 ug/L	2-Hexanone	400 ug/L
2-Nitropropane	200 ug/L	4-Chlorotoluene	200 ug/L
4-Methyl-2-pentanone	400 ug/L	Acetone	400 ug/L
Acetonitrile	400 ug/L	Acrolein	400 ug/L
Acrylonitrile	400 ug/L	Allyl chloride	200 ug/L
Benzene	200 ug/L	Bromobenzene	200 ug/L
Bromochloromethane	200 ug/L	Bromodichloromethane	200 ug/L
Bromoform	200 ug/L	Bromomethane	200 ug/L
Carbon disulfide	200 ug/L	Carbon tetrachloride	200 ug/L
Chlorobenzene	200 ug/L	Chloroethane	200 ug/L
Chloroform	200 ug/L	Chloromethane	200 ug/L
Chloroprene	200 ug/L	Cyclohexane	200 ug/L
Dibromochloromethane	200 ug/L	Dibromomethane	200 ug/L
Dichlorodifluoromethane	200 ug/L	Diethyl ether (Ethyl ether)	200 ug/L
Ethyl acetate	400 ug/L	Ethyl methacrylate	200 ug/L
Ethylbenzene	200 ug/L	Hexachloro-1,3-butadiene	200 ug/L
Iodomethane	200 ug/L	Isobutanol	400 ug/L
Isopropyl acetate	200 ug/L	Isopropylbenzene	200 ug/L
Methacrylonitrile	400 ug/L	Methanol	ug/L
Methyl acetate	400 ug/L	Methyl acrylate	200 ug/L
Methyl methacrylate	200 ug/L	Methyl-tert-butyl ether	200 ug/L
Methylcyclohexane	200 ug/L	Methylene Chloride	200 ug/L
Naphthalene	200 ug/L	Propionitrile	400 ug/L
Styrene	200 ug/L	TOTAL BTEX	1200 ug/L
Tetrachloroethene	200 ug/L	Tetrahydrofuran	400 ug/L
Toluene	200 ug/L	Total Trihalomethanes	800 ug/L
Trichloroethene	200 ug/L	Trichlorofluoromethane	200 ug/L
Vinyl acetate	200 ug/L	Vinyl chloride	200 ug/L
Xylene (Total)	600 ug/L	cis-1,2-Dichloroethene	200 ug/L
cis-1,3-Dichloropropene	200 ug/L	cis-1,4-Dichloro-2-butene	200 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	400 ug/L	n-Butanol	400 ug/L
n-Butylbenzene	200 ug/L	n-Hexane	200 ug/L
n-Propylbenzene	200 ug/L	n-amyl acetate	200 ug/L
o-Xylene	200 ug/L	p-Isopropyltoluene	200 ug/L
sec-Butylbenzene	200 ug/L	tert-Butylbenzene	200 ug/L
trans-1,2-Dichloroethene	200 ug/L	trans-1,3-Dichloropropene	200 ug/L
trans-1,4-Dichloro-2-	200 ug/L		

Composed of Information for Standard #27248

Composed of Standard Seq	Volume	Units
27114	0.2	mL
26717	0.2	mL
1	49.3	mL

Standard Log Report

Standards Log Information for Standard #27247

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL11

Notes:

MSV 8260 150PPB

Compound Name and Concentration for Standard #27247

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	150 ug/L	1,1,1-Trichloroethane	150 ug/L
1,1,2,2-Tetrachloroethane	150 ug/L	1,1,2-Trichloroethane	150 ug/L
1,1,2-	150 ug/L	1,1-Dichloroethane	150 ug/L
1,1-Dichloroethene	150 ug/L	1,1-Dichloropropene	150 ug/L
1,2,3-Trichlorobenzene	150 ug/L	1,2,3-Trichloropropane	150 ug/L
1,2,4-Trichlorobenzene	150 ug/L	1,2,4-Trimethylbenzene	150 ug/L
1,2-Dibromo-3-	150 ug/L	1,2-Dibromoethane (EDB)	150 ug/L
1,2-Dichlorobenzene	150 ug/L	1,2-Dichloroethane	150 ug/L
1,2-Dichloropropane	150 ug/L	1,3,5-Trimethylbenzene	150 ug/L
1,3-Butadiene	150 ug/L	1,3-Dichlorobenzene	150 ug/L
1,3-Dichloropropane	150 ug/L	1,4-Dichlorobenzene	150 ug/L
1,4-Dioxane (p-Dioxane)	300 ug/L	2,2-Dichloropropane	150 ug/L
2-Butanone (MEK)	300 ug/L	2-Chloroethylvinyl ether	300 ug/L
2-Chlorotoluene	150 ug/L	2-Hexanone	300 ug/L
2-Nitropropane	150 ug/L	4-Chlorotoluene	150 ug/L
4-Methyl-2-pentanone	300 ug/L	Acetone	300 ug/L
Acetonitrile	300 ug/L	Acrolein	300 ug/L
Acrylonitrile	300 ug/L	Allyl chloride	150 ug/L
Benzene	150 ug/L	Bromobenzene	150 ug/L
Bromochloromethane	150 ug/L	Bromodichloromethane	150 ug/L
Bromoform	150 ug/L	Bromomethane	150 ug/L
Carbon disulfide	150 ug/L	Carbon tetrachloride	150 ug/L
Chlorobenzene	150 ug/L	Chloroethane	150 ug/L
Chloroform	150 ug/L	Chloromethane	150 ug/L
Chloroprene	150 ug/L	Cyclohexane	150 ug/L
Dibromochloromethane	150 ug/L	Dibromomethane	150 ug/L
Dichlorodifluoromethane	150 ug/L	Diethyl ether (Ethyl ether)	150 ug/L
Ethyl acetate	300 ug/L	Ethyl methacrylate	150 ug/L
Ethylbenzene	150 ug/L	Hexachloro-1,3-butadiene	150 ug/L
Iodomethane	150 ug/L	Isobutanol	300 ug/L
Isopropyl acetate	150 ug/L	Isopropylbenzene	150 ug/L
Methacrylonitrile	300 ug/L	Methanol	ug/L
Methyl acetate	300 ug/L	Methyl acrylate	150 ug/L
Methyl methacrylate	150 ug/L	Methyl-tert-butyl ether	150 ug/L
Methylcyclohexane	150 ug/L	Methylene Chloride	150 ug/L
Naphthalene	150 ug/L	Propionitrile	300 ug/L
Styrene	150 ug/L	TOTAL BTEX	900 ug/L
Tetrachloroethene	150 ug/L	Tetrahydrofuran	300 ug/L
Toluene	150 ug/L	Total Trihalomethanes	600 ug/L
Trichloroethene	150 ug/L	Trichlorofluoromethane	150 ug/L
Vinyl acetate	150 ug/L	Vinyl chloride	150 ug/L
Xylene (Total)	450 ug/L	cis-1,2-Dichloroethene	150 ug/L
cis-1,3-Dichloropropene	150 ug/L	cis-1,4-Dichloro-2-butene	150 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	300 ug/L	n-Butanol	300 ug/L
n-Butylbenzene	150 ug/L	n-Hexane	150 ug/L
n-Propylbenzene	150 ug/L	n-amyl acetate	150 ug/L
o-Xylene	150 ug/L	p-Isopropyltoluene	150 ug/L
sec-Butylbenzene	150 ug/L	tert-Butylbenzene	150 ug/L
trans-1,2-Dichloroethene	150 ug/L	trans-1,3-Dichloropropene	150 ug/L
trans-1,4-Dichloro-2-	150 ug/L		

Composed of Information for Standard #27247

Composed of Standard Seq	Volume	Units
27114	0.15	mL
26717	0.15	mL
1	49.7	mL

Standard Log Report

Standards Log Information for Standard #27246

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL10

Notes:

MSV 8260 100PPB

Compound Name and Concentration for Standard #27246

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	100 ug/L	1,1,1-Trichloroethane	100 ug/L
1,1,2,2-Tetrachloroethane	100 ug/L	1,1,2-Trichloroethane	100 ug/L
1,1,2-	100 ug/L	1,1-Dichloroethane	100 ug/L
1,1-Dichloroethene	100 ug/L	1,1-Dichloropropene	100 ug/L
1,2,3-Trichlorobenzene	100 ug/L	1,2,3-Trichloropropane	100 ug/L
1,2,4-Trichlorobenzene	100 ug/L	1,2,4-Trimethylbenzene	100 ug/L
1,2-Dibromo-3-	100 ug/L	1,2-Dibromoethane (EDB)	100 ug/L
1,2-Dichlorobenzene	100 ug/L	1,2-Dichloroethane	100 ug/L
1,2-Dichloropropane	100 ug/L	1,3,5-Trimethylbenzene	100 ug/L
1,3-Butadiene	100 ug/L	1,3-Dichlorobenzene	100 ug/L
1,3-Dichloropropane	100 ug/L	1,4-Dichlorobenzene	100 ug/L
1,4-Dioxane (p-Dioxane)	200 ug/L	2,2-Dichloropropane	100 ug/L
2-Butanone (MEK)	200 ug/L	2-Chloroethylvinyl ether	200 ug/L
2-Chlorotoluene	100 ug/L	2-Hexanone	200 ug/L
2-Nitropropane	100 ug/L	4-Chlorotoluene	100 ug/L
4-Methyl-2-pentanone	200 ug/L	Acetone	200 ug/L
Acetonitrile	200 ug/L	Acrolein	200 ug/L
Acrylonitrile	200 ug/L	Allyl chloride	100 ug/L
Benzene	100 ug/L	Bromobenzene	100 ug/L
Bromochloromethane	100 ug/L	Bromodichloromethane	100 ug/L
Bromoform	100 ug/L	Bromomethane	100 ug/L
Carbon disulfide	100 ug/L	Carbon tetrachloride	100 ug/L
Chlorobenzene	100 ug/L	Chloroethane	100 ug/L
Chloroform	100 ug/L	Chloromethane	100 ug/L
Chloroprene	100 ug/L	Cyclohexane	100 ug/L
Dibromochloromethane	100 ug/L	Dibromomethane	100 ug/L
Dichlorodifluoromethane	100 ug/L	Diethyl ether (Ethyl ether)	100 ug/L
Ethyl acetate	200 ug/L	Ethyl methacrylate	100 ug/L
Ethylbenzene	100 ug/L	Hexachloro-1,3-butadiene	100 ug/L
Iodomethane	100 ug/L	Isobutanol	200 ug/L
Isopropyl acetate	100 ug/L	Isopropylbenzene	100 ug/L
Methacrylonitrile	200 ug/L	Methanol	ug/L
Methyl acetate	200 ug/L	Methyl acrylate	100 ug/L
Methyl methacrylate	100 ug/L	Methyl-tert-butyl ether	100 ug/L
Methylcyclohexane	100 ug/L	Methylene Chloride	100 ug/L
Naphthalene	100 ug/L	Propionitrile	200 ug/L
Styrene	100 ug/L	TOTAL BTEX	600 ug/L
Tetrachloroethene	100 ug/L	Tetrahydrofuran	200 ug/L
Toluene	100 ug/L	Total Trihalomethanes	400 ug/L
Trichloroethene	100 ug/L	Trichlorofluoromethane	100 ug/L
Vinyl acetate	100 ug/L	Vinyl chloride	100 ug/L
Xylene (Total)	300 ug/L	cis-1,2-Dichloroethene	100 ug/L
cis-1,3-Dichloropropene	100 ug/L	cis-1,4-Dichloro-2-butene	100 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	200 ug/L	n-Butanol	200 ug/L
n-Butylbenzene	100 ug/L	n-Hexane	100 ug/L
n-Propylbenzene	100 ug/L	n-amyl acetate	100 ug/L
o-Xylene	100 ug/L	p-Isopropyltoluene	100 ug/L
sec-Butylbenzene	100 ug/L	tert-Butylbenzene	100 ug/L
trans-1,2-Dichloroethene	100 ug/L	trans-1,3-Dichloropropene	100 ug/L
trans-1,4-Dichloro-2-	100 ug/L		

Composed of Information for Standard #27246

Composed of Standard Seq	Volume	Units
27114	0.1	mL
26717	0.1	mL
1	49.8	mL

Standard Log Report

Standards Log Information for Standard #27245

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL9

Notes:

MSV 8260 75PPB

Compound Name and Concentration for Standard #27245

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	75 ug/L	1,1,1-Trichloroethane	75 ug/L
1,1,2,2-Tetrachloroethane	75 ug/L	1,1,2-Trichloroethane	75 ug/L
1,1,2-	75 ug/L	1,1-Dichloroethane	75 ug/L
1,1-Dichloroethene	75 ug/L	1,1-Dichloropropene	75 ug/L
1,2,3-Trichlorobenzene	75 ug/L	1,2,3-Trichloropropane	75 ug/L
1,2,4-Trichlorobenzene	75 ug/L	1,2,4-Trimethylbenzene	75 ug/L
1,2-Dibromo-3-	75 ug/L	1,2-Dibromoethane (EDB)	75 ug/L
1,2-Dichlorobenzene	75 ug/L	1,2-Dichloroethane	75 ug/L
1,2-Dichloropropane	75 ug/L	1,3,5-Trimethylbenzene	75 ug/L
1,3-Butadiene	75 ug/L	1,3-Dichlorobenzene	75 ug/L
1,3-Dichloropropane	75 ug/L	1,4-Dichlorobenzene	75 ug/L
1,4-Dioxane (p-Dioxane)	150 ug/L	2,2-Dichloropropane	75 ug/L
2-Butanone (MEK)	150 ug/L	2-Chloroethylvinyl ether	150 ug/L
2-Chlorotoluene	75 ug/L	2-Hexanone	150 ug/L
2-Nitropropane	75 ug/L	4-Chlorotoluene	75 ug/L
4-Methyl-2-pentanone	150 ug/L	Acetone	150 ug/L
Acetonitrile	150 ug/L	Acrolein	150 ug/L
Acrylonitrile	150 ug/L	Allyl chloride	75 ug/L
Benzene	75 ug/L	Bromobenzene	75 ug/L
Bromochloromethane	75 ug/L	Bromodichloromethane	75 ug/L
Bromoform	75 ug/L	Bromomethane	75 ug/L
Carbon disulfide	75 ug/L	Carbon tetrachloride	75 ug/L
Chlorobenzene	75 ug/L	Chloroethane	75 ug/L
Chloroform	75 ug/L	Chloromethane	75 ug/L
Chloroprene	75 ug/L	Cyclohexane	75 ug/L
Dibromochloromethane	75 ug/L	Dibromomethane	75 ug/L
Dichlorodifluoromethane	75 ug/L	Diethyl ether (Ethyl ether)	75 ug/L
Ethyl acetate	150 ug/L	Ethyl methacrylate	75 ug/L
Ethylbenzene	75 ug/L	Hexachloro-1,3-butadiene	75 ug/L
Iodomethane	75 ug/L	Isobutanol	150 ug/L
Isopropyl acetate	75 ug/L	Isopropylbenzene	75 ug/L
Methacrylonitrile	150 ug/L	Methanol	ug/L
Methyl acetate	150 ug/L	Methyl acrylate	75 ug/L
Methyl methacrylate	75 ug/L	Methyl-tert-butyl ether	75 ug/L
Methylcyclohexane	75 ug/L	Methylene Chloride	75 ug/L
Naphthalene	75 ug/L	Propionitrile	150 ug/L
Styrene	75 ug/L	TOTAL BTEX	450 ug/L
Tetrachloroethene	75 ug/L	Tetrahydrofuran	150 ug/L
Toluene	75 ug/L	Total Trihalomethanes	300 ug/L
Trichloroethene	75 ug/L	Trichlorofluoromethane	75 ug/L
Vinyl acetate	75 ug/L	Vinyl chloride	75 ug/L
Xylene (Total)	225 ug/L	cis-1,2-Dichloroethene	75 ug/L
cis-1,3-Dichloropropene	75 ug/L	cis-1,4-Dichloro-2-butene	75 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	150 ug/L	n-Butanol	150 ug/L
n-Butylbenzene	75 ug/L	n-Hexane	75 ug/L
n-Propylbenzene	75 ug/L	n-amyl acetate	75 ug/L
o-Xylene	75 ug/L	p-Isopropyltoluene	75 ug/L
sec-Butylbenzene	75 ug/L	tert-Butylbenzene	75 ug/L
trans-1,2-Dichloroethene	75 ug/L	trans-1,3-Dichloropropene	75 ug/L
trans-1,4-Dichloro-2-	75 ug/L		

Composed of Information for Standard #27245

Composed of Standard Seq	Volume	Units
27114	0.075	mL
26717	0.075	mL
1	49.85	mL

Standard Log Report

Standards Log Information for Standard #27244

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL8

Notes:

MSV 8260 50PPB

Compound Name and Concentration for Standard #27244

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	50 ug/L	1,1,1-Trichloroethane	50 ug/L
1,1,2,2-Tetrachloroethane	50 ug/L	1,1,2-Trichloroethane	50 ug/L
1,1,2-	50 ug/L	1,1-Dichloroethane	50 ug/L
1,1-Dichloroethene	50 ug/L	1,1-Dichloropropene	50 ug/L
1,2,3-Trichlorobenzene	50 ug/L	1,2,3-Trichloropropane	50 ug/L
1,2,4-Trichlorobenzene	50 ug/L	1,2,4-Trimethylbenzene	50 ug/L
1,2-Dibromo-3-	50 ug/L	1,2-Dibromoethane (EDB)	50 ug/L
1,2-Dichlorobenzene	50 ug/L	1,2-Dichloroethane	50 ug/L
1,2-Dichloropropane	50 ug/L	1,3,5-Trimethylbenzene	50 ug/L
1,3-Butadiene	50 ug/L	1,3-Dichlorobenzene	50 ug/L
1,3-Dichloropropane	50 ug/L	1,4-Dichlorobenzene	50 ug/L
1,4-Dioxane (p-Dioxane)	100 ug/L	2,2-Dichloropropane	50 ug/L
2-Butanone (MEK)	100 ug/L	2-Chloroethylvinyl ether	100 ug/L
2-Chlorotoluene	50 ug/L	2-Hexanone	100 ug/L
2-Nitropropane	50 ug/L	4-Chlorotoluene	50 ug/L
4-Methyl-2-pentanone	100 ug/L	Acetone	100 ug/L
Acetonitrile	100 ug/L	Acrolein	100 ug/L
Acrylonitrile	100 ug/L	Allyl chloride	50 ug/L
Benzene	50 ug/L	Bromobenzene	50 ug/L
Bromochloromethane	50 ug/L	Bromodichloromethane	50 ug/L
Bromoform	50 ug/L	Bromomethane	50 ug/L
Carbon disulfide	50 ug/L	Carbon tetrachloride	50 ug/L
Chlorobenzene	50 ug/L	Chloroethane	50 ug/L
Chloroform	50 ug/L	Chloromethane	50 ug/L
Chloroprene	50 ug/L	Cyclohexane	50 ug/L
Dibromochloromethane	50 ug/L	Dibromomethane	50 ug/L
Dichlorodifluoromethane	50 ug/L	Diethyl ether (Ethyl ether)	50 ug/L
Ethyl acetate	100 ug/L	Ethyl methacrylate	50 ug/L
Ethylbenzene	50 ug/L	Hexachloro-1,3-butadiene	50 ug/L
Iodomethane	50 ug/L	Isobutanol	100 ug/L
Isopropyl acetate	50 ug/L	Isopropylbenzene	50 ug/L
Methacrylonitrile	100 ug/L	Methanol	ug/L
Methyl acetate	100 ug/L	Methyl acrylate	50 ug/L
Methyl methacrylate	50 ug/L	Methyl-tert-butyl ether	50 ug/L
Methylcyclohexane	50 ug/L	Methylene Chloride	50 ug/L
Naphthalene	50 ug/L	Propionitrile	100 ug/L
Styrene	50 ug/L	TOTAL BTEX	300 ug/L
Tetrachloroethene	50 ug/L	Tetrahydrofuran	100 ug/L
Toluene	50 ug/L	Total Trihalomethanes	200 ug/L
Trichloroethene	50 ug/L	Trichlorofluoromethane	50 ug/L
Vinyl acetate	50 ug/L	Vinyl chloride	50 ug/L
Xylene (Total)	150 ug/L	cis-1,2-Dichloroethene	50 ug/L
cis-1,3-Dichloropropene	50 ug/L	cis-1,4-Dichloro-2-butene	50 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	100 ug/L	n-Butanol	100 ug/L
n-Butylbenzene	50 ug/L	n-Hexane	50 ug/L
n-Propylbenzene	50 ug/L	n-amyl acetate	50 ug/L
o-Xylene	50 ug/L	p-Isopropyltoluene	50 ug/L
sec-Butylbenzene	50 ug/L	tert-Butylbenzene	50 ug/L
trans-1,2-Dichloroethene	50 ug/L	trans-1,3-Dichloropropene	50 ug/L
trans-1,4-Dichloro-2-	50 ug/L		

Composed of Information for Standard #27244

Composed of Standard Seq	Volume	Units
27114	0.05	mL
26717	0.05	mL
1	49.9	mL

Standard Log Report

Standards Log Information for Standard #27243

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL7

Notes:

MSV 8260 20PPB

Compound Name and Concentration for Standard #27243

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	20 ug/L	1,1,1-Trichloroethane	20 ug/L
1,1,2,2-Tetrachloroethane	20 ug/L	1,1,2-Trichloroethane	20 ug/L
1,1,2-	20 ug/L	1,1-Dichloroethane	20 ug/L
1,1-Dichloroethene	20 ug/L	1,1-Dichloropropene	20 ug/L
1,2,3-Trichlorobenzene	20 ug/L	1,2,3-Trichloropropane	20 ug/L
1,2,4-Trichlorobenzene	20 ug/L	1,2,4-Trimethylbenzene	20 ug/L
1,2-Dibromo-3-	20 ug/L	1,2-Dibromoethane (EDB)	20 ug/L
1,2-Dichlorobenzene	20 ug/L	1,2-Dichloroethane	20 ug/L
1,2-Dichloropropane	20 ug/L	1,3,5-Trimethylbenzene	20 ug/L
1,3-Butadiene	20 ug/L	1,3-Dichlorobenzene	20 ug/L
1,3-Dichloropropane	20 ug/L	1,4-Dichlorobenzene	20 ug/L
1,4-Dioxane (p-Dioxane)	40 ug/L	2,2-Dichloropropane	20 ug/L
2-Butanone (MEK)	40 ug/L	2-Chloroethylvinyl ether	40 ug/L
2-Chlorotoluene	20 ug/L	2-Hexanone	40 ug/L
2-Nitropropane	20 ug/L	4-Chlorotoluene	20 ug/L
4-Methyl-2-pentanone	40 ug/L	Acetone	40 ug/L
Acetonitrile	40 ug/L	Acrolein	40 ug/L
Acrylonitrile	40 ug/L	Allyl chloride	20 ug/L
Benzene	20 ug/L	Bromobenzene	20 ug/L
Bromochloromethane	20 ug/L	Bromodichloromethane	20 ug/L
Bromoform	20 ug/L	Bromomethane	20 ug/L
Carbon disulfide	20 ug/L	Carbon tetrachloride	20 ug/L
Chlorobenzene	20 ug/L	Chloroethane	20 ug/L
Chloroform	20 ug/L	Chloromethane	20 ug/L
Chloroprene	20 ug/L	Cyclohexane	20 ug/L
Dibromochloromethane	20 ug/L	Dibromomethane	20 ug/L
Dichlorodifluoromethane	20 ug/L	Diethyl ether (Ethyl ether)	20 ug/L
Ethyl acetate	40 ug/L	Ethyl methacrylate	20 ug/L
Ethylbenzene	20 ug/L	Hexachloro-1,3-butadiene	20 ug/L
Iodomethane	20 ug/L	Isobutanol	40 ug/L
Isopropyl acetate	20 ug/L	Isopropylbenzene	20 ug/L
Methacrylonitrile	40 ug/L	Methanol	ug/L
Methyl acetate	40 ug/L	Methyl acrylate	20 ug/L
Methyl methacrylate	20 ug/L	Methyl-tert-butyl ether	20 ug/L
Methylcyclohexane	20 ug/L	Methylene Chloride	20 ug/L
Naphthalene	20 ug/L	Propionitrile	40 ug/L
Styrene	20 ug/L	TOTAL BTEX	120 ug/L
Tetrachloroethene	20 ug/L	Tetrahydrofuran	40 ug/L
Toluene	20 ug/L	Total Trihalomethanes	80 ug/L
Trichloroethene	20 ug/L	Trichlorofluoromethane	20 ug/L
Vinyl acetate	20 ug/L	Vinyl chloride	20 ug/L
Xylene (Total)	60 ug/L	cis-1,2-Dichloroethene	20 ug/L
cis-1,3-Dichloropropene	20 ug/L	cis-1,4-Dichloro-2-butene	20 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	40 ug/L	n-Butanol	40 ug/L
n-Butylbenzene	20 ug/L	n-Hexane	20 ug/L
n-Propylbenzene	20 ug/L	n-amyl acetate	20 ug/L
o-Xylene	20 ug/L	p-Isopropyltoluene	20 ug/L
sec-Butylbenzene	20 ug/L	tert-Butylbenzene	20 ug/L
trans-1,2-Dichloroethene	20 ug/L	trans-1,3-Dichloropropene	20 ug/L
trans-1,4-Dichloro-2-	20 ug/L		

Composed of Information for Standard #27243

Composed of Standard Seq	Volume	Units
27114	0.02	mL
26717	0.02	mL
1	49.96	mL

Standard Log Report

Standards Log Information for Standard #27242

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL6

Notes:

MSV 8260 10PPB

Compound Name and Concentration for Standard #27242

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	10 ug/L	1,1,1-Trichloroethane	10 ug/L
1,1,2,2-Tetrachloroethane	10 ug/L	1,1,2-Trichloroethane	10 ug/L
1,1,2-	10 ug/L	1,1-Dichloroethane	10 ug/L
1,1-Dichloroethene	10 ug/L	1,1-Dichloropropene	10 ug/L
1,2,3-Trichlorobenzene	10 ug/L	1,2,3-Trichloropropane	10 ug/L
1,2,4-Trichlorobenzene	10 ug/L	1,2,4-Trimethylbenzene	10 ug/L
1,2-Dibromo-3-	10 ug/L	1,2-Dibromoethane (EDB)	10 ug/L
1,2-Dichlorobenzene	10 ug/L	1,2-Dichloroethane	10 ug/L
1,2-Dichloropropane	10 ug/L	1,3,5-Trimethylbenzene	10 ug/L
1,3-Butadiene	10 ug/L	1,3-Dichlorobenzene	10 ug/L
1,3-Dichloropropane	10 ug/L	1,4-Dichlorobenzene	10 ug/L
1,4-Dioxane (p-Dioxane)	20 ug/L	2,2-Dichloropropane	10 ug/L
2-Butanone (MEK)	20 ug/L	2-Chloroethylvinyl ether	20 ug/L
2-Chlorotoluene	10 ug/L	2-Hexanone	20 ug/L
2-Nitropropane	10 ug/L	4-Chlorotoluene	10 ug/L
4-Methyl-2-pentanone	20 ug/L	Acetone	20 ug/L
Acetonitrile	20 ug/L	Acrolein	20 ug/L
Acrylonitrile	20 ug/L	Allyl chloride	10 ug/L
Benzene	10 ug/L	Bromobenzene	10 ug/L
Bromochloromethane	10 ug/L	Bromodichloromethane	10 ug/L
Bromoform	10 ug/L	Bromomethane	10 ug/L
Carbon disulfide	10 ug/L	Carbon tetrachloride	10 ug/L
Chlorobenzene	10 ug/L	Chloroethane	10 ug/L
Chloroform	10 ug/L	Chloromethane	10 ug/L
Chloroprene	10 ug/L	Cyclohexane	10 ug/L
Dibromochloromethane	10 ug/L	Dibromomethane	10 ug/L
Dichlorodifluoromethane	10 ug/L	Diethyl ether (Ethyl ether)	10 ug/L
Ethyl acetate	20 ug/L	Ethyl methacrylate	10 ug/L
Ethylbenzene	10 ug/L	Hexachloro-1,3-butadiene	10 ug/L
Iodomethane	10 ug/L	Isobutanol	20 ug/L
Isopropyl acetate	10 ug/L	Isopropylbenzene	10 ug/L
Methacrylonitrile	20 ug/L	Methanol	ug/L
Methyl acetate	20 ug/L	Methyl acrylate	10 ug/L
Methyl methacrylate	10 ug/L	Methyl-tert-butyl ether	10 ug/L
Methylcyclohexane	10 ug/L	Methylene Chloride	10 ug/L
Naphthalene	10 ug/L	Propionitrile	20 ug/L
Styrene	10 ug/L	TOTAL BTEX	60 ug/L
Tetrachloroethene	10 ug/L	Tetrahydrofuran	20 ug/L
Toluene	10 ug/L	Total Trihalomethanes	40 ug/L
Trichloroethene	10 ug/L	Trichlorofluoromethane	10 ug/L
Vinyl acetate	10 ug/L	Vinyl chloride	10 ug/L
Xylene (Total)	30 ug/L	cis-1,2-Dichloroethene	10 ug/L
cis-1,3-Dichloropropene	10 ug/L	cis-1,4-Dichloro-2-butene	10 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	20 ug/L	n-Butanol	20 ug/L
n-Butylbenzene	10 ug/L	n-Hexane	10 ug/L
n-Propylbenzene	10 ug/L	n-amyl acetate	10 ug/L
o-Xylene	10 ug/L	p-Isopropyltoluene	10 ug/L
sec-Butylbenzene	10 ug/L	tert-Butylbenzene	10 ug/L
trans-1,2-Dichloroethene	10 ug/L	trans-1,3-Dichloropropene	10 ug/L
trans-1,4-Dichloro-2-	10 ug/L		

Composed of Information for Standard #27242

Composed of Standard Seq	Volume	Units
27114	0.01	mL
26717	0.01	mL
1	49.98	mL

Standard Log Report

Standards Log Information for Standard #27241

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL5

Notes:

MSV 8260 5PPB

Compound Name and Concentration for Standard #27241

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	5 ug/L	1,1,1-Trichloroethane	5 ug/L
1,1,2,2-Tetrachloroethane	5 ug/L	1,1,2-Trichloroethane	5 ug/L
1,1,2-	5 ug/L	1,1-Dichloroethane	5 ug/L
1,1-Dichloroethene	5 ug/L	1,1-Dichloropropene	5 ug/L
1,2,3-Trichlorobenzene	5 ug/L	1,2,3-Trichloropropane	5 ug/L
1,2,4-Trichlorobenzene	5 ug/L	1,2,4-Trimethylbenzene	5 ug/L
1,2-Dibromo-3-	5 ug/L	1,2-Dibromoethane (EDB)	5 ug/L
1,2-Dichlorobenzene	5 ug/L	1,2-Dichloroethane	5 ug/L
1,2-Dichloropropane	5 ug/L	1,3,5-Trimethylbenzene	5 ug/L
1,3-Butadiene	5 ug/L	1,3-Dichlorobenzene	5 ug/L
1,3-Dichloropropane	5 ug/L	1,4-Dichlorobenzene	5 ug/L
1,4-Dioxane (p-Dioxane)	10 ug/L	2,2-Dichloropropane	5 ug/L
2-Butanone (MEK)	10 ug/L	2-Chloroethylvinyl ether	10 ug/L
2-Chlorotoluene	5 ug/L	2-Hexanone	10 ug/L
2-Nitropropane	5 ug/L	4-Chlorotoluene	5 ug/L
4-Methyl-2-pentanone	10 ug/L	Acetone	10 ug/L
Acetonitrile	10 ug/L	Acrolein	10 ug/L
Acrylonitrile	10 ug/L	Allyl chloride	5 ug/L
Benzene	5 ug/L	Bromobenzene	5 ug/L
Bromochloromethane	5 ug/L	Bromodichloromethane	5 ug/L
Bromoform	5 ug/L	Bromomethane	5 ug/L
Carbon disulfide	5 ug/L	Carbon tetrachloride	5 ug/L
Chlorobenzene	5 ug/L	Chloroethane	5 ug/L
Chloroform	5 ug/L	Chloromethane	5 ug/L
Chloroprene	5 ug/L	Cyclohexane	5 ug/L
Dibromochloromethane	5 ug/L	Dibromomethane	5 ug/L
Dichlorodifluoromethane	5 ug/L	Diethyl ether (Ethyl ether)	5 ug/L
Ethyl acetate	10 ug/L	Ethyl methacrylate	5 ug/L
Ethylbenzene	5 ug/L	Hexachloro-1,3-butadiene	5 ug/L
Iodomethane	5 ug/L	Isobutanol	10 ug/L
Isopropyl acetate	5 ug/L	Isopropylbenzene	5 ug/L
Methacrylonitrile	10 ug/L	Methanol	ug/L
Methyl acetate	10 ug/L	Methyl acrylate	5 ug/L
Methyl methacrylate	5 ug/L	Methyl-tert-butyl ether	5 ug/L
Methylcyclohexane	5 ug/L	Methylene Chloride	5 ug/L
Naphthalene	5 ug/L	Propionitrile	10 ug/L
Styrene	5 ug/L	TOTAL BTEX	30 ug/L
Tetrachloroethene	5 ug/L	Tetrahydrofuran	10 ug/L
Toluene	5 ug/L	Total Trihalomethanes	20 ug/L
Trichloroethene	5 ug/L	Trichlorofluoromethane	5 ug/L
Vinyl acetate	5 ug/L	Vinyl chloride	5 ug/L
Xylene (Total)	15 ug/L	cis-1,2-Dichloroethene	5 ug/L
cis-1,3-Dichloropropene	5 ug/L	cis-1,4-Dichloro-2-butene	5 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	10 ug/L	n-Butanol	10 ug/L
n-Butylbenzene	5 ug/L	n-Hexane	5 ug/L
n-Propylbenzene	5 ug/L	n-amyl acetate	5 ug/L
o-Xylene	5 ug/L	p-Isopropyltoluene	5 ug/L
sec-Butylbenzene	5 ug/L	tert-Butylbenzene	5 ug/L
trans-1,2-Dichloroethene	5 ug/L	trans-1,3-Dichloropropene	5 ug/L
trans-1,4-Dichloro-2-	5 ug/L		

Composed of Information for Standard #27241

Composed of Standard Seq	Volume	Units
27114	0.005	mL
26717	0.005	mL
1	49.99	mL

Standard Log Report

Standards Log Information for Standard #27240

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL4

Notes:

MSV 8260 2PPB

Compound Name and Concentration for Standard #27240

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	2 ug/L	1,1,1-Trichloroethane	2 ug/L
1,1,2,2-Tetrachloroethane	2 ug/L	1,1,2-Trichloroethane	2 ug/L
1,1,2-	2 ug/L	1,1-Dichloroethane	2 ug/L
1,1-Dichloroethene	2 ug/L	1,1-Dichloropropene	2 ug/L
1,2,3-Trichlorobenzene	2 ug/L	1,2,3-Trichloropropane	2 ug/L
1,2,4-Trichlorobenzene	2 ug/L	1,2,4-Trimethylbenzene	2 ug/L
1,2-Dibromo-3-	2 ug/L	1,2-Dibromoethane (EDB)	2 ug/L
1,2-Dichlorobenzene	2 ug/L	1,2-Dichloroethane	2 ug/L
1,2-Dichloropropane	2 ug/L	1,3,5-Trimethylbenzene	2 ug/L
1,3-Butadiene	2 ug/L	1,3-Dichlorobenzene	2 ug/L
1,3-Dichloropropane	2 ug/L	1,4-Dichlorobenzene	2 ug/L
1,4-Dioxane (p-Dioxane)	4 ug/L	2,2-Dichloropropane	2 ug/L
2-Butanone (MEK)	4 ug/L	2-Chloroethylvinyl ether	4 ug/L
2-Chlorotoluene	2 ug/L	2-Hexanone	4 ug/L
2-Nitropropane	2 ug/L	4-Chlorotoluene	2 ug/L
4-Methyl-2-pentanone	4 ug/L	Acetone	4 ug/L
Acetonitrile	4 ug/L	Acrolein	4 ug/L
Acrylonitrile	4 ug/L	Allyl chloride	2 ug/L
Benzene	2 ug/L	Bromobenzene	2 ug/L
Bromochloromethane	2 ug/L	Bromodichloromethane	2 ug/L
Bromoform	2 ug/L	Bromomethane	2 ug/L
Carbon disulfide	2 ug/L	Carbon tetrachloride	2 ug/L
Chlorobenzene	2 ug/L	Chloroethane	2 ug/L
Chloroform	2 ug/L	Chloromethane	2 ug/L
Chloroprene	2 ug/L	Cyclohexane	2 ug/L
Dibromochloromethane	2 ug/L	Dibromomethane	2 ug/L
Dichlorodifluoromethane	2 ug/L	Diethyl ether (Ethyl ether)	2 ug/L
Ethyl acetate	4 ug/L	Ethyl methacrylate	2 ug/L
Ethylbenzene	2 ug/L	Hexachloro-1,3-butadiene	2 ug/L
Iodomethane	2 ug/L	Isobutanol	4 ug/L
Isopropyl acetate	2 ug/L	Isopropylbenzene	2 ug/L
Methacrylonitrile	4 ug/L	Methanol	ug/L
Methyl acetate	4 ug/L	Methyl acrylate	2 ug/L
Methyl methacrylate	2 ug/L	Methyl-tert-butyl ether	2 ug/L
Methylcyclohexane	2 ug/L	Methylene Chloride	2 ug/L
Naphthalene	2 ug/L	Propionitrile	4 ug/L
Styrene	2 ug/L	TOTAL BTEX	12 ug/L
Tetrachloroethene	2 ug/L	Tetrahydrofuran	4 ug/L
Toluene	2 ug/L	Total Trihalomethanes	8 ug/L
Trichloroethene	2 ug/L	Trichlorofluoromethane	2 ug/L
Vinyl acetate	2 ug/L	Vinyl chloride	2 ug/L
Xylene (Total)	6 ug/L	cis-1,2-Dichloroethene	2 ug/L
cis-1,3-Dichloropropene	2 ug/L	cis-1,4-Dichloro-2-butene	2 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	4 ug/L	n-Butanol	4 ug/L
n-Butylbenzene	2 ug/L	n-Hexane	2 ug/L
n-Propylbenzene	2 ug/L	n-amyl acetate	2 ug/L
o-Xylene	2 ug/L	p-Isopropyltoluene	2 ug/L
sec-Butylbenzene	2 ug/L	tert-Butylbenzene	2 ug/L
trans-1,2-Dichloroethene	2 ug/L	trans-1,3-Dichloropropene	2 ug/L
trans-1,4-Dichloro-2-	2 ug/L		

Composed of Information for Standard #27240

Composed of Standard Seq	Volume	Units
27114	0.002	mL
26717	0.002	mL
1	49.996	mL

Standard Log Report

Standards Log Information for Standard #27239

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL3

Notes:

MSV 8260 1PPB

Compound Name and Concentration for Standard #27239

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	1 ug/L	1,1,1-Trichloroethane	1 ug/L
1,1,2,2-Tetrachloroethane	1 ug/L	1,1,2-Trichloroethane	1 ug/L
1,1,2-	1 ug/L	1,1-Dichloroethane	1 ug/L
1,1-Dichloroethene	1 ug/L	1,1-Dichloropropene	1 ug/L
1,2,3-Trichlorobenzene	1 ug/L	1,2,3-Trichloropropane	1 ug/L
1,2,4-Trichlorobenzene	1 ug/L	1,2,4-Trimethylbenzene	1 ug/L
1,2-Dibromo-3-	1 ug/L	1,2-Dibromoethane (EDB)	1 ug/L
1,2-Dichlorobenzene	1 ug/L	1,2-Dichloroethane	1 ug/L
1,2-Dichloropropane	1 ug/L	1,3,5-Trimethylbenzene	1 ug/L
1,3-Butadiene	1 ug/L	1,3-Dichlorobenzene	1 ug/L
1,3-Dichloropropane	1 ug/L	1,4-Dichlorobenzene	1 ug/L
1,4-Dioxane (p-Dioxane)	2 ug/L	2,2-Dichloropropane	1 ug/L
2-Butanone (MEK)	2 ug/L	2-Chloroethylvinyl ether	2 ug/L
2-Chlorotoluene	1 ug/L	2-Hexanone	2 ug/L
2-Nitropropane	1 ug/L	4-Chlorotoluene	1 ug/L
4-Methyl-2-pentanone	2 ug/L	Acetone	2 ug/L
Acetonitrile	2 ug/L	Acrolein	2 ug/L
Acrylonitrile	2 ug/L	Allyl chloride	1 ug/L
Benzene	1 ug/L	Bromobenzene	1 ug/L
Bromochloromethane	1 ug/L	Bromodichloromethane	1 ug/L
Bromoform	1 ug/L	Bromomethane	1 ug/L
Carbon disulfide	1 ug/L	Carbon tetrachloride	1 ug/L
Chlorobenzene	1 ug/L	Chloroethane	1 ug/L
Chloroform	1 ug/L	Chloromethane	1 ug/L
Chloroprene	1 ug/L	Cyclohexane	1 ug/L
Dibromochloromethane	1 ug/L	Dibromomethane	1 ug/L
Dichlorodifluoromethane	1 ug/L	Diethyl ether (Ethyl ether)	1 ug/L
Ethyl acetate	2 ug/L	Ethyl methacrylate	1 ug/L
Ethylbenzene	1 ug/L	Hexachloro-1,3-butadiene	1 ug/L
Iodomethane	1 ug/L	Isobutanol	2 ug/L
Isopropyl acetate	1 ug/L	Isopropylbenzene	1 ug/L
Methacrylonitrile	2 ug/L	Methanol	ug/L
Methyl acetate	2 ug/L	Methyl acrylate	1 ug/L
Methyl methacrylate	1 ug/L	Methyl-tert-butyl ether	1 ug/L
Methylcyclohexane	1 ug/L	Methylene Chloride	1 ug/L
Naphthalene	1 ug/L	Propionitrile	2 ug/L
Styrene	1 ug/L	TOTAL BTEX	6 ug/L
Tetrachloroethene	1 ug/L	Tetrahydrofuran	2 ug/L
Toluene	1 ug/L	Total Trihalomethanes	4 ug/L
Trichloroethene	1 ug/L	Trichlorofluoromethane	1 ug/L
Vinyl acetate	1 ug/L	Vinyl chloride	1 ug/L
Xylene (Total)	3 ug/L	cis-1,2-Dichloroethene	1 ug/L
cis-1,3-Dichloropropene	1 ug/L	cis-1,4-Dichloro-2-butene	1 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	2 ug/L	n-Butanol	2 ug/L
n-Butylbenzene	1 ug/L	n-Hexane	1 ug/L
n-Propylbenzene	1 ug/L	n-amyl acetate	1 ug/L
o-Xylene	1 ug/L	p-Isopropyltoluene	1 ug/L
sec-Butylbenzene	1 ug/L	tert-Butylbenzene	1 ug/L
trans-1,2-Dichloroethene	1 ug/L	trans-1,3-Dichloropropene	1 ug/L
trans-1,4-Dichloro-2-	1 ug/L		

Composed of Information for Standard #27239

Composed of Standard Seq	Volume	Units
27114	0.001	mL
26717	0.001	mL
1	49.998	mL

Standard Log Report

Standards Log Information for Standard #27238

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	100 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL2

Notes:

MSV 8260 0.5PPB

Compound Name and Concentration for Standard #27238

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	.5 ug/L	1,1,1-Trichloroethane	.5 ug/L
1,1,2,2-Tetrachloroethane	.5 ug/L	1,1,2-Trichloroethane	.5 ug/L
1,1,2-	.5 ug/L	1,1-Dichloroethane	.5 ug/L
1,1-Dichloroethene	.5 ug/L	1,1-Dichloropropene	.5 ug/L
1,2,3-Trichlorobenzene	.5 ug/L	1,2,3-Trichloropropane	.5 ug/L
1,2,4-Trichlorobenzene	.5 ug/L	1,2,4-Trimethylbenzene	.5 ug/L
1,2-Dibromo-3-	.5 ug/L	1,2-Dibromoethane (EDB)	.5 ug/L
1,2-Dichlorobenzene	.5 ug/L	1,2-Dichloroethane	.5 ug/L
1,2-Dichloropropane	.5 ug/L	1,3,5-Trimethylbenzene	.5 ug/L
1,3-Butadiene	.5 ug/L	1,3-Dichlorobenzene	.5 ug/L
1,3-Dichloropropane	.5 ug/L	1,4-Dichlorobenzene	.5 ug/L
1,4-Dioxane (p-Dioxane)	1 ug/L	2,2-Dichloropropane	.5 ug/L
2-Butanone (MEK)	1 ug/L	2-Chloroethylvinyl ether	1 ug/L
2-Chlorotoluene	.5 ug/L	2-Hexanone	1 ug/L
2-Nitropropane	.5 ug/L	4-Chlorotoluene	.5 ug/L
4-Methyl-2-pentanone	1 ug/L	Acetone	1 ug/L
Acetonitrile	1 ug/L	Acrolein	1 ug/L
Acrylonitrile	1 ug/L	Allyl chloride	.5 ug/L
Benzene	.5 ug/L	Bromobenzene	.5 ug/L
Bromochloromethane	.5 ug/L	Bromodichloromethane	.5 ug/L
Bromoform	.5 ug/L	Bromomethane	.5 ug/L
Carbon disulfide	.5 ug/L	Carbon tetrachloride	.5 ug/L
Chlorobenzene	.5 ug/L	Chloroethane	.5 ug/L
Chloroform	.5 ug/L	Chloromethane	.5 ug/L
Chloroprene	.5 ug/L	Cyclohexane	.5 ug/L
Dibromochloromethane	.5 ug/L	Dibromomethane	.5 ug/L
Dichlorodifluoromethane	.5 ug/L	Diethyl ether (Ethyl ether)	.5 ug/L
Ethyl acetate	1 ug/L	Ethyl methacrylate	.5 ug/L
Ethylbenzene	.5 ug/L	Hexachloro-1,3-butadiene	.5 ug/L
Iodomethane	.5 ug/L	Isobutanol	1 ug/L
Isopropyl acetate	.5 ug/L	Isopropylbenzene	.5 ug/L
Methacrylonitrile	1 ug/L	Methanol	ug/L
Methyl acetate	1 ug/L	Methyl acrylate	.5 ug/L
Methyl methacrylate	.5 ug/L	Methyl-tert-butyl ether	.5 ug/L
Methylcyclohexane	.5 ug/L	Methylene Chloride	.5 ug/L
Naphthalene	.5 ug/L	Propionitrile	1 ug/L
Styrene	.5 ug/L	TOTAL BTEX	3 ug/L
Tetrachloroethene	.5 ug/L	Tetrahydrofuran	1 ug/L
Toluene	.5 ug/L	Total Trihalomethanes	2 ug/L
Trichloroethene	.5 ug/L	Trichlorofluoromethane	.5 ug/L
Vinyl acetate	.5 ug/L	Vinyl chloride	.5 ug/L
Xylene (Total)	1.5 ug/L	cis-1,2-Dichloroethene	.5 ug/L
cis-1,3-Dichloropropene	.5 ug/L	cis-1,4-Dichloro-2-butene	.5 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	1 ug/L	n-Butanol	1 ug/L
n-Butylbenzene	.5 ug/L	n-Hexane	.5 ug/L
n-Propylbenzene	.5 ug/L	n-amyl acetate	.5 ug/L
o-Xylene	.5 ug/L	p-Isopropyltoluene	.5 ug/L
sec-Butylbenzene	.5 ug/L	tert-Butylbenzene	.5 ug/L
trans-1,2-Dichloroethene	.5 ug/L	trans-1,3-Dichloropropene	.5 ug/L
trans-1,4-Dichloro-2-	.5 ug/L		

Composed of Information for Standard #27238

Composed of Standard Seq	Volume	Units
27114	0.001	mL
26717	0.001	mL
1	99.998	mL

Standard Log Report

Standards Log Information for Standard #27237

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	100 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL1

Notes:

MSV 8260 0.2 PPB

Compound Name and Concentration for Standard #27237

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	.2 ug/L	1,1,1-Trichloroethane	.2 ug/L
1,1,2,2-Tetrachloroethane	.2 ug/L	1,1,2-Trichloroethane	.2 ug/L
1,1,2-	.2 ug/L	1,1-Dichloroethane	.2 ug/L
1,1-Dichloroethene	.2 ug/L	1,1-Dichloropropene	.2 ug/L
1,2,3-Trichlorobenzene	.2 ug/L	1,2,3-Trichloropropane	.2 ug/L
1,2,4-Trichlorobenzene	.2 ug/L	1,2,4-Trimethylbenzene	.2 ug/L
1,2-Dibromo-3-	.2 ug/L	1,2-Dibromoethane (EDB)	.2 ug/L
1,2-Dichlorobenzene	.2 ug/L	1,2-Dichloroethane	.2 ug/L
1,2-Dichloropropane	.2 ug/L	1,3,5-Trimethylbenzene	.2 ug/L
1,3-Butadiene	.2 ug/L	1,3-Dichlorobenzene	.2 ug/L
1,3-Dichloropropane	.2 ug/L	1,4-Dichlorobenzene	.2 ug/L
1,4-Dioxane (p-Dioxane)	.4 ug/L	2,2-Dichloropropane	.2 ug/L
2-Butanone (MEK)	.4 ug/L	2-Chloroethylvinyl ether	.4 ug/L
2-Chlorotoluene	.2 ug/L	2-Hexanone	.4 ug/L
2-Nitropropane	.2 ug/L	4-Chlorotoluene	.2 ug/L
4-Methyl-2-pentanone	.4 ug/L	Acetone	.4 ug/L
Acetonitrile	.4 ug/L	Acrolein	.4 ug/L
Acrylonitrile	.4 ug/L	Allyl chloride	.2 ug/L
Benzene	.2 ug/L	Bromobenzene	.2 ug/L
Bromochloromethane	.2 ug/L	Bromodichloromethane	.2 ug/L
Bromoform	.2 ug/L	Bromomethane	.2 ug/L
Carbon disulfide	.2 ug/L	Carbon tetrachloride	.2 ug/L
Chlorobenzene	.2 ug/L	Chloroethane	.2 ug/L
Chloroform	.2 ug/L	Chloromethane	.2 ug/L
Chloroprene	.2 ug/L	Cyclohexane	.2 ug/L
Dibromochloromethane	.2 ug/L	Dibromomethane	.2 ug/L
Dichlorodifluoromethane	.2 ug/L	Diethyl ether (Ethyl ether)	.2 ug/L
Ethyl acetate	.4 ug/L	Ethyl methacrylate	.2 ug/L
Ethylbenzene	.2 ug/L	Hexachloro-1,3-butadiene	.2 ug/L
Iodomethane	.2 ug/L	Isobutanol	.4 ug/L
Isopropyl acetate	.2 ug/L	Isopropylbenzene	.2 ug/L
Methacrylonitrile	.4 ug/L	Methanol	ug/L
Methyl acetate	.4 ug/L	Methyl acrylate	.2 ug/L
Methyl methacrylate	.2 ug/L	Methyl-tert-butyl ether	.2 ug/L
Methylcyclohexane	.2 ug/L	Methylene Chloride	.2 ug/L
Naphthalene	.2 ug/L	Propionitrile	.4 ug/L
Styrene	.2 ug/L	TOTAL BTEX	1.2 ug/L
Tetrachloroethene	.2 ug/L	Tetrahydrofuran	.4 ug/L
Toluene	.2 ug/L	Total Trihalomethanes	.8 ug/L
Trichloroethene	.2 ug/L	Trichlorofluoromethane	.2 ug/L
Vinyl acetate	.2 ug/L	Vinyl chloride	.2 ug/L
Xylene (Total)	.6 ug/L	cis-1,2-Dichloroethene	.2 ug/L
cis-1,3-Dichloropropene	.2 ug/L	cis-1,4-Dichloro-2-butene	.2 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	.4 ug/L	n-Butanol	.4 ug/L
n-Butylbenzene	.2 ug/L	n-Hexane	.2 ug/L
n-Propylbenzene	.2 ug/L	n-amyl acetate	.2 ug/L
o-Xylene	.2 ug/L	p-Isopropyltoluene	.2 ug/L
sec-Butylbenzene	.2 ug/L	tert-Butylbenzene	.2 ug/L
trans-1,2-Dichloroethene	.2 ug/L	trans-1,3-Dichloropropene	.2 ug/L
trans-1,4-Dichloro-2-	.2 ug/L		

Composed of Information for Standard #27237

Composed of Standard Seq	Volume	Units
27114	0.0004	mL
26717	0.0004	mL
1	99.9992	mL

Standard Log Report

Standards Log Information for Standard #27136

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/19/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CCV

Notes:

MSV 8260 CCV

Compound Name and Concentration for Standard #27136

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	20 ug/L	1,1,1-Trichloroethane	20 ug/L
1,1,2,2-Tetrachloroethane	20 ug/L	1,1,2-Trichloroethane	20 ug/L
1,1,2-	20 ug/L	1,1-Dichloroethane	20 ug/L
1,1-Dichloroethene	20 ug/L	1,1-Dichloropropene	20 ug/L
1,2,3-Trichlorobenzene	20 ug/L	1,2,3-Trichloropropane	20 ug/L
1,2,4-Trichlorobenzene	20 ug/L	1,2,4-Trimethylbenzene	20 ug/L
1,2-Dibromo-3-	20 ug/L	1,2-Dibromoethane (EDB)	20 ug/L
1,2-Dichlorobenzene	20 ug/L	1,2-Dichloroethane	20 ug/L
1,2-Dichloropropane	20 ug/L	1,3,5-Trimethylbenzene	20 ug/L
1,3-Butadiene	20 ug/L	1,3-Dichlorobenzene	20 ug/L
1,3-Dichloropropane	20 ug/L	1,4-Dichlorobenzene	20 ug/L
1,4-Dioxane (p-Dioxane)	40 ug/L	2,2-Dichloropropane	20 ug/L
2-Butanone (MEK)	40 ug/L	2-Chloroethylvinyl ether	40 ug/L
2-Chlorotoluene	20 ug/L	2-Hexanone	40 ug/L
2-Nitropropane	20 ug/L	4-Chlorotoluene	20 ug/L
4-Methyl-2-pentanone	40 ug/L	Acetone	40 ug/L
Acetonitrile	40 ug/L	Acrolein	40 ug/L
Acrylonitrile	40 ug/L	Allyl chloride	20 ug/L
Benzene	20 ug/L	Bromobenzene	20 ug/L
Bromochloromethane	20 ug/L	Bromodichloromethane	20 ug/L
Bromoform	20 ug/L	Bromomethane	20 ug/L
Carbon disulfide	20 ug/L	Carbon tetrachloride	20 ug/L
Chlorobenzene	20 ug/L	Chloroethane	20 ug/L
Chloroform	20 ug/L	Chloromethane	20 ug/L
Chloroprene	20 ug/L	Cyclohexane	20 ug/L
DI Water	ug/L	Dibromochloromethane	20 ug/L
Dibromomethane	20 ug/L	Dichlorodifluoromethane	20 ug/L
Diethyl ether (Ethyl ether)	20 ug/L	Ethyl acetate	40 ug/L
Ethyl methacrylate	20 ug/L	Ethylbenzene	20 ug/L
Hexachloro-1,3-butadiene	20 ug/L	Iodomethane	20 ug/L
Isobutanol	40 ug/L	Isopropyl acetate	20 ug/L
Isopropylbenzene	20 ug/L	Methacrylonitrile	40 ug/L
Methanol	ug/L	Methyl acetate	40 ug/L
Methyl acrylate	20 ug/L	Methyl methacrylate	20 ug/L
Methyl-tert-butyl ether	20 ug/L	Methylcyclohexane	20 ug/L
Methylene Chloride	20 ug/L	Naphthalene	20 ug/L
Propionitrile	40 ug/L	Styrene	20 ug/L
TOTAL BTEX	120 ug/L	Tetrachloroethene	20 ug/L
Tetrahydrofuran	40 ug/L	Toluene	20 ug/L
Total Trihalomethanes	80 ug/L	Trichloroethene	20 ug/L
Trichlorofluoromethane	20 ug/L	Vinyl acetate	20 ug/L
Vinyl chloride	20 ug/L	Xylene (Total)	60 ug/L
cis-1,2-Dichloroethene	20 ug/L	cis-1,3-Dichloropropene	20 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
cis-1,4-Dichloro-2-butene	20 ug/L	m&p-Xylene	40 ug/L
n-Butanol	40 ug/L	n-Butylbenzene	20 ug/L
n-Hexane	20 ug/L	n-Propylbenzene	20 ug/L
n-amyl acetate	20 ug/L	o-Xylene	20 ug/L
p-Isopropyltoluene	20 ug/L	sec-Butylbenzene	20 ug/L
tert-Butylbenzene	20 ug/L	trans-1,2-Dichloroethene	20 ug/L
trans-1,3-Dichloropropene	20 ug/L	trans-1,4-Dichloro-2-	20 ug/L

Composed of Information for Standard #27136

Composed of Standard Seq	Volume	Units
27114	0.02	mL
26717	0.02	mL
1	49.96	mL

Standard Log Report

Standards Log Information for Standard #27116

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/18/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260GAS-SPK

Notes:

MSV 8260 Agilent Secondary Gas Spike MIX

Compound Name and Concentration for Standard #27116

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	100 ug/mL	Acrolein	100 ug/mL
Acrylonitrile	100 ug/mL	Bromomethane	50 ug/mL
Chloroethane	50 ug/mL	Chloromethane	50 ug/mL
Dichlorodifluoromethane	50 ug/mL	Methanol	ug/mL
Methyl acetate	100 ug/mL	Trichlorofluoromethane	50 ug/mL
Vinyl acetate	50 ug/mL	Vinyl chloride	50 ug/mL

Composed of Information for Standard #27116

Composed of Standard Seq	Volume	Units
26774	23.5	mL
26712	0.625	mL
26711	0.25	mL
26710	0.625	mL

Standard Log Report

Standards Log Information for Standard #27114

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/18/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260GAS-SPK

Notes:

MSV 8260 Phenova Primary Gas Spike MIX

Compound Name and Concentration for Standard #27114

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	100 ug/mL	Acrolein	100 ug/mL
Acrylonitrile	100 ug/mL	Bromomethane	50 ug/mL
Chloroethane	50 ug/mL	Chloromethane	50 ug/mL
Dichlorodifluoromethane	50 ug/mL	Methanol	ug/mL
Methyl acetate	100 ug/mL	Trichlorofluoromethane	50 ug/mL
Vinyl acetate	50 ug/mL	Vinyl chloride	50 ug/mL

Composed of Information for Standard #27114

Composed of Standard Seq	Volume	Units
26774	23.25	mL
26387	0.25	mL
26386	0.625	mL
26385	0.25	mL
24913	0.625	mL

Standard Log Report

Standards Log Information for Standard #26774

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	522674
Create Date:	08/07/2020	**Manufacturer:**	Fisher Scientific	**Part ID:**	A453-500
Expire Date:	02/03/2021	**Manufacturer Lot ID:**	198331	**Standard ID:**	RGNT179

Notes:

MSV P/T Methanol

Compound Name and Concentration for Standard #26774

Compound Name	Concentration	Compound Name	Concentration
Methanol			

Standard Log Report

Standards Log Information for Standard #26718

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/06/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/05/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-SPK

Notes:

MSV 8260 Agilent Secondary Mega Mix Spike

Compound Name and Concentration for Standard #26718

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	50 ug/mL	1,1,1-Trichloroethane	50 ug/mL
1,1,2,2-Tetrachloroethane	50 ug/mL	1,1,2-Trichloroethane	50 ug/mL
1,1,2-	50 ug/mL	1,1-Dichloroethane	50 ug/mL
1,1-Dichloroethene	50 ug/mL	1,1-Dichloropropene	50 ug/mL
1,2,3-Trichlorobenzene	50 ug/mL	1,2,3-Trichloropropane	50 ug/mL
1,2,4-Trichlorobenzene	50 ug/mL	1,2,4-Trimethylbenzene	50 ug/mL
1,2-Dibromo-3-	50 ug/mL	1,2-Dibromoethane (EDB)	50 ug/mL
1,2-Dichlorobenzene	50 ug/mL	1,2-Dichloroethane	50 ug/mL
1,2-Dichloropropane	50 ug/mL	1,3,5-Trimethylbenzene	50 ug/mL
1,3-Butadiene	50 ug/mL	1,3-Dichlorobenzene	50 ug/mL
1,3-Dichloropropane	50 ug/mL	1,4-Dichlorobenzene	50 ug/mL
1,4-Dioxane (p-Dioxane)	100 ug/mL	2,2-Dichloropropane	50 ug/mL
2-Butanone (MEK)	100 ug/mL	2-Chlorotoluene	50 ug/mL
2-Hexanone	100 ug/mL	2-Nitropropane	50 ug/mL
4-Chlorotoluene	50 ug/mL	4-Methyl-2-pentanone	100 ug/mL
Acetone	100 ug/mL	Acetonitrile	100 ug/mL
Allyl chloride	50 ug/mL	Benzene	50 ug/mL
Bromobenzene	50 ug/mL	Bromochloromethane	50 ug/mL
Bromodichloromethane	50 ug/mL	Bromoform	50 ug/mL
Carbon disulfide	50 ug/mL	Carbon tetrachloride	50 ug/mL
Chlorobenzene	50 ug/mL	Chloroform	50 ug/mL
Chloroprene	50 ug/mL	Cyclohexane	50 ug/mL
Dibromochloromethane	50 ug/mL	Dibromomethane	50 ug/mL
Diethyl ether (Ethyl ether)	50 ug/mL	Ethyl acetate	100 ug/mL
Ethyl methacrylate	50 ug/mL	Ethylbenzene	50 ug/mL
Hexachloro-1,3-butadiene	50 ug/mL	Iodomethane	50 ug/mL
Isobutanol	100 ug/mL	Isopropyl acetate	50 ug/mL
Isopropylbenzene	50 ug/mL	Methacrylonitrile	100 ug/mL
Methanol	ug/mL	Methyl acrylate	50 ug/mL
Methyl methacrylate	50 ug/mL	Methyl-tert-butyl ether	50 ug/mL
Methylcyclohexane	50 ug/mL	Methylene Chloride	50 ug/mL
Naphthalene	50 ug/mL	Propionitrile	100 ug/mL
Styrene	50 ug/mL	TOTAL BTEX	300 ug/mL
Tetrachloroethene	50 ug/mL	Tetrahydrofuran	100 ug/mL
Toluene	50 ug/mL	Total Trihalomethanes	200 ug/mL
Trichloroethene	50 ug/mL	Xylene (Total)	150 ug/mL
cis-1,2-Dichloroethene	50 ug/mL	cis-1,3-Dichloropropene	50 ug/mL
cis-1,4-Dichloro-2-butene	50 ug/mL	m&p-Xylene	100 ug/mL
n-Butanol	100 ug/mL	n-Butylbenzene	50 ug/mL
n-Hexane	50 ug/mL	n-Propylbenzene	50 ug/mL
n-amyl acetate	50 ug/mL	o-Xylene	50 ug/mL
p-Isopropyltoluene	50 ug/mL	sec-Butylbenzene	50 ug/mL
tert-Butylbenzene	50 ug/mL	trans-1,2-Dichloroethene	50 ug/mL

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
trans-1,3-Dichloropropene	50 ug/mL	trans-1,4-Dichloro-2-	50 ug/mL

Composed of Information for Standard #26718

Composed of Standard Seq	Volume	Units
26117	21.375	mL
25570	0.25	mL
25569	0.25	mL
25568	0.625	mL
25566	0.625	mL
25565	0.625	mL
25564	0.625	mL

Standard Log Report

Standards Log Information for Standard #26717

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/06/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/05/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-SPK

Notes:

MSV 8260 Phenova Primary Mega Mix Spike

Compound Name and Concentration for Standard #26717

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	50 ug/mL	1,1,1-Trichloroethane	50 ug/mL
1,1,2,2-Tetrachloroethane	50 ug/mL	1,1,2-Trichloroethane	50 ug/mL
1,1,2-	50 ug/mL	1,1-Dichloroethane	50 ug/mL
1,1-Dichloroethene	50 ug/mL	1,1-Dichloropropene	50 ug/mL
1,2,3-Trichlorobenzene	50 ug/mL	1,2,3-Trichloropropane	50 ug/mL
1,2,4-Trichlorobenzene	50 ug/mL	1,2,4-Trimethylbenzene	50 ug/mL
1,2-Dibromo-3-	50 ug/mL	1,2-Dibromoethane (EDB)	50 ug/mL
1,2-Dichlorobenzene	50 ug/mL	1,2-Dichloroethane	50 ug/mL
1,2-Dichloropropane	50 ug/mL	1,3,5-Trimethylbenzene	50 ug/mL
1,3-Butadiene	50 ug/mL	1,3-Dichlorobenzene	50 ug/mL
1,3-Dichloropropane	50 ug/mL	1,4-Dichlorobenzene	50 ug/mL
1,4-Dioxane (p-Dioxane)	100 ug/mL	2,2-Dichloropropane	50 ug/mL
2-Butanone (MEK)	100 ug/mL	2-Chlorotoluene	50 ug/mL
2-Hexanone	100 ug/mL	2-Nitropropane	50 ug/mL
4-Chlorotoluene	50 ug/mL	4-Methyl-2-pentanone	100 ug/mL
Acetone	100 ug/mL	Acetonitrile	100 ug/mL
Allyl chloride	50 ug/mL	Benzene	50 ug/mL
Bromobenzene	50 ug/mL	Bromochloromethane	50 ug/mL
Bromodichloromethane	50 ug/mL	Bromoform	50 ug/mL
Carbon disulfide	50 ug/mL	Carbon tetrachloride	50 ug/mL
Chlorobenzene	50 ug/mL	Chloroform	50 ug/mL
Chloroprene	50 ug/mL	Cyclohexane	50 ug/mL
Dibromochloromethane	50 ug/mL	Dibromomethane	50 ug/mL
Diethyl ether (Ethyl ether)	50 ug/mL	Ethyl acetate	100 ug/mL
Ethyl methacrylate	50 ug/mL	Ethylbenzene	50 ug/mL
Hexachloro-1,3-butadiene	50 ug/mL	Iodomethane	50 ug/mL
Isobutanol	100 ug/mL	Isopropyl acetate	50 ug/mL
Isopropylbenzene	50 ug/mL	Methacrylonitrile	100 ug/mL
Methanol	ug/mL	Methyl acrylate	50 ug/mL
Methyl methacrylate	50 ug/mL	Methyl-tert-butyl ether	50 ug/mL
Methylcyclohexane	50 ug/mL	Methylene Chloride	50 ug/mL
Naphthalene	50 ug/mL	Propionitrile	100 ug/mL
Styrene	50 ug/mL	TOTAL BTEX	300 ug/mL
Tetrachloroethene	50 ug/mL	Tetrahydrofuran	100 ug/mL
Toluene	50 ug/mL	Total Trihalomethanes	200 ug/mL
Trichloroethene	50 ug/mL	Xylene (Total)	150 ug/mL
cis-1,2-Dichloroethene	50 ug/mL	cis-1,3-Dichloropropene	50 ug/mL
cis-1,4-Dichloro-2-butene	50 ug/mL	m&p-Xylene	100 ug/mL
n-Butanol	100 ug/mL	n-Butylbenzene	50 ug/mL
n-Hexane	50 ug/mL	n-Propylbenzene	50 ug/mL
n-amyl acetate	50 ug/mL	o-Xylene	50 ug/mL
p-Isopropyltoluene	50 ug/mL	sec-Butylbenzene	50 ug/mL
tert-Butylbenzene	50 ug/mL	trans-1,2-Dichloroethene	50 ug/mL

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
trans-1,3-Dichloropropene	50 ug/mL	trans-1,4-Dichloro-2-	50 ug/mL

Composed of Information for Standard #26717

Composed of Standard Seq	Volume	Units
26117	22.625	mL
23770	0.625	mL
23769	0.625	mL
23768	0.625	mL
23767	0.25	mL
23766	0.25	mL

Standard Log Report

Standards Log Information for Standard #26712

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522672
Create Date:	08/06/2020	**Manufacturer:**	Agilent	**Part ID:**	3095185
Expire Date:	11/30/2020	**Manufacturer Lot ID:**	0006547794	**Standard ID:**	ACETATESTK

Notes:

MSV Custom Acetate Mix-Secondary Source

Compound Name and Concentration for Standard #26712

Compound Name	Concentration	Compound Name	Concentration
Vinyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26711

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522671
Create Date:	08/06/2020	**Manufacturer:**	Agilent	**Part ID:**	3059401
Expire Date:	11/30/2020	**Manufacturer Lot ID:**	0006547796	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #26711

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	10000 ug/mL	Acrolein	10000 ug/mL
Acrylonitrile	10000 ug/mL	Methyl acetate	10000 ug/mL

Standard Log Report

Standards Log Information for Standard #26710

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522670
Create Date:	08/06/2020	**Manufacturer:**	Agilent	**Part ID:**	3059400
Expire Date:	08/31/2022	**Manufacturer Lot ID:**	0006547006	**Standard ID:**	MSV-GAS-SS

Notes:

MSV 502.2 Cal Mix#1-Secondary Source

Compound Name and Concentration for Standard #26710

Compound Name	Concentration	Compound Name	Concentration
Bromomethane	2000 ug/mL	Chloroethane	2000 ug/mL
Chloromethane	2000 ug/mL	Dichlorodifluoromethane	2000 ug/mL
Trichlorofluoromethane	2000 ug/mL	Vinyl chloride	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #26400

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	10 mL	**Lot ID:**	PACE
Create Date:	07/30/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/29/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-ISSS

Notes:

MSV Working MV02 524/8260 IS/Surrogate

Compound Name and Concentration for Standard #26400

Compound Name	Concentration	Compound Name	Concentration
1,2-Dichlorobenzene-d4 (S)	50 mg/L	1,2-Dichloroethane-d4 (S)	50 mg/L
1,4-Dichlorobenzene-d4	50 mg/L	1,4-Difluorobenzene (IS)	50 mg/L
4-Bromofluorobenzene (S)	50 mg/L	Chlorobenzene-D5 (IS)	50 mg/L
Dibromofluoromethane (S)	50 mg/L	Fluorobenzene (IS)	50 mg/L
Methanol	mg/L	Pentafluorobenzene (IS)	50 mg/L
Toluene-d8 (S)	50 mg/L		

Composed of Information for Standard #26400

Composed of Standard Seq	Volume	Units
26117	9.1	mL
24910	0.25	mL
24909	0.25	mL
24908	0.2	mL
24907	0.2	mL

Standard Log Report

Standards Log Information for Standard #26387

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522645
Create Date:	07/29/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180007
Expire Date:	10/31/2020	**Manufacturer Lot ID:**	CL15234	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Reactives Std-Primary Source

Compound Name and Concentration for Standard #26387

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	10000 ug/mL	Acrylonitrile	10000 ug/mL
Methyl acetate	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26386

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522644
Create Date:	07/29/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180018
Expire Date:	08/27/2020	**Manufacturer Lot ID:**	CL15596	**Standard ID:**	ACETATEPSTK

Notes:

MSV Phenova Custom Acetate Mix-Primary Source

Compound Name and Concentration for Standard #26386

Compound Name	Concentration	Compound Name	Concentration
Vinyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26385

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522643
Create Date:	07/29/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180017
Expire Date:	08/27/2020	**Manufacturer Lot ID:**	CL15595	**Standard ID:**	AcrolienPSTK

Notes:

MSV Phenova Acrolein Stock Standard - Primary

Compound Name and Concentration for Standard #26385

Compound Name	Concentration	Compound Name	Concentration
Acrolein	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26117

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	522617
Create Date:	07/22/2020	**Manufacturer:**	Fisher Scientific	**Part ID:**	A453-500
Expire Date:	01/18/2021	**Manufacturer Lot ID:**	198331	**Standard ID:**	RGNT179

Notes:

MSV P/T Methanol

Compound Name and Concentration for Standard #26117

Compound Name	Concentration	Compound Name	Concentration
Methanol			

Standard Log Report

Standards Log Information for Standard #25570

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522580
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059390
Expire Date:	04/30/2021	**Manufacturer Lot ID:**	0006527178	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #25570

Compound Name	Concentration	Compound Name	Concentration
n-Butanol	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25569

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522579
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059399
Expire Date:	07/31/2022	**Manufacturer Lot ID:**	00006542413	**Standard ID:**	VOACALMX1

Notes:

MSV VOA Calibration Mix#1-Secondary Source

Compound Name and Concentration for Standard #25569

Compound Name	Concentration	Compound Name	Concentration
1,4-Dioxane (p-Dioxane)	10000 ug/mL	2-Butanone (MEK)	10000 ug/mL
2-Hexanone	10000 ug/mL	4-Methyl-2-pentanone	10000 ug/mL
Acetone	10000 ug/mL	Acetonitrile	10000 ug/mL
Ethyl acetate	10000 ug/mL	Isobutanol	10000 ug/mL
Methacrylonitrile	10000 ug/mL	Propionitrile	10000 ug/mL
Tetrahydrofuran	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25568

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522578
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059396
Expire Date:	04/30/2022	**Manufacturer Lot ID:**	0006527210	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #25568

Compound Name	Concentration	Compound Name	Concentration
Chloroprene	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25566

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522576
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3154935
Expire Date:	09/30/2020	**Manufacturer Lot ID:**	0006537291	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #25566

Compound Name	Concentration	Compound Name	Concentration
Isopropyl acetate	2000 ug/mL	Methyl acrylate	2000 ug/mL
n-amyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25565

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522575
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3083487
Expire Date:	04/30/2021	**Manufacturer Lot ID:**	0006527215	**Standard ID:**	ButadieneSTK

Notes:

MSV 1,3-Butadiene Stock-Secondary Source

Compound Name and Concentration for Standard #25565

Compound Name	Concentration	Compound Name	Concentration
1,3-Butadiene	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25564

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522574
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059393
Expire Date:	07/31/2022	**Manufacturer Lot ID:**	0006542412	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Mix-Agilent Secondary Source

Compound Name and Concentration for Standard #25564

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	2000 ug/mL	1,1,1-Trichloroethane	2000 ug/mL
1,1,2,2-Tetrachloroethane	2000 ug/mL	1,1,2-Trichloroethane	2000 ug/mL
1,1,2-	2000 ug/mL	1,1-Dichloroethane	2000 ug/mL
1,1-Dichloroethene	2000 ug/mL	1,1-Dichloropropene	2000 ug/mL
1,2,3-Trichlorobenzene	2000 ug/mL	1,2,3-Trichloropropane	2000 ug/mL
1,2,4-Trichlorobenzene	2000 ug/mL	1,2,4-Trimethylbenzene	2000 ug/mL
1,2-Dibromo-3-	2000 ug/mL	1,2-Dibromoethane (EDB)	2000 ug/mL
1,2-Dichlorobenzene	2000 ug/mL	1,2-Dichloroethane	2000 ug/mL
1,2-Dichloropropane	2000 ug/mL	1,3,5-Trimethylbenzene	2000 ug/mL
1,3-Dichlorobenzene	2000 ug/mL	1,3-Dichloropropane	2000 ug/mL
1,4-Dichlorobenzene	2000 ug/mL	2,2-Dichloropropane	2000 ug/mL
2-Chlorotoluene	2000 ug/mL	2-Nitropropane	2000 ug/mL
4-Chlorotoluene	2000 ug/mL	Allyl chloride	2000 ug/mL
Benzene	2000 ug/mL	Bromobenzene	2000 ug/mL
Bromochloromethane	2000 ug/mL	Bromodichloromethane	2000 ug/mL
Bromoform	2000 ug/mL	Carbon disulfide	2000 ug/mL
Carbon tetrachloride	2000 ug/mL	Chlorobenzene	2000 ug/mL
Chloroform	2000 ug/mL	Cyclohexane	2000 ug/mL
Dibromochloromethane	2000 ug/mL	Dibromomethane	2000 ug/mL
Diethyl ether (Ethyl ether)	2000 ug/mL	Ethyl methacrylate	2000 ug/mL
Ethylbenzene	2000 ug/mL	Hexachloro-1,3-butadiene	2000 ug/mL
Iodomethane	2000 ug/mL	Isopropylbenzene	2000 ug/mL
Methyl methacrylate	2000 ug/mL	Methyl-tert-butyl ether	2000 ug/mL
Methylcyclohexane	2000 ug/mL	Methylene Chloride	2000 ug/mL
Naphthalene	2000 ug/mL	Styrene	2000 ug/mL
TOTAL BTEX	12000 ug/mL	Tetrachloroethene	2000 ug/mL
Toluene	2000 ug/mL	Total Trihalomethanes	8000 ug/mL
Trichloroethene	2000 ug/mL	Xylene (Total)	6000 ug/mL
cis-1,2-Dichloroethene	2000 ug/mL	cis-1,3-Dichloropropene	2000 ug/mL
cis-1,4-Dichloro-2-butene	2000 ug/mL	m&p-Xylene	4000 ug/mL
n-Butylbenzene	2000 ug/mL	n-Hexane	2000 ug/mL
n-Propylbenzene	2000 ug/mL	o-Xylene	2000 ug/mL
p-Isopropyltoluene	2000 ug/mL	sec-Butylbenzene	2000 ug/mL
tert-Butylbenzene	2000 ug/mL	trans-1,2-Dichloroethene	2000 ug/mL
trans-1,3-Dichloropropene	2000 ug/mL	trans-1,4-Dichloro-2-	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #24913

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522539
Create Date:	06/23/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180002
Expire Date:	08/31/2024	**Manufacturer Lot ID:**	CL14053	**Standard ID:**	MSV-GAS-PS

Notes:

MSV 502.2 Cal Mix#1-Primary Source

Compound Name and Concentration for Standard #24913

Compound Name	Concentration	Compound Name	Concentration
Bromomethane	2000 ug/mL	Chloroethane	2000 ug/mL
Chloromethane	2000 ug/mL	Dichlorodifluoromethane	2000 ug/mL
Trichlorofluoromethane	2000 ug/mL	Vinyl chloride	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #24910

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522538
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30030
Expire Date:	02/28/2025	**Manufacturer Lot ID:**	A0158124	**Standard ID:**	524 IS STK

Notes:

MSV 524.2 Fluorobenzene IS Stock

Compound Name and Concentration for Standard #24910

Compound Name	Concentration	Compound Name	Concentration
Fluorobenzene (IS)	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #24909

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522537
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30049
Expire Date:	08/31/2028	**Manufacturer Lot ID:**	A0160880	**Standard ID:**	524 Surr STK

Notes:

MSV 524 Surrogate 1,2-Dichlorobenzene-d4

Compound Name and Concentration for Standard #24909

Compound Name	Concentration	Compound Name	Concentration
1,2-Dichlorobenzene-d4 (S)	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #24908

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522536
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30240
Expire Date:	01/31/2025	**Manufacturer Lot ID:**	A0156492	**Standard ID:**	8260 SUR STK

Notes:

MSV 8260 Surrogate Stock

Compound Name and Concentration for Standard #24908

Compound Name	Concentration	Compound Name	Concentration
1,2-Dichloroethane-d4 (S)	2500 ug/mL	4-Bromofluorobenzene (S)	2500 ug/mL
Dibromofluoromethane (S)	2500 ug/mL	Toluene-d8 (S)	2500 ug/mL

Standard Log Report

Standards Log Information for Standard #24907

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522535
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30074
Expire Date:	04/30/2025	**Manufacturer Lot ID:**	A0159786	**Standard ID:**	8260 IS

Notes:

MSV 8260 IS Stock

Compound Name and Concentration for Standard #24907

Compound Name	Concentration	Compound Name	Concentration
1,4-Dichlorobenzene-d4	2500 ug/mL	1,4-Difluorobenzene (IS)	2500 ug/mL
Chlorobenzene-D5 (IS)	2500 ug/mL	Pentafluorobenzene (IS)	2500 ug/mL

Standard Log Report

Standards Log Information for Standard #23770

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522451
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180001
Expire Date:	12/31/2021	**Manufacturer Lot ID:**	CL14606	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Mix-Primary Source

Compound Name and Concentration for Standard #23770

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	2000 ug/mL	1,1,1-Trichloroethane	2000 ug/mL
1,1,2,2-Tetrachloroethane	2000 ug/mL	1,1,2-Trichloroethane	2000 ug/mL
1,1,2-	2000 ug/mL	1,1-Dichloroethane	2000 ug/mL
1,1-Dichloroethene	2000 ug/mL	1,1-Dichloropropene	2000 ug/mL
1,2,3-Trichlorobenzene	2000 ug/mL	1,2,3-Trichloropropane	2000 ug/mL
1,2,4-Trichlorobenzene	2000 ug/mL	1,2,4-Trimethylbenzene	2000 ug/mL
1,2-Dibromo-3-	2000 ug/mL	1,2-Dibromoethane (EDB)	2000 ug/mL
1,2-Dichlorobenzene	2000 ug/mL	1,2-Dichloroethane	2000 ug/mL
1,2-Dichloropropane	2000 ug/mL	1,3,5-Trimethylbenzene	2000 ug/mL
1,3-Dichlorobenzene	2000 ug/mL	1,3-Dichloropropane	2000 ug/mL
1,4-Dichlorobenzene	2000 ug/mL	2,2-Dichloropropane	2000 ug/mL
2-Chlorotoluene	2000 ug/mL	2-Nitropropane	2000 ug/mL
4-Chlorotoluene	2000 ug/mL	Allyl chloride	2000 ug/mL
Benzene	2000 ug/mL	Bromobenzene	2000 ug/mL
Bromochloromethane	2000 ug/mL	Bromodichloromethane	2000 ug/mL
Bromoform	2000 ug/mL	Carbon disulfide	2000 ug/mL
Carbon tetrachloride	2000 ug/mL	Chlorobenzene	2000 ug/mL
Chloroform	2000 ug/mL	Chloroprene	2000 ug/mL
Cyclohexane	2000 ug/mL	Dibromochloromethane	2000 ug/mL
Dibromomethane	2000 ug/mL	Diethyl ether (Ethyl ether)	2000 ug/mL
Ethyl methacrylate	2000 ug/mL	Ethylbenzene	2000 ug/mL
Hexachloro-1,3-butadiene	2000 ug/mL	Iodomethane	2000 ug/mL
Isopropylbenzene	2000 ug/mL	Methyl methacrylate	2000 ug/mL
Methyl-tert-butyl ether	2000 ug/mL	Methylcyclohexane	2000 ug/mL
Methylene Chloride	2000 ug/mL	Naphthalene	2000 ug/mL
Styrene	2000 ug/mL	TOTAL BTEX	12000 ug/mL
Tetrachloroethene	2000 ug/mL	Toluene	2000 ug/mL
Total Trihalomethanes	8000 ug/mL	Trichloroethene	2000 ug/mL
Xylene (Total)	6000 ug/mL	cis-1,2-Dichloroethene	2000 ug/mL
cis-1,3-Dichloropropene	2000 ug/mL	cis-1,4-Dichloro-2-butene	2000 ug/mL
m&p-Xylene	4000 ug/mL	n-Butylbenzene	2000 ug/mL
n-Hexane	2000 ug/mL	n-Propylbenzene	2000 ug/mL
o-Xylene	2000 ug/mL	p-Isopropyltoluene	2000 ug/mL
sec-Butylbenzene	2000 ug/mL	tert-Butylbenzene	2000 ug/mL
trans-1,2-Dichloroethene	2000 ug/mL	trans-1,3-Dichloropropene	2000 ug/mL
trans-1,4-Dichloro-2-	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23769

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522450
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180006
Expire Date:	11/30/2020	**Manufacturer Lot ID:**	CL14585	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Supplemental Std-Primary Source

Compound Name and Concentration for Standard #23769

Compound Name	Concentration	Compound Name	Concentration
Isopropyl acetate	2000 ug/mL	Methyl acrylate	2000 ug/mL
n-amyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23768

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522449
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180004
Expire Date:	11/30/2021	**Manufacturer Lot ID:**	CL14652	**Standard ID:**	ButadieneSTK

Notes:

MSV 1,3-Butadiene Stock-Primary Source

Compound Name and Concentration for Standard #23768

Compound Name	Concentration	Compound Name	Concentration
1,3-Butadiene	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23767

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522448
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180003
Expire Date:	11/30/2022	**Manufacturer Lot ID:**	CL14587	**Standard ID:**	VOACALMX1

Notes:

MSV VOA Calibration Mix#1-Primary Source

Compound Name and Concentration for Standard #23767

Compound Name	Concentration	Compound Name	Concentration
1,4-Dioxane (p-Dioxane)	10000 ug/mL	2-Butanone (MEK)	10000 ug/mL
2-Hexanone	10000 ug/mL	4-Methyl-2-pentanone	10000 ug/mL
Acetone	10000 ug/mL	Acetonitrile	10000 ug/mL
Ethyl acetate	10000 ug/mL	Isobutanol	10000 ug/mL
Methacrylonitrile	10000 ug/mL	Propionitrile	10000 ug/mL
Tetrahydrofuran	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23766

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522447
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180005
Expire Date:	12/31/2020	**Manufacturer Lot ID:**	CL14607	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Supplemental Std-Primary Source

Compound Name and Concentration for Standard #23766

Compound Name	Concentration	Compound Name	Concentration
n-Butanol	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #8940

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	521408
Create Date:	05/09/2019	**Manufacturer:**	Fisher Scientific	**Part ID:**	S23-3
Expire Date:	09/01/2022	**Manufacturer Lot ID:**	175767	**Standard ID:**	RGNT210

Notes:

MSV Ottowa Sand

Compound Name and Concentration for Standard #8940

Compound Name	Concentration	Compound Name	Concentration
Ottawa Sand	mg/kg		

Standard Log Report

Standards Log Information for Standard #1

STOCK STANDARD

Created By:	GR1	**Volume of Standard:**	1000 mL	**Lot ID:**	PACE
Create Date:	01/01/2018	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	01/01/2025	**Manufacturer Lot ID:**	PACE	**Standard ID:**	RGNT389

Notes:

DI Water

Compound Name and Concentration for Standard #1

Compound Name	Concentration	Compound Name	Concentration
DI Water			

521408
REC. 04/19/18 BY EF
Exp. 9/1/22 By
Open 1/9/19 By

STD
8940

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

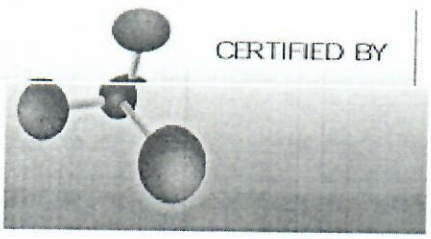
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**S23**	**Quality Test / Release Date**	**9/26/2017**
Lot Number	**175767**		
Description	**SAND, OTTAWA**		
Country of Origin	**United States**	*** Suggested Retest Date**	**Sep-2022**

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless to Yellow-Brown Beads
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
MESH SIZE	PASS/FAIL	= PASS TEST	PASS TEST



Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

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Catalog Number: AL0-180005
Description: Additions Mix 1
Storage: Freeze (-18-0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14607
Certification Date: January 22, 2020
Expiration Date: December 31, 2020

Andrea L Gill

522447
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STO# 23766

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
n-Decane	124-18-5	2001	0.230%
n-Dodecane	112-40-3	2000	0.115%
n-Undecane	1120-21-4	1999	0.115%
n-Octane	111-65-9	2000	0.115%
n-Nonane	111-84-2	2001	0.167%
3,3-dimethyl-1-butanol	624-95-3	10002	0.157%
1-Chlorobutane	109-69-3	2000	0.230%
1-Propanol	71-23-8	10000	0.226%
2-Bromo-1-chloropropane	3017-95-6	2000	1.042%
2-Butanol	78-92-2	2000	0.230%
2-Methylpentane	107-83-5	2000	0.115%
4-Methyl-2-pentanol	108-11-2	1999	0.230%
Benzyl chloride	100-44-7	1999	0.140%
Butylcyclohexane	1678-93-9	2001	0.230%
Hexachloroethane	67-72-1	2001	0.230%
2-Chloroethanol	107-07-3	2000	0.230%
Nitrobenzene	98-95-3	2000	0.230%
1-Methylnaphthalene	90-12-0	2000	0.115%
Isooctane	540-84-1	2000	0.115%
1-Butanol	71-36-3	10000	0.226%
n-Heptane	142-82-5	2000	0.204%
Isopropanol (2-Propanol)	67-63-0	10000	0.105%

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Catalog Number: AL0-180003
Description: Elevated VOA Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14587
Certification Date: January 12, 2020
Expiration Date: November 30, 2022

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522448
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STD# 23767

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Acetone	67-64-1	10000	3.527%
Acetonitrile	75-05-8	10000	0.225%
tert-Amyl alcohol	75-85-4	10002	0.104%
tert-Butanol	75-65-0	10000	0.105%
2-Butanone	78-93-3	10000	0.225%
Cyclohexanone	108-94-1	10000	0.225%
1,4-Dioxane	123-91-1	10001	0.225%
Ethanol	64-17-5	10000	0.225%
Ethyl acetate	141-78-6	10000	0.225%
Isobutanol (2-methyl-1-propanol)	78-83-1	10000	0.225%
2-Hexanone	591-78-6	10000	0.105%
Methacrylonitrile	126-98-7	10000	0.105%
4-Methyl-2-pentanone	108-10-1	10000	0.225%
Propionitrile	107-12-0	10000	0.225%
Tetrahydrofuran	109-99-9	10000	0.225%

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Catalog Number: AL0-180004
Description: Custom 8260 Additions Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14652
Certification Date: January 21, 2020
Expiration Date: November 30, 2021

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522449
REC.05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STD#23768

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
1,3-Butadiene	106-99-0	2005	5.367%
Dicyclopentadiene	77-73-6	2000	13.563%
4-Ethyltoluene	622-96-8	2000	13.560%
Propene	115-07-1	1981	8.812%

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Catalog Number: AL0-180006
Description: Additions Mix 2
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14585
Certification Date: January 12, 2020
Expiration Date: November 30, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522450
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STO# 23769

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Methyl acrylate	96-33-3	2000	4.712%
n-Amyl acetate	628-63-7	2000	3.289%
Ethyl acrylate	140-88-5	2000	5.106%
Butyl Acetate	123-86-4	2000	4.627%
tert-Butyl Acetate	540-88-5	2000	5.102%
tert-Butyl Formate	762-75-4	10000	4.021%
Isopropyl acetate	108-21-4	2000	4.640%

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Catalog Number: AL0-180001
Description: Custom VOA Cal Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: > 1 mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14606
Certification Date: March 3, 2020
Expiration Date: December 31, 2021

522451
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STOck 23770

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Allyl Chloride	107-05-1	2000	0.492%
tert-Amyl Ethyl Ether (TAEE)	919-94-8	2000	0.215%
tert-Amyl Methyl Ether (TAME)	994-05-8	2000	0.632%
Benzene	71-43-2	2000	0.519%
Bromobenzene	108-86-1	2000	0.479%
Bromoform	75-25-2	2000	0.487%
Bromochloromethane	74-97-5	2000	0.545%
Bromodichloromethane	75-27-4	2000	0.481%
n-Butylbenzene	104-51-8	2000	0.480%
sec-Butylbenzene	135-98-8	2000	0.478%
tert-Butylbenzene	98-06-6	2000	0.481%
Ethyl-tert Butyl Ether (ETBE)	637-92-3	2000	0.635%
Carbon disulfide	75-15-0	2000	0.480%
Carbon tetrachloride	56-23-5	2000	0.519%
Chlorobenzene	108-90-7	2000	0.519%
Chloroform	67-66-3	2000	0.519%
Chloroprene	126-99-8	2000	1.518%
2-Chlorotoluene	95-49-8	2000	0.478%
4-Chlorotoluene	106-43-4	2000	0.479%
Cyclohexane	110-82-7	2000	0.507%
Dibromochloromethane	124-48-1	2000	0.480%
1,2-Dibromo-3-Chloropropane	96-12-8	2000	0.479%
Dibromomethane	74-95-3	2000	0.508%
Dibromomethane	106-93-4	2000	0.508%
1,2-Dichlorobenzene	95-50-1	2000	0.478%
1,3-Dichlorobenzene	541-73-1	2000	0.479%

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Catalog Number: AL0-180001
Description: Custom VOA Cal Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: > 1 mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14606
Certification Date: March 3, 2020
Expiration Date: December 31, 2021

OFFICE USE

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
1,4-Dichlorobenzene	106-46-7	2001	0.215%
cis-1,4-Dichloro-2-butene	1476-11-5	2000	0.480%
trans-1,4-Dichloro-2-butene	110-57-6	2000	0.492%
1,1-Dichloroethane	75-34-3	2000	0.546%
1,2-Dichloroethane	107-06-2	2000	0.545%
1,1-Dichloroethene	75-35-4	2000	0.507%
cis-1,2-Dichloroethene	156-59-2	2000	0.545%
trans-1,2-Dichloroethene	156-60-5	2000	0.558%
1,2-Dichloropropane	78-87-5	2000	0.524%
1,3-Dichloropropane	142-28-9	2000	0.478%
2,2-Dichloropropane	594-20-7	2000	0.519%
1,1-Dichloropropene	563-58-6	2000	0.218%
cis-1,3-Dichloropropene	10061-01-5	2001	0.507%
trans-1,3-Dichloropropene	10061-02-6	2000	0.507%
Ethyl Ether	60-29-7	2000	0.624%
Diisopropyl ether (DIPE)	108-20-3	2000	0.622%
Ethylbenzene	100-41-4	2000	0.519%
Ethyl methacrylate	97-63-2	2000	0.500%
Hexachlorobutadiene	87-68-3	2000	0.479%
n-Hexane	110-54-3	2000	0.507%
Iodomethane (methyl iodide)	74-88-4	1999	0.216%
Isopropylbenzene	98-82-8	2000	0.507%
p-isopropyltoluene	99-87-6	2000	0.507%
Methyl-tert-butyl ether (MTBE)	1634-04-4	2000	0.649%
Methylcyclohexane	108-87-2	2000	0.479%
Methyl methacrylate	80-62-6	2000	0.479%

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Catalog Number: AL0-180001
Description: Custom VOA Cal Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: > 1 mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14606
Certification Date: March 3, 2020
Expiration Date: December 31, 2021

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Methylene Chloride	75-09-2	2000	0.479%
2-Methylnaphthalene	91-57-6	2000	0.479%
Naphthalene	91-20-3	2000	0.217%
2-Nitropropane	79-46-9	2000	0.509%
N-Propylbenzene	103-65-1	2000	0.519%
Styrene	100-42-5	2000	0.501%
1,1,1,2-Tetrachloroethane	630-20-6	2000	0.505%
1,1,2,2-Tetrachloroethane	79-34-5	2000	0.480%
Tetrachloroethene	127-18-4	2000	0.519%
Toluene	108-88-3	2000	0.519%
1,2,3-Trichlorobenzene	87-61-6	2000	0.293%
1,2,4-Trichlorobenzene	120-82-1	2000	0.478%
1,1,1-Trichloroethane	71-55-6	2001	1.009%
1,1,2-Trichloroethane	79-00-5	2000	0.479%
Trichloroethene	79-01-6	2000	0.479%
1,2,3-Trichloropropane	96-18-4	2000	0.479%
1,1,2-Trichlorotrifluoroethane	76-13-1	2000	0.644%
1,2,3-Trimethylbenzene	526-73-8	2000	0.215%
1,2,4-Trimethylbenzene	95-63-6	2000	0.507%
1,3,5-Trimethylbenzene	108-67-8	2000	0.507%
m-Xylene	108-38-3	2000	0.478%
o-Xylene	95-47-6	2000	0.479%
p-Xylene	106-42-3	2000	0.478%

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30074 **Lot No.:** A0159786

Description : 8260 Internal Standard Mix

8260 Internal Standard Mix 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Pentafluorobenzene **CAS #** 363-72-4 **Purity** 99%	(Lot MKCH1850)	2,507.0 µg/mL	+/- 14.5759 µg/mL +/- 140.5650 µg/mL +/- 143.8540 µg/mL		Gravimetric Unstressed Stressed
2	1,4-Difluorobenzene **CAS #** 540-36-3 **Purity** 99%	(Lot MKBN8571V)	2,506.6 µg/mL	+/- 14.5736 µg/mL +/- 140.5426 µg/mL +/- 143.8311 µg/mL		Gravimetric Unstressed Stressed
3	Chlorobenzene-d5 **CAS #** 3114-55-4 **Purity** 99%	(Lot PR-29571)	2,504.8 µg/mL	+/- 14.5631 µg/mL +/- 140.4416 µg/mL +/- 143.7278 µg/mL		Gravimetric Unstressed Stressed
4	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 **Purity** 99%	(Lot PR-30447)	2,508.0 µg/mL	+/- 14.5817 µg/mL +/- 140.6211 µg/mL +/- 143.9114 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30240 **Lot No.:** A0156492

Description : 8260A Surrogate Mix

8260A Surrogate Mix 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dibromofluoromethane **CAS #** 1868-53-7 **Purity** 99%	(Lot 0012016)	2,501.9 µg/mL	+/- 14.5463 µg/mL +/- 140.2790 µg/mL +/- 143.5614 µg/mL		Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 **Purity** 99%	(Lot PR-29377)	2,500.9 µg/mL	+/- 14.5404 µg/mL +/- 140.2230 µg/mL +/- 143.5040 µg/mL		Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 **Purity** 99%	(Lot I-21928)	2,500.5 µg/mL	+/- 14.5381 µg/mL +/- 140.2006 µg/mL +/- 143.4811 µg/mL		Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 **Purity** 99%	(Lot 20401KO)	2,501.2 µg/mL	+/- 14.5422 µg/mL +/- 140.2398 µg/mL +/- 143.5212 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30049 **Lot No.:** A0160880

Description : 1,2-Dichlorobenzene-d4 Mix

1, 2-Dichlorobenzene-d4 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound			Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,2-Dichlorobenzene-d4			2,000.0 µg/mL	+/-	11.8794	µg/mL	Gravimetric
	CAS #	2199-69-1	(Lot M-2097)		+/-	112.1643	µg/mL	Unstressed
	Purity	99%			+/-	114.7876	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30030 **Lot No.:** A0158124

Description : Fluorobenzene Mixture

Fluorobenzene 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Fluorobenzene **CAS #** 462-06-6 (Lot BCBZ5549) **Purity** 99%	2,006.0 µg/mL	+/- 11.7723 µg/mL +/- 112.4858 µg/mL +/- 115.1173 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180002
Description: 8260 Gases Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14053
Certification Date: January 12, 2020
Expiration Date: August 31, 2024

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Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Bromomethane	74-83-9	2000	6.589%
Chloroethane	75-00-3	2001	4.979%
Chloromethane	74-87-3	2009	7.022%
Chlorodifluoromethane	75-45-6	2000	0.405%
Dichlorodifluoromethane	75-71-8	2006	8.740%
Dichlorofluoromethane	75-43-4	2007	8.745%
Trichlorofluoromethane	75-69-4	1996	4.584%
Vinyl Chloride	75-01-4	2001	7.920%

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STD# 2556 4

Product Name: Custom Standard

Product Number: CUS-00002034

Lot Issue Date: 17-Jun-2020

Lot Number: 0006542412

Expiration Date: 31-Jul-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,1,1,2-tetrachloroethane	000630-20-6	RM12632	2008 ± 10 µg/mL
1,1,1-trichloroethane	000071-55-6	RM15035	2008 ± 10 µg/mL
1,1,2,2-tetrachloroethane	000079-34-5	NT00390	2006 ± 10 µg/mL
1,1,2-trichlorotrifluoroethane	000076-13-1	RM04848	2000 ± 10 µg/mL
1,1,2-trichloroethane	000079-00-5	RM01175	2007 ± 10 µg/mL
1,1-dichloroethane	000075-34-3	RM15556	2003 ± 10 µg/mL
1,1-dichloroethene	000075-35-4	RM01356	2008 ± 10 µg/mL
1,1-dichloropropene	000563-58-6	RM16247	2008 ± 10 µg/mL
1,2,3-trichlorobenzene	000087-61-6	RM10193	2002 ± 10 µg/mL
1,2,3-trichloropropane	000096-18-4	RM13082	2009 ± 10 µg/mL
1,2,3-trimethylbenzene	000526-73-8	RM13689	2009 ± 10 µg/mL
1,2,4-trichlorobenzene	000120-82-1	RM09454	2007 ± 10 µg/mL
1,2,4-trimethylbenzene	000095-63-6	RM06731	2000 ± 10 µg/mL
1,2-dibromo-3-chloropropane	000096-12-8	RM13666	2003 ± 10 µg/mL
1,2-dichlorobenzene	000095-50-1	RM13636	2008 ± 10 µg/mL
1,2-dichloroethane	000107-06-2	RM04655	2007 ± 10 µg/mL
1,2-dibromoethane	000106-93-4	RM00018	2009 ± 10 µg/mL

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ISO 17034 Cert No. AR-1936

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Product Number: CUS-00002034 **Lot Number:** 0006542412

1,2-dichloropropane	000078-87-5	RM12821	2004 ± 10 µg/mL
1,3,5-trimethylbenzene	000108-67-8	NT01632	2001 ± 10 µg/mL
1,3-dichlorobenzene	000541-73-1	NT00356	2005 ± 10 µg/mL
1,3-dichloropropane	000142-28-9	RM09825	2010 ± 10 µg/mL
1,4-dichlorobenzene	000106-46-7	RM12826	2006 ± 10 µg/mL
2,2-dichloropropane	000594-20-7	RM12927	2007 ± 10 µg/mL
2-chlorotoluene	000095-49-8	RM13774	2009 ± 10 µg/mL
allyl chloride	000107-05-1	RM12242	2001 ± 10 µg/mL
4-chlorotoluene	000106-43-4	RM11750	2003 ± 10 µg/mL
4-isopropyltoluene	000099-87-6	RM09747	2009 ± 10 µg/mL
benzene	000071-43-2	RM03830	2009 ± 10 µg/mL
bromobenzene	000108-86-1	RM10227	2009 ± 10 µg/mL
bromoform	000075-25-2	RM07516	2004 ± 10 µg/mL
bromochloromethane	000074-97-5	RM00009	2001 ± 10 µg/mL
carbon disulfide	000075-15-0	RM08158	2010 ± 10 µg/mL
carbon tetrachloride	000056-23-5	RM07576	2005 ± 10 µg/mL
chlorobenzene	000108-90-7	RM01874	2006 ± 10 µg/mL
dibromochloromethane	000124-48-1	RM14843-01	2007 ± 10 µg/mL
chloroform	000067-66-3	RM13988	2005 ± 10 µg/mL
cis-1,2-dichloroethene	000156-59-2	RM15008	2007 ± 10 µg/mL
cis-1,3-dichloropropene	010061-01-5	RM12891	2007 ± 10 µg/mL
cis-1,4-dichloro-2-butene	001476-11-5	RM11674	2005 ± 10 µg/mL

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Product Number: CUS-00002034 **Lot Number:** 0006542412

cyclohexane	000110-82-7	RM11622	2006 ± 10 µg/mL
dibromomethane	000074-95-3	RM12878	2010 ± 10 µg/mL
bromodichloromethane	000075-27-4	RM14215	2004 ± 10 µg/mL
diethyl ether	000060-29-7	RM11151	2007 ± 10 µg/mL
ethyl methacrylate	000097-63-2	RM04592	2008 ± 10 µg/mL
ethylbenzene	000100-41-4	RM00783	2008 ± 10 µg/mL
hexachlorobutadiene	000087-68-3	RM09157	2009 ± 10 µg/mL
n-hexane	000110-54-3	RM10581	2010 ± 10 µg/mL
methyl iodide	000074-88-4	RM14171	2008 ± 10 µg/mL
isopropylbenzene	000098-82-8	RM00835	2009 ± 10 µg/mL
methyl methacrylate	000080-62-6	RM04912	2008 ± 10 µg/mL
tert-butylmethyl ether	001634-04-4	RM06568	2008 ± 10 µg/mL
methylcyclohexane	000108-87-2	RM10295	2008 ± 10 µg/mL
methylene chloride	000075-09-2	RM09575	2008 ± 10 µg/mL
naphthalene	000091-20-3	RM02406	2010 ± 10 µg/mL
n-butylbenzene	000104-51-8	NT01633	2009 ± 10 µg/mL
n-propylbenzene	000103-65-1	RM02470	2007 ± 10 µg/mL
m-xylene	000108-38-3	RM15919	2008 ± 10 µg/mL
o-xylene	000095-47-6	NT00774	1999 ± 10 µg/mL
p-xylene	000106-42-3	RM09445	2007 ± 10 µg/mL
sec-butylbenzene	000135-98-8	NT01548	2009 ± 10 µg/mL
styrene	000100-42-5	RM11083	2001 ± 10 µg/mL

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Product Number: CUS-00002034 **Lot Number:** 0006542412

tert-butylbenzene	000098-06-6	NT01547	2009 ± 10 µg/mL
tetrachloroethene	000127-18-4	RM06491	2002 ± 10 µg/mL
toluene	000108-88-3	RM06650	2000 ± 10 µg/mL
trans-1,2-dichloroethene	000156-60-5	RM07565	2009 ± 10 µg/mL
trans-1,3-dichloropropene	010061-02-6	RM12254	2008 ± 10 µg/mL
trans-1,4-dichloro-2-butene	000110-57-6	RM13971	2005 ± 10 µg/mL
trichloroethene	000079-01-6	RM14232	2008 ± 10 µg/mL
2-methylnaphthalene	000091-57-6	RM01258	2009 ± 10 µg/mL
2-nitropropane	000079-46-9	RM12249	2007 ± 10 µg/mL
isopropyl ether	000108-20-3	RM03712	2004 ± 10 µg/mL
tert-amyl methyl ether	000994-05-8	RM00554	2008 ± 10 µg/mL
tert-butyl ethyl ether	000637-92-3	RM05137	2007 ± 10 µg/mL
tert-amyl ethyl ether	000919-94-8	RM12453	2007 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

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Product Name: Custom Standard

Product Number: CUS-00002374

Lot Issue Date: 23-Mar-2020

Lot Number: 0006527215

Expiration Date: 30-Apr-2021

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,3-butadiene	000106-99-0	RM14006	2000 ± 10 µg/mL
4-ethyltoluene	000622-96-8	RM14957	2010 ± 10 µg/mL
dicyclopentadiene	000077-73-6	RM16067	2008 ± 10 µg/mL
propene	000115-07-1	RM11969	2000 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

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STD# 25566

Product Name: Custom Standard

Product Number: CUS-00002584

Lot Issue Date: 12-May-2020

Lot Number: 0006537291

Expiration Date: 30-Sep-2020

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
methyl acrylate	000096-33-3	NT00903	2007 ± 10 µg/mL
pentyl acetate	000628-63-7	RM02455	2006 ± 10 µg/mL
ethyl acrylate	000140-88-5	RM04396	2006 ± 10 µg/mL
n-butyl acetate	000123-86-4	RM07291	2008 ± 10 µg/mL
t-butyl acetate	000540-88-5	RM11665	2002 ± 10 µg/mL
tert-butyl formate	000762-75-4	RM10789	10040 ± 50 µg/mL
isopropyl acetate	000108-21-4	RM00997	2007 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

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ISO 17034 Cert No. AR-1936

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STD# 25568

Product Name: Custom Standard

Product Number: CUS-00002344

Lot Issue Date: 19-Mar-2020

Lot Number: 0006527210

Expiration Date: 30-Apr-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
chloroprene	000126-99-8	RM15691	2000 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

M Bourgeois

Monica Bourgeois
QMS Representative

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STD# 25569

Product Name: Custom Standard

Product Number: CUS-00002036

Lot Issue Date: 22-Jun-2020

Lot Number: 0006542413

Expiration Date: 31-Jul-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,4-dioxane	000123-91-1	RM00526	10035 ± 50 µg/mL
acetonitrile	000075-05-8	RM14601	10040 ± 50 µg/mL
ethyl alcohol	000064-17-5	RM15111	10040 ± 50 µg/mL
ethyl acetate	000141-78-6	RM12930	10025 ± 50 µg/mL
isobutyl alcohol	000078-83-1	RM13876	10030 ± 50 µg/mL
tert-butanol	000075-65-0	RM01883	10040 ± 50 µg/mL
2-butanone	000078-93-3	RM06696	10039 ± 50 µg/mL
2-hexanone	000591-78-6	RM10228	10030 ± 50 µg/mL
4-methyl-2-pentanone	000108-10-1	RM14374	10028 ± 50 µg/mL
acetone	000067-64-1	RM13477	10040 ± 50 µg/mL
methacrylonitrile	000126-98-7	RM10100	10030 ± 50 µg/mL
propionitrile	000107-12-0	RM15267	10036 ± 50 µg/mL
tert-pentanol	000075-85-4	RM11924	10030 ± 50 µg/mL
tetrahydrofuran	000109-99-9	RM14318	10041 ± 50 µg/mL
cyclohexanone	000108-94-1	RM10703	10030 ± 50 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

522580
REC. 06/26/20 BY EF
Exp. __/__/__ By -
Open __/__/__ By -

STD# 25570

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002032

Lot Issue Date: 23-Mar-2020

Lot Number: 0006527178

Expiration Date: 30-Apr-2021

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
n-decane	000124-18-5	RM16108	2006 ± 10 µg/mL
n-dodecane	000112-40-3	RM15591	2003 ± 10 µg/mL
n-undecane	001120-21-4	RM04270	2009 ± 10 µg/mL
n-octane	000111-65-9	NT01970	2004 ± 10 µg/mL
n-nonane	000111-84-2	RM15036	2009 ± 10 µg/mL
3,3-dimethyl-1-butanol	000624-95-3	RM15245	10024 ± 50 µg/mL
1-chlorobutane	000109-69-3	RM03678	2007 ± 10 µg/mL
1-propanol	000071-23-8	RM11119	10029 ± 50 µg/mL
2-bromo-1-chloropropane	003017-85-6	RM09192	2009 ± 10 µg/mL
sec-butanol	000078-92-2	RM01299	2008 ± 10 µg/mL
2-methylpentane	000107-83-5	RM11010	2009 ± 10 µg/mL
4-methyl-2-pentanol	000108-11-2	RM02348	2009 ± 10 µg/mL
benzyl chloride	000100-44-7	RM12844	2009 ± 10 µg/mL
butylcyclohexane	001678-93-9	RM13072	2008 ± 10 µg/mL
hexachloroethane	000067-72-1	RM06859	2007 ± 10 µg/mL
2-chloroethanol	000107-07-3	NT01518	2008 ± 10 µg/mL
nitrobenzene	000098-95-3	RM11472	2009 ± 10 µg/mL

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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CSD-QA-015.1

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

Certificate of Analysis

Product Number: CUS-00002032 **Lot Number:** 0006527178

1-methylnaphthalene	000090-12-0	RM07712	2002 ± 10 µg/mL
2,2,4-trimethylpentane	000540-84-1	RM14637	2007 ± 10 µg/mL
1-butanol	000071-36-3	RM06085	10008 ± 50 µg/mL
n-heptane	000142-82-5	RM14537	2009 ± 10 µg/mL
isopropyl alcohol	000067-63-0	RM10189	10030 ± 50 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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CSD-QA-015.1

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

Certificate of Analysis
ThermoFisher SCIENTIFIC

522617
REC. 07/22/20 BY EF
Exp. 01/18/21 By -
Open 04/22/20 By -

Certificate of Analysis

STD# 26117

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A453	Quality Test / Release Date	02/19/2020
Lot Number	198331		
Description	METHANOL, PURGE & TRAP GRADE		
Country of Origin	Venezuela	Suggested Retest Date	Feb/2025
Chemical Origin	Organic - synthetic		
BSE/TSE Comment	This product is derived from petroleum products. It does not contain any materials that are of human or animal origin, nor does it come into contact with such materials during the manufacturing process. Therefore, to the best of our knowledge, there is no potential for BSE or TSE to be present in this product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear colorless liquid free of suspended matter.
2-BUTANONE	ppb	<= 50	<25
ACETONE	ppb	<= 50	<25
AROMATIC COMPOUNDS	ppb	<= 10	<10
ASSAY	%	>= 99.9	>99.99
CARBON TETRACHLORIDE	ppb	<= 10	<10
CHLOROFORM	ppb	<= 10	<10
EVAPORATION RESIDUE	ppm	<= 1	0.22
HEPTANE	ppb	<= 50	<10
HEXANE	ppb	<= 50	<10
ISO-OCTANE	ppb	<= 50	<10
METHYL ISO-AMYL KETONE	ppb	<= 50	<25
METHYLENE CHLORIDE	ppb	<= 10	<10
OTHER DETECTABLE ALKANES	ppb	<= 50	<10
OTHER DETECTABLE CHLOROHYDROCARBONS	ppb	<= 10	<10
OTHER DETECTABLE KETONES	ppb	<= 50	<25
OTHER DETECTABLE PEAKS AS HEXANE	ppb	<= 50	<10
PENTANE	ppb	<= 50	<10
TITRATABLE ACID	MEQ/G	<= 0.0003	0.0003
TITRATABLE BASE	MEQ/G	<= 0.0002	<0.0002
VOLATILE ORGANIC CMPDS (EPA8260B OR EQUIV)	PASS/FAIL	= PASS TEST	PASS TEST

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

WATER (KARL FISCHER)	%	<= 0.2	<0.01

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

phenova Certified Reference Materials | A Phenomenex Company

522643
REC. 07/29/20 BY EF
Exp. __/__/__ By _
Open __/__/__ By _

STD# 26 385

Produced by Phenova
6390 Joyce Drive STE 100, Golden, CO 80403 USA ▪ Tel: 303-940-0033 ▪ Fax: 303-940-0043 ▪ info@phenova.com
Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180017
Description: Acrolein
Storage: Freeze (-18 - 0ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL15595
Certification Date: July 28, 2020
Expiration Date: August 27, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Acrolein	107-02-8	10000	0.301%

Notes: Due to the nature of acrolein in solution, long term storage is not recommended. Please use immediately.

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

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Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

Certificate of Analysis

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Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

522644
REC.07/29/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STD# 26386

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180018
Description: Vinyl Acetate
Storage: Freeze (-18 - 0 °C)
Provided As: 1 mL in 2 mL Ampoule in P&T Methanol

Lot Number: CL15596
Certification Date: July 28, 2020
Expiration Date: August 27, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Vinyl Acetate	108-05-4	2000	0.615%

Notes: Due to the nature of Vinyl Acetate in solution, long term storage is not recommended. Please use immediately.

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

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Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

Certificate of Analysis

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522645
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Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180007
Description: Reactives Mix
Storage: Freeze (-18-0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL15234
Certification Date: April 28, 2020
Expiration Date: October 31, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
2-Chloroethyl vinyl ether	110-75-8	10001	0.106%
Methyl acetate	79-20-9	10001	0.225%
Acrylonitrile	107-13-1	10000	0.115%

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

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Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002037

Lot Number: 0006547006

522670
REC. 08/06/20 BY EF
Exp. __/__/__ By -
Open __/__/__ By -

STD#26710

Lot Issue Date: 21-Jul-2020

Expiration Date: 31-Aug-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
bromomethane	000074-83-9	RM00064	2006 ± 10 µg/mL
chloroethane	000075-00-3	RM00065	2009 ± 10 µg/mL
chloromethane	000074-87-3	RM12571	2009 ± 10 µg/mL
chlorodifluoromethane	000075-45-6	RM04765	2010 ± 10 µg/mL
dichlorodifluoromethane	000075-71-8	RM05289	2010 ± 10 µg/mL
dichlorofluoromethane	000075-43-4	RM05287	2010 ± 10 µg/mL
trichlorofluoromethane	000075-69-4	RM00017	2004 ± 10 µg/mL
vinyl chloride	000075-01-4	RM05458	2009 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002038

Lot Number: 0006547796

522671
REC. 08/06/20 BY EF
Exp. --/--/-- By
Open --/--/-- By

STD# 26711

Lot Issue Date: 15-Jul-2020

Expiration Date: 30-Nov-2020

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
2-chloroethylvinyl ether	000110-75-8	RM06940	10044 ± 50 µg/mL
acrolein	000107-02-8	RM15726	10043 ± 50 µg/mL
methyl acetate	000079-20-9	NT02091	10043 ± 50 µg/mL
acrylonitrile	000107-13-1	RM14521	10048 ± 50 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002379

Lot Number: 0006547794

522672
REC.08/06/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

Lot Issue Date: 15-Jul-2020

Expiration Date: 30-Nov-2020

Description: STD# 26712

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
vinyl acetate	000108-05-4	RM12298	2004 ± 10 µg/mL

Matrix: water (low TOC, < 50 ppb)

Storage Conditions: Store Refrigerated (2° - 8°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

M Bourgeois
Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

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ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

Certificate of Analysis
ThermoFisher SCIENTIFIC

522674
REC. 08/07/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STO# 26774

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A453	Quality Test / Release Date	02/19/2020
Lot Number	198331		
Description	METHANOL, PURGE & TRAP GRADE		
Country of Origin	Venezuela	Suggested Retest Date	Feb/2025
Chemical Origin	Organic - synthetic		
BSE/TSE Comment	This product is derived from petroleum products. It does not contain any materials that are of human or animal origin, nor does it come into contact with such materials during the manufacturing process. Therefore, to the best of our knowledge, there is no potential for BSE or TSE to be present in this product.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear colorless liquid free of suspended matter.
2-BUTANONE	ppb	<= 50	<25
ACETONE	ppb	<= 50	<25
AROMATIC COMPOUNDS	ppb	<= 10	<10
ASSAY	%	>= 99.9	>99.99
CARBON TETRACHLORIDE	ppb	<= 10	<10
CHLOROFORM	ppb	<= 10	<10
EVAPORATION RESIDUE	ppm	<= 1	0.22
HEPTANE	ppb	<= 50	<10
HEXANE	ppb	<= 50	<10
ISO-OCTANE	ppb	<= 50	<10
METHYL ISO-AMYL KETONE	ppb	<= 50	<25
METHYLENE CHLORIDE	ppb	<= 10	<10
OTHER DETECTABLE ALKANES	ppb	<= 50	<10
OTHER DETECTABLE CHLOROHYDROCARBONS	ppb	<= 10	<10
OTHER DETECTABLE KETONES	ppb	<= 50	<25
OTHER DETECTABLE PEAKS AS HEXANE	ppb	<= 50	<10
PENTANE	ppb	<= 50	<10
TITRATABLE ACID	MEQ/G	<= 0.0003	0.0003
TITRATABLE BASE	MEQ/G	<= 0.0002	<0.0002
VOLATILE ORGANIC CMPDS (EPA8260B OR EQUIV)	PASS/FAIL	= PASS TEST	PASS TEST

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

WATER (KARL FISCHER)	%	<= 0.2	<0.01

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

SAMPLE NO.

BR8PB1SS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249198 Contract: RUSH VOC Soils

Lab Sample ID: 5249198001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	21.3		%	1	08/25/2020 16:28

SAMPLE NO.

BR8WE1SS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249198 Contract: RUSH VOC Soils

Lab Sample ID: 5249198002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	21.2		%	1	08/25/2020 16:47

SAMPLE NO.

BR8WE1SD

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249198 Contract: RUSH VOC Soils

Lab Sample ID: 5249198003 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	20.7		%	1	08/25/2020 16:48

SAMPLE NO.

BR8PB2SS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249198 Contract: RUSH VOC Soils

Lab Sample ID: 5249198004 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	21.3		%	1	08/25/2020 16:49

FORM XII INORGANIC-1

PREPARATION LOG

Lab Name: Pace Analytical - Dayton SDG No. : 5249198 Contract: RUSH VOC Soils

Preparation Method: ASTM D2216 Batch: PMST 1477

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
5249198001	BR8PB1SS	08/25/2020	1	1
5249198002	BR8WE1SS	08/25/2020	1	1
5249198003	BR8WE1SD	08/25/2020	1	1
5249198004	BR8PB2SS	08/25/2020	1	1

FORM XIII INORGANIC-1

ANALYSIS RUN LOG

Lab Name: Pace Analytical - Dayton SDG No. : 5249198 Contract: RUSH VOC Soils

Instrument ID: 52BL03 Analysis Method: ASTM D2216

Start Date: 08/25/2020 16:28 End Date: 08/25/2020 16:49

Sample Name	Lab Sample ID	D/F	Date	Time	MOIST
BR8PB1SS	5249198001	1	08/25/2020	16:28	X
BR8WE1SS	5249198002	1	08/25/2020	16:47	X
BR8WE1SD	5249198003	1	08/25/2020	16:48	X
BR8PB2SS	5249198004	1	08/25/2020	16:49	X

Prep Log Report

Batch Information: PMST 48616

Template Version: EF-DAYT-I-038-Rev.00 (02Nov2018)

Analysis Method	ASTM D2216	Analyzed By	SEP	Instrument	52BL03	Oven ID	52OV01
Thermometer ID	52TC01	Oven Temp Correction Factor	0	Oven Temp In1 (C) | Corr | Date/Time | Init	104.7 | 104.7 | 08/25/2020 17:15 | SEP	Oven Temp Out1 (C) | Corr | Date/Time | Init	104.1 | 104.1 | 08/26/2020 12:15 | SEP
Desic. In 1 ID | Date/Time | Init	52DS13 | 08/26/2020 12:15 | SEP	Desic. Out 1 Date/Time | Init	08/26/2020 13:32 | SEP	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**5249198001**	Y		78.70	21.30	08/25/2020 16:28:54	9.5478	1.0063	11.8589	9.5478	M	
DRY WEIGHT	PS	**5249198002**	Y		78.80	21.20	08/25/2020 16:47:25	9.6608	0.9981	11.9909	9.6608	M	
DRY WEIGHT	PS	**5249198003**	Y		79.26	20.74	08/25/2020 16:48:33	9.6706	1.0054	11.9383	9.6706	M	
DRY WEIGHT	PS	**5249198004**	Y		78.69	21.31	08/25/2020 16:49:20	9.4516	1.0135	11.7371	9.4516	M	
DRY WEIGHT	PS	**5249198005**	Y		79.43	20.57	08/25/2020 16:50:03	9.4712	1.0186	11.6601	9.4712	M	

Prep Log Report

Batch Information: PMST 48616

Template Version: EF-DAYT-I-038-Rev.00 (02Nov2018)

Analysis Method	ASTM D2216	Analyzed By	SEP	Instrument	52BL03	Oven ID	52OV01
Thermometer ID	52TC01	Oven Temp Correction Factor	0	Oven Temp In1 (C) | Corr | Date/Time | Init	104.7 | 104.7 | 08/25/2020 17:15 | SEP	Oven Temp Out1 (C) | Corr | Date/Time | Init	104.1 | 104.1 | 08/26/2020 12:15 | SEP
Desic. In 1 ID | Date/Time | Init	52DS13 | 08/26/2020 12:15 | SEP	Desic. Out 1 Date/Time | Init	08/26/2020 13:32 | SEP	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	Client Sample ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**5249198001**	Y		BR8PB1SS	78.70	21.30	08/25/2020 16:28:54	9.5478	1.0063	11.8589	9.5478	M	
DRY WEIGHT	PS	**5249198002**	Y		BR8WE1SS	78.80	21.20	08/25/2020 16:47:25	9.6608	0.9981	11.9909	9.6608	M	
DRY WEIGHT	PS	**5249198003**	Y		BR8WE1SD	79.26	20.74	08/25/2020 16:48:33	9.6706	1.0054	11.9383	9.6706	M	
DRY WEIGHT	PS	**5249198004**	Y		BR8PB2SS	78.69	21.31	08/25/2020 16:49:20	9.4516	1.0135	11.7371	9.4516	M	
DRY WEIGHT	PS	**5249198005**	Y		BR8WE2SS	79.43	20.57	08/25/2020 16:50:03	9.4712	1.0186	11.6601	9.4712	M	

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 5249328

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

August 27, 2020

John Bowen
MAKSolve, LLC
261 Regency Dr
Dayton, OH 45459

RE: Project: RUSH VOC Soils
Pace Project No.: 5249328

Dear John Bowen:

Enclosed are the analytical results for sample(s) received by the laboratory on August 26, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Dayton

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christina Schneider
christina.schneider@pacelabs.com
(937)832-8242
Project Manager

Enclosures

cc: Barbara McGavern, MAKSolve, LLC

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Englewood, OH 45322
(937)832-8242

CERTIFICATIONS

Project:	RUSH VOC Soils
Pace Project No.:	5249328

Pace Analytical Services Dayton
25 Holiday Drive, Englewood, OH 45322
Florida Certification #: E871136
Ohio VAP Certification #: CL0032
Kentucky UST Certification #: 123049
Kentucky Wastewater Certification #: KY98039
Ohio EPA Drinking Water Lab #872

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SAMPLE SUMMARY

Project: RUSH VOC Soils
Pace Project No.: 5249328

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5249328001	**BR8PB3SM**	Solid	08/25/20 14:30	08/26/20 10:06
5249328002	**BR8PB3SS**	Solid	08/25/20 14:33	08/26/20 10:06
5249328003	**BR8WSSS**	Solid	08/25/20 14:35	08/26/20 10:06
5249328004	**0825R6**	Solid	08/25/20 15:07	08/26/20 10:06
5249328005	**0825R7**	Solid	08/25/20 15:09	08/26/20 10:06
5249328006	**0825R8**	Solid	08/25/20 15:15	08/26/20 10:06
5249328007	**0825R9**	Solid	08/25/20 15:17	08/26/20 10:06
5249328008	**0825R10**	Solid	08/25/20 15:20	08/26/20 10:06

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SAMPLE ANALYTE COUNT

Project: RUSH VOC Soils
Pace Project No.: 5249328

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5249328001	**BR8PB3SM**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249328002	**BR8PB3SS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249328003	**BR8WSSS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249328004	**0825R6**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249328005	**0825R7**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249328006	**0825R8**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249328007	**0825R9**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249328008	**0825R10**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1

PASI-DAY = Pace Analytical Services - Dayton

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249328

Sample: BR8PB3SM **Lab ID: 5249328001** Collected: 08/25/20 14:30 Received: 08/26/20 10:06 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	294	16.0	1	08/26/20 11:06	08/26/20 13:05	67-64-1	
Acetonitrile	ND	ug/kg	235	11.6	1	08/26/20 11:06	08/26/20 13:05	75-05-8	M1
Acrolein	ND	ug/kg	294	8.7	1	08/26/20 11:06	08/26/20 13:05	107-02-8	
Acrylonitrile	ND	ug/kg	117	1.3	1	08/26/20 11:06	08/26/20 13:05	107-13-1	
Benzene	ND	ug/kg	5.9	0.95	1	08/26/20 11:06	08/26/20 13:05	71-43-2	
Bromobenzene	ND	ug/kg	29.4	0.91	1	08/26/20 11:06	08/26/20 13:05	108-86-1	
Bromochloromethane	ND	ug/kg	29.4	0.72	1	08/26/20 11:06	08/26/20 13:05	74-97-5	
Bromodichloromethane	ND	ug/kg	29.4	0.93	1	08/26/20 11:06	08/26/20 13:05	75-27-4	
Bromoform	ND	ug/kg	29.4	0.71	1	08/26/20 11:06	08/26/20 13:05	75-25-2	
Bromomethane	ND	ug/kg	147	0.92	1	08/26/20 11:06	08/26/20 13:05	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	117	1.7	1	08/26/20 11:06	08/26/20 13:05	78-93-3	
n-Butylbenzene	ND	ug/kg	29.4	1.9	1	08/26/20 11:06	08/26/20 13:05	104-51-8	
sec-Butylbenzene	ND	ug/kg	29.4	1.6	1	08/26/20 11:06	08/26/20 13:05	135-98-8	
tert-Butylbenzene	ND	ug/kg	29.4	1.5	1	08/26/20 11:06	08/26/20 13:05	98-06-6	
Carbon disulfide	ND	ug/kg	117	1.8	1	08/26/20 11:06	08/26/20 13:05	75-15-0	
Carbon tetrachloride	ND	ug/kg	29.4	1.7	1	08/26/20 11:06	08/26/20 13:05	56-23-5	
Chlorobenzene	ND	ug/kg	29.4	0.90	1	08/26/20 11:06	08/26/20 13:05	108-90-7	
Chloroethane	ND	ug/kg	29.4	1.7	1	08/26/20 11:06	08/26/20 13:05	75-00-3	
Chloroform	ND	ug/kg	29.4	1.2	1	08/26/20 11:06	08/26/20 13:05	67-66-3	
Chloromethane	ND	ug/kg	29.4	0.92	1	08/26/20 11:06	08/26/20 13:05	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	29.4	0.96	1	08/26/20 11:06	08/26/20 13:05	95-49-8	
4-Chlorotoluene	ND	ug/kg	29.4	0.95	1	08/26/20 11:06	08/26/20 13:05	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	58.7	0.94	1	08/26/20 11:06	08/26/20 13:05	96-12-8	
Dibromochloromethane	ND	ug/kg	29.4	0.72	1	08/26/20 11:06	08/26/20 13:05	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	29.4	0.67	1	08/26/20 11:06	08/26/20 13:05	106-93-4	
Dibromomethane	ND	ug/kg	29.4	0.91	1	08/26/20 11:06	08/26/20 13:05	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	29.4	0.81	1	08/26/20 11:06	08/26/20 13:05	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	29.4	0.82	1	08/26/20 11:06	08/26/20 13:05	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	29.4	0.67	1	08/26/20 11:06	08/26/20 13:05	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	29.4	2.5	1	08/26/20 11:06	08/26/20 13:05	75-71-8	
1,1-Dichloroethane	ND	ug/kg	29.4	1.2	1	08/26/20 11:06	08/26/20 13:05	75-34-3	
1,2-Dichloroethane	ND	ug/kg	29.4	1.2	1	08/26/20 11:06	08/26/20 13:05	107-06-2	
1,1-Dichloroethene	ND	ug/kg	29.4	2.0	1	08/26/20 11:06	08/26/20 13:05	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	29.4	1.1	1	08/26/20 11:06	08/26/20 13:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	29.4	1.4	1	08/26/20 11:06	08/26/20 13:05	156-60-5	
1,2-Dichloropropane	ND	ug/kg	29.4	0.83	1	08/26/20 11:06	08/26/20 13:05	78-87-5	
1,3-Dichloropropane	ND	ug/kg	29.4	0.74	1	08/26/20 11:06	08/26/20 13:05	142-28-9	
2,2-Dichloropropane	ND	ug/kg	29.4	1.8	1	08/26/20 11:06	08/26/20 13:05	594-20-7	
1,1-Dichloropropene	ND	ug/kg	29.4	1.5	1	08/26/20 11:06	08/26/20 13:05	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	29.4	0.76	1	08/26/20 11:06	08/26/20 13:05	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	29.4	1.0	1	08/26/20 11:06	08/26/20 13:05	10061-02-6	
Ethyl acetate	ND	ug/kg	58.7	2.0	1	08/26/20 11:06	08/26/20 13:05	141-78-6	
Ethylbenzene	ND	ug/kg	29.4	1.4	1	08/26/20 11:06	08/26/20 13:05	100-41-4	
2-Hexanone	ND	ug/kg	117	5.3	1	08/26/20 11:06	08/26/20 13:05	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249328

Sample: BR8PB3SM **Lab ID: 5249328001** Collected: 08/25/20 14:30 Received: 08/26/20 10:06 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	29.4	1.2	1	08/26/20 11:06	08/26/20 13:05	98-82-8	
p-Isopropyltoluene	ND	ug/kg	29.4	5.9	1	08/26/20 11:06	08/26/20 13:05	99-87-6	
Methylene Chloride	ND	ug/kg	147	1.9	1	08/26/20 11:06	08/26/20 13:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	117	3.4	1	08/26/20 11:06	08/26/20 13:05	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	58.7	1.4	1	08/26/20 11:06	08/26/20 13:05	1634-04-4	
Naphthalene	ND	ug/kg	29.4	0.74	1	08/26/20 11:06	08/26/20 13:05	91-20-3	
n-Propylbenzene	ND	ug/kg	29.4	1.3	1	08/26/20 11:06	08/26/20 13:05	103-65-1	
Styrene	ND	ug/kg	29.4	1.1	1	08/26/20 11:06	08/26/20 13:05	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	29.4	0.71	1	08/26/20 11:06	08/26/20 13:05	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	29.4	0.65	1	08/26/20 11:06	08/26/20 13:05	79-34-5	
Tetrachloroethene	ND	ug/kg	29.4	1.7	1	08/26/20 11:06	08/26/20 13:05	127-18-4	
Toluene	ND	ug/kg	29.4	1.0	1	08/26/20 11:06	08/26/20 13:05	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	29.4	0.69	1	08/26/20 11:06	08/26/20 13:05	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	29.4	0.78	1	08/26/20 11:06	08/26/20 13:05	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	29.4	1.5	1	08/26/20 11:06	08/26/20 13:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	29.4	0.93	1	08/26/20 11:06	08/26/20 13:05	79-00-5	
Trichloroethene	**8.4J**	ug/kg	29.4	1.3	1	08/26/20 11:06	08/26/20 13:05	79-01-6	
Trichlorofluoromethane	ND	ug/kg	29.4	2.1	1	08/26/20 11:06	08/26/20 13:05	75-69-4	M1
1,2,3-Trichloropropane	ND	ug/kg	29.4	1.5	1	08/26/20 11:06	08/26/20 13:05	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	29.4	0.97	1	08/26/20 11:06	08/26/20 13:05	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	29.4	1.1	1	08/26/20 11:06	08/26/20 13:05	108-67-8	
Vinyl acetate	ND	ug/kg	58.7	2.3	1	08/26/20 11:06	08/26/20 13:05	108-05-4	
Vinyl chloride	ND	ug/kg	29.4	2.1	1	08/26/20 11:06	08/26/20 13:05	75-01-4	
Xylene (Total)	ND	ug/kg	58.7	3.1	1	08/26/20 11:06	08/26/20 13:05	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	108	%.	78-126		1	08/26/20 11:06	08/26/20 13:05	1868-53-7	
Toluene-d8 (S)	99	%.	80-120		1	08/26/20 11:06	08/26/20 13:05	2037-26-5	
4-Bromofluorobenzene (S)	91	%.	80-120		1	08/26/20 11:06	08/26/20 13:05	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%.	76-127		1	08/26/20 11:06	08/26/20 13:05	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**20.5**	%	0.10	0.10	1		08/26/20 14:50		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249328

Sample: BR8PB3SS **Lab ID: 5249328002** Collected: 08/25/20 14:33 Received: 08/26/20 10:06 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	308	16.7	1	08/26/20 11:06	08/26/20 15:11	67-64-1	
Acetonitrile	ND	ug/kg	246	12.1	1	08/26/20 11:06	08/26/20 15:11	75-05-8	
Acrolein	ND	ug/kg	308	9.1	1	08/26/20 11:06	08/26/20 15:11	107-02-8	
Acrylonitrile	ND	ug/kg	123	1.4	1	08/26/20 11:06	08/26/20 15:11	107-13-1	
Benzene	ND	ug/kg	6.2	1.0	1	08/26/20 11:06	08/26/20 15:11	71-43-2	
Bromobenzene	ND	ug/kg	30.8	0.96	1	08/26/20 11:06	08/26/20 15:11	108-86-1	
Bromochloromethane	ND	ug/kg	30.8	0.76	1	08/26/20 11:06	08/26/20 15:11	74-97-5	
Bromodichloromethane	ND	ug/kg	30.8	0.97	1	08/26/20 11:06	08/26/20 15:11	75-27-4	
Bromoform	ND	ug/kg	30.8	0.74	1	08/26/20 11:06	08/26/20 15:11	75-25-2	
Bromomethane	ND	ug/kg	154	0.96	1	08/26/20 11:06	08/26/20 15:11	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	123	1.7	1	08/26/20 11:06	08/26/20 15:11	78-93-3	
n-Butylbenzene	ND	ug/kg	30.8	2.0	1	08/26/20 11:06	08/26/20 15:11	104-51-8	
sec-Butylbenzene	ND	ug/kg	30.8	1.7	1	08/26/20 11:06	08/26/20 15:11	135-98-8	
tert-Butylbenzene	ND	ug/kg	30.8	1.5	1	08/26/20 11:06	08/26/20 15:11	98-06-6	
Carbon disulfide	ND	ug/kg	123	1.9	1	08/26/20 11:06	08/26/20 15:11	75-15-0	
Carbon tetrachloride	ND	ug/kg	30.8	1.8	1	08/26/20 11:06	08/26/20 15:11	56-23-5	
Chlorobenzene	ND	ug/kg	30.8	0.94	1	08/26/20 11:06	08/26/20 15:11	108-90-7	
Chloroethane	ND	ug/kg	30.8	1.8	1	08/26/20 11:06	08/26/20 15:11	75-00-3	
Chloroform	ND	ug/kg	30.8	1.3	1	08/26/20 11:06	08/26/20 15:11	67-66-3	
Chloromethane	ND	ug/kg	30.8	0.96	1	08/26/20 11:06	08/26/20 15:11	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	30.8	1.0	1	08/26/20 11:06	08/26/20 15:11	95-49-8	
4-Chlorotoluene	ND	ug/kg	30.8	1.0	1	08/26/20 11:06	08/26/20 15:11	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	61.6	0.99	1	08/26/20 11:06	08/26/20 15:11	96-12-8	
Dibromochloromethane	ND	ug/kg	30.8	0.76	1	08/26/20 11:06	08/26/20 15:11	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	30.8	0.70	1	08/26/20 11:06	08/26/20 15:11	106-93-4	
Dibromomethane	ND	ug/kg	30.8	0.95	1	08/26/20 11:06	08/26/20 15:11	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	30.8	0.85	1	08/26/20 11:06	08/26/20 15:11	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	30.8	0.86	1	08/26/20 11:06	08/26/20 15:11	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	30.8	0.70	1	08/26/20 11:06	08/26/20 15:11	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	30.8	2.6	1	08/26/20 11:06	08/26/20 15:11	75-71-8	
1,1-Dichloroethane	ND	ug/kg	30.8	1.3	1	08/26/20 11:06	08/26/20 15:11	75-34-3	
1,2-Dichloroethane	ND	ug/kg	30.8	1.3	1	08/26/20 11:06	08/26/20 15:11	107-06-2	
1,1-Dichloroethene	ND	ug/kg	30.8	2.1	1	08/26/20 11:06	08/26/20 15:11	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	30.8	1.1	1	08/26/20 11:06	08/26/20 15:11	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	30.8	1.5	1	08/26/20 11:06	08/26/20 15:11	156-60-5	
1,2-Dichloropropane	ND	ug/kg	30.8	0.87	1	08/26/20 11:06	08/26/20 15:11	78-87-5	
1,3-Dichloropropane	ND	ug/kg	30.8	0.77	1	08/26/20 11:06	08/26/20 15:11	142-28-9	
2,2-Dichloropropane	ND	ug/kg	30.8	1.8	1	08/26/20 11:06	08/26/20 15:11	594-20-7	
1,1-Dichloropropene	ND	ug/kg	30.8	1.6	1	08/26/20 11:06	08/26/20 15:11	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	30.8	0.80	1	08/26/20 11:06	08/26/20 15:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	30.8	1.1	1	08/26/20 11:06	08/26/20 15:11	10061-02-6	
Ethyl acetate	ND	ug/kg	61.6	2.1	1	08/26/20 11:06	08/26/20 15:11	141-78-6	
Ethylbenzene	ND	ug/kg	30.8	1.4	1	08/26/20 11:06	08/26/20 15:11	100-41-4	
2-Hexanone	ND	ug/kg	123	5.5	1	08/26/20 11:06	08/26/20 15:11	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249328

Sample: BR8PB3SS **Lab ID: 5249328002** Collected: 08/25/20 14:33 Received: 08/26/20 10:06 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	30.8	1.3	1	08/26/20 11:06	08/26/20 15:11	98-82-8	
p-Isopropyltoluene	ND	ug/kg	30.8	6.2	1	08/26/20 11:06	08/26/20 15:11	99-87-6	
Methylene Chloride	ND	ug/kg	154	2.0	1	08/26/20 11:06	08/26/20 15:11	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	123	3.5	1	08/26/20 11:06	08/26/20 15:11	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	61.6	1.4	1	08/26/20 11:06	08/26/20 15:11	1634-04-4	
Naphthalene	ND	ug/kg	30.8	0.77	1	08/26/20 11:06	08/26/20 15:11	91-20-3	
n-Propylbenzene	ND	ug/kg	30.8	1.3	1	08/26/20 11:06	08/26/20 15:11	103-65-1	
Styrene	ND	ug/kg	30.8	1.2	1	08/26/20 11:06	08/26/20 15:11	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	30.8	0.74	1	08/26/20 11:06	08/26/20 15:11	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	30.8	0.69	1	08/26/20 11:06	08/26/20 15:11	79-34-5	
Tetrachloroethene	ND	ug/kg	30.8	1.8	1	08/26/20 11:06	08/26/20 15:11	127-18-4	
Toluene	ND	ug/kg	30.8	1.1	1	08/26/20 11:06	08/26/20 15:11	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	30.8	0.72	1	08/26/20 11:06	08/26/20 15:11	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	30.8	0.82	1	08/26/20 11:06	08/26/20 15:11	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	30.8	1.5	1	08/26/20 11:06	08/26/20 15:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	30.8	0.98	1	08/26/20 11:06	08/26/20 15:11	79-00-5	
Trichloroethene	**8.2J**	ug/kg	30.8	1.4	1	08/26/20 11:06	08/26/20 15:11	79-01-6	
Trichlorofluoromethane	ND	ug/kg	30.8	2.2	1	08/26/20 11:06	08/26/20 15:11	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	30.8	1.6	1	08/26/20 11:06	08/26/20 15:11	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	30.8	1.0	1	08/26/20 11:06	08/26/20 15:11	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	30.8	1.1	1	08/26/20 11:06	08/26/20 15:11	108-67-8	
Vinyl acetate	ND	ug/kg	61.6	2.4	1	08/26/20 11:06	08/26/20 15:11	108-05-4	
Vinyl chloride	ND	ug/kg	30.8	2.2	1	08/26/20 11:06	08/26/20 15:11	75-01-4	
Xylene (Total)	ND	ug/kg	61.6	3.2	1	08/26/20 11:06	08/26/20 15:11	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	106	%.	78-126		1	08/26/20 11:06	08/26/20 15:11	1868-53-7	
Toluene-d8 (S)	96	%.	80-120		1	08/26/20 11:06	08/26/20 15:11	2037-26-5	
4-Bromofluorobenzene (S)	94	%.	80-120		1	08/26/20 11:06	08/26/20 15:11	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%.	76-127		1	08/26/20 11:06	08/26/20 15:11	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**20.6**	%	0.10	0.10	1		08/26/20 14:51		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249328

Sample: BR8WSSS **Lab ID: 5249328003** Collected: 08/25/20 14:35 Received: 08/26/20 10:06 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	305	16.6	1	08/26/20 11:06	08/26/20 15:36	67-64-1	
Acetonitrile	ND	ug/kg	244	12.0	1	08/26/20 11:06	08/26/20 15:36	75-05-8	
Acrolein	ND	ug/kg	305	9.0	1	08/26/20 11:06	08/26/20 15:36	107-02-8	
Acrylonitrile	ND	ug/kg	122	1.4	1	08/26/20 11:06	08/26/20 15:36	107-13-1	
Benzene	ND	ug/kg	6.1	0.99	1	08/26/20 11:06	08/26/20 15:36	71-43-2	
Bromobenzene	ND	ug/kg	30.5	0.95	1	08/26/20 11:06	08/26/20 15:36	108-86-1	
Bromochloromethane	ND	ug/kg	30.5	0.75	1	08/26/20 11:06	08/26/20 15:36	74-97-5	
Bromodichloromethane	ND	ug/kg	30.5	0.96	1	08/26/20 11:06	08/26/20 15:36	75-27-4	
Bromoform	ND	ug/kg	30.5	0.74	1	08/26/20 11:06	08/26/20 15:36	75-25-2	
Bromomethane	ND	ug/kg	153	0.96	1	08/26/20 11:06	08/26/20 15:36	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	122	1.7	1	08/26/20 11:06	08/26/20 15:36	78-93-3	
n-Butylbenzene	ND	ug/kg	30.5	2.0	1	08/26/20 11:06	08/26/20 15:36	104-51-8	
sec-Butylbenzene	ND	ug/kg	30.5	1.7	1	08/26/20 11:06	08/26/20 15:36	135-98-8	
tert-Butylbenzene	ND	ug/kg	30.5	1.5	1	08/26/20 11:06	08/26/20 15:36	98-06-6	
Carbon disulfide	ND	ug/kg	122	1.9	1	08/26/20 11:06	08/26/20 15:36	75-15-0	
Carbon tetrachloride	ND	ug/kg	30.5	1.8	1	08/26/20 11:06	08/26/20 15:36	56-23-5	
Chlorobenzene	ND	ug/kg	30.5	0.93	1	08/26/20 11:06	08/26/20 15:36	108-90-7	
Chloroethane	ND	ug/kg	30.5	1.7	1	08/26/20 11:06	08/26/20 15:36	75-00-3	
Chloroform	ND	ug/kg	30.5	1.3	1	08/26/20 11:06	08/26/20 15:36	67-66-3	
Chloromethane	ND	ug/kg	30.5	0.95	1	08/26/20 11:06	08/26/20 15:36	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	30.5	0.99	1	08/26/20 11:06	08/26/20 15:36	95-49-8	
4-Chlorotoluene	ND	ug/kg	30.5	0.99	1	08/26/20 11:06	08/26/20 15:36	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	61.0	0.98	1	08/26/20 11:06	08/26/20 15:36	96-12-8	
Dibromochloromethane	ND	ug/kg	30.5	0.75	1	08/26/20 11:06	08/26/20 15:36	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	30.5	0.69	1	08/26/20 11:06	08/26/20 15:36	106-93-4	
Dibromomethane	ND	ug/kg	30.5	0.95	1	08/26/20 11:06	08/26/20 15:36	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	30.5	0.84	1	08/26/20 11:06	08/26/20 15:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	30.5	0.85	1	08/26/20 11:06	08/26/20 15:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	30.5	0.70	1	08/26/20 11:06	08/26/20 15:36	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	30.5	2.6	1	08/26/20 11:06	08/26/20 15:36	75-71-8	
1,1-Dichloroethane	ND	ug/kg	30.5	1.3	1	08/26/20 11:06	08/26/20 15:36	75-34-3	
1,2-Dichloroethane	ND	ug/kg	30.5	1.3	1	08/26/20 11:06	08/26/20 15:36	107-06-2	
1,1-Dichloroethene	ND	ug/kg	30.5	2.1	1	08/26/20 11:06	08/26/20 15:36	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	30.5	1.1	1	08/26/20 11:06	08/26/20 15:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	30.5	1.5	1	08/26/20 11:06	08/26/20 15:36	156-60-5	
1,2-Dichloropropane	ND	ug/kg	30.5	0.86	1	08/26/20 11:06	08/26/20 15:36	78-87-5	
1,3-Dichloropropane	ND	ug/kg	30.5	0.77	1	08/26/20 11:06	08/26/20 15:36	142-28-9	
2,2-Dichloropropane	ND	ug/kg	30.5	1.8	1	08/26/20 11:06	08/26/20 15:36	594-20-7	
1,1-Dichloropropene	ND	ug/kg	30.5	1.6	1	08/26/20 11:06	08/26/20 15:36	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	30.5	0.79	1	08/26/20 11:06	08/26/20 15:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	30.5	1.0	1	08/26/20 11:06	08/26/20 15:36	10061-02-6	
Ethyl acetate	ND	ug/kg	61.0	2.1	1	08/26/20 11:06	08/26/20 15:36	141-78-6	
Ethylbenzene	ND	ug/kg	30.5	1.4	1	08/26/20 11:06	08/26/20 15:36	100-41-4	
2-Hexanone	ND	ug/kg	122	5.5	1	08/26/20 11:06	08/26/20 15:36	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249328

Sample: BR8WSSS **Lab ID: 5249328003** Collected: 08/25/20 14:35 Received: 08/26/20 10:06 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	30.5	1.3	1	08/26/20 11:06	08/26/20 15:36	98-82-8	
p-Isopropyltoluene	ND	ug/kg	30.5	6.1	1	08/26/20 11:06	08/26/20 15:36	99-87-6	
Methylene Chloride	ND	ug/kg	153	2.0	1	08/26/20 11:06	08/26/20 15:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	122	3.5	1	08/26/20 11:06	08/26/20 15:36	108-10-1	N2
Methyl-tert-butyl ether	**4.3J**	ug/kg	61.0	1.4	1	08/26/20 11:06	08/26/20 15:36	1634-04-4	
Naphthalene	ND	ug/kg	30.5	0.76	1	08/26/20 11:06	08/26/20 15:36	91-20-3	
n-Propylbenzene	ND	ug/kg	30.5	1.3	1	08/26/20 11:06	08/26/20 15:36	103-65-1	
Styrene	ND	ug/kg	30.5	1.2	1	08/26/20 11:06	08/26/20 15:36	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	30.5	0.73	1	08/26/20 11:06	08/26/20 15:36	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	30.5	0.68	1	08/26/20 11:06	08/26/20 15:36	79-34-5	
Tetrachloroethene	ND	ug/kg	30.5	1.8	1	08/26/20 11:06	08/26/20 15:36	127-18-4	
Toluene	ND	ug/kg	30.5	1.1	1	08/26/20 11:06	08/26/20 15:36	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	30.5	0.71	1	08/26/20 11:06	08/26/20 15:36	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	30.5	0.81	1	08/26/20 11:06	08/26/20 15:36	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	30.5	1.5	1	08/26/20 11:06	08/26/20 15:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	30.5	0.97	1	08/26/20 11:06	08/26/20 15:36	79-00-5	
Trichloroethene	ND	ug/kg	30.5	1.4	1	08/26/20 11:06	08/26/20 15:36	79-01-6	
Trichlorofluoromethane	ND	ug/kg	30.5	2.2	1	08/26/20 11:06	08/26/20 15:36	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	30.5	1.5	1	08/26/20 11:06	08/26/20 15:36	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	30.5	1.0	1	08/26/20 11:06	08/26/20 15:36	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	30.5	1.1	1	08/26/20 11:06	08/26/20 15:36	108-67-8	
Vinyl acetate	ND	ug/kg	61.0	2.4	1	08/26/20 11:06	08/26/20 15:36	108-05-4	
Vinyl chloride	ND	ug/kg	30.5	2.2	1	08/26/20 11:06	08/26/20 15:36	75-01-4	
Xylene (Total)	ND	ug/kg	61.0	3.2	1	08/26/20 11:06	08/26/20 15:36	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	107	%.	78-126		1	08/26/20 11:06	08/26/20 15:36	1868-53-7	
Toluene-d8 (S)	99	%.	80-120		1	08/26/20 11:06	08/26/20 15:36	2037-26-5	
4-Bromofluorobenzene (S)	93	%.	80-120		1	08/26/20 11:06	08/26/20 15:36	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%.	76-127		1	08/26/20 11:06	08/26/20 15:36	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**19.3**	%	0.10	0.10	1		08/26/20 14:52		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249328

Sample: 0825R6 **Lab ID: 5249328004** Collected: 08/25/20 15:07 Received: 08/26/20 10:06 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	308	16.7	1	08/26/20 11:06	08/26/20 16:01	67-64-1	
Acetonitrile	ND	ug/kg	246	12.1	1	08/26/20 11:06	08/26/20 16:01	75-05-8	
Acrolein	ND	ug/kg	308	9.1	1	08/26/20 11:06	08/26/20 16:01	107-02-8	
Acrylonitrile	ND	ug/kg	123	1.4	1	08/26/20 11:06	08/26/20 16:01	107-13-1	
Benzene	ND	ug/kg	6.2	1.0	1	08/26/20 11:06	08/26/20 16:01	71-43-2	
Bromobenzene	ND	ug/kg	30.8	0.96	1	08/26/20 11:06	08/26/20 16:01	108-86-1	
Bromochloromethane	ND	ug/kg	30.8	0.76	1	08/26/20 11:06	08/26/20 16:01	74-97-5	
Bromodichloromethane	ND	ug/kg	30.8	0.97	1	08/26/20 11:06	08/26/20 16:01	75-27-4	
Bromoform	ND	ug/kg	30.8	0.74	1	08/26/20 11:06	08/26/20 16:01	75-25-2	
Bromomethane	ND	ug/kg	154	0.96	1	08/26/20 11:06	08/26/20 16:01	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	123	1.7	1	08/26/20 11:06	08/26/20 16:01	78-93-3	
n-Butylbenzene	ND	ug/kg	30.8	2.0	1	08/26/20 11:06	08/26/20 16:01	104-51-8	
sec-Butylbenzene	ND	ug/kg	30.8	1.7	1	08/26/20 11:06	08/26/20 16:01	135-98-8	
tert-Butylbenzene	ND	ug/kg	30.8	1.5	1	08/26/20 11:06	08/26/20 16:01	98-06-6	
Carbon disulfide	ND	ug/kg	123	1.9	1	08/26/20 11:06	08/26/20 16:01	75-15-0	
Carbon tetrachloride	ND	ug/kg	30.8	1.8	1	08/26/20 11:06	08/26/20 16:01	56-23-5	
Chlorobenzene	ND	ug/kg	30.8	0.94	1	08/26/20 11:06	08/26/20 16:01	108-90-7	
Chloroethane	ND	ug/kg	30.8	1.8	1	08/26/20 11:06	08/26/20 16:01	75-00-3	
Chloroform	ND	ug/kg	30.8	1.3	1	08/26/20 11:06	08/26/20 16:01	67-66-3	
Chloromethane	ND	ug/kg	30.8	0.96	1	08/26/20 11:06	08/26/20 16:01	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	30.8	1.0	1	08/26/20 11:06	08/26/20 16:01	95-49-8	
4-Chlorotoluene	ND	ug/kg	30.8	1.0	1	08/26/20 11:06	08/26/20 16:01	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	61.6	0.99	1	08/26/20 11:06	08/26/20 16:01	96-12-8	
Dibromochloromethane	ND	ug/kg	30.8	0.76	1	08/26/20 11:06	08/26/20 16:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	30.8	0.70	1	08/26/20 11:06	08/26/20 16:01	106-93-4	
Dibromomethane	ND	ug/kg	30.8	0.95	1	08/26/20 11:06	08/26/20 16:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	30.8	0.85	1	08/26/20 11:06	08/26/20 16:01	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	30.8	0.85	1	08/26/20 11:06	08/26/20 16:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	30.8	0.70	1	08/26/20 11:06	08/26/20 16:01	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	30.8	2.6	1	08/26/20 11:06	08/26/20 16:01	75-71-8	
1,1-Dichloroethane	ND	ug/kg	30.8	1.3	1	08/26/20 11:06	08/26/20 16:01	75-34-3	
1,2-Dichloroethane	ND	ug/kg	30.8	1.3	1	08/26/20 11:06	08/26/20 16:01	107-06-2	
1,1-Dichloroethene	ND	ug/kg	30.8	2.1	1	08/26/20 11:06	08/26/20 16:01	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	30.8	1.1	1	08/26/20 11:06	08/26/20 16:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	30.8	1.5	1	08/26/20 11:06	08/26/20 16:01	156-60-5	
1,2-Dichloropropane	ND	ug/kg	30.8	0.87	1	08/26/20 11:06	08/26/20 16:01	78-87-5	
1,3-Dichloropropane	ND	ug/kg	30.8	0.77	1	08/26/20 11:06	08/26/20 16:01	142-28-9	
2,2-Dichloropropane	ND	ug/kg	30.8	1.8	1	08/26/20 11:06	08/26/20 16:01	594-20-7	
1,1-Dichloropropene	ND	ug/kg	30.8	1.6	1	08/26/20 11:06	08/26/20 16:01	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	30.8	0.80	1	08/26/20 11:06	08/26/20 16:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	30.8	1.1	1	08/26/20 11:06	08/26/20 16:01	10061-02-6	
Ethyl acetate	ND	ug/kg	61.6	2.1	1	08/26/20 11:06	08/26/20 16:01	141-78-6	
Ethylbenzene	ND	ug/kg	30.8	1.4	1	08/26/20 11:06	08/26/20 16:01	100-41-4	
2-Hexanone	ND	ug/kg	123	5.5	1	08/26/20 11:06	08/26/20 16:01	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249328

Sample: 0825R6 **Lab ID: 5249328004** Collected: 08/25/20 15:07 Received: 08/26/20 10:06 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	30.8	1.3	1	08/26/20 11:06	08/26/20 16:01	98-82-8	
p-Isopropyltoluene	ND	ug/kg	30.8	6.2	1	08/26/20 11:06	08/26/20 16:01	99-87-6	
Methylene Chloride	ND	ug/kg	154	2.0	1	08/26/20 11:06	08/26/20 16:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	123	3.5	1	08/26/20 11:06	08/26/20 16:01	108-10-1	N2
Methyl-tert-butyl ether	**1.9J**	ug/kg	61.6	1.4	1	08/26/20 11:06	08/26/20 16:01	1634-04-4	
Naphthalene	ND	ug/kg	30.8	0.77	1	08/26/20 11:06	08/26/20 16:01	91-20-3	
n-Propylbenzene	ND	ug/kg	30.8	1.3	1	08/26/20 11:06	08/26/20 16:01	103-65-1	
Styrene	ND	ug/kg	30.8	1.2	1	08/26/20 11:06	08/26/20 16:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	30.8	0.74	1	08/26/20 11:06	08/26/20 16:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	30.8	0.68	1	08/26/20 11:06	08/26/20 16:01	79-34-5	
Tetrachloroethene	**19.5J**	ug/kg	30.8	1.8	1	08/26/20 11:06	08/26/20 16:01	127-18-4	
Toluene	ND	ug/kg	30.8	1.1	1	08/26/20 11:06	08/26/20 16:01	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	30.8	0.72	1	08/26/20 11:06	08/26/20 16:01	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	30.8	0.82	1	08/26/20 11:06	08/26/20 16:01	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	30.8	1.5	1	08/26/20 11:06	08/26/20 16:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	30.8	0.98	1	08/26/20 11:06	08/26/20 16:01	79-00-5	
Trichloroethene	**4.9J**	ug/kg	30.8	1.4	1	08/26/20 11:06	08/26/20 16:01	79-01-6	
Trichlorofluoromethane	ND	ug/kg	30.8	2.2	1	08/26/20 11:06	08/26/20 16:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	30.8	1.6	1	08/26/20 11:06	08/26/20 16:01	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	30.8	1.0	1	08/26/20 11:06	08/26/20 16:01	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	30.8	1.1	1	08/26/20 11:06	08/26/20 16:01	108-67-8	
Vinyl acetate	ND	ug/kg	61.6	2.4	1	08/26/20 11:06	08/26/20 16:01	108-05-4	
Vinyl chloride	ND	ug/kg	30.8	2.2	1	08/26/20 11:06	08/26/20 16:01	75-01-4	
Xylene (Total)	ND	ug/kg	61.6	3.2	1	08/26/20 11:06	08/26/20 16:01	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	106	%.	78-126		1	08/26/20 11:06	08/26/20 16:01	1868-53-7	
Toluene-d8 (S)	98	%.	80-120		1	08/26/20 11:06	08/26/20 16:01	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	80-120		1	08/26/20 11:06	08/26/20 16:01	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%.	76-127		1	08/26/20 11:06	08/26/20 16:01	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**23.0**	%	0.10	0.10	1		08/26/20 15:08		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249328

Sample: 0825R7 **Lab ID: 5249328005** Collected: 08/25/20 15:09 Received: 08/26/20 10:06 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	305	16.6	1	08/26/20 11:06	08/26/20 16:26	67-64-1	
Acetonitrile	ND	ug/kg	244	12.0	1	08/26/20 11:06	08/26/20 16:26	75-05-8	
Acrolein	ND	ug/kg	305	9.0	1	08/26/20 11:06	08/26/20 16:26	107-02-8	
Acrylonitrile	ND	ug/kg	122	1.4	1	08/26/20 11:06	08/26/20 16:26	107-13-1	
Benzene	ND	ug/kg	6.1	0.99	1	08/26/20 11:06	08/26/20 16:26	71-43-2	
Bromobenzene	ND	ug/kg	30.5	0.95	1	08/26/20 11:06	08/26/20 16:26	108-86-1	
Bromochloromethane	ND	ug/kg	30.5	0.75	1	08/26/20 11:06	08/26/20 16:26	74-97-5	
Bromodichloromethane	ND	ug/kg	30.5	0.96	1	08/26/20 11:06	08/26/20 16:26	75-27-4	
Bromoform	ND	ug/kg	30.5	0.74	1	08/26/20 11:06	08/26/20 16:26	75-25-2	
Bromomethane	ND	ug/kg	152	0.95	1	08/26/20 11:06	08/26/20 16:26	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	122	1.7	1	08/26/20 11:06	08/26/20 16:26	78-93-3	
n-Butylbenzene	ND	ug/kg	30.5	2.0	1	08/26/20 11:06	08/26/20 16:26	104-51-8	
sec-Butylbenzene	ND	ug/kg	30.5	1.7	1	08/26/20 11:06	08/26/20 16:26	135-98-8	
tert-Butylbenzene	ND	ug/kg	30.5	1.5	1	08/26/20 11:06	08/26/20 16:26	98-06-6	
Carbon disulfide	ND	ug/kg	122	1.9	1	08/26/20 11:06	08/26/20 16:26	75-15-0	
Carbon tetrachloride	ND	ug/kg	30.5	1.8	1	08/26/20 11:06	08/26/20 16:26	56-23-5	
Chlorobenzene	ND	ug/kg	30.5	0.93	1	08/26/20 11:06	08/26/20 16:26	108-90-7	
Chloroethane	ND	ug/kg	30.5	1.7	1	08/26/20 11:06	08/26/20 16:26	75-00-3	
Chloroform	ND	ug/kg	30.5	1.2	1	08/26/20 11:06	08/26/20 16:26	67-66-3	
Chloromethane	ND	ug/kg	30.5	0.95	1	08/26/20 11:06	08/26/20 16:26	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	30.5	0.99	1	08/26/20 11:06	08/26/20 16:26	95-49-8	
4-Chlorotoluene	ND	ug/kg	30.5	0.99	1	08/26/20 11:06	08/26/20 16:26	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	61.0	0.98	1	08/26/20 11:06	08/26/20 16:26	96-12-8	
Dibromochloromethane	ND	ug/kg	30.5	0.75	1	08/26/20 11:06	08/26/20 16:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	30.5	0.69	1	08/26/20 11:06	08/26/20 16:26	106-93-4	
Dibromomethane	ND	ug/kg	30.5	0.94	1	08/26/20 11:06	08/26/20 16:26	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	30.5	0.84	1	08/26/20 11:06	08/26/20 16:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	30.5	0.85	1	08/26/20 11:06	08/26/20 16:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	30.5	0.69	1	08/26/20 11:06	08/26/20 16:26	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	30.5	2.6	1	08/26/20 11:06	08/26/20 16:26	75-71-8	
1,1-Dichloroethane	ND	ug/kg	30.5	1.3	1	08/26/20 11:06	08/26/20 16:26	75-34-3	
1,2-Dichloroethane	ND	ug/kg	30.5	1.3	1	08/26/20 11:06	08/26/20 16:26	107-06-2	
1,1-Dichloroethene	ND	ug/kg	30.5	2.1	1	08/26/20 11:06	08/26/20 16:26	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	30.5	1.1	1	08/26/20 11:06	08/26/20 16:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	30.5	1.5	1	08/26/20 11:06	08/26/20 16:26	156-60-5	
1,2-Dichloropropane	ND	ug/kg	30.5	0.86	1	08/26/20 11:06	08/26/20 16:26	78-87-5	
1,3-Dichloropropane	ND	ug/kg	30.5	0.77	1	08/26/20 11:06	08/26/20 16:26	142-28-9	
2,2-Dichloropropane	ND	ug/kg	30.5	1.8	1	08/26/20 11:06	08/26/20 16:26	594-20-7	
1,1-Dichloropropene	ND	ug/kg	30.5	1.6	1	08/26/20 11:06	08/26/20 16:26	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	30.5	0.79	1	08/26/20 11:06	08/26/20 16:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	30.5	1.0	1	08/26/20 11:06	08/26/20 16:26	10061-02-6	
Ethyl acetate	ND	ug/kg	61.0	2.1	1	08/26/20 11:06	08/26/20 16:26	141-78-6	
Ethylbenzene	ND	ug/kg	30.5	1.4	1	08/26/20 11:06	08/26/20 16:26	100-41-4	
2-Hexanone	ND	ug/kg	122	5.5	1	08/26/20 11:06	08/26/20 16:26	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249328

Sample: 0825R7 **Lab ID: 5249328005** Collected: 08/25/20 15:09 Received: 08/26/20 10:06 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	30.5	1.3	1	08/26/20 11:06	08/26/20 16:26	98-82-8	
p-Isopropyltoluene	ND	ug/kg	30.5	6.1	1	08/26/20 11:06	08/26/20 16:26	99-87-6	
Methylene Chloride	ND	ug/kg	152	2.0	1	08/26/20 11:06	08/26/20 16:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	122	3.5	1	08/26/20 11:06	08/26/20 16:26	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	61.0	1.4	1	08/26/20 11:06	08/26/20 16:26	1634-04-4	
Naphthalene	ND	ug/kg	30.5	0.76	1	08/26/20 11:06	08/26/20 16:26	91-20-3	
n-Propylbenzene	ND	ug/kg	30.5	1.3	1	08/26/20 11:06	08/26/20 16:26	103-65-1	
Styrene	ND	ug/kg	30.5	1.2	1	08/26/20 11:06	08/26/20 16:26	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	30.5	0.73	1	08/26/20 11:06	08/26/20 16:26	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	30.5	0.68	1	08/26/20 11:06	08/26/20 16:26	79-34-5	
Tetrachloroethene	**7.6J**	ug/kg	30.5	1.8	1	08/26/20 11:06	08/26/20 16:26	127-18-4	
Toluene	ND	ug/kg	30.5	1.1	1	08/26/20 11:06	08/26/20 16:26	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	30.5	0.71	1	08/26/20 11:06	08/26/20 16:26	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	30.5	0.81	1	08/26/20 11:06	08/26/20 16:26	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	30.5	1.5	1	08/26/20 11:06	08/26/20 16:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	30.5	0.97	1	08/26/20 11:06	08/26/20 16:26	79-00-5	
Trichloroethene	ND	ug/kg	30.5	1.4	1	08/26/20 11:06	08/26/20 16:26	79-01-6	
Trichlorofluoromethane	ND	ug/kg	30.5	2.2	1	08/26/20 11:06	08/26/20 16:26	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	30.5	1.5	1	08/26/20 11:06	08/26/20 16:26	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	30.5	1.0	1	08/26/20 11:06	08/26/20 16:26	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	30.5	1.1	1	08/26/20 11:06	08/26/20 16:26	108-67-8	
Vinyl acetate	ND	ug/kg	61.0	2.4	1	08/26/20 11:06	08/26/20 16:26	108-05-4	
Vinyl chloride	ND	ug/kg	30.5	2.2	1	08/26/20 11:06	08/26/20 16:26	75-01-4	
Xylene (Total)	ND	ug/kg	61.0	3.2	1	08/26/20 11:06	08/26/20 16:26	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	111	%.	78-126		1	08/26/20 11:06	08/26/20 16:26	1868-53-7	
Toluene-d8 (S)	99	%.	80-120		1	08/26/20 11:06	08/26/20 16:26	2037-26-5	
4-Bromofluorobenzene (S)	93	%.	80-120		1	08/26/20 11:06	08/26/20 16:26	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%.	76-127		1	08/26/20 11:06	08/26/20 16:26	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**21.6**	%	0.10	0.10	1		08/26/20 15:09		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249328

Sample: 0825R8 **Lab ID: 5249328006** Collected: 08/25/20 15:15 Received: 08/26/20 10:06 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	297	16.1	1	08/26/20 11:06	08/26/20 16:51	67-64-1	
Acetonitrile	ND	ug/kg	237	11.7	1	08/26/20 11:06	08/26/20 16:51	75-05-8	
Acrolein	ND	ug/kg	297	8.8	1	08/26/20 11:06	08/26/20 16:51	107-02-8	
Acrylonitrile	ND	ug/kg	119	1.3	1	08/26/20 11:06	08/26/20 16:51	107-13-1	
Benzene	ND	ug/kg	5.9	0.96	1	08/26/20 11:06	08/26/20 16:51	71-43-2	
Bromobenzene	ND	ug/kg	29.7	0.92	1	08/26/20 11:06	08/26/20 16:51	108-86-1	
Bromochloromethane	ND	ug/kg	29.7	0.73	1	08/26/20 11:06	08/26/20 16:51	74-97-5	
Bromodichloromethane	ND	ug/kg	29.7	0.94	1	08/26/20 11:06	08/26/20 16:51	75-27-4	
Bromoform	ND	ug/kg	29.7	0.72	1	08/26/20 11:06	08/26/20 16:51	75-25-2	
Bromomethane	ND	ug/kg	148	0.93	1	08/26/20 11:06	08/26/20 16:51	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	119	1.7	1	08/26/20 11:06	08/26/20 16:51	78-93-3	
n-Butylbenzene	ND	ug/kg	29.7	1.9	1	08/26/20 11:06	08/26/20 16:51	104-51-8	
sec-Butylbenzene	ND	ug/kg	29.7	1.6	1	08/26/20 11:06	08/26/20 16:51	135-98-8	
tert-Butylbenzene	ND	ug/kg	29.7	1.5	1	08/26/20 11:06	08/26/20 16:51	98-06-6	
Carbon disulfide	ND	ug/kg	119	1.8	1	08/26/20 11:06	08/26/20 16:51	75-15-0	
Carbon tetrachloride	ND	ug/kg	29.7	1.7	1	08/26/20 11:06	08/26/20 16:51	56-23-5	
Chlorobenzene	ND	ug/kg	29.7	0.91	1	08/26/20 11:06	08/26/20 16:51	108-90-7	
Chloroethane	ND	ug/kg	29.7	1.7	1	08/26/20 11:06	08/26/20 16:51	75-00-3	
Chloroform	ND	ug/kg	29.7	1.2	1	08/26/20 11:06	08/26/20 16:51	67-66-3	
Chloromethane	ND	ug/kg	29.7	0.93	1	08/26/20 11:06	08/26/20 16:51	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	29.7	0.97	1	08/26/20 11:06	08/26/20 16:51	95-49-8	
4-Chlorotoluene	ND	ug/kg	29.7	0.96	1	08/26/20 11:06	08/26/20 16:51	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	59.4	0.95	1	08/26/20 11:06	08/26/20 16:51	96-12-8	
Dibromochloromethane	ND	ug/kg	29.7	0.73	1	08/26/20 11:06	08/26/20 16:51	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	29.7	0.67	1	08/26/20 11:06	08/26/20 16:51	106-93-4	
Dibromomethane	ND	ug/kg	29.7	0.92	1	08/26/20 11:06	08/26/20 16:51	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	29.7	0.82	1	08/26/20 11:06	08/26/20 16:51	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	29.7	0.82	1	08/26/20 11:06	08/26/20 16:51	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	29.7	0.68	1	08/26/20 11:06	08/26/20 16:51	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	29.7	2.5	1	08/26/20 11:06	08/26/20 16:51	75-71-8	
1,1-Dichloroethane	ND	ug/kg	29.7	1.3	1	08/26/20 11:06	08/26/20 16:51	75-34-3	
1,2-Dichloroethane	ND	ug/kg	29.7	1.2	1	08/26/20 11:06	08/26/20 16:51	107-06-2	
1,1-Dichloroethene	ND	ug/kg	29.7	2.0	1	08/26/20 11:06	08/26/20 16:51	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	29.7	1.1	1	08/26/20 11:06	08/26/20 16:51	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	29.7	1.4	1	08/26/20 11:06	08/26/20 16:51	156-60-5	
1,2-Dichloropropane	ND	ug/kg	29.7	0.84	1	08/26/20 11:06	08/26/20 16:51	78-87-5	
1,3-Dichloropropane	ND	ug/kg	29.7	0.75	1	08/26/20 11:06	08/26/20 16:51	142-28-9	
2,2-Dichloropropane	ND	ug/kg	29.7	1.8	1	08/26/20 11:06	08/26/20 16:51	594-20-7	
1,1-Dichloropropene	ND	ug/kg	29.7	1.5	1	08/26/20 11:06	08/26/20 16:51	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	29.7	0.77	1	08/26/20 11:06	08/26/20 16:51	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	29.7	1.0	1	08/26/20 11:06	08/26/20 16:51	10061-02-6	
Ethyl acetate	ND	ug/kg	59.4	2.0	1	08/26/20 11:06	08/26/20 16:51	141-78-6	
Ethylbenzene	ND	ug/kg	29.7	1.4	1	08/26/20 11:06	08/26/20 16:51	100-41-4	
2-Hexanone	ND	ug/kg	119	5.3	1	08/26/20 11:06	08/26/20 16:51	591-78-6	N2

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25 Holiday Drive
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(937)832-8242

ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249328

Sample: 0825R8 **Lab ID: 5249328006** Collected: 08/25/20 15:15 Received: 08/26/20 10:06 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	29.7	1.2	1	08/26/20 11:06	08/26/20 16:51	98-82-8	
p-Isopropyltoluene	ND	ug/kg	29.7	5.9	1	08/26/20 11:06	08/26/20 16:51	99-87-6	
Methylene Chloride	ND	ug/kg	148	1.9	1	08/26/20 11:06	08/26/20 16:51	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	119	3.4	1	08/26/20 11:06	08/26/20 16:51	108-10-1	N2
Methyl-tert-butyl ether	**2.8J**	ug/kg	59.4	1.4	1	08/26/20 11:06	08/26/20 16:51	1634-04-4	
Naphthalene	ND	ug/kg	29.7	0.74	1	08/26/20 11:06	08/26/20 16:51	91-20-3	
n-Propylbenzene	ND	ug/kg	29.7	1.3	1	08/26/20 11:06	08/26/20 16:51	103-65-1	
Styrene	ND	ug/kg	29.7	1.1	1	08/26/20 11:06	08/26/20 16:51	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	29.7	0.71	1	08/26/20 11:06	08/26/20 16:51	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	29.7	0.66	1	08/26/20 11:06	08/26/20 16:51	79-34-5	
Tetrachloroethene	ND	ug/kg	29.7	1.7	1	08/26/20 11:06	08/26/20 16:51	127-18-4	
Toluene	**3.0J**	ug/kg	29.7	1.0	1	08/26/20 11:06	08/26/20 16:51	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	29.7	0.69	1	08/26/20 11:06	08/26/20 16:51	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	29.7	0.79	1	08/26/20 11:06	08/26/20 16:51	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	29.7	1.5	1	08/26/20 11:06	08/26/20 16:51	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	29.7	0.94	1	08/26/20 11:06	08/26/20 16:51	79-00-5	
Trichloroethene	**18.4J**	ug/kg	29.7	1.3	1	08/26/20 11:06	08/26/20 16:51	79-01-6	
Trichlorofluoromethane	ND	ug/kg	29.7	2.1	1	08/26/20 11:06	08/26/20 16:51	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	29.7	1.5	1	08/26/20 11:06	08/26/20 16:51	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	29.7	0.98	1	08/26/20 11:06	08/26/20 16:51	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	29.7	1.1	1	08/26/20 11:06	08/26/20 16:51	108-67-8	
Vinyl acetate	ND	ug/kg	59.4	2.3	1	08/26/20 11:06	08/26/20 16:51	108-05-4	
Vinyl chloride	ND	ug/kg	29.7	2.2	1	08/26/20 11:06	08/26/20 16:51	75-01-4	
Xylene (Total)	ND	ug/kg	59.4	3.1	1	08/26/20 11:06	08/26/20 16:51	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	109	%.	78-126		1	08/26/20 11:06	08/26/20 16:51	1868-53-7	
Toluene-d8 (S)	100	%.	80-120		1	08/26/20 11:06	08/26/20 16:51	2037-26-5	
4-Bromofluorobenzene (S)	91	%.	80-120		1	08/26/20 11:06	08/26/20 16:51	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%.	76-127		1	08/26/20 11:06	08/26/20 16:51	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**19.5**	%	0.10	0.10	1		08/26/20 15:09		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249328

Sample: 0825R9 **Lab ID: 5249328007** Collected: 08/25/20 15:17 Received: 08/26/20 10:06 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	290	15.8	1	08/26/20 11:06	08/26/20 17:16	67-64-1	
Acetonitrile	ND	ug/kg	232	11.4	1	08/26/20 11:06	08/26/20 17:16	75-05-8	
Acrolein	ND	ug/kg	290	8.5	1	08/26/20 11:06	08/26/20 17:16	107-02-8	
Acrylonitrile	ND	ug/kg	116	1.3	1	08/26/20 11:06	08/26/20 17:16	107-13-1	
Benzene	ND	ug/kg	5.8	0.94	1	08/26/20 11:06	08/26/20 17:16	71-43-2	
Bromobenzene	ND	ug/kg	29.0	0.90	1	08/26/20 11:06	08/26/20 17:16	108-86-1	
Bromochloromethane	ND	ug/kg	29.0	0.71	1	08/26/20 11:06	08/26/20 17:16	74-97-5	
Bromodichloromethane	ND	ug/kg	29.0	0.91	1	08/26/20 11:06	08/26/20 17:16	75-27-4	
Bromoform	ND	ug/kg	29.0	0.70	1	08/26/20 11:06	08/26/20 17:16	75-25-2	
Bromomethane	ND	ug/kg	145	0.91	1	08/26/20 11:06	08/26/20 17:16	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	116	1.6	1	08/26/20 11:06	08/26/20 17:16	78-93-3	
n-Butylbenzene	ND	ug/kg	29.0	1.9	1	08/26/20 11:06	08/26/20 17:16	104-51-8	
sec-Butylbenzene	ND	ug/kg	29.0	1.6	1	08/26/20 11:06	08/26/20 17:16	135-98-8	
tert-Butylbenzene	ND	ug/kg	29.0	1.4	1	08/26/20 11:06	08/26/20 17:16	98-06-6	
Carbon disulfide	ND	ug/kg	116	1.8	1	08/26/20 11:06	08/26/20 17:16	75-15-0	
Carbon tetrachloride	ND	ug/kg	29.0	1.7	1	08/26/20 11:06	08/26/20 17:16	56-23-5	
Chlorobenzene	ND	ug/kg	29.0	0.88	1	08/26/20 11:06	08/26/20 17:16	108-90-7	
Chloroethane	ND	ug/kg	29.0	1.7	1	08/26/20 11:06	08/26/20 17:16	75-00-3	
Chloroform	ND	ug/kg	29.0	1.2	1	08/26/20 11:06	08/26/20 17:16	67-66-3	
Chloromethane	ND	ug/kg	29.0	0.90	1	08/26/20 11:06	08/26/20 17:16	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	29.0	0.94	1	08/26/20 11:06	08/26/20 17:16	95-49-8	
4-Chlorotoluene	ND	ug/kg	29.0	0.94	1	08/26/20 11:06	08/26/20 17:16	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	58.0	0.93	1	08/26/20 11:06	08/26/20 17:16	96-12-8	
Dibromochloromethane	ND	ug/kg	29.0	0.71	1	08/26/20 11:06	08/26/20 17:16	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	29.0	0.66	1	08/26/20 11:06	08/26/20 17:16	106-93-4	
Dibromomethane	ND	ug/kg	29.0	0.90	1	08/26/20 11:06	08/26/20 17:16	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	29.0	0.80	1	08/26/20 11:06	08/26/20 17:16	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	29.0	0.80	1	08/26/20 11:06	08/26/20 17:16	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	29.0	0.66	1	08/26/20 11:06	08/26/20 17:16	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	29.0	2.5	1	08/26/20 11:06	08/26/20 17:16	75-71-8	
1,1-Dichloroethane	ND	ug/kg	29.0	1.2	1	08/26/20 11:06	08/26/20 17:16	75-34-3	
1,2-Dichloroethane	ND	ug/kg	29.0	1.2	1	08/26/20 11:06	08/26/20 17:16	107-06-2	
1,1-Dichloroethene	ND	ug/kg	29.0	2.0	1	08/26/20 11:06	08/26/20 17:16	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	29.0	1.1	1	08/26/20 11:06	08/26/20 17:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	29.0	1.4	1	08/26/20 11:06	08/26/20 17:16	156-60-5	
1,2-Dichloropropane	ND	ug/kg	29.0	0.82	1	08/26/20 11:06	08/26/20 17:16	78-87-5	
1,3-Dichloropropane	ND	ug/kg	29.0	0.73	1	08/26/20 11:06	08/26/20 17:16	142-28-9	
2,2-Dichloropropane	ND	ug/kg	29.0	1.7	1	08/26/20 11:06	08/26/20 17:16	594-20-7	
1,1-Dichloropropene	ND	ug/kg	29.0	1.5	1	08/26/20 11:06	08/26/20 17:16	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	29.0	0.75	1	08/26/20 11:06	08/26/20 17:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	29.0	0.99	1	08/26/20 11:06	08/26/20 17:16	10061-02-6	
Ethyl acetate	ND	ug/kg	58.0	2.0	1	08/26/20 11:06	08/26/20 17:16	141-78-6	
Ethylbenzene	ND	ug/kg	29.0	1.3	1	08/26/20 11:06	08/26/20 17:16	100-41-4	
2-Hexanone	ND	ug/kg	116	5.2	1	08/26/20 11:06	08/26/20 17:16	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249328

Sample: 0825R9 **Lab ID: 5249328007** Collected: 08/25/20 15:17 Received: 08/26/20 10:06 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	29.0	1.2	1	08/26/20 11:06	08/26/20 17:16	98-82-8	
p-Isopropyltoluene	ND	ug/kg	29.0	5.8	1	08/26/20 11:06	08/26/20 17:16	99-87-6	
Methylene Chloride	ND	ug/kg	145	1.9	1	08/26/20 11:06	08/26/20 17:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	116	3.3	1	08/26/20 11:06	08/26/20 17:16	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	58.0	1.3	1	08/26/20 11:06	08/26/20 17:16	1634-04-4	
Naphthalene	ND	ug/kg	29.0	0.73	1	08/26/20 11:06	08/26/20 17:16	91-20-3	
n-Propylbenzene	ND	ug/kg	29.0	1.2	1	08/26/20 11:06	08/26/20 17:16	103-65-1	
Styrene	ND	ug/kg	29.0	1.1	1	08/26/20 11:06	08/26/20 17:16	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	29.0	0.70	1	08/26/20 11:06	08/26/20 17:16	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	29.0	0.64	1	08/26/20 11:06	08/26/20 17:16	79-34-5	
Tetrachloroethene	ND	ug/kg	29.0	1.7	1	08/26/20 11:06	08/26/20 17:16	127-18-4	
Toluene	ND	ug/kg	29.0	1.0	1	08/26/20 11:06	08/26/20 17:16	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	29.0	0.68	1	08/26/20 11:06	08/26/20 17:16	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	29.0	0.77	1	08/26/20 11:06	08/26/20 17:16	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	29.0	1.4	1	08/26/20 11:06	08/26/20 17:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	29.0	0.92	1	08/26/20 11:06	08/26/20 17:16	79-00-5	
Trichloroethene	**30.3**	ug/kg	29.0	1.3	1	08/26/20 11:06	08/26/20 17:16	79-01-6	
Trichlorofluoromethane	ND	ug/kg	29.0	2.1	1	08/26/20 11:06	08/26/20 17:16	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	29.0	1.5	1	08/26/20 11:06	08/26/20 17:16	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	29.0	0.96	1	08/26/20 11:06	08/26/20 17:16	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	29.0	1.1	1	08/26/20 11:06	08/26/20 17:16	108-67-8	
Vinyl acetate	ND	ug/kg	58.0	2.3	1	08/26/20 11:06	08/26/20 17:16	108-05-4	
Vinyl chloride	ND	ug/kg	29.0	2.1	1	08/26/20 11:06	08/26/20 17:16	75-01-4	
Xylene (Total)	ND	ug/kg	58.0	3.0	1	08/26/20 11:06	08/26/20 17:16	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	105	%.	78-126		1	08/26/20 11:06	08/26/20 17:16	1868-53-7	
Toluene-d8 (S)	98	%.	80-120		1	08/26/20 11:06	08/26/20 17:16	2037-26-5	
4-Bromofluorobenzene (S)	95	%.	80-120		1	08/26/20 11:06	08/26/20 17:16	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%.	76-127		1	08/26/20 11:06	08/26/20 17:16	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**18.0**	%	0.10	0.10	1		08/26/20 15:10		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249328

Sample: 0825R10 **Lab ID: 5249328008** Collected: 08/25/20 15:20 Received: 08/26/20 10:06 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	304	16.5	1	08/26/20 11:06	08/26/20 17:41	67-64-1	
Acetonitrile	ND	ug/kg	243	12.0	1	08/26/20 11:06	08/26/20 17:41	75-05-8	
Acrolein	ND	ug/kg	304	9.0	1	08/26/20 11:06	08/26/20 17:41	107-02-8	
Acrylonitrile	ND	ug/kg	122	1.4	1	08/26/20 11:06	08/26/20 17:41	107-13-1	
Benzene	ND	ug/kg	6.1	0.98	1	08/26/20 11:06	08/26/20 17:41	71-43-2	
Bromobenzene	ND	ug/kg	30.4	0.94	1	08/26/20 11:06	08/26/20 17:41	108-86-1	
Bromochloromethane	ND	ug/kg	30.4	0.75	1	08/26/20 11:06	08/26/20 17:41	74-97-5	
Bromodichloromethane	ND	ug/kg	30.4	0.96	1	08/26/20 11:06	08/26/20 17:41	75-27-4	
Bromoform	ND	ug/kg	30.4	0.73	1	08/26/20 11:06	08/26/20 17:41	75-25-2	
Bromomethane	ND	ug/kg	152	0.95	1	08/26/20 11:06	08/26/20 17:41	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	122	1.7	1	08/26/20 11:06	08/26/20 17:41	78-93-3	
n-Butylbenzene	ND	ug/kg	30.4	2.0	1	08/26/20 11:06	08/26/20 17:41	104-51-8	
sec-Butylbenzene	ND	ug/kg	30.4	1.7	1	08/26/20 11:06	08/26/20 17:41	135-98-8	
tert-Butylbenzene	ND	ug/kg	30.4	1.5	1	08/26/20 11:06	08/26/20 17:41	98-06-6	
Carbon disulfide	ND	ug/kg	122	1.9	1	08/26/20 11:06	08/26/20 17:41	75-15-0	
Carbon tetrachloride	ND	ug/kg	30.4	1.8	1	08/26/20 11:06	08/26/20 17:41	56-23-5	
Chlorobenzene	ND	ug/kg	30.4	0.93	1	08/26/20 11:06	08/26/20 17:41	108-90-7	
Chloroethane	ND	ug/kg	30.4	1.7	1	08/26/20 11:06	08/26/20 17:41	75-00-3	
Chloroform	ND	ug/kg	30.4	1.2	1	08/26/20 11:06	08/26/20 17:41	67-66-3	
Chloromethane	ND	ug/kg	30.4	0.95	1	08/26/20 11:06	08/26/20 17:41	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	30.4	0.99	1	08/26/20 11:06	08/26/20 17:41	95-49-8	
4-Chlorotoluene	ND	ug/kg	30.4	0.99	1	08/26/20 11:06	08/26/20 17:41	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	60.8	0.98	1	08/26/20 11:06	08/26/20 17:41	96-12-8	
Dibromochloromethane	ND	ug/kg	30.4	0.75	1	08/26/20 11:06	08/26/20 17:41	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	30.4	0.69	1	08/26/20 11:06	08/26/20 17:41	106-93-4	
Dibromomethane	ND	ug/kg	30.4	0.94	1	08/26/20 11:06	08/26/20 17:41	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	30.4	0.84	1	08/26/20 11:06	08/26/20 17:41	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	30.4	0.84	1	08/26/20 11:06	08/26/20 17:41	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	30.4	0.69	1	08/26/20 11:06	08/26/20 17:41	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	30.4	2.6	1	08/26/20 11:06	08/26/20 17:41	75-71-8	
1,1-Dichloroethane	ND	ug/kg	30.4	1.3	1	08/26/20 11:06	08/26/20 17:41	75-34-3	
1,2-Dichloroethane	ND	ug/kg	30.4	1.3	1	08/26/20 11:06	08/26/20 17:41	107-06-2	
1,1-Dichloroethene	ND	ug/kg	30.4	2.1	1	08/26/20 11:06	08/26/20 17:41	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	30.4	1.1	1	08/26/20 11:06	08/26/20 17:41	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	30.4	1.4	1	08/26/20 11:06	08/26/20 17:41	156-60-5	
1,2-Dichloropropane	ND	ug/kg	30.4	0.86	1	08/26/20 11:06	08/26/20 17:41	78-87-5	
1,3-Dichloropropane	ND	ug/kg	30.4	0.77	1	08/26/20 11:06	08/26/20 17:41	142-28-9	
2,2-Dichloropropane	ND	ug/kg	30.4	1.8	1	08/26/20 11:06	08/26/20 17:41	594-20-7	
1,1-Dichloropropene	ND	ug/kg	30.4	1.6	1	08/26/20 11:06	08/26/20 17:41	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	30.4	0.79	1	08/26/20 11:06	08/26/20 17:41	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	30.4	1.0	1	08/26/20 11:06	08/26/20 17:41	10061-02-6	
Ethyl acetate	ND	ug/kg	60.8	2.1	1	08/26/20 11:06	08/26/20 17:41	141-78-6	
Ethylbenzene	ND	ug/kg	30.4	1.4	1	08/26/20 11:06	08/26/20 17:41	100-41-4	
2-Hexanone	ND	ug/kg	122	5.5	1	08/26/20 11:06	08/26/20 17:41	591-78-6	N2

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249328

Sample: 0825R10 **Lab ID: 5249328008** Collected: 08/25/20 15:20 Received: 08/26/20 10:06 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	30.4	1.3	1	08/26/20 11:06	08/26/20 17:41	98-82-8	
p-Isopropyltoluene	ND	ug/kg	30.4	6.1	1	08/26/20 11:06	08/26/20 17:41	99-87-6	
Methylene Chloride	ND	ug/kg	152	2.0	1	08/26/20 11:06	08/26/20 17:41	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	122	3.5	1	08/26/20 11:06	08/26/20 17:41	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	60.8	1.4	1	08/26/20 11:06	08/26/20 17:41	1634-04-4	
Naphthalene	ND	ug/kg	30.4	0.76	1	08/26/20 11:06	08/26/20 17:41	91-20-3	
n-Propylbenzene	ND	ug/kg	30.4	1.3	1	08/26/20 11:06	08/26/20 17:41	103-65-1	
Styrene	ND	ug/kg	30.4	1.2	1	08/26/20 11:06	08/26/20 17:41	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	30.4	0.73	1	08/26/20 11:06	08/26/20 17:41	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	30.4	0.68	1	08/26/20 11:06	08/26/20 17:41	79-34-5	
Tetrachloroethene	**19.9J**	ug/kg	30.4	1.8	1	08/26/20 11:06	08/26/20 17:41	127-18-4	
Toluene	ND	ug/kg	30.4	1.1	1	08/26/20 11:06	08/26/20 17:41	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	30.4	0.71	1	08/26/20 11:06	08/26/20 17:41	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	30.4	0.81	1	08/26/20 11:06	08/26/20 17:41	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	30.4	1.5	1	08/26/20 11:06	08/26/20 17:41	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	30.4	0.97	1	08/26/20 11:06	08/26/20 17:41	79-00-5	
Trichloroethene	**15.1J**	ug/kg	30.4	1.3	1	08/26/20 11:06	08/26/20 17:41	79-01-6	
Trichlorofluoromethane	ND	ug/kg	30.4	2.2	1	08/26/20 11:06	08/26/20 17:41	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	30.4	1.5	1	08/26/20 11:06	08/26/20 17:41	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	30.4	1.0	1	08/26/20 11:06	08/26/20 17:41	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	30.4	1.1	1	08/26/20 11:06	08/26/20 17:41	108-67-8	
Vinyl acetate	ND	ug/kg	60.8	2.4	1	08/26/20 11:06	08/26/20 17:41	108-05-4	
Vinyl chloride	ND	ug/kg	30.4	2.2	1	08/26/20 11:06	08/26/20 17:41	75-01-4	
Xylene (Total)	ND	ug/kg	60.8	3.2	1	08/26/20 11:06	08/26/20 17:41	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	106	%.	78-126		1	08/26/20 11:06	08/26/20 17:41	1868-53-7	
Toluene-d8 (S)	98	%.	80-120		1	08/26/20 11:06	08/26/20 17:41	2037-26-5	
4-Bromofluorobenzene (S)	93	%.	80-120		1	08/26/20 11:06	08/26/20 17:41	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%.	76-127		1	08/26/20 11:06	08/26/20 17:41	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**23.2**	%	0.10	0.10	1		08/26/20 15:12		N2

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(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249328

QC Batch: 48668
QC Batch Method: EPA 5035A
Analysis Method: EPA 8260B
Analysis Description: 8260B MSV 5035A Med Level
Laboratory: Pace Analytical Services - Dayton
Associated Lab Samples: 5249328001, 5249328002, 5249328003, 5249328004, 5249328005, 5249328006, 5249328007, 5249328008

METHOD BLANK: 204601
Matrix: Solid
Associated Lab Samples: 5249328001, 5249328002, 5249328003, 5249328004, 5249328005, 5249328006, 5249328007, 5249328008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	25.0	0.60	08/26/20 12:40	
1,1,1-Trichloroethane	ug/kg	ND	25.0	1.2	08/26/20 12:40	
1,1,2,2-Tetrachloroethane	ug/kg	ND	25.0	0.56	08/26/20 12:40	
1,1,2-Trichloroethane	ug/kg	ND	25.0	0.80	08/26/20 12:40	
1,1-Dichloroethane	ug/kg	ND	25.0	1.1	08/26/20 12:40	
1,1-Dichloroethene	ug/kg	ND	25.0	1.7	08/26/20 12:40	N2
1,1-Dichloropropene	ug/kg	ND	25.0	1.3	08/26/20 12:40	
1,2,3-Trichlorobenzene	ug/kg	ND	25.0	0.58	08/26/20 12:40	N2
1,2,3-Trichloropropane	ug/kg	ND	25.0	1.3	08/26/20 12:40	
1,2,4-Trichlorobenzene	ug/kg	ND	25.0	0.67	08/26/20 12:40	
1,2,4-Trimethylbenzene	ug/kg	ND	25.0	0.83	08/26/20 12:40	
1,2-Dibromo-3-chloropropane	ug/kg	ND	50.0	0.80	08/26/20 12:40	
1,2-Dibromoethane (EDB)	ug/kg	ND	25.0	0.57	08/26/20 12:40	
1,2-Dichlorobenzene	ug/kg	ND	25.0	0.69	08/26/20 12:40	
1,2-Dichloroethane	ug/kg	ND	25.0	1.0	08/26/20 12:40	
1,2-Dichloropropane	ug/kg	ND	25.0	0.71	08/26/20 12:40	
1,3,5-Trimethylbenzene	ug/kg	ND	25.0	0.92	08/26/20 12:40	
1,3-Dichlorobenzene	ug/kg	ND	25.0	0.69	08/26/20 12:40	
1,3-Dichloropropane	ug/kg	ND	25.0	0.63	08/26/20 12:40	
1,4-Dichlorobenzene	ug/kg	ND	25.0	0.57	08/26/20 12:40	
2,2-Dichloropropane	ug/kg	ND	25.0	1.5	08/26/20 12:40	
2-Butanone (MEK)	ug/kg	ND	100	1.4	08/26/20 12:40	
2-Chlorotoluene	ug/kg	ND	25.0	0.81	08/26/20 12:40	
2-Hexanone	ug/kg	ND	100	4.5	08/26/20 12:40	N2
4-Chlorotoluene	ug/kg	ND	25.0	0.81	08/26/20 12:40	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	100	2.9	08/26/20 12:40	N2
Acetone	ug/kg	ND	250	13.6	08/26/20 12:40	
Acetonitrile	ug/kg	ND	200	9.9	08/26/20 12:40	
Acrolein	ug/kg	ND	250	7.4	08/26/20 12:40	
Acrylonitrile	ug/kg	ND	100	1.1	08/26/20 12:40	
Benzene	ug/kg	ND	5.0	0.81	08/26/20 12:40	
Bromobenzene	ug/kg	ND	25.0	0.78	08/26/20 12:40	
Bromochloromethane	ug/kg	ND	25.0	0.61	08/26/20 12:40	
Bromodichloromethane	ug/kg	ND	25.0	0.79	08/26/20 12:40	
Bromoform	ug/kg	ND	25.0	0.60	08/26/20 12:40	
Bromomethane	ug/kg	ND	125	0.78	08/26/20 12:40	N2
Carbon disulfide	ug/kg	ND	100	1.6	08/26/20 12:40	
Carbon tetrachloride	ug/kg	ND	25.0	1.4	08/26/20 12:40	
Chlorobenzene	ug/kg	ND	25.0	0.76	08/26/20 12:40	
Chloroethane	ug/kg	ND	25.0	1.4	08/26/20 12:40	

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QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249328

METHOD BLANK: 204601 Matrix: Solid
Associated Lab Samples: 5249328001, 5249328002, 5249328003, 5249328004, 5249328005, 5249328006, 5249328007, 5249328008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloroform	ug/kg	ND	25.0	1.0	08/26/20 12:40	
Chloromethane	ug/kg	ND	25.0	0.78	08/26/20 12:40	N2
cis-1,2-Dichloroethene	ug/kg	ND	25.0	0.91	08/26/20 12:40	
cis-1,3-Dichloropropene	ug/kg	ND	25.0	0.65	08/26/20 12:40	
Dibromochloromethane	ug/kg	ND	25.0	0.61	08/26/20 12:40	
Dibromomethane	ug/kg	ND	25.0	0.78	08/26/20 12:40	
Dichlorodifluoromethane	ug/kg	ND	25.0	2.1	08/26/20 12:40	
Ethyl acetate	ug/kg	ND	50.0	1.7	08/26/20 12:40	
Ethylbenzene	ug/kg	ND	25.0	1.2	08/26/20 12:40	
Isopropylbenzene (Cumene)	ug/kg	ND	25.0	1.0	08/26/20 12:40	
Methyl-tert-butyl ether	ug/kg	ND	50.0	1.2	08/26/20 12:40	
Methylene Chloride	ug/kg	ND	125	1.6	08/26/20 12:40	
n-Butylbenzene	ug/kg	ND	25.0	1.6	08/26/20 12:40	
n-Propylbenzene	ug/kg	ND	25.0	1.1	08/26/20 12:40	
Naphthalene	ug/kg	ND	25.0	0.63	08/26/20 12:40	
p-Isopropyltoluene	ug/kg	ND	25.0	5.0	08/26/20 12:40	
sec-Butylbenzene	ug/kg	ND	25.0	1.4	08/26/20 12:40	
Styrene	ug/kg	ND	25.0	0.96	08/26/20 12:40	
tert-Butylbenzene	ug/kg	ND	25.0	1.2	08/26/20 12:40	
Tetrachloroethene	ug/kg	ND	25.0	1.4	08/26/20 12:40	
Toluene	ug/kg	ND	25.0	0.87	08/26/20 12:40	
trans-1,2-Dichloroethene	ug/kg	ND	25.0	1.2	08/26/20 12:40	
trans-1,3-Dichloropropene	ug/kg	ND	25.0	0.86	08/26/20 12:40	
Trichloroethene	ug/kg	ND	25.0	1.1	08/26/20 12:40	
Trichlorofluoromethane	ug/kg	ND	25.0	1.8	08/26/20 12:40	
Vinyl acetate	ug/kg	ND	50.0	1.9	08/26/20 12:40	
Vinyl chloride	ug/kg	ND	25.0	1.8	08/26/20 12:40	
Xylene (Total)	ug/kg	ND	50.0	2.6	08/26/20 12:40	
1,2-Dichloroethane-d4 (S)	%.	108	76-127		08/26/20 12:40	
4-Bromofluorobenzene (S)	%.	94	80-120		08/26/20 12:40	
Dibromofluoromethane (S)	%.	110	78-126		08/26/20 12:40	
Toluene-d8 (S)	%.	96	80-120		08/26/20 12:40	

LABORATORY CONTROL SAMPLE: 204602

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	500	540	108	70-130	
1,1,1-Trichloroethane	ug/kg	500	556	111	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	500	525	105	70-130	
1,1,2-Trichloroethane	ug/kg	500	508	102	70-130	
1,1-Dichloroethane	ug/kg	500	535	107	70-130	
1,1-Dichloroethene	ug/kg	500	525	105	70-130	N2
1,1-Dichloropropene	ug/kg	500	535	107	70-130	
1,2,3-Trichlorobenzene	ug/kg	500	460	92	70-130	N2

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QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249328

LABORATORY CONTROL SAMPLE: 204602

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichloropropane	ug/kg	500	513	103	70-130	
1,2,4-Trichlorobenzene	ug/kg	500	453	91	70-130	
1,2,4-Trimethylbenzene	ug/kg	500	456	91	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	500	445	89	70-130	
1,2-Dibromoethane (EDB)	ug/kg	500	516	103	70-130	
1,2-Dichlorobenzene	ug/kg	500	470	94	70-130	
1,2-Dichloroethane	ug/kg	500	519	104	70-130	
1,2-Dichloropropane	ug/kg	500	516	103	70-130	
1,3,5-Trimethylbenzene	ug/kg	500	508	102	70-130	
1,3-Dichlorobenzene	ug/kg	500	502	100	50-150	
1,3-Dichloropropane	ug/kg	500	526	105	70-130	
1,4-Dichlorobenzene	ug/kg	500	504	101	50-150	
2,2-Dichloropropane	ug/kg	500	539	108	70-130	
2-Butanone (MEK)	ug/kg	1000	1000	100	50-150	
2-Chlorotoluene	ug/kg	500	502	100	70-130	
2-Hexanone	ug/kg	1000	1080	108	50-150	N2
4-Chlorotoluene	ug/kg	500	493	99	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	1000	993	99	70-130	N2
Acetone	ug/kg	1000	1060	106	50-150	
Acetonitrile	ug/kg	1000	845	85	70-130	
Acrolein	ug/kg	1000	860	86	70-130	
Acrylonitrile	ug/kg	1000	1000	100	70-130	
Benzene	ug/kg	500	542	108	70-130	
Bromobenzene	ug/kg	500	543	109	70-130	
Bromochloromethane	ug/kg	500	517	103	70-130	
Bromodichloromethane	ug/kg	500	582	116	70-130	
Bromoform	ug/kg	500	514	103	70-130	
Bromomethane	ug/kg	500	626	125	50-150	N2
Carbon disulfide	ug/kg	500	514	103	70-130	
Carbon tetrachloride	ug/kg	500	580	116	70-130	
Chlorobenzene	ug/kg	500	532	106	70-130	
Chloroethane	ug/kg	500	599	120	50-150	
Chloroform	ug/kg	500	535	107	70-130	
Chloromethane	ug/kg	500	538	108	50-150	N2
cis-1,2-Dichloroethene	ug/kg	500	478	96	70-130	
cis-1,3-Dichloropropene	ug/kg	500	547	109	70-130	
Dibromochloromethane	ug/kg	500	536	107	70-130	
Dibromomethane	ug/kg	500	551	110	70-130	
Dichlorodifluoromethane	ug/kg	500	393	79	50-150	
Ethyl acetate	ug/kg	1000	922	92	70-130	
Ethylbenzene	ug/kg	500	506	101	70-130	
Isopropylbenzene (Cumene)	ug/kg	500	441	88	70-130	
Methyl-tert-butyl ether	ug/kg	500	488	98	70-130	
Methylene Chloride	ug/kg	500	482	96	70-130	
n-Butylbenzene	ug/kg	500	492	98	70-130	
n-Propylbenzene	ug/kg	500	533	107	70-130	
Naphthalene	ug/kg	500	355	71	50-150	

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249328

LABORATORY CONTROL SAMPLE: 204602

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/kg	500	421	84	70-130	
sec-Butylbenzene	ug/kg	500	433	87	70-130	
Styrene	ug/kg	500	448	90	70-130	
tert-Butylbenzene	ug/kg	500	421	84	70-130	
Tetrachloroethene	ug/kg	500	559	112	70-130	
Toluene	ug/kg	500	524	105	70-130	
trans-1,2-Dichloroethene	ug/kg	500	493	99	70-130	
trans-1,3-Dichloropropene	ug/kg	500	548	110	70-130	
Trichloroethene	ug/kg	500	556	111	70-130	
Trichlorofluoromethane	ug/kg	500	608	122	50-150	
Vinyl acetate	ug/kg	500	455	91	70-130	
Vinyl chloride	ug/kg	500	456	91	50-150	
Xylene (Total)	ug/kg	1500	1400	93	70-130	
1,2-Dichloroethane-d4 (S)	%.			93	76-127	
4-Bromofluorobenzene (S)	%.			97	80-120	
Dibromofluoromethane (S)	%.			96	78-126	
Toluene-d8 (S)	%.			99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 204603 204604

Parameter	Units	5249328001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/kg	ND	601	625	628	673	104	108	48-135	7	20	
1,1,1-Trichloroethane	ug/kg	ND	601	625	667	700	111	112	49-123	5	23	
1,1,2,2-Tetrachloroethane	ug/kg	ND	601	625	625	660	104	106	43-135	6	26	
1,1,2-Trichloroethane	ug/kg	ND	601	625	608	635	101	102	52-138	4	21	
1,1-Dichloroethane	ug/kg	ND	601	625	633	644	105	103	61-129	2	20	
1,1-Dichloroethene	ug/kg	ND	601	625	599	648	100	104	41-127	8	28	N2
1,1-Dichloropropene	ug/kg	ND	601	625	615	657	102	105	44-119	7	25	
1,2,3-Trichlorobenzene	ug/kg	ND	601	625	538	616	89	99	10-110	13	30	N2
1,2,3-Trichloropropane	ug/kg	ND	601	625	608	642	101	103	46-128	5	24	
1,2,4-Trichlorobenzene	ug/kg	ND	601	625	548	601	91	96	11-130	9	38	
1,2,4-Trimethylbenzene	ug/kg	ND	601	625	523	567	87	91	24-153	8	25	
1,2-Dibromo-3-chloropropane	ug/kg	ND	601	625	558	589	93	94	30-146	5	26	
1,2-Dibromoethane (EDB)	ug/kg	ND	601	625	612	647	102	103	51-136	5	20	
1,2-Dichlorobenzene	ug/kg	ND	601	625	562	634	94	102	31-137	12	25	
1,2-Dichloroethane	ug/kg	ND	601	625	625	624	104	100	65-124	0	20	
1,2-Dichloropropane	ug/kg	ND	601	625	610	635	101	102	64-124	4	20	
1,3,5-Trimethylbenzene	ug/kg	ND	601	625	610	659	101	105	31-140	8	24	
1,3-Dichlorobenzene	ug/kg	ND	601	625	602	636	100	102	30-136	5	25	
1,3-Dichloropropane	ug/kg	ND	601	625	646	628	107	101	57-127	3	21	
1,4-Dichlorobenzene	ug/kg	ND	601	625	585	629	97	101	36-131	7	24	
2,2-Dichloropropane	ug/kg	ND	601	625	626	667	104	107	45-124	6	17	
2-Butanone (MEK)	ug/kg	ND	1200	1250	1250	1270	104	102	35-149	2	22	

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REPORT OF LABORATORY ANALYSIS

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249328

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 204603 204604

Parameter	Units	5249328001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2-Chlorotoluene	ug/kg	ND	601	625	586	652	98	104	37-129	11	24	
2-Hexanone	ug/kg	ND	1200	1250	1390	1380	116	110	34-134	1	23	N2
4-Chlorotoluene	ug/kg	ND	601	625	556	595	92	95	32-131	7	23	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	1200	1250	1280	1200	107	96	49-137	7	24	N2
Acetone	ug/kg	ND	1200	1250	1410	1390	117	111	12-177	1	34	
Acetonitrile	ug/kg	ND	1200	1250	1880	1690	156	135	41-152	10	38	M1
Acrolein	ug/kg	ND	1200	1250	1200	1190	100	95	10-200	1	48	
Acrylonitrile	ug/kg	ND	1200	1250	1270	1230	106	98	54-136	4	26	
Benzene	ug/kg	ND	601	625	630	654	105	105	61-122	4	20	
Bromobenzene	ug/kg	ND	601	625	635	694	106	111	38-133	9	21	
Bromochloromethane	ug/kg	ND	601	625	612	635	102	102	70-130	4	19	
Bromodichloromethane	ug/kg	ND	601	625	685	720	114	115	53-131	5	21	
Bromoform	ug/kg	ND	601	625	640	668	107	107	49-127	4	22	
Bromomethane	ug/kg	ND	601	625	797	781	133	125	15-168	2	22	N2
Carbon disulfide	ug/kg	ND	601	625	611	606	102	97	43-118	1	33	
Carbon tetrachloride	ug/kg	ND	601	625	672	737	112	118	39-121	9	23	
Chlorobenzene	ug/kg	ND	601	625	605	668	101	107	46-130	10	21	
Chloroethane	ug/kg	ND	601	625	765	743	127	119	6-154	3	86	
Chloroform	ug/kg	ND	601	625	627	655	104	105	62-128	4	19	
Chloromethane	ug/kg	ND	601	625	685	726	114	116	50-132	6	25	N2
cis-1,2-Dichloroethene	ug/kg	ND	601	625	586	607	97	97	61-127	4	20	
cis-1,3-Dichloropropene	ug/kg	ND	601	625	620	667	103	107	55-125	7	21	
Dibromochloromethane	ug/kg	ND	601	625	662	698	110	112	53-133	5	21	
Dibromomethane	ug/kg	ND	601	625	639	674	106	108	64-127	5	20	
Dichlorodifluoromethane	ug/kg	ND	601	625	500	516	83	83	10-184	3	69	
Ethyl acetate	ug/kg	ND	1200	1250	1160	1190	97	95	10-155	2	40	
Ethylbenzene	ug/kg	ND	601	625	576	636	96	102	40-129	10	23	
Isopropylbenzene (Cumene)	ug/kg	ND	601	625	519	561	86	90	42-121	8	24	
Methyl-tert-butyl ether	ug/kg	ND	601	625	594	607	99	97	60-132	2	27	
Methylene Chloride	ug/kg	ND	601	625	612	602	102	96	46-146	2	39	
n-Butylbenzene	ug/kg	ND	601	625	573	627	95	100	20-127	9	29	
n-Propylbenzene	ug/kg	ND	601	625	598	654	99	105	33-126	9	25	
Naphthalene	ug/kg	ND	601	625	436	489	73	78	8-150	11	31	
p-Isopropyltoluene	ug/kg	ND	601	625	483	549	80	88	27-131	13	26	
sec-Butylbenzene	ug/kg	ND	601	625	519	577	86	92	27-130	11	26	
Styrene	ug/kg	ND	601	625	521	558	87	89	41-132	7	22	
tert-Butylbenzene	ug/kg	ND	601	625	483	549	80	88	36-129	13	25	
Tetrachloroethene	ug/kg	ND	601	625	635	718	106	115	36-128	12	23	
Toluene	ug/kg	ND	601	625	605	655	101	105	50-125	8	20	
trans-1,2-Dichloroethene	ug/kg	ND	601	625	579	586	96	94	51-127	1	31	
trans-1,3-Dichloropropene	ug/kg	ND	601	625	621	668	103	107	55-126	7	21	
Trichloroethene	ug/kg	8.4J	601	625	649	681	107	108	47-132	5	20	
Trichlorofluoromethane	ug/kg	ND	601	625	1140	1290	190	206	14-140	12	24	M1
Vinyl acetate	ug/kg	ND	601	625	597	591	99	95	10-127	1	50	

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REPORT OF LABORATORY ANALYSIS

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249328

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 204603 204604

Parameter	Units	5249328001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Vinyl chloride	ug/kg	ND	601	625	596	602	99	96	35-130	1	54	
Xylene (Total)	ug/kg	ND	1800	1870	1620	1780	90	95	70-130	9	32	
1,2-Dichloroethane-d4 (S)	%.						103	95	76-127			
4-Bromofluorobenzene (S)	%.						97	101	80-120			
Dibromofluoromethane (S)	%.						99	98	78-126			
Toluene-d8 (S)	%.						98	98	80-120			

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(937)832-8242

QUALIFIERS

Project: RUSH VOC Soils
Pace Project No.: 5249328

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

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Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RUSH VOC Soils
Pace Project No.: 5249328

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
5249328001	**BR8PB3SM**	EPA 5035A	48668	EPA 8260B	48748
5249328002	**BR8PB3SS**	EPA 5035A	48668	EPA 8260B	48748
5249328003	**BR8WSSS**	EPA 5035A	48668	EPA 8260B	48748
5249328004	**0825R6**	EPA 5035A	48668	EPA 8260B	48748
5249328005	**0825R7**	EPA 5035A	48668	EPA 8260B	48748
5249328006	**0825R8**	EPA 5035A	48668	EPA 8260B	48748
5249328007	**0825R9**	EPA 5035A	48668	EPA 8260B	48748
5249328008	**0825R10**	EPA 5035A	48668	EPA 8260B	48748
5249328001	**BR8PB3SM**	ASTM D2216	48707		
5249328002	**BR8PB3SS**	ASTM D2216	48707		
5249328003	**BR8WSSS**	ASTM D2216	48707		
5249328004	**0825R6**	ASTM D2216	48707		
5249328005	**0825R7**	ASTM D2216	48707		
5249328006	**0825R8**	ASTM D2216	48707		
5249328007	**0825R9**	ASTM D2216	48707		
5249328008	**0825R10**	ASTM D2216	48707		

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CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

WO# : 5249328

5249328

ALL SHADED

Company: MAKSolve	Billing Information: Bill to MAKSolve
Address: 261 Rosey Ridge Paxton OH 15459	
Report To: Barb@maksolve.com	Email To: Barb@maksolve.com
Copy To: John@maksolve.com	Site Collection Info/Address: 508 E Water Street Troy, OH
Customer Project Name/Number: Spinnaker 084-20	State: OH / County/City: Troy / Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET
Phone: 3072514465 Email:	Site/Facility ID #: / Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): Barb McGavern	Purchase Order #: / Quote #: 0007655 / DW PWS ID #: / DW Location Code:
Collected By (signature):	Turnaround Date Required: RUSH for 8/27 / Immediately Packed on Ice: [ ] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold: 30 days	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) / Field Filtered (if applicable): [ ] Yes [ ] No / Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type: U O

** Preservative Types: (1) nitric acid, (2) sulfuric, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses: PCE (8260), TCE (8260)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	PCE (8260)	TCE (8260)
BR8PB3SM	SL	Grab	8/25	1430					X	X
BR8PB3SS			8/25	1433					X	X
BR8WSSS			8/25	1435					X	X
0825R6			8/25	1507					X	X
0825R7			8/25	1509					X	X
0825R8			8/25	1515					X	X
0825R9			8/25	1517					X	X
0825R10			8/25	1520					X	X

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips:	
Sample pH Acceptable	Y N NA
pH Strips:	
Sulfide Present	Y N NA
Lead Acetate Strips:	

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards: LVL 4 data pkg 1 jar per sample collected

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2519617

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#:
Cooler 1 Temp Upon Receipt: oC
Cooler 1 Therm Corr. Factor: oC
Cooler 1 Corrected Temp: oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Barb McGavern / MAKSolve	8/26/20 0838		08:38 26-Aug-20
	26-Aug-20 10:06		8/26/20 10:06

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: of:

MSV - FORM II VOA-1
SOLID VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Dayton SDG No.: 5249328 Contract: RUSH VOC Soils

Instrument ID: 52MV02

LAB SAMPLE ID	SAMPLE NAME	12D4	BFB	DIBF	TOL8
204601	204601BLANK	108	94	110	96
204602	204602LCS	93	97	96	99
204603	204603MS	103	97	99	98
204604	204604MSD	95	101	98	98
5249328001	BR8PB3SM	105	91	108	99
5249328002	BR8PB3SS	103	94	106	96
5249328003	BR8WSSS	109	93	107	99
5249328004	0825R6	104	96	106	98
5249328005	0825R7	103	93	111	99
5249328006	0825R8	106	91	109	100
5249328007	0825R9	109	95	105	98
5249328008	0825R10	104	93	106	98

	QC LIMITS
(12D4) = 1,2-Dichloroethane-d4 (S)	(76-127)
(BFB) = 4-Bromofluorobenzene (S)	(80-120)
(DIBF) = Dibromofluoromethane (S)	(78-126)
(TOL8) = Toluene-d8 (S)	(80-120)

* Values outside of QC Limits

MSV - FORM III VOA-1

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Dayton

Date Extracted: 08/26/2020

Instrument: 52MV02

Lab File ID: 082620.B\082620_03B2983.D

Lab Sample ID: 204602LCS

Date Analyzed (1): 08/26/2020

LCS Lot No:

SDG No.: 5249328

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
Acetone	1000	1060	106	50-150
Acetonitrile	1000	845	85	70-130
Acrolein	1000	860	86	70-130
Acrylonitrile	1000	1000	100	70-130
Benzene	500	542	108	70-130
Bromobenzene	500	543	109	70-130
Bromochloromethane	500	517	103	70-130
Bromodichloromethane	500	582	116	70-130
Bromoform	500	514	103	70-130
Bromomethane	500	626	125	50-150
2-Butanone (MEK)	1000	1000	100	50-150
n-Butylbenzene	500	492	98	70-130
sec-Butylbenzene	500	433	87	70-130
tert-Butylbenzene	500	421	84	70-130
Carbon disulfide	500	514	103	70-130
Carbon tetrachloride	500	580	116	70-130
Chlorobenzene	500	532	106	70-130
Chloroethane	500	599	120	50-150
Chloroform	500	535	107	70-130
Chloromethane	500	538	108	50-150
2-Chlorotoluene	500	502	100	70-130
4-Chlorotoluene	500	493	99	70-130
1,2-Dibromo-3-chloropropane	500	445	89	70-130
Dibromochloromethane	500	536	107	70-130
1,2-Dibromoethane (EDB)	500	516	103	70-130
Dibromomethane	500	551	110	70-130
1,2-Dichlorobenzene	500	470	94	70-130
1,3-Dichlorobenzene	500	502	100	50-150
1,4-Dichlorobenzene	500	504	101	50-150
Dichlorodifluoromethane	500	393	79	50-150
1,1-Dichloroethane	500	535	107	70-130
1,2-Dichloroethane	500	519	104	70-130
1,1-Dichloroethene	500	525	105	70-130
cis-1,2-Dichloroethene	500	478	96	70-130
trans-1,2-Dichloroethene	500	493	99	70-130
1,2-Dichloropropane	500	516	103	70-130
1,3-Dichloropropane	500	526	105	70-130
2,2-Dichloropropane	500	539	108	70-130
1,1-Dichloropropene	500	535	107	70-130
cis-1,3-Dichloropropene	500	547	109	70-130
trans-1,3-Dichloropropene	500	548	110	70-130
Ethyl acetate	1000	922	92	70-130
Ethylbenzene	500	506	101	70-130
2-Hexanone	1000	1080	108	50-150
Isopropylbenzene (Cumene)	500	441	88	70-130
p-Isopropyltoluene	500	421	84	70-130
Methylene Chloride	500	482	96	70-130

MSV - FORM III VOA-2

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Dayton

Lab Sample ID: 204602LCS

Date Extracted: 08/26/2020

Date Analyzed (1): 08/26/2020

Instrument: 52MV02

LCS Lot No:

Lab File ID: 082620.B\082620_03B2983.D

SDG No.: 5249328

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
4-Methyl-2-pentanone (MIBK)	1000	993	99	70-130
Methyl-tert-butyl ether	500	488	98	70-130
Naphthalene	500	355	71	50-150
n-Propylbenzene	500	533	107	70-130
Styrene	500	448	90	70-130
1,1,1,2-Tetrachloroethane	500	540	108	70-130
1,1,2,2-Tetrachloroethane	500	525	105	70-130
Tetrachloroethene	500	559	112	70-130
Toluene	500	524	105	70-130
1,2,3-Trichlorobenzene	500	460	92	70-130
1,2,4-Trichlorobenzene	500	453	91	70-130
1,1,1-Trichloroethane	500	556	111	70-130
1,1,2-Trichloroethane	500	508	102	70-130
Trichloroethene	500	556	111	70-130
Trichlorofluoromethane	500	608	122	50-150
1,2,3-Trichloropropane	500	513	103	70-130
1,2,4-Trimethylbenzene	500	456	91	70-130
1,3,5-Trimethylbenzene	500	508	102	70-130
Vinyl acetate	500	455	91	70-130
Vinyl chloride	500	456	91	50-150
Xylene (Total)	1500	1400	93	70-130

Spike Recovery: 0 out of 68 outside limits.

09/02/2020 11:02

MSV - FORM III VOA-1

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Dayton

Matrix Spike - Sample No: 204603MS

Date Extracted: 08/26/2020

Date Analyzed (1): 08/26/2020

Instrument: 52MV02

Lab File ID: 082620.B\082620_08.D

Parent Sample ID: BR8PB3SM

SDG No.: 5249328

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	601	ND	628	104	48-135
1,1,1-Trichloroethane	601	ND	667	111	49-123
1,1,2,2-Tetrachloroethane	601	ND	625	104	43-135
1,1,2-Trichloroethane	601	ND	608	101	52-138
1,1-Dichloroethane	601	ND	633	105	61-129
1,1-Dichloroethene	601	ND	599	100	41-127
1,1-Dichloropropene	601	ND	615	102	44-119
1,2,3-Trichlorobenzene	601	ND	538	89	10-110
1,2,3-Trichloropropane	601	ND	608	101	46-128
1,2,4-Trichlorobenzene	601	ND	548	91	11-130
1,2,4-Trimethylbenzene	601	ND	523	87	24-153
1,2-Dibromo-3-chloropropane	601	ND	558	93	30-146
1,2-Dibromoethane (EDB)	601	ND	612	102	51-136
1,2-Dichlorobenzene	601	ND	562	94	31-137
1,2-Dichloroethane	601	ND	625	104	65-124
1,2-Dichloropropane	601	ND	610	101	64-124
1,3,5-Trimethylbenzene	601	ND	610	101	31-140
1,3-Dichlorobenzene	601	ND	602	100	30-136
1,3-Dichloropropane	601	ND	646	107	57-127
1,4-Dichlorobenzene	601	ND	585	97	36-131
2,2-Dichloropropane	601	ND	626	104	45-124
2-Butanone (MEK)	1200	ND	1250	104	35-149
2-Chlorotoluene	601	ND	586	98	37-129
2-Hexanone	1200	ND	1390	116	34-134
4-Chlorotoluene	601	ND	556	92	32-131
4-Methyl-2-pentanone (MIBK)	1200	ND	1280	107	49-137
Acetone	1200	ND	1410	117	12-177
Acetonitrile	1200	ND	1880	156	41-152
Acrolein	1200	ND	1200	100	10-200
Acrylonitrile	1200	ND	1270	106	54-136
Benzene	601	ND	630	105	61-122
Bromobenzene	601	ND	635	106	38-133
Bromochloromethane	601	ND	612	102	70-130
Bromodichloromethane	601	ND	685	114	53-131
Bromoform	601	ND	640	107	49-127
Bromomethane	601	ND	797	133	15-168
Carbon disulfide	601	ND	611	102	43-118
Carbon tetrachloride	601	ND	672	112	39-121
Chlorobenzene	601	ND	605	101	46-130
Chloroethane	601	ND	765	127	6-154
Chloroform	601	ND	627	104	62-128
Chloromethane	601	ND	685	114	50-132
Dibromochloromethane	601	ND	662	110	53-133
Dibromomethane	601	ND	639	106	64-127
Dichlorodifluoromethane	601	ND	500	83	10-184
Ethyl acetate	1200	ND	1160	97	10-155
Ethylbenzene	601	ND	576	96	40-129

MSV - FORM III VOA-2

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Dayton

Matrix Spike - Sample No: 204603MS

Date Extracted: 08/26/2020

Date Analyzed (1): 08/26/2020

Instrument: 52MV02

Lab File ID: 082620.B\082620_08.D

Parent Sample ID: BR8PB3SM

SDG No.: 5249328

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
Isopropylbenzene (Cumene)	601	ND	519	86	42-121
Methyl-tert-butyl ether	601	ND	594	99	60-132
Methylene Chloride	601	ND	612	102	46-146
Naphthalene	601	ND	436	73	8-150
Styrene	601	ND	521	87	41-132
Tetrachloroethene	601	ND	635	106	36-128
Toluene	601	ND	605	101	50-125
Trichloroethene	601	8.4J	649	107	47-132
Trichlorofluoromethane	601	ND	1140	190	14-140
Vinyl acetate	601	ND	597	99	10-127
Vinyl chloride	601	ND	596	99	35-130
Xylene (Total)	1800	ND	1620	90	70-130
cis-1,2-Dichloroethene	601	ND	586	97	61-127
cis-1,3-Dichloropropene	601	ND	620	103	55-125
n-Butylbenzene	601	ND	573	95	20-127
n-Propylbenzene	601	ND	598	99	33-126
p-Isopropyltoluene	601	ND	483	80	27-131
sec-Butylbenzene	601	ND	519	86	27-130
tert-Butylbenzene	601	ND	483	80	36-129
trans-1,2-Dichloroethene	601	ND	579	96	51-127
trans-1,3-Dichloropropene	601	ND	621	103	55-126

Spike Recovery: 2 out of 68 outside limits.

09/02/2020 11:02

MSV - FORM III VOA-3

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 52MV02 Matrix Spike Duplicate - Sample No: 204604MSD

Lab File ID (2): 082620.B\082620_09.D Date Analyzed (2): 08/26/2020

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
1,1,1,2-Tetrachloroethane	625	673	108	7	0-20	48-135
1,1,1-Trichloroethane	625	700	112	5	0-23	49-123
1,1,2,2-Tetrachloroethane	625	660	106	6	0-26	43-135
1,1,2-Trichloroethane	625	635	102	4	0-21	52-138
1,1-Dichloroethane	625	644	103	2	0-20	61-129
1,1-Dichloroethene	625	648	104	8	0-28	41-127
1,1-Dichloropropene	625	657	105	7	0-25	44-119
1,2,3-Trichlorobenzene	625	616	99	13	0-30	10-110
1,2,3-Trichloropropane	625	642	103	5	0-24	46-128
1,2,4-Trichlorobenzene	625	601	96	9	0-38	11-130
1,2,4-Trimethylbenzene	625	567	91	8	0-25	24-153
1,2-Dibromo-3-chloropropane	625	589	94	5	0-26	30-146
1,2-Dibromoethane (EDB)	625	647	103	5	0-20	51-136
1,2-Dichlorobenzene	625	634	102	12	0-25	31-137
1,2-Dichloroethane	625	624	100	0	0-20	65-124
1,2-Dichloropropane	625	635	102	4	0-20	64-124
1,3,5-Trimethylbenzene	625	659	105	8	0-24	31-140
1,3-Dichlorobenzene	625	636	102	5	0-25	30-136
1,3-Dichloropropane	625	628	101	3	0-21	57-127
1,4-Dichlorobenzene	625	629	101	7	0-24	36-131
2,2-Dichloropropane	625	667	107	6	0-17	45-124
2-Butanone (MEK)	1250	1270	102	2	0-22	35-149
2-Chlorotoluene	625	652	104	11	0-24	37-129
2-Hexanone	1250	1380	110	1	0-23	34-134
4-Chlorotoluene	625	595	95	7	0-23	32-131
4-Methyl-2-pentanone (MIBK)	1250	1200	96	7	0-24	49-137
Acetone	1250	1390	111	1	0-34	12-177
Acetonitrile	1250	1690	135	10	0-38	41-152
Acrolein	1250	1190	95	1	0-48	10-200
Acrylonitrile	1250	1230	98	4	0-26	54-136
Benzene	625	654	105	4	0-20	61-122
Bromobenzene	625	694	111	9	0-21	38-133
Bromochloromethane	625	635	102	4	0-19	70-130
Bromodichloromethane	625	720	115	5	0-21	53-131
Bromoform	625	668	107	4	0-22	49-127
Bromomethane	625	781	125	2	0-22	15-168
Carbon disulfide	625	606	97	1	0-33	43-118
Carbon tetrachloride	625	737	118	9	0-23	39-121
Chlorobenzene	625	668	107	10	0-21	46-130
Chloroethane	625	743	119	3	0-86	6-154
Chloroform	625	655	105	4	0-19	62-128
Chloromethane	625	726	116	6	0-25	50-132
Dibromochloromethane	625	698	112	5	0-21	53-133
Dibromomethane	625	674	108	5	0-20	64-127
Dichlorodifluoromethane	625	516	83	3	0-69	10-184
Ethyl acetate	1250	1190	95	2	0-40	10-155
Ethylbenzene	625	636	102	10	0-23	40-129
Isopropylbenzene (Cumene)	625	561	90	8	0-24	42-121
Methyl-tert-butyl ether	625	607	97	2	0-27	60-132

MSV - FORM III VOA-4

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 52MV02 Matrix Spike Duplicate - Sample No: 204604MSD

Lab File ID (2): 082620.B\082620_09.D Date Analyzed (2): 08/26/2020

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Methylene Chloride	625	602	96	2	0-39	46-146
Naphthalene	625	489	78	11	0-31	8-150
Styrene	625	558	89	7	0-22	41-132
Tetrachloroethene	625	718	115	12	0-23	36-128
Toluene	625	655	105	8	0-20	50-125
Trichloroethene	625	681	108	5	0-20	47-132
Trichlorofluoromethane	625	1290	206	12	0-24	14-140
Vinyl acetate	625	591	95	1	0-50	10-127
Vinyl chloride	625	602	96	1	0-54	35-130
Xylene (Total)	1870	1780	95	9	0-32	70-130
cis-1,2-Dichloroethene	625	607	97	4	0-20	61-127
cis-1,3-Dichloropropene	625	667	107	7	0-21	55-125
n-Butylbenzene	625	627	100	9	0-29	20-127
n-Propylbenzene	625	654	105	9	0-25	33-126
p-Isopropyltoluene	625	549	88	13	0-26	27-131
sec-Butylbenzene	625	577	92	11	0-26	27-130
tert-Butylbenzene	625	549	88	13	0-25	36-129
trans-1,2-Dichloroethene	625	586	94	1	0-31	51-127
trans-1,3-Dichloropropene	625	668	107	7	0-21	55-126

RPD: 0 out of 68 outside limits.

Spike Recovery: 1 out of 68 outside limits.

09/02/2020 11:02

SAMPLE NO.

204601BLANK

MSV - FORM IV VOA-1
VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Dayton SDG No.: 5249328 Contract: RUSH VOC Soils

Instrument ID: 52MV02 Matrix: Solid Lab Sample ID: 204601

Lab File ID: 082620.B\082620_06.D Date Analyzed: 08/26/2020 Time:12:40

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
204602LCS	204602	082620.B\082620_03B2983.	08/26/2020 11:25
BR8PB3SM	5249328001	082620.B\082620_07.D	08/26/2020 13:05
204603MS	204603	082620.B\082620_08.D	08/26/2020 13:30
204604MSD	204604	082620.B\082620_09.D	08/26/2020 13:55
BR8PB3SS	5249328002	082620.B\082620_12.D	08/26/2020 15:11
BR8WSSS	5249328003	082620.B\082620_13.D	08/26/2020 15:36
0825R6	5249328004	082620.B\082620_14.D	08/26/2020 16:01
0825R7	5249328005	082620.B\082620_15.D	08/26/2020 16:26
0825R8	5249328006	082620.B\082620_16.D	08/26/2020 16:51
0825R9	5249328007	082620.B\082620_17.D	08/26/2020 17:16
0825R10	5249328008	082620.B\082620_18.D	08/26/2020 17:41

MSV - FORM V VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Dayton SDG No.: 5249328 Contract: RUSH VOC Soils

Lab File ID: 082020.B\082020_01.D BFB Injection Date 08/20/2020

Instrument ID: 52MV02 BFB Injection Time 09:57

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	24.30	
75	30.00 - 60.00% of mass 95	49.31	
95	Mass 95 relative abundance	100.00	
96	5.00 - 9.00% of mass 95	7.36	
173	Less than 2.00% of mass 174	2.18	(1.71)[1]
174	Greater than 50.00% of mass 95	127.30	
175	5.00 - 9.00% of mass 174	8.81	(6.92)[1]
176	95.00 - 101.00% of mass 174	127.12	(99.86)[1]
177	5.00 - 9.00% of mass 176	7.18	(5.65)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1419846CAL1	1419846CAL1	082020.B\082020_03.D	08/20/2020	10:50
1419847CAL2	1419847CAL2	082020.B\082020_04.D	08/20/2020	11:15
1419848CAL3	1419848CAL3	082020.B\082020_05.D	08/20/2020	11:40
1419849CAL4	1419849CAL4	082020.B\082020_06.D	08/20/2020	12:05
1419850CAL5	1419850CAL5	082020.B\082020_07.D	08/20/2020	12:30
1419851CAL6	1419851CAL6	082020.B\082020_08.D	08/20/2020	12:55
1419852CAL7	1419852CAL7	082020.B\082020_09.D	08/20/2020	13:20
1419853CAL8	1419853CAL8	082020.B\082020_10.D	08/20/2020	13:45
1419854CAL9	1419854CAL9	082020.B\082020_11.D	08/20/2020	14:11
1419855CAL10	1419855CAL10	082020.B\082020_12.D	08/20/2020	14:36
1419856CAL11	1419856CAL11	082020.B\082020_13.D	08/20/2020	15:01
1419857CAL12	1419857CAL12	082020.B\082020_14.D	08/20/2020	15:26
1419858ICV	1419858ICV	082020.B\082020_18.D	08/20/2020	17:06

MSV - FORM V VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Dayton SDG No.: 5249328 Contract: RUSH VOC Soils

Lab File ID: 082620.B\082620_03TUNE.D BFB Injection Date 08/26/2020

Instrument ID: 52MV02 BFB Injection Time 11:25

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	24.05	
75	30.00 - 60.00% of mass 95	49.82	
95	Mass 95 relative abundance	100.00	
96	5.00 - 9.00% of mass 95	6.80	
173	Less than 2.00% of mass 174	2.07	(1.70)[1]
174	Greater than 50.00% of mass 95	121.50	
175	5.00 - 9.00% of mass 174	8.51	(7.00)[1]
176	95.00 - 101.00% of mass 174	116.10	(95.55)[1]
177	5.00 - 9.00% of mass 176	6.92	(5.96)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1432859CCV	1432859CCV	082620.B\082620_03.D	08/26/2020	11:25
204602LCS	204602LCS	082620.B\082620_03B2983.D	08/26/2020	11:25
204601BLANK	204601BLANK	082620.B\082620_06.D	08/26/2020	12:40
BR8PB3SM	5249328001	082620.B\082620_07.D	08/26/2020	13:05
204603MS	204603MS	082620.B\082620_08.D	08/26/2020	13:30
204604MSD	204604MSD	082620.B\082620_09.D	08/26/2020	13:55
BR8PB3SS	5249328002	082620.B\082620_12.D	08/26/2020	15:11
BR8WSSS	5249328003	082620.B\082620_13.D	08/26/2020	15:36
0825R6	5249328004	082620.B\082620_14.D	08/26/2020	16:01
0825R7	5249328005	082620.B\082620_15.D	08/26/2020	16:26
0825R8	5249328006	082620.B\082620_16.D	08/26/2020	16:51
0825R9	5249328007	082620.B\082620_17.D	08/26/2020	17:16
0825R10	5249328008	082620.B\082620_18.D	08/26/2020	17:41

MSV - FORM VIII VOA-1
MSV INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Dayton SDG No.: 5249328 Contract: RUSH VOC Soils

Sample ID : 1432859CCV Date Analyzed: 08/26/2020

Instrument ID: 52MV02 GC Column: Col 1 Time Analyzed: 11:25

Lab File ID: 082620.B\082620_03.D

		AREA CBZ	RT	AREA DCB	RT	AREA DFB	RT	AREA PFB	RT
12 HOUR STD		272170	10.561	180250	12.341	292666	8.317	222751	7.86
UPPER LIMIT		544340	11.061	360500	12.841	585332	8.817	445502	8.36
LOWER LIMIT		136085	10.061	90125	11.841	146333	7.817	111375.5	7.36
LAB SAMPLE ID	SAMPLE NO.								
204601	204601BLANK	228025	10.56	126112	12.341	259612	8.317	185094	7.86
204602	204602LCS	272170	10.561	180250	12.341	292666	8.317	222751	7.86
204603	204603MS	275269	10.561	178798	12.341	289590	8.317	215686	7.86
204604	204604MSD	270986	10.56	174902	12.341	297738	8.317	226737	7.86
5249328001	BR8PB3SM	234594	10.561	124415	12.341	262664	8.317	191141	7.86
5249328002	BR8PB3SS	241322	10.561	130239	12.341	277023	8.317	202419	7.86
5249328003	BR8WSSS	238319	10.561	131567	12.341	270016	8.317	197401	7.86
5249328004	0825R6	238082	10.561	131576	12.341	277986	8.317	204711	7.86
5249328005	0825R7	246419	10.56	132446	12.341	280145	8.317	198927	7.86
5249328006	0825R8	236606	10.561	126685	12.341	268306	8.317	194418	7.86
5249328007	0825R9	241135	10.56	132514	12.341	276912	8.317	202964	7.86
5249328008	0825R10	235482	10.561	130975	12.341	274235	8.317	200656	7.86

CBZ = Chlorobenzene-D5 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
DFB = 1,4-Difluorobenzene (IS)
PFB = Pentafluorobenzene (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

BR8PB3SM

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 10:06
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 5249328001
Date Analyzed: 08/26/2020 13:05
Lab File ID: 082620.B\082620_07.D
Initial wt/vol: 5.35 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 20.5%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

BR8PB3SM

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 10:06
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 5249328001
Date Analyzed: 08/26/2020 13:05
Lab File ID: 082620.B\082620_07.D
Initial wt/vol: 5.35 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 20.5%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	8.4	J
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_07.D
Lab Smp Id: 5249328001 Client Smp ID: BR8PB3SM
Inj Date : 26-AUG-2020 13:05
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249328001,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	118939	54.0458	54.0	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	191141	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.975	7.981	(1.015)	20807	52.5567	52.6	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.323	8.317	(1.001)	528	0.28747	0.287	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	262664	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	279948	49.5108	49.5	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	234594	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	87439	45.4161	45.4	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						(D)
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	124415	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

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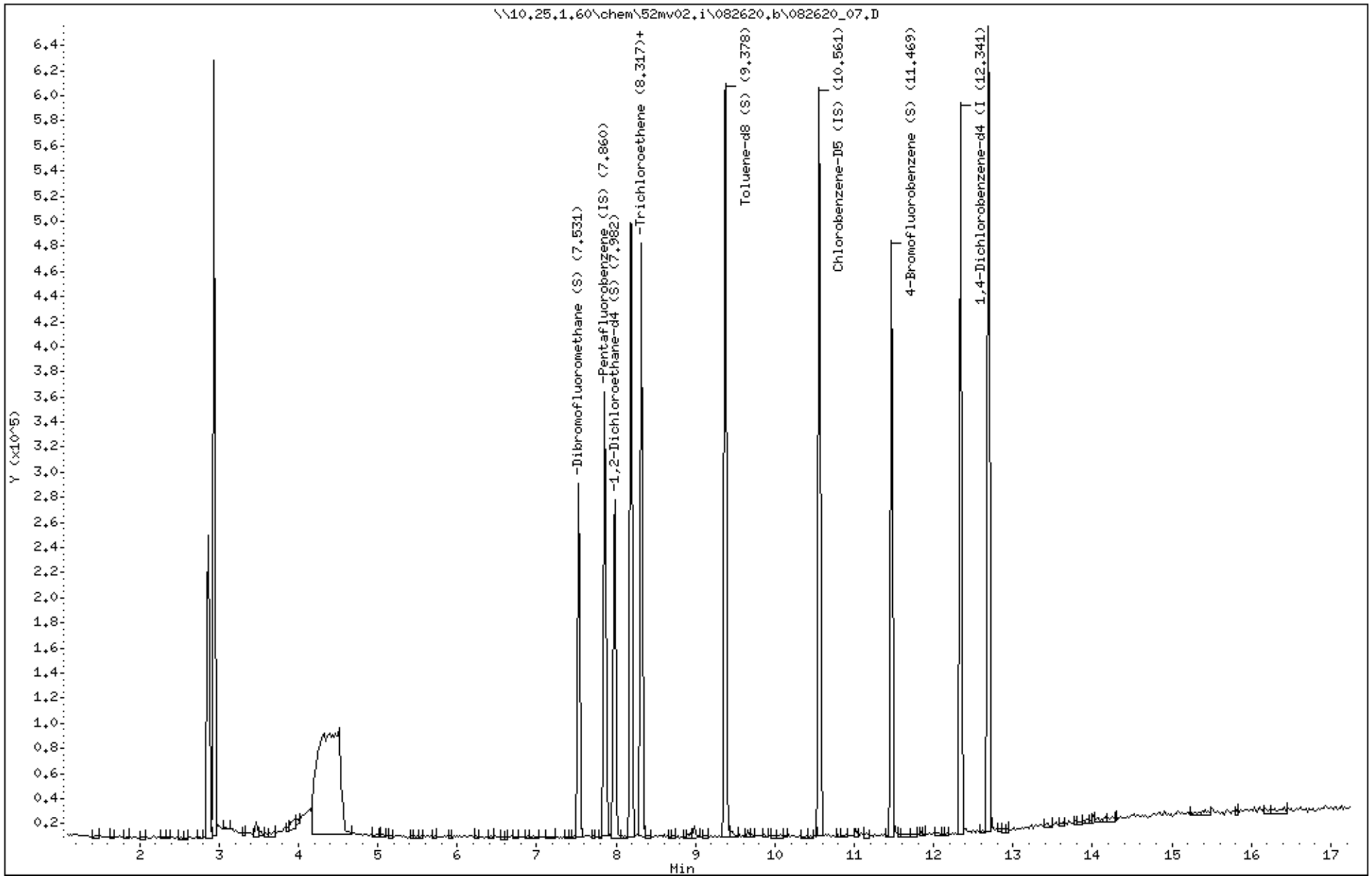
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_07.D
Date : 26-AUG-2020 13:05
Client ID: BR8PB3SM
Sample Info: 5249328001,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_07.D
Injection Date: 26-AUG-2020 13:05
Instrument: 52mv02.i
Lab Sample ID: 5249328001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

BR8PB3SS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 10:06
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 5249328002
Date Analyzed: 08/26/2020 15:11
Lab File ID: 082620.B\082620_12.D
Initial wt/vol: 5.11 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 20.6%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

BR8PB3SS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 10:06
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 5249328002
Date Analyzed: 08/26/2020 15:11
Lab File ID: 082620.B\082620_12.D
Initial wt/vol: 5.11 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 20.6%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	8.2	J
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_12.D
Lab Smp Id: 5249328002 Client Smp ID: BR8PB3SS
Inj Date : 26-AUG-2020 15:11
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249328002,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	123292	52.9023	52.9	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	202419	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21608	51.5390	51.5	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.317	8.317	(1.000)	513	0.26483	0.265	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	277023	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	287717	48.2473	48.2	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	241322	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	93539	47.2299	47.2	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	130239	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						(D)
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

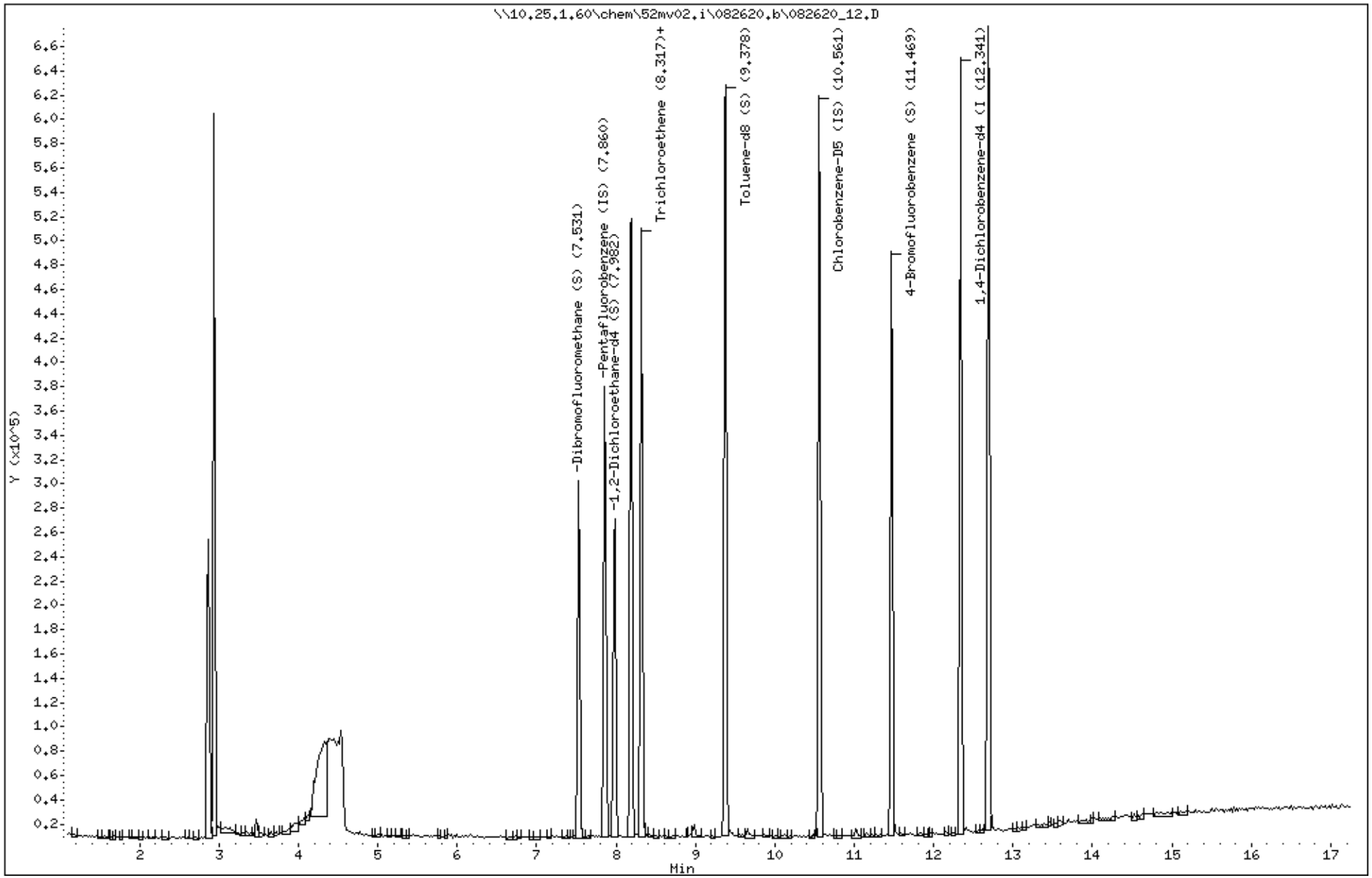
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_12.D
Date : 26-AUG-2020 15:11
Client ID: BR8PB3SS
Sample Info: 5249328002,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_12.D
Injection Date: 26-AUG-2020 15:11
Instrument: 52mv02.i
Lab Sample ID: 5249328002
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

BR8WSSS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 10:06
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 5249328003
Date Analyzed: 08/26/2020 15:36
Lab File ID: 082620.B\082620_13.D
Initial wt/vol: 5.08 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 19.3%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

BR8WSSS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 10:06
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 5249328003
Date Analyzed: 08/26/2020 15:36
Lab File ID: 082620.B\082620_13.D
Initial wt/vol: 5.08 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 19.3%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	4.3	J
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_13.D
Lab Smp Id: 5249328003 Client Smp ID: BR8PBWSSS
Inj Date : 26-AUG-2020 15:36
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249328003,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	592	0.14194	0.142	
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	121862	53.6180	53.6	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	197401	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	22226	54.3606	54.4	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	270016	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	288351	49.6084	49.6	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	238319	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	91186	46.6220	46.6	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	131567	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

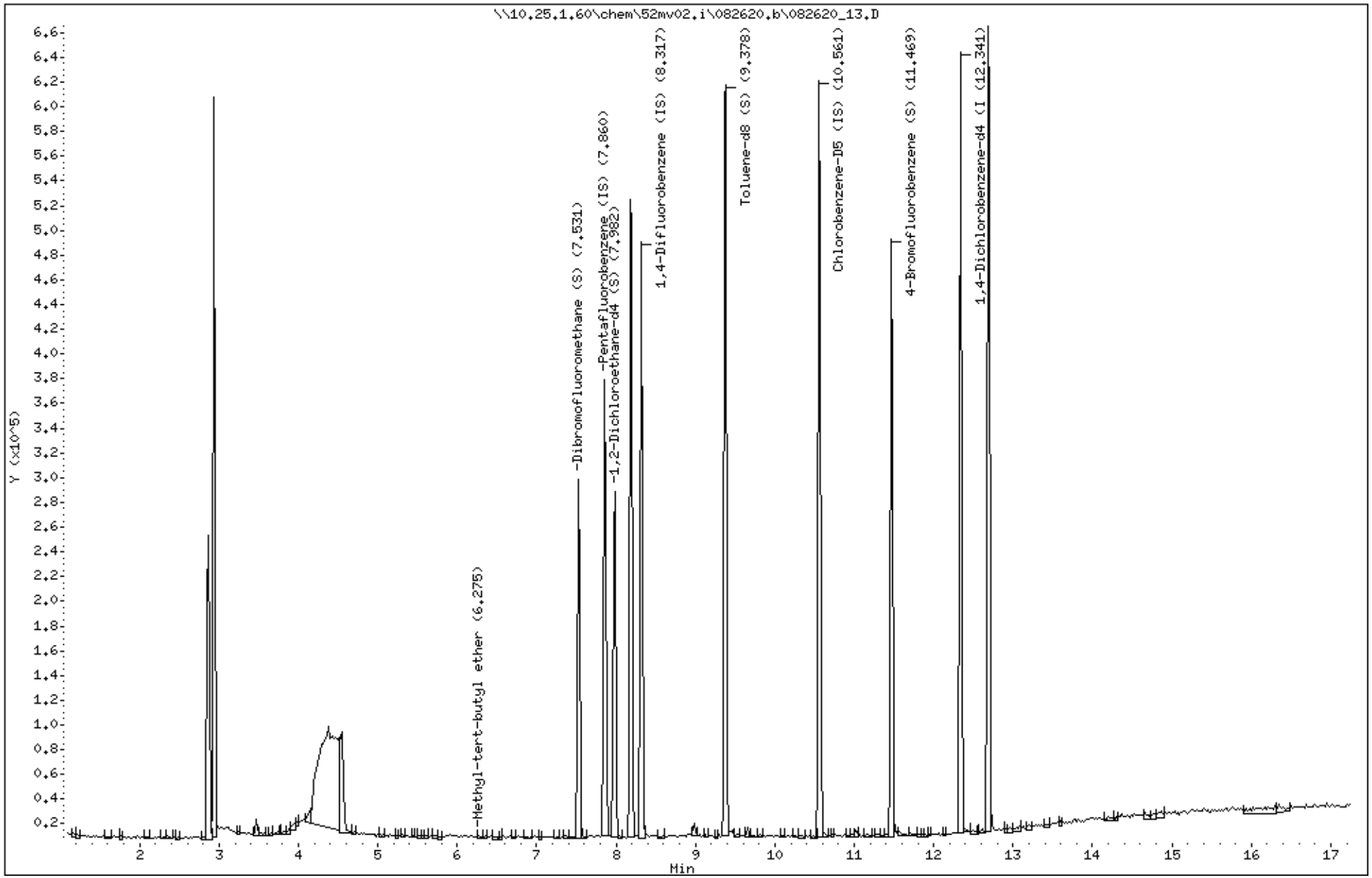
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_13.D
Date : 26-AUG-2020 15:36
Client ID: BR8PBWSSS
Sample Info: 5249328003,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_13.D
Injection Date: 26-AUG-2020 15:36
Instrument: 52mv02.i
Lab Sample ID: 5249328003
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

0825R6

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 10:06
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 5249328004
Date Analyzed: 08/26/2020 16:01
Lab File ID: 082620.B\082620_14.D
Initial wt/vol: 5.27 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 23.0%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

0825R6

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 10:06
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 5249328004
Date Analyzed: 08/26/2020 16:01
Lab File ID: 082620.B\082620_14.D
Initial wt/vol: 5.27 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 23.0%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	1.9	J
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	19.5	J
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	4.9	J
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_14.D
Lab Smp Id: 5249328004 Client Smp ID: 0825R6
Inj Date : 26-AUG-2020 16:01
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249328004,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	6.159	6.165	(0.784)	264	0.06104	0.0610	
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	124941	53.0097	53.0	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	204711	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21982	51.8440	51.8	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.323	8.317	(1.001)	307	0.15793	0.158	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	277986	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	292481	48.8763	48.9	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	9.725	9.719	(0.921)	1034	0.63281	0.633	
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	238082	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.469	11.468	(1.086)	93654	47.9315	47.9	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
80	n-Propylbenzene	91	Compound Not Detected.						
81	Bromobenzene	156	Compound Not Detected.						
82	1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83	1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84	2-Chlorotoluene	126	Compound Not Detected.						
85	4-Chlorotoluene	126	Compound Not Detected.						
86	Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87	1,2,3-Trichloropropane	75	Compound Not Detected.						
88	trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)
89	Cyclohexanone	98	Compound Not Detected.						
90	tert-Butylbenzene	119	Compound Not Detected.						
91	1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92	sec-Butylbenzene	105	Compound Not Detected.						
93	p-Isopropyltoluene	119	Compound Not Detected.						
94	1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95	1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	131576	50.0000		
96	1,4-Dichlorobenzene	146	Compound Not Detected.						
97	n-Butylbenzene	91	Compound Not Detected.						
98	1,2-Dichlorobenzene	146	Compound Not Detected.						
99	1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100	Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101	1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102	Naphthalene	128	Compound Not Detected.						
103	1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

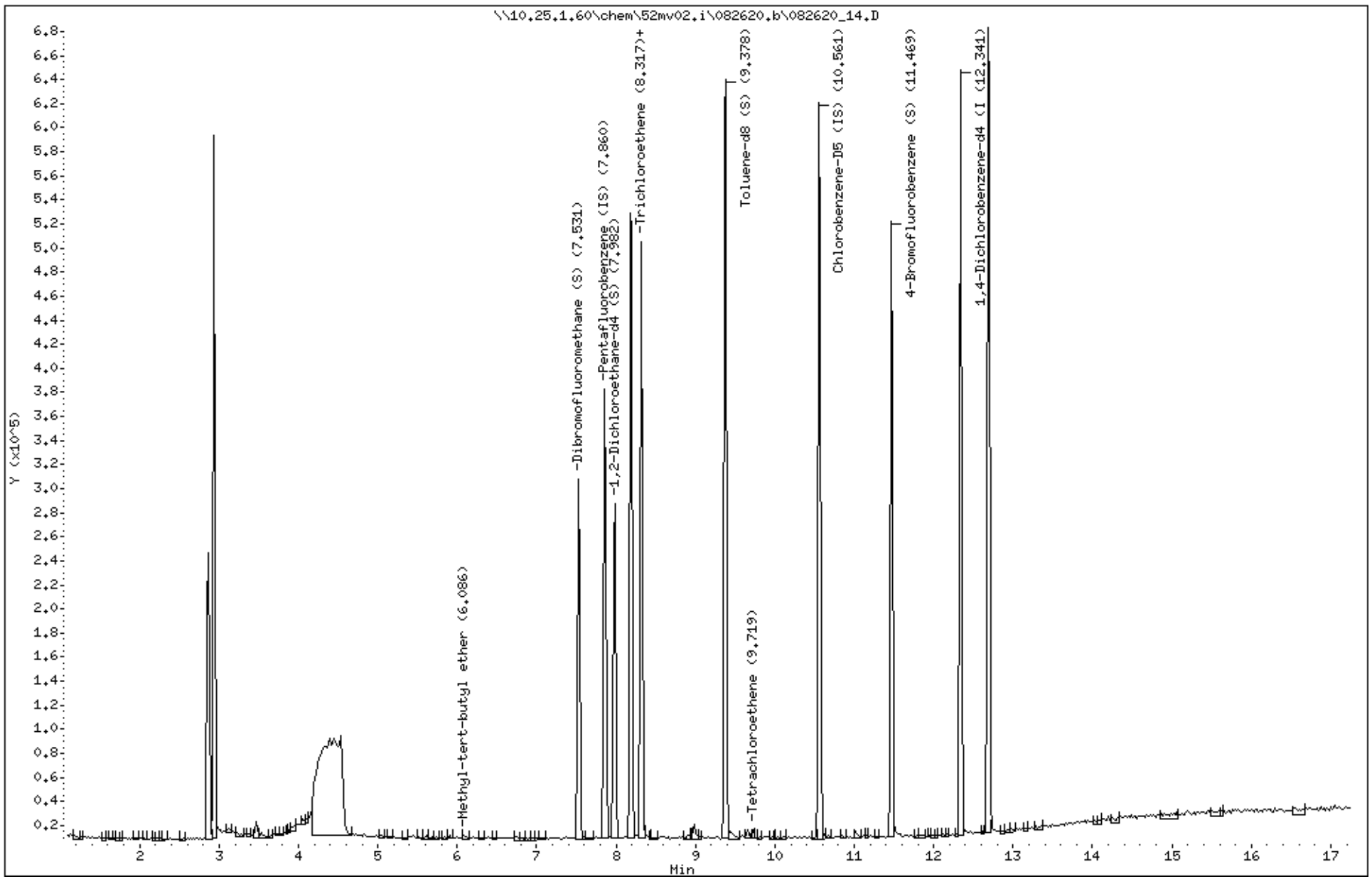
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_14.D
Date : 26-AUG-2020 16:01
Client ID: 0825R6
Sample Info: 5249328004,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_14.D
Injection Date: 26-AUG-2020 16:01
Instrument: 52mv02.i
Lab Sample ID: 5249328004
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

0825R7

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 10:06
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 5249328005
Date Analyzed: 08/26/2020 16:26
Lab File ID: 082620.B\082620_15.D
Initial wt/vol: 5.23 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 21.6%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

0825R7

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 10:06
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 5249328005
Date Analyzed: 08/26/2020 16:26
Lab File ID: 082620.B\082620_15.D
Initial wt/vol: 5.23 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 21.6%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	7.6	J
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_15.D
Lab Smp Id: 5249328005 Client Smp ID: 0825R7
Inj Date : 26-AUG-2020 16:26
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249328005,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	127205	55.5395	55.5	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						(D)
	37 1,1-Dichloropropene	75	Compound Not Detected.						
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	198927	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21299	51.6938	51.7	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	280145	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	299506	49.6645	49.7	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	9.725	9.719	(0.921)	419	0.24775	0.248	
	63 Ethyl methacrylate	69	Compound Not Detected.						
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	246419	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	94155	46.5576	46.6	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	132446	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

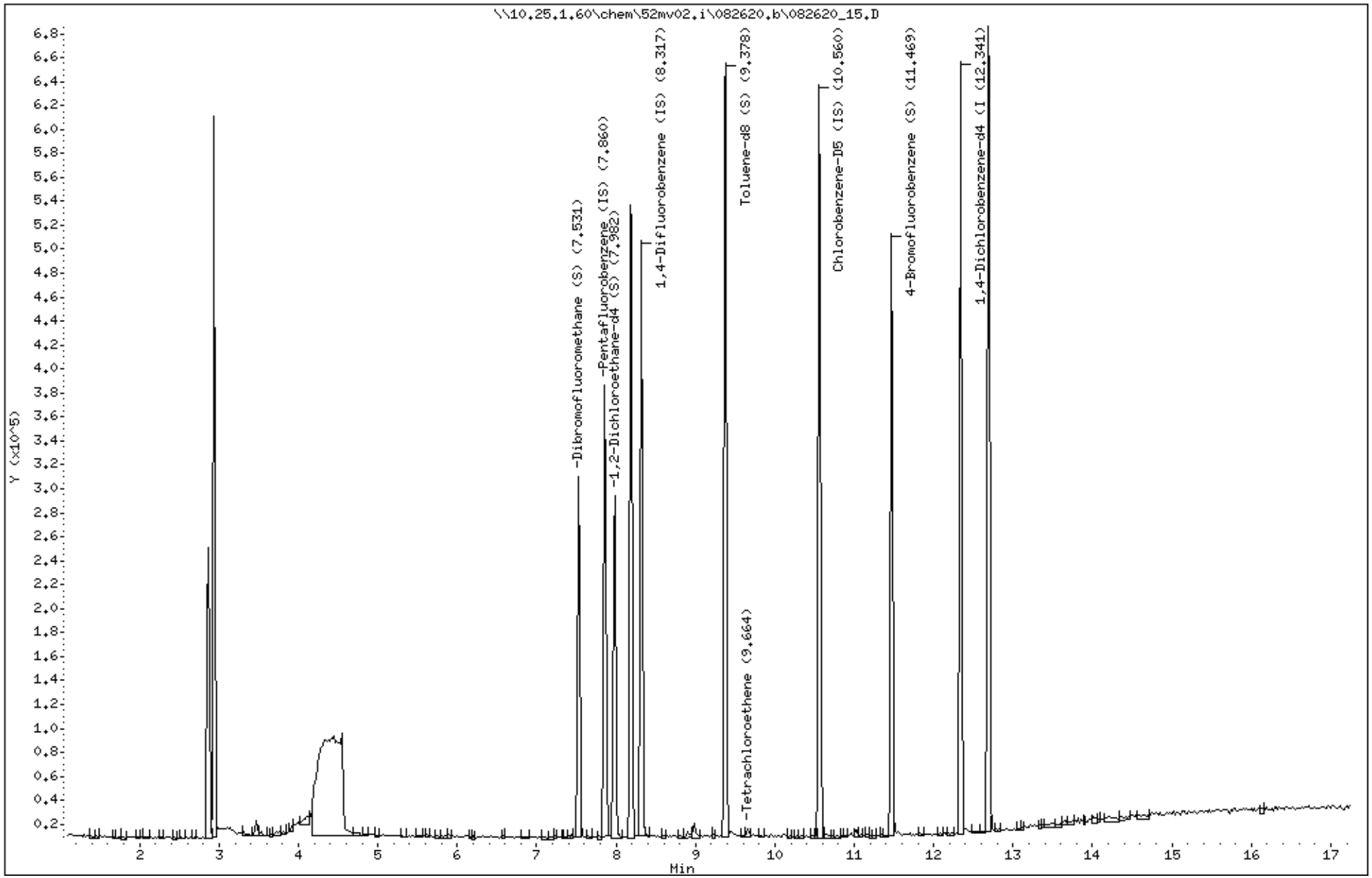
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_15.D
Date : 26-AUG-2020 16:26
Client ID: 0825R7
Sample Info: 5249328005,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_15.D
Injection Date: 26-AUG-2020 16:26
Instrument: 52mv02.i
Lab Sample ID: 5249328005
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

0825R8

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 10:06
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 5249328006
Date Analyzed: 08/26/2020 16:51
Lab File ID: 082620.B\082620_16.D
Initial wt/vol: 5.23 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 19.5%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

0825R8

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 10:06
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 5249328006
Date Analyzed: 08/26/2020 16:51
Lab File ID: 082620.B\082620_16.D
Initial wt/vol: 5.23 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 19.5%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	2.8	J
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	3.0	J
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	18.4	J
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_16.D
Lab Smp Id: 5249328006 Client Smp ID: 0825R8
Inj Date : 26-AUG-2020 16:51
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249328006,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	6.171	6.165	(0.785)	391	0.09518	0.0952	
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	121895	54.4554	54.4	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	194418	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21330	52.9696	53.0	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.323	8.317	(1.001)	1161	0.61881	0.619	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	268306	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						(D)
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	290148	50.2357	50.2	
	58 Toluene	91	9.414	9.414	(1.132)	674	0.10074	0.101	
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	236606	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.469	11.468	(1.086)	88052	45.3455	45.3	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	126685	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

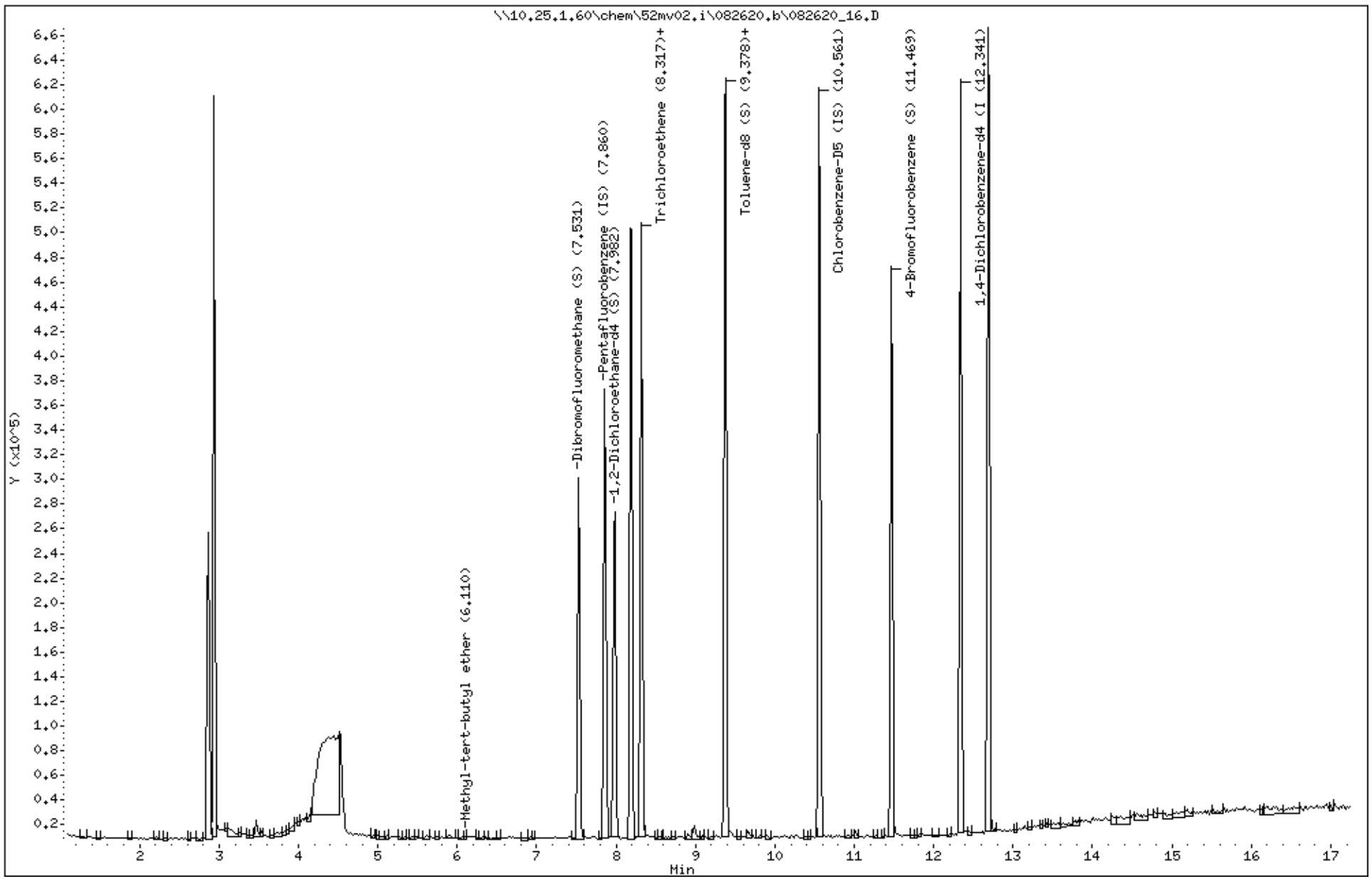
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_16.D
Date : 26-AUG-2020 16:51
Client ID: 0825R8
Sample Info: 5249328006,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_16.D
Injection Date: 26-AUG-2020 16:51
Instrument: 52mv02.i
Lab Sample ID: 5249328006
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

0825R9

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 10:06
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 5249328007
Date Analyzed: 08/26/2020 17:16
Lab File ID: 082620.B\082620_17.D
Initial wt/vol: 5.26 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 18.0%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

0825R9

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 10:06
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 5249328007
Date Analyzed: 08/26/2020 17:16
Lab File ID: 082620.B\082620_17.D
Initial wt/vol: 5.26 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 18.0%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	30.3	
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_17.D
Lab Smp Id: 5249328007 Client Smp ID: 0825R9
Inj Date : 26-AUG-2020 17:16
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249328007,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	122777	52.5399	52.5	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	202964	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	22906	54.4882	54.5	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.323	8.317	(1.001)	2024	1.04527	1.04	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	276912	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	290720	48.7704	48.8	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	241135	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	94087	47.5434	47.5	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	132514	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

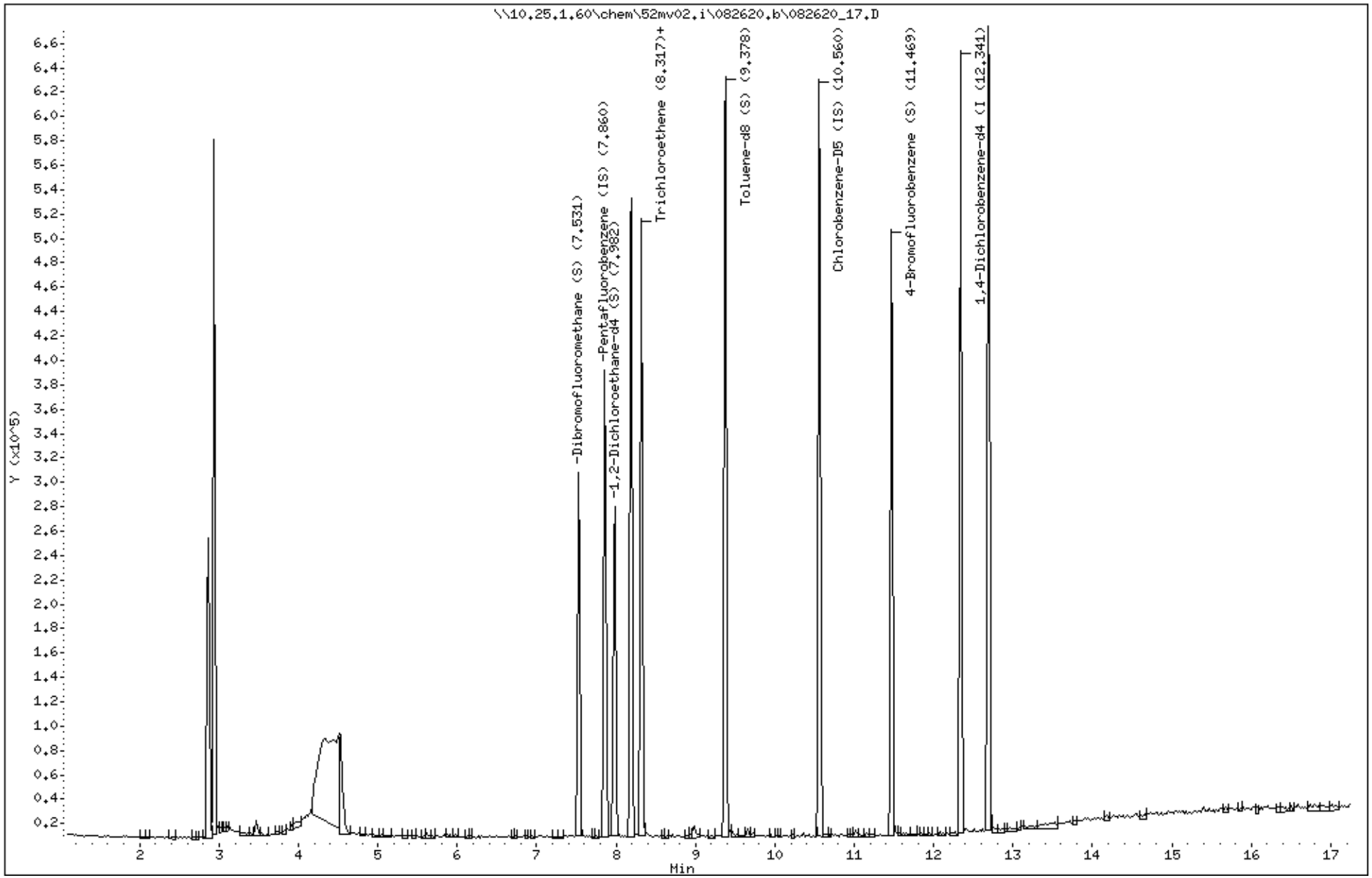
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_17.D
Date : 26-AUG-2020 17:16
Client ID: 0825R9
Sample Info: 5249328007,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



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Injection Date: 26-AUG-2020 17:16
Instrument: 52mv02.i
Lab Sample ID: 5249328007
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

0825R10

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 10:06
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 5249328008
Date Analyzed: 08/26/2020 17:41
Lab File ID: 082620.B\082620_18.D
Initial wt/vol: 5.35 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 23.2%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

0825R10

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 10:06
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 5249328008
Date Analyzed: 08/26/2020 17:41
Lab File ID: 082620.B\082620_18.D
Initial wt/vol: 5.35 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 23.2%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	19.9	J
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	15.1	J
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_18.D
Lab Smp Id: 5249328008 Client Smp ID: 0825R10
Inj Date : 26-AUG-2020 17:41
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249328008,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	123001	53.2412	53.2	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	200656	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21681	52.1675	52.2	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.323	8.317	(1.001)	950	0.49540	0.495	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	274235	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	289155	48.9814	49.0	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	1060	0.65589	0.656	
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	235482	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	89631	46.3790	46.4	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	130975	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

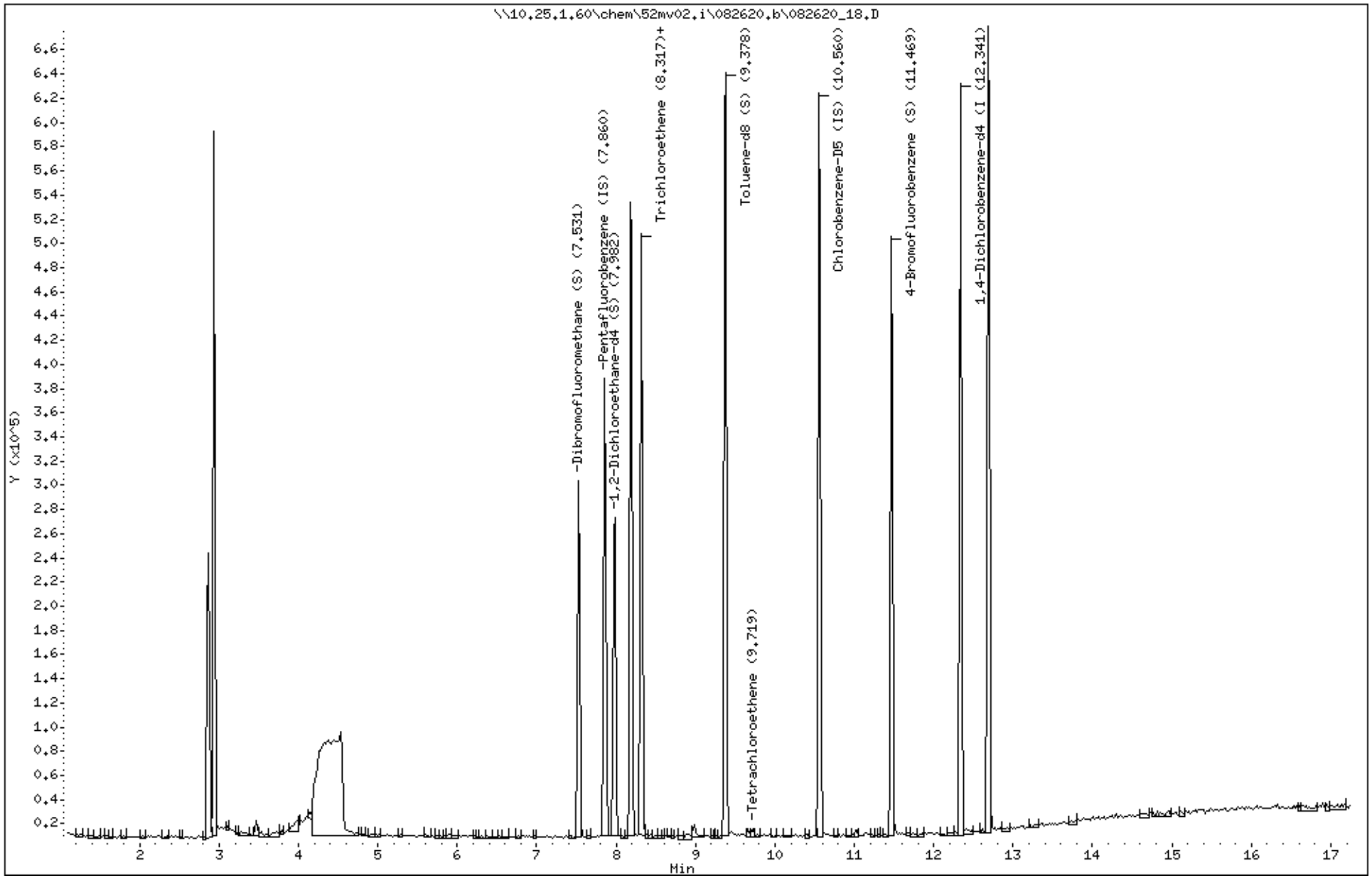
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_18.D
Date : 26-AUG-2020 17:41
Client ID: 0825R10
Sample Info: 5249328008,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_18.D
Injection Date: 26-AUG-2020 17:41
Instrument: 52mv02.i
Lab Sample ID: 5249328008
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

MSV - FORM VI VOA-1

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249328

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Acetone	Wt Linear			0.62900	0.55994	0.50057	0.45567
Acetonitrile	Wt Linear				0.06914	0.02812	0.03538
Acrolein	Averaged				0.08416	0.06550	0.06663
Acrylonitrile	Averaged			0.21923	0.20463	0.19660	0.17821
Benzene	Averaged	1.47226	1.17470	1.10627	1.43668	1.30598	1.38283
Bromobenzene	Averaged		0.44187	0.42245	0.49777	0.46884	0.54542
Bromochloromethane	Averaged		0.31597	0.30786	0.31639	0.29311	0.30419
Bromodichloromethane	Averaged		0.37292	0.40712	0.57953	0.49521	0.61500
Bromoform	Averaged		0.43514	0.43198	0.48641	0.42825	0.47385
Bromomethane	Wt Linear			1.52273	1.15152	0.76564	0.66086
2-Butanone (MEK)	Averaged			0.50647	0.40123	0.44364	0.43519
n-Butylbenzene	Averaged			1.39216	1.45958	1.44353	1.59712
sec-Butylbenzene	Wt Linear		1.18759	1.24368	1.67899	1.52562	1.84820
tert-Butylbenzene	Wt Linear		1.05533	1.23614	1.25134	1.14366	1.44555
Carbon disulfide	Averaged		1.57701	1.57013	1.73228	1.48016	1.64695
Carbon tetrachloride	Averaged			0.40579	0.50689	0.49562	0.54603
Chlorobenzene	Averaged		1.00310	0.91983	1.08642	0.90944	1.03666
Chloroethane	Wt Linear			0.21117	0.31149	0.17587	0.20642
Chloroform	Averaged		0.91551	1.14590	1.17564	1.07349	1.06717
Chloromethane	Wt Linear		1.70187	1.21534	1.00675	0.83064	0.79315
2-Chlorotoluene	Wt Linear		0.20503	0.23617	0.27463	0.30975	0.37215
4-Chlorotoluene	Wt Linear		0.30194	0.21412	0.30492	0.29219	0.31811
1,2-Dibromo-3-chloropropane	Averaged				0.21563	0.16898	0.14356
Dibromochloromethane	Averaged		0.39061	0.41330	0.50471	0.47639	0.52153
1,2-Dibromoethane (EDB)	Averaged		0.39922	0.39891	0.44521	0.38546	0.43818
Dibromomethane	Averaged		0.30841	0.27910	0.31794	0.30634	0.32971
1,2-Dichlorobenzene	Averaged	1.62186	1.64056	1.43913	1.59814	1.34139	1.48556
1,3-Dichlorobenzene	Averaged	1.46004	1.15332	1.12127	1.39100	1.22471	1.36866
1,4-Dichlorobenzene	Averaged	1.92711	1.64810	1.47102	1.57896	1.41215	1.52701
Dichlorodifluoromethane	Averaged		0.59716	0.66099	0.60136	0.62199	0.59348
1,1-Dichloroethane	Averaged		0.89883	0.86932	1.02064	0.92741	0.97039
1,2-Dichloroethane	Averaged			0.94445	0.99469	0.81825	0.81708
1,1-Dichloroethene	Averaged		0.62480	0.59321	0.74340	0.67088	0.75046
cis-1,2-Dichloroethene	Averaged		0.61860	0.67545	0.71938	0.63203	0.67887

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 11:02

MSV - FORM VI VOA-2

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249328

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
trans-1,2-Dichloroethene	Averaged		0.55331	0.47234	0.48357	0.41487	0.49134
1,2-Dichloropropane	Averaged		0.34955	0.36433	0.39290	0.35841	0.38826
1,3-Dichloropropane	Averaged		0.31663	0.43033	0.53682	0.46817	0.51113
2,2-Dichloropropane	Averaged		0.79065	0.80509	0.78585	0.68606	0.73428
1,1-Dichloropropene	Averaged		0.33046	0.35306	0.39409	0.34712	0.40174
cis-1,3-Dichloropropene	Averaged			0.40994	0.46953	0.45855	0.51880
trans-1,3-Dichloropropene	Averaged			0.40977	0.46953	0.45855	0.51319
Ethyl acetate	Averaged		0.62504	0.56797	0.61081	0.52501	0.56996
Ethylbenzene	Averaged		1.16922	1.07603	1.16044	1.13282	1.26091
2-Hexanone	Averaged			0.32992	0.32976	0.36720	0.41358
Isopropylbenzene (Cumene)	Wt Linear		0.73184	0.72215	0.88627	0.85802	1.07692
p-Isopropyltoluene	Wt Linear		1.05533	1.23614	1.25134	1.14366	1.44555
Methylene Chloride	Averaged			0.95867	0.99674	0.81915	0.85680
4-Methyl-2-pentanone (MIBK)	Averaged					0.03167	0.03396
Methyl-tert-butyl ether	Averaged		1.04371	0.98592	1.12170	0.97810	1.03498
Naphthalene	Wt Linear		1.29997	1.18745	1.36631	1.29132	1.36736
n-Propylbenzene	Averaged		1.17895	1.25876	1.48439	1.43680	1.65273
Styrene	Wt Linear		0.51595	0.49065	0.60308	0.57764	0.71624
1,1,1,2-Tetrachloroethane	Averaged		0.39735	0.45216	0.48731	0.40596	0.42534
1,1,2,2-Tetrachloroethane	Averaged			0.55212	0.57143	0.54413	0.58617
Tetrachloroethene	Averaged		0.28810	0.33725	0.33197	0.34833	0.35819
Toluene	Averaged		1.09209	1.19764	1.30569	1.22009	1.30131
1,2,3-Trichlorobenzene	Averaged		0.85249	0.82329	0.83816	0.81429	0.82024
1,2,4-Trichlorobenzene	Averaged			0.89496	0.87936	0.88914	0.92716
1,1,1-Trichloroethane	Averaged		0.51511	0.55802	0.63628	0.56094	0.61942
1,1,2-Trichloroethane	Averaged		0.37160	0.30364	0.37829	0.29572	0.32933
Trichloroethene	Averaged	0.28552	0.31598	0.34344	0.39369	0.32979	0.38287
Trichlorofluoromethane	Averaged			0.48751	0.40869	0.39167	0.37503
1,2,3-Trichloropropane	Averaged	0.67083	0.55786	0.50074	0.60209	0.54758	0.55729
1,2,4-Trimethylbenzene	Wt Linear		1.28216	1.05543	1.25794	1.29529	1.61333
1,3,5-Trimethylbenzene	Averaged			1.28003	1.37323	1.37049	1.59529
Vinyl acetate	Averaged					0.58340	0.90658
Vinyl chloride	Averaged		0.71725	0.64891	0.61115	0.59900	0.56828
m&p-Xylene	Wt Linear	0.80750	0.71388	0.69095	0.86918	0.85161	0.98882

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 11:02

MSV - FORM VI VOA-3

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249328

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
o-Xylene	Wt Linear		0.36816	0.33352	0.37551	0.36020	0.41933
4-Bromofluorobenzene (S)	Averaged	0.37583	0.38941	0.39051	0.38275	0.39379	0.40003
Dibromofluoromethane (S)	Averaged	0.62769	0.63739	0.63657	0.62879	0.60966	0.59270
1,2-Dichloroethane-d4 (S)	Averaged	0.11531	0.11871	0.12158	0.11740	0.10453	0.10269
Toluene-d8 (S)	Averaged	1.07880	1.06882	1.06855	1.06786	1.07640	1.08438

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 11:02

MSV - FORM VI VOA-4

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249328

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10	CAL11	CAL12
Acetone	Wt Linear	0.41297	0.37566	0.38708	0.38211		
Acetonitrile	Wt Linear	0.03841	0.04679	0.04704	0.04491	0.03970	0.03979
Acrolein	Averaged	0.06891	0.06557	0.07027	0.07036	0.06357	0.06812
Acrylonitrile	Averaged	0.19915	0.17729	0.19776	0.19478	0.15804	0.18702
Benzene	Averaged	1.31989	1.27390	1.26059	1.22497	1.19823	1.18934
Bromobenzene	Averaged	0.53532	0.51542	0.53131	0.52655	0.53912	0.54081
Bromochloromethane	Averaged	0.29998	0.27204	0.26235	0.25826	0.23994	0.24926
Bromodichloromethane	Averaged	0.57885	0.55715	0.54332	0.54171	0.54086	0.53536
Bromoform	Averaged	0.45373	0.43426	0.44389	0.44328	0.46996	0.46892
Bromomethane	Wt Linear	0.57307	0.44908	0.42634	0.42378		
2-Butanone (MEK)	Averaged	0.45432	0.40986	0.43930	0.44055	0.37212	0.38920
n-Butylbenzene	Averaged	1.64990	1.87691	1.98741	1.98878	1.98038	2.04750
sec-Butylbenzene	Wt Linear	2.02276	2.15907	2.27908	2.29075	2.34314	2.41368
tert-Butylbenzene	Wt Linear	1.56217	1.76643	1.88637	1.94028	1.98006	2.04581
Carbon disulfide	Averaged	1.55020	1.42898	1.38821	1.36729	1.28575	1.29953
Carbon tetrachloride	Averaged	0.54343	0.52196	0.51532	0.50192	0.49242	0.50459
Chlorobenzene	Averaged	0.97199	0.93701	0.94485	0.92345	0.94437	0.93402
Chloroethane	Wt Linear	0.17297	0.17535	0.16509	0.15481		
Chloroform	Averaged	1.02572	0.96877	0.93921	0.91532	0.85890	0.86431
Chloromethane	Wt Linear	0.77949	0.73419	0.74763	0.73348	0.67654	0.66670
2-Chlorotoluene	Wt Linear	0.37818	0.37125	0.37579	0.37739	0.38782	0.39117
4-Chlorotoluene	Wt Linear	0.34412	0.37138	0.38926	0.38621	0.39446	0.39306
1,2-Dibromo-3-chloropropane	Averaged	0.14501	0.14799	0.15810	0.15828	0.16380	0.17031
Dibromochloromethane	Averaged	0.49970	0.47857	0.47752	0.47753	0.50069	0.49027
1,2-Dibromoethane (EDB)	Averaged	0.41880	0.39767	0.39462	0.39355	0.40951	0.40529
Dibromomethane	Averaged	0.31359	0.30014	0.28875	0.28214	0.27687	0.27295
1,2-Dichlorobenzene	Averaged	1.38076	1.36447	1.37412	1.37990	1.39095	1.43503
1,3-Dichlorobenzene	Averaged	1.32401	1.33959	1.38908	1.38767	1.38402	1.42750
1,4-Dichlorobenzene	Averaged	1.40109	1.37817	1.41490	1.41231	1.40741	1.44148
Dichlorodifluoromethane	Averaged	0.63941	0.59785	0.61150	0.61837	0.54554	0.54297
1,1-Dichloroethane	Averaged	0.91623	0.87020	0.84971	0.81510	0.77035	0.77571
1,2-Dichloroethane	Averaged	0.78755	0.72382	0.70860	0.69974	0.66582	0.65542
1,1-Dichloroethene	Averaged	0.69997	0.66374	0.66212	0.67660	0.64092	0.65097
cis-1,2-Dichloroethene	Averaged	0.64084	0.63911	0.63898	0.63619	0.61855	0.63882

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 11:02

MSV - FORM VI VOA-5

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249328

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10	CAL11	CAL12
trans-1,2-Dichloroethene	Averaged	0.45350	0.42924	0.43177	0.42614	0.40870	0.41864
1,2-Dichloropropane	Averaged	0.38813	0.36744	0.35842	0.34791	0.35389	0.34693
1,3-Dichloropropane	Averaged	0.50225	0.50220	0.50732	0.51074	0.51045	0.50531
2,2-Dichloropropane	Averaged	0.66678	0.63008	0.59855	0.60546	0.58521	0.58171
1,1-Dichloropropene	Averaged	0.41853	0.42140	0.42293	0.42298	0.42154	0.42409
cis-1,3-Dichloropropene	Averaged	0.52492	0.53191	0.54225	0.54657	0.54771	0.54824
trans-1,3-Dichloropropene	Averaged	0.52492	0.53127	0.54126	0.54522	0.54708	0.54754
Ethyl acetate	Averaged	0.56493	0.55790	0.55626	0.54125	0.53408	0.52840
Ethylbenzene	Averaged	1.24337	1.35695	1.44133	1.46916	1.53813	1.54037
2-Hexanone	Averaged	0.43312	0.46856	0.46295	0.47817	0.46940	0.46841
Isopropylbenzene (Cumene)	Wt Linear	1.13672	1.27637	1.35788	1.37491	1.42487	1.44774
p-Isopropyltoluene	Wt Linear	1.56217	1.76643	1.88637	1.94028	1.98006	2.04581
Methylene Chloride	Averaged	0.80589	0.74727	0.73858	0.70291	0.66532	0.67584
4-Methyl-2-pentanone (MIBK)	Averaged	0.03057	0.03726	0.03590	0.03857	0.03908	0.03925
Methyl-tert-butyl ether	Averaged	1.06283	1.08682	1.09285	1.09333	1.03414	1.08647
Naphthalene	Wt Linear	1.41816	1.68396	1.89011	1.96265	2.01139	2.11026
n-Propylbenzene	Averaged	1.60570	1.73759	1.79225	1.79662	1.85505	1.84384
Styrene	Wt Linear	0.77986	0.88210	0.93092	0.93426	0.97298	0.97405
1,1,1,2-Tetrachloroethane	Averaged	0.41282	0.38406	0.38418	0.37132	0.38050	0.38077
1,1,2,2-Tetrachloroethane	Averaged	0.55539	0.51874	0.51464	0.49827	0.50770	0.50090
Tetrachloroethene	Averaged	0.35335	0.34404	0.35038	0.34843	0.35950	0.35515
Toluene	Averaged	1.25999	1.25926	1.26706	1.26351	1.28160	1.26660
1,2,3-Trichlorobenzene	Averaged	0.87483	0.92204	0.98164	0.99100	1.05707	1.09411
1,2,4-Trichlorobenzene	Averaged	0.86786	0.96199	1.06119	1.06390	1.11694	1.18487
1,1,1-Trichloroethane	Averaged	0.60969	0.57373	0.56212	0.55376	0.54652	0.53855
1,1,2-Trichloroethane	Averaged	0.32889	0.30035	0.29535	0.29349	0.29206	0.28701
Trichloroethene	Averaged	0.37458	0.35481	0.34975	0.35403	0.35714	0.35398
Trichlorofluoromethane	Averaged	0.37535	0.34595	0.32841	0.30466		
1,2,3-Trichloropropane	Averaged	0.57805	0.55752	0.54325	0.53642	0.54134	0.51772
1,2,4-Trimethylbenzene	Wt Linear	1.71069	1.86363	1.94154	1.94909	1.94934	2.01891
1,3,5-Trimethylbenzene	Averaged	1.68023	1.75448	1.84643	1.84471	1.84227	1.92279
Vinyl acetate	Averaged	0.90400	0.97338	0.94500	0.89650	0.87287	0.88498
Vinyl chloride	Averaged	0.58640	0.57381	0.57350	0.58579	0.52769	0.53398
m&p-Xylene	Wt Linear	1.06052	1.12895	1.15194	1.14203	1.16909	1.15864

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 11:02

MSV - FORM VI VOA-6

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249328

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10	CAL11	CAL12
o-Xylene	Wt Linear	0.42934	0.48412	0.50927	0.53019	0.56736	0.56819
4-Bromofluorobenzene (S)	Averaged	0.41167	0.42397	0.42542	0.43138	0.44972	0.44967
Dibromofluoromethane (S)	Averaged	0.57485	0.54985	0.54466	0.52424	0.47680	0.50490
1,2-Dichloroethane-d4 (S)	Averaged	0.10484	0.09552	0.09525	0.09239	0.08563	0.08890
Toluene-d8 (S)	Averaged	1.08337	1.07913	1.08743	1.07610	1.07934	1.06580

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 11:02

MSV - FORM VI VOA-7

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249328

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Acetone	Wt Linear		0.99848	0.01374774	0.38153	
Acetonitrile	Wt Linear		0.99061	0.00060749	0.04173	
Acrolein	Averaged	8.73847			0.06923	
Acrylonitrile	Averaged	8.87425			0.19127	
Benzene	Averaged	8.62942			1.27880	
Bromobenzene	Averaged	8.48252			0.50590	
Bromochloromethane	Averaged	9.85318			0.28358	
Bromodichloromethane	Averaged	14.00186			0.52427	
Bromoform	Averaged	4.41496			0.45179	
Bromomethane	Wt Linear		0.99117	0.02722209	0.42450	
2-Butanone (MEK)	Averaged	8.88630			0.42919	
n-Butylbenzene	Averaged	14.94450			1.74233	
sec-Butylbenzene	Wt Linear		0.99752	-0.0235130	2.32577	
tert-Butylbenzene	Wt Linear		0.99539	-0.0212852	1.95174	
Carbon disulfide	Averaged	9.71280			1.48423	
Carbon tetrachloride	Averaged	7.73071			0.50339	
Chlorobenzene	Averaged	5.75373			0.96465	
Chloroethane	Wt Linear		0.99271	0.00289449	0.16240	
Chloroform	Averaged	10.99465			0.99545	
Chloromethane	Wt Linear		0.99766	0.01147544	0.69502	
2-Chlorotoluene	Wt Linear		0.99948	-0.0028441	0.38497	
4-Chlorotoluene	Wt Linear		0.99856	-0.0028784	0.38834	
1,2-Dibromo-3-chloropropane	Averaged	13.38306			0.16352	
Dibromochloromethane	Averaged	8.28025			0.47553	
1,2-Dibromoethane (EDB)	Averaged	4.64138			0.40786	
Dibromomethane	Averaged	6.36753			0.29781	
1,2-Dichlorobenzene	Averaged	7.39530			1.45432	
1,3-Dichlorobenzene	Averaged	8.08472			1.33091	
1,4-Dichlorobenzene	Averaged	10.46018			1.50164	
Dichlorodifluoromethane	Averaged	5.84563			0.60278	
1,1-Dichloroethane	Averaged	8.80603			0.88035	
1,2-Dichloroethane	Averaged	14.72899			0.78154	
1,1-Dichloroethene	Averaged	7.00161			0.67064	
cis-1,2-Dichloroethene	Averaged	4.67942			0.64880	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 11:02

MSV - FORM VI VOA-8

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249328

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
trans-1,2-Dichloroethene	Averaged	9.66545			0.45304	
1,2-Dichloropropane	Averaged	4.68693			0.36511	
1,3-Dichloropropane	Averaged	12.73991			0.48194	
2,2-Dichloropropane	Averaged	12.80164			0.67907	
1,1-Dichloropropene	Averaged	8.96428			0.39618	
cis-1,3-Dichloropropene	Averaged	9.32428			0.50984	
trans-1,3-Dichloropropene	Averaged	9.26560			0.50883	
Ethyl acetate	Averaged	5.68883			0.56197	
Ethylbenzene	Averaged	12.90669			1.30807	
2-Hexanone	Averaged	14.03454			0.42211	
Isopropylbenzene (Cumene)	Wt Linear		0.99637	-0.0156127	1.39474	
p-Isopropyltoluene	Wt Linear		0.99539	-0.0212852	1.95174	
Methylene Chloride	Averaged	14.30697			0.79672	
4-Methyl-2-pentanone (MIBK)	Averaged	9.46365			0.03578	
Methyl-tert-butyl ether	Averaged	4.34204			1.05644	
Naphthalene	Wt Linear		0.99209	-0.0210899	1.97334	
n-Propylbenzene	Averaged	14.69415			1.60388	
Styrene	Wt Linear		0.99669	-0.0104898	0.94781	
1,1,1,2-Tetrachloroethane	Averaged	8.73379			0.40743	
1,1,2,2-Tetrachloroethane	Averaged	5.80301			0.53495	
Tetrachloroethene	Averaged	5.85748			0.34315	
Toluene	Averaged	4.82081			1.24680	
1,2,3-Trichlorobenzene	Averaged	11.00536			0.91538	
1,2,4-Trichlorobenzene	Averaged	11.50100			0.98474	
1,1,1-Trichloroethane	Averaged	6.44871			0.57038	
1,1,2-Trichloroethane	Averaged	10.24085			0.31598	
Trichloroethene	Averaged	8.38981			0.34963	
Trichlorofluoromethane	Averaged	14.86295			0.37716	
1,2,3-Trichloropropane	Averaged	7.81870			0.55922	
1,2,4-Trimethylbenzene	Wt Linear		0.99797	-0.0184252	1.95772	
1,3,5-Trimethylbenzene	Averaged	14.19477			1.65100	
Vinyl acetate	Averaged	13.85329			0.87084	
Vinyl chloride	Averaged	8.94064			0.59325	
m&p-Xylene	Wt Linear		0.99877	-0.0092364	1.14911	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 11:02

MSV - FORM VI VOA-9

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249328

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
o-Xylene	Wt Linear		0.99470	-0.0052424	0.54262	
4-Bromofluorobenzene (S)	Averaged	6.19963			0.41034	
Dibromofluoromethane (S)	Averaged	9.59315			0.57568	
1,2-Dichloroethane-d4 (S)	Averaged	11.94143			0.10356	
Toluene-d8 (S)	Averaged	0.66305			1.07633	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 11:02

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_03.D
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 20-AUG-2020 10:50
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal1,27237:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 10:50 Cal File: 082020_03.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						(D)
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						(D)
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						(D)
9 1,1-Dichloroethene	61	5.238	5.226	(0.666)	569	0.20000	0.208	
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						(D)
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						(D)
17 Methyl acetate	43	Compound Not Detected.						(D)
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						(D)
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	863	0.20000	0.240	
	24 Acrylonitrile	53	Compound Not Detected.						
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	737	0.20000	0.278(T)	
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						(D)
	29 Cyclohexane	56	Compound Not Detected.						(D)
	30 Chloroform	83	7.372	7.372	(0.938)	932	0.20000	0.236(M)	NI
	31 Ethyl acetate	43	Compound Not Detected.						(D)
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	576	0.20000	0.202	
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	128324	50.0000	54.5	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						(D)
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	204440	50.0000		
	39 Benzene	78	7.878	7.872	(0.947)	1748	0.20000	0.230	
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	23574	50.0000	55.7	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	1197	0.20000	0.364	
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.323	8.317	(1.001)	339	0.20000	0.163	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	296822	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.676	8.670	(1.043)	169	0.20000	0.0956	
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	9.719	9.713	(1.169)	492	0.20000	0.162	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	320213	50.0000	50.1	
	58 Toluene	91	9.420	9.414	(1.133)	1693	0.20000	0.229	
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						(D)
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	10.066	10.060	(1.210)	722	0.20000	0.252	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	477	0.20000	0.225	
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	10.560	10.554	(1.000)	1806	0.20000	0.266	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	259753	50.0000		
	71 Chlorobenzene	112	10.584	10.578	(1.002)	1258	0.20000	0.251	
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	10.657	10.651	(1.009)	1678	0.40000	0.330	
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						(D)
	76 Bromoform	173	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	97623	50.0000	45.8	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)
	80 n-Propylbenzene	91	11.529	11.523	(1.092)	1365	0.20000	0.164	
	81 Bromobenzene	156	11.584	11.578	(1.097)	395	0.20000	0.148	
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
	83 1,3,5-Trimethylbenzene	105	11.657	11.651	(0.945)	1019	0.20000	0.227	
	84 2-Chlorotoluene	126	Compound Not Detected.						(D)
	85 4-Chlorotoluene	126	Compound Not Detected.						(D)
	86 Isopropylbenzene (Cumene)	105	11.218	11.212	(1.062)	845	0.20000	0.141	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	697	0.20000	0.243	
	88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	89 Cyclohexanone	98	Compound Not Detected.						
	90 tert-Butylbenzene	119	Compound Not Detected.						(D)
	91 1,2,4-Trimethylbenzene	105	11.974	11.968	(0.970)	588	0.20000	0.130	
	92 sec-Butylbenzene	105	Compound Not Detected.						
	93 p-Isopropyltoluene	119	12.151	12.145	(0.985)	466	0.20000	0.105	
	94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	794	0.20000	0.221	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	135955	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	1048	0.20000	0.263	
	97 n-Butylbenzene	91	Compound Not Detected.						
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	882	0.20000	0.225	
	99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
	102 Naphthalene	128	Compound Not Detected.						
	103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

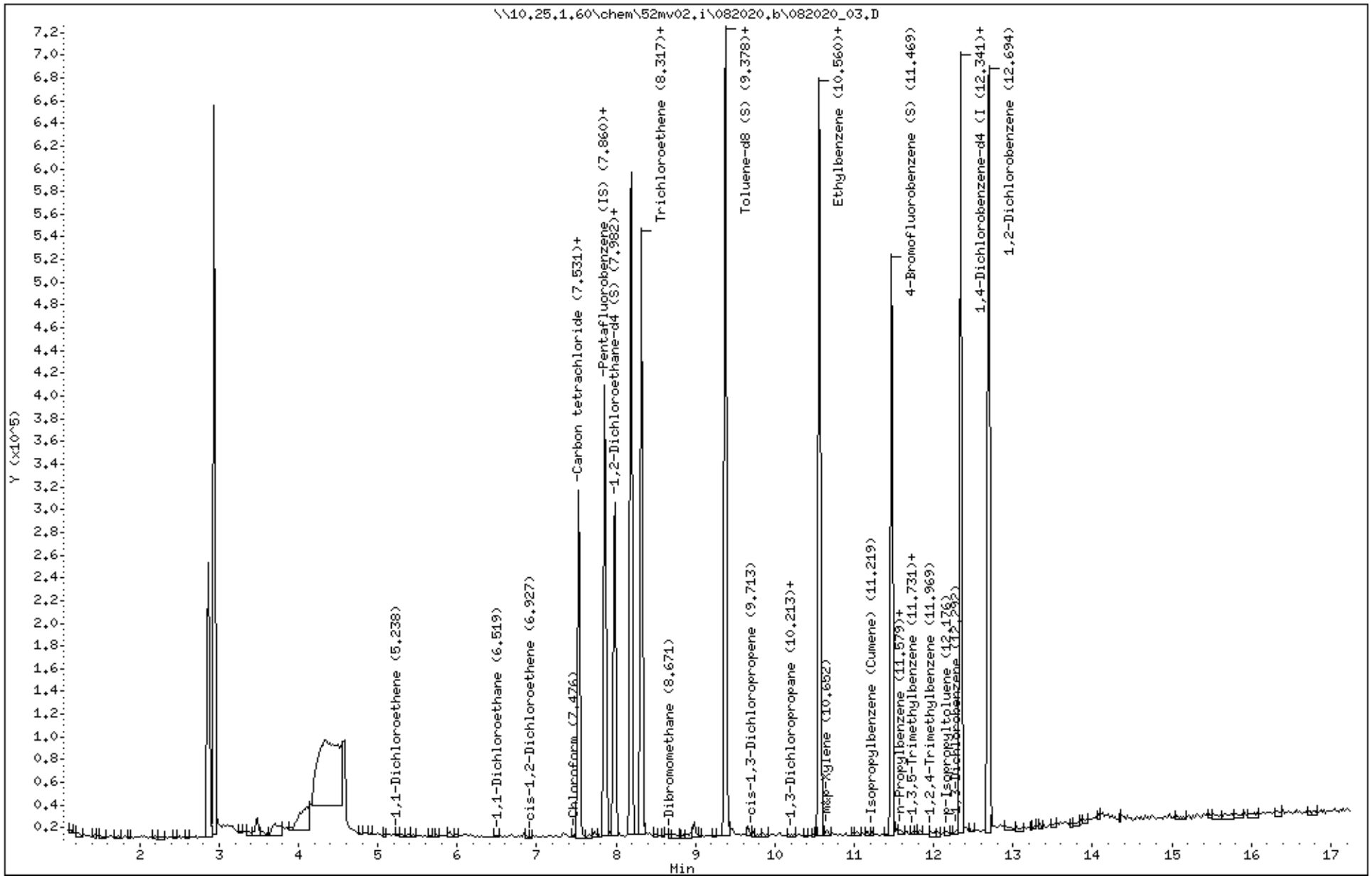
T - Target compound detected outside RT window.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
NI: Indicates that the peak was not integrated at all by the computer software.

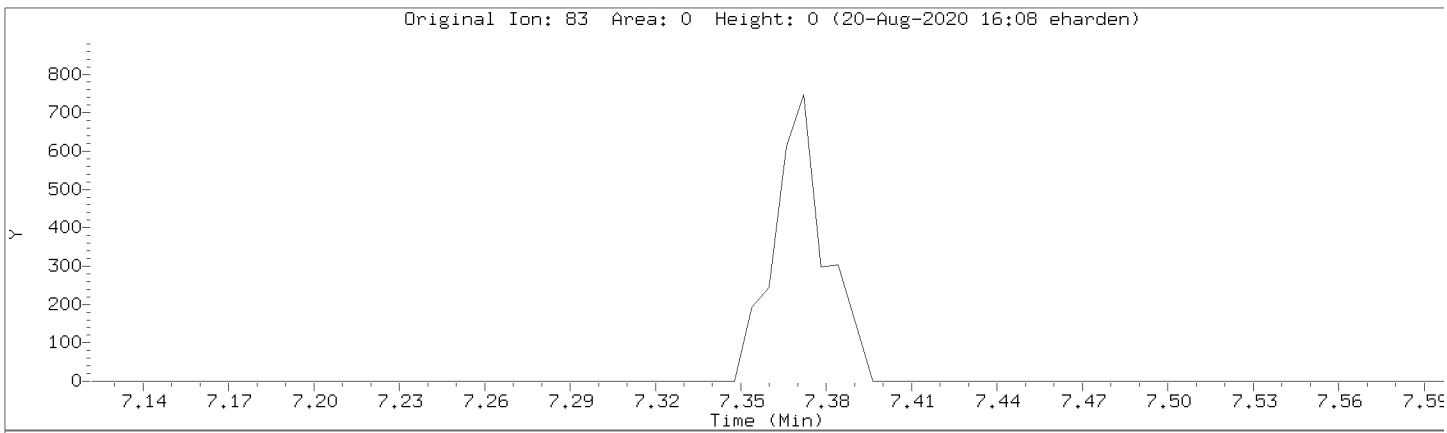
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_03.D
Date : 20-AUG-2020 10:50
Client ID: CAL1
Sample Info: CAL1,27237:1
Purge Volume: 5.0
Column phase: RTX-VMS

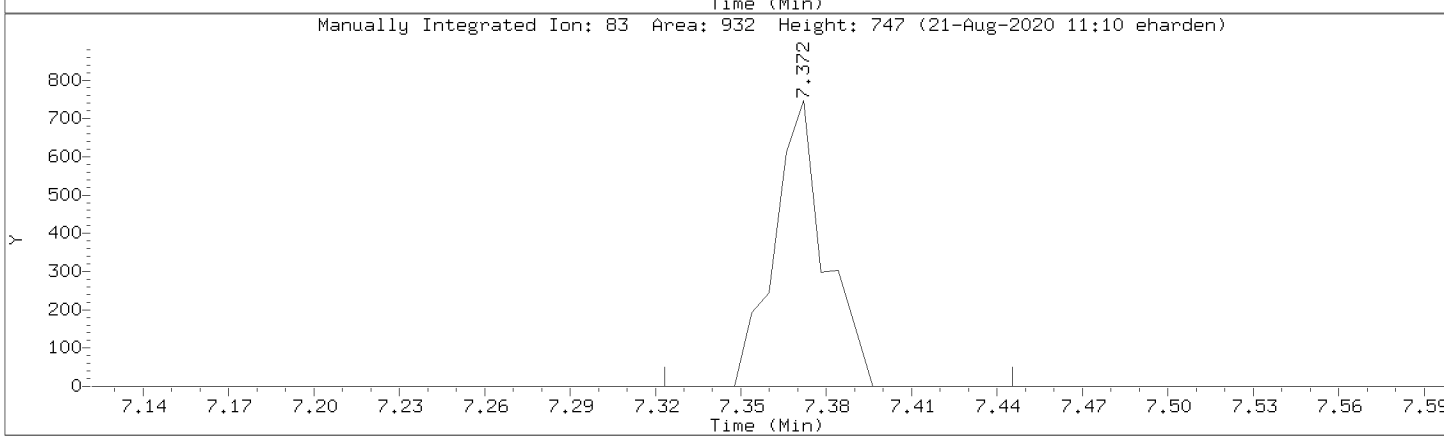
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

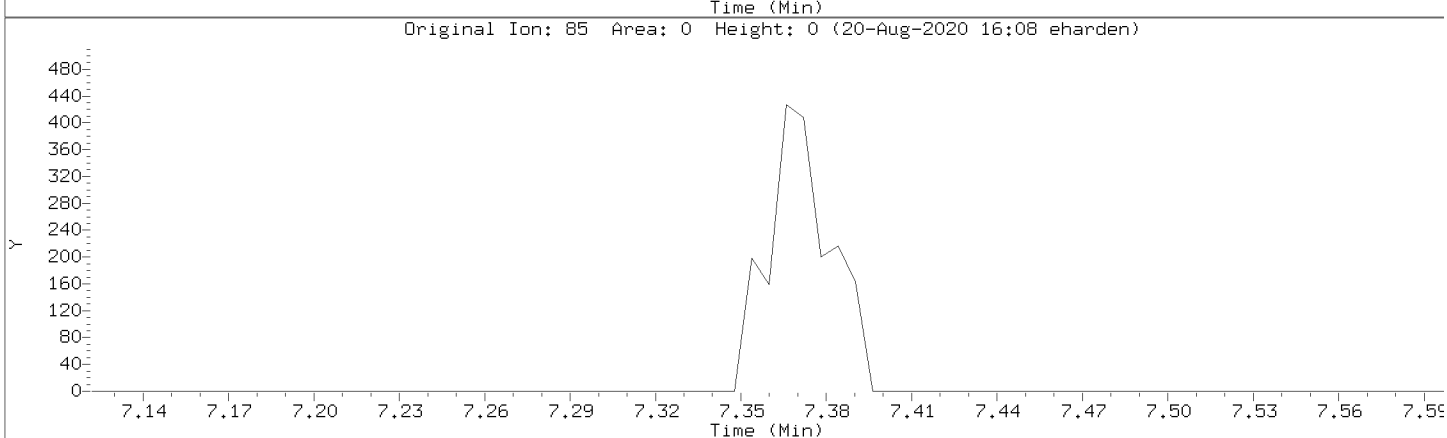


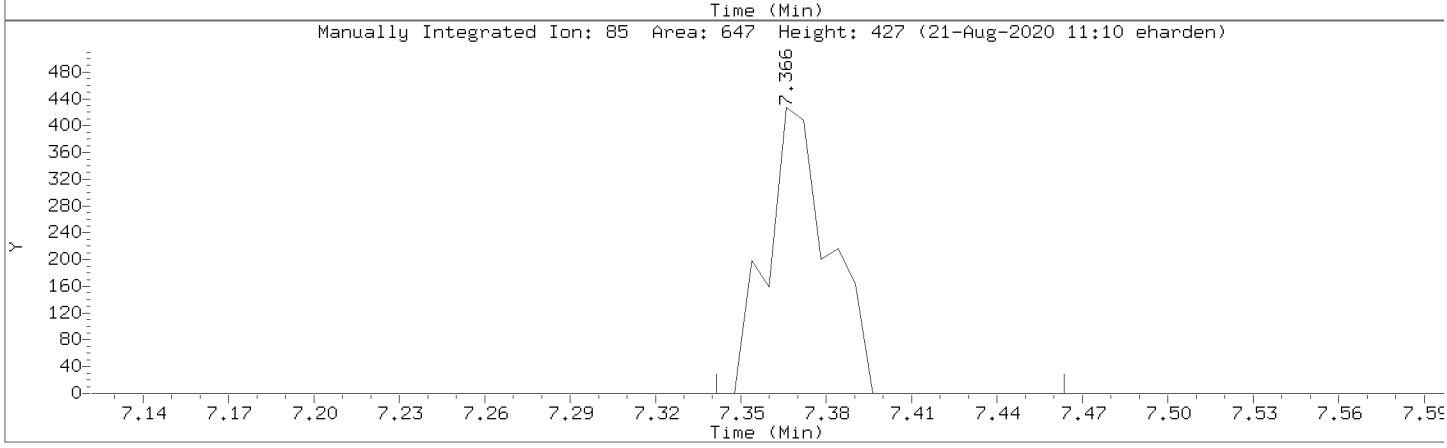
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_03.D
Injection Date: 20-AUG-2020 10:50
Instrument: 52mv02.i
Lab Sample ID: CAL1

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3









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SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_04.D
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 20-AUG-2020 11:15
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal2,27238:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 11:15 Cal File: 082020_04.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.226	(0.408)	1253	0.50000	0.745(MH)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	3571	0.50000	1.04	
3 Vinyl chloride	62	3.708	3.702	(0.472)	1505	0.50000	0.604(M)	LT
4 1,3-Butadiene	39	3.708	3.708	(0.472)	1520	0.50000	0.683	
5 Bromomethane	94	4.195	4.195	(0.534)	5381	0.50000	1.82	
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						(D)
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	1311	0.50000	0.466	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	1053	0.50000	0.567(M)	LT
11 Carbon disulfide	76	5.293	5.293	(0.673)	3309	0.50000	0.531	
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						(D)
14 Allyl chloride	76	5.780	5.787	(0.736)	303	0.50000	0.350	
15 Methylene Chloride	49	5.908	5.902	(0.752)	2179	0.50000	0.634(M)	NI
16 Acetone	43	5.988	5.976	(0.762)	5178	1.00000	2.84	
17 Methyl acetate	43	6.073	6.067	(0.773)	3562	1.00000	1.60	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	1161	0.50000	0.611	
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	6.171	6.165	(0.785)	2190	0.50000	0.493(T)	
21 Acetonitrile	41	Compound Not Detected.						
22 Chloroprene	53	6.646	6.640	(0.846)	1072	0.50000	0.397	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	1886	0.50000	0.510	
	24 Acrylonitrile	53	Compound Not Detected.						(D)
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	1298	0.50000	0.477	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	1659	0.50000	0.592(T)	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	663	0.50000	0.557	
	29 Cyclohexane	56	7.335	7.335	(0.882)	767	0.50000	0.308	
	30 Chloroform	83	7.372	7.372	(0.938)	1921	0.50000	0.460(M)	NI
	31 Ethyl acetate	43	7.433	7.433	(0.946)	2623	1.00000	1.11(T)	
	32 Carbon tetrachloride	117	7.518	7.512	(0.904)	765	0.50000	0.262	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	1518	1.00000	2.16	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	133742	50.0000	55.4	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	1565	0.50000	0.452	
	36 2-Butanone (MEK)	43	Compound Not Detected.						(D)
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	1004	0.50000	0.417(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	209828	50.0000		
	39 Benzene	78	7.865	7.872	(0.946)	3569	0.50000	0.459	
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	2101	1.00000	1.15	
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	24908	50.0000	57.3	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	2134	0.50000	0.633	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	1482	0.50000	0.370	
	46 Trichloroethene	130	8.317	8.317	(1.000)	960	0.50000	0.452	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	303821	50.0000		
	48 Methylcyclohexane	98	8.329	8.317	(1.001)	565	0.50000	0.561(M)	LT
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.676	8.670	(1.043)	937	0.50000	0.518	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	1062	0.50000	0.479	
	52 Bromodichloromethane	83	8.774	8.768	(1.055)	1133	0.50000	0.356	
	53 Methyl methacrylate	69	8.835	8.823	(1.062)	345	0.50000	0.308(TH)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	996	0.50000	0.321	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	324729	50.0000	49.6	
	58 Toluene	91	9.420	9.414	(1.133)	3318	0.50000	0.438	
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	996	0.50000	0.315(M)	NI
	62 Tetrachloroethene	164	9.713	9.719	(0.920)	770	0.50000	0.420	
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	1129	0.50000	0.588	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	1044	0.50000	0.411(M)	NI
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	962	0.50000	0.328	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	1067	0.50000	0.489	
	68 2-Hexanone	43	Compound Not Detected.						(D)
	69 Ethylbenzene	91	10.560	10.554	(1.000)	3125	0.50000	0.447	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	267272	50.0000		
	71 Chlorobenzene	112	10.572	10.578	(1.001)	2681	0.50000	0.520	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	1062	0.50000	0.488	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	3816	1.00000	0.730	
	74 o-Xylene	106	10.993	10.993	(1.041)	984	0.50000	0.402	
	75 Styrene	104	11.029	11.029	(1.044)	1379	0.50000	0.337	
	76 Bromoform	173	11.103	11.103	(1.051)	1163	0.50000	0.482(M)	NI

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.231	11.225	(1.063)	1438	0.50000	0.387	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	104078	50.0000	47.4	
79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)
80 n-Propylbenzene	91	11.529	11.523	(1.092)	3151	0.50000	0.368	
81 Bromobenzene	156	11.584	11.578	(1.097)	1181	0.50000	0.431	
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						(D)
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	1752	0.50000	0.364(H)	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	548	0.50000	0.295	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	807	0.50000	0.443	
86 Isopropylbenzene (Cumene)	105	11.206	11.212	(1.061)	1956	0.50000	0.316	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	1491	0.50000	0.508	
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	1540	0.50000	0.324	
91 1,2,4-Trimethylbenzene	105	11.974	11.968	(0.970)	1871	0.50000	0.385	
92 sec-Butylbenzene	105	12.066	12.060	(0.978)	1733	0.50000	0.300	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	1540	0.50000	0.324	
94 1,3-Dichlorobenzene	146	12.297	12.291	(0.997)	1683	0.50000	0.437	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	145926	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	2405	0.50000	0.563	
97 n-Butylbenzene	91	12.480	12.486	(1.011)	1826	0.50000	0.359	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	2394	0.50000	0.570	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	415	0.50000	0.870	
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						(D)
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	852	0.50000	0.308	
102 Naphthalene	128	14.206	14.193	(1.151)	1897	0.50000	0.399(M)	NI
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	1244	0.50000	0.466	

QC Flag Legend

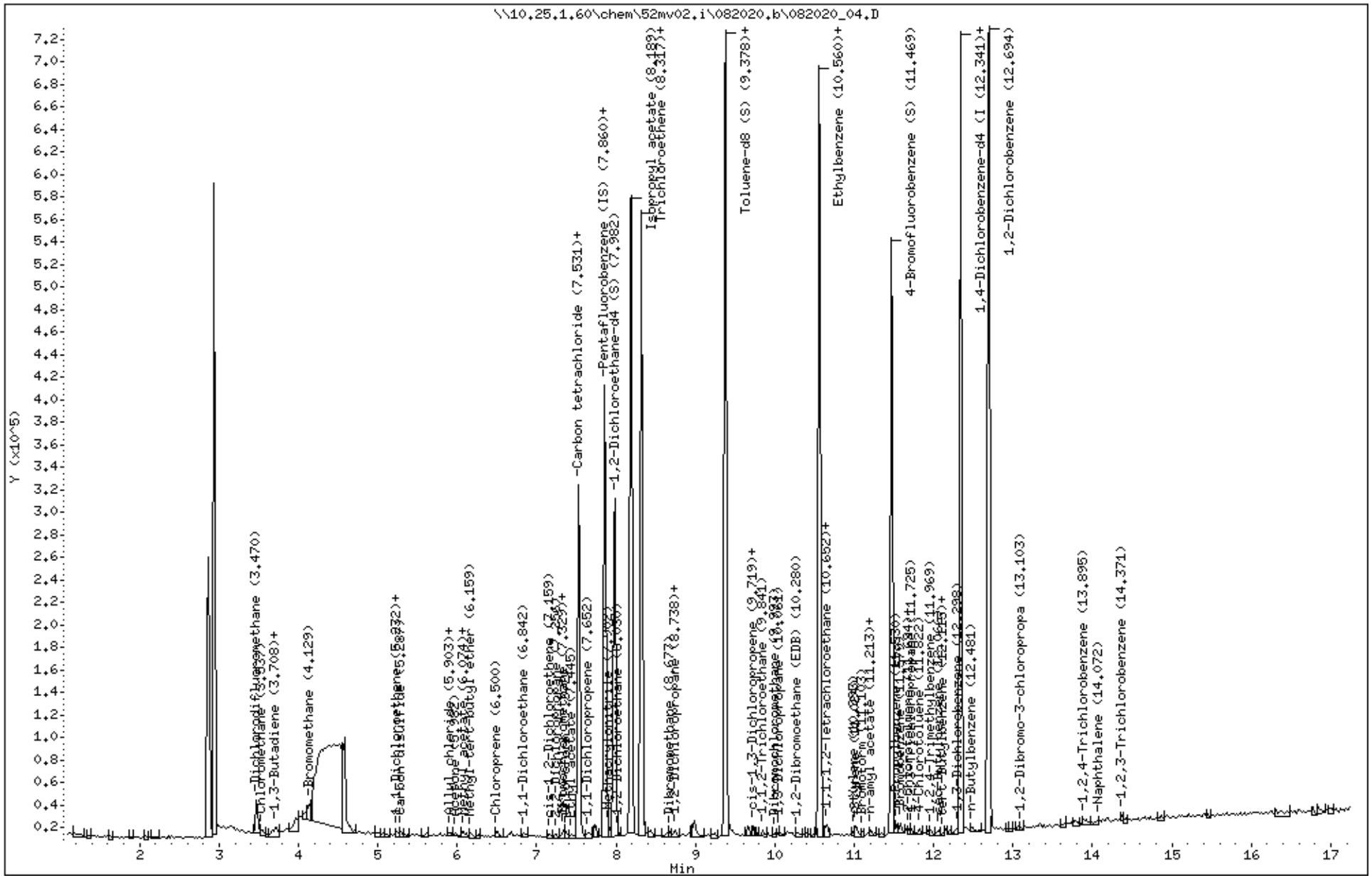
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.

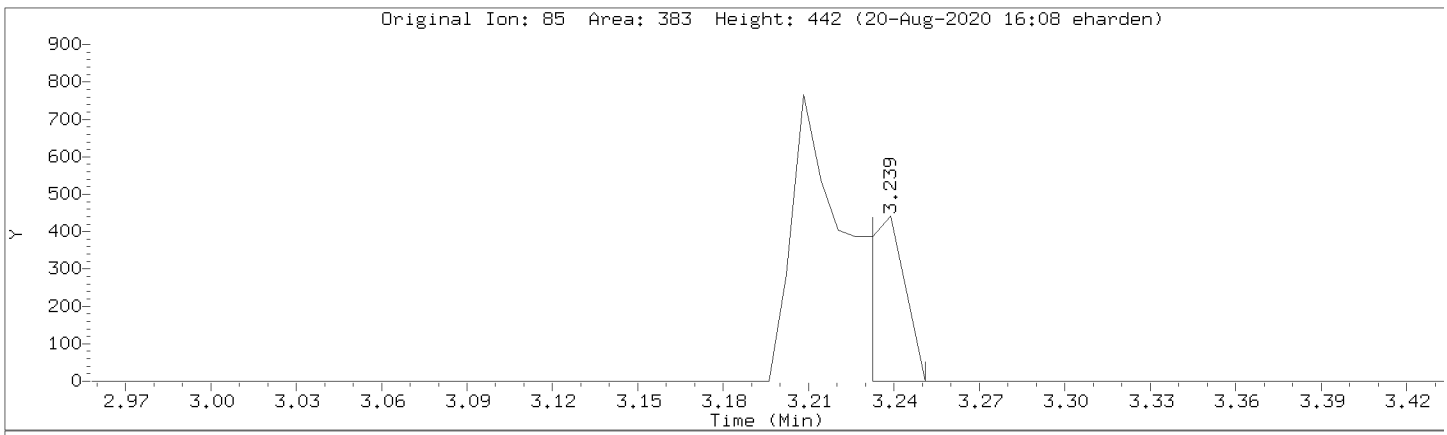
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_04.D
Date : 20-AUG-2020 11:15
Client ID: CAL2
Sample Info: CAL2,27238:1
Purge Volume: 5.0
Column phase: RTX-VMS

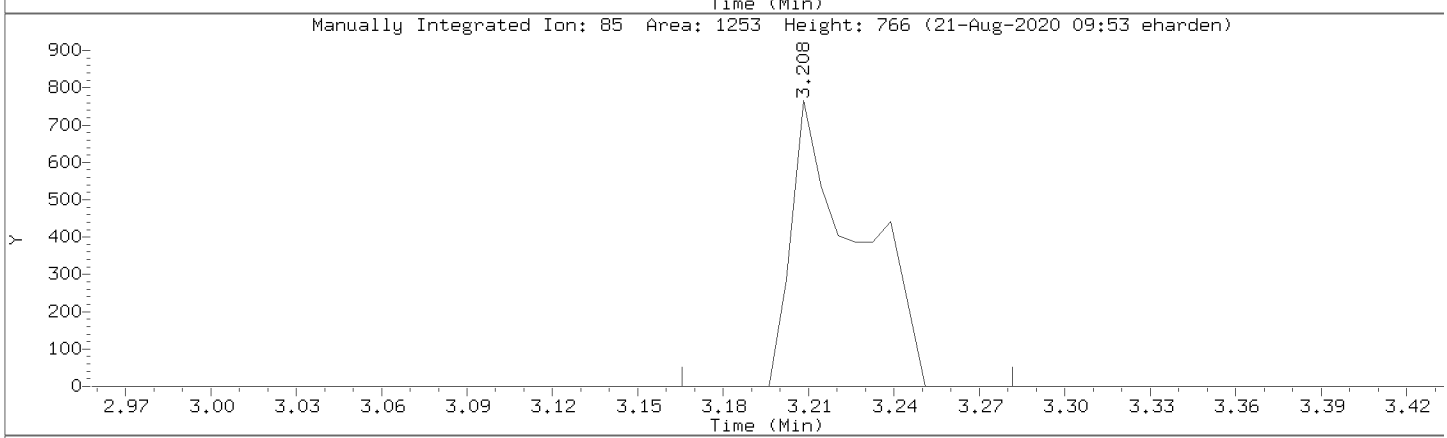
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

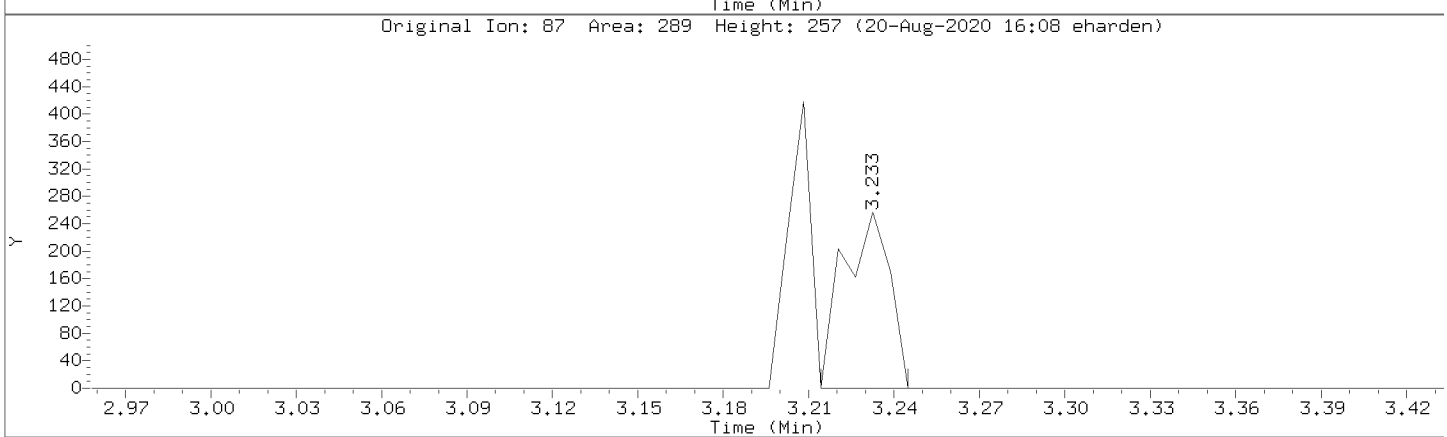


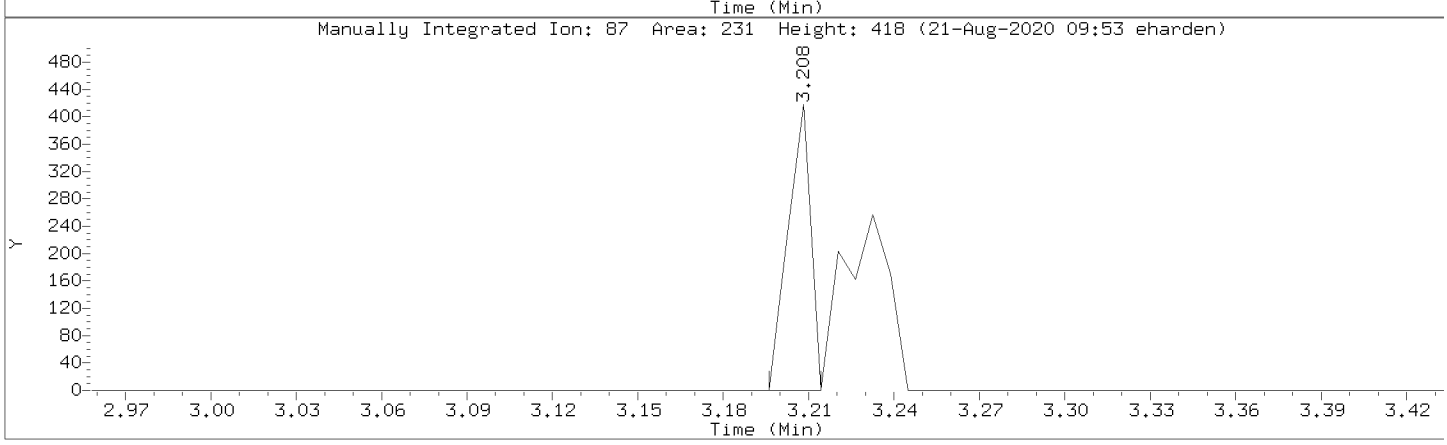
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



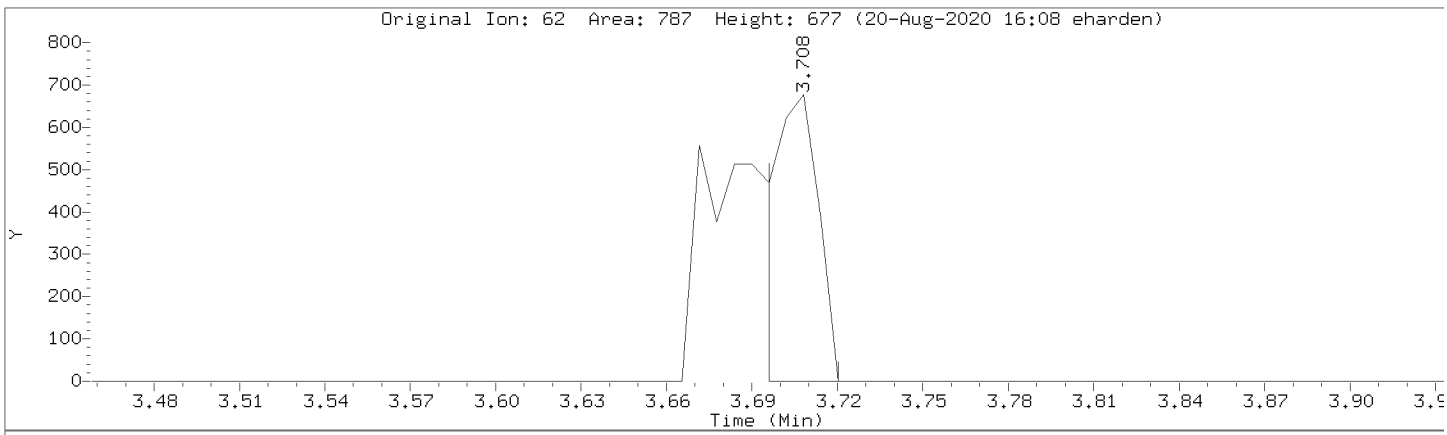


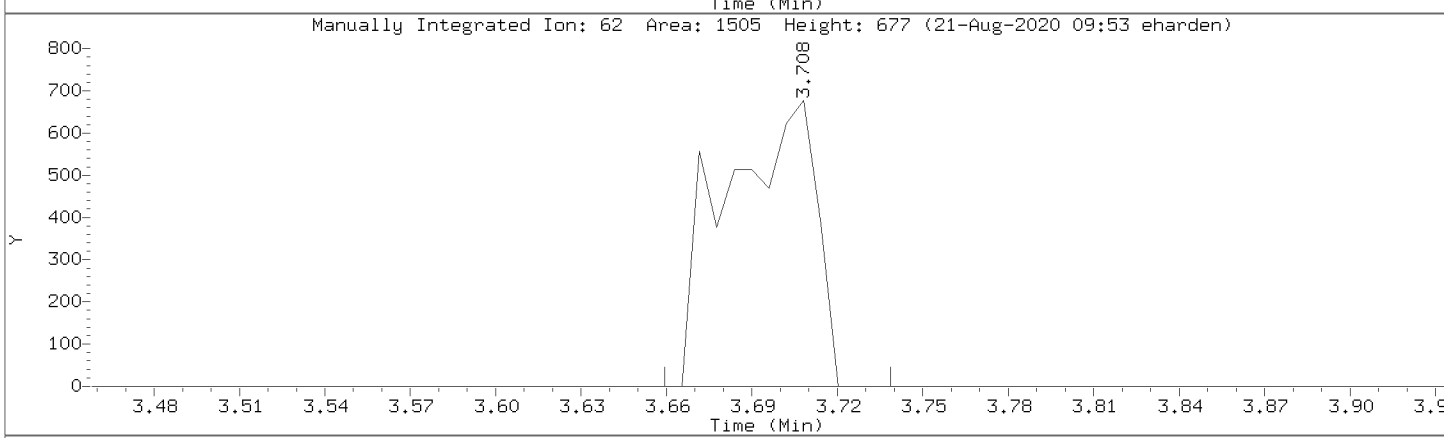


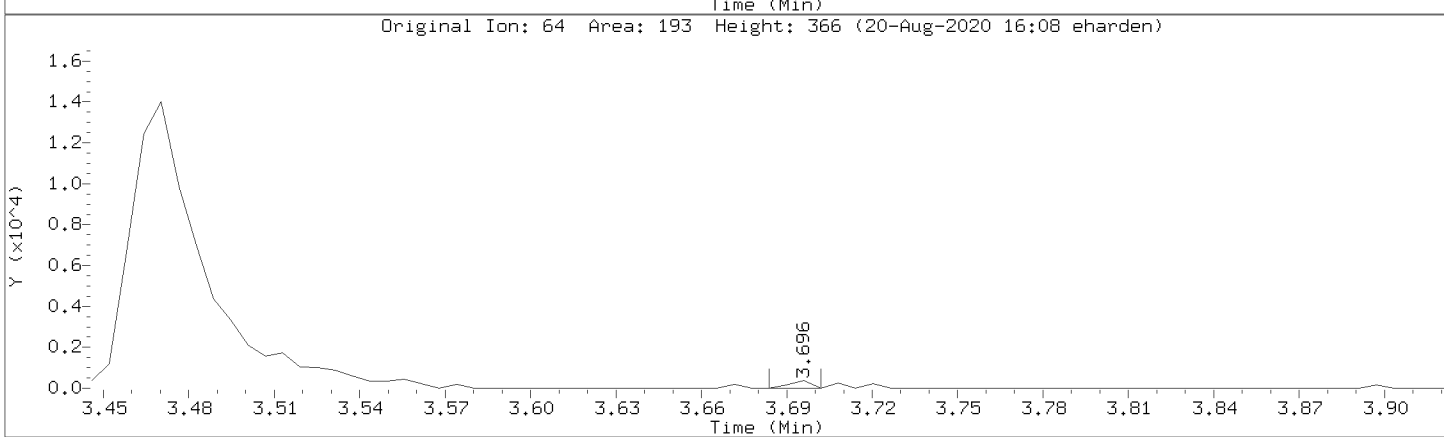


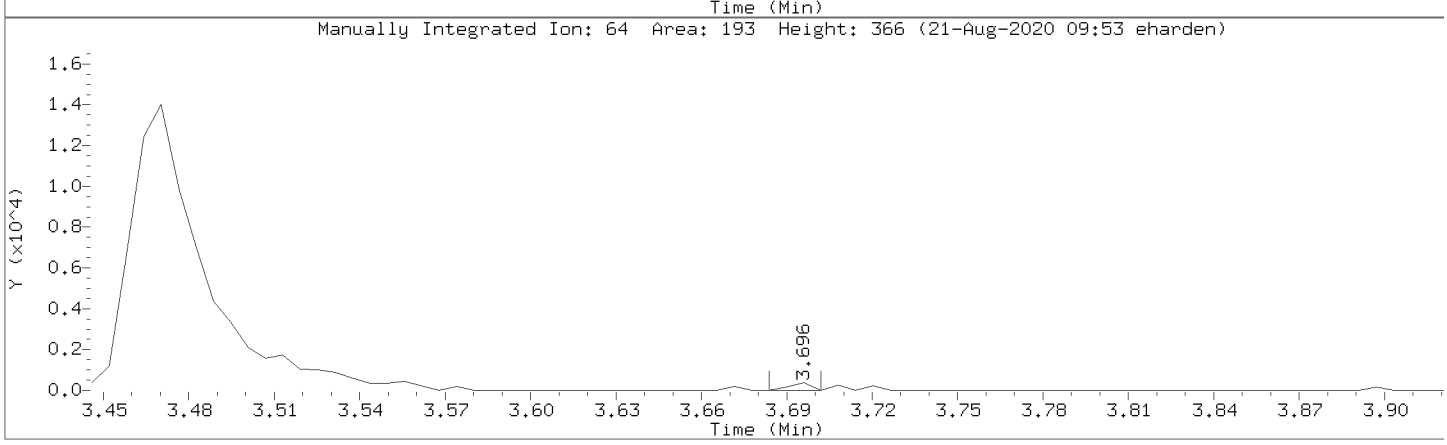
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4









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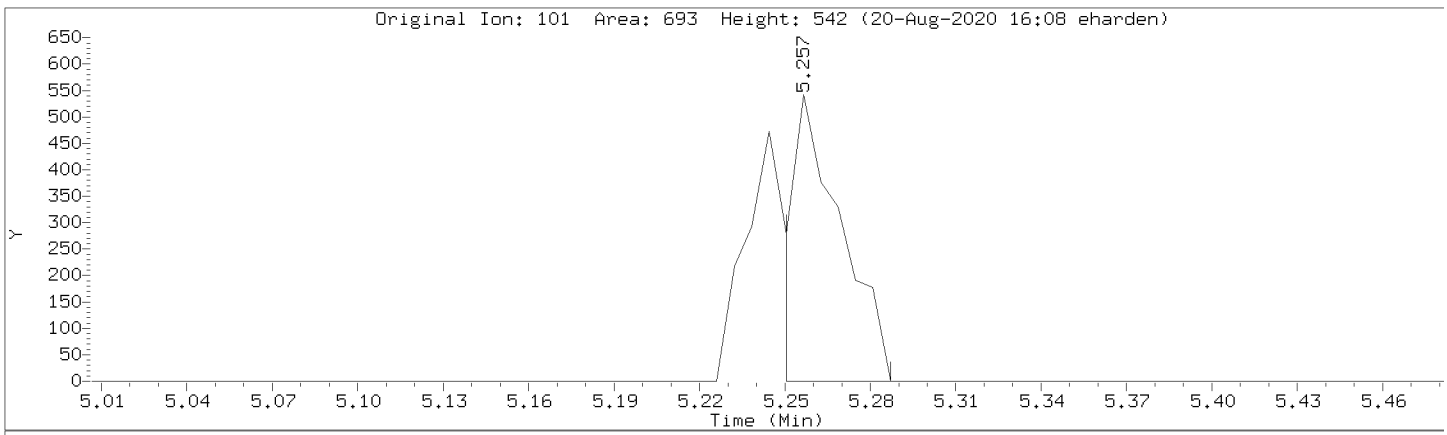
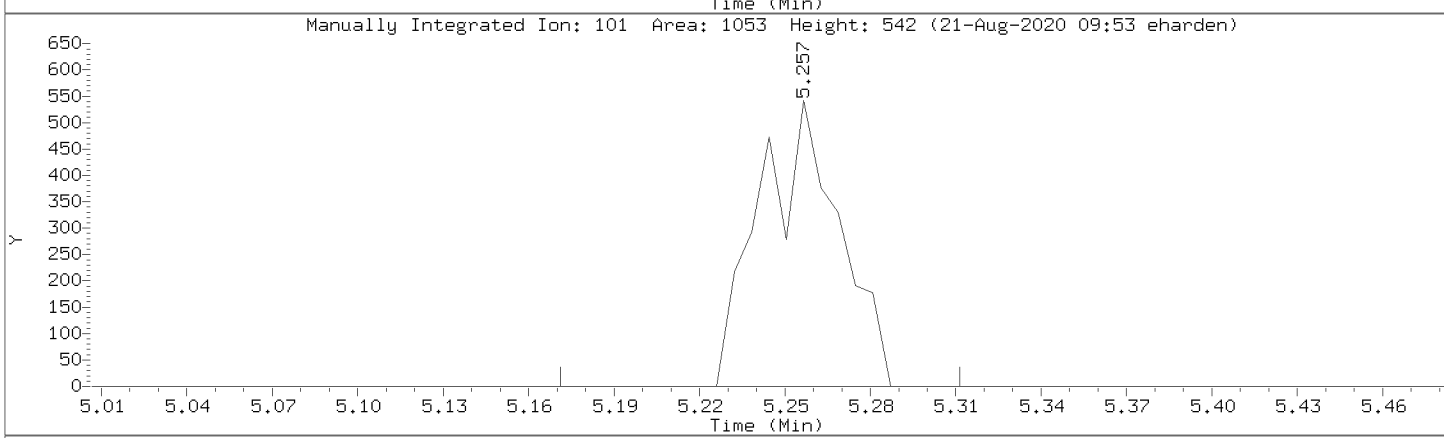
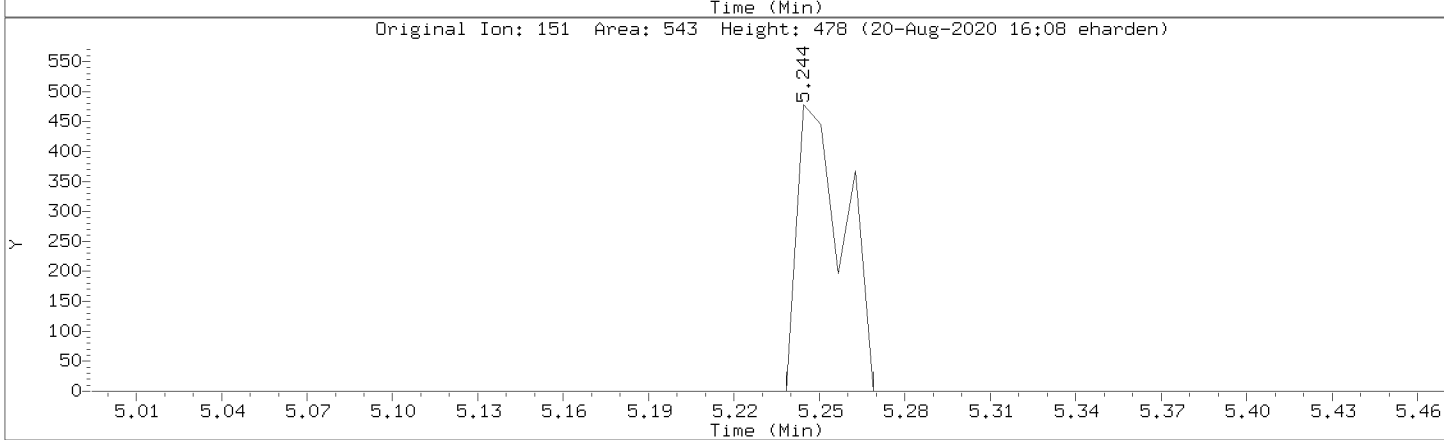
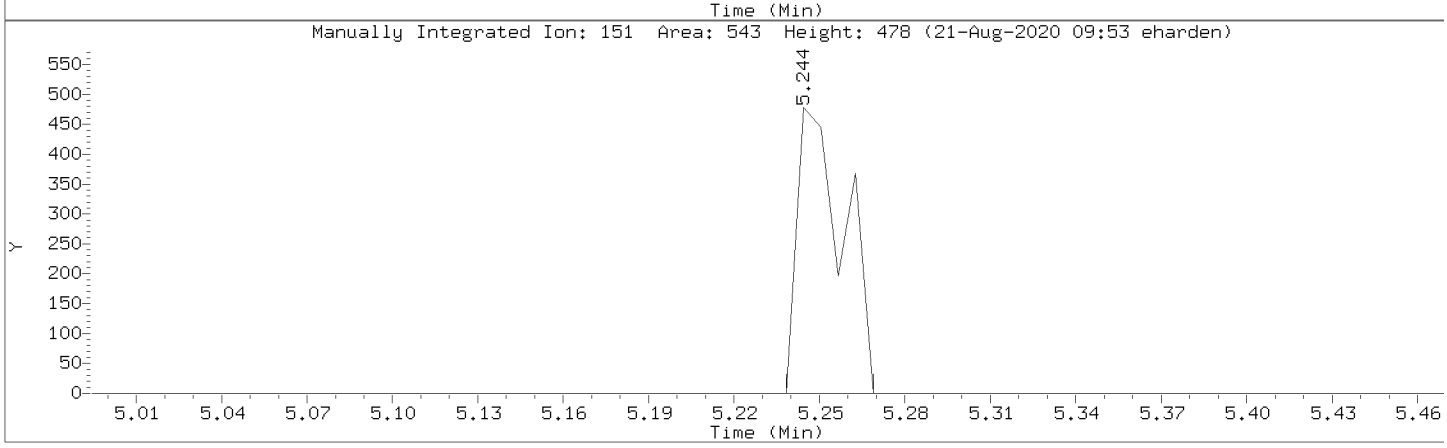
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: 1,1,2-Trichlorotrifluoroethane Review Code: LT
CAS Number: 76-13-1

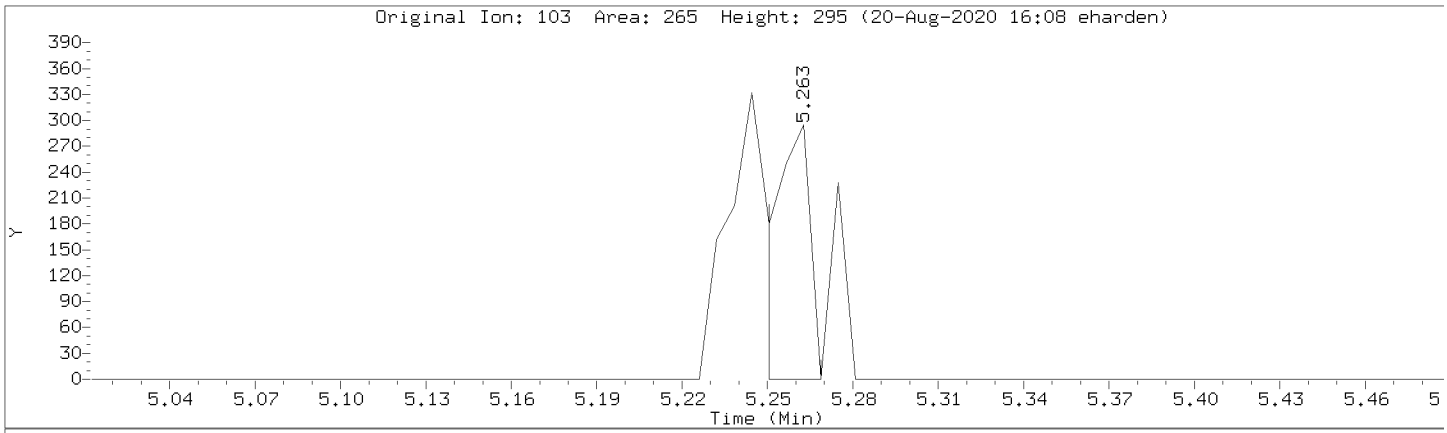


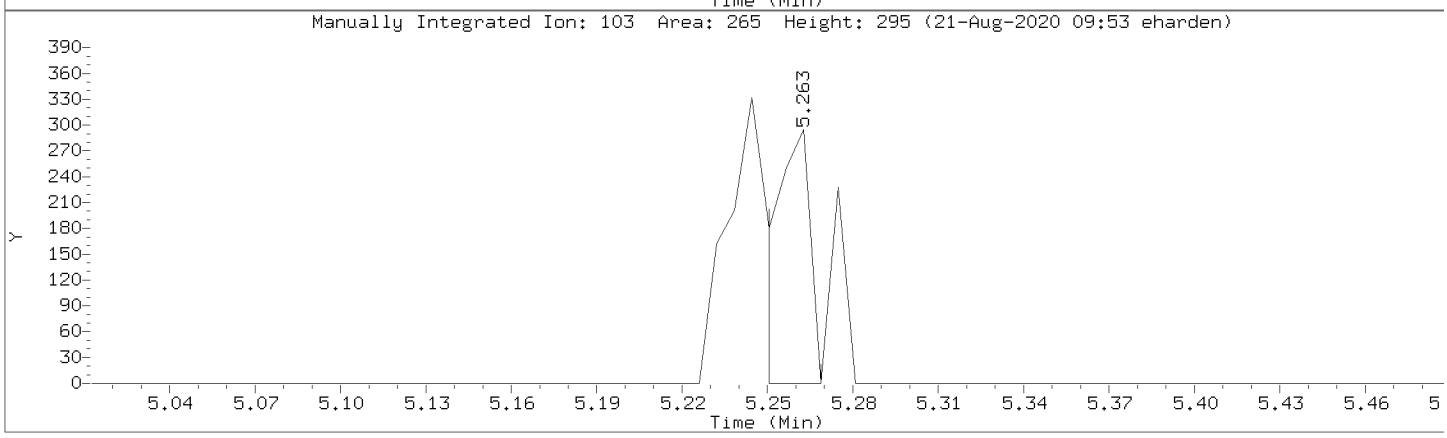






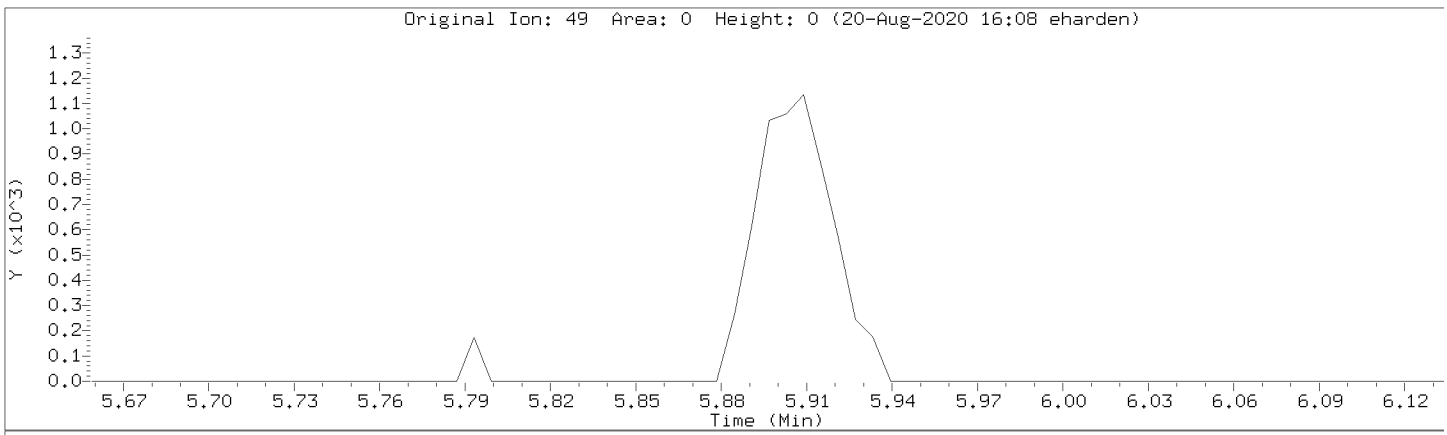
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

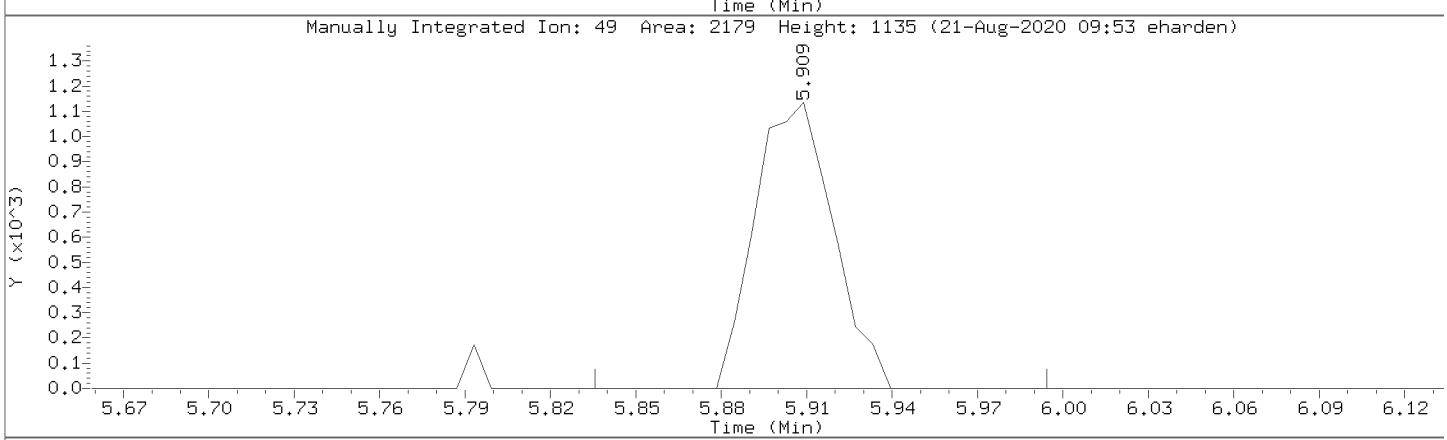


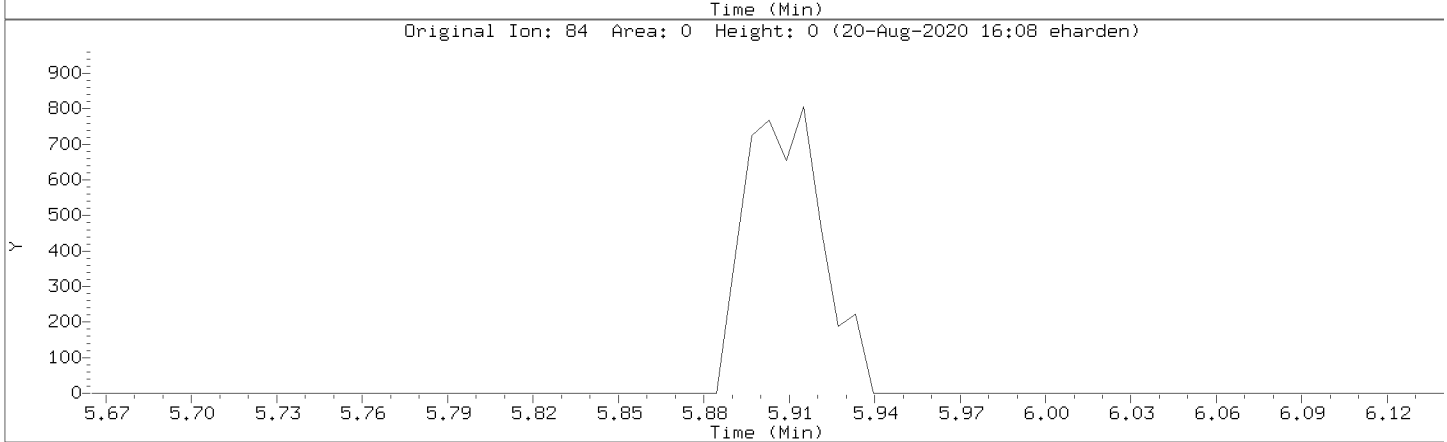


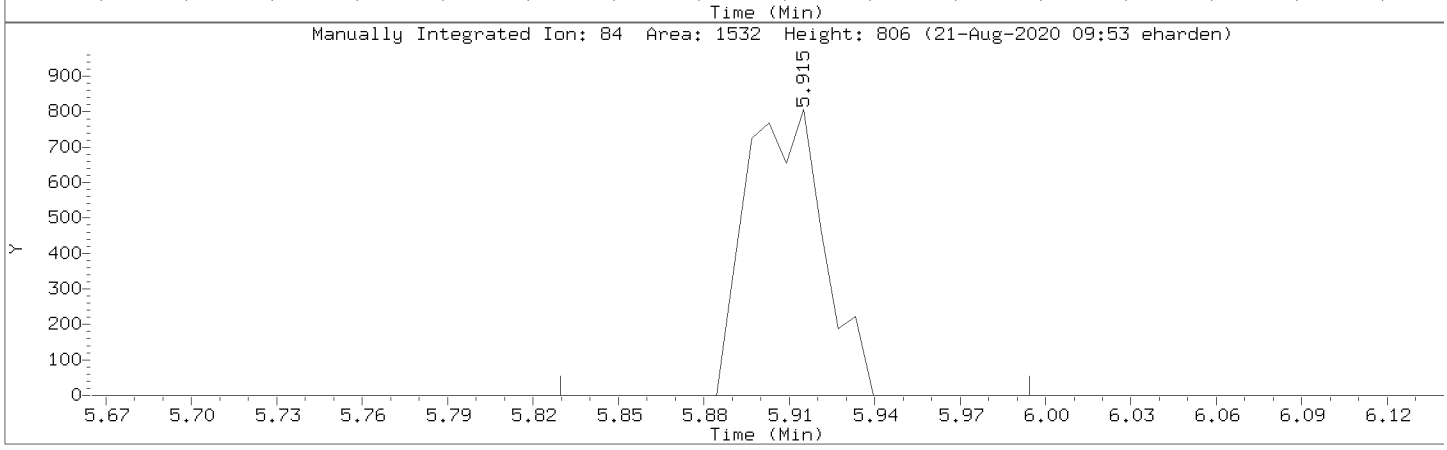
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2









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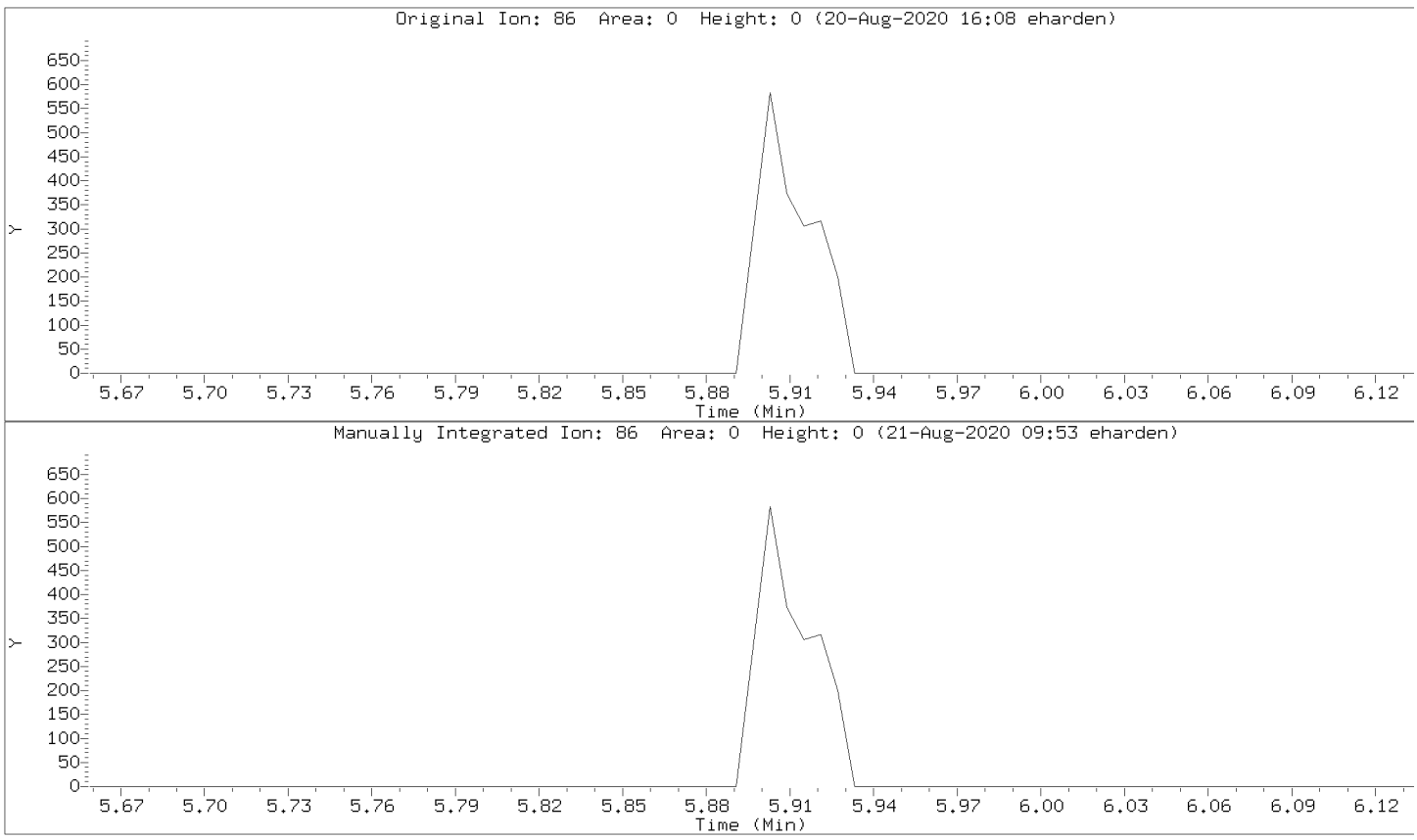
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2



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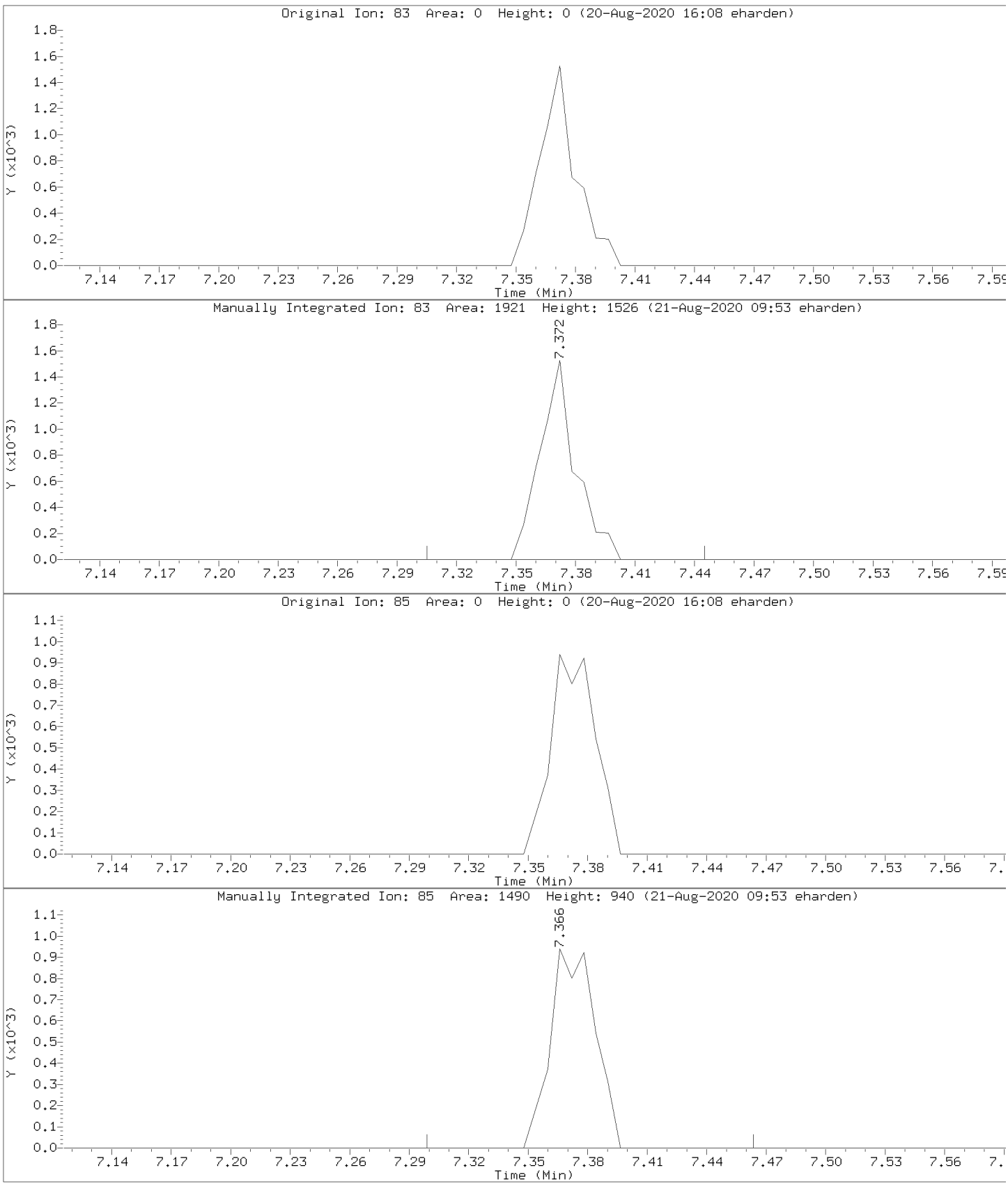
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3



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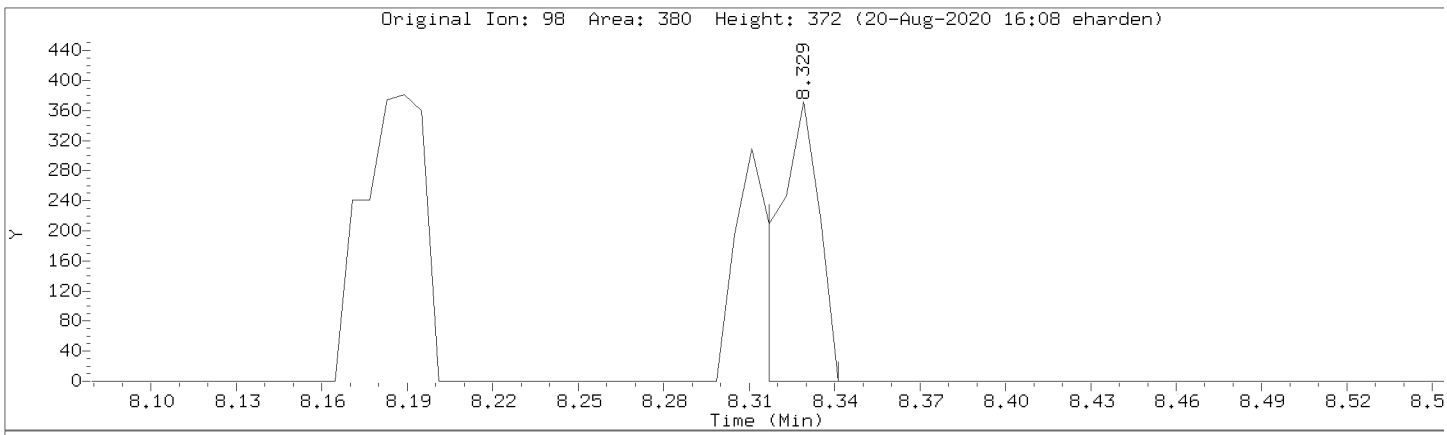
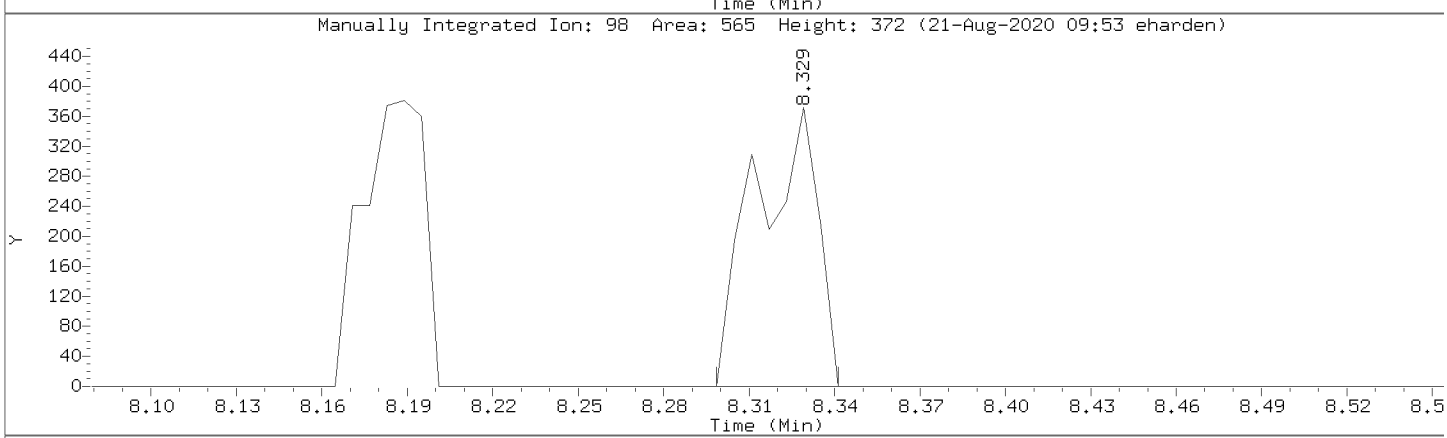
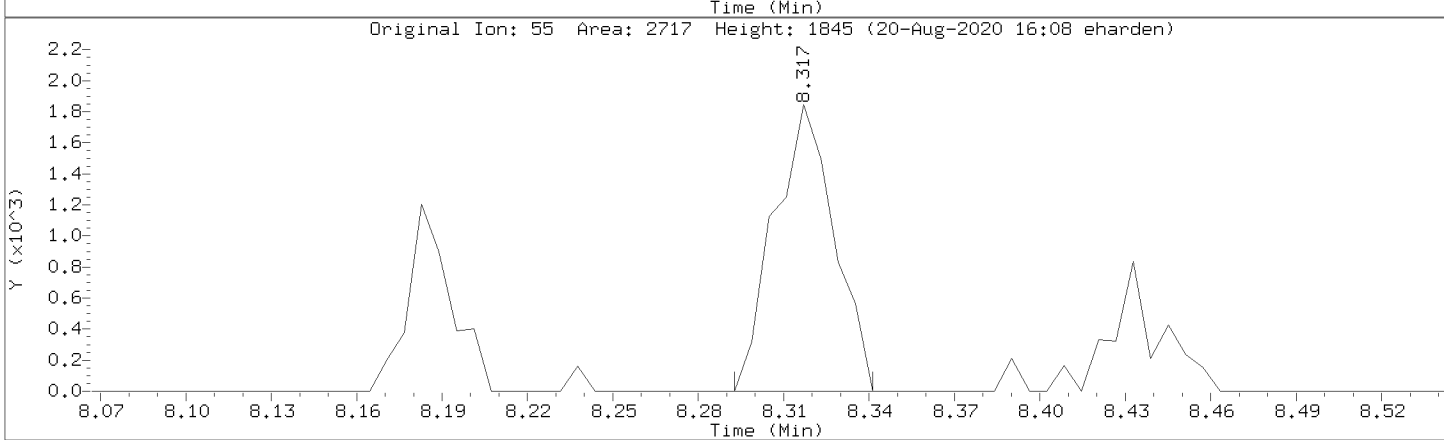
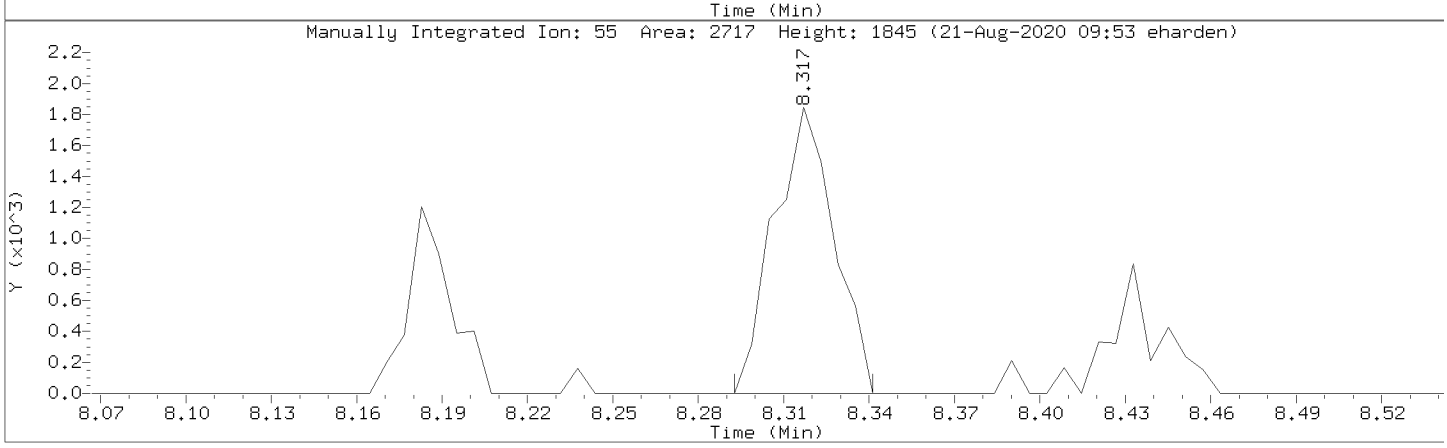
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Methylcyclohexane Review Code: LT
CAS Number: 108-87-2

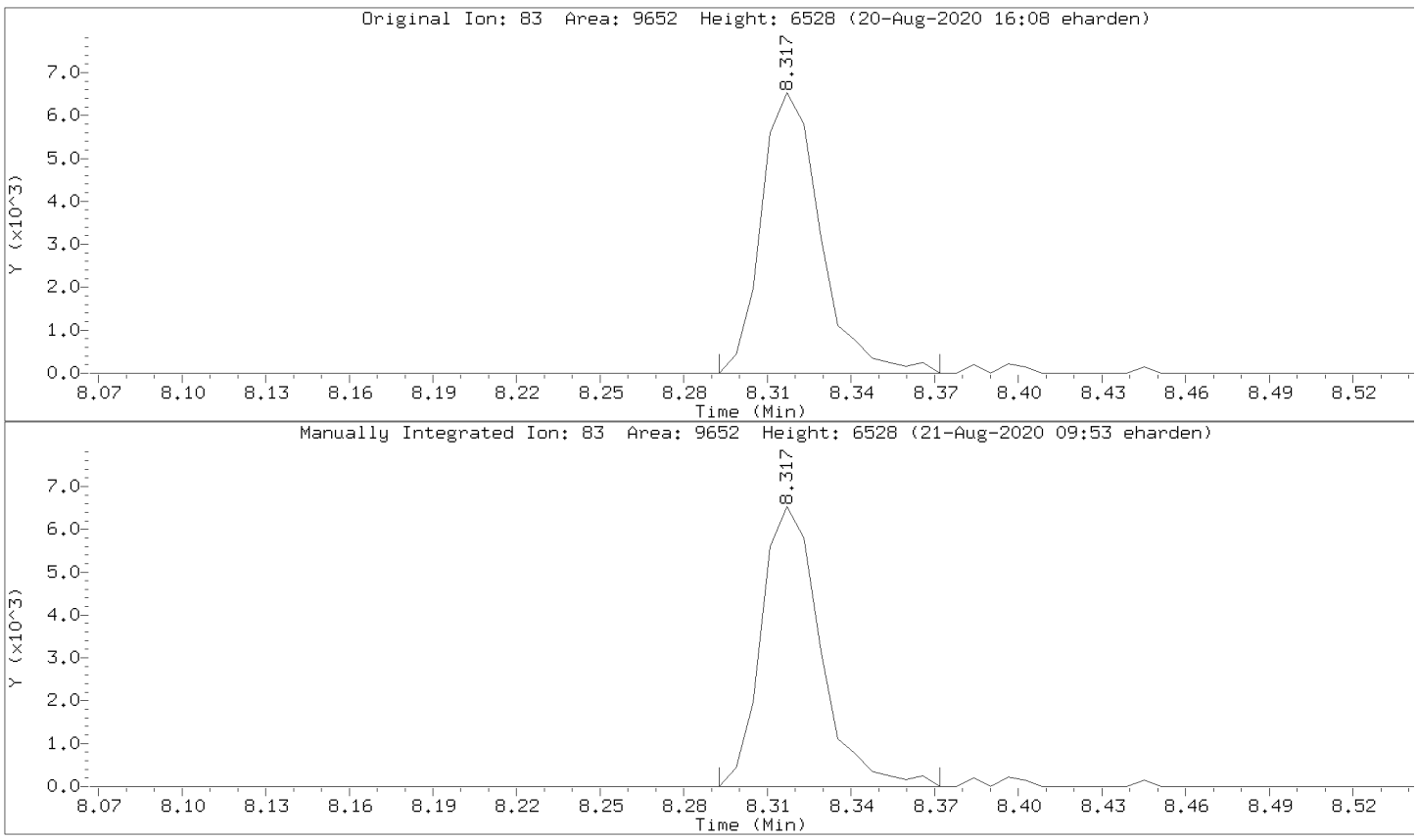






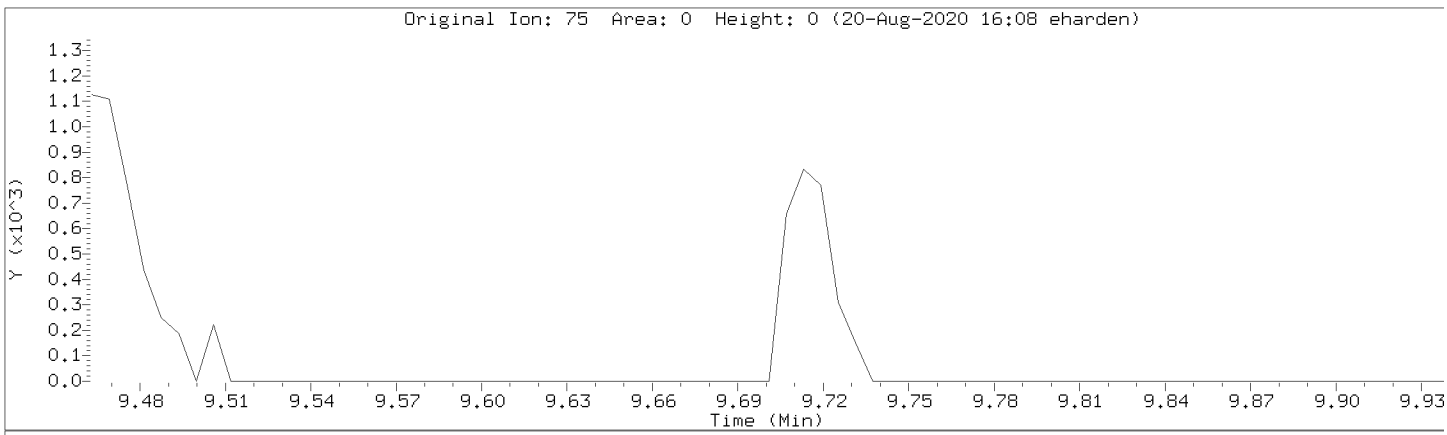


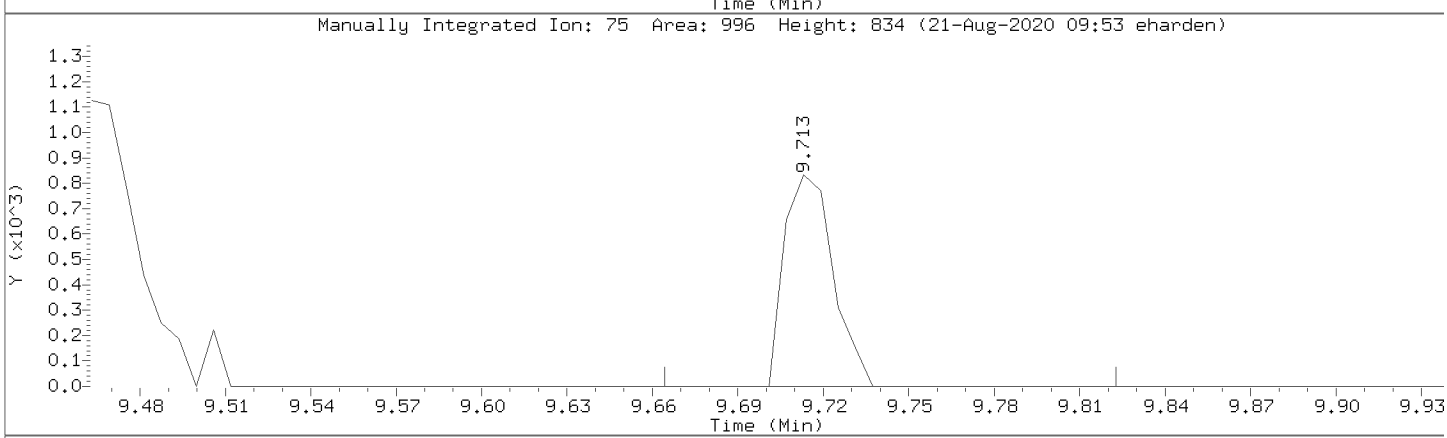
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

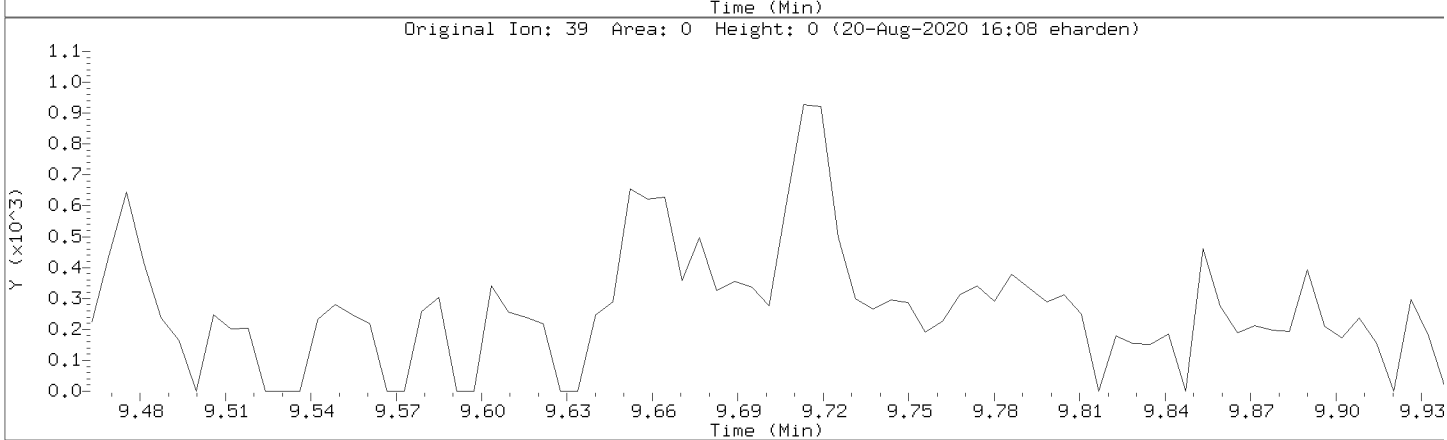


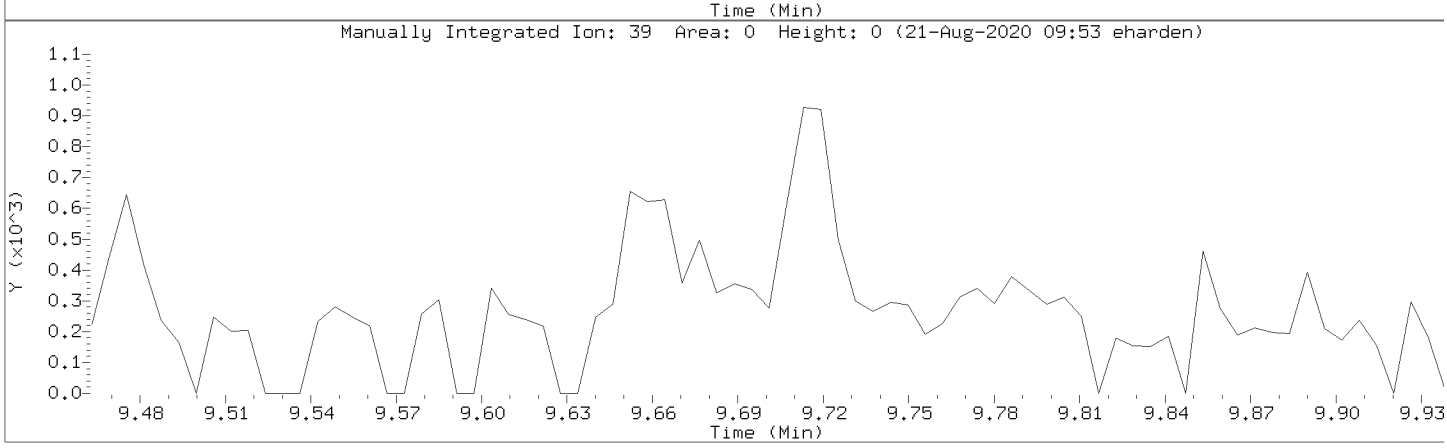
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: trans-1,3-Dichloropropene Review Code: NI
CAS Number: 10061-02-6

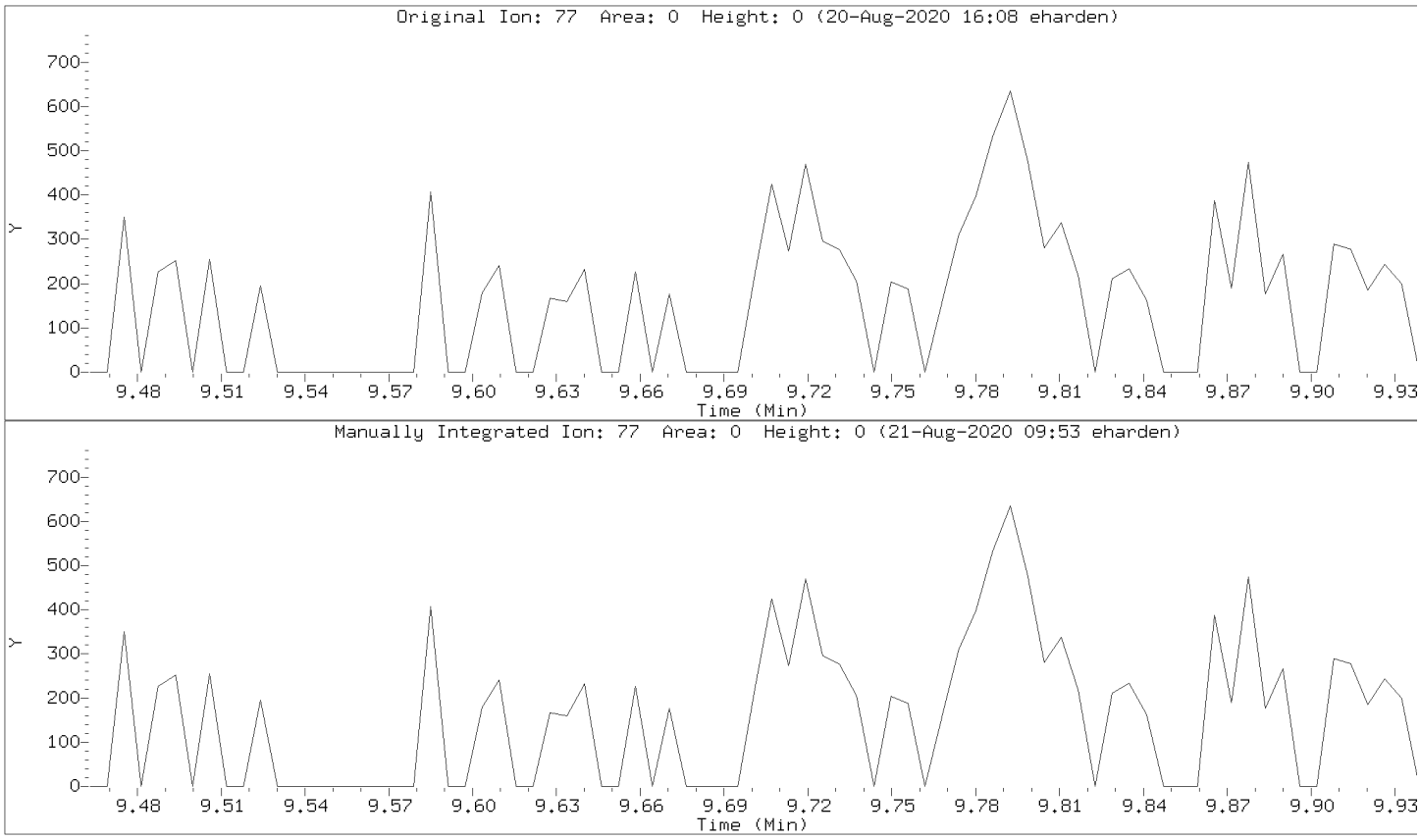








Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2



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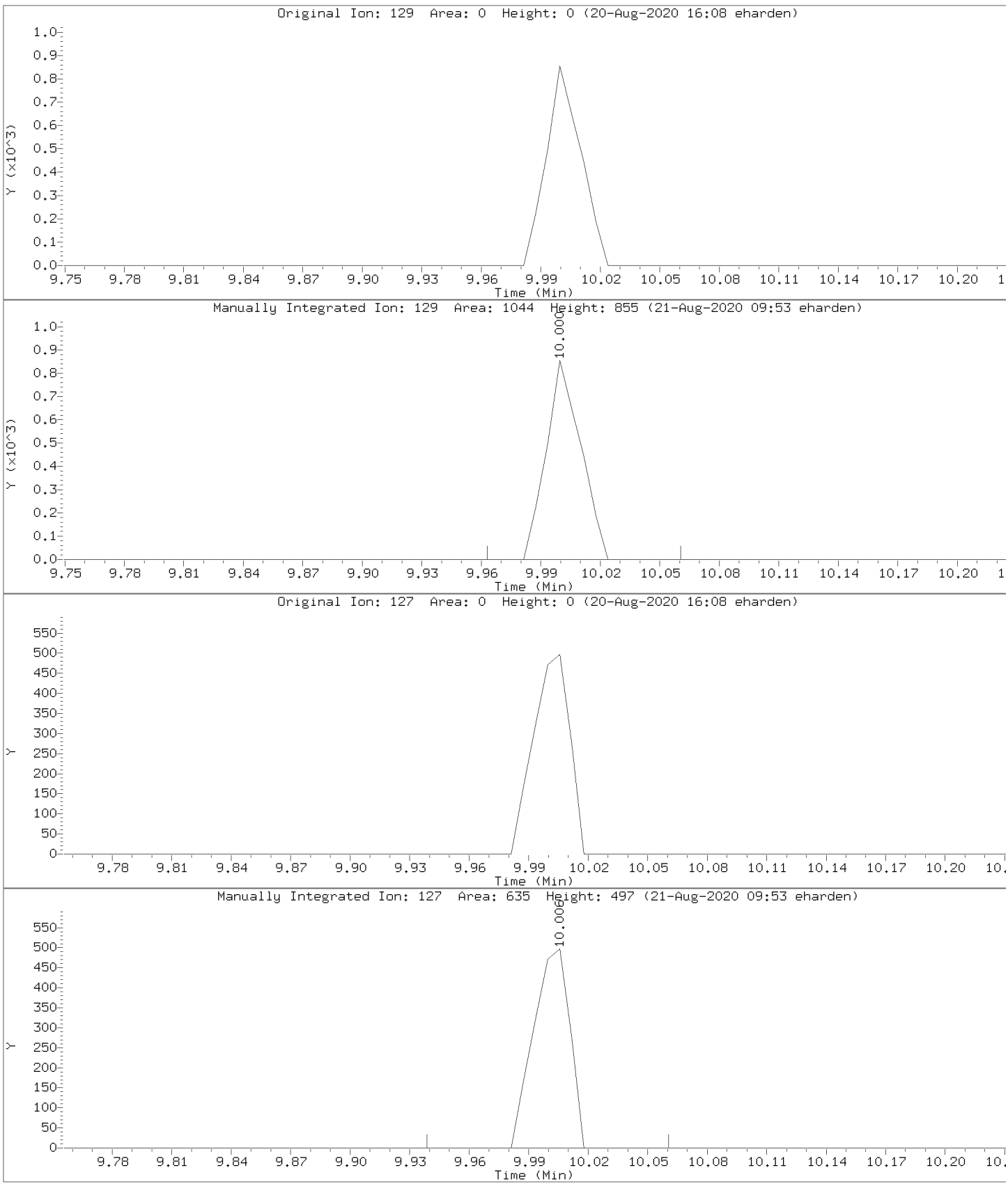
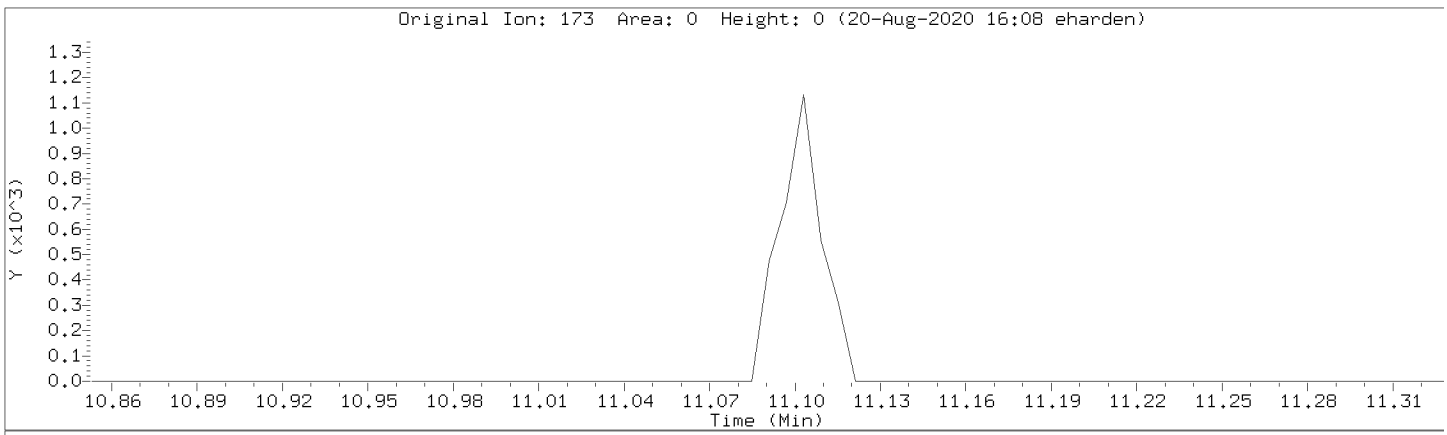
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

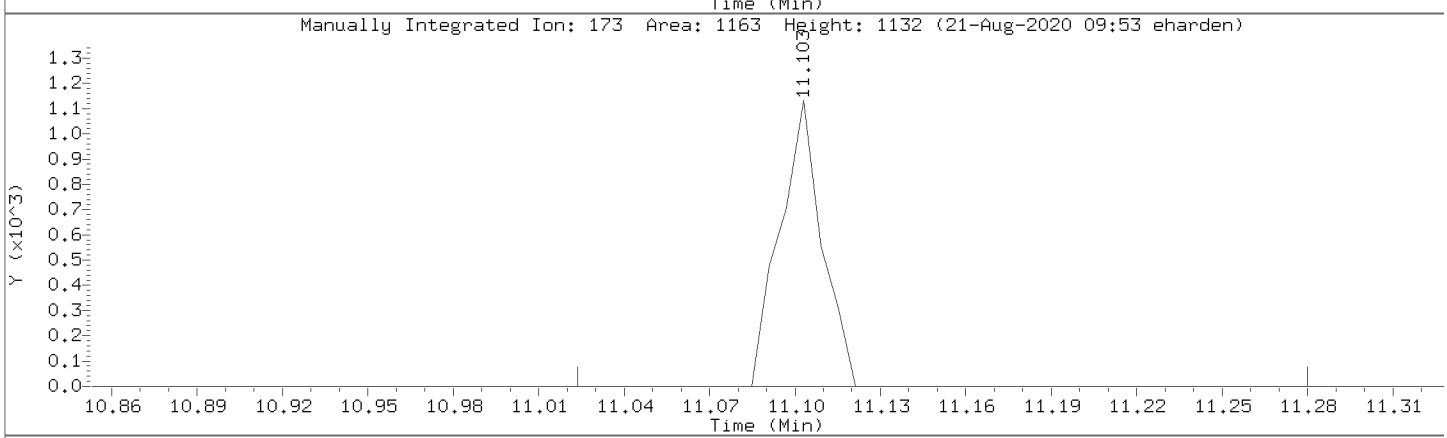
Compound: Dibromochloromethane Review Code: NI
CAS Number: 124-48-1

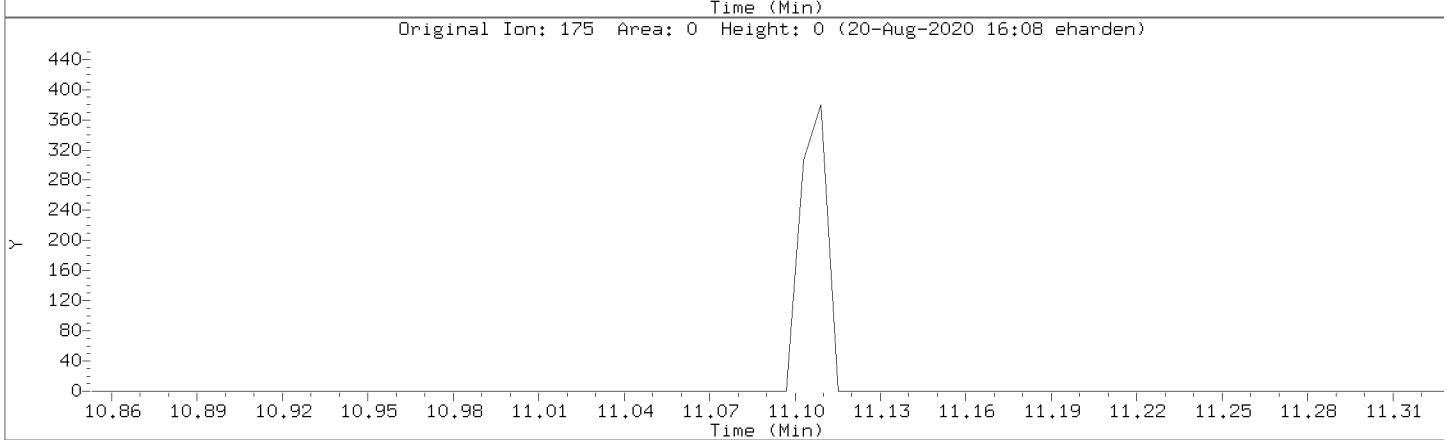


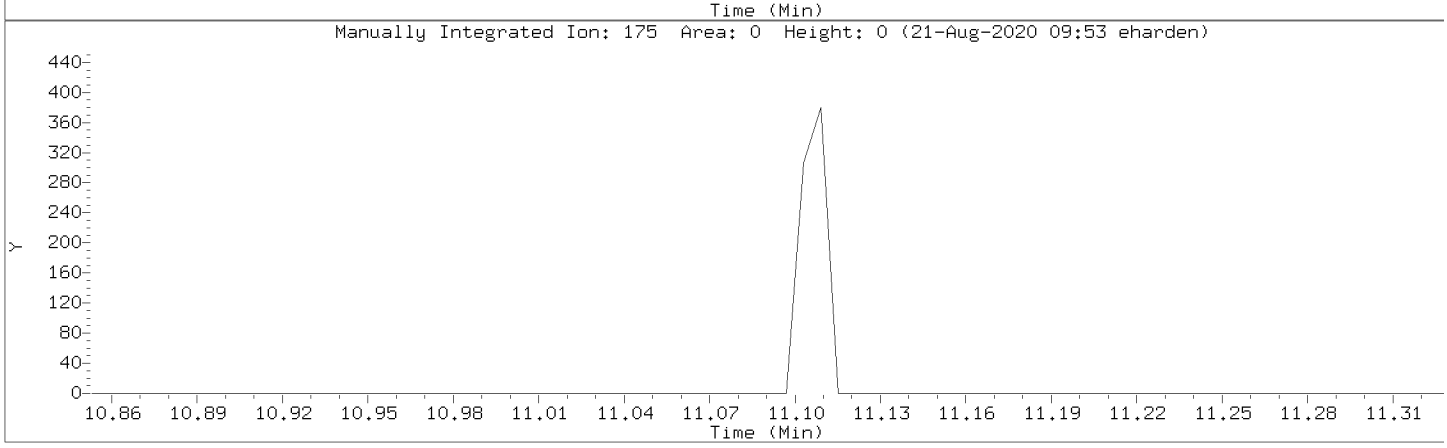
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2

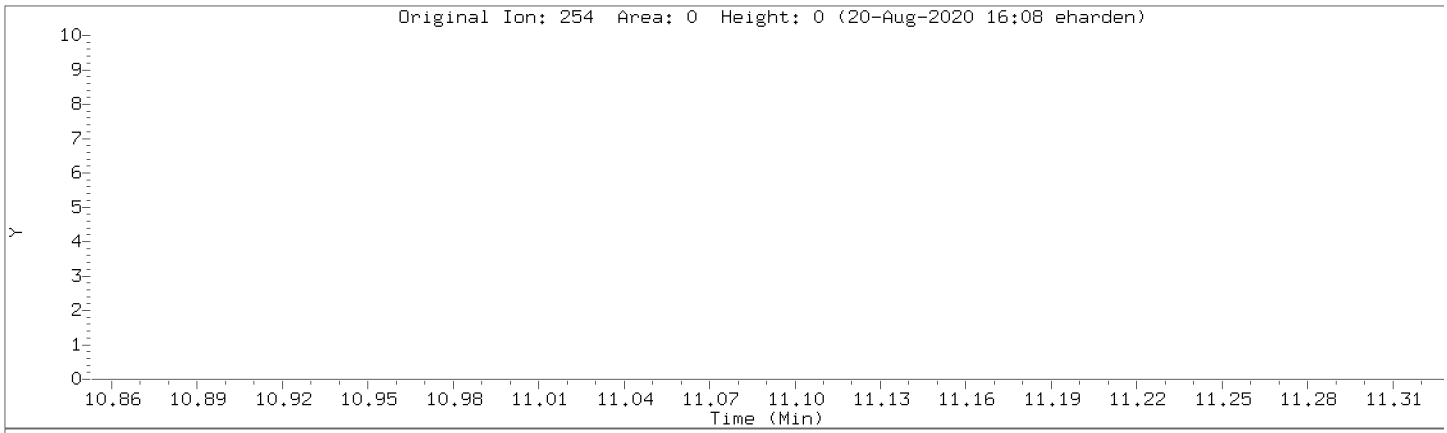


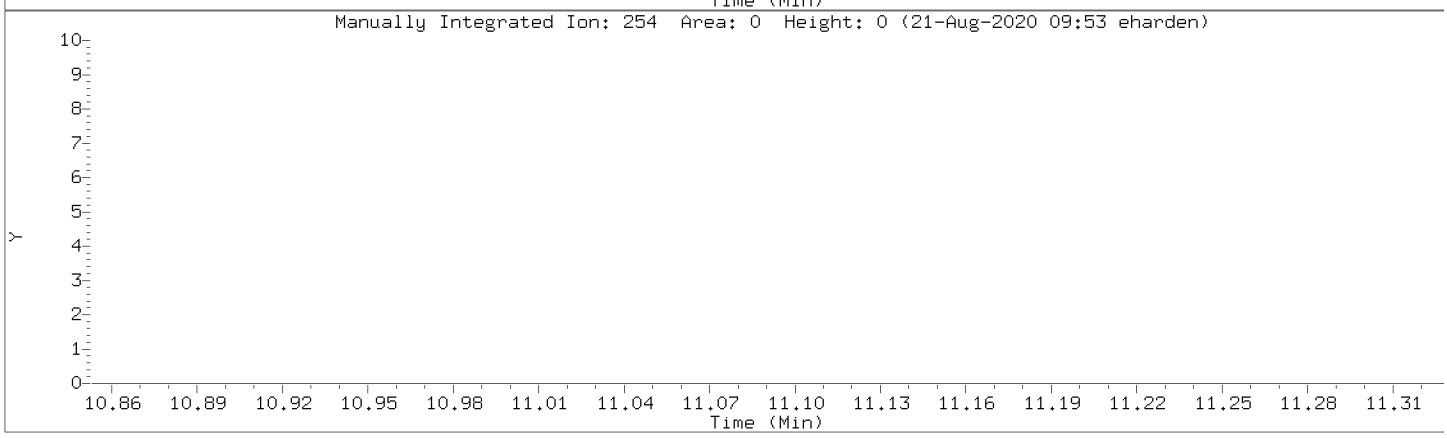






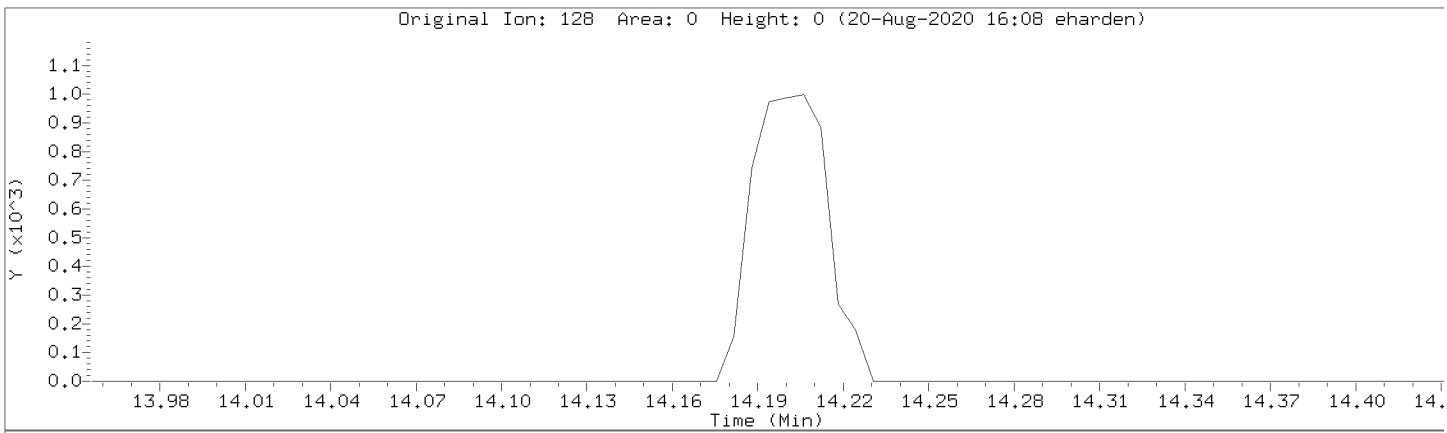
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

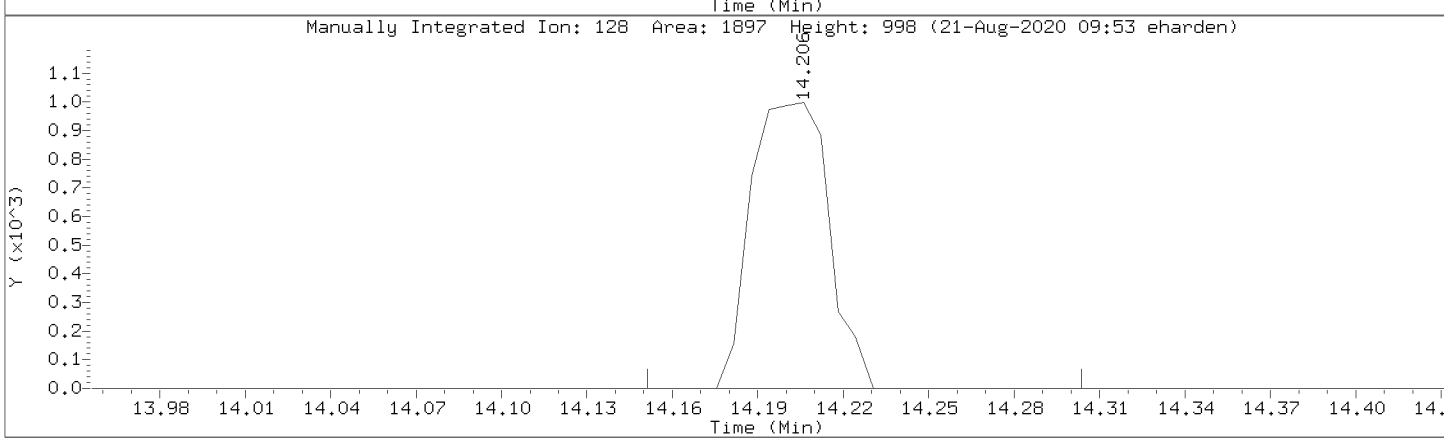


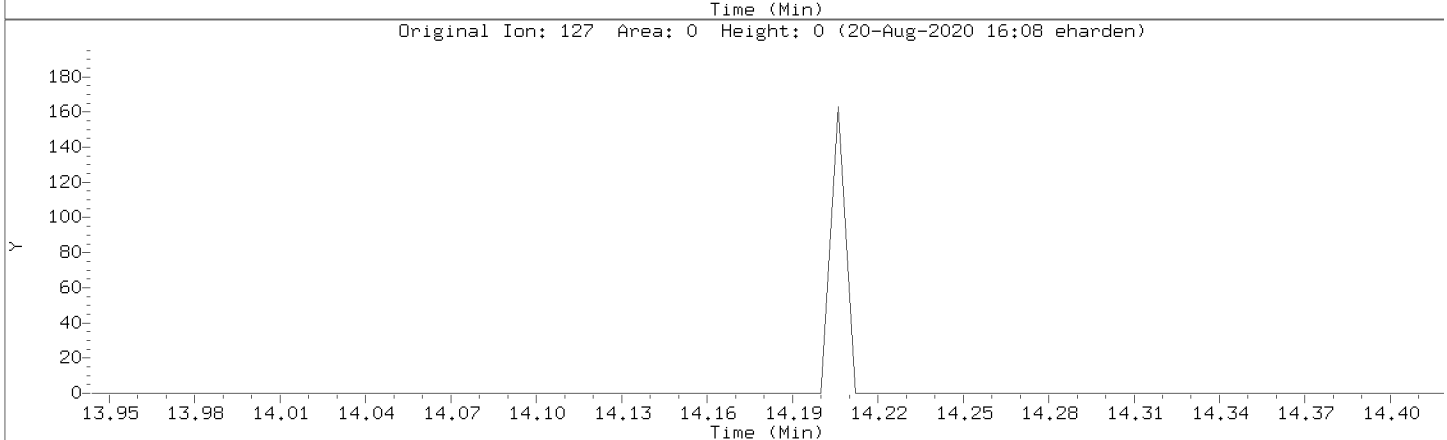


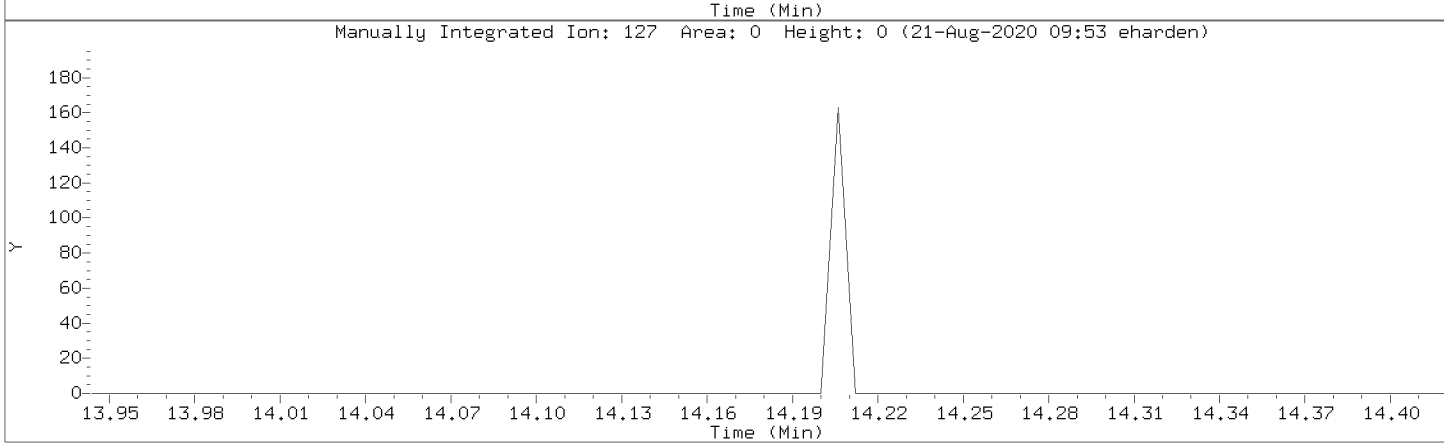
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Naphthalene Review Code: NI
CAS Number: 91-20-3









Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_05.D
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 20-AUG-2020 11:40
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal3,27239:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 11:40 Cal File: 082020_05.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.226	(0.409)	2789	1.00000	1.10(M)	LT
2 Chloromethane	50	3.537	3.543	(0.450)	5128	1.00000	0.923	
3 Vinyl chloride	62	3.696	3.702	(0.470)	2738	1.00000	1.09	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	2410	1.00000	1.08	
5 Bromomethane	94	4.195	4.195	(0.534)	6425	1.00000	0.381	
6 Chloroethane	64	4.360	4.360	(0.555)	891	1.00000	0.409(H)	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	2057	1.00000	1.29	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	810	1.00000	0.924	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	2503	1.00000	0.884	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	1938	1.00000	1.04	
11 Carbon disulfide	76	5.293	5.293	(0.673)	6625	1.00000	1.06	
12 Iodomethane	142	5.433	5.439	(0.691)	1071	1.00000	5.29(M)	NI
13 Acrolein	56	5.671	5.659	(0.722)	662	2.00000	2.27	
14 Allyl chloride	76	5.780	5.787	(0.736)	1021	1.00000	1.17	
15 Methylene Chloride	49	5.908	5.902	(0.752)	4045	1.00000	1.20(M)	NI
16 Acetone	43	5.982	5.976	(0.761)	5308	2.00000	1.50	
17 Methyl acetate	43	6.073	6.067	(0.773)	4622	2.00000	1.59	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	1993	1.00000	1.04	
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	6.158	6.165	(0.784)	4160	1.00000	0.933(T)	
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	6.640	6.640	(0.845)	2223	1.00000	0.834	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	3668	1.00000	0.987	
	24 Acrylonitrile	53	6.744	6.738	(0.858)	1850	2.00000	2.29	
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	2850	1.00000	1.04	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	3397	1.00000	1.18	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	1299	1.00000	1.08	
	29 Cyclohexane	56	7.335	7.335	(0.882)	1942	1.00000	0.757	
	30 Chloroform	83	7.378	7.372	(0.939)	4835	1.00000	1.15(M)	NI
	31 Ethyl acetate	43	7.439	7.433	(0.946)	4793	2.00000	2.02	
	32 Carbon tetrachloride	117	7.506	7.512	(0.902)	2447	1.00000	0.806	
	33 Tetrahydrofuran	42	7.536	7.536	(0.959)	2431	2.00000	1.81	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	134298	50.0000	55.3	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	3365	1.00000	0.978	
	36 2-Butanone (MEK)	43	7.634	7.628	(0.971)	4274	2.00000	2.36	
	37 1,1-Dichloropropene	75	7.664	7.658	(0.922)	2129	1.00000	0.891(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	210970	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	6671	1.00000	0.865	
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	3260	2.00000	1.78	
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25649	50.0000	58.7	
	44 1,2-Dichloroethane	62	8.042	8.036	(1.023)	3985	1.00000	1.21	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	3749	1.00000	0.954	
	46 Trichloroethene	130	8.317	8.317	(1.000)	2071	1.00000	0.982	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	301510	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	802	1.00000	0.802	
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.670	8.670	(1.043)	1683	1.00000	0.937	
	51 1,2-Dichloropropane	63	8.743	8.737	(1.051)	2197	1.00000	0.998	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	2455	1.00000	0.776	
	53 Methyl methacrylate	69	8.829	8.823	(1.062)	871	1.00000	1.43(TH)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	1689	2.00000	3.22	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	2472	1.00000	0.804	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	322180	50.0000	49.6	
	58 Toluene	91	9.414	9.414	(1.132)	7222	1.00000	0.960	
	59 2-Nitropropane	43	9.609	9.603	(1.155)	1386	1.00000	1.35(MH)	LT
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	2471	1.00000	0.805(M)	NI
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	1805	1.00000	0.983	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	1570	1.00000	0.810(M)	WP
	64 1,1,2-Trichloroethane	83	9.841	9.847	(1.183)	1831	1.00000	0.961	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	2212	1.00000	0.869	
	66 1,3-Dichloropropane	76	10.066	10.060	(1.210)	2595	1.00000	0.893	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	2135	1.00000	0.978	
	68 2-Hexanone	43	10.280	10.280	(1.236)	3979	2.00000	1.56	
	69 Ethylbenzene	91	10.560	10.554	(1.000)	5759	1.00000	0.823	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	267604	50.0000		
	71 Chlorobenzene	112	10.572	10.578	(1.001)	4923	1.00000	0.954	
	72 1,1,1,2-Tetrachloroethane	131	10.603	10.609	(1.004)	2420	1.00000	1.11	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	7396	2.00000	1.41	
	74 o-Xylene	106	10.987	10.993	(1.040)	1785	1.00000	0.729	
	75 Styrene	104	11.036	11.029	(1.045)	2626	1.00000	0.641	
	76 Bromoform	173	11.103	11.103	(1.051)	2312	1.00000	0.956(M)	NI

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.231	11.225	(1.063)	2647	1.00000	0.712	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	104502	50.0000	47.6	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	1137	1.00000	1.29	
80 n-Propylbenzene	91	11.529	11.523	(1.092)	6737	1.00000	0.785	
81 Bromobenzene	156	11.584	11.578	(1.097)	2261	1.00000	0.825	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	2955	1.00000	1.03(H)	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	3733	1.00000	0.775	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	1264	1.00000	0.680	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	1146	1.00000	0.628	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	3865	1.00000	0.624	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	2680	1.00000	0.912	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	456	1.00000	0.662(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	3605	1.00000	0.760	
91 1,2,4-Trimethylbenzene	105	11.974	11.968	(0.970)	3078	1.00000	0.634	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	3627	1.00000	0.628	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	3605	1.00000	0.760	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	3270	1.00000	0.850	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	145817	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	4290	1.00000	1.00	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	4060	1.00000	0.799	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	4197	1.00000	1.00	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	659	1.00000	1.38	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	1405	1.00000	1.08	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	2610	1.00000	0.944	
102 Naphthalene	128	14.200	14.193	(1.151)	3463	1.00000	0.729	
103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	2401	1.00000	0.899	

QC Flag Legend

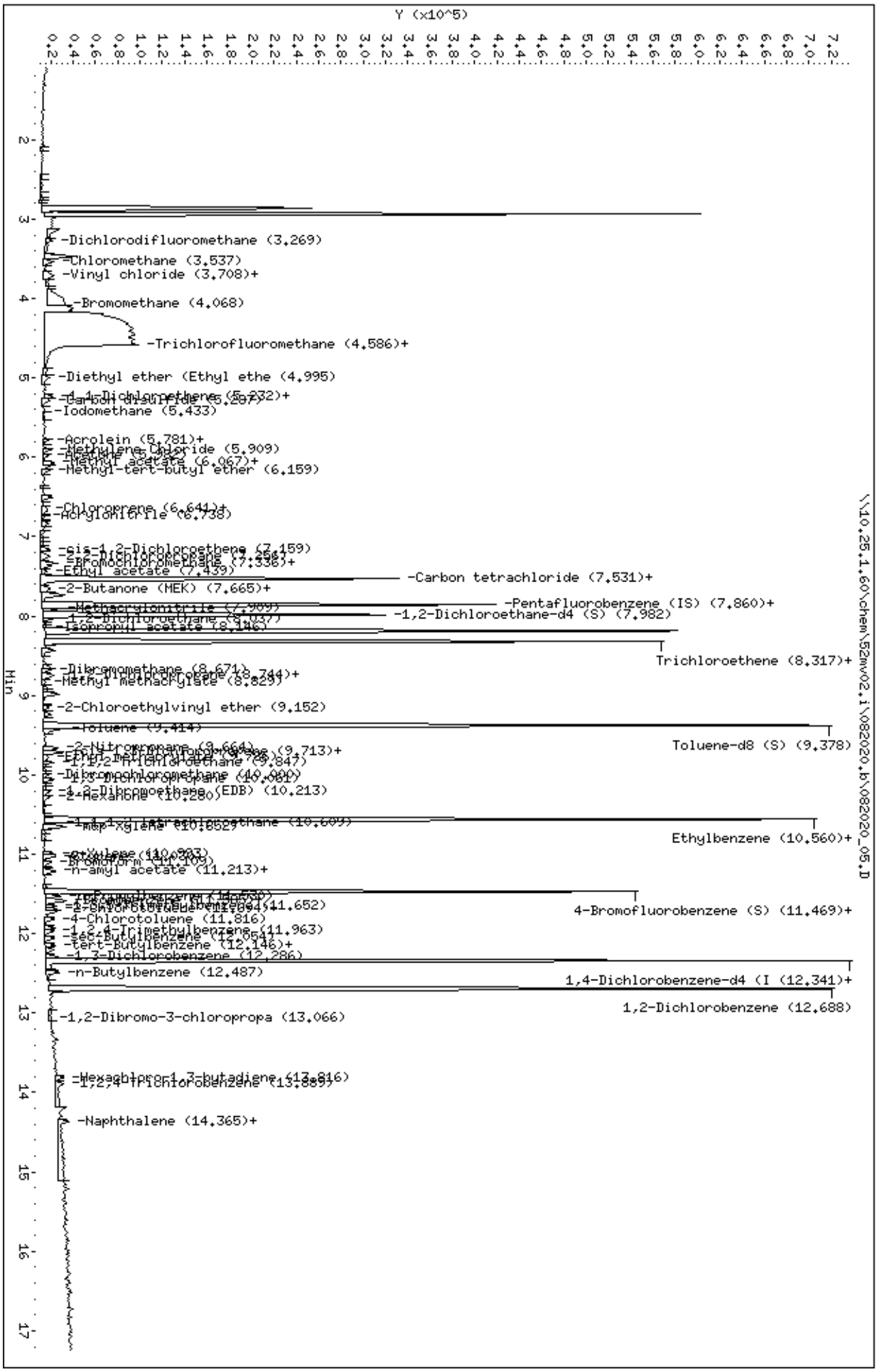
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_05.D
Date : 20-AUG-2020 11:40
Client ID: CAL3
Sample Info: CAL3,27239:1
Purge Volume: 5.0
Column phase: RTX-VMS

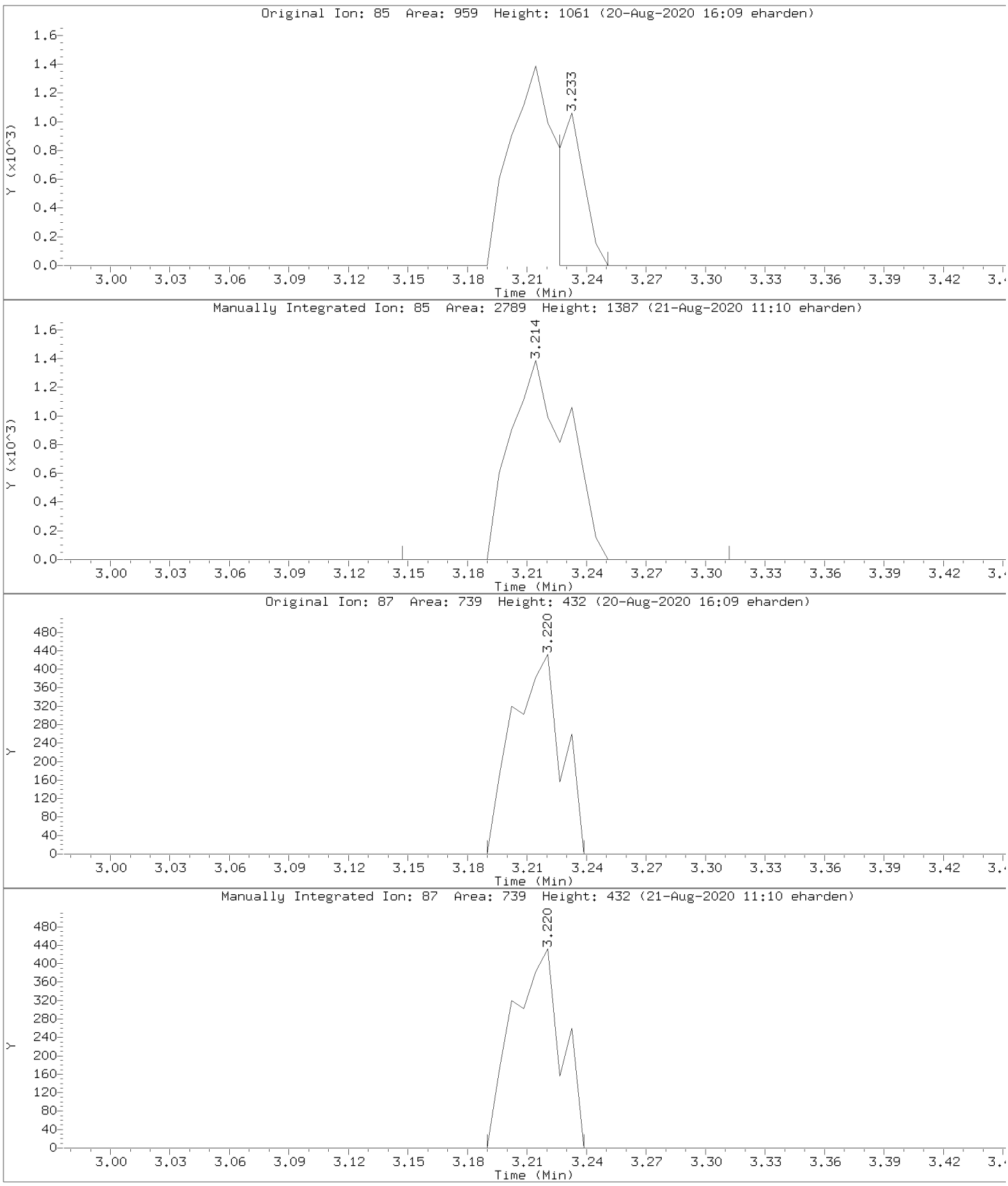
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Page 4

Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_05.D
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



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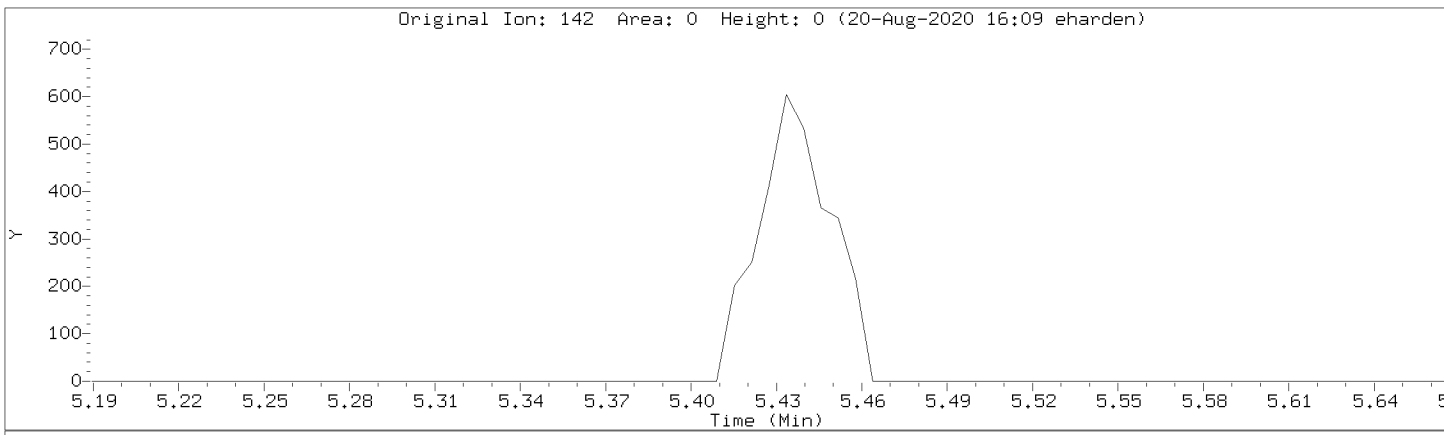
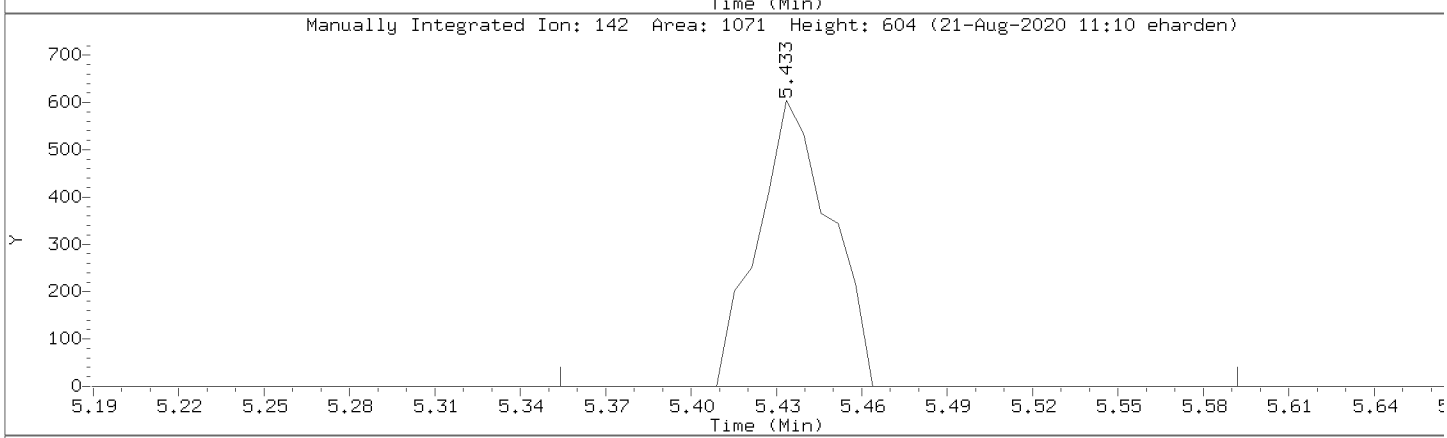
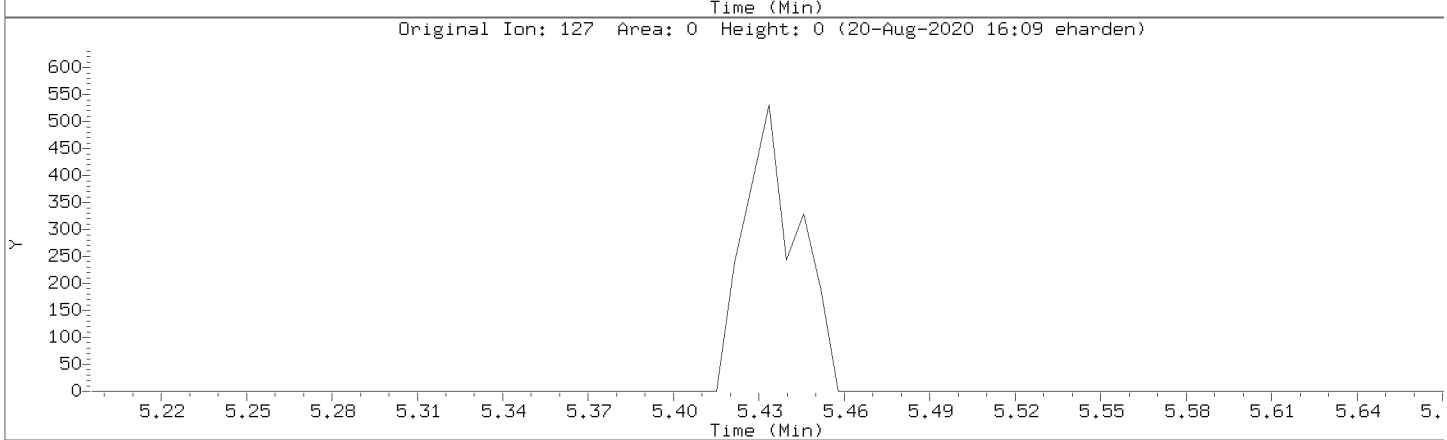
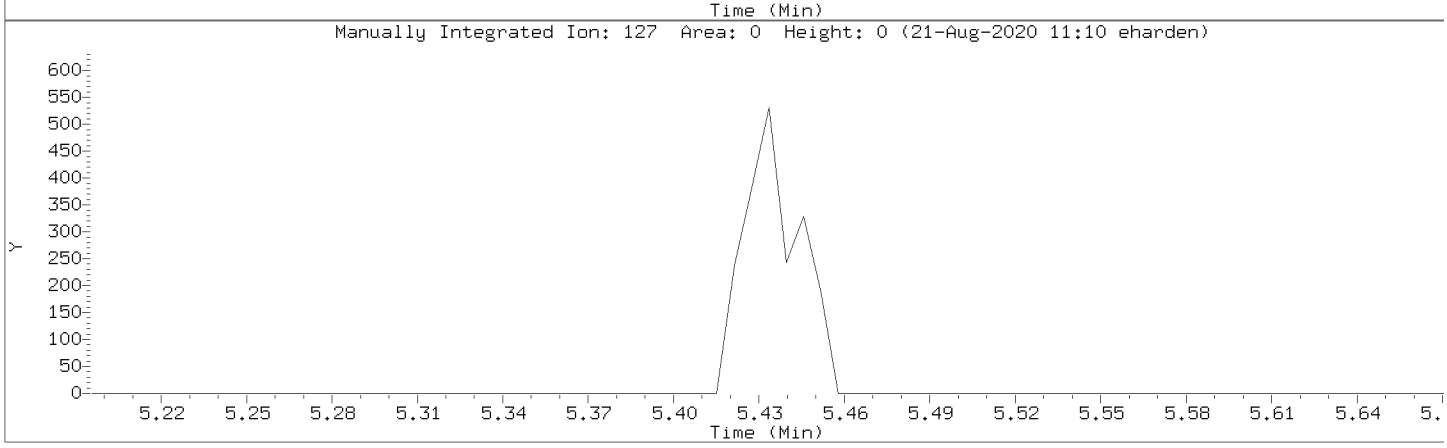
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4









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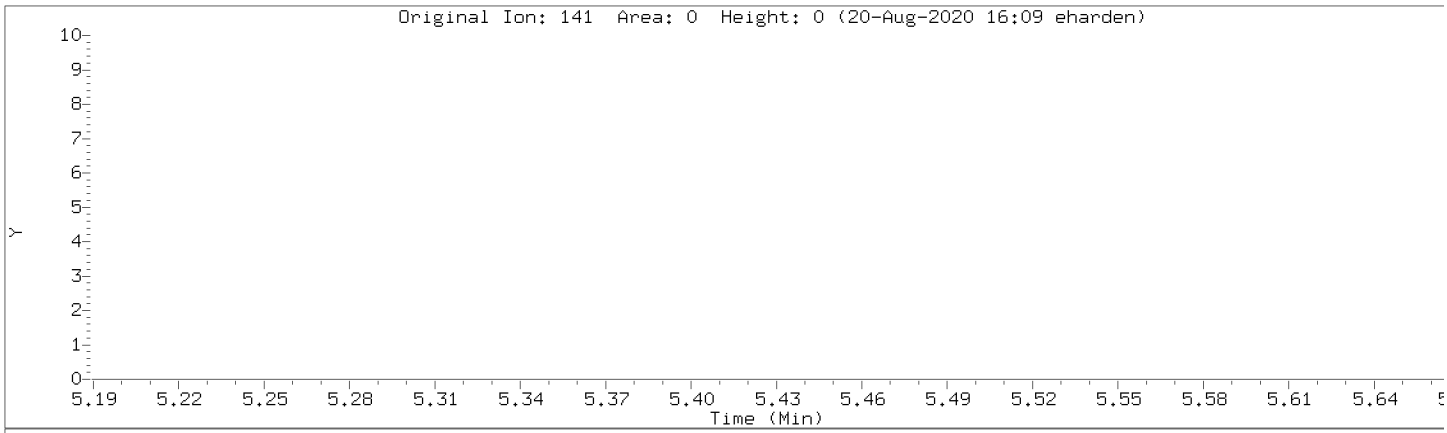
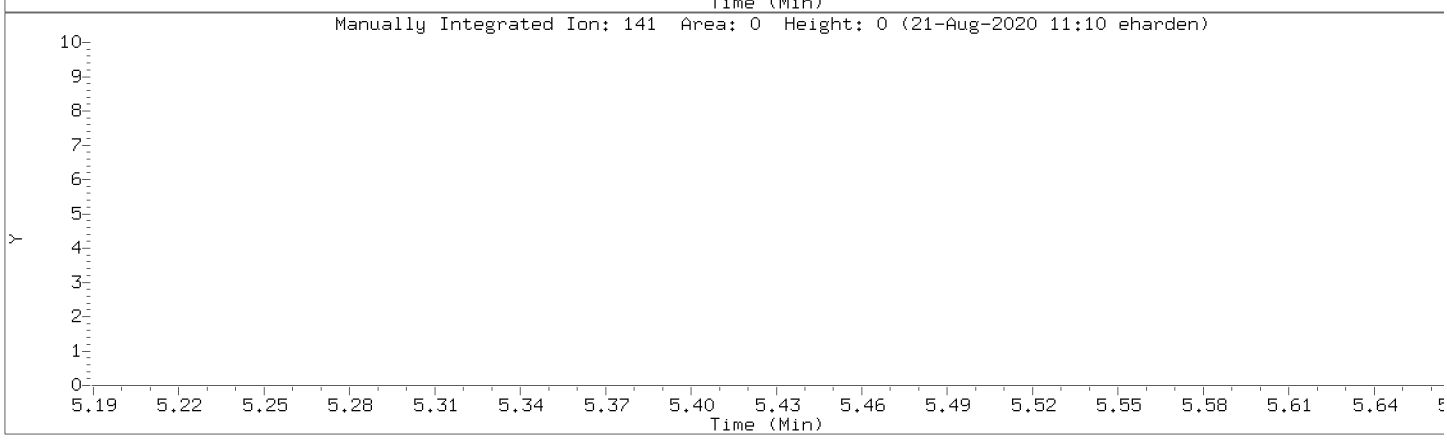
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3





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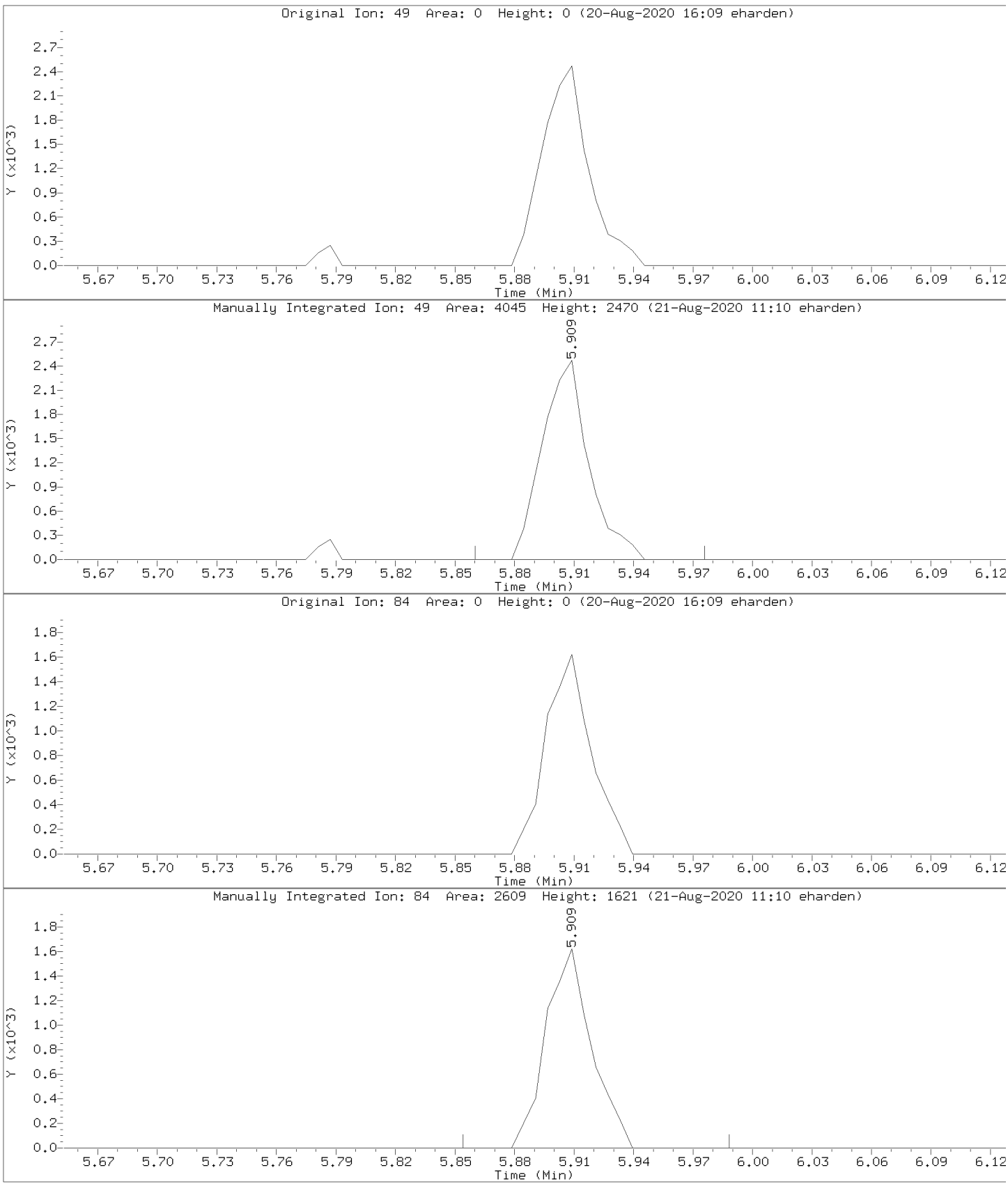
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2



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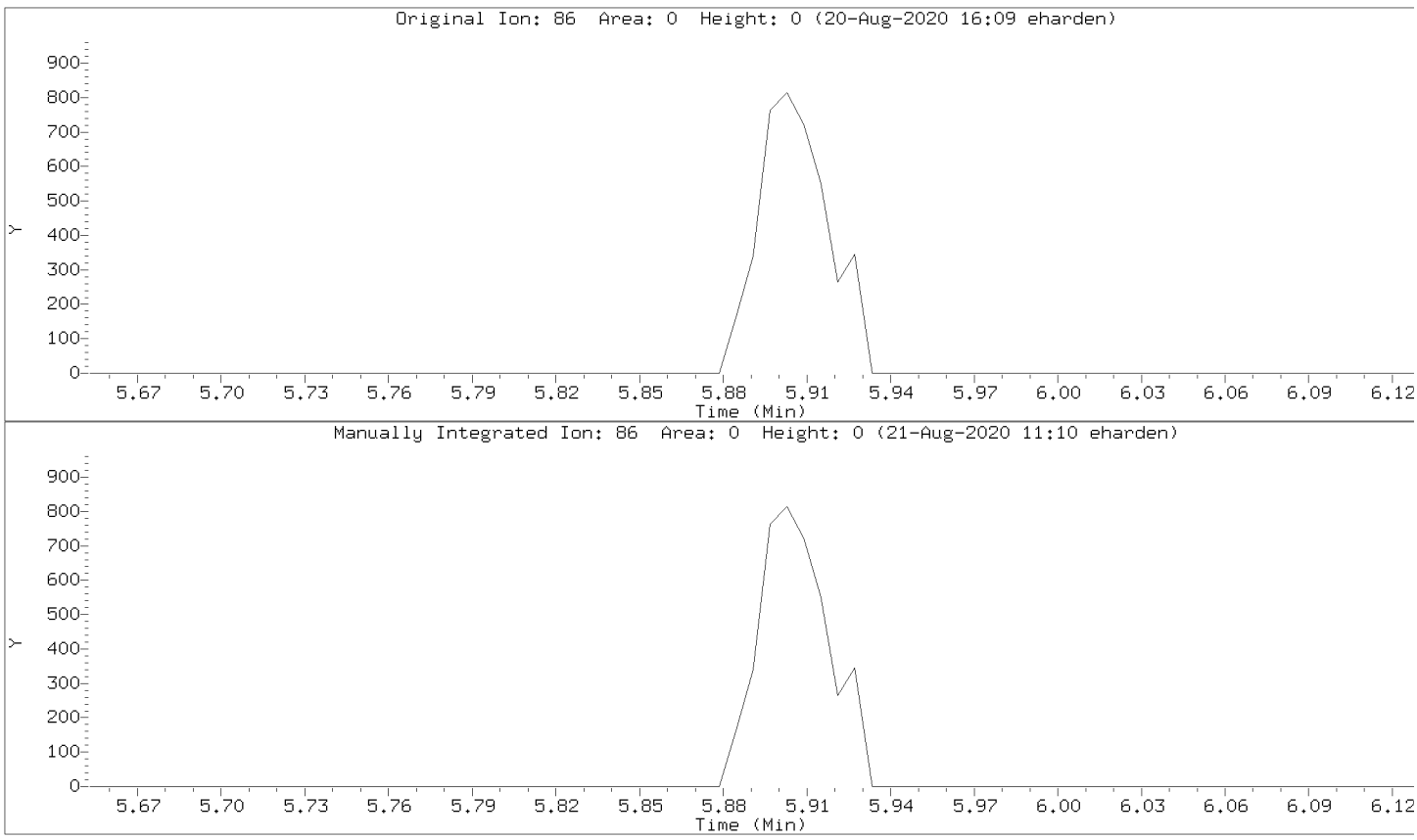
Instrument: 52mv02.i
Lab Sample ID: CAL3



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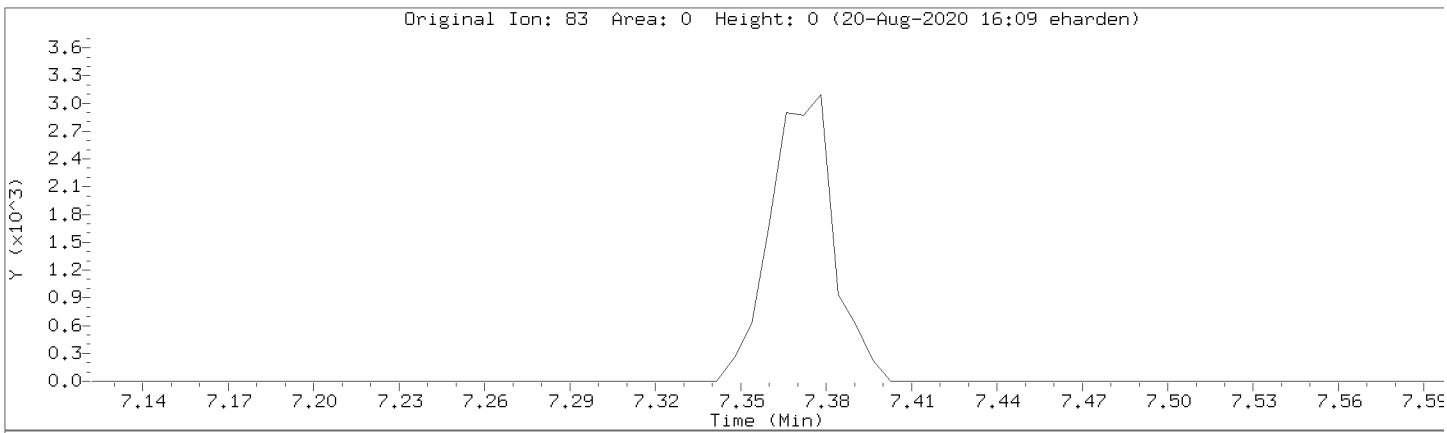
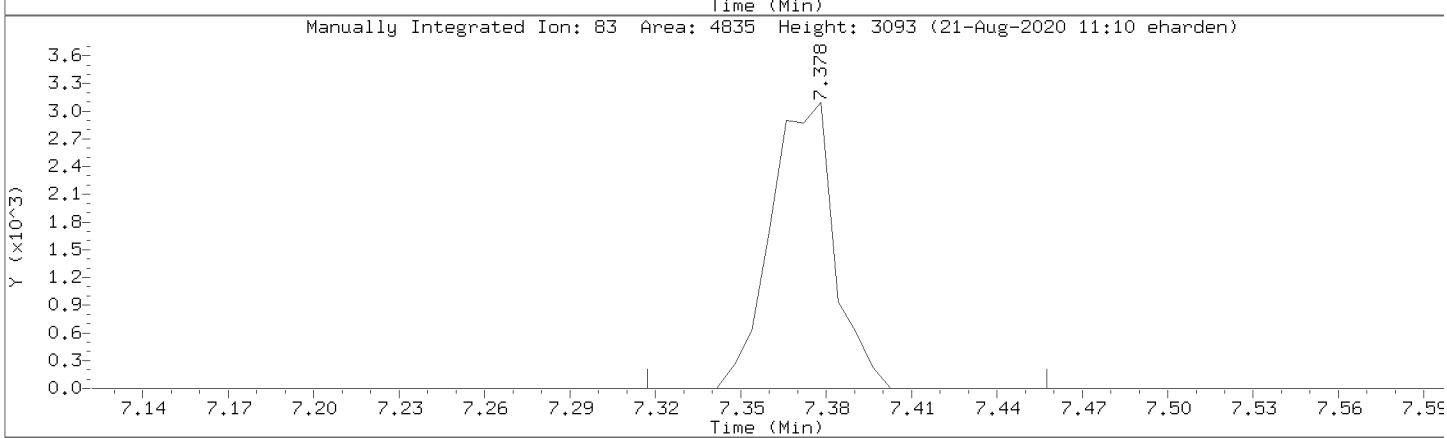
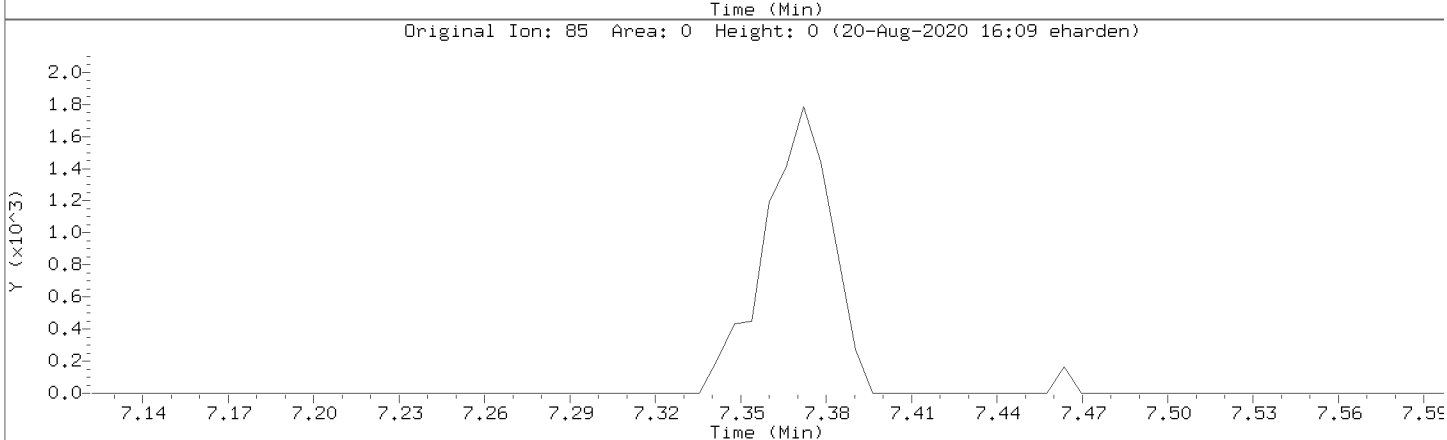
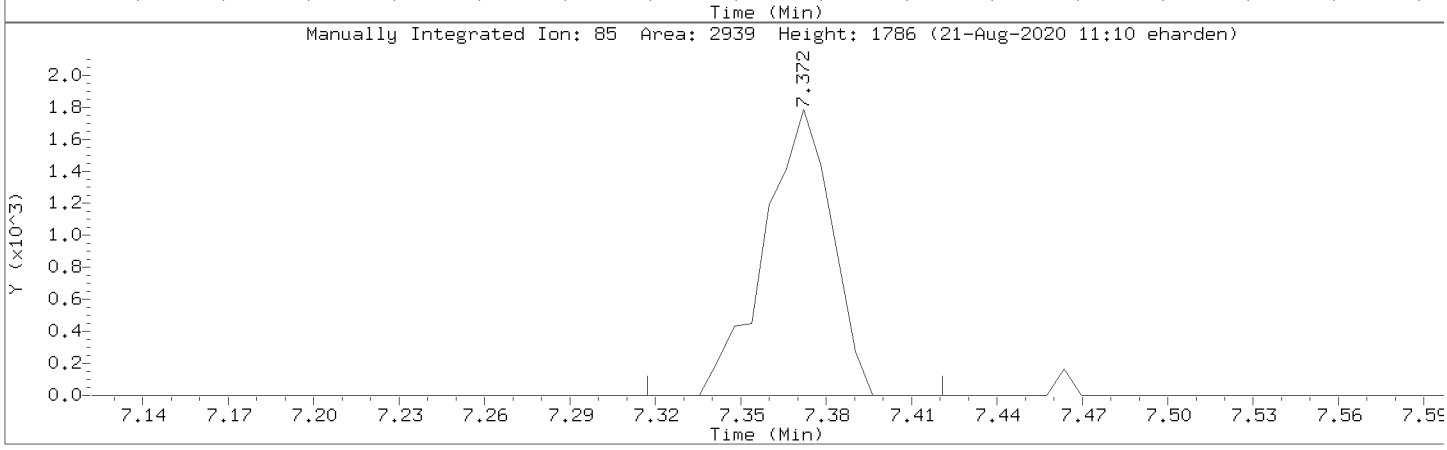
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3









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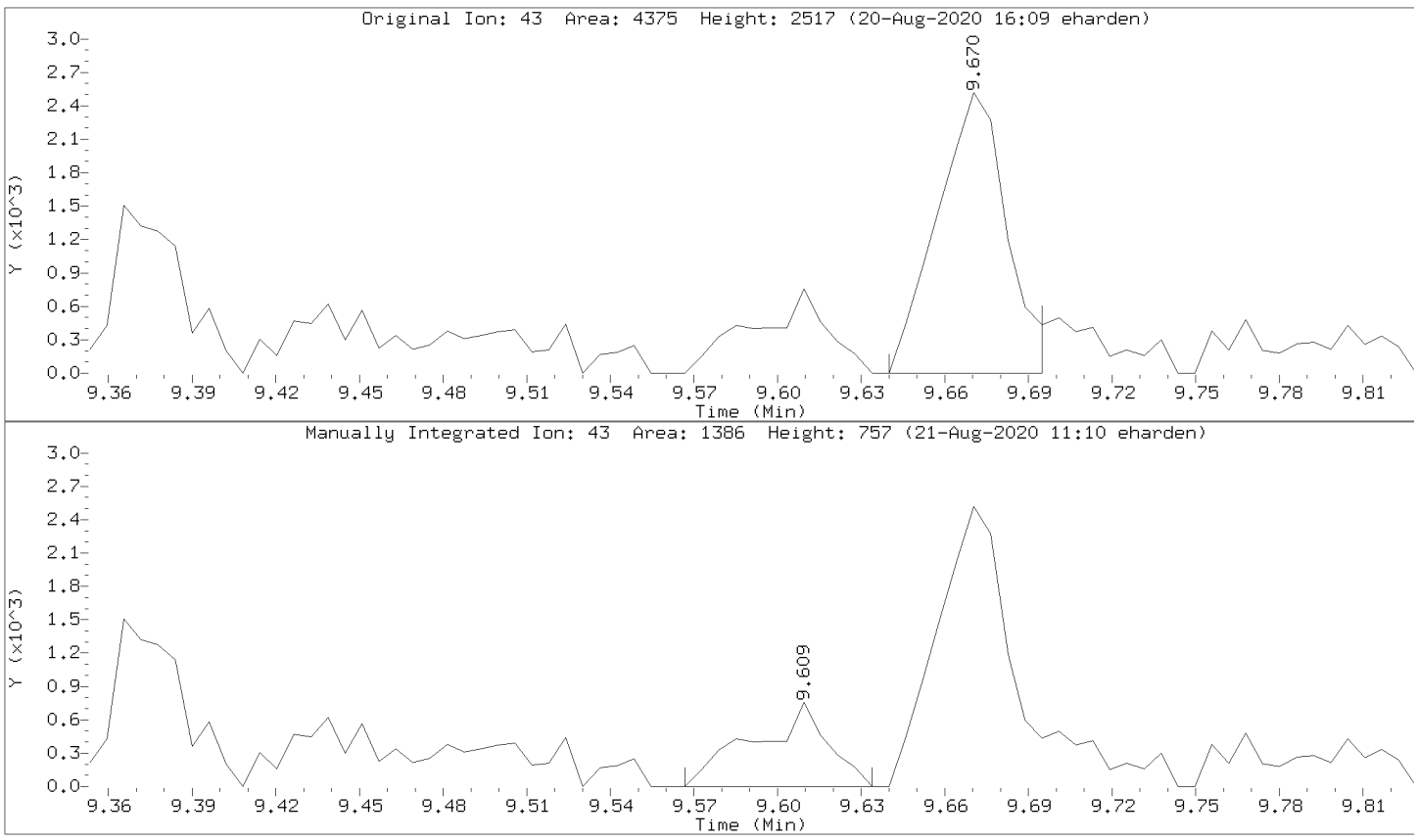
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: 2-Nitropropane Review Code: LT
CAS Number: 79-46-9



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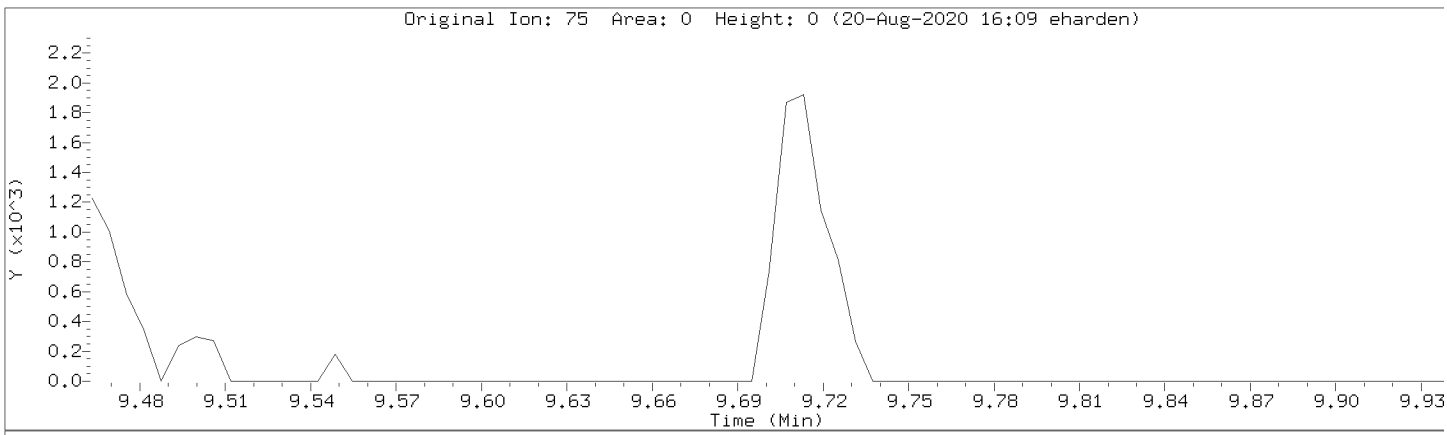
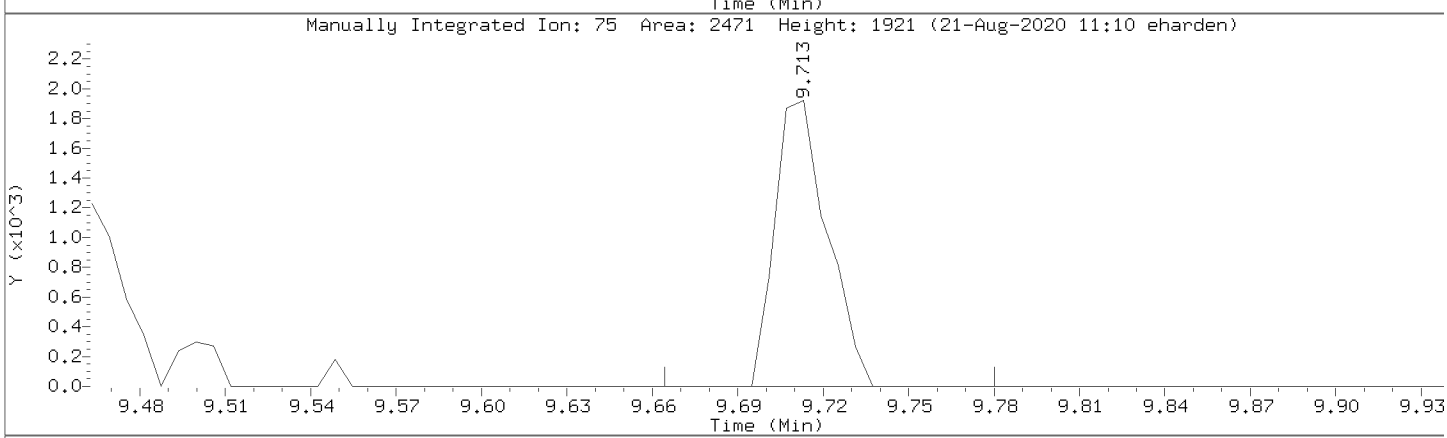
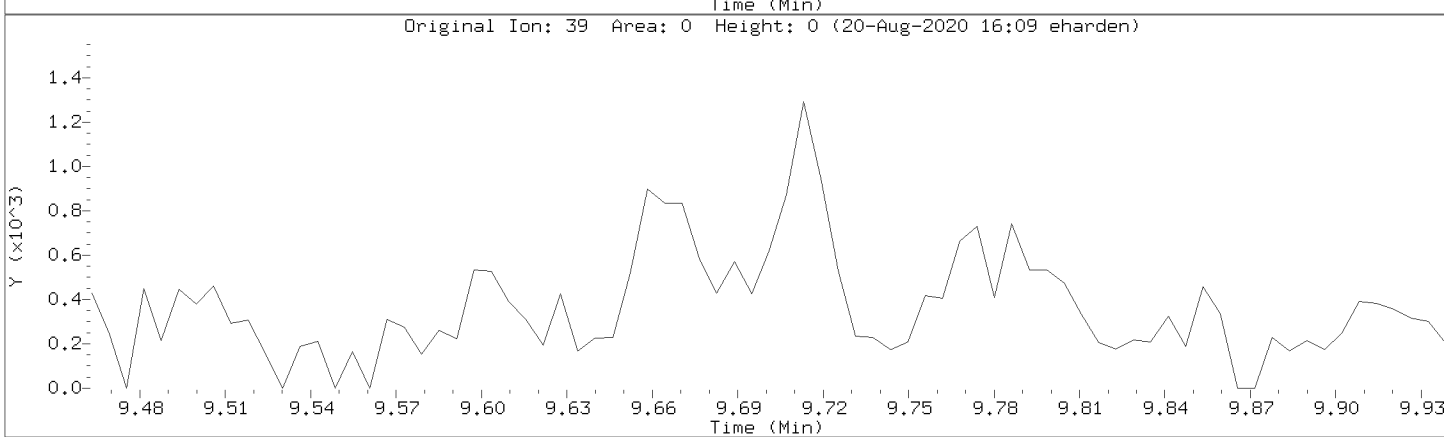
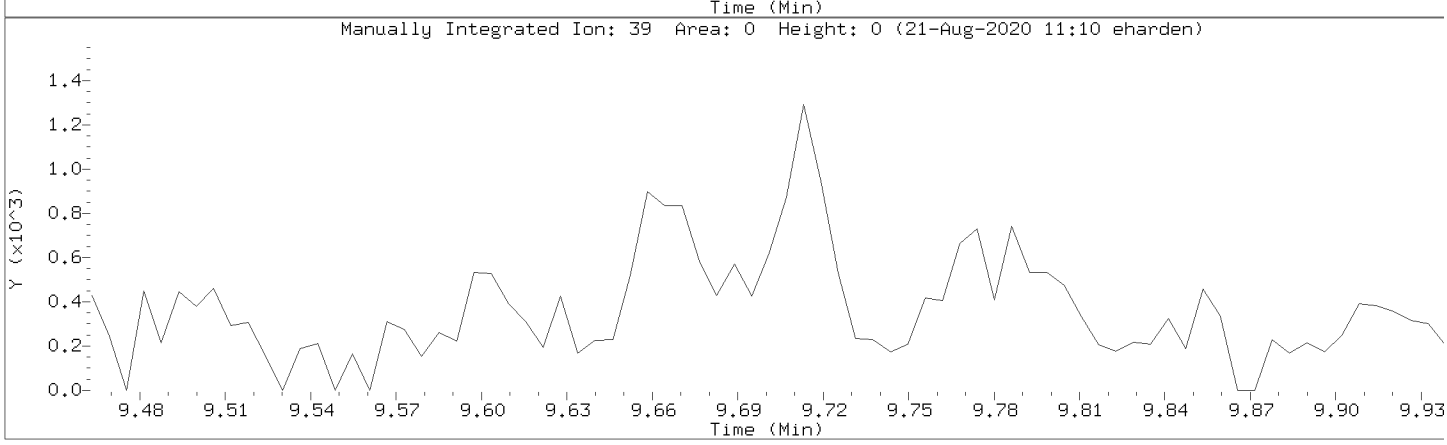
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: trans-1,3-Dichloropropene Review Code: NI
CAS Number: 10061-02-6









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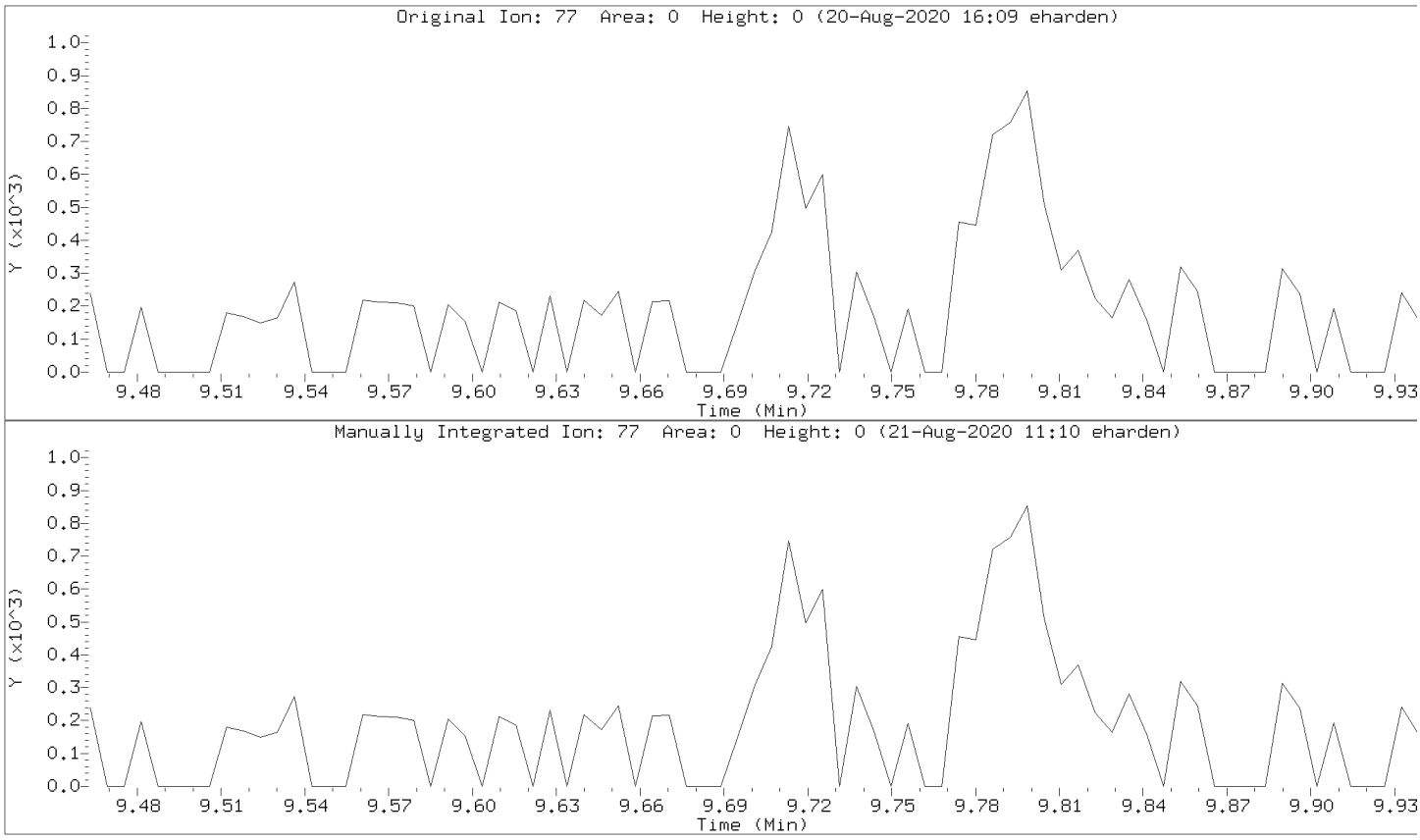
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3



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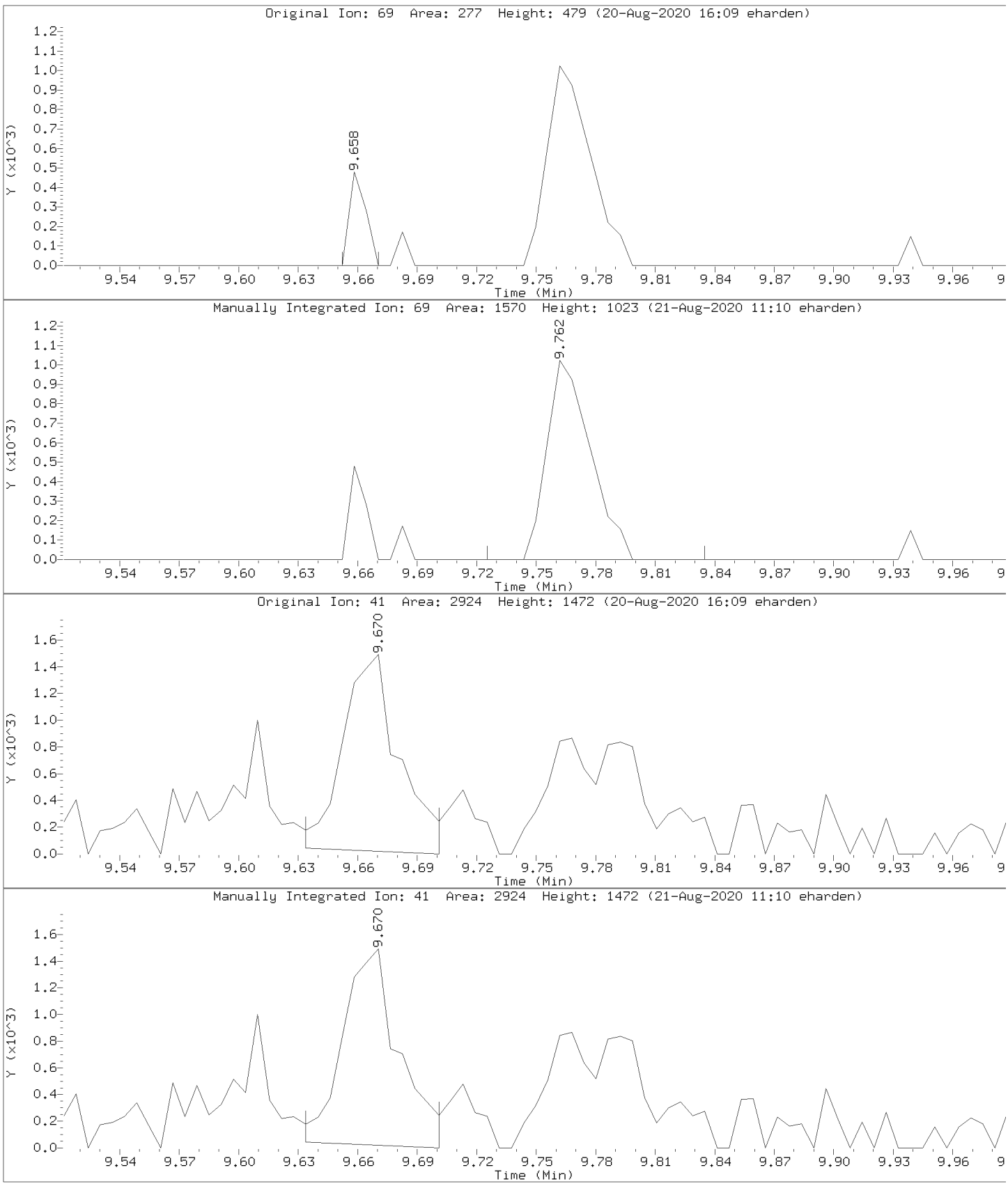
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Ethyl methacrylate Review Code: WP
CAS Number: 97-63-2



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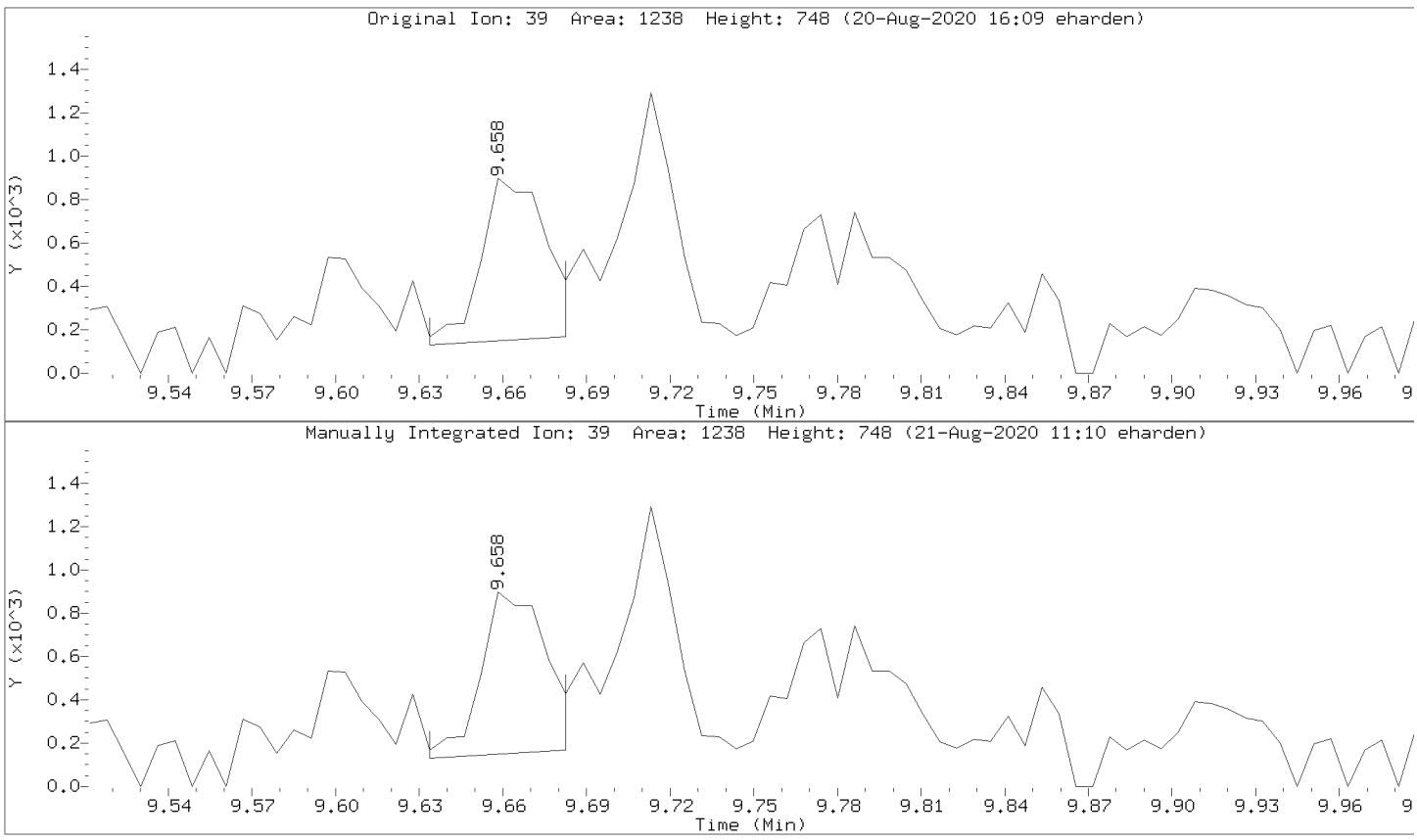

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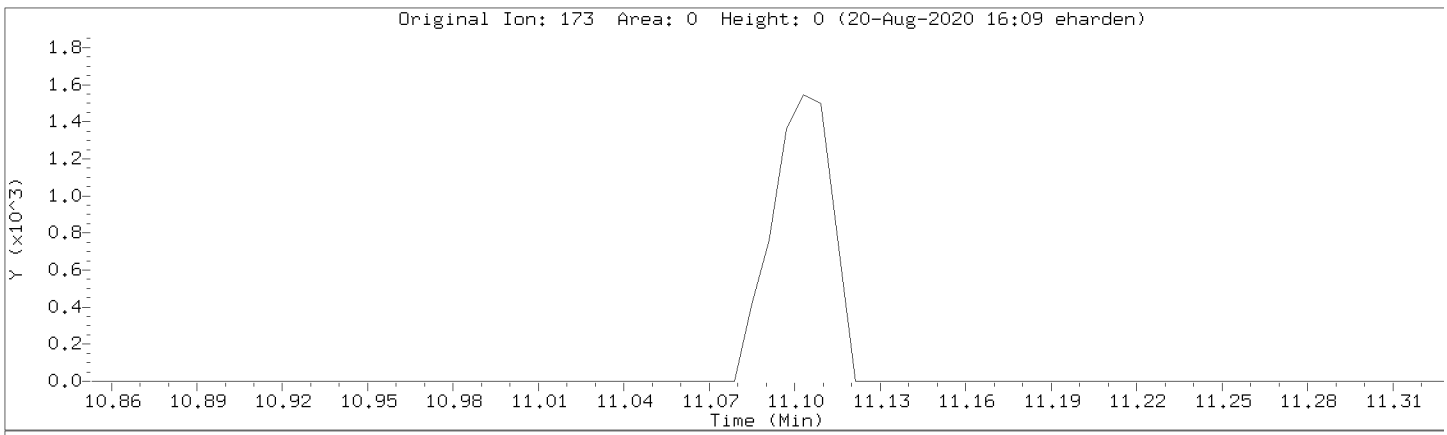
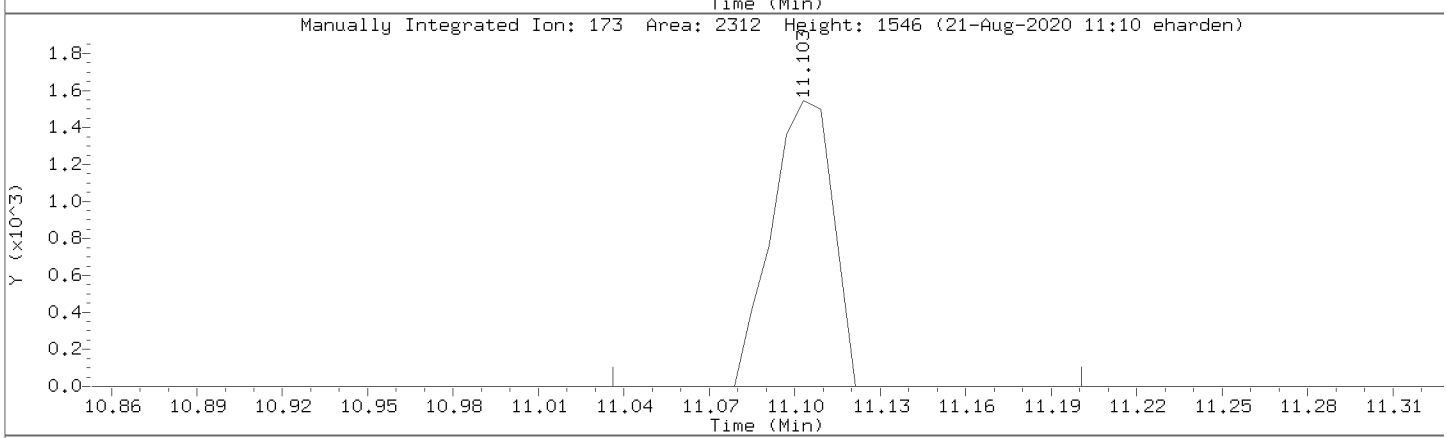
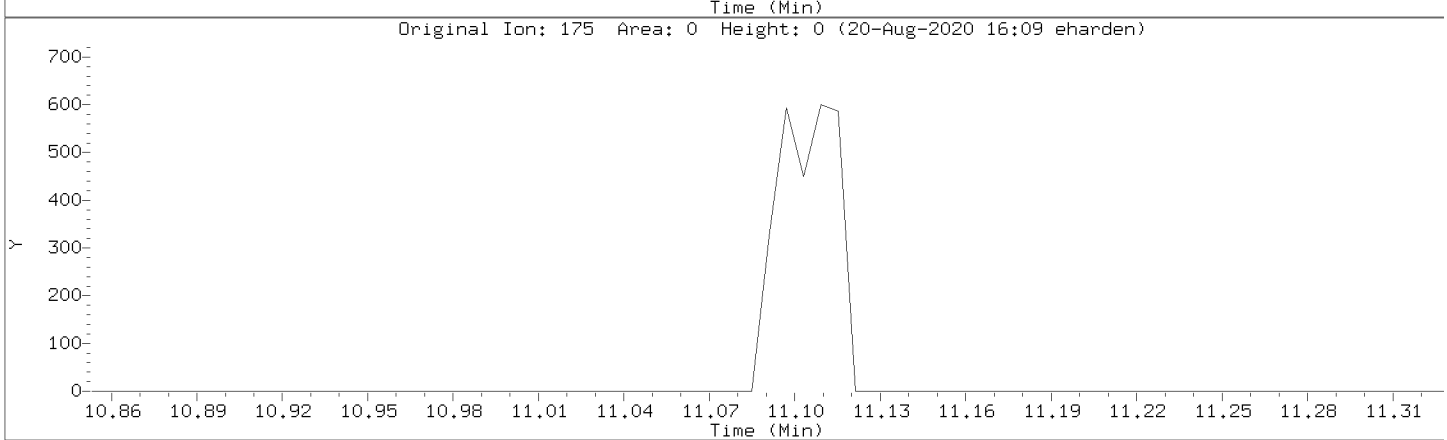
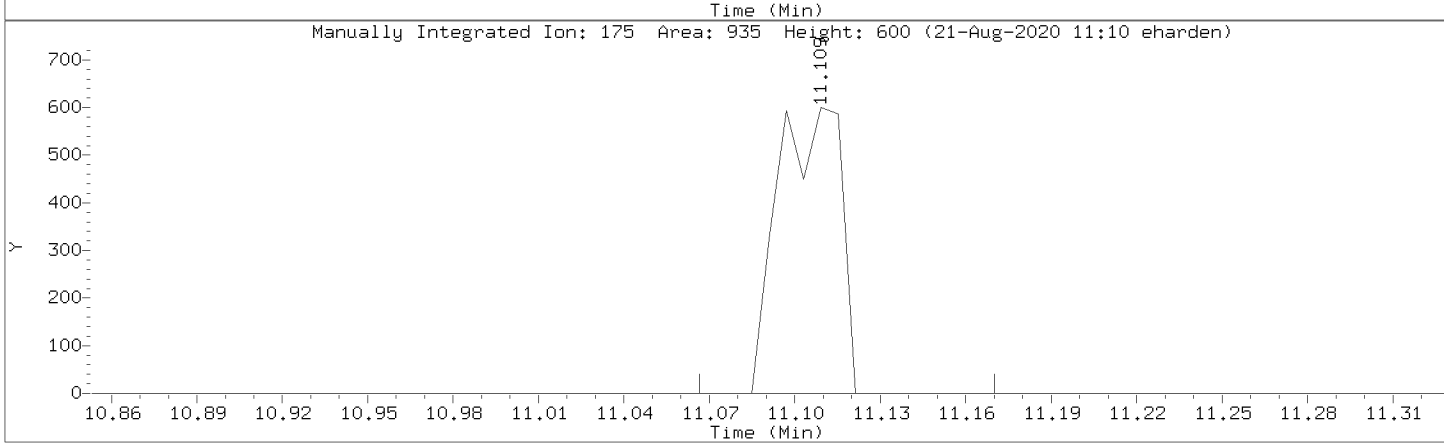
Lab Sample ID: CAL3

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2









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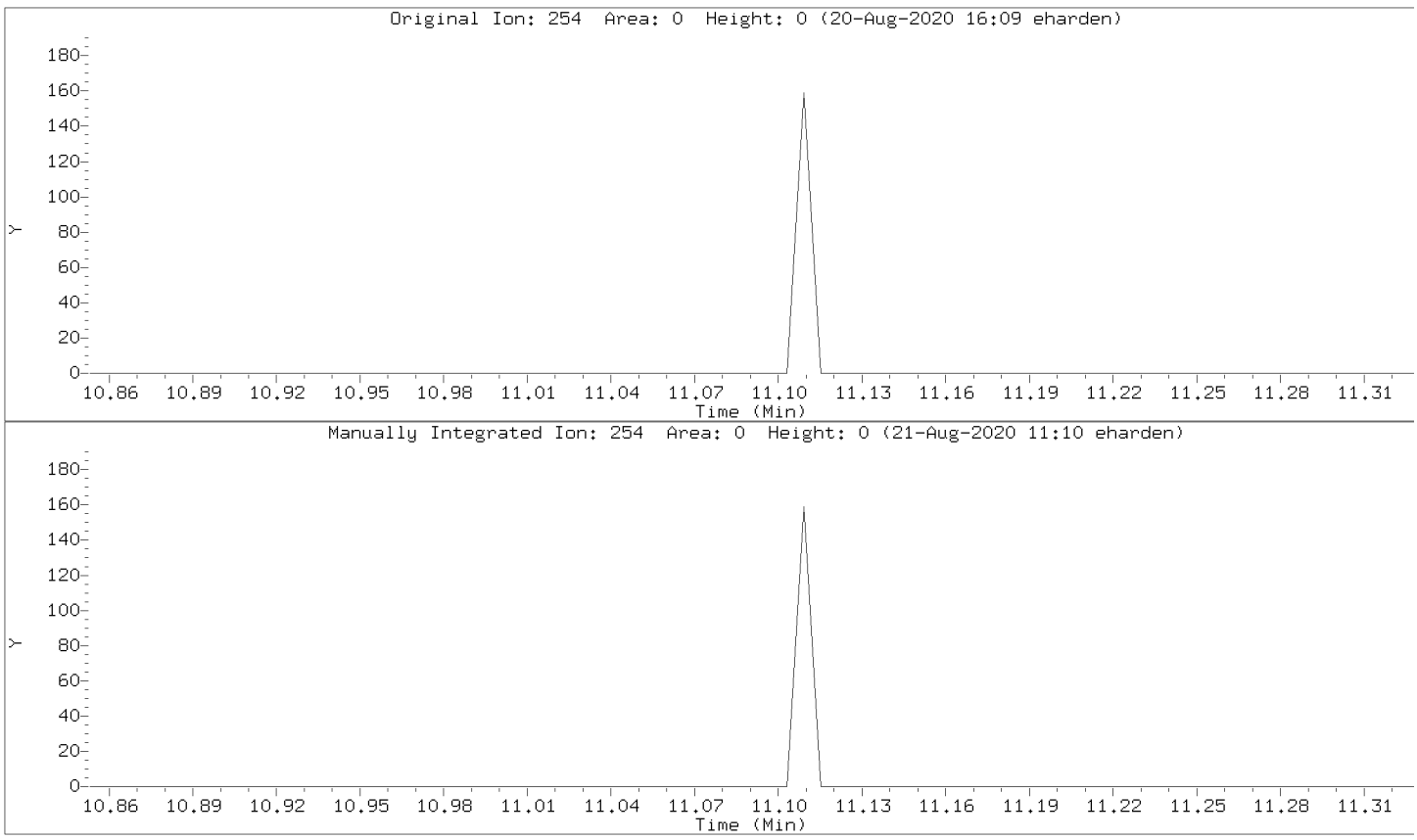

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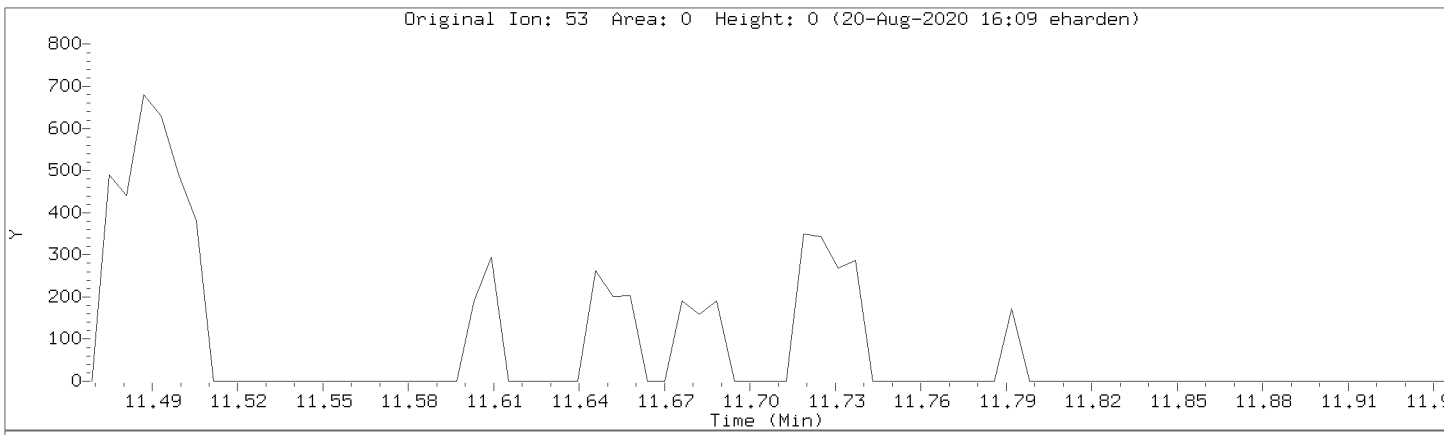
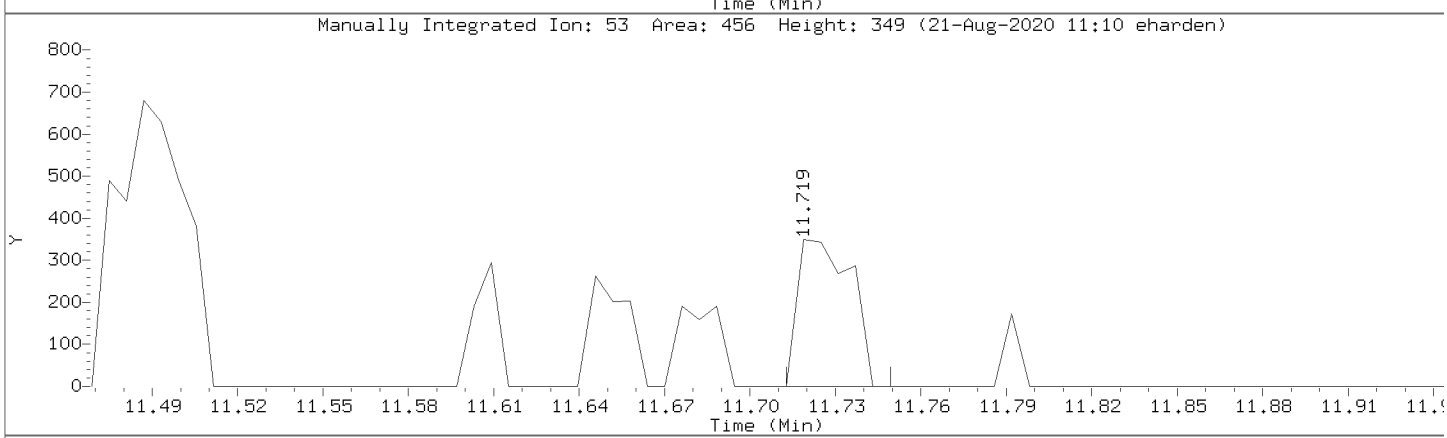
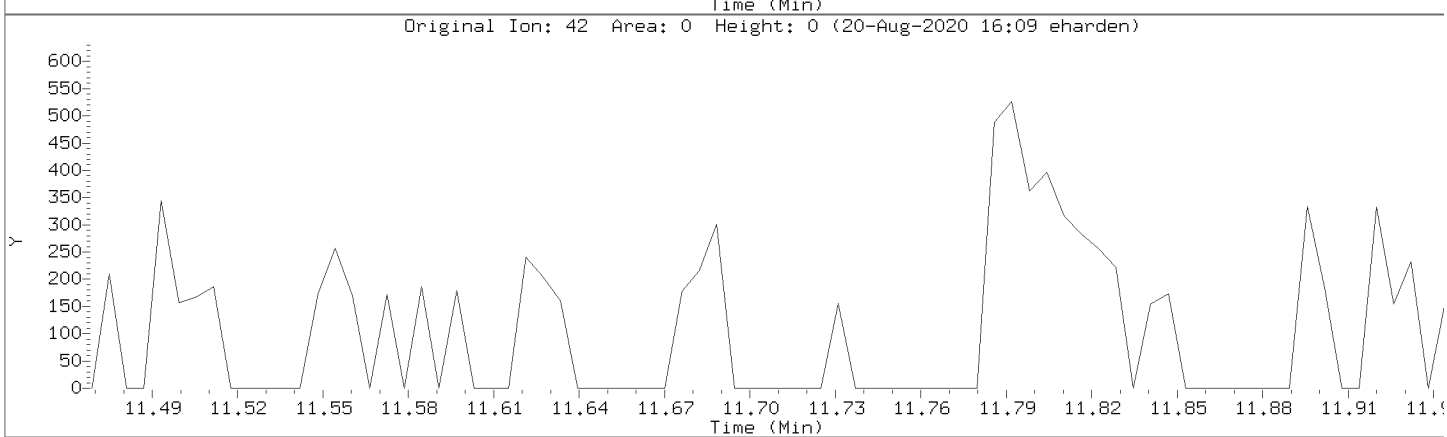
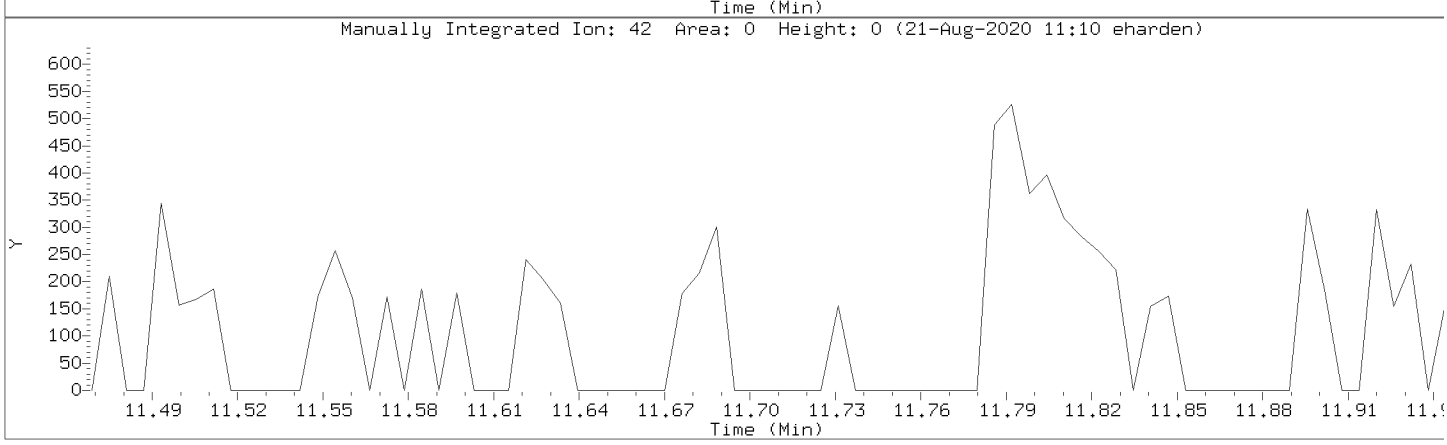
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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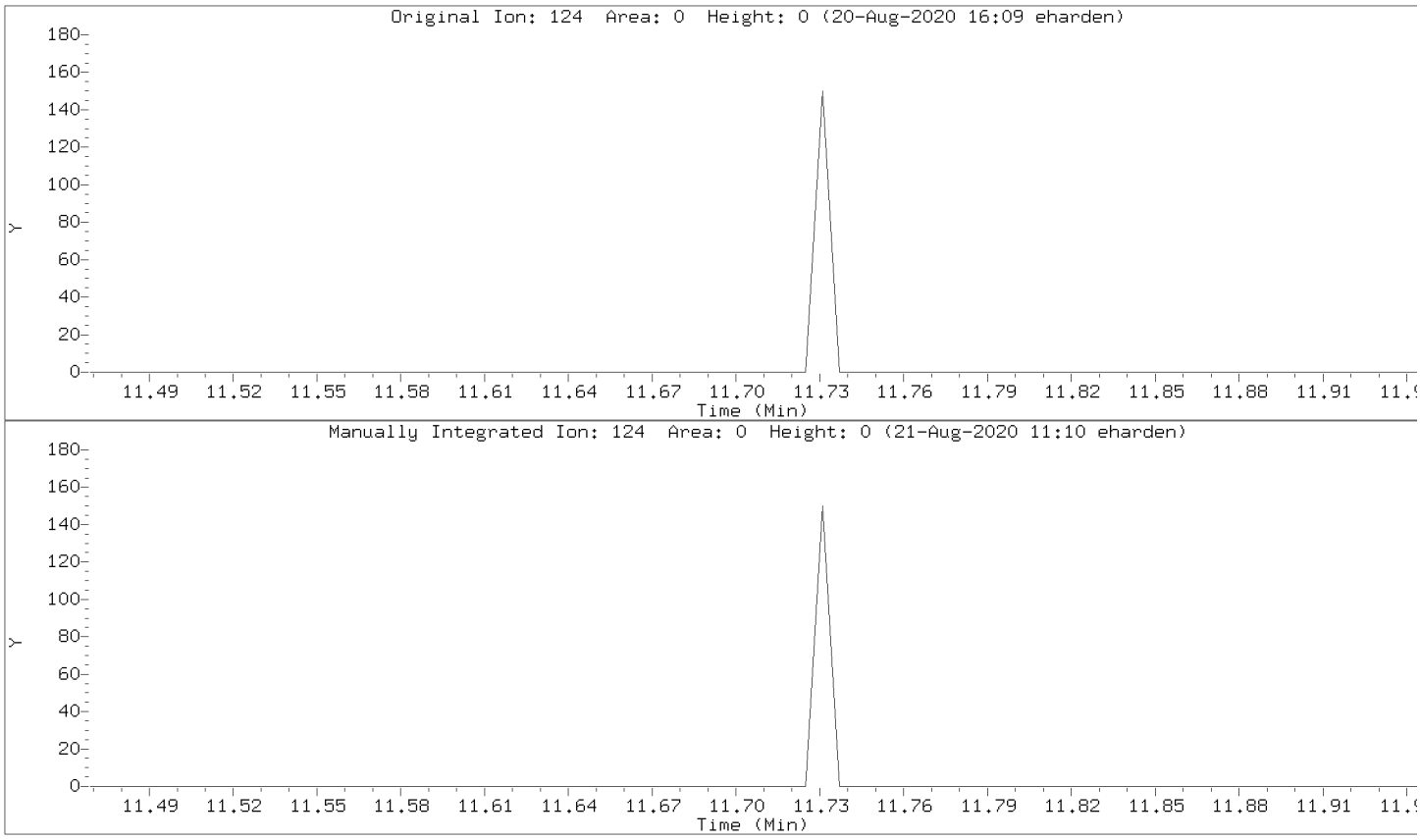
Lab Sample ID: CAL3



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_06.D
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Inj Date : 20-AUG-2020 12:05
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal4,27240:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 12:05 Cal File: 082020_06.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.226	(0.408)	5284	2.00000	2.00	
2 Chloromethane	50	3.537	3.543	(0.450)	8846	2.00000	2.07	
3 Vinyl chloride	62	3.690	3.702	(0.469)	5370	2.00000	2.06	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	4686	2.00000	2.01	
5 Bromomethane	94	4.196	4.195	(0.534)	10118	2.00000	2.22	
6 Chloroethane	64	4.360	4.360	(0.555)	2737	2.00000	2.94	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	3591	2.00000	2.17	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	1948	2.00000	2.13	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	6532	2.00000	2.22	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	4079	2.00000	2.10	
11 Carbon disulfide	76	5.293	5.293	(0.673)	15221	2.00000	2.33	
12 Iodomethane	142	5.433	5.439	(0.691)	1612	2.00000	5.60(M)	NI
13 Acrolein	56	5.671	5.659	(0.722)	1479	4.00000	4.86	
14 Allyl chloride	76	5.787	5.787	(0.736)	2084	2.00000	2.30	
15 Methylene Chloride	49	5.902	5.902	(0.751)	8758	2.00000	2.50(M)	NI
16 Acetone	43	5.976	5.976	(0.760)	9840	4.00000	4.07	
17 Methyl acetate	43	6.073	6.067	(0.773)	8873	4.00000	3.62	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	4249	2.00000	2.13	
19 n-Hexane	86	6.128	6.110	(0.780)	343	2.00000	1.63(M)	LT
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	9856	2.00000	2.12	
21 Acetonitrile	41	6.463	6.463	(0.822)	1215	4.00000	6.91(H)	WP
22 Chloroprene	53	6.640	6.640	(0.845)	5232	2.00000	1.85	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	8968	2.00000	2.32	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	3596	4.00000	4.28	
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	6321	2.00000	2.22	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	6905	2.00000	2.35	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	2780	2.00000	2.23	
	29 Cyclohexane	56	7.341	7.335	(0.883)	4834	2.00000	1.88	
	30 Chloroform	83	7.372	7.372	(0.938)	10330	2.00000	2.36(M)	NI
	31 Ethyl acetate	43	7.439	7.433	(0.946)	10734	4.00000	4.35	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	6350	2.00000	2.11	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	4093	4.00000	5.58	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	138125	50.0000	54.6	
	35 1,1,1-Trichloroethane	97	7.573	7.567	(0.911)	7971	2.00000	2.23	
	36 2-Butanone (MEK)	43	7.634	7.628	(0.971)	7051	4.00000	3.74(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	4937	2.00000	1.99(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	219667	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	17998	2.00000	2.25	
	40 Propionitrile	54	7.896	7.902	(1.005)	1674	4.00000	4.47	
	41 Methacrylonitrile	41	7.908	7.902	(1.006)	8204	4.00000	4.31	
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25790	50.0000	56.7	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	8740	2.00000	2.48	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	8630	2.00000	2.06	
	46 Trichloroethene	130	8.323	8.317	(1.001)	4932	2.00000	2.25	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	313187	50.0000		
	48 Methylcyclohexane	98	8.329	8.317	(1.001)	1819	2.00000	1.75	
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.670	8.670	(1.043)	3983	2.00000	2.14	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	4922	2.00000	2.15	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	7260	2.00000	2.21	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	1992	2.00000	1.72(H)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	9.152	9.146	(1.100)	3154	4.00000	3.14	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	5882	2.00000	1.84	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	334441	50.0000	49.6	
	58 Toluene	91	9.414	9.414	(1.132)	16357	2.00000	2.09	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	1870	2.00000	2.21(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	5882	2.00000	1.81	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	3682	2.00000	1.93	
	63 Ethyl methacrylate	69	9.762	9.761	(1.174)	3660	2.00000	1.82(H)	
	64 1,1,2-Trichloroethane	83	9.841	9.847	(1.183)	4739	2.00000	2.39	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	5598	2.00000	2.12	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	6725	2.00000	2.23	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	4938	2.00000	2.18	
	68 2-Hexanone	43	10.280	10.280	(1.236)	8262	4.00000	3.12	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	12871	2.00000	1.77	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	277286	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	12050	2.00000	2.25	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	5405	2.00000	2.39	
	73 m&p-Xylene	91	10.652	10.651	(1.009)	19281	4.00000	3.56	
	74 o-Xylene	106	10.993	10.993	(1.041)	4165	2.00000	1.64	
	75 Styrene	104	11.030	11.029	(1.044)	6689	2.00000	1.58	
	76 Bromoform	173	11.103	11.103	(1.051)	5395	2.00000	2.15(M)	NI

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.225	11.225	(1.063)	7161	2.00000	1.86	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	106130	50.0000	46.6	
	79 cis-1,4-Dichloro-2-butene	53	11.493	11.487	(1.088)	2265	2.00000	2.49	
	80 n-Propylbenzene	91	11.523	11.523	(1.091)	16464	2.00000	1.85	
	81 Bromobenzene	156	11.578	11.578	(1.096)	5521	2.00000	1.94	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	6338	2.00000	2.14	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	8731	2.00000	1.66	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	3046	2.00000	1.58	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	3382	2.00000	1.79	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	9830	2.00000	1.53	
	87 1,2,3-Trichloropropane	75	11.725	11.724	(1.110)	6678	2.00000	2.19	
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	1815	2.00000	2.54	
	89 Cyclohexanone	98	Compound Not Detected.						(D)
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	7956	2.00000	1.54	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	7998	2.00000	1.51	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	10675	2.00000	1.70	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	7956	2.00000	1.54	
	94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	8844	2.00000	2.11	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	158950	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	10039	2.00000	2.16	
	97 n-Butylbenzene	91	12.487	12.486	(1.012)	9280	2.00000	1.68	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	10161	2.00000	2.22	
	99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	1371	2.00000	2.64	
	100 Hexachloro-1,3-butadiene	225	13.816	13.822	(1.120)	2915	2.00000	2.06	
	101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	5591	2.00000	1.85	
	102 Naphthalene	128	14.194	14.193	(1.150)	8687	2.00000	1.68	
	103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	5329	2.00000	1.83	

QC Flag Legend

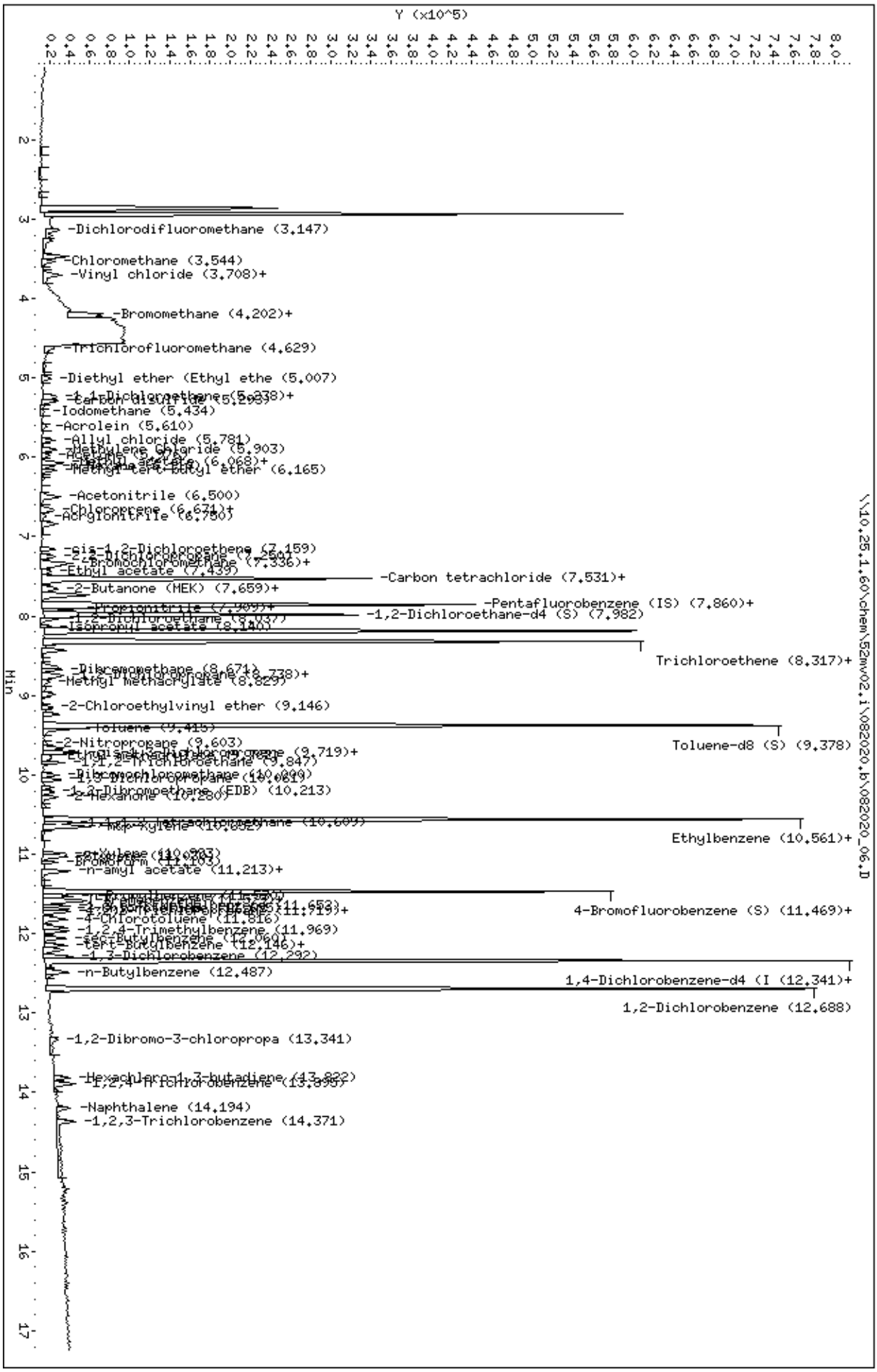
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
NI: Indicates that the peak was not integrated at all by the computer software.
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_06.D
Date : 20-AUG-2020 12:05
Client ID: CAL4
Sample Info: CAL4,27240:1
Purge Volume: 5.0
Column phase: RTX-VMS

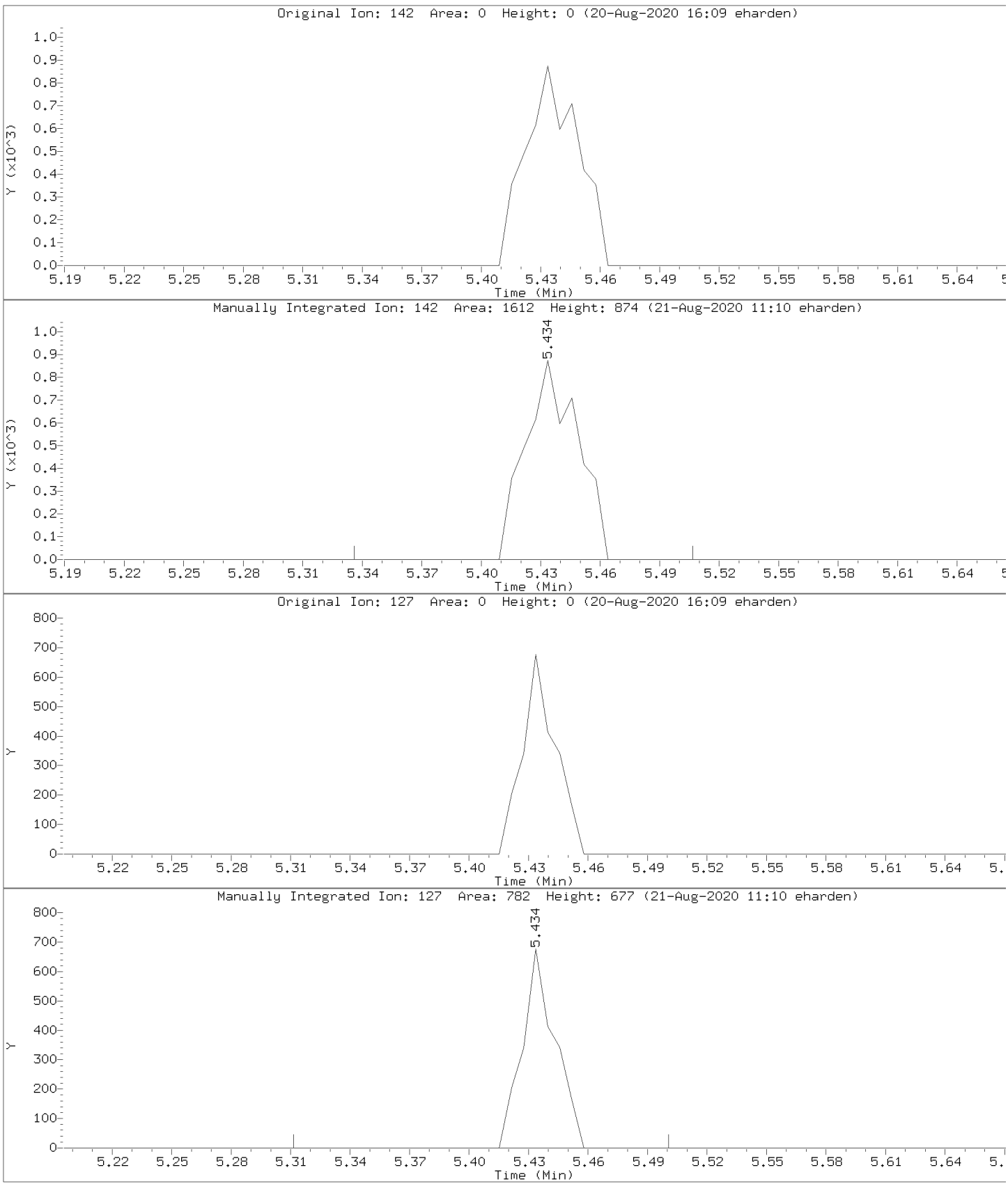
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Page 4

Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_06.D
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4



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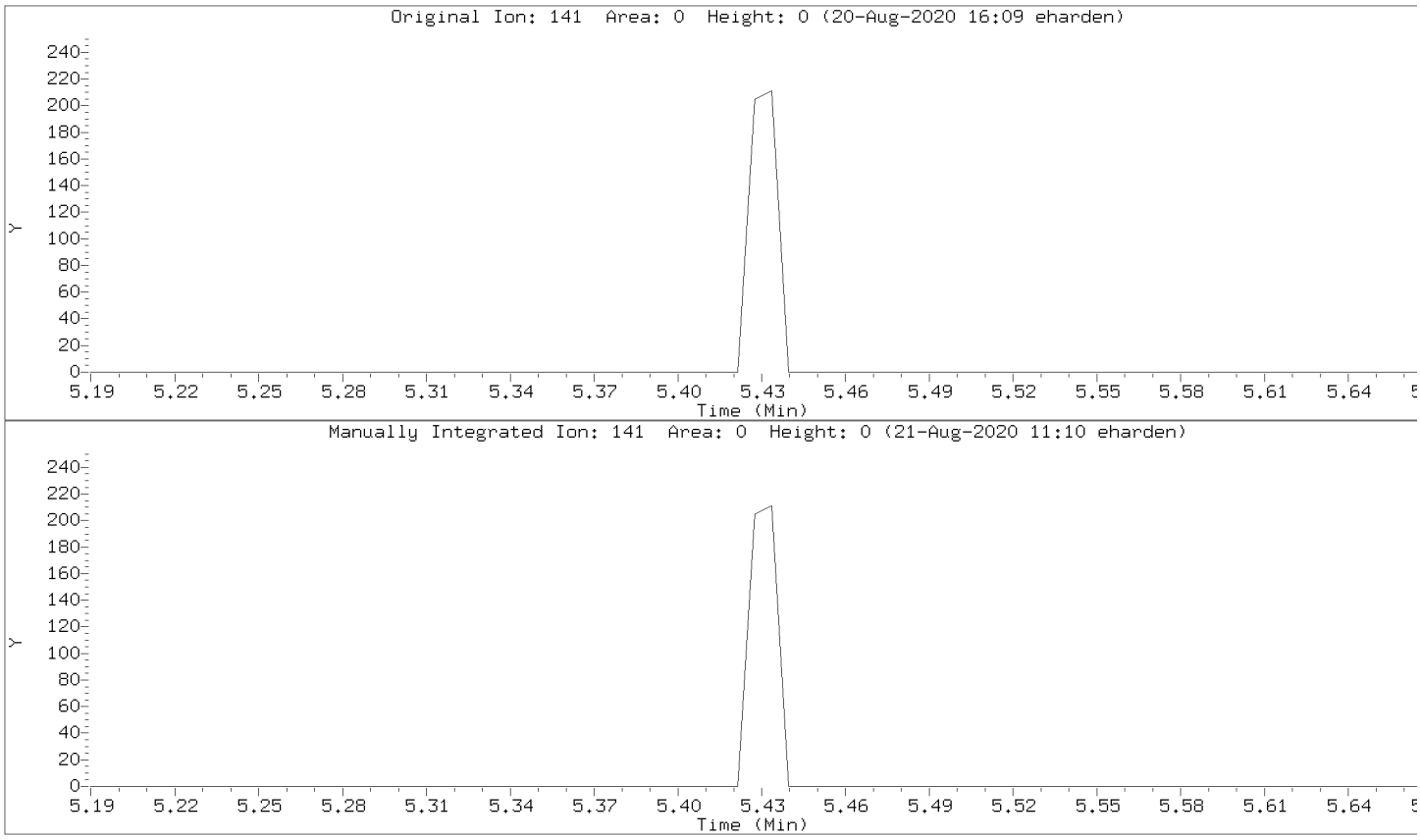
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4



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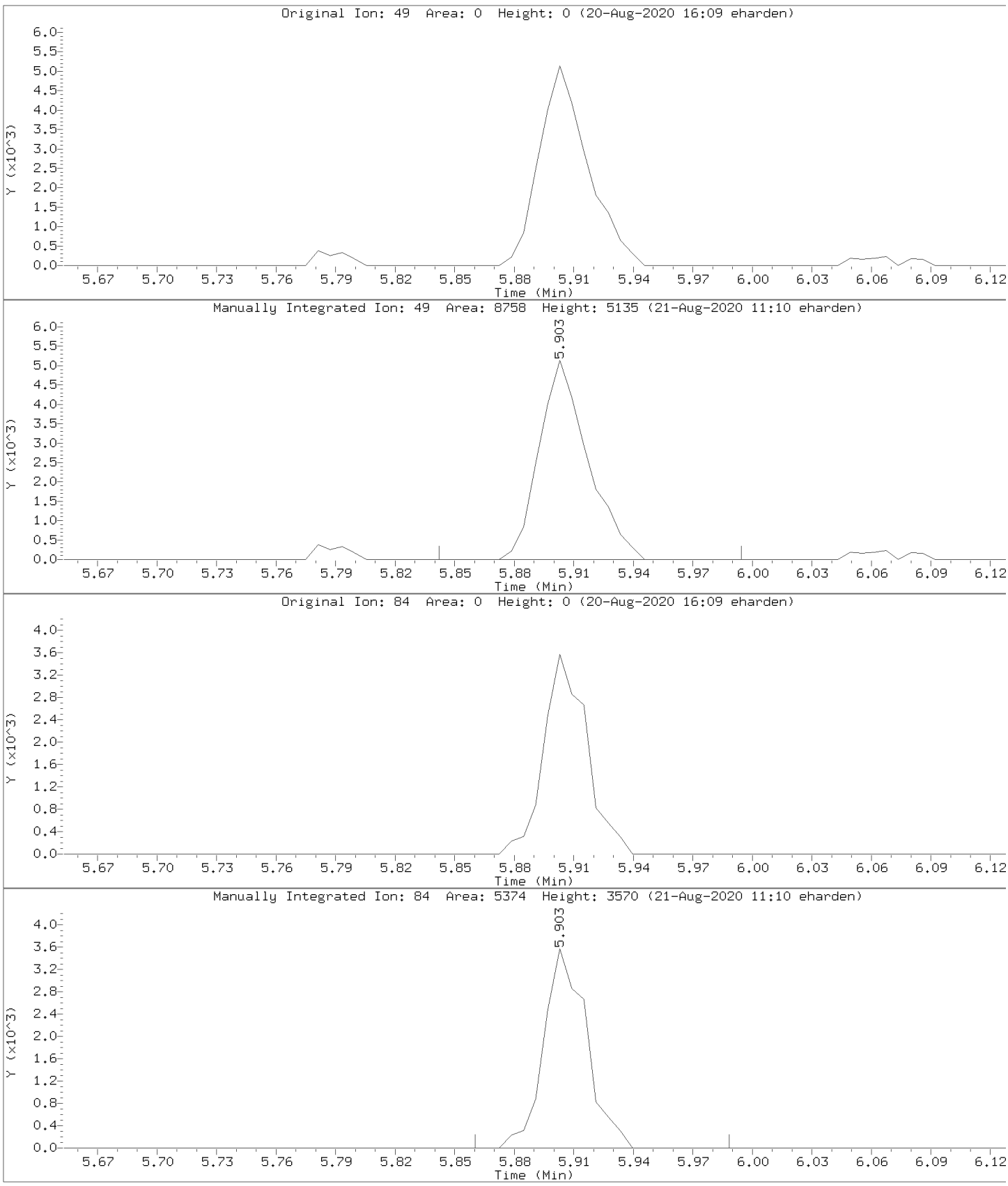
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2



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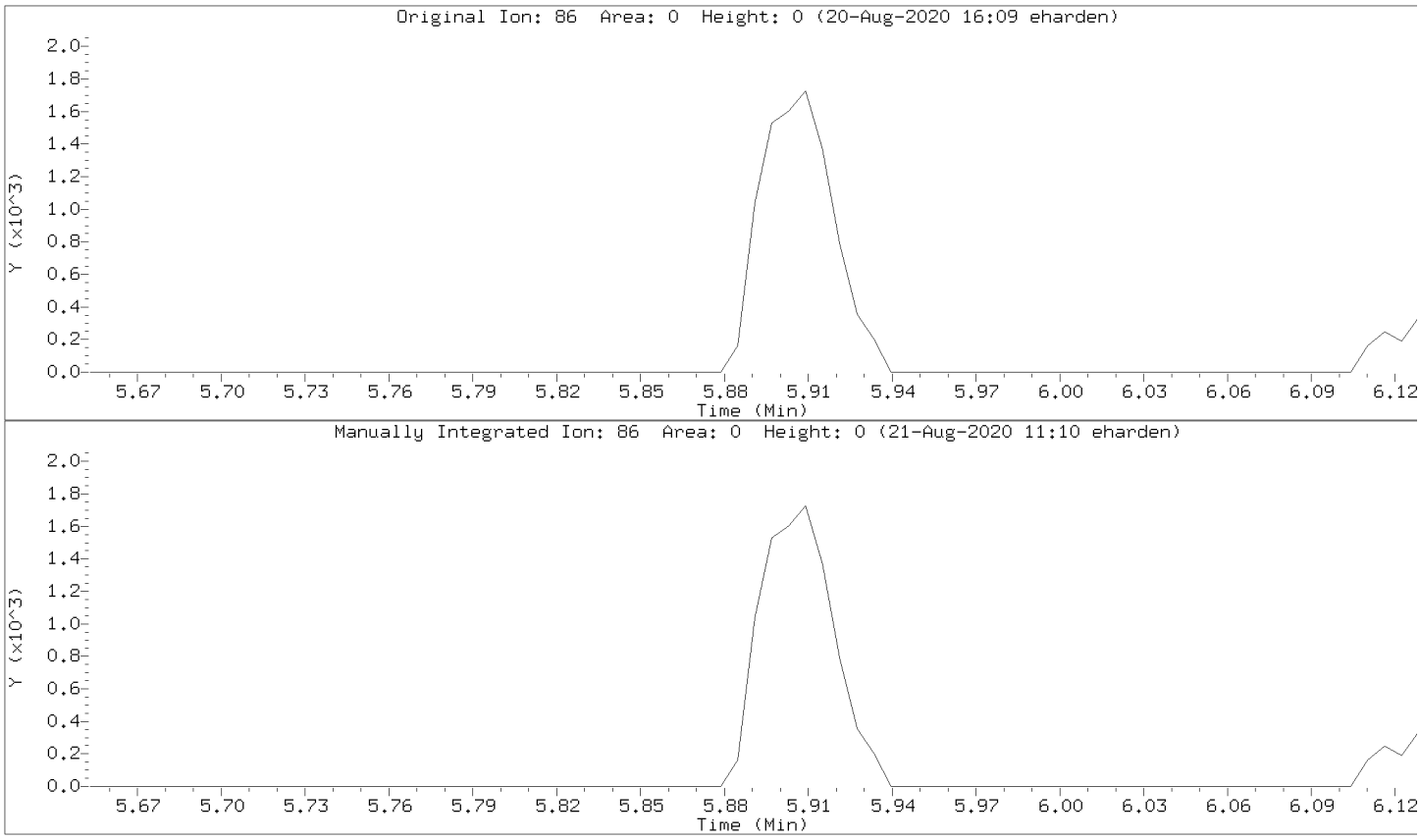
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4



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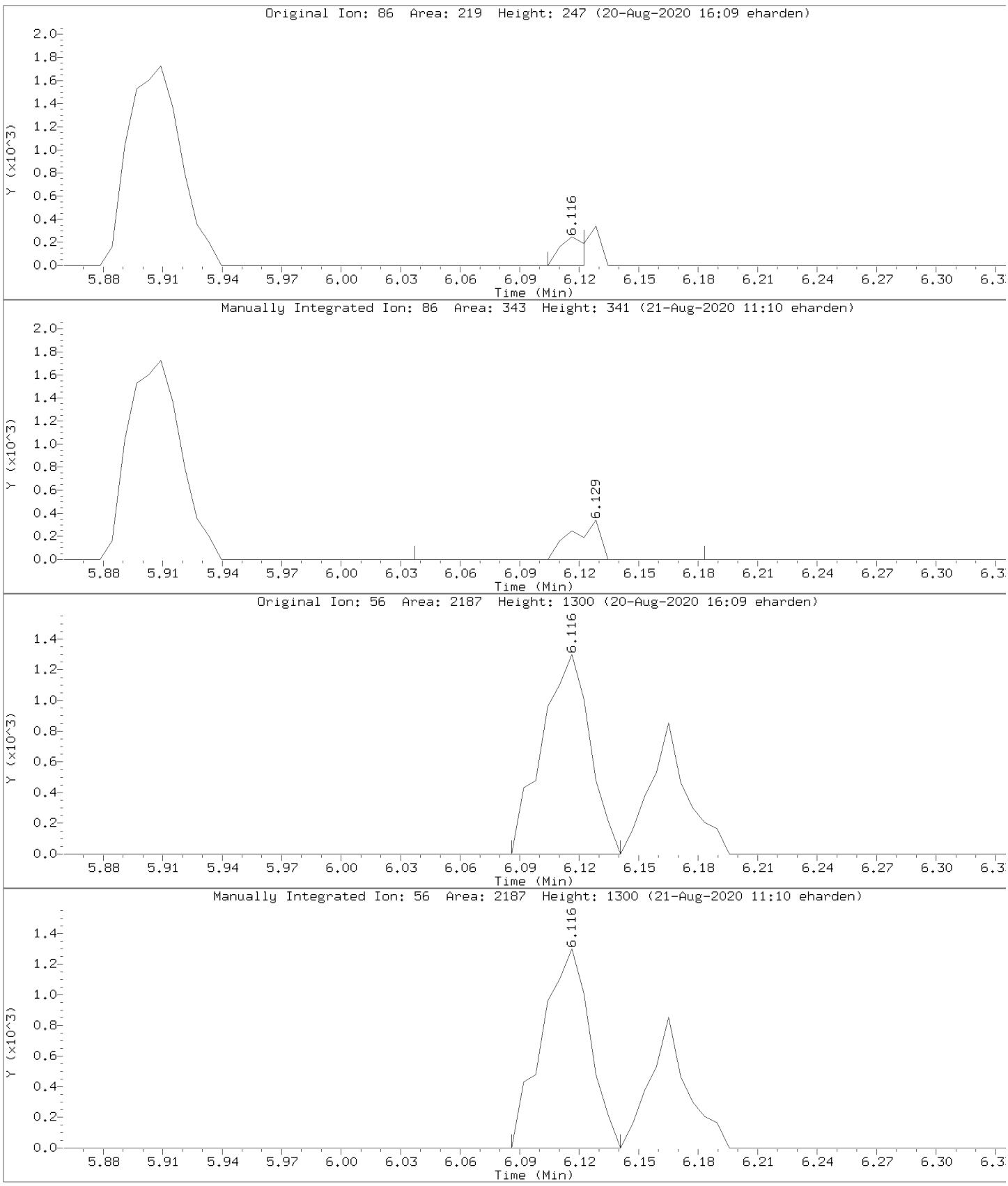
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: n-Hexane Review Code: LT
CAS Number: 110-54-03



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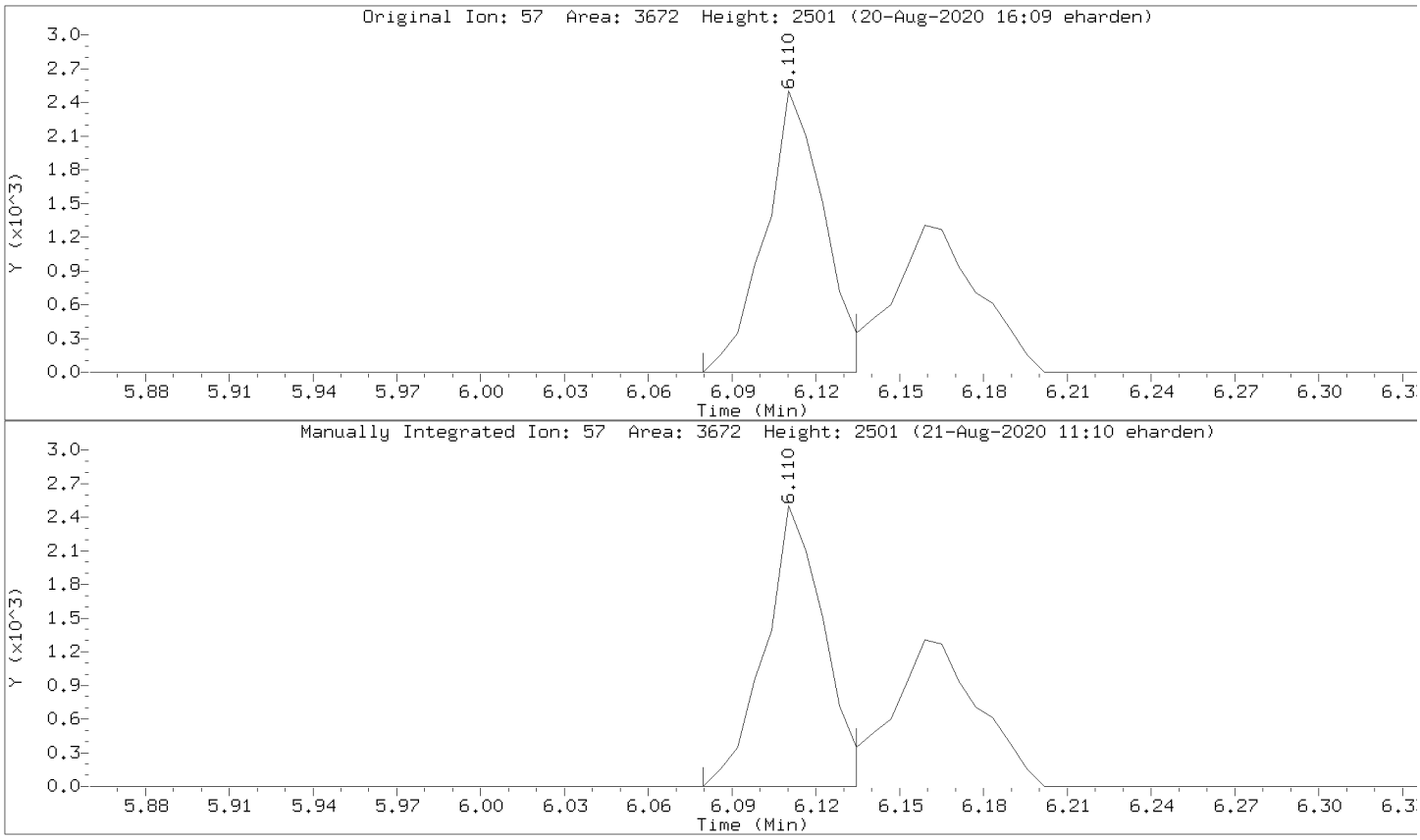
Lab Sample ID: CAL4



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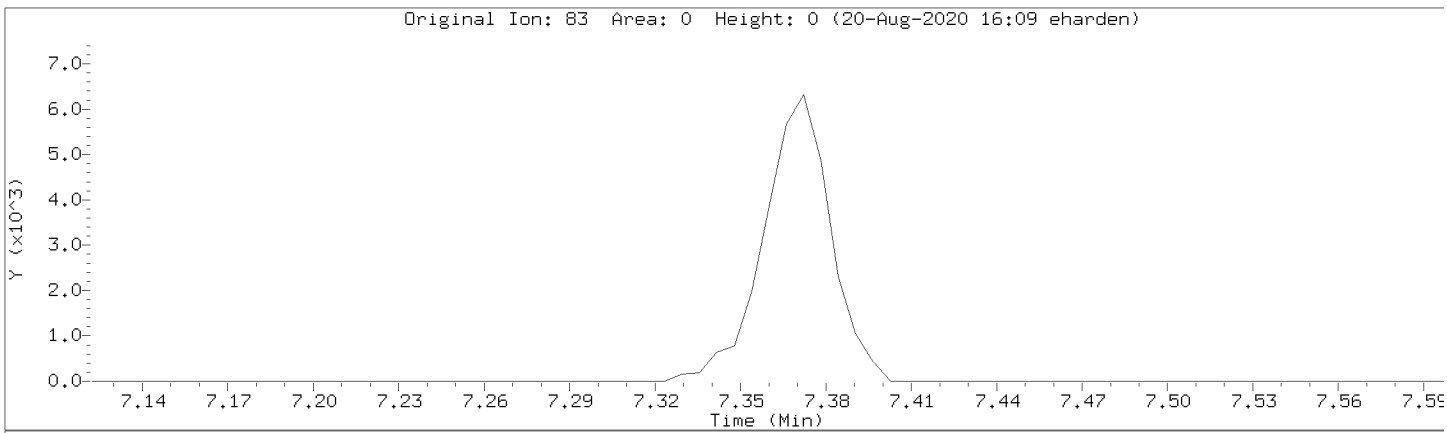
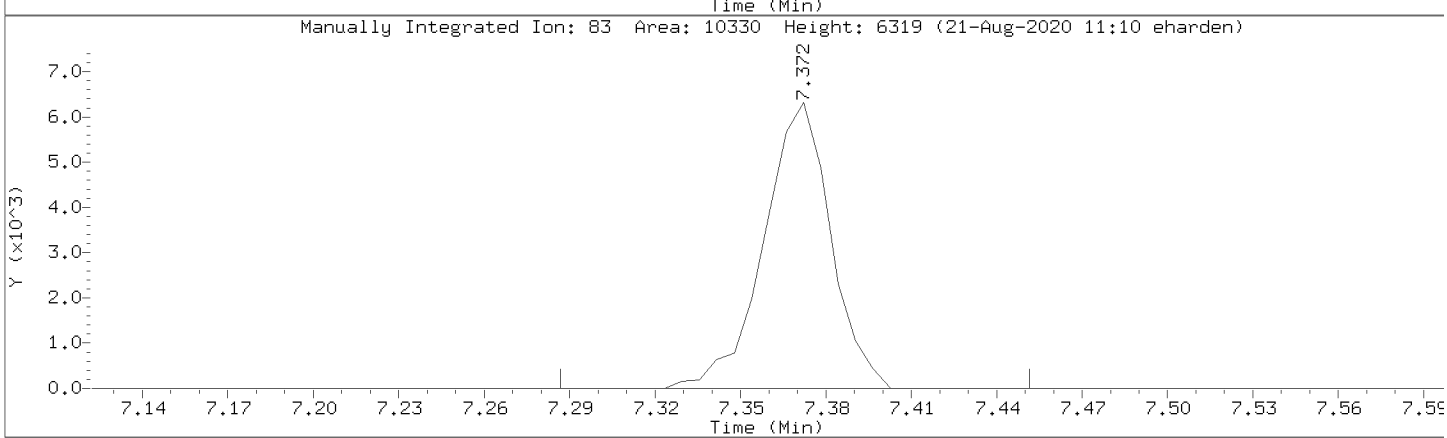
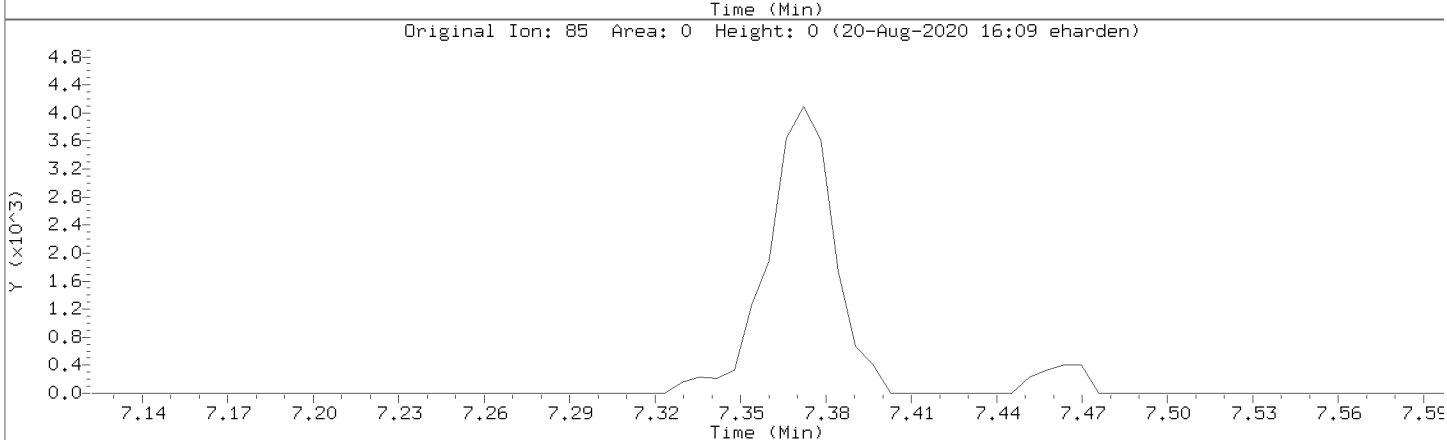
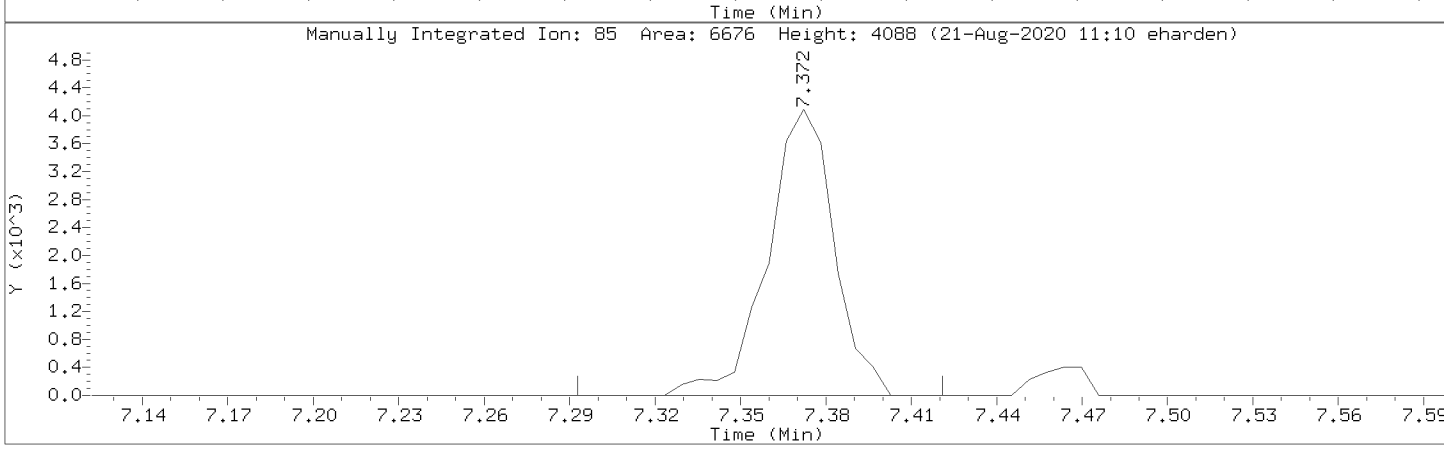
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3









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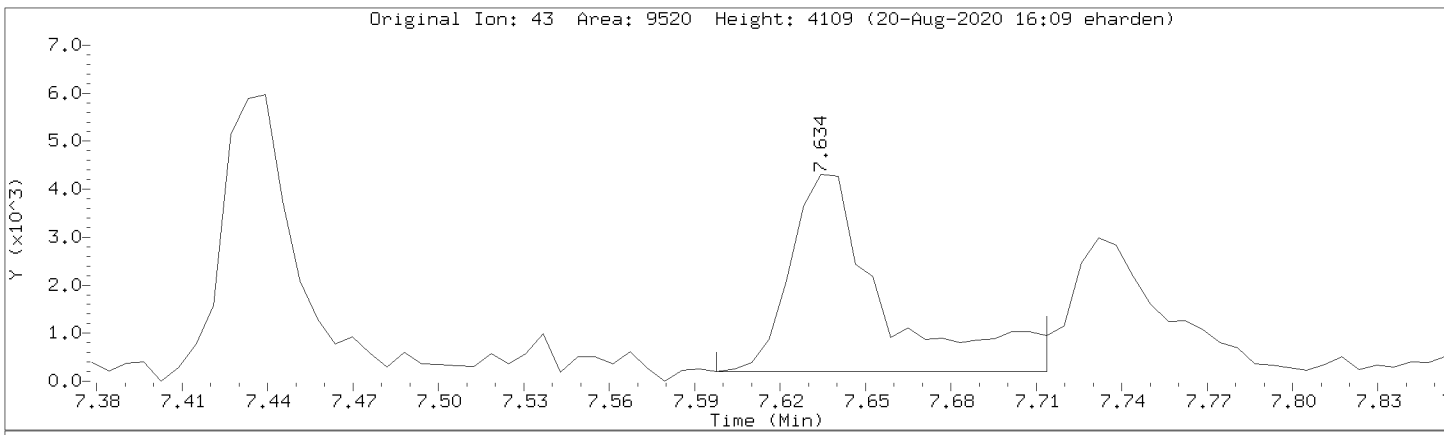
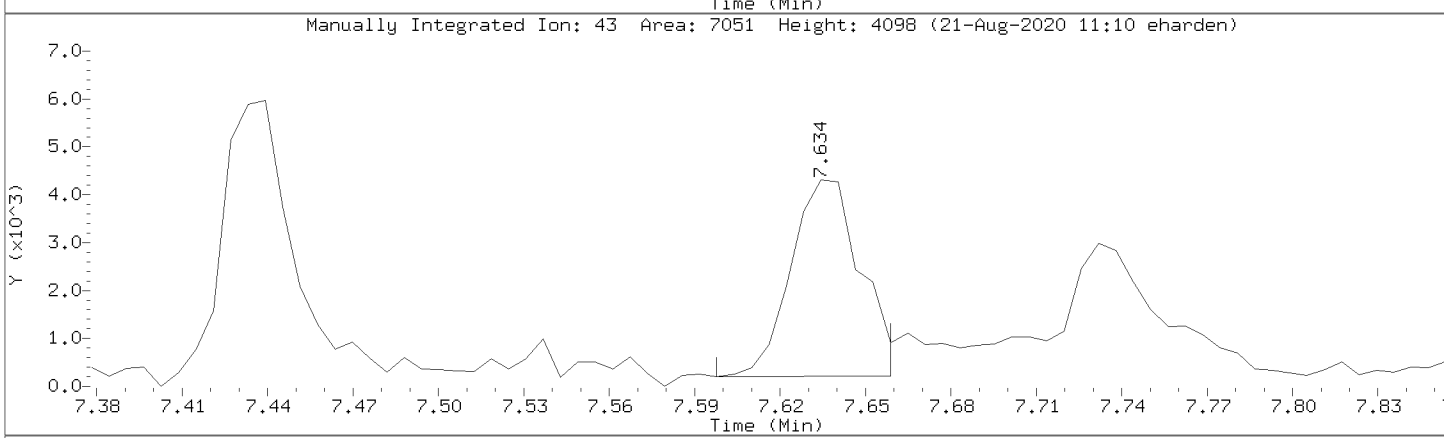
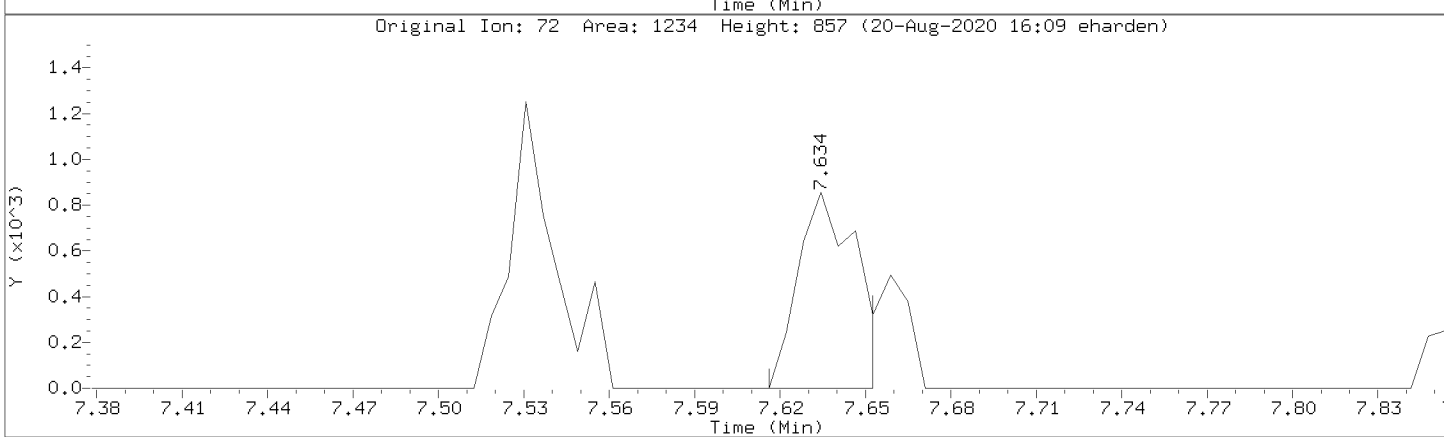
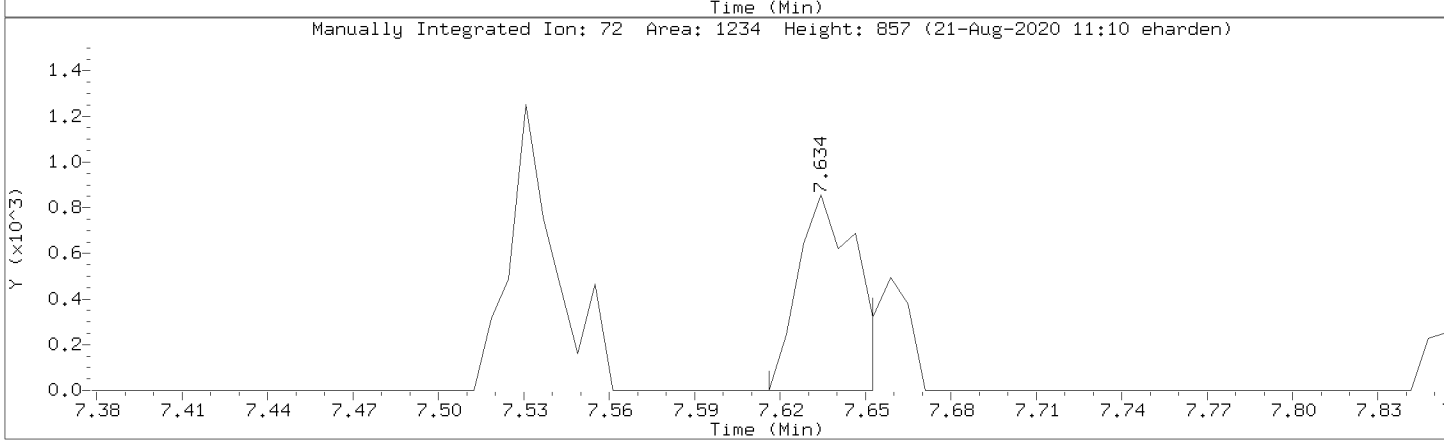
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3









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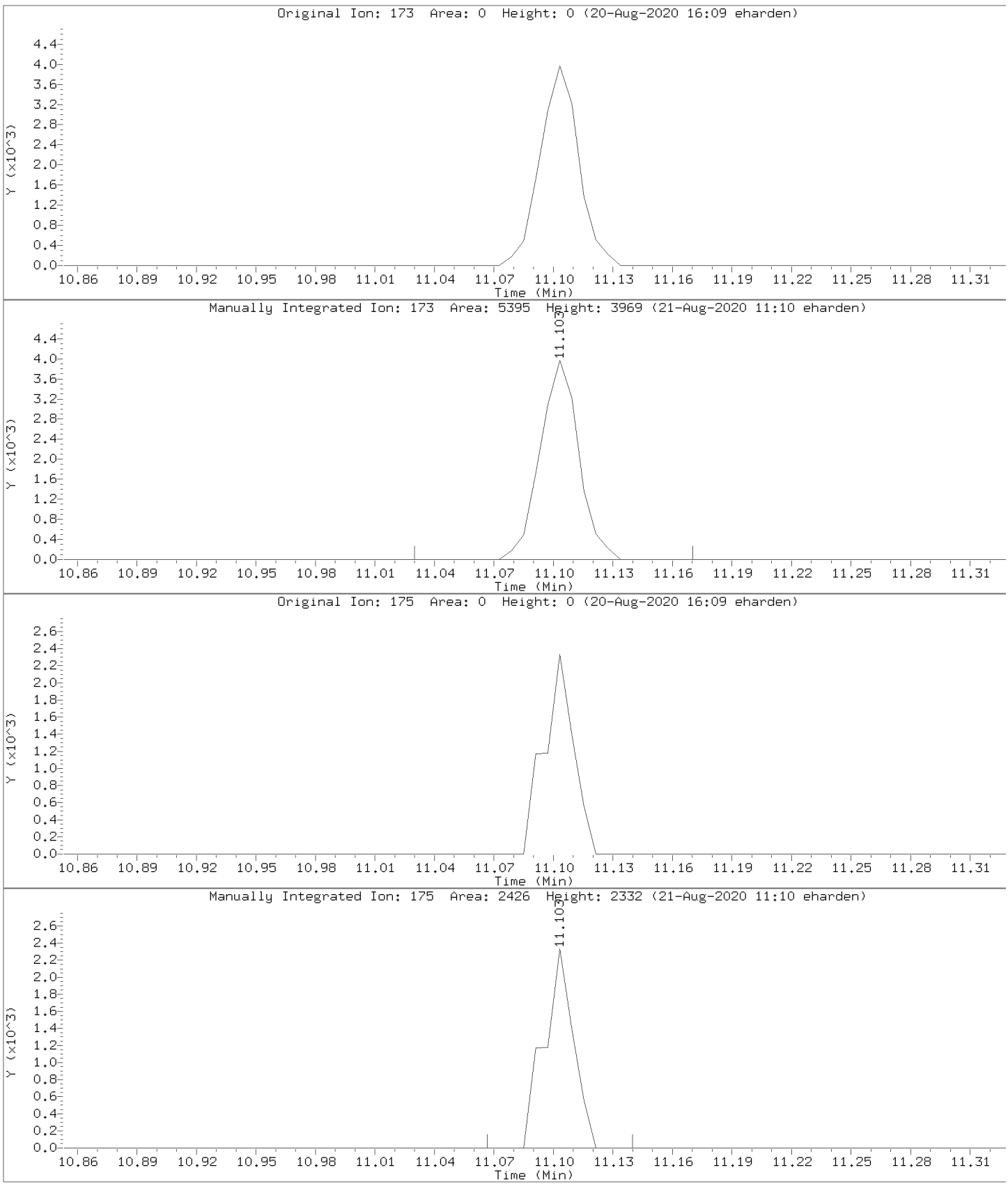
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2



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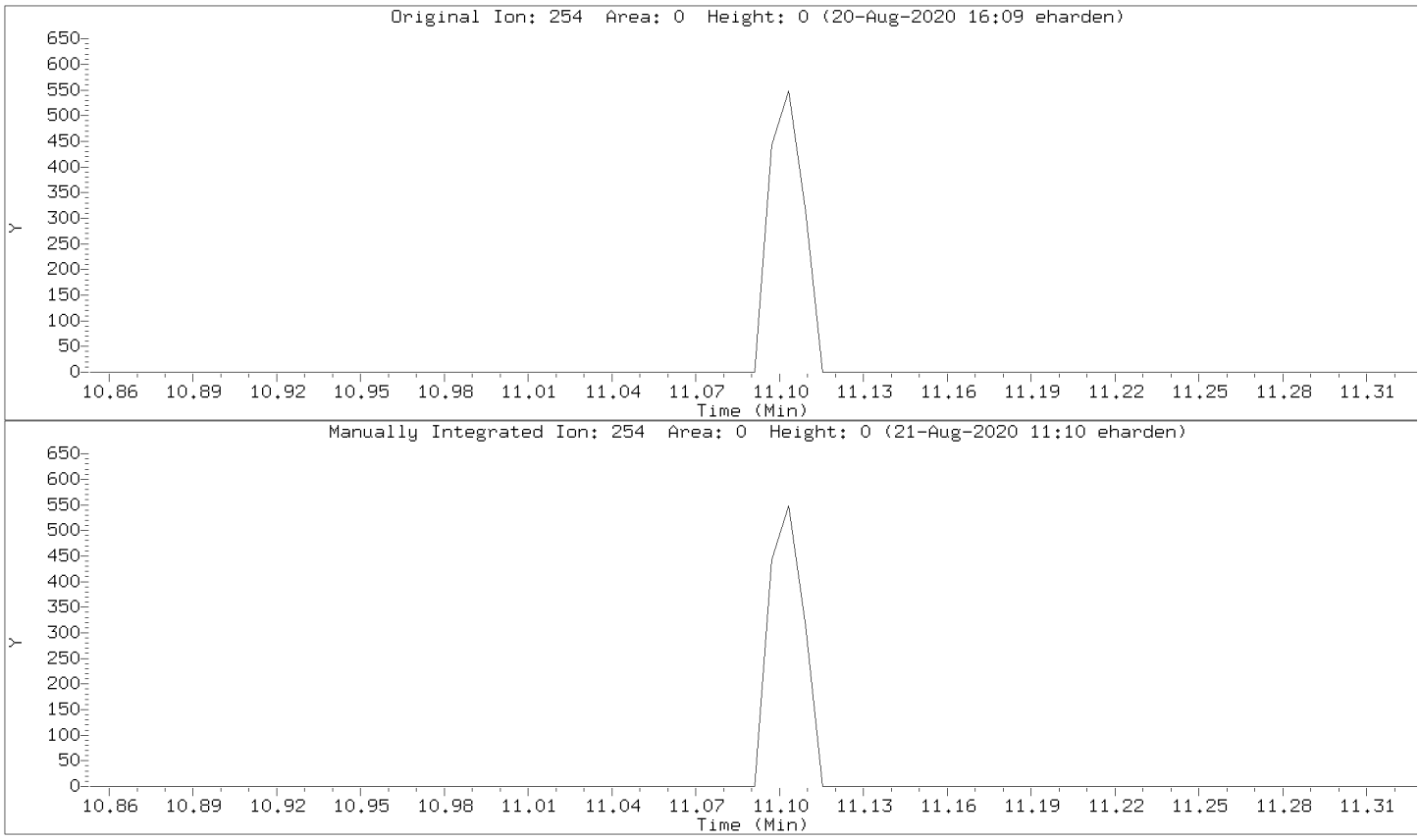
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_07.D
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 20-AUG-2020 12:30
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal5,27241:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 12:30 Cal File: 082020_07.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.226	(0.408)	14553	5.00000	6.57(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	19435	5.00000	5.07	
3 Vinyl chloride	62	3.702	3.702	(0.471)	14015	5.00000	5.05	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	11700	5.00000	4.71	
5 Bromomethane	94	4.195	4.195	(0.534)	17914	5.00000	5.43	
6 Chloroethane	64	4.366	4.360	(0.556)	4115	5.00000	4.60	
7 Trichlorofluoromethane	101	4.525	4.531	(0.576)	9164	5.00000	5.38	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	5183	5.00000	5.33	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	15697	5.00000	5.00	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	11299	5.00000	5.46	
11 Carbon disulfide	76	5.287	5.293	(0.673)	34632	5.00000	4.99	
12 Iodomethane	142	5.433	5.439	(0.691)	3620	5.00000	2.40(M)	NI
13 Acrolein	56	5.665	5.659	(0.721)	3065	10.0000	9.72	
14 Allyl chloride	76	5.787	5.787	(0.736)	4947	5.00000	5.12	
15 Methylene Chloride	49	5.902	5.902	(0.751)	19166	5.00000	5.00(M)	NI
16 Acetone	43	5.976	5.976	(0.760)	23424	10.0000	11.5	
17 Methyl acetate	43	6.073	6.067	(0.773)	24665	10.0000	9.97	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	9707	5.00000	4.58	
19 n-Hexane	86	6.110	6.110	(0.777)	987	5.00000	4.39	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	22885	5.00000	4.62	
21 Acetonitrile	41	6.457	6.463	(0.822)	1316	10.0000	7.03(H)	
22 Chloroprene	53	6.646	6.640	(0.846)	13100	5.00000	4.35	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	21699	5.00000	5.27	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	9200	10.0000	10.3	
	25 Vinyl acetate	43	6.866	6.860	(0.874)	13650	5.00000	3.35(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	14788	5.00000	4.87	
	27 2,2-Dichloropropane	77	7.256	7.250	(0.923)	16052	5.00000	5.14	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	6858	5.00000	5.17	
	29 Cyclohexane	56	7.335	7.335	(0.882)	11423	5.00000	4.31	
	30 Chloroform	83	7.372	7.372	(0.938)	25117	5.00000	5.39	
	31 Ethyl acetate	43	7.433	7.433	(0.946)	24568	10.0000	9.34	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	16017	5.00000	5.16	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	7403	10.0000	9.47	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	142646	50.0000	53.0	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	18128	5.00000	4.92	
	36 2-Butanone (MEK)	43	7.634	7.628	(0.971)	20760	10.0000	10.3(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	11218	5.00000	4.38(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	233975	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	42206	5.00000	5.11	
	40 Propionitrile	54	7.908	7.902	(1.006)	4081	10.0000	10.2	
	41 Methacrylonitrile	41	7.908	7.902	(1.006)	19063	10.0000	9.40	
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	24458	50.0000	50.5	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	19145	5.00000	5.10	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	20765	5.00000	4.65	
	46 Trichloroethene	130	8.323	8.317	(1.001)	10658	5.00000	4.72	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	323174	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	4857	5.00000	4.53	
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.670	8.670	(1.043)	9900	5.00000	5.14	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	11583	5.00000	4.91	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	16004	5.00000	4.72	
	53 Methyl methacrylate	69	8.829	8.823	(1.062)	4271	5.00000	3.58(H)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	7311	10.0000	7.06	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	14819	5.00000	4.50	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	347863	50.0000	50.0	
	58 Toluene	91	9.414	9.414	(1.132)	39430	5.00000	4.89	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	3643	5.00000	4.18(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	2047	10.0000	8.85(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	14819	5.00000	4.41	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	10094	5.00000	5.08	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	8601	5.00000	4.14(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	9557	5.00000	4.68	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	13805	5.00000	5.01	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	15130	5.00000	4.86	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	11170	5.00000	4.72	
	68 2-Hexanone	43	10.280	10.280	(1.236)	23734	10.0000	8.70	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	32827	5.00000	4.33	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	289782	50.0000		
	71 Chlorobenzene	112	10.572	10.578	(1.001)	26354	5.00000	4.71	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	11764	5.00000	4.98	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	49356	10.0000	8.71	
	74 o-Xylene	106	10.993	10.993	(1.041)	10438	5.00000	3.93	
	75 Styrene	104	11.029	11.029	(1.044)	16739	5.00000	3.77	
	76 Bromoform	173	11.103	11.103	(1.051)	12410	5.00000	4.74(M)	NI

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.224	11.225	(1.063)	15978	5.00000	3.97	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	114113	50.0000	48.0	
	79 cis-1,4-Dichloro-2-butene	53	11.493	11.487	(1.088)	4646	5.00000	4.88	
	80 n-Propylbenzene	91	11.529	11.523	(1.092)	41636	5.00000	4.48	
	81 Bromobenzene	156	11.578	11.578	(1.096)	13586	5.00000	4.58	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	15768	5.00000	5.08	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	23455	5.00000	4.15	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	8976	5.00000	4.46	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	8467	5.00000	4.29	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	24864	5.00000	3.71	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	15868	5.00000	4.99	
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	3621	5.00000	4.85(M)	NI
	89 Cyclohexanone	98	Compound Not Detected.						(D)
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	19573	5.00000	3.52	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	22168	5.00000	3.89	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	26110	5.00000	3.85	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	19573	5.00000	3.52	
	94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	20960	5.00000	4.64	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	171143	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	24168	5.00000	4.83	
	97 n-Butylbenzene	91	12.486	12.486	(1.012)	24705	5.00000	4.14	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	22957	5.00000	4.66	
	99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	2892	5.00000	5.17	
	100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	6852	5.00000	4.49	
	101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	15217	5.00000	4.69	
	102 Naphthalene	128	14.200	14.193	(1.151)	22100	5.00000	3.96	
	103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	13936	5.00000	4.45	

QC Flag Legend

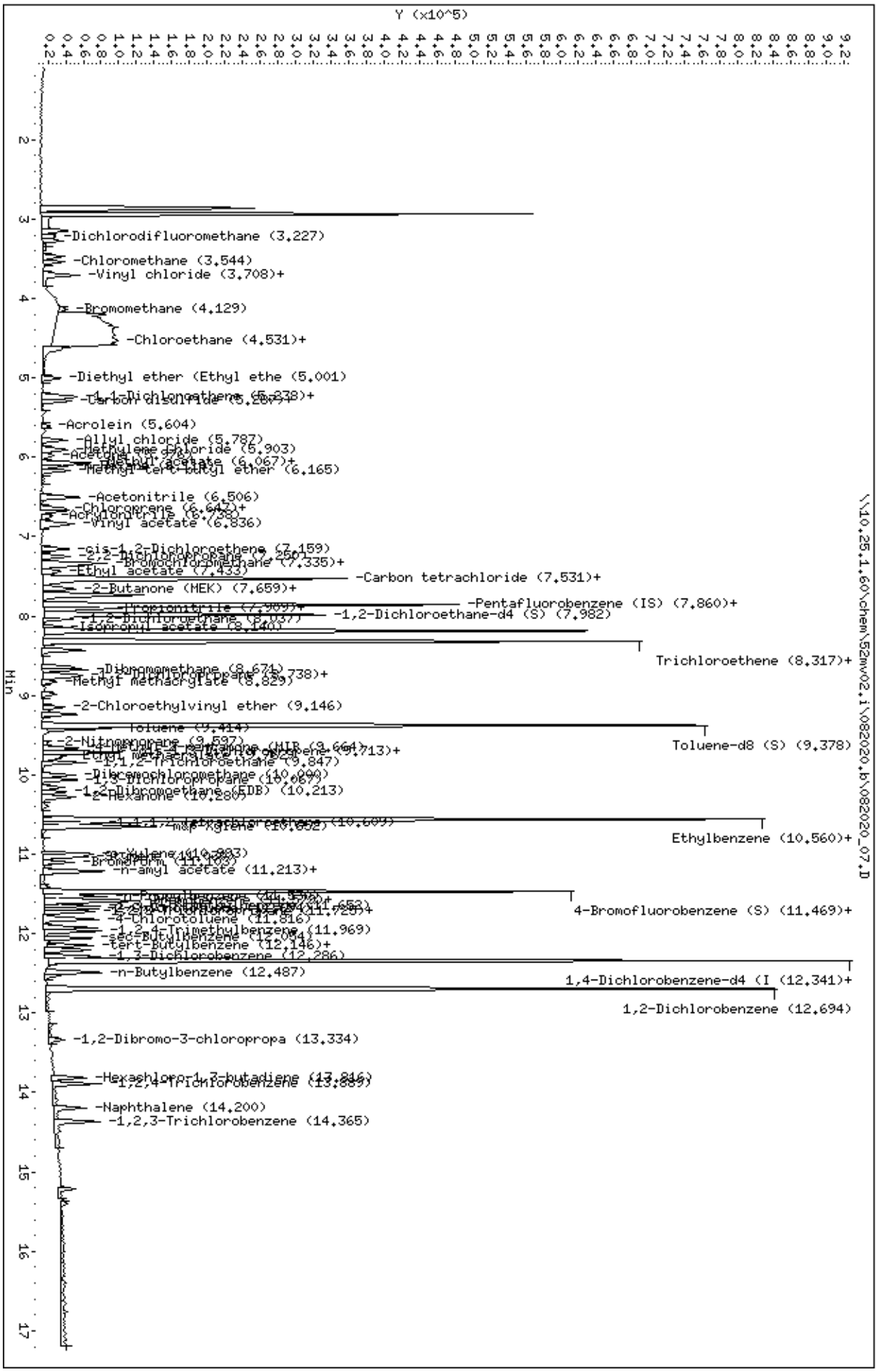
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_07.D
Date : 20-AUG-2020 12:30
Client ID: CAL5
Sample Info: CAL5,27241:1
Purge Volume: 5.0
Column phase: RTX-VMS

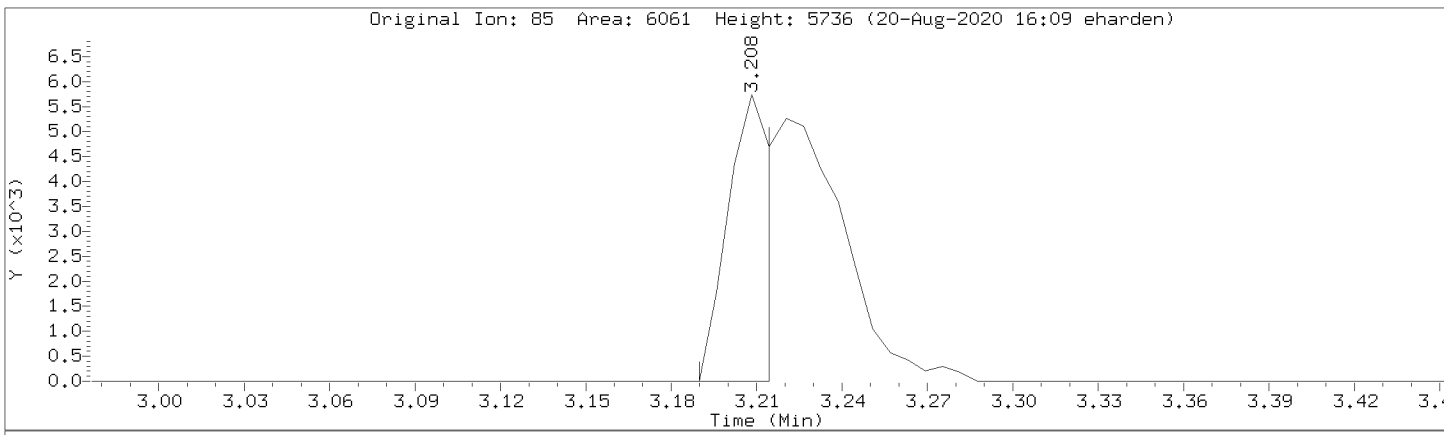
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

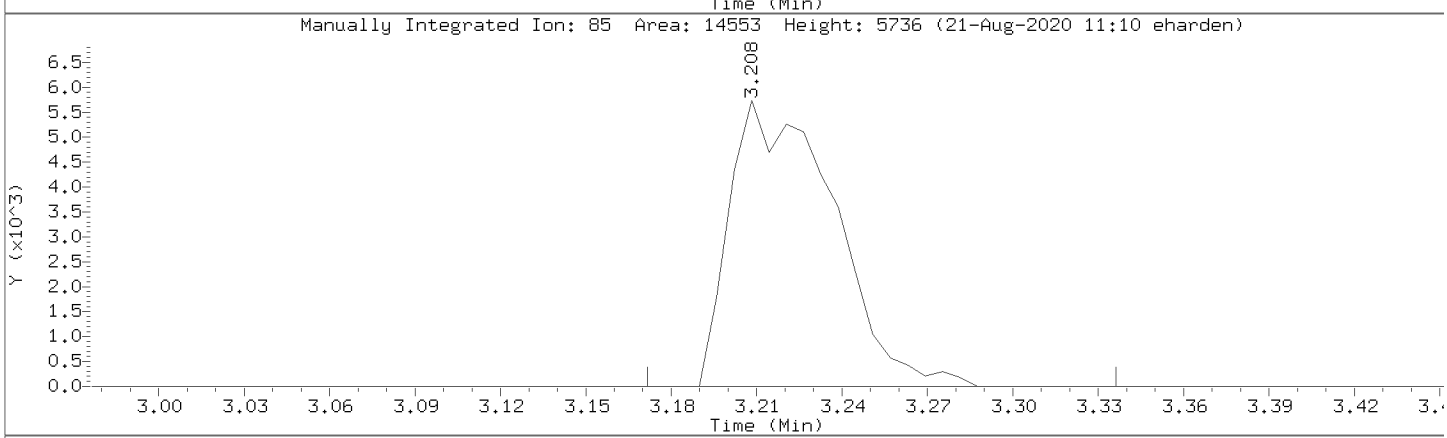


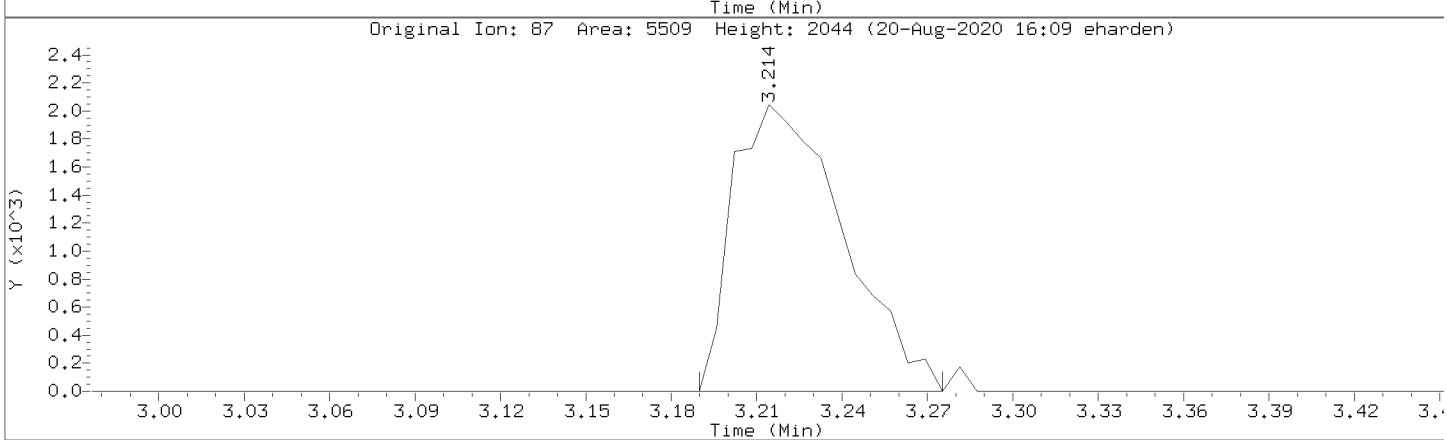
Page 4

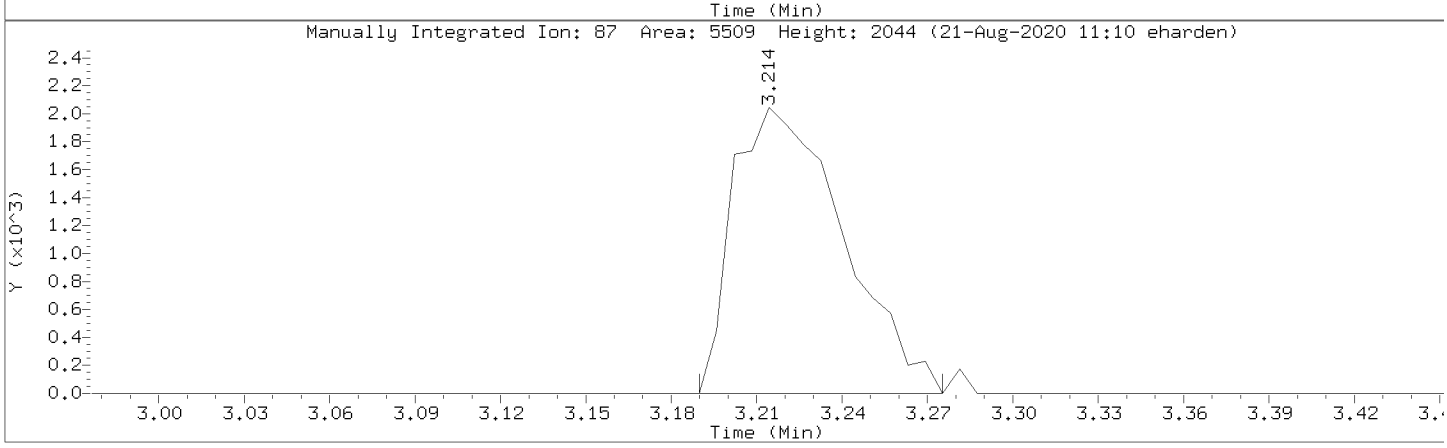
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_07.D
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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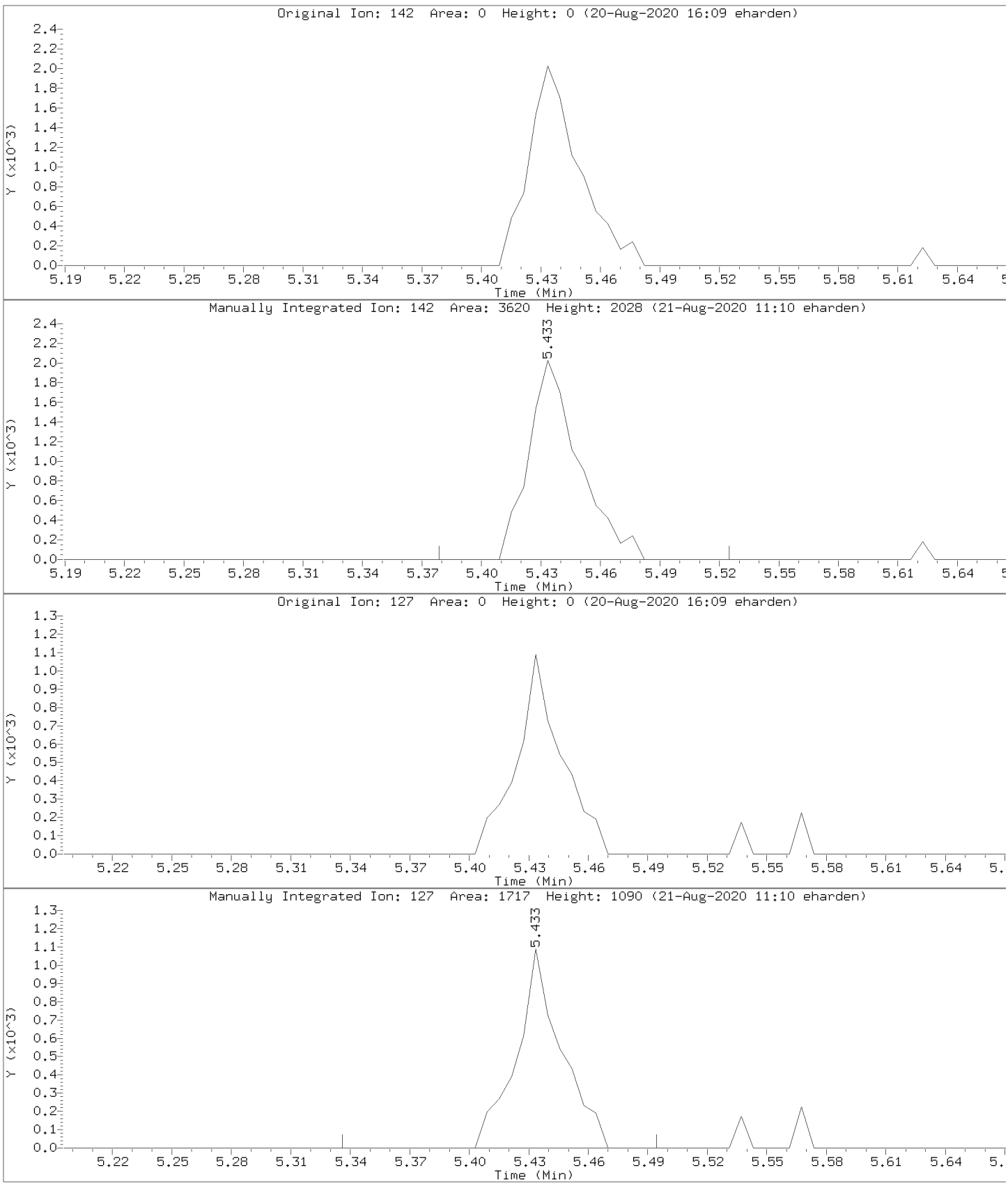
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4



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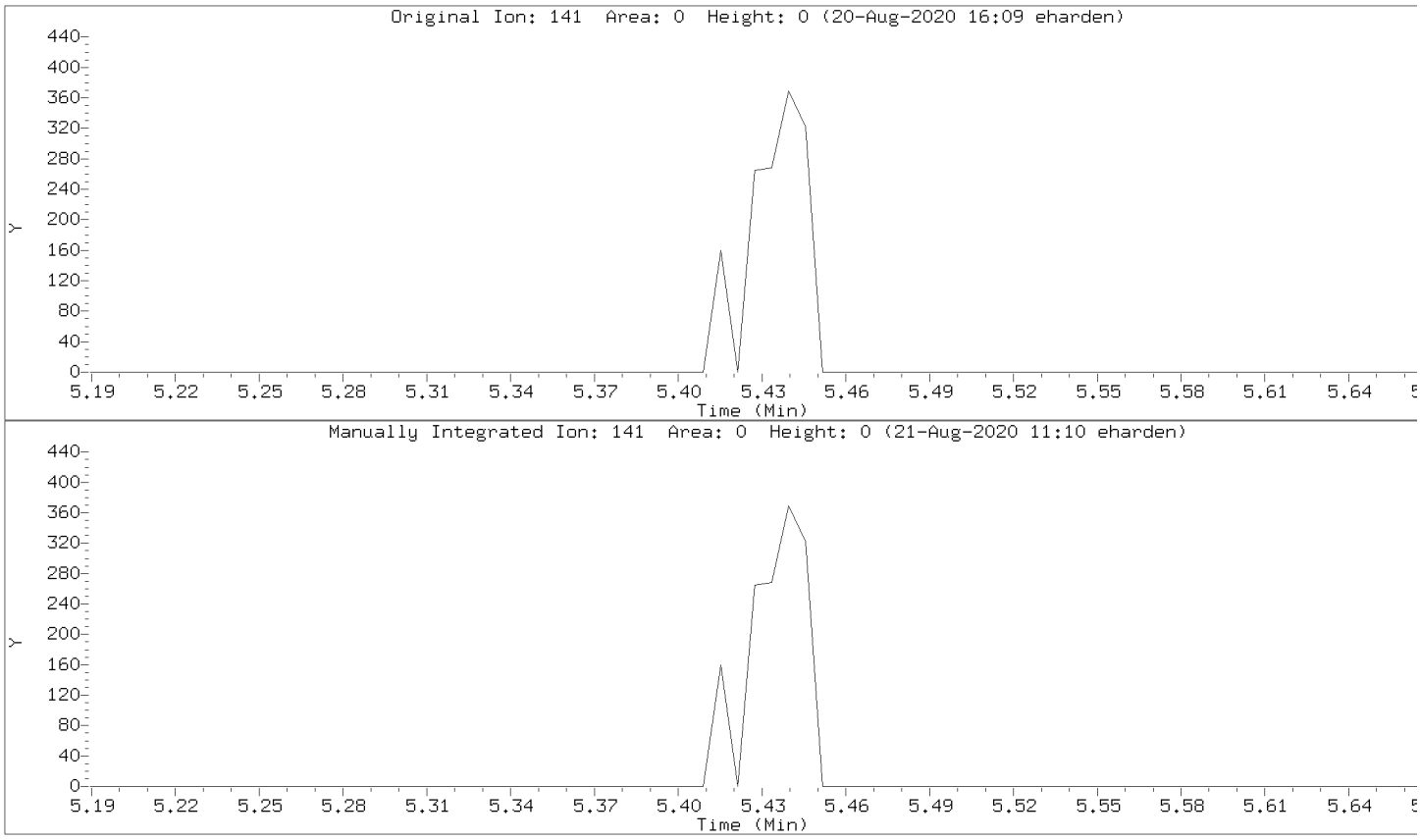
Instrument: 52mv02.i
Lab Sample ID: CAL5



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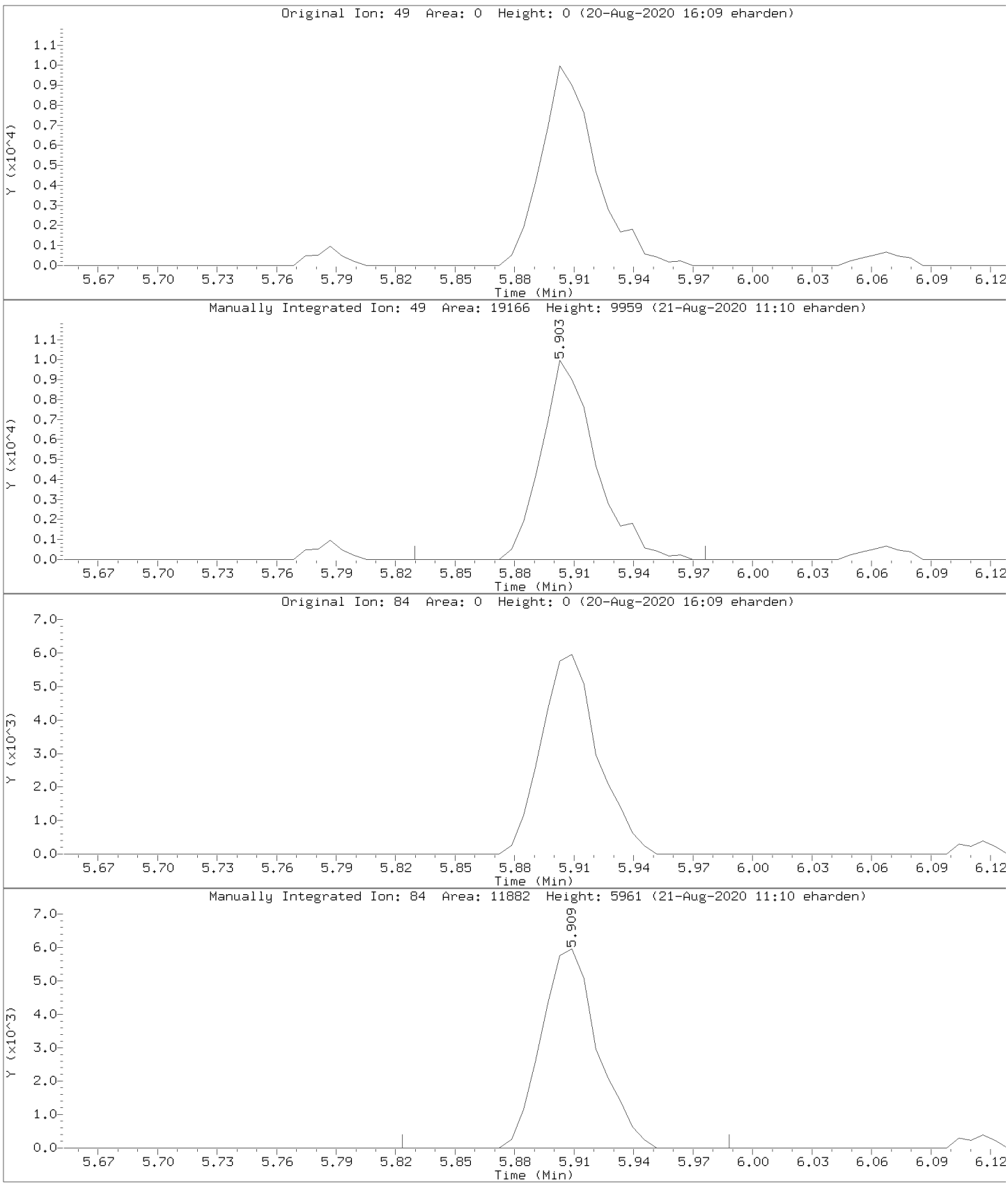
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2



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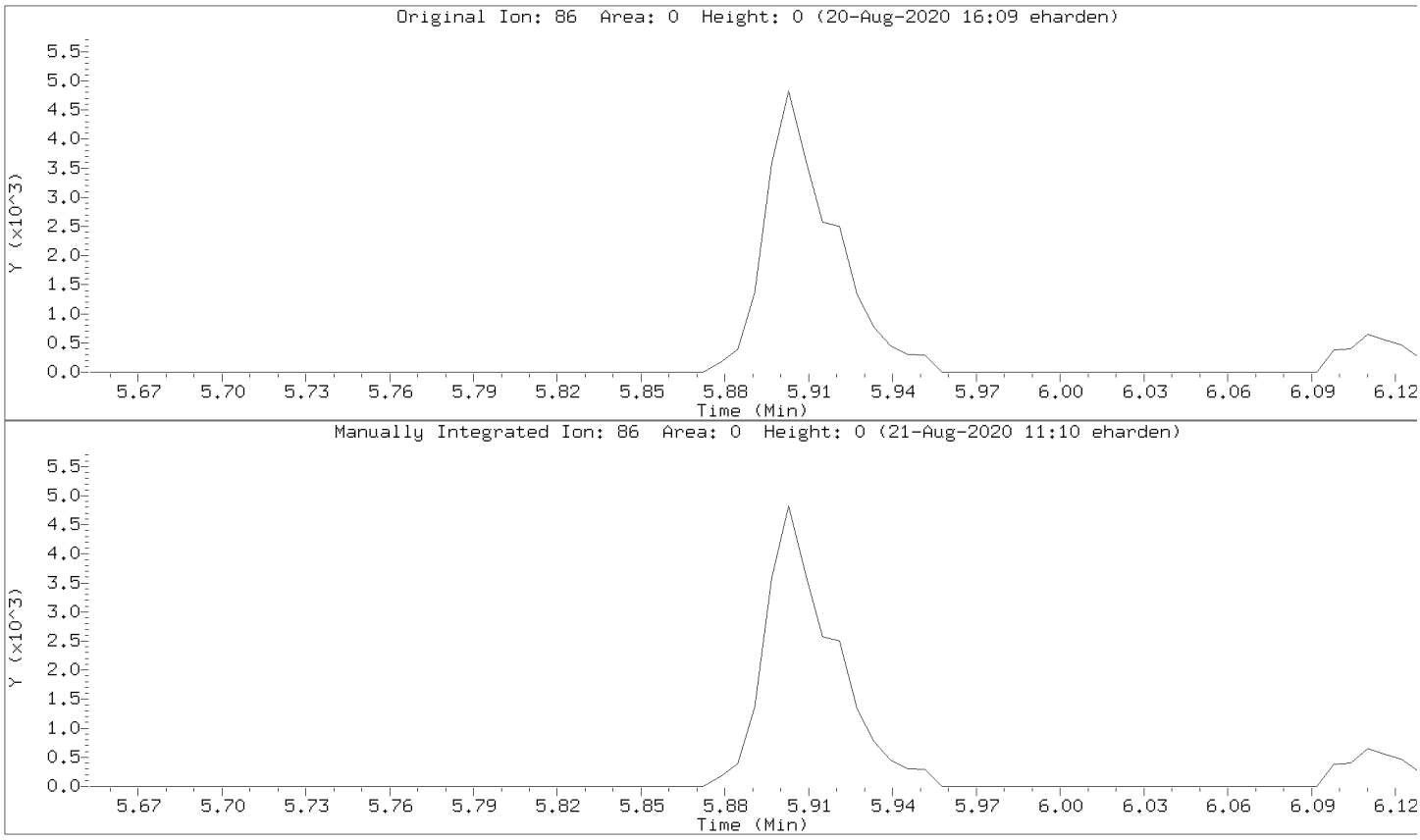
Instrument: 52mv02.i
Lab Sample ID: CAL5



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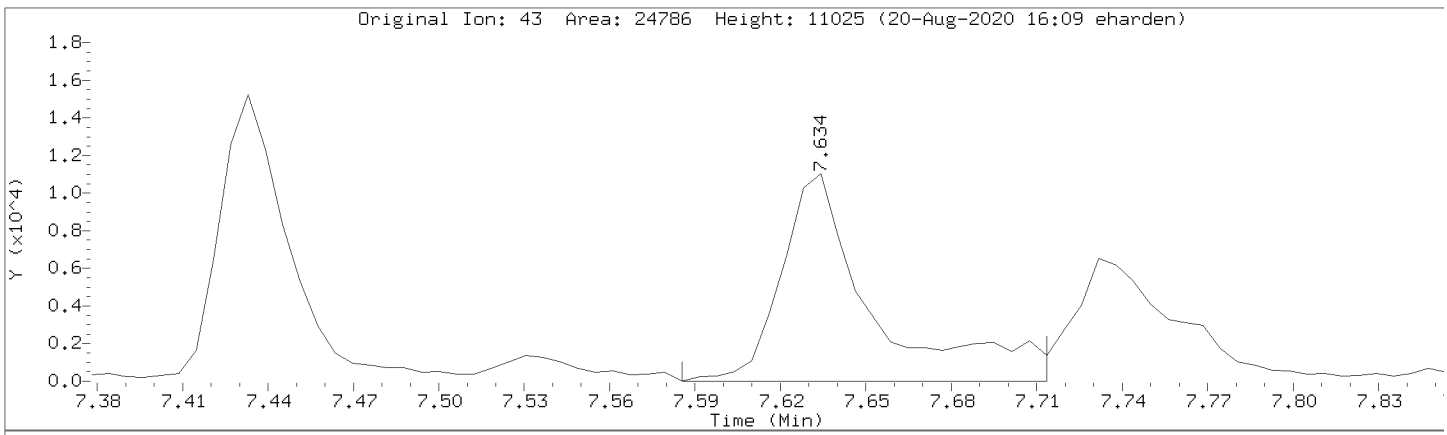
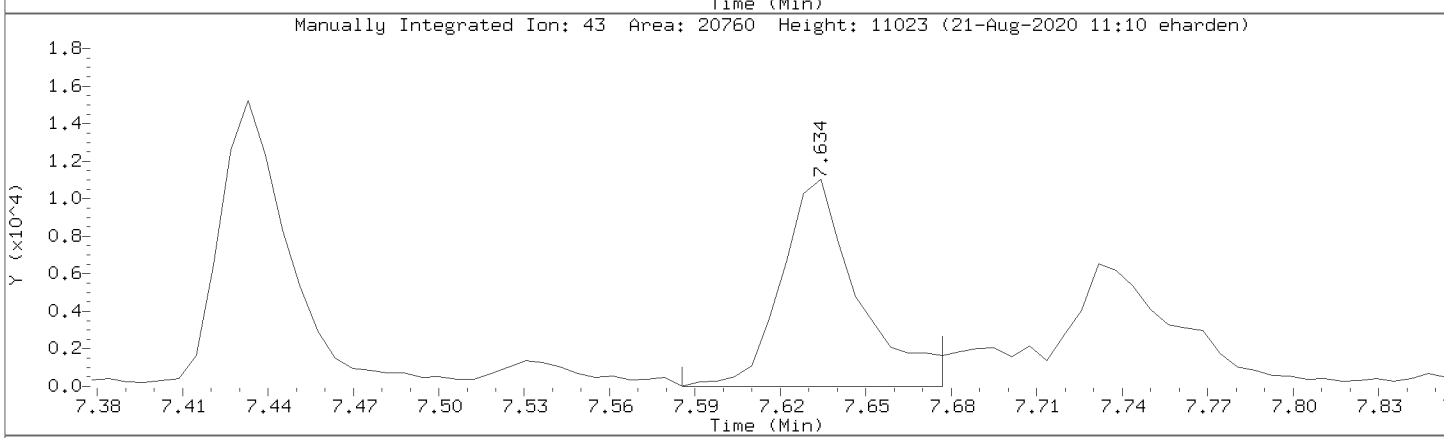
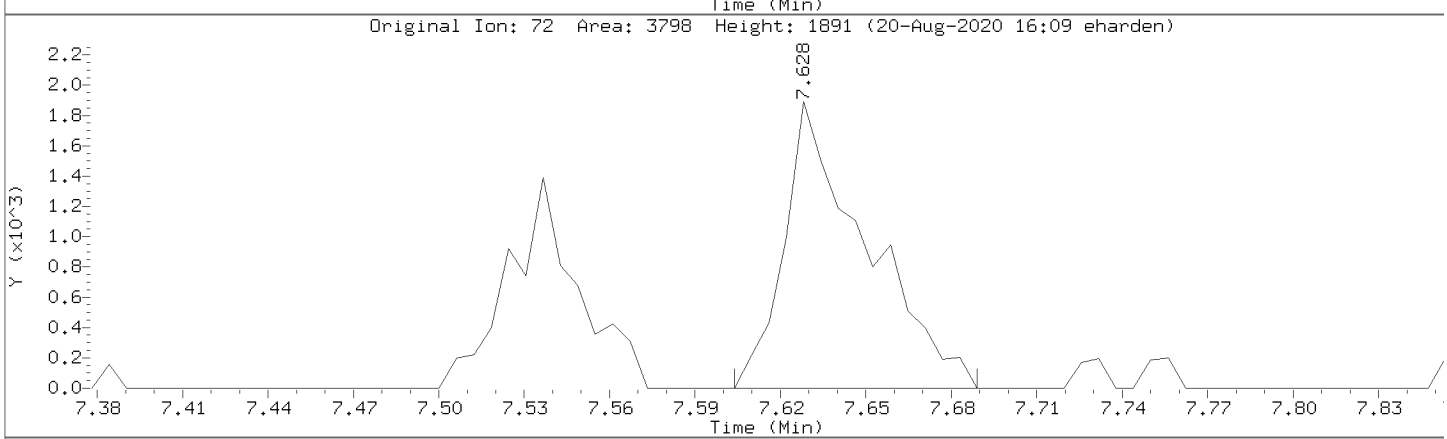
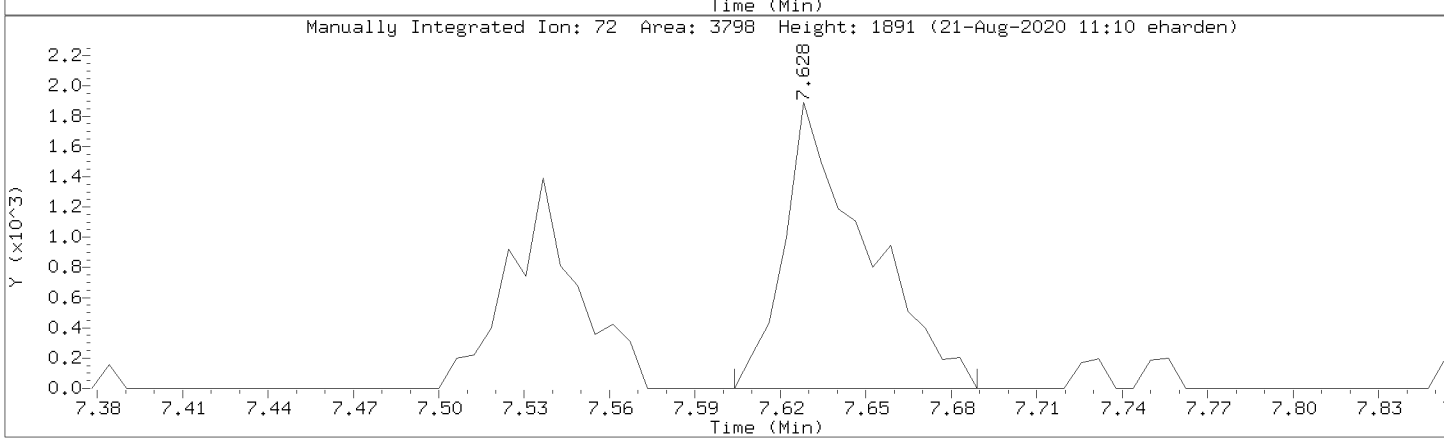
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3









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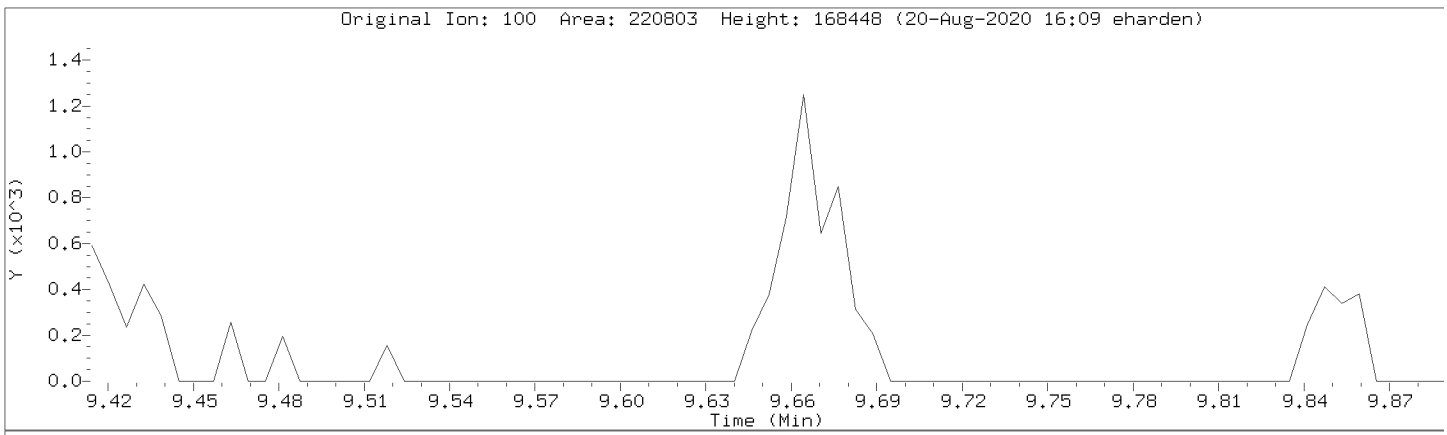
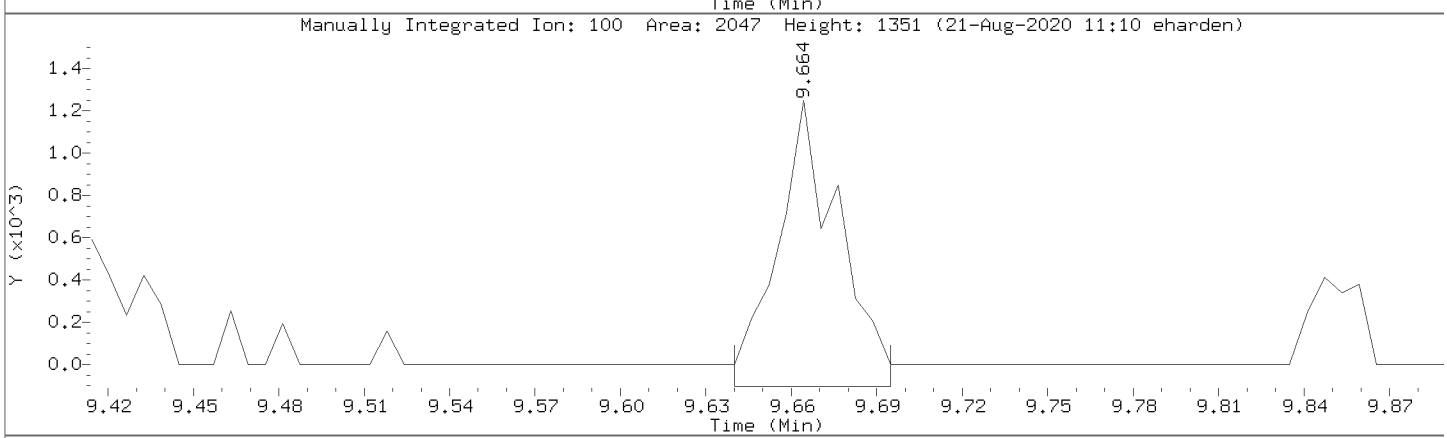
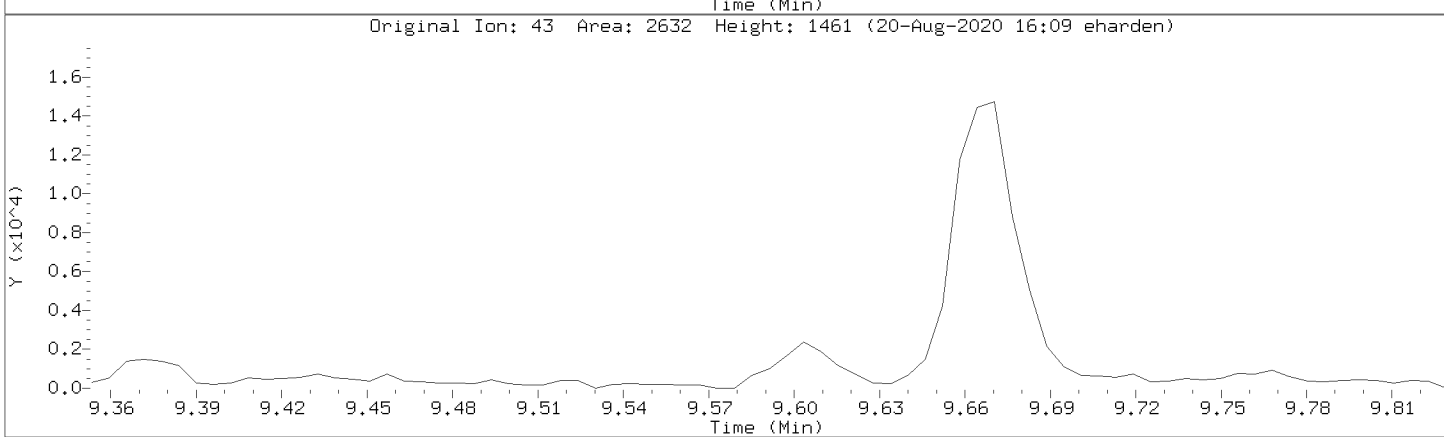
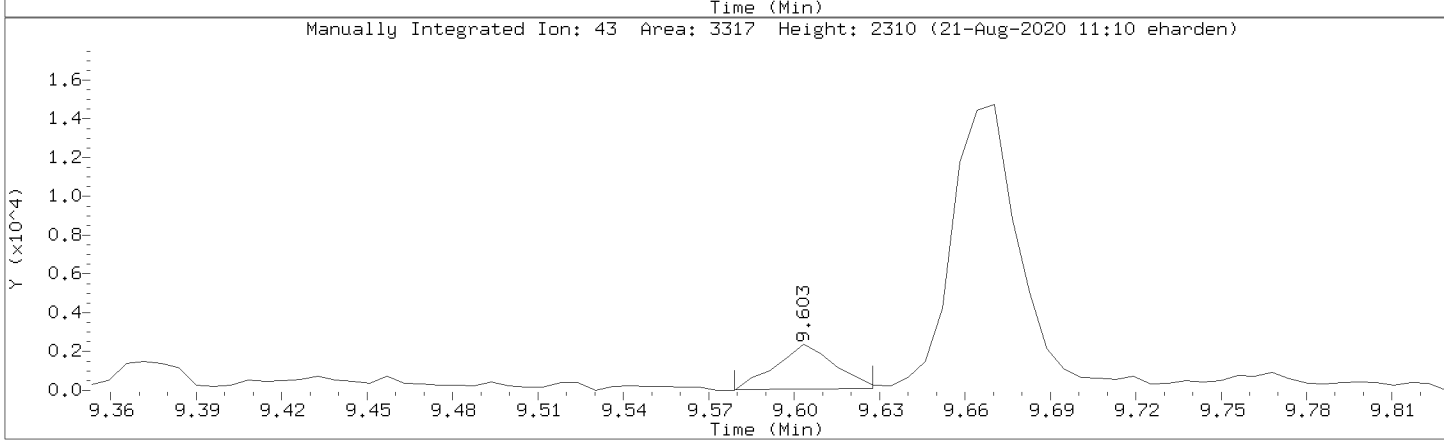
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1

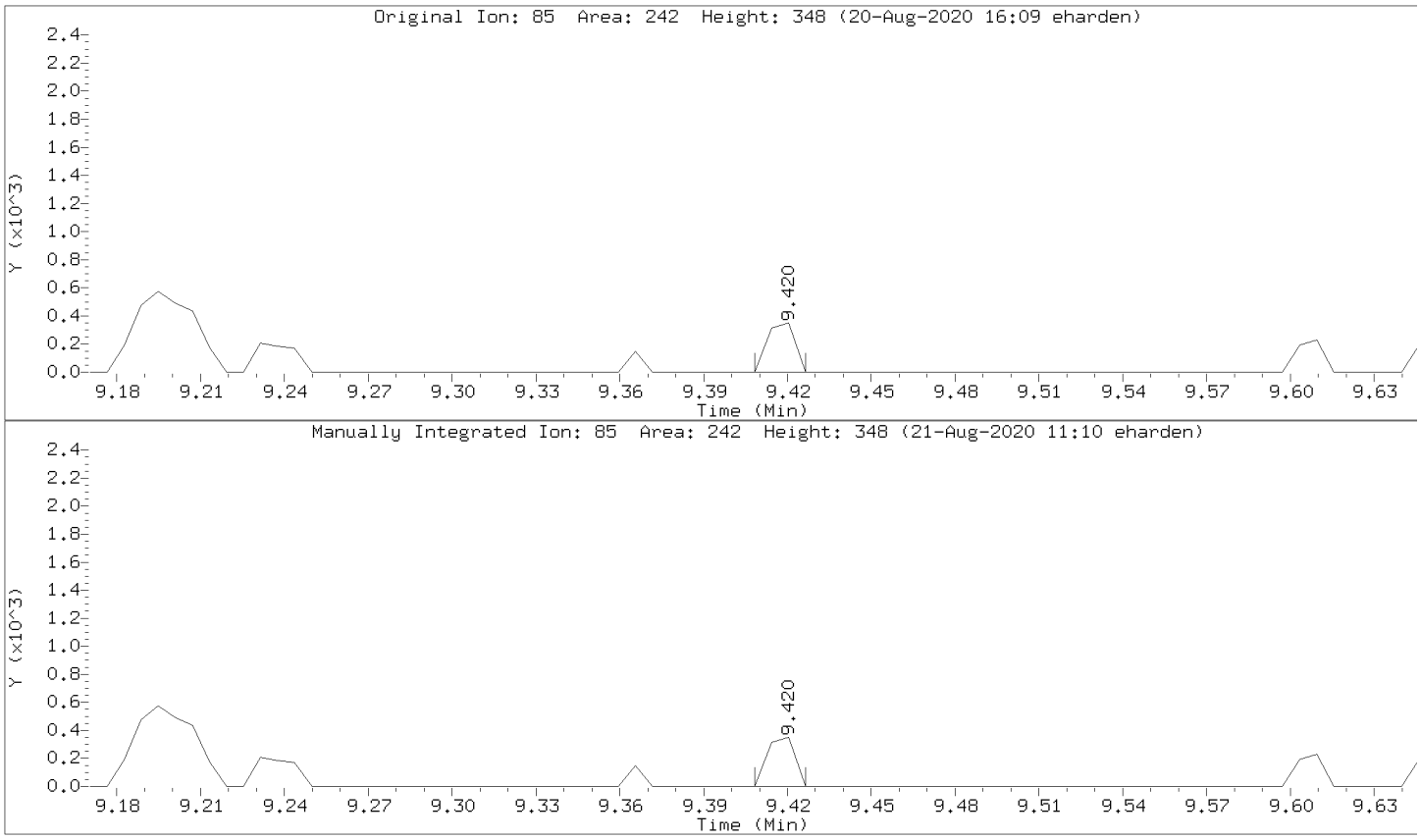








Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_07.D
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5



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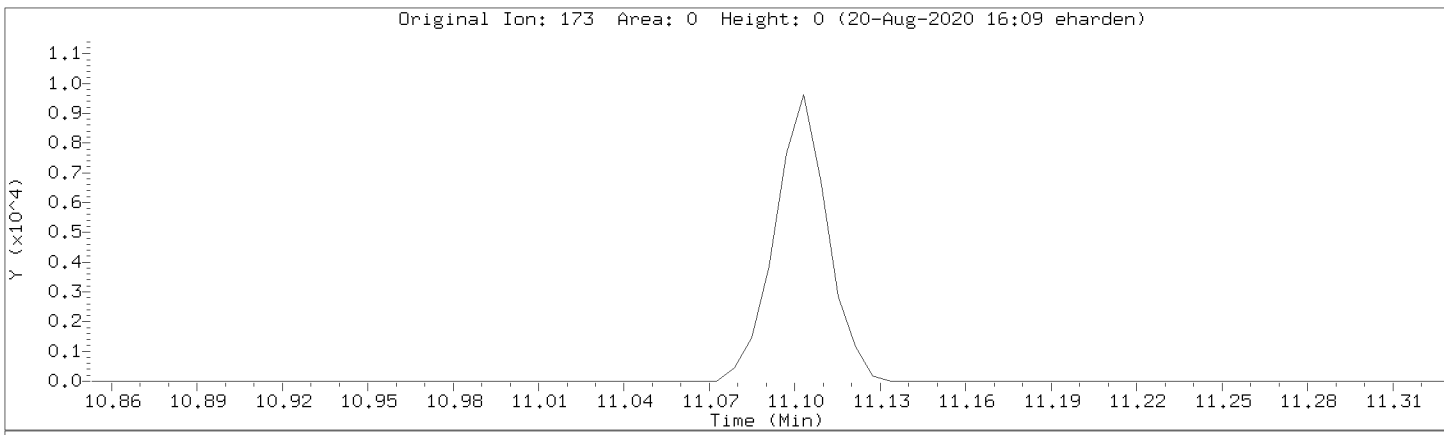
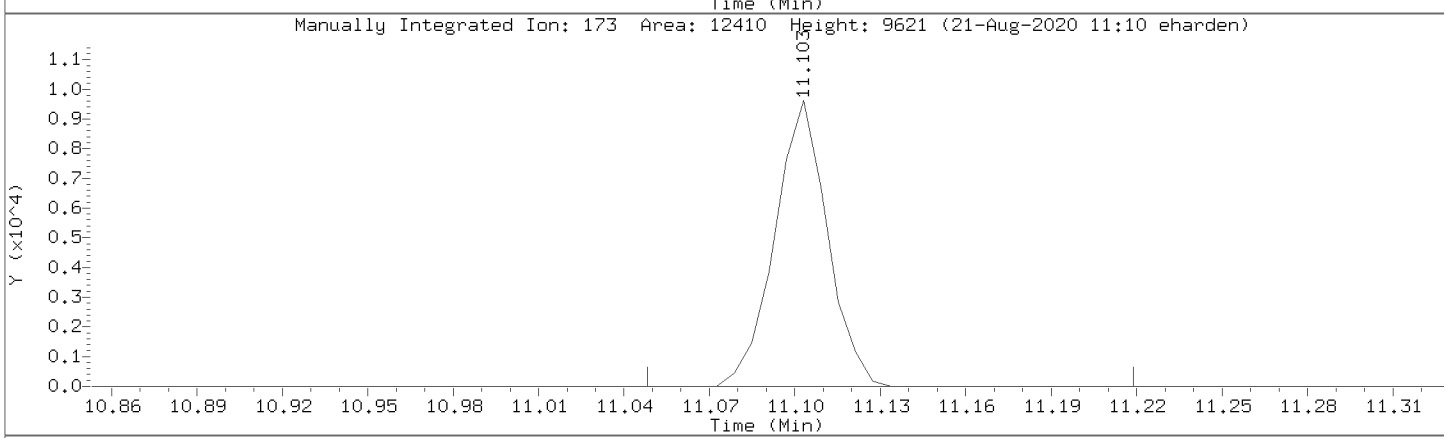
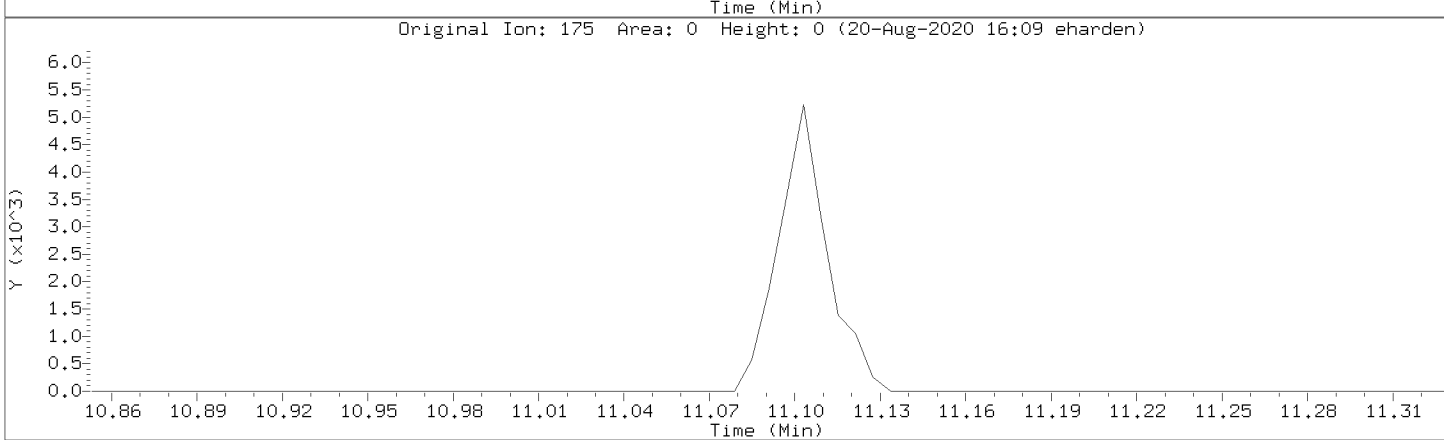
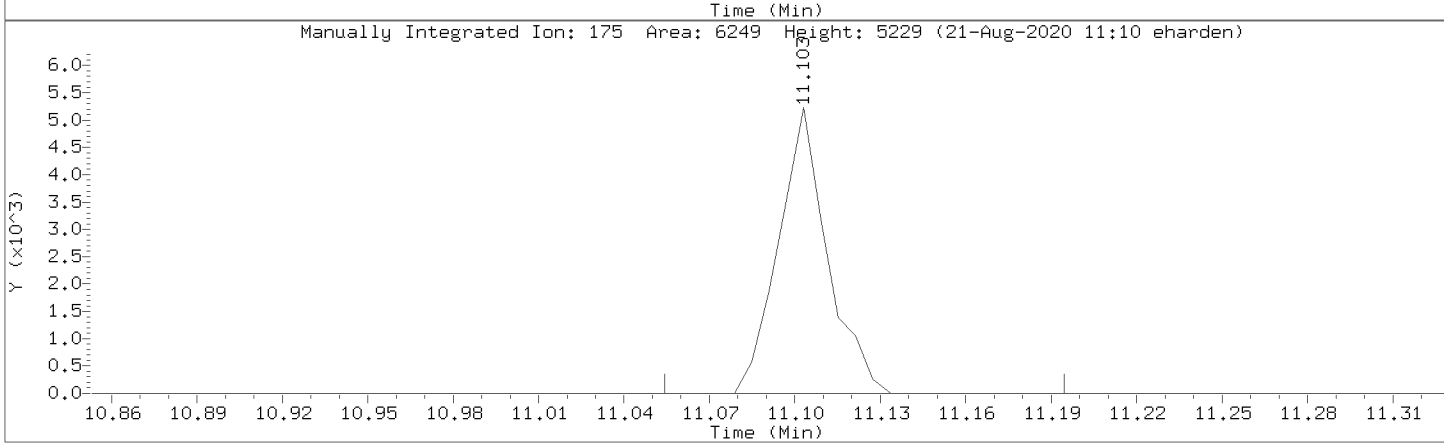
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2









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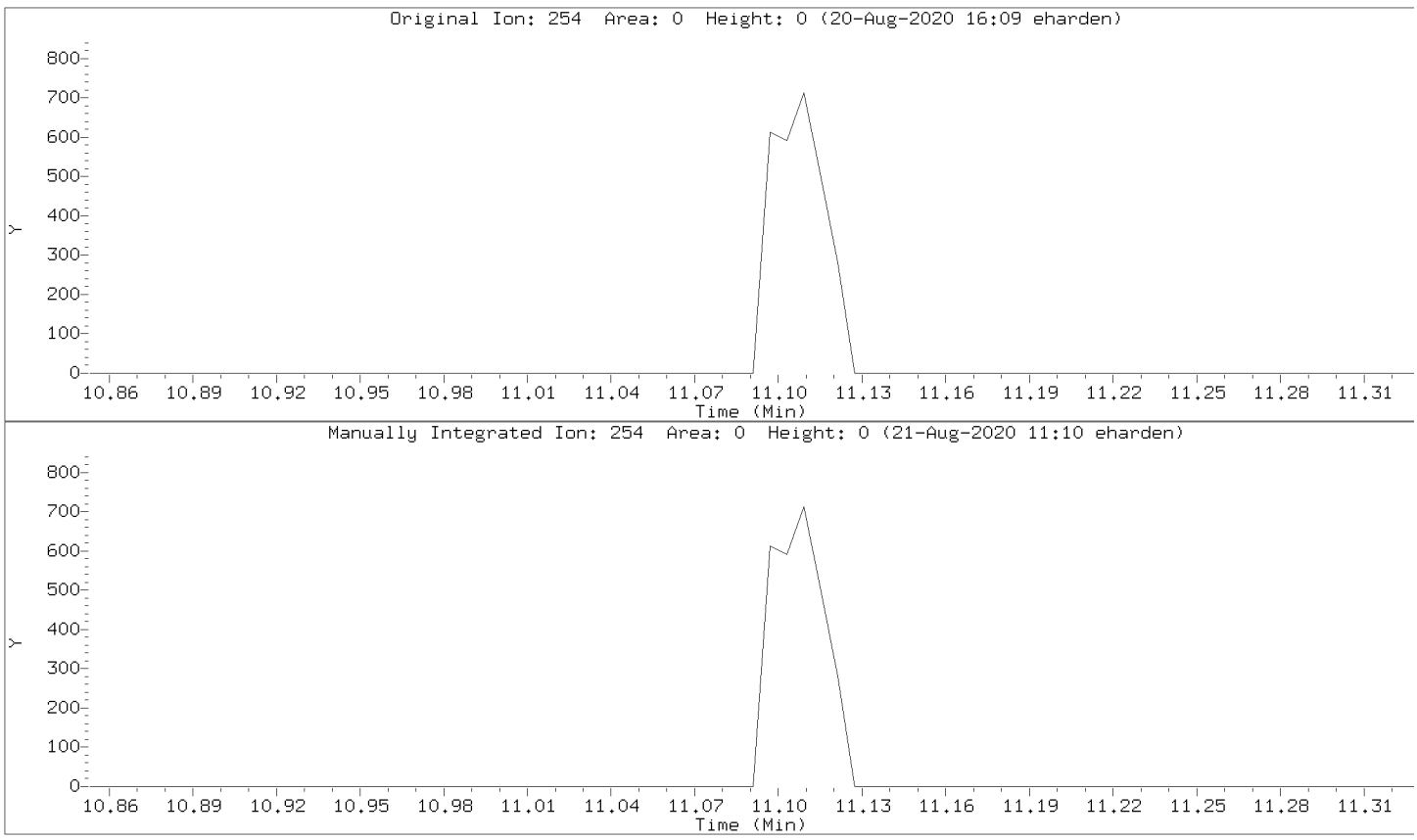
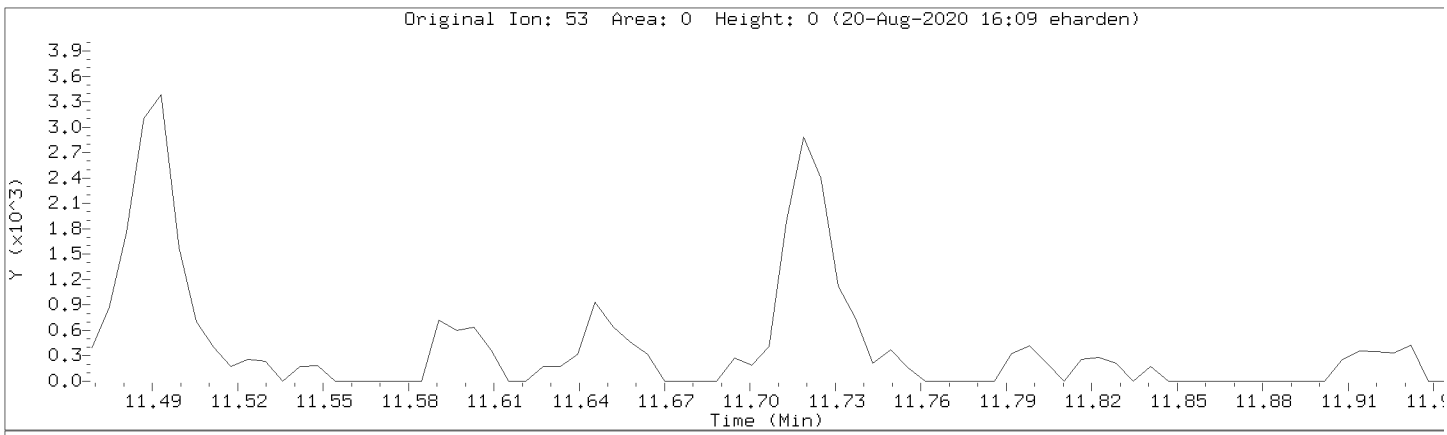
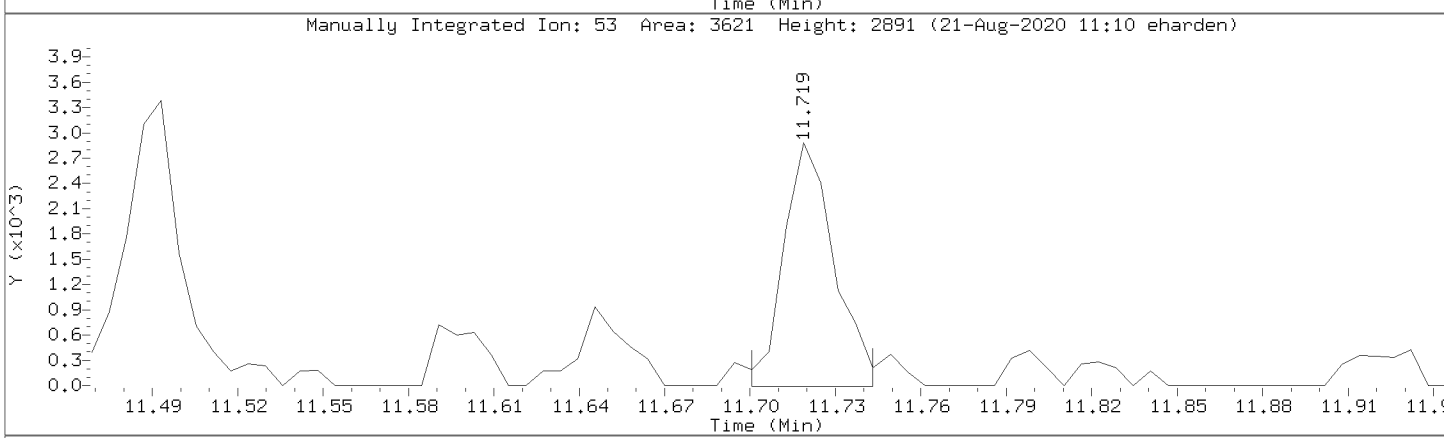
Instrument: 52mv02.i
Lab Sample ID: CAL5

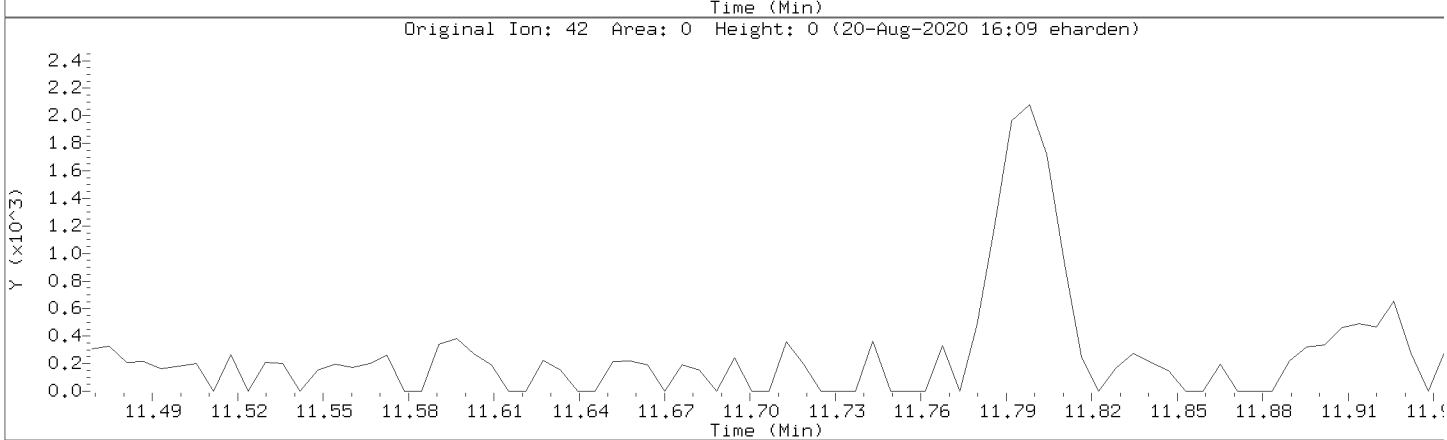


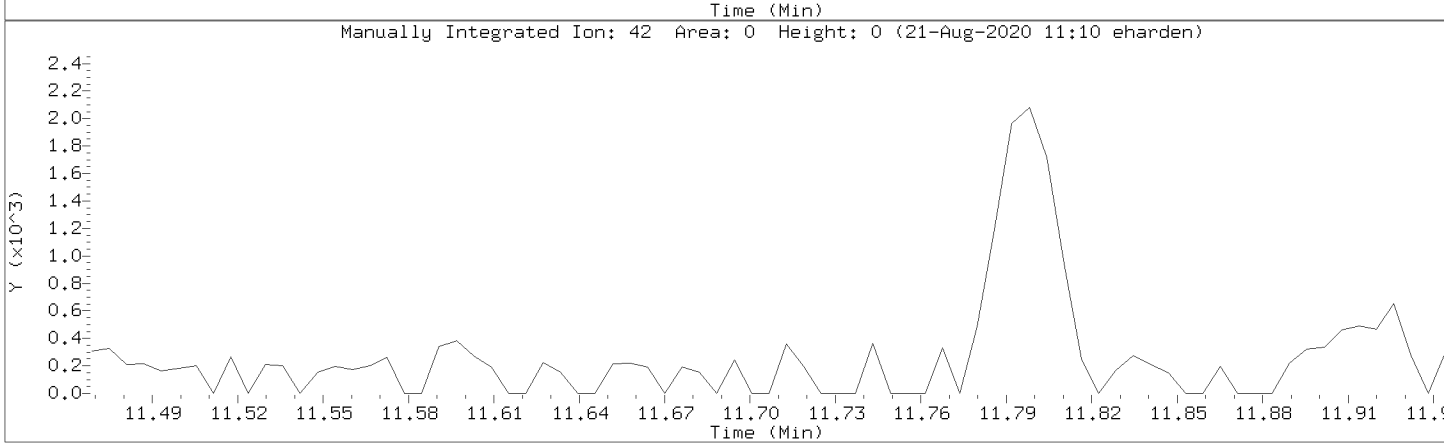
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_07.D
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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Injection Date: 20-AUG-2020 12:30
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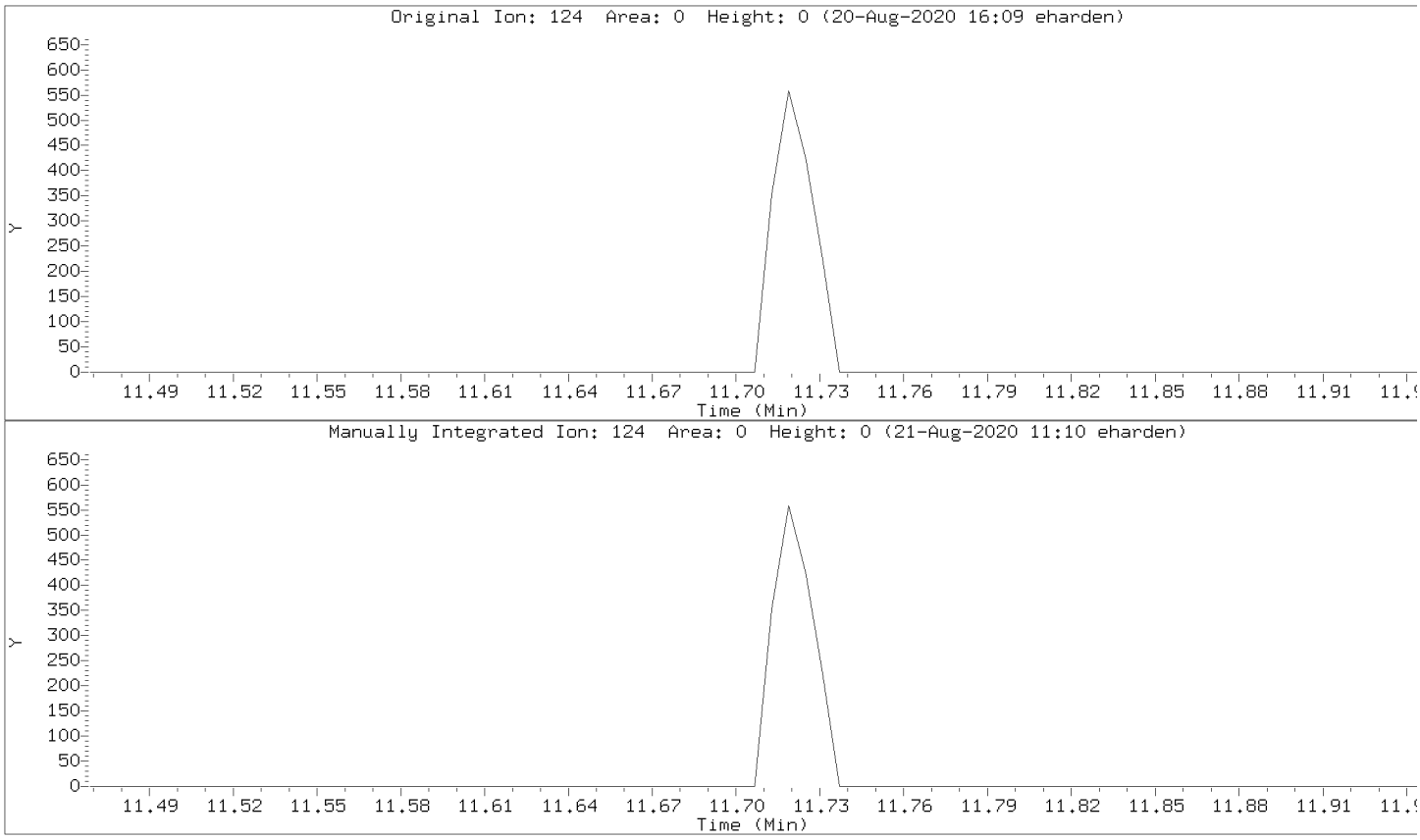
Lab Sample ID: CAL5



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_08.D
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 20-AUG-2020 12:55
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal6,27242:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 12:55 Cal File: 082020_08.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.226	(0.409)	29295	10.0000	9.84	
2 Chloromethane	50	3.543	3.543	(0.451)	39151	10.0000	10.6	
3 Vinyl chloride	62	3.689	3.702	(0.469)	28051	10.0000	9.58	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	27387	10.0000	10.4	
5 Bromomethane	94	4.195	4.195	(0.534)	32621	10.0000	12.4	
6 Chloroethane	64	4.360	4.360	(0.555)	10189	10.0000	11.8	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	18512	10.0000	9.94	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	11455	10.0000	11.2	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	37044	10.0000	11.2	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	23374	10.0000	10.7	
11 Carbon disulfide	76	5.293	5.293	(0.673)	81296	10.0000	11.1	
12 Iodomethane	142	5.433	5.439	(0.691)	8958	10.0000	9.59(T)	
13 Acrolein	56	5.659	5.659	(0.720)	6578	20.0000	19.2	
14 Allyl chloride	76	5.780	5.787	(0.736)	10499	10.0000	10.3	
15 Methylene Chloride	49	5.902	5.902	(0.751)	42293	10.0000	10.8(T)	
16 Acetone	43	5.969	5.976	(0.760)	44985	20.0000	22.1	
17 Methyl acetate	43	6.073	6.067	(0.773)	48220	20.0000	20.6	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	24253	10.0000	10.8	
19 n-Hexane	86	6.110	6.110	(0.777)	2234	10.0000	9.43	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	51088	10.0000	9.80	
21 Acetonitrile	41	6.457	6.463	(0.822)	3493	20.0000	16.2(H)	
22 Chloroprene	53	6.640	6.640	(0.845)	30445	10.0000	9.77	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	47900	10.0000	11.0	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	17593	20.0000	18.6	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	44750	10.0000	10.4(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	33510	10.0000	10.5	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	36245	10.0000	10.8	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	15015	10.0000	10.7	
	29 Cyclohexane	56	7.335	7.335	(0.882)	26642	10.0000	9.35	
	30 Chloroform	83	7.372	7.372	(0.938)	52677	10.0000	10.7	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	56268	20.0000	20.3	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	36580	10.0000	10.8	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	14388	20.0000	19.0	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	146283	50.0000	51.5	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	41497	10.0000	10.8	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	42963	20.0000	20.3	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	26914	10.0000	10.1(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	246807	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	92640	10.0000	10.8	
	40 Propionitrile	54	7.890	7.902	(1.004)	9386	20.0000	22.3	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	44057	20.0000	20.6	
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25345	50.0000	49.6	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	40332	10.0000	10.4	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	46853	10.0000	10.2	
	46 Trichloroethene	130	8.323	8.317	(1.001)	25650	10.0000	11.0	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	334966	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	10846	10.0000	9.77	
	49 n-Butanol	56	8.518	8.524	(1.024)	718	20.0000	14.0(MH)	LT
	50 Dibromomethane	93	8.670	8.670	(1.043)	22088	10.0000	11.1	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	26011	10.0000	10.6	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	41201	10.0000	11.7	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	11241	10.0000	8.54(H)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						(D)
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	17674	20.0000	15.5	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	34756	10.0000	10.2	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	363232	50.0000	50.4	
	58 Toluene	91	9.414	9.414	(1.132)	87179	10.0000	10.4	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	8683	10.0000	10.0(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.670	9.664	(1.163)	4550	20.0000	19.0(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	34380	10.0000	10.1	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	22100	10.0000	10.4	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	20969	10.0000	8.39(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	22063	10.0000	10.4	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	32178	10.0000	11.0	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	34242	10.0000	10.6	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	27035	10.0000	10.7	
	68 2-Hexanone	43	10.273	10.280	(1.235)	55414	20.0000	19.6	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	77797	10.0000	9.64	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	308495	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	63961	10.0000	10.7	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	26243	10.0000	10.4	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	122019	20.0000	17.6	
	74 o-Xylene	106	10.993	10.993	(1.041)	25872	10.0000	8.21	
	75 Styrene	104	11.029	11.029	(1.044)	44191	10.0000	8.11	
	76 Bromoform	173	11.103	11.103	(1.051)	29236	10.0000	10.5	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.225	11.225	(1.063)	38823	10.0000	8.40	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	123406	50.0000	48.7	
	79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	9323	10.0000	9.20	
	80 n-Propylbenzene	91	11.523	11.523	(1.091)	101972	10.0000	10.3	
	81 Bromobenzene	156	11.578	11.578	(1.096)	33652	10.0000	10.8	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	36166	10.0000	11.0	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	61206	10.0000	9.66	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	22961	10.0000	10.0	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	19627	10.0000	8.56	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	66445	10.0000	8.28	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	34384	10.0000	9.96(M)	CO
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	7978	10.0000	10.0(M)	NI
	89 Cyclohexanone	98	Compound Not Detected.						
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	55461	10.0000	7.95	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	61898	10.0000	8.71	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	70909	10.0000	8.45	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	55461	10.0000	7.95	
	94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	52511	10.0000	10.3	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	191833	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	58586	10.0000	10.2	
	97 n-Butylbenzene	91	12.486	12.486	(1.012)	61276	10.0000	9.17	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	56996	10.0000	10.2	
	99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	5508	10.0000	8.78	
	100 Hexachloro-1,3-butadiene	225	13.815	13.822	(1.120)	17340	10.0000	10.1	
	101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	35572	10.0000	9.42	
	102 Naphthalene	128	14.193	14.193	(1.150)	52461	10.0000	7.46	
	103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	31470	10.0000	8.96	

QC Flag Legend

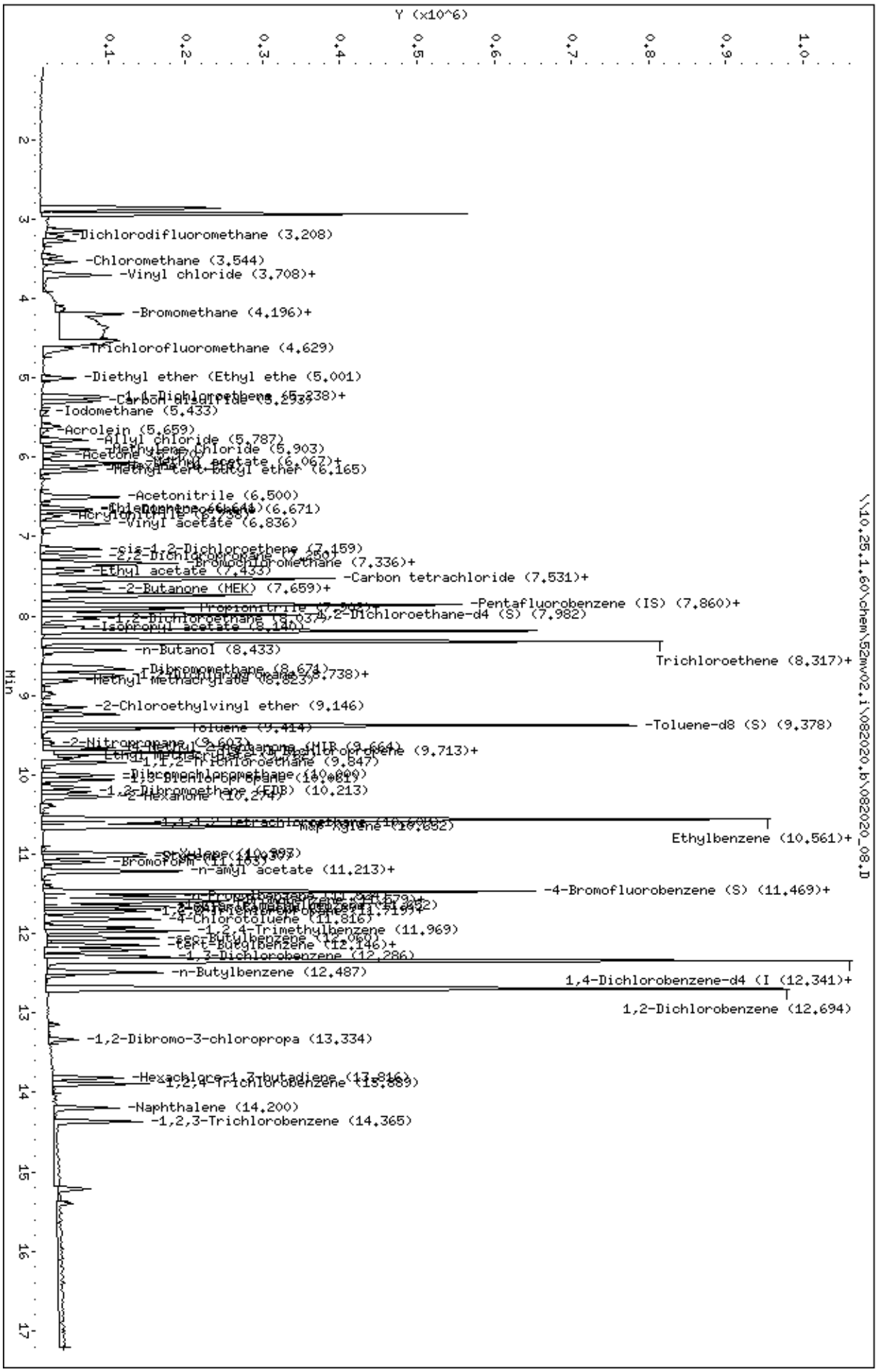
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_08.D
Date : 20-AUG-2020 12:55
Client ID: CAL6
Sample Info: CAL6,27242:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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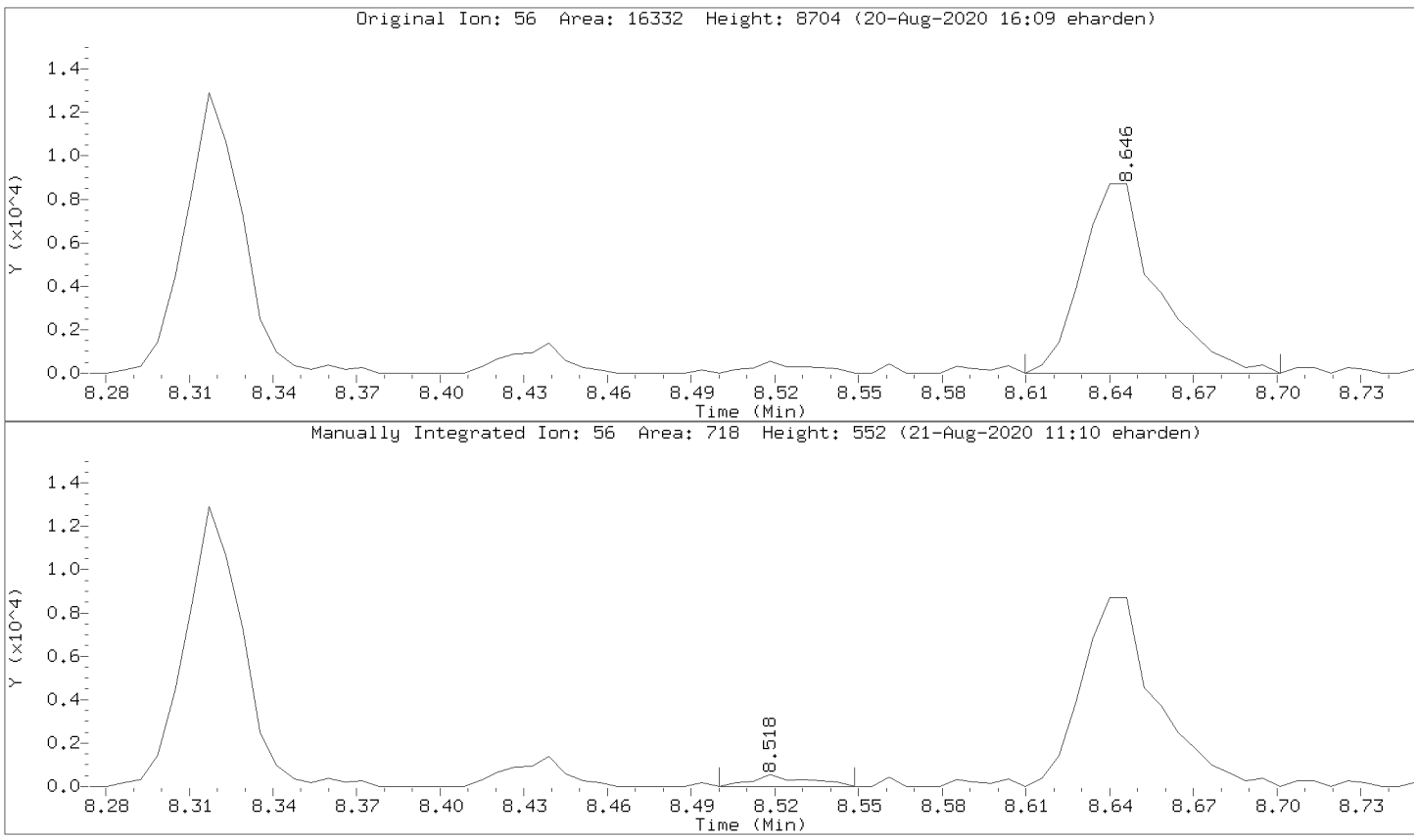
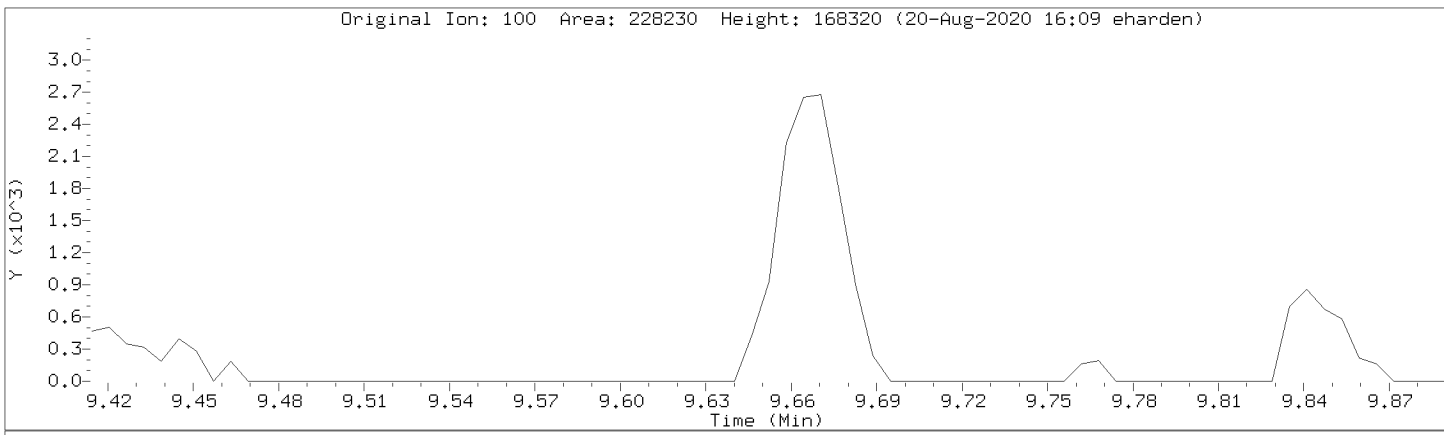
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

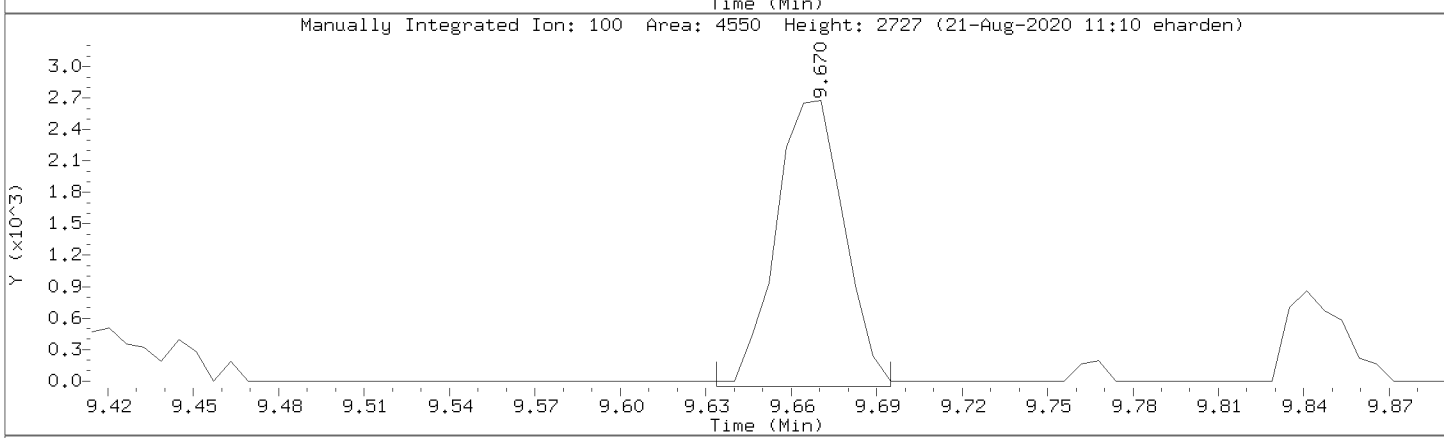
Compound: n-Butanol Review Code: LT
CAS Number: 71-36-3

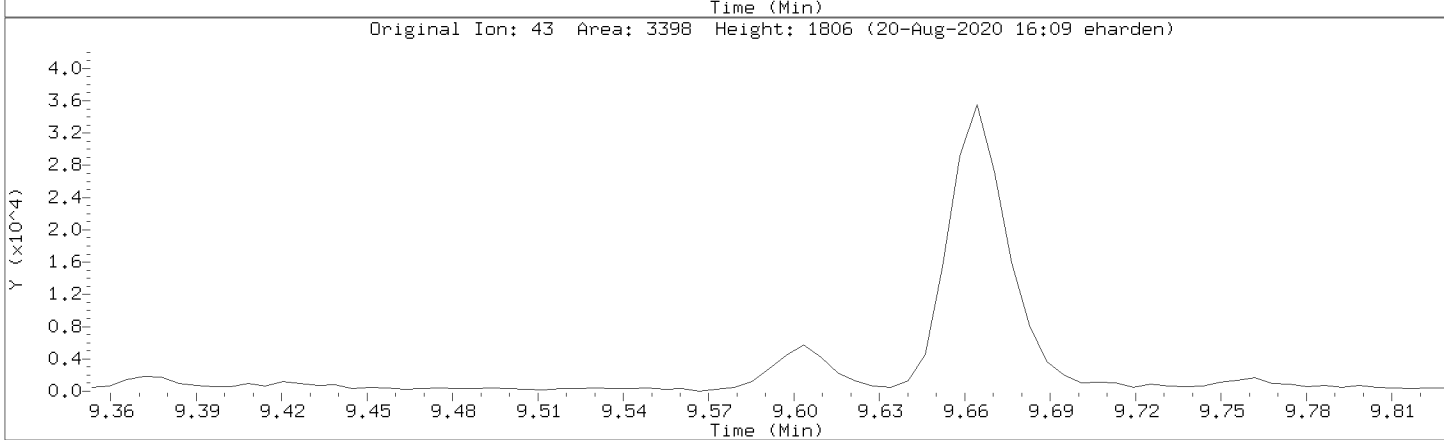


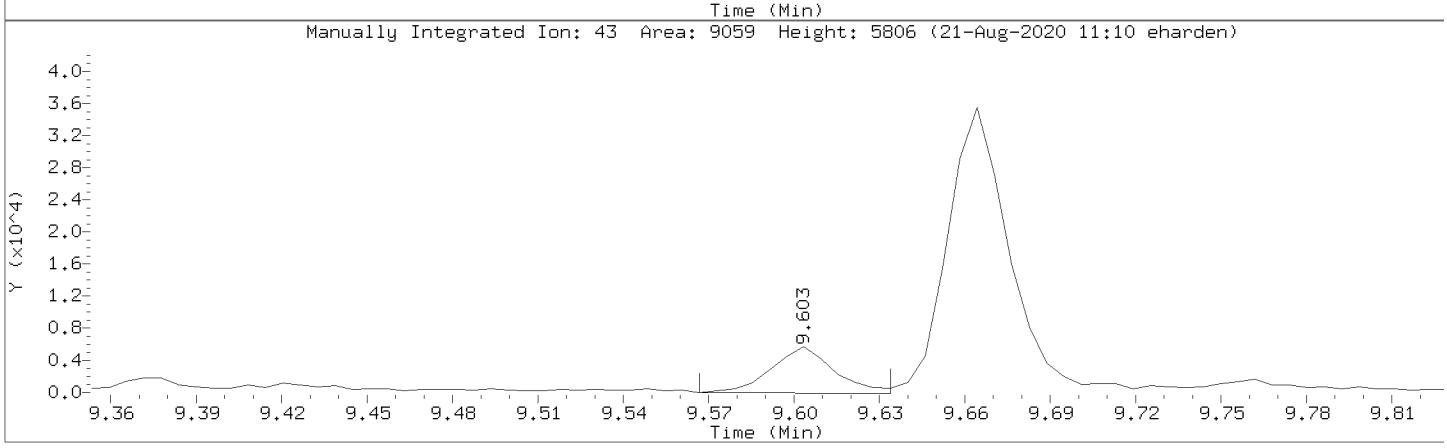
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_08.D
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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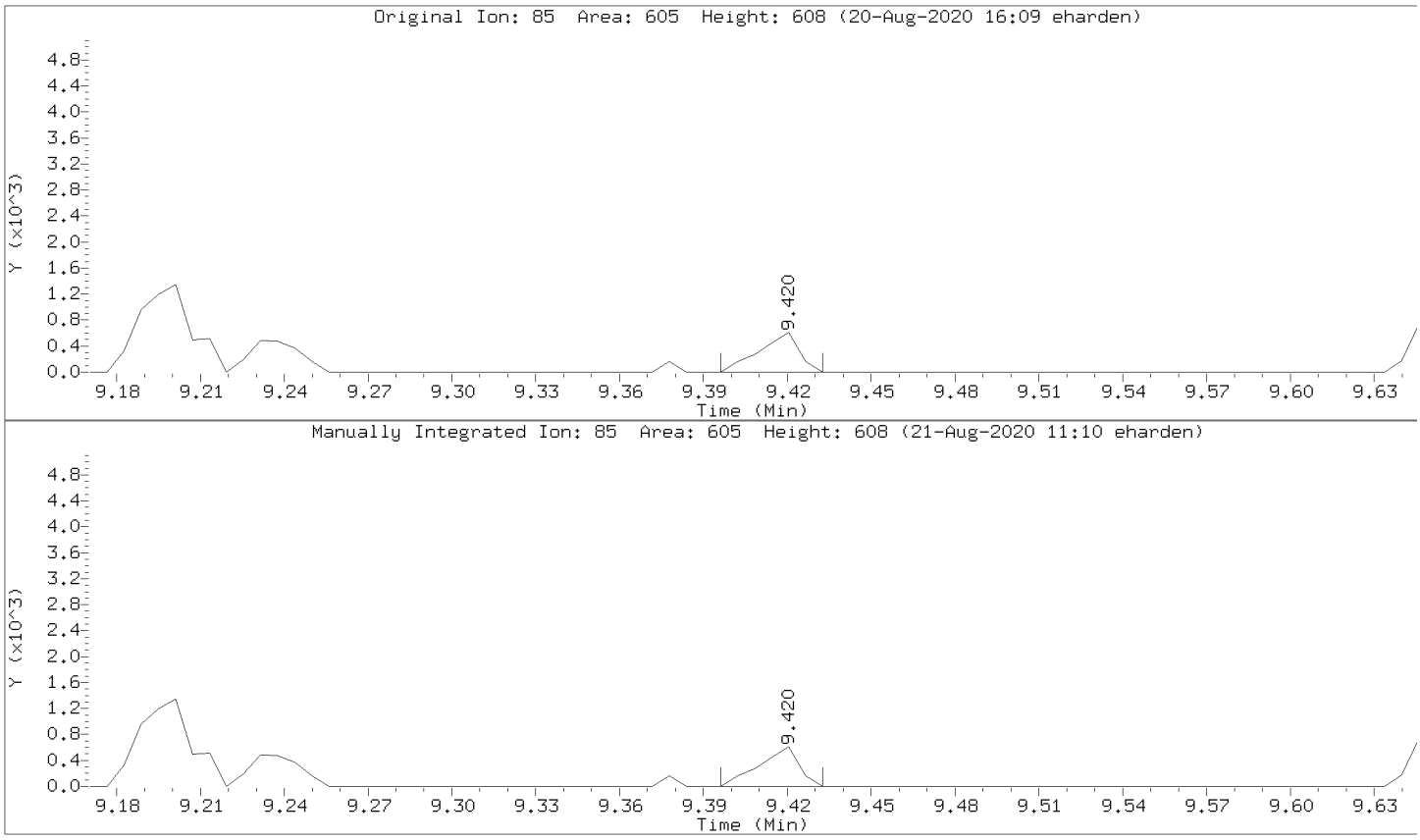
Instrument: 52mv02.i
Lab Sample ID: CAL6



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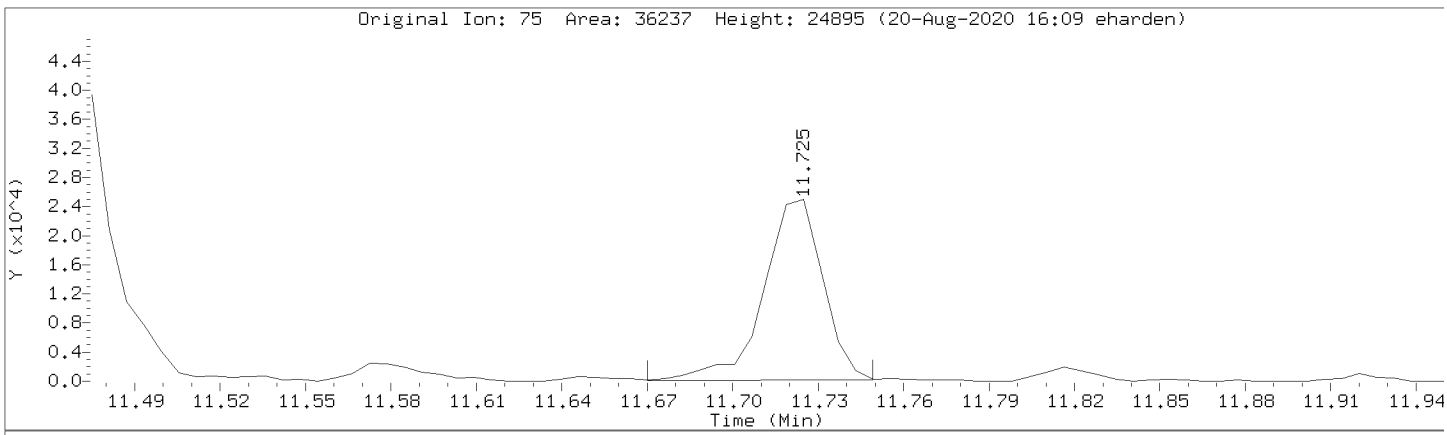
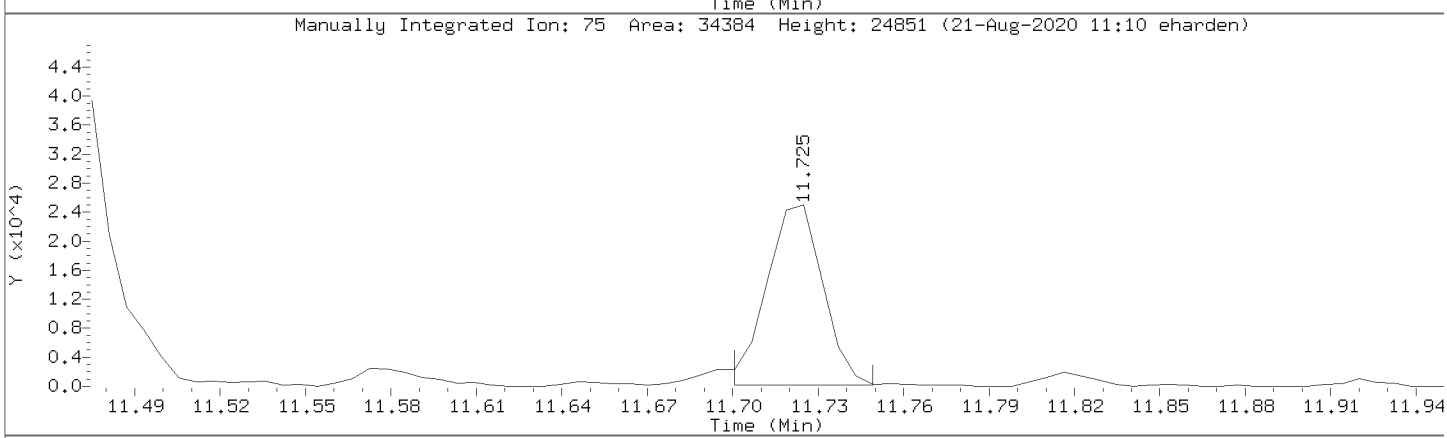
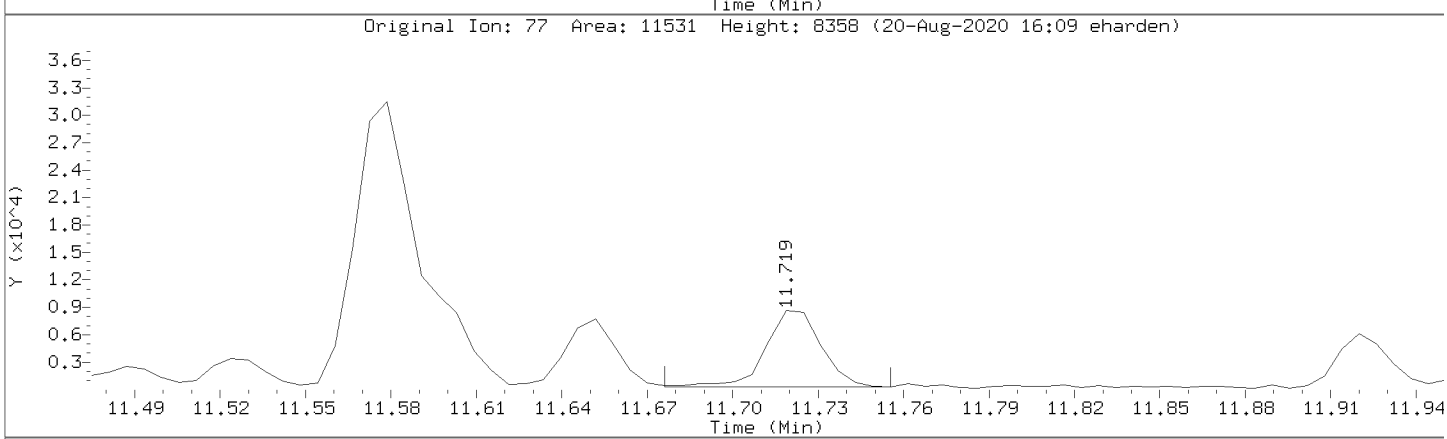
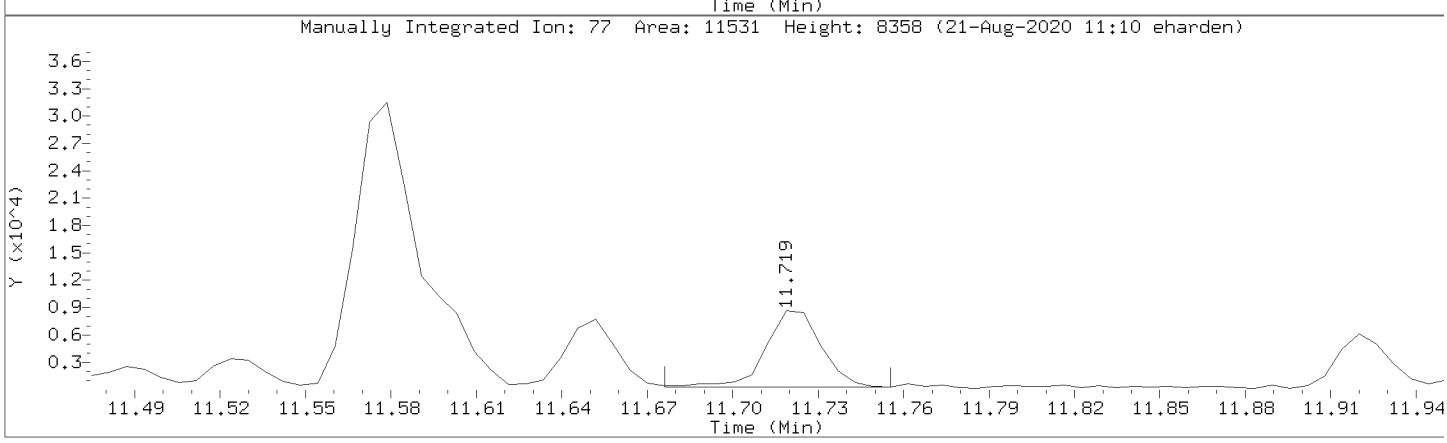
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: 1,2,3-Trichloropropane Review Code: CO
CAS Number: 96-18-4









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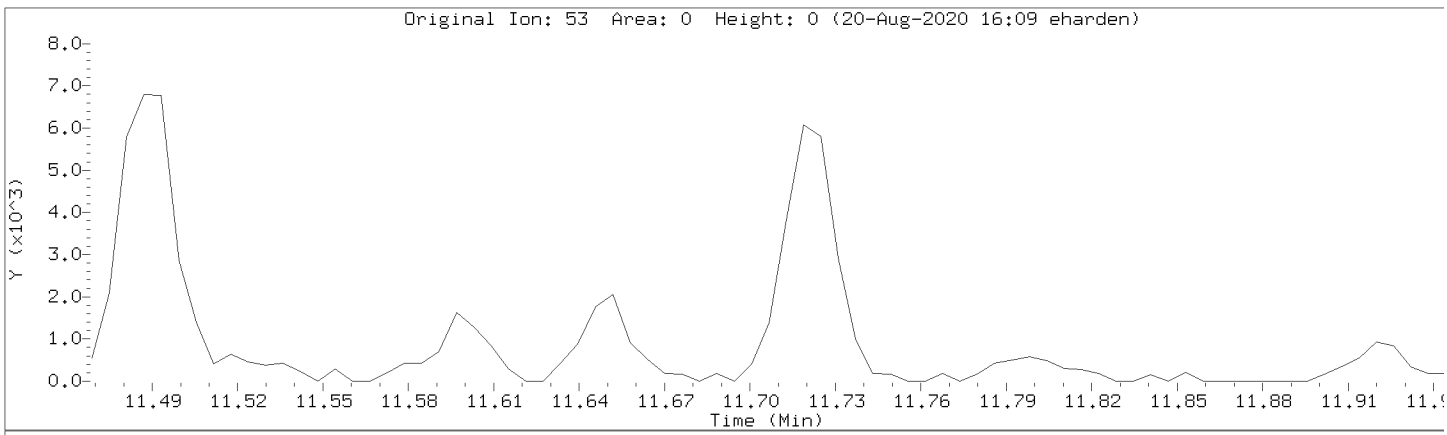
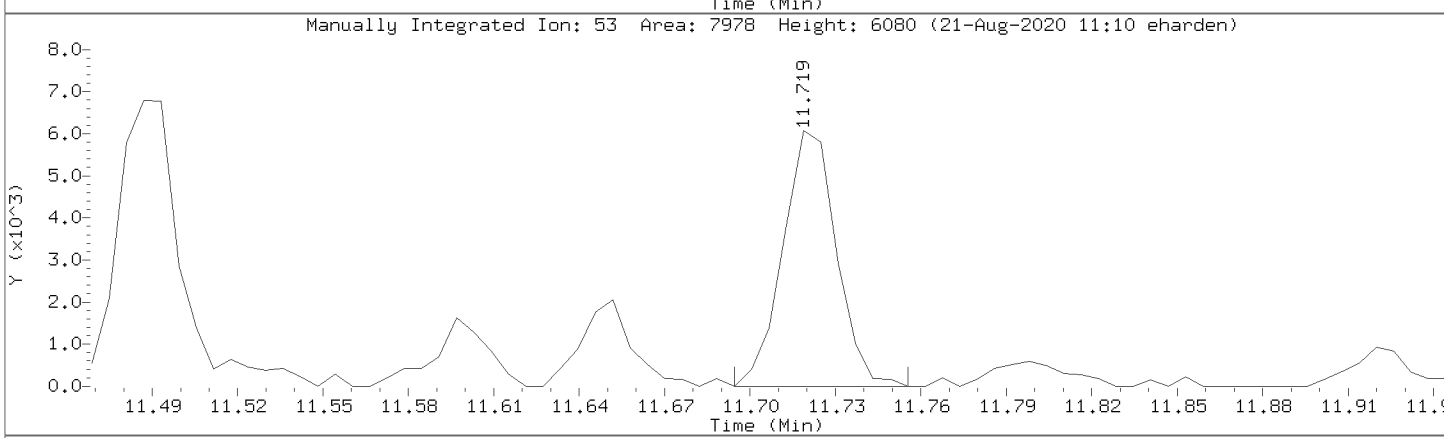
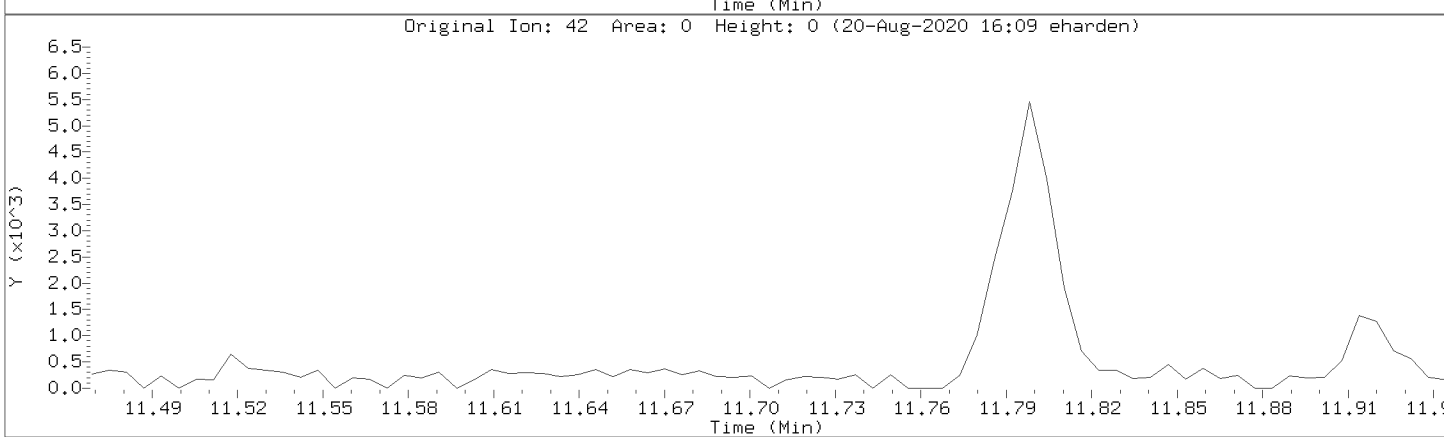
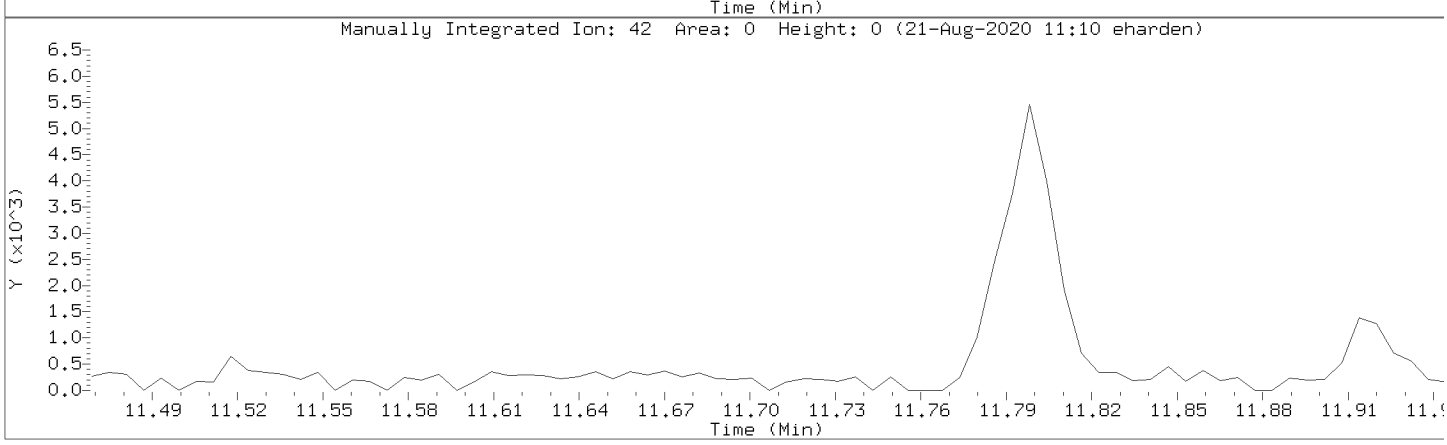
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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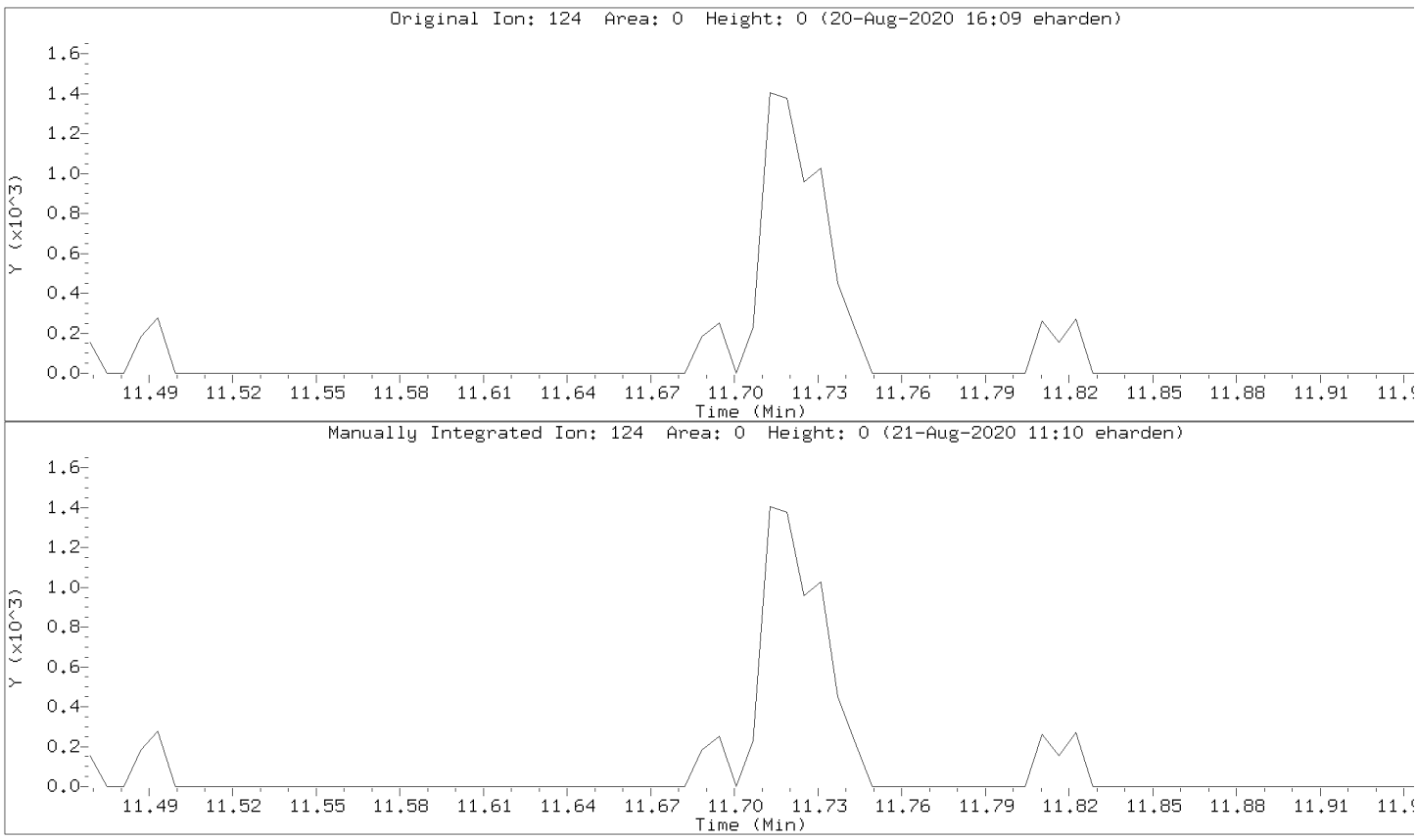
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_09.D
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 20-AUG-2020 13:20
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal7,27243:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 13:20 Cal File: 082020_09.D
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.410)	66551	20.0000	21.2(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	81131	20.0000	21.6	
3 Vinyl chloride	62	3.702	3.702	(0.471)	61034	20.0000	19.8	
4 1,3-Butadiene	39	3.714	3.708	(0.473)	53829	20.0000	19.5	
5 Bromomethane	94	4.201	4.195	(0.535)	59646	20.0000	23.8	
6 Chloroethane	64	4.360	4.360	(0.555)	18003	20.0000	20.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	39067	20.0000	19.9	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	21772	20.0000	20.1	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	72854	20.0000	20.9	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	49223	20.0000	21.4	
11 Carbon disulfide	76	5.293	5.293	(0.673)	161348	20.0000	20.9	
12 Iodomethane	142	5.433	5.439	(0.691)	23205	20.0000	16.7	
13 Acrolein	56	5.659	5.659	(0.720)	14345	40.0000	39.8	
14 Allyl chloride	76	5.787	5.787	(0.736)	19759	20.0000	18.4	
15 Methylene Chloride	49	5.902	5.902	(0.751)	83879	20.0000	20.2	
16 Acetone	43	5.976	5.976	(0.760)	85965	40.0000	41.5	
17 Methyl acetate	43	6.067	6.067	(0.772)	105076	40.0000	43.5	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	47201	20.0000	20.0	
19 n-Hexane	86	6.116	6.110	(0.778)	4689	20.0000	18.8	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	110621	20.0000	20.1	
21 Acetonitrile	41	6.457	6.463	(0.822)	7995	40.0000	36.1(H)	
22 Chloroprene	53	6.646	6.640	(0.846)	66082	20.0000	20.1	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	95363	20.0000	20.8	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	41455	40.0000	41.6	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	94090	20.0000	20.8(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	66700	20.0000	19.8	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	69400	20.0000	19.6	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	31223	20.0000	21.2	
	29 Cyclohexane	56	7.335	7.335	(0.882)	58345	20.0000	19.6	
	30 Chloroform	83	7.372	7.372	(0.938)	106759	20.0000	20.6	
	31 Ethyl acetate	43	7.433	7.433	(0.946)	117599	40.0000	40.2	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	76046	20.0000	21.6	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	31173	40.0000	41.7	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	149580	50.0000	49.9	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	85319	20.0000	21.4	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	94574	40.0000	42.3	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	58568	20.0000	21.1(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	260205	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	184702	20.0000	20.6	
	40 Propionitrile	54	7.896	7.902	(1.005)	18434	40.0000	41.6	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	92418	40.0000	41.0	
	42 Isobutanol	43	7.993	7.987	(1.017)	3297	40.0000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	27279	50.0000	50.6	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	81970	20.0000	20.2	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	100475	20.0000	20.7	
	46 Trichloroethene	130	8.317	8.317	(1.000)	52418	20.0000	21.4	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	349844	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	23561	20.0000	20.3	
	49 n-Butanol	56	8.512	8.524	(1.023)	2226	40.0000	41.6(H)	
	50 Dibromomethane	93	8.670	8.670	(1.043)	43883	20.0000	21.0	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	54314	20.0000	21.3	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	81003	20.0000	22.1	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	25633	20.0000	17.7	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	1026	40.0000	(M)	LT
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	40736	40.0000	32.0	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	73456	20.0000	20.6	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	379010	50.0000	50.3	
	58 Toluene	91	9.414	9.414	(1.132)	176320	20.0000	20.2	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	16319	20.0000	18.5(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	8556	40.0000	34.2(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	73456	20.0000	20.6	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	46748	20.0000	20.6	
	63 Ethyl methacrylate	69	9.755	9.761	(1.173)	47723	20.0000	17.4(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	46024	20.0000	20.8	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	66111	20.0000	21.0	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	70284	20.0000	20.8	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	55408	20.0000	20.5	
	68 2-Hexanone	43	10.273	10.280	(1.235)	121220	40.0000	41.0	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	164499	20.0000	19.0	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	330753	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	128596	20.0000	20.2	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	54617	20.0000	20.3	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	280615	40.0000	37.3	
	74 o-Xylene	106	10.993	10.993	(1.041)	56802	20.0000	16.3	
	75 Styrene	104	11.029	11.029	(1.044)	103176	20.0000	17.0	
	76 Bromoform	173	11.103	11.103	(1.051)	60029	20.0000	20.1	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	92598	20.0000	17.8	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	136161	50.0000	50.2	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	19403	20.0000	17.9	
80 n-Propylbenzene	91	11.529	11.523	(1.092)	212436	20.0000	20.0	
81 Bromobenzene	156	11.578	11.578	(1.096)	70823	20.0000	21.2	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	73479	20.0000	20.8	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	142512	20.0000	20.4	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	50034	20.0000	20.0	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	45527	20.0000	18.1	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	150389	20.0000	16.8	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	76477	20.0000	20.7	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	16946	20.0000	19.9	
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	132498	20.0000	16.6	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	145095	20.0000	17.9	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	171564	20.0000	17.9	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	132498	20.0000	16.6	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	112298	20.0000	19.9	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	212042	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	118836	20.0000	18.7	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	139939	20.0000	18.9	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	117112	20.0000	19.0	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	12299	20.0000	17.7	
100 Hexachloro-1,3-butadiene	225	13.815	13.822	(1.120)	34339	20.0000	18.2	
101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	73609	20.0000	17.6	
102 Naphthalene	128	14.193	14.193	(1.150)	120284	20.0000	14.9	
103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	74200	20.0000	19.1	

QC Flag Legend

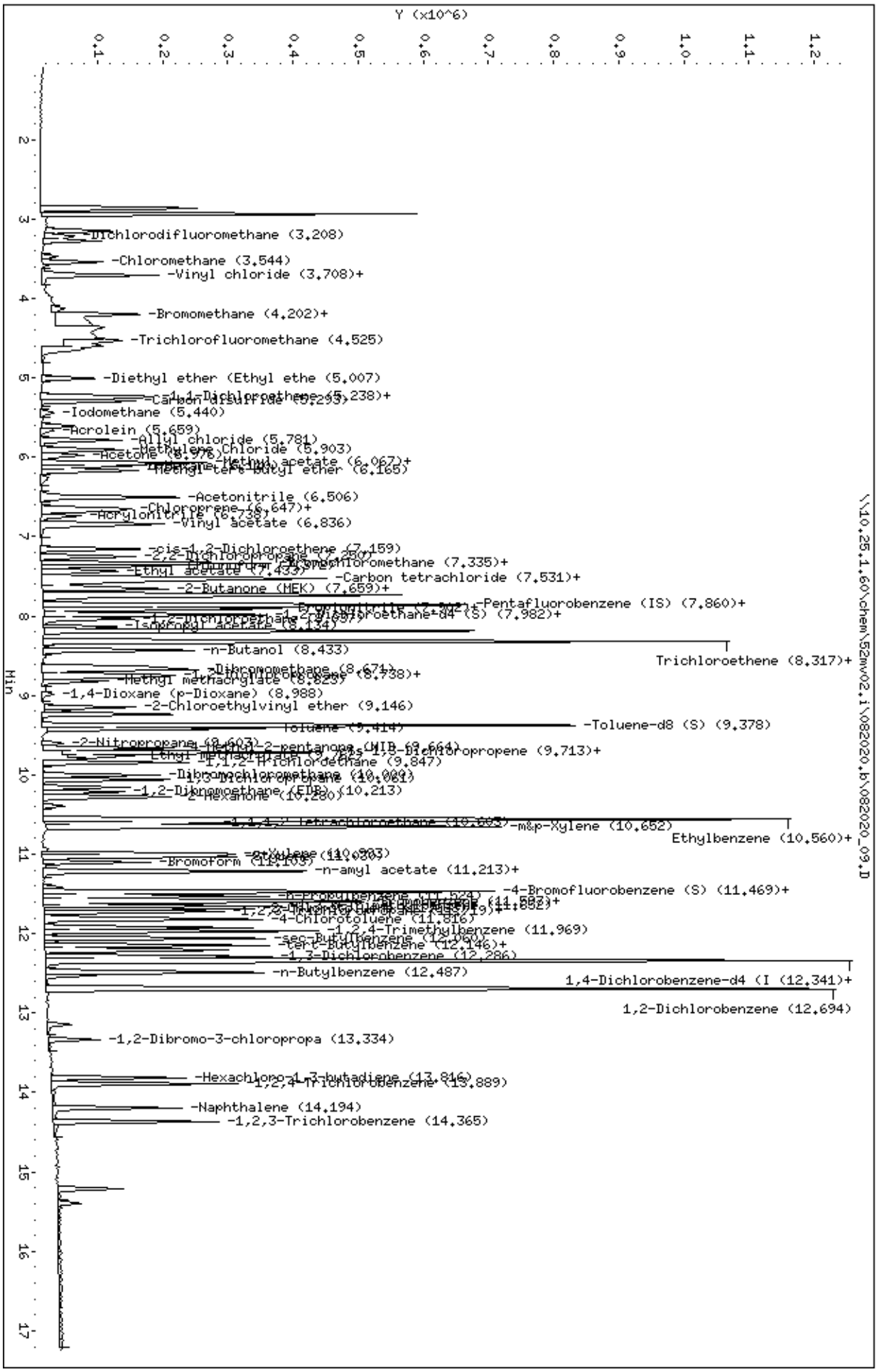
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_09.D
Date : 20-AUG-2020 13:20
Client ID: CAL7
Sample Info: CAL7,27243:1
Purge Volume: 5.0
Column phase: RTX-VMS

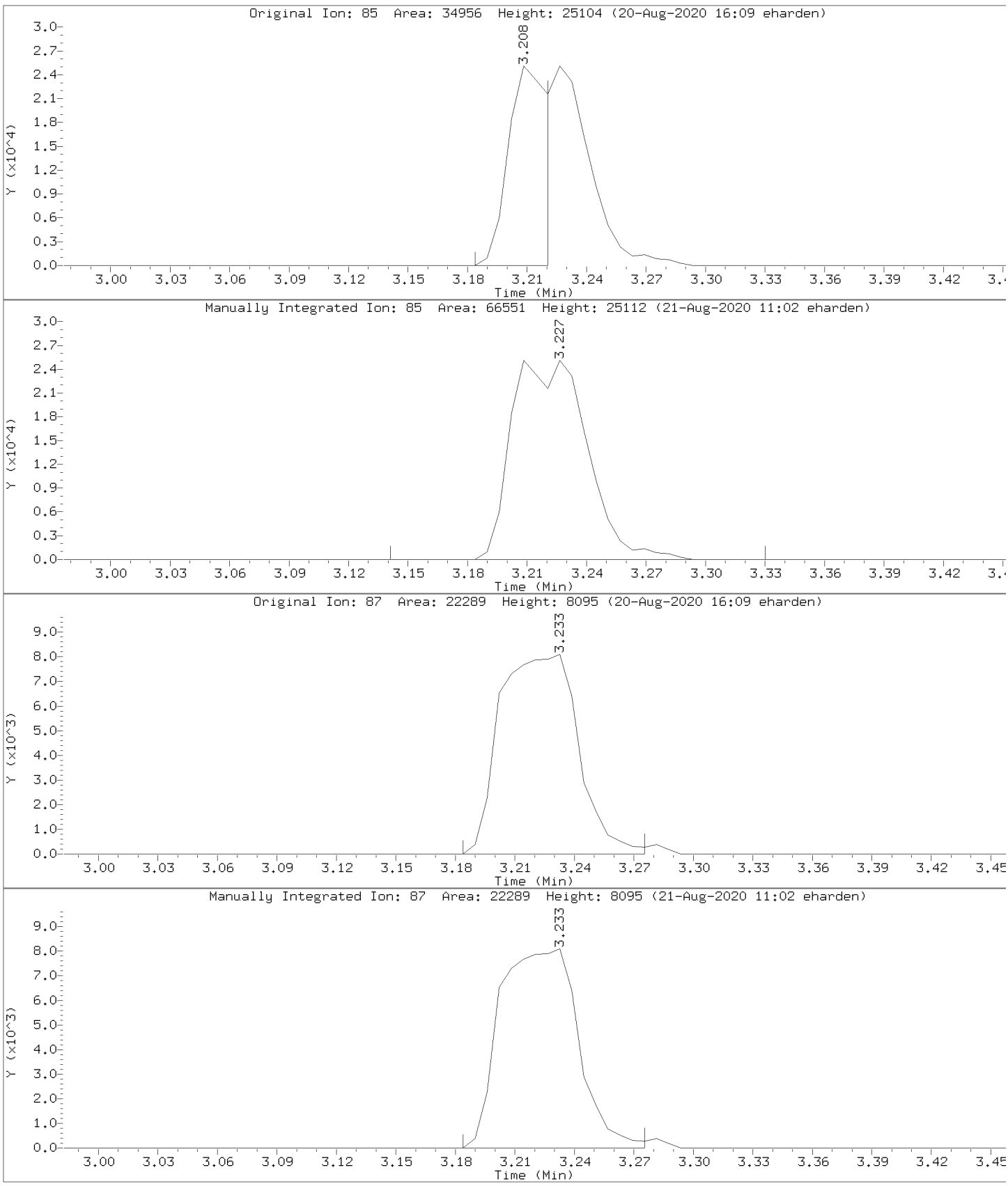
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Page 4

Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_09.D
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



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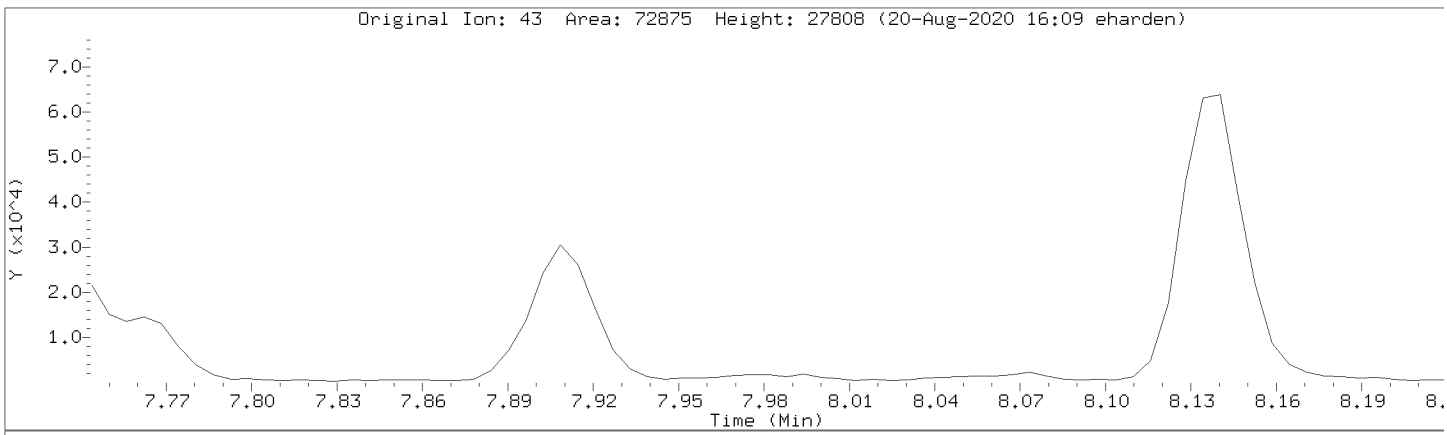
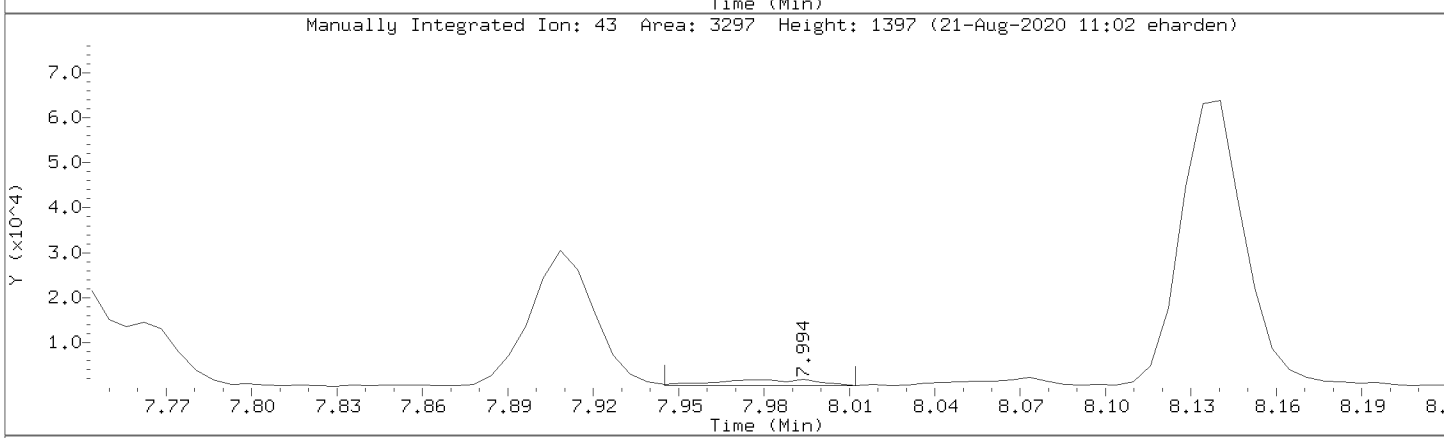
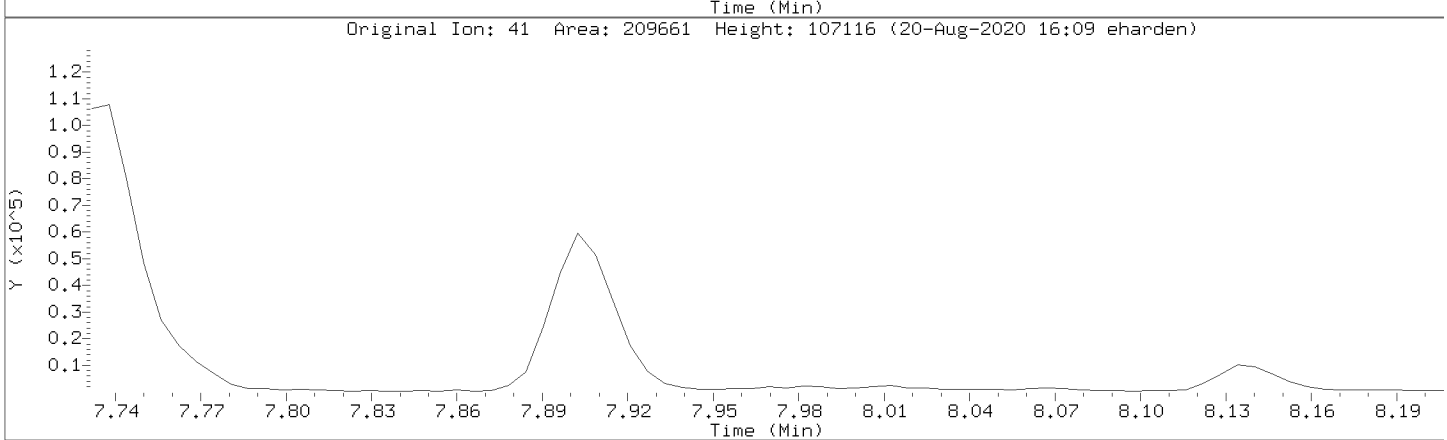
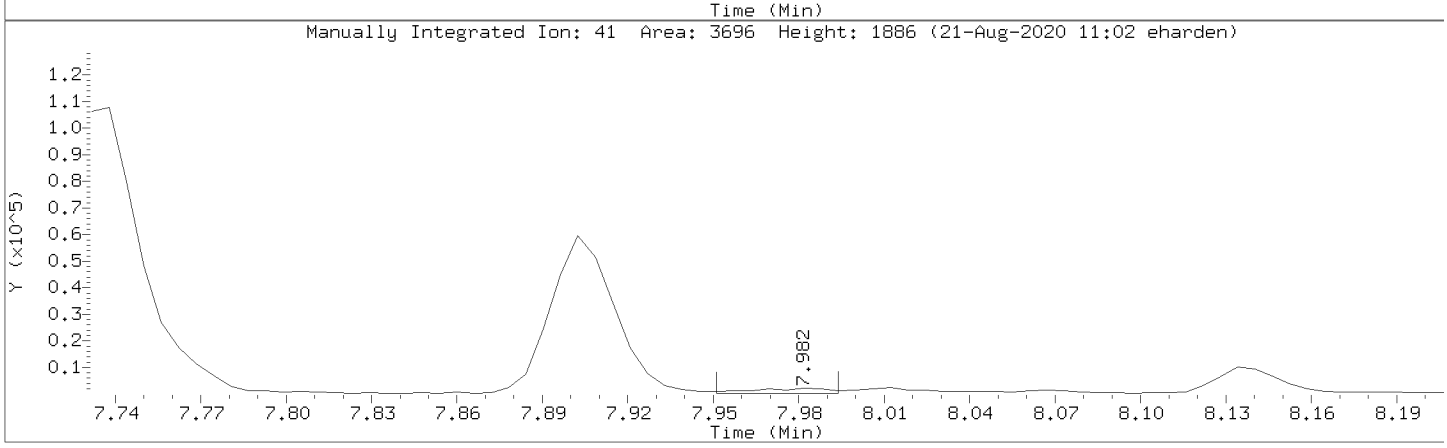
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1



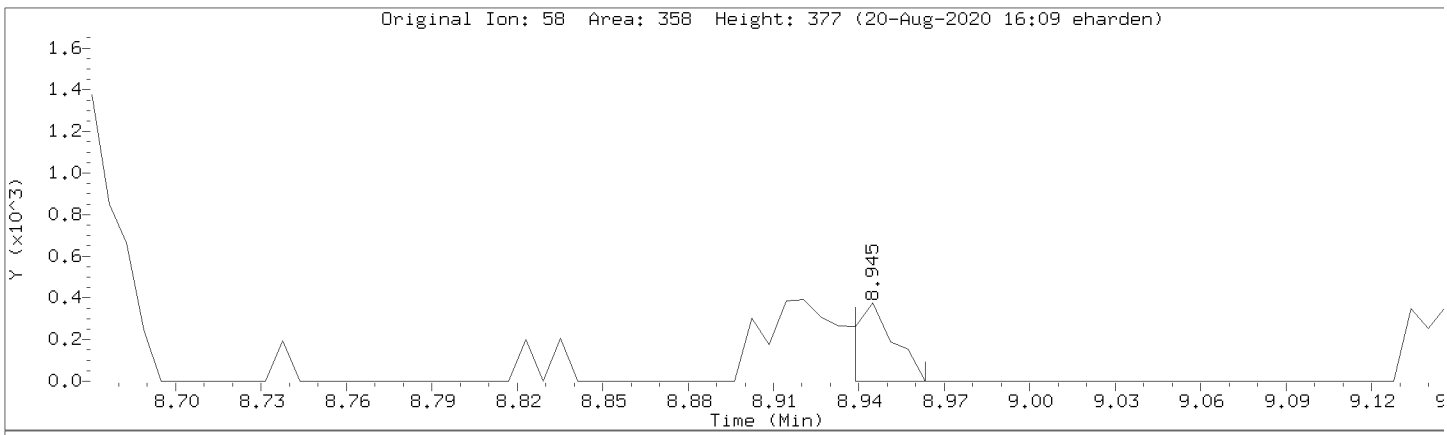


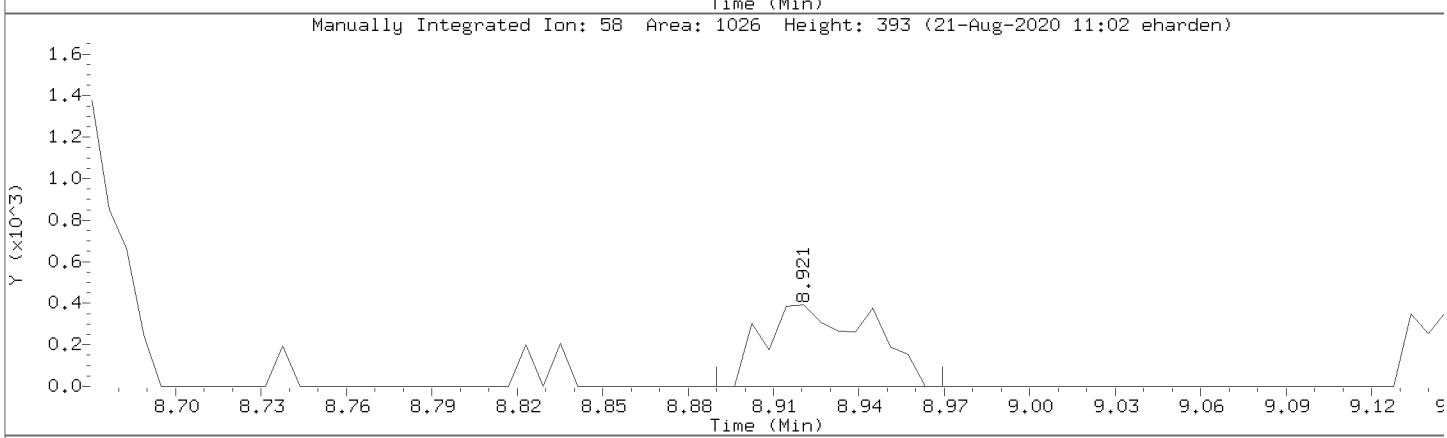


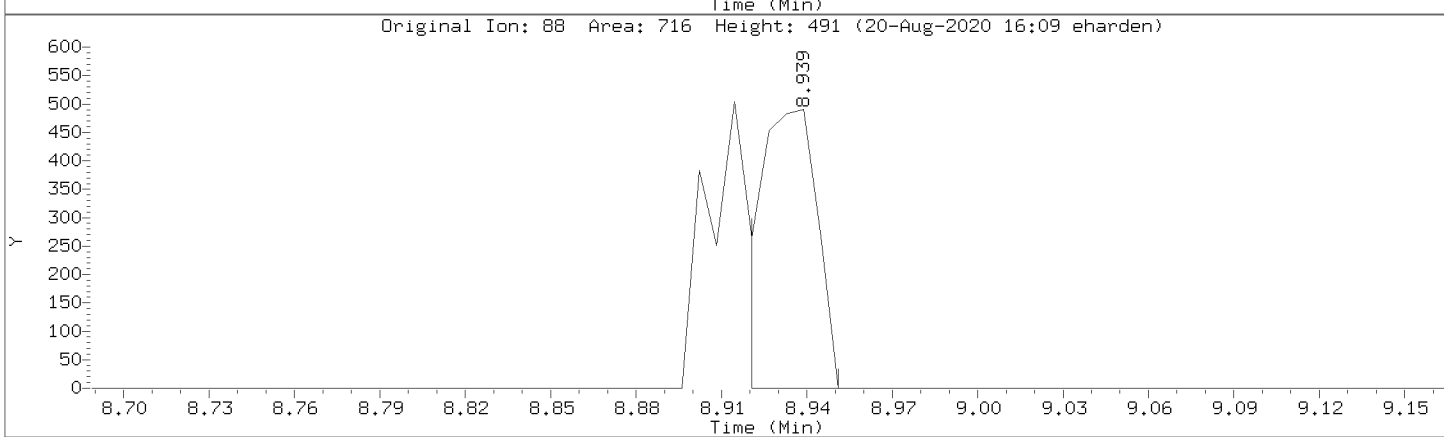


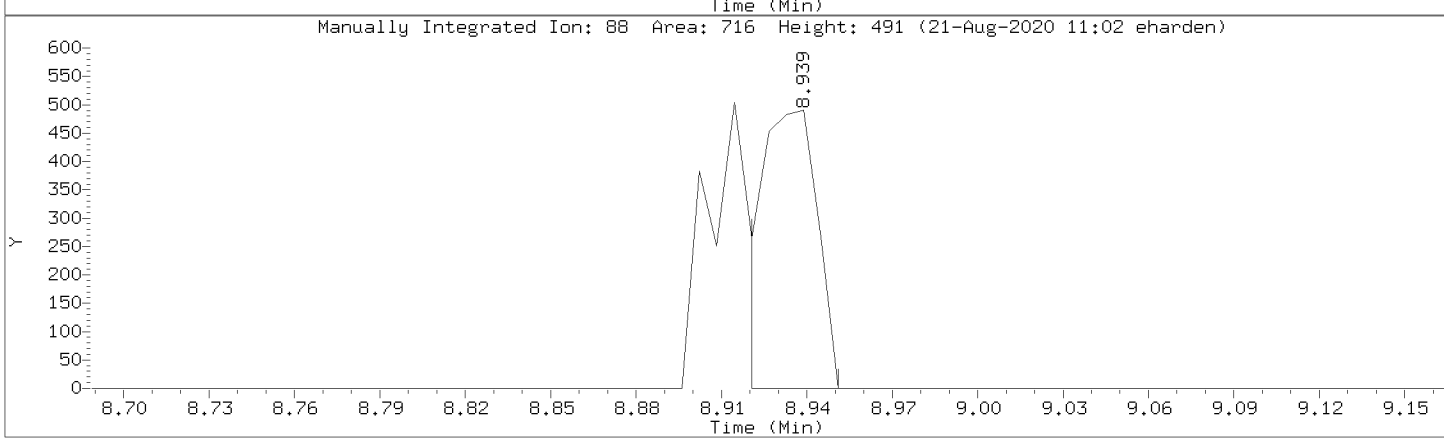
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_09.D
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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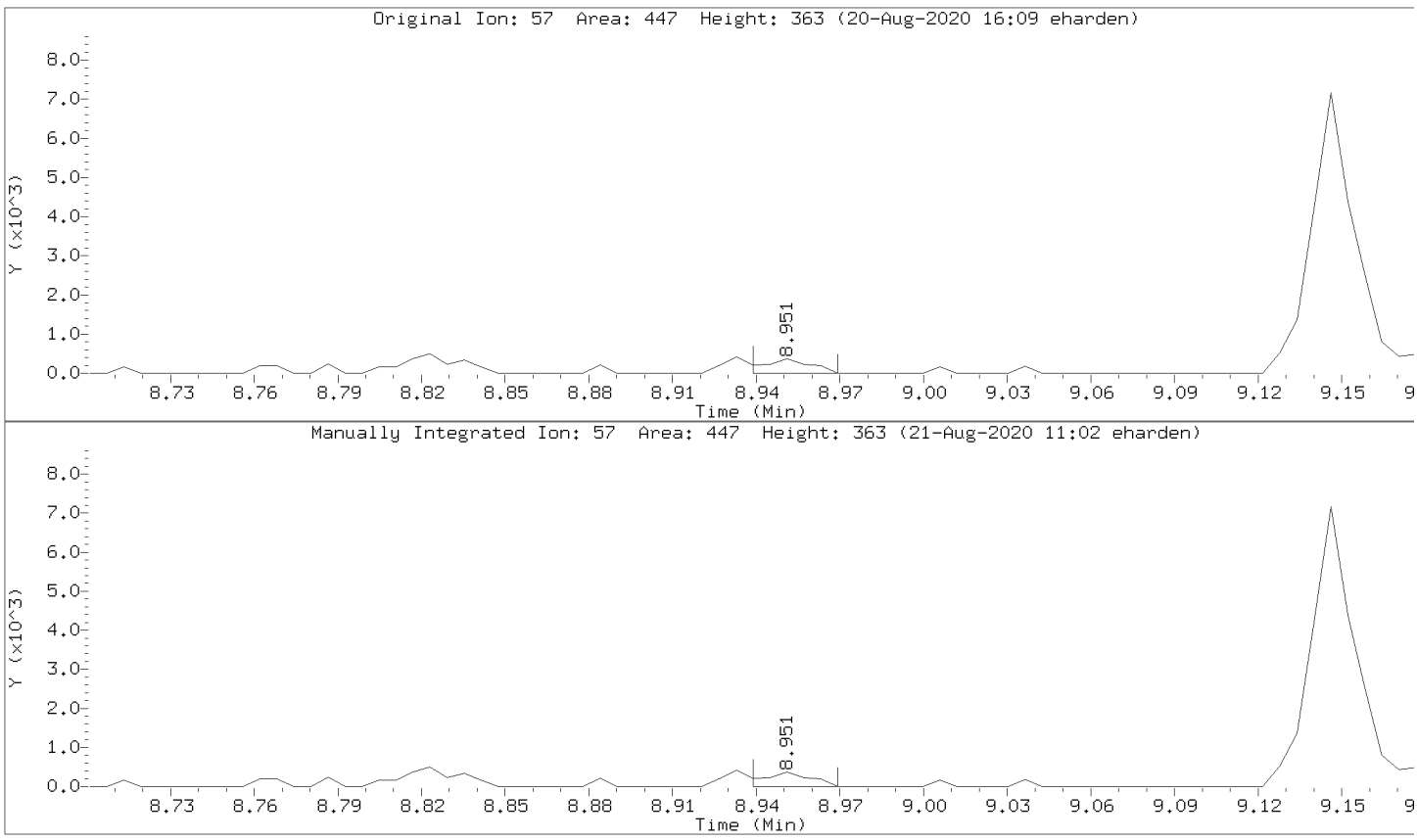
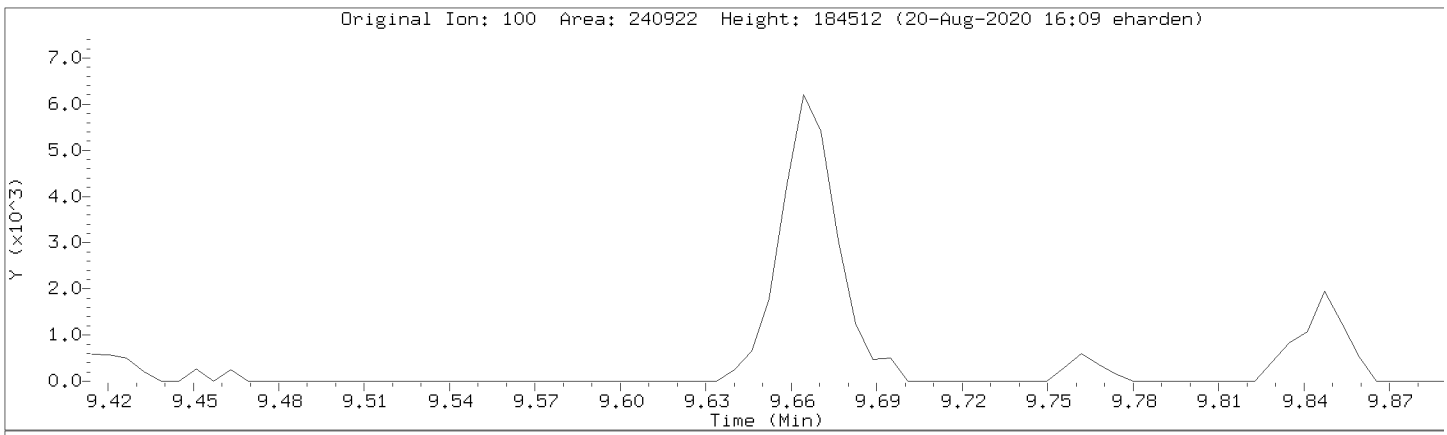
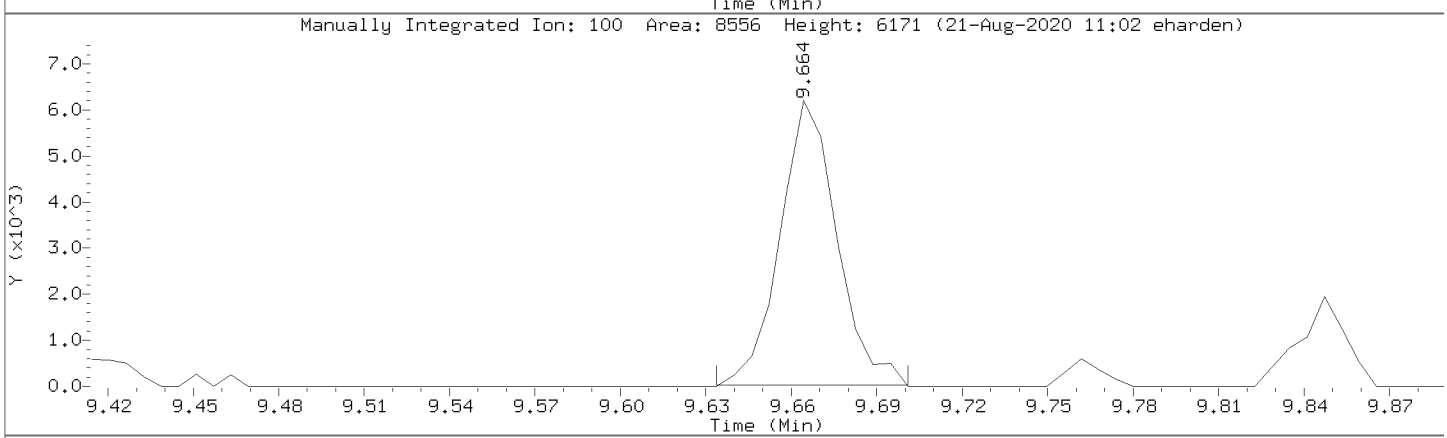
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

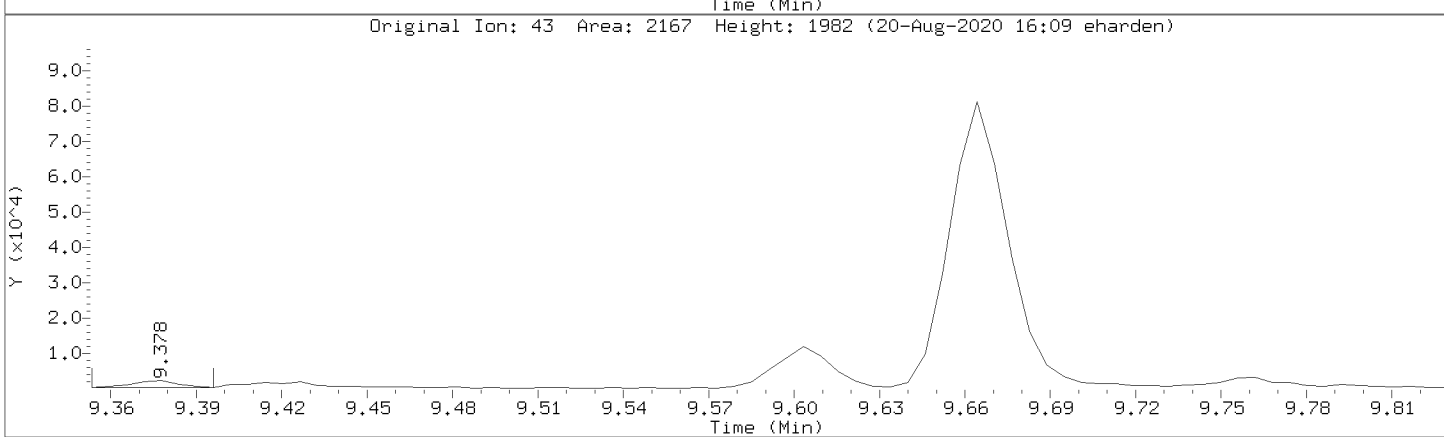


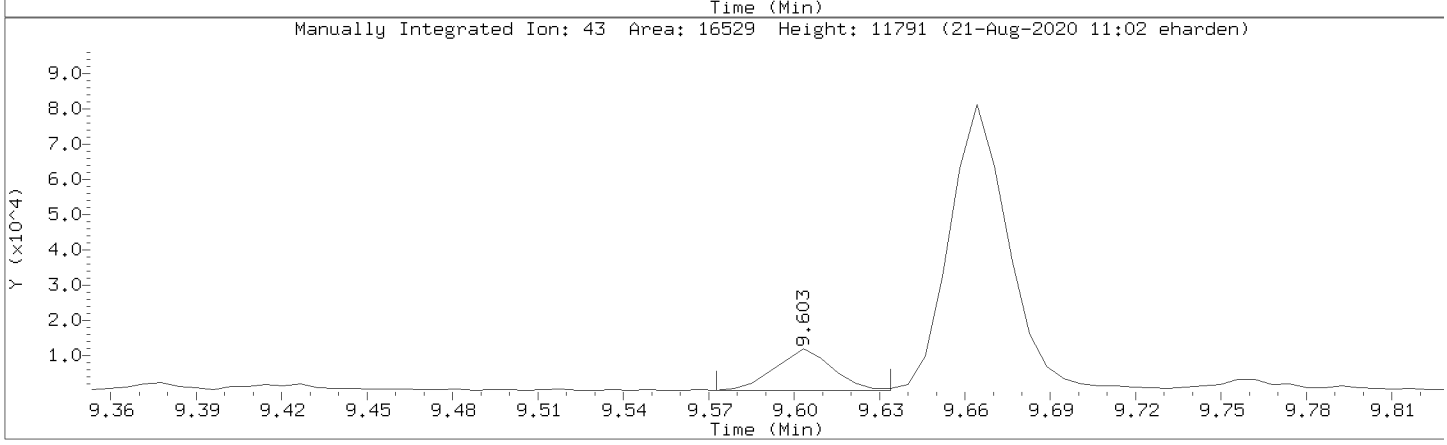
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_09.D
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1

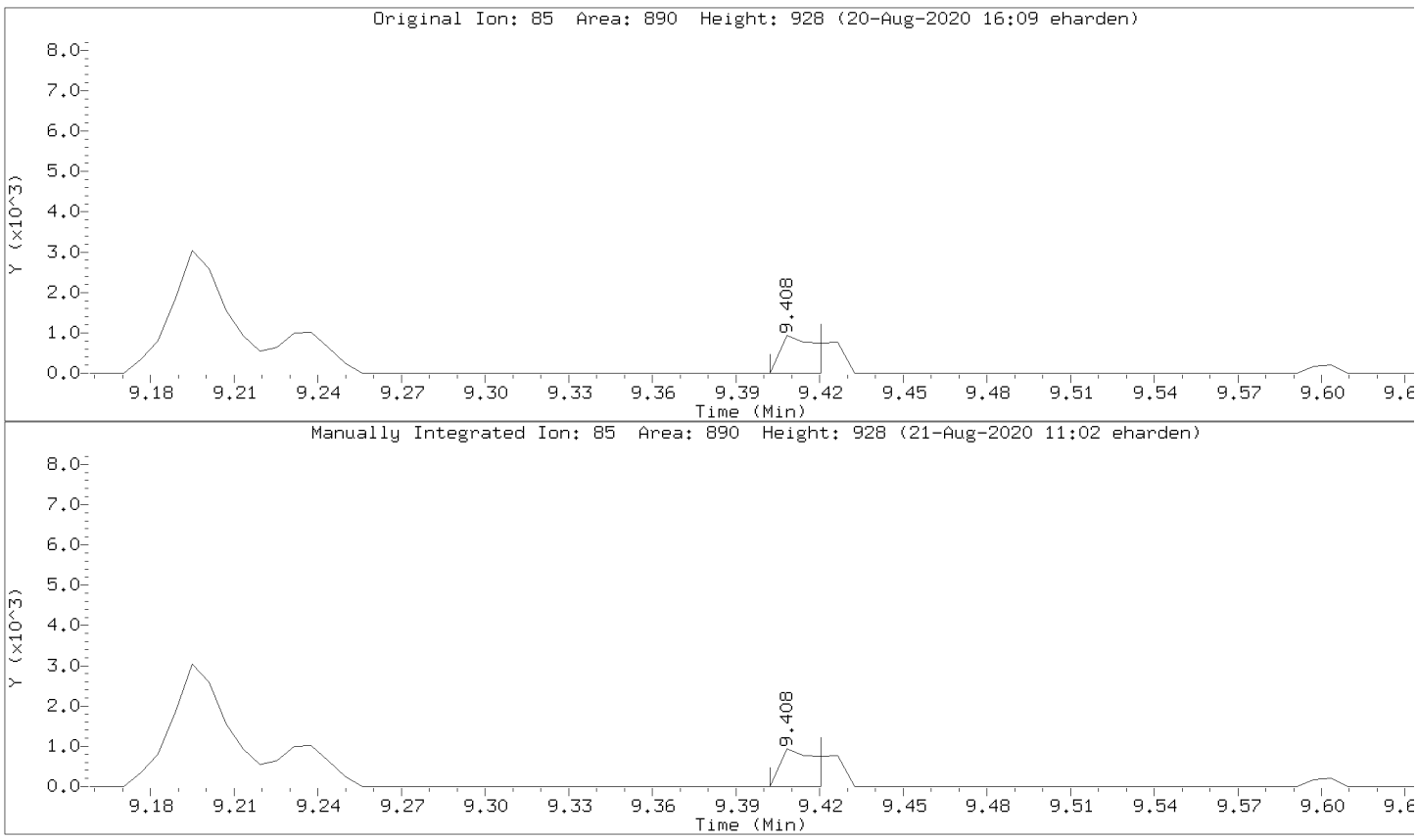








Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_09.D
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_10.D
Lab Smp Id: CAL8 Client Smp ID: CAL8
Inj Date : 20-AUG-2020 13:45
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal8,27244:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 13:45 Cal File: 082020_10.D
Als bottle: 8 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.220	3.226	(0.410)	173079	50.0000	49.6(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	212550	50.0000	52.0	
3 Vinyl chloride	62	3.695	3.702	(0.470)	166119	50.0000	48.4	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	144991	50.0000	47.2	
5 Bromomethane	94	4.201	4.195	(0.535)	130011	50.0000	49.7	
6 Chloroethane	64	4.366	4.360	(0.556)	50765	50.0000	53.1	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	100155	50.0000	45.9	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	58875	50.0000	48.9	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	192156	50.0000	49.5	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	122394	50.0000	47.8	
11 Carbon disulfide	76	5.287	5.293	(0.673)	413695	50.0000	48.1	
12 Iodomethane	142	5.439	5.439	(0.692)	89679	50.0000	44.8	
13 Acrolein	56	5.658	5.659	(0.720)	37965	100.000	94.7	
14 Allyl chloride	76	5.780	5.787	(0.736)	56951	50.0000	47.7	
15 Methylene Chloride	49	5.902	5.902	(0.751)	216337	50.0000	46.9	
16 Acetone	43	5.969	5.976	(0.760)	217508	100.000	96.6	
17 Methyl acetate	43	6.067	6.067	(0.772)	274607	100.000	103	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	124266	50.0000	47.4	
19 n-Hexane	86	6.110	6.110	(0.777)	14689	50.0000	52.8	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	314639	50.0000	51.4	
21 Acetonitrile	41	6.457	6.463	(0.822)	27093	100.000	111(H)	
22 Chloroprene	53	6.640	6.640	(0.845)	195675	50.0000	53.5	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	251927	50.0000	49.4	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	102650	100.000	92.7	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	281798	50.0000	55.9	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	185024	50.0000	49.2	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	182412	50.0000	46.4	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	78756	50.0000	48.0	
	29 Cyclohexane	56	7.335	7.335	(0.882)	177735	50.0000	54.3	
	30 Chloroform	83	7.372	7.372	(0.938)	280462	50.0000	48.6	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	323030	100.000	99.3	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	200727	50.0000	51.8	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	79823	100.000	99.2	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	159185	50.0000	47.8	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	220636	50.0000	50.3	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	237312	100.000	95.5(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	162055	50.0000	53.2(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	289504	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	489899	50.0000	49.8	
	40 Propionitrile	54	7.890	7.902	(1.004)	49807	100.000	101	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	257917	100.000	103	
	42 Isobutanol	43	7.963	7.987	(1.013)	9414	100.000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	27652	50.0000	46.1	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	209549	50.0000	46.3	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	280793	50.0000	52.1	
	46 Trichloroethene	130	8.316	8.317	(1.000)	136449	50.0000	50.7	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	384566	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	63924	50.0000	50.2	
	49 n-Butanol	56	8.518	8.524	(1.024)	6256	100.000	106(M)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	115423	50.0000	50.4	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	141305	50.0000	50.3	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	214260	50.0000	53.1	
	53 Methyl methacrylate	69	8.822	8.823	(1.061)	75413	50.0000	46.2	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	1885	100.000		
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	131862	100.000	90.8	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	204555	50.0000	52.2	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	414998	50.0000	50.1	
	58 Toluene	91	9.414	9.414	(1.132)	484269	50.0000	50.5	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	44089	50.0000	46.2(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	28658	100.000	104(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	204310	50.0000	52.2	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	126445	50.0000	50.1	
	63 Ethyl methacrylate	69	9.755	9.761	(1.173)	146188	50.0000	47.0(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	115505	50.0000	47.5	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	175886	50.0000	50.3	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	193129	50.0000	52.1	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	146153	50.0000	48.8	
	68 2-Hexanone	43	10.280	10.280	(1.236)	360382	100.000	111	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	498717	50.0000	51.9	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	367527	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	344375	50.0000	48.6	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	141151	50.0000	47.1	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	829841	100.000	98.6	
	74 o-Xylene	106	10.993	10.993	(1.041)	177926	50.0000	45.1	
	75 Styrene	104	11.029	11.029	(1.044)	324197	50.0000	47.1	
	76 Bromoform	173	11.103	11.103	(1.051)	159603	50.0000	48.1	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.224	11.225	(1.063)	289017	50.0000	48.8	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	155822	50.0000	51.7	
	79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	54700	50.0000	45.3	
	80 n-Propylbenzene	91	11.523	11.523	(1.091)	638613	50.0000	54.2	
	81 Bromobenzene	156	11.578	11.578	(1.096)	189432	50.0000	50.9	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	190650	50.0000	48.5	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	416577	50.0000	53.1	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	136445	50.0000	48.6	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	136492	50.0000	48.2	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	469102	50.0000	46.3	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	204905	50.0000	49.8	
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	49228	50.0000	52.0(M)	NI
	89 Cyclohexanone	98	Compound Not Detected.						
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	419415	50.0000	45.8	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	442492	50.0000	48.1	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	512642	50.0000	46.9	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	419415	50.0000	45.8	
	94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	318067	50.0000	50.3	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	237436	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	327228	50.0000	45.9	
	97 n-Butylbenzene	91	12.486	12.486	(1.012)	445646	50.0000	53.9	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	323974	50.0000	46.9	
	99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	35137	50.0000	45.2	
	100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	100028	50.0000	47.2	
	101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	228410	50.0000	48.8	
	102 Naphthalene	128	14.199	14.193	(1.151)	399832	50.0000	43.2	
	103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	218926	50.0000	50.4	

QC Flag Legend

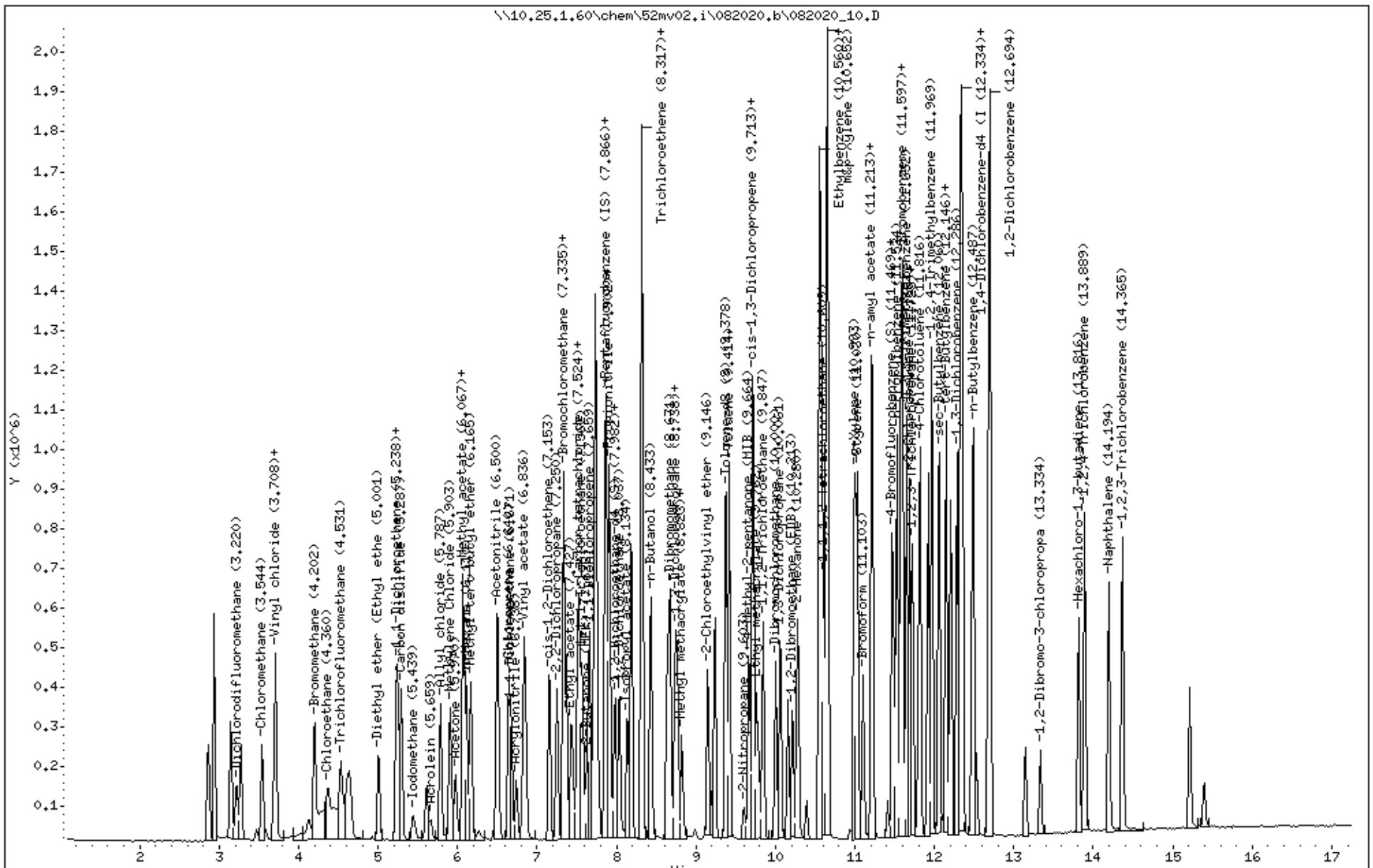
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

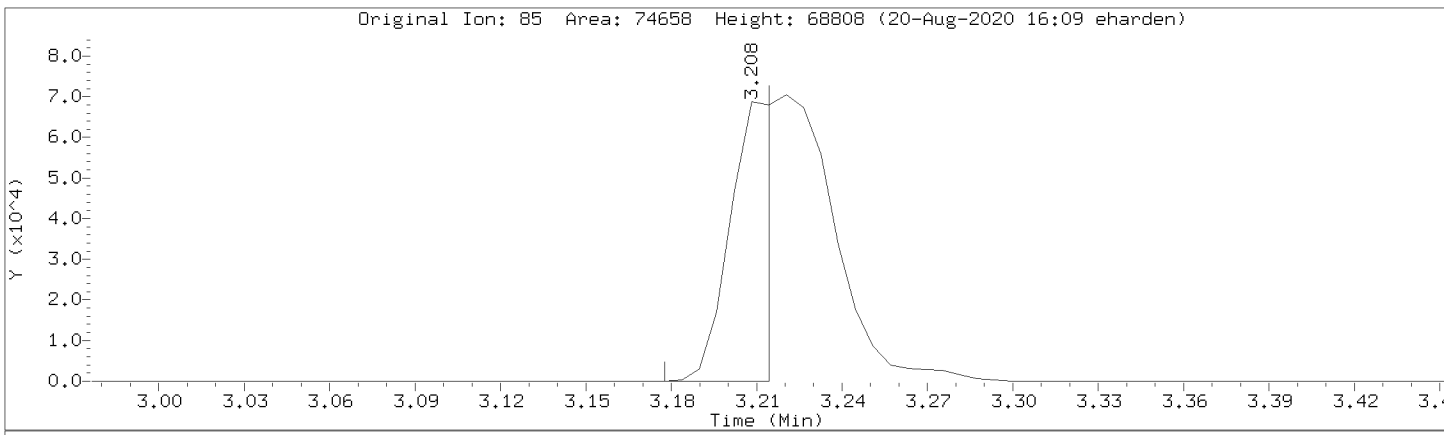
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_10.D
Date : 20-AUG-2020 13:45
Client ID: CAL8
Sample Info: CAL8,27244:1
Purge Volume: 5.0
Column phase: RTX-VMS

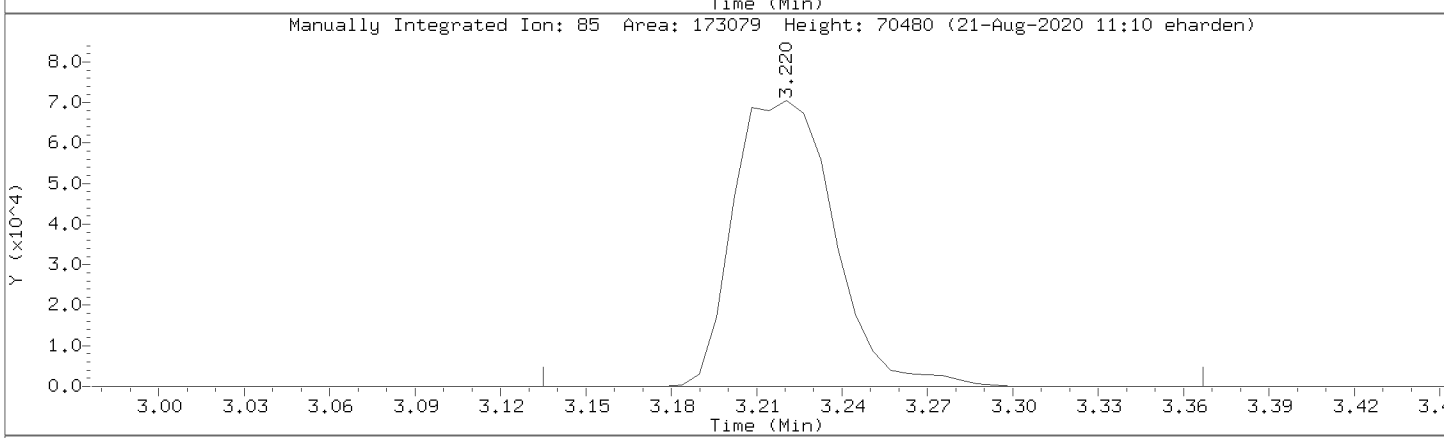
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

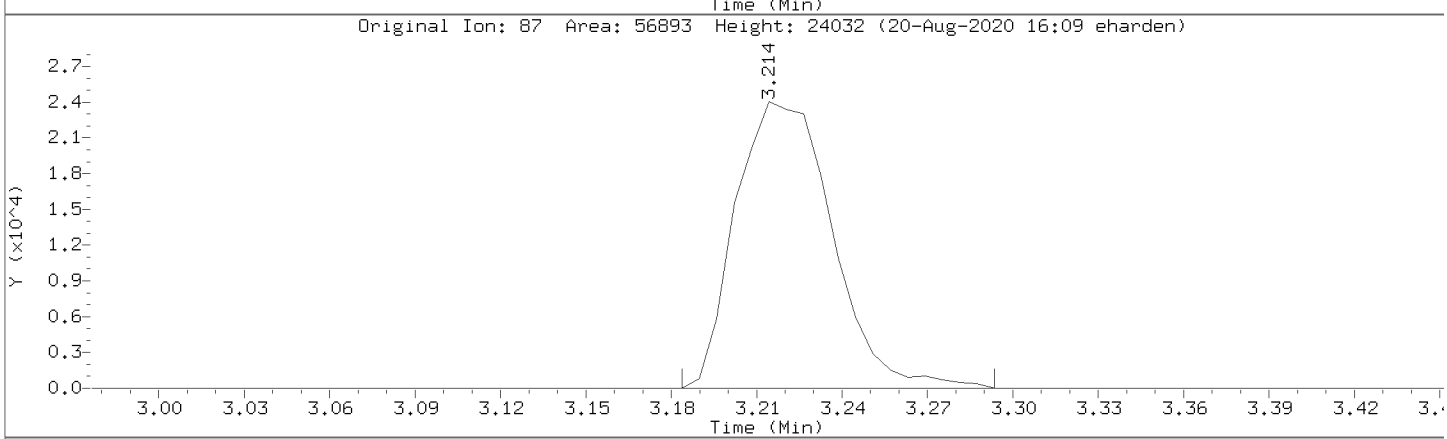


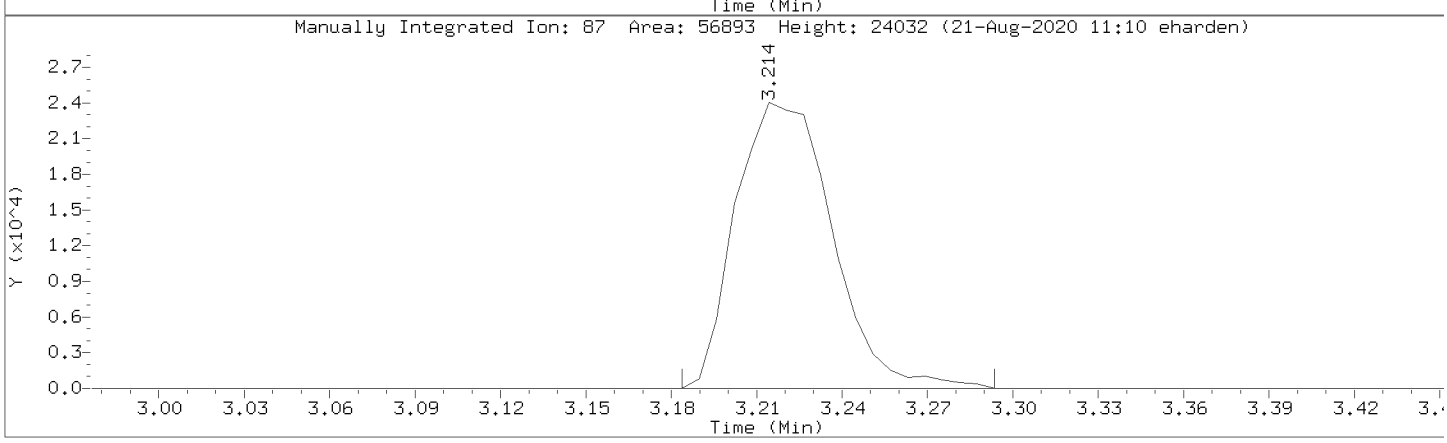
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



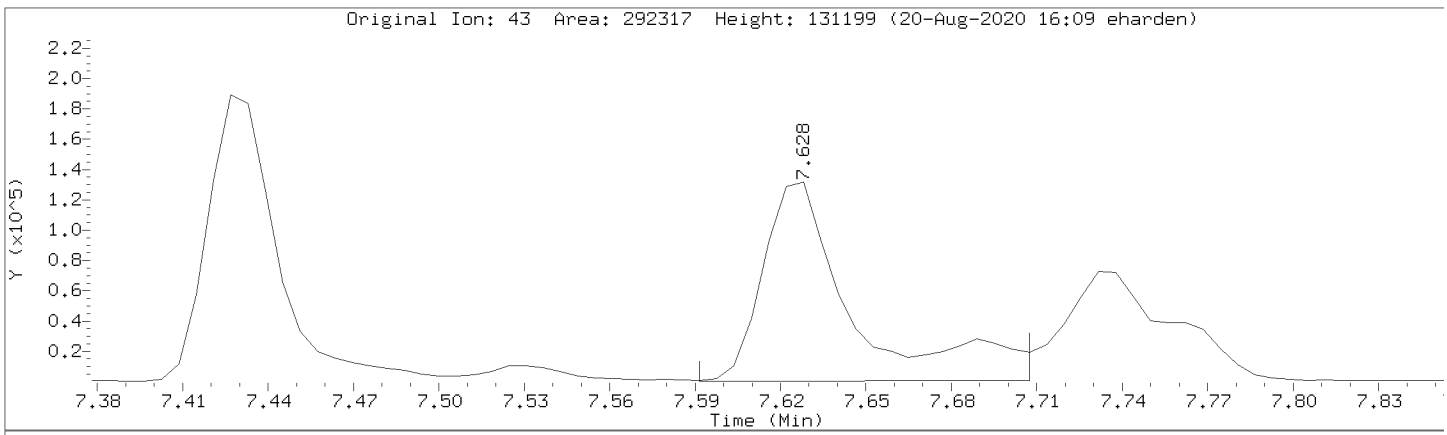


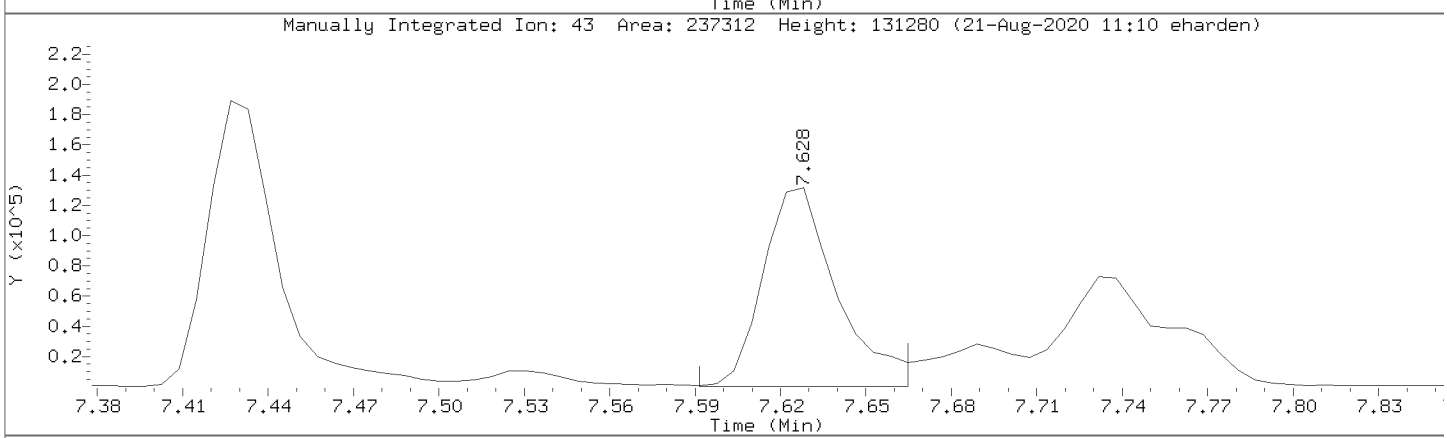


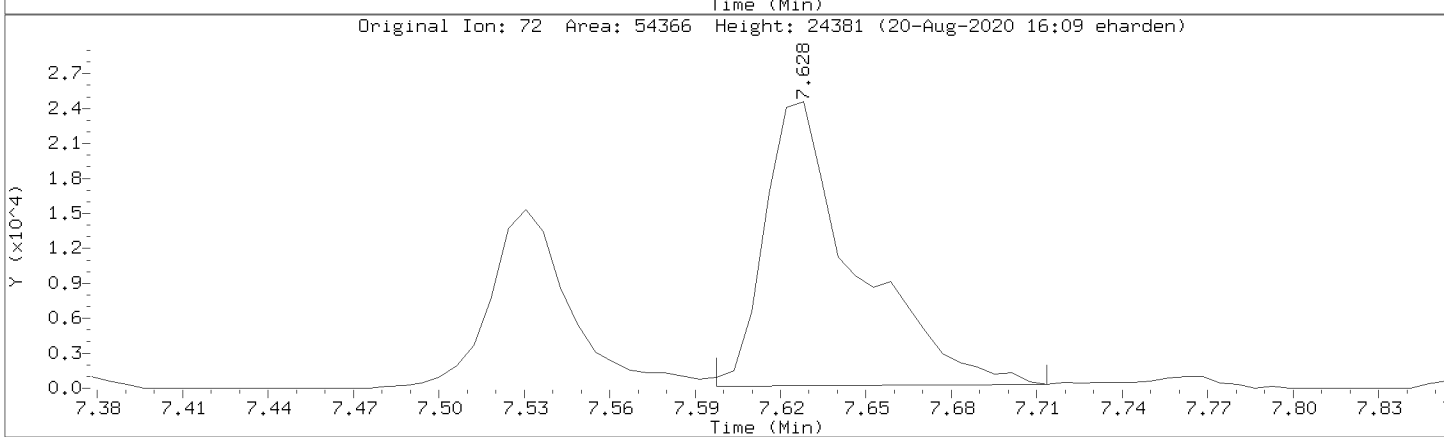


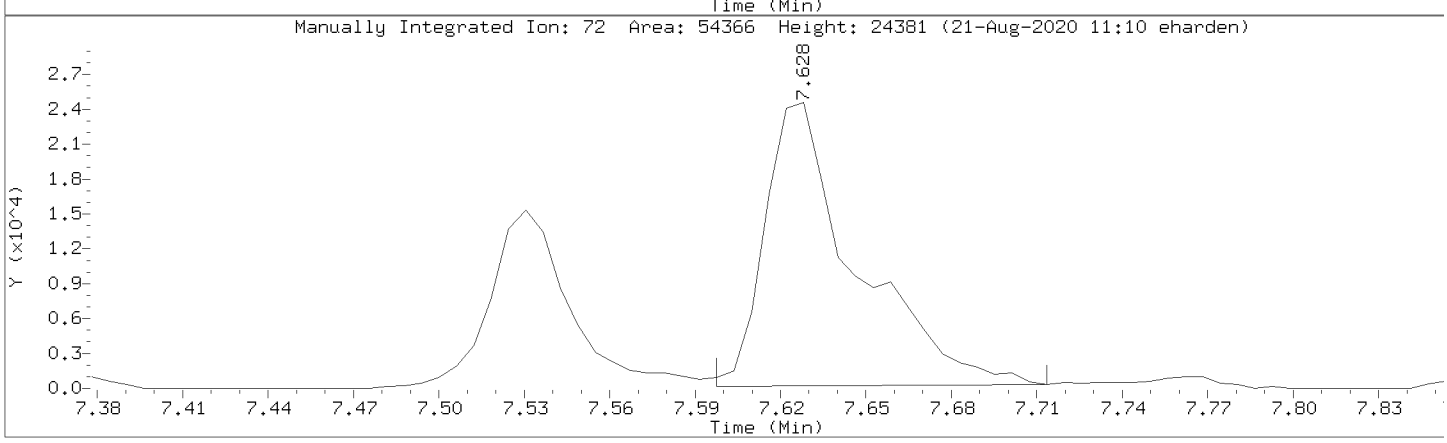
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3



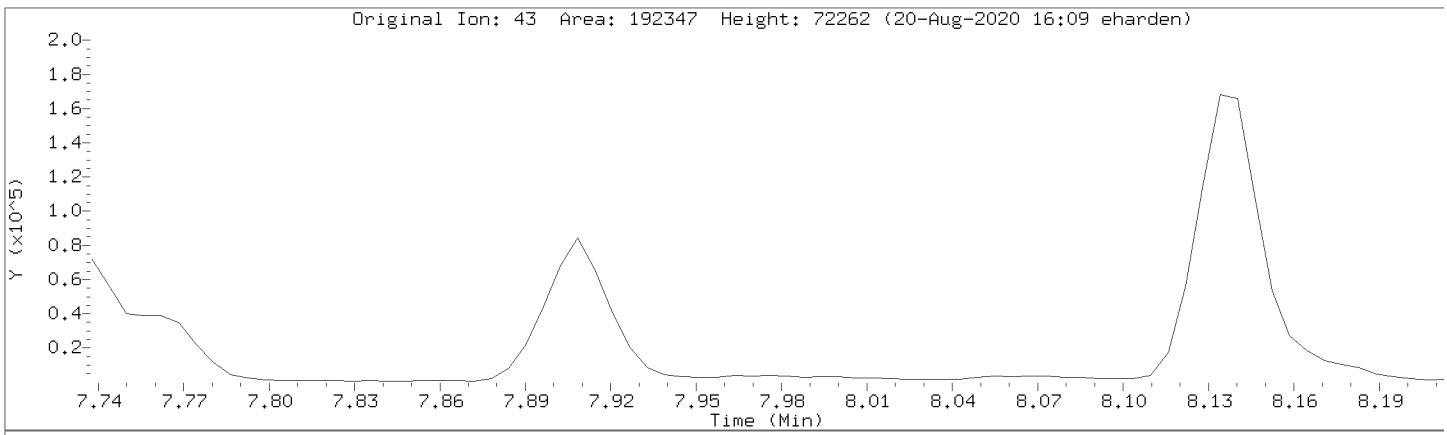


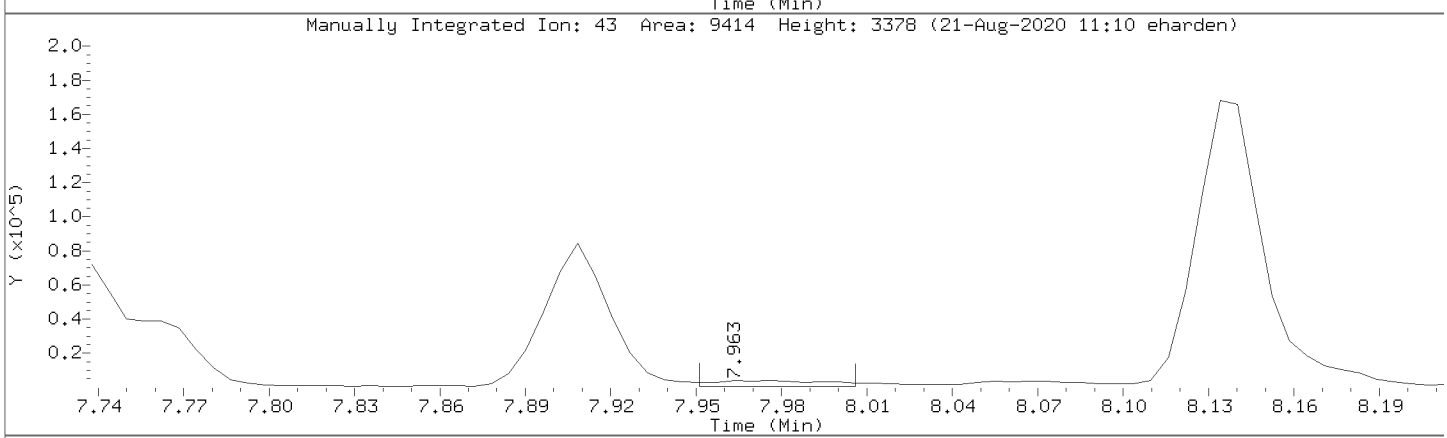


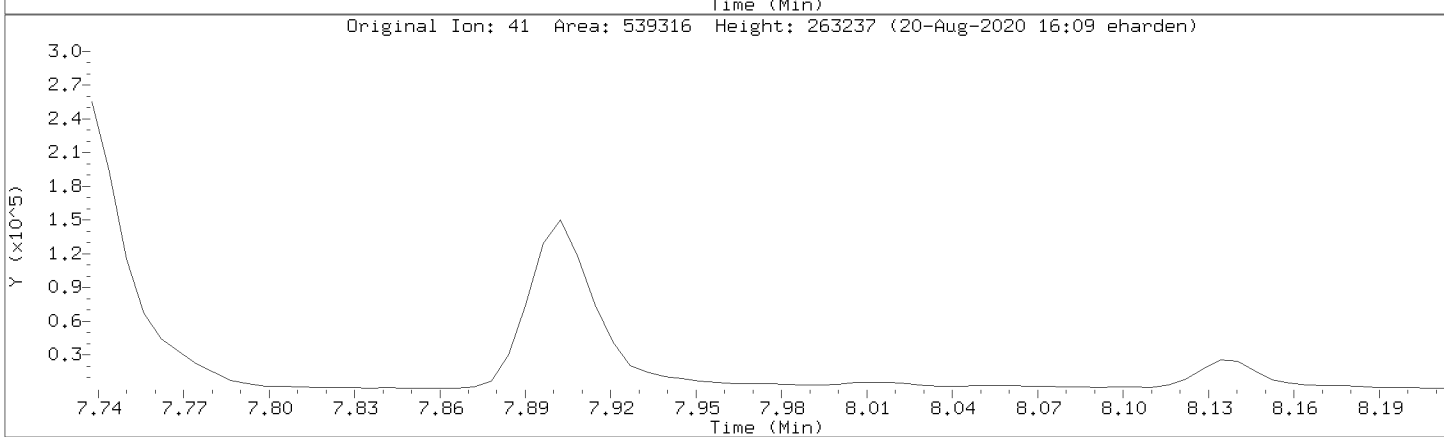


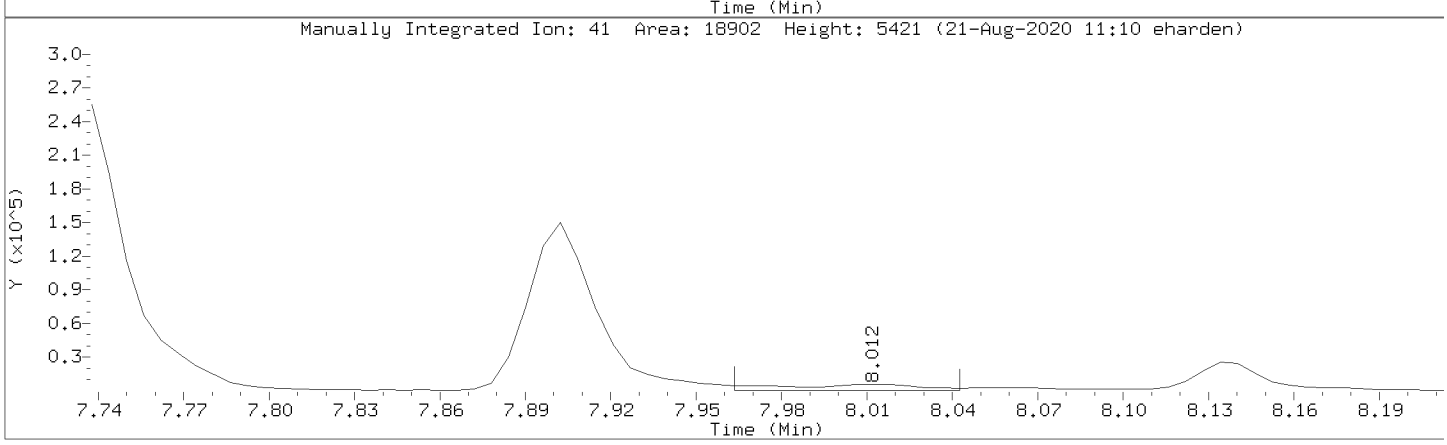
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1



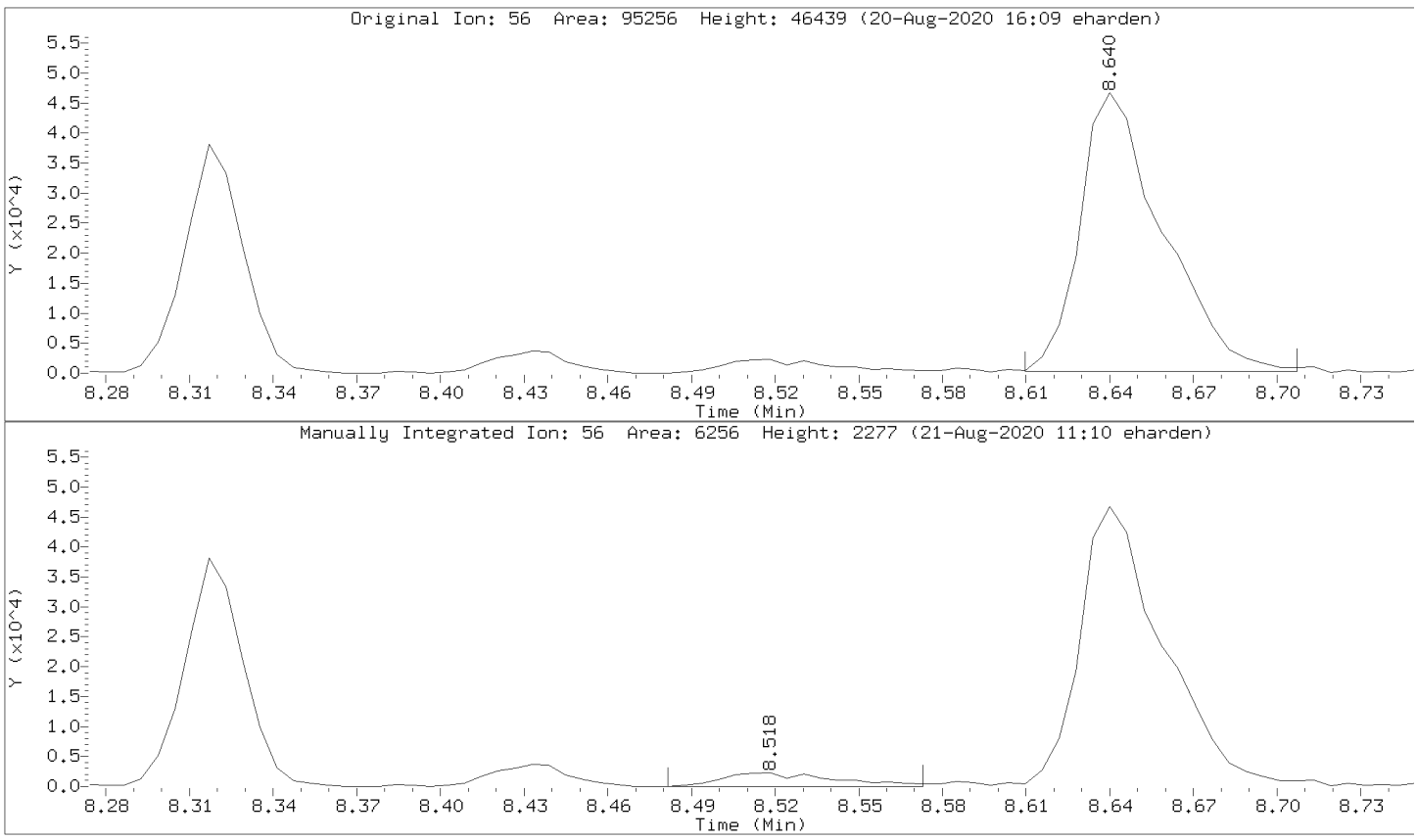






Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3



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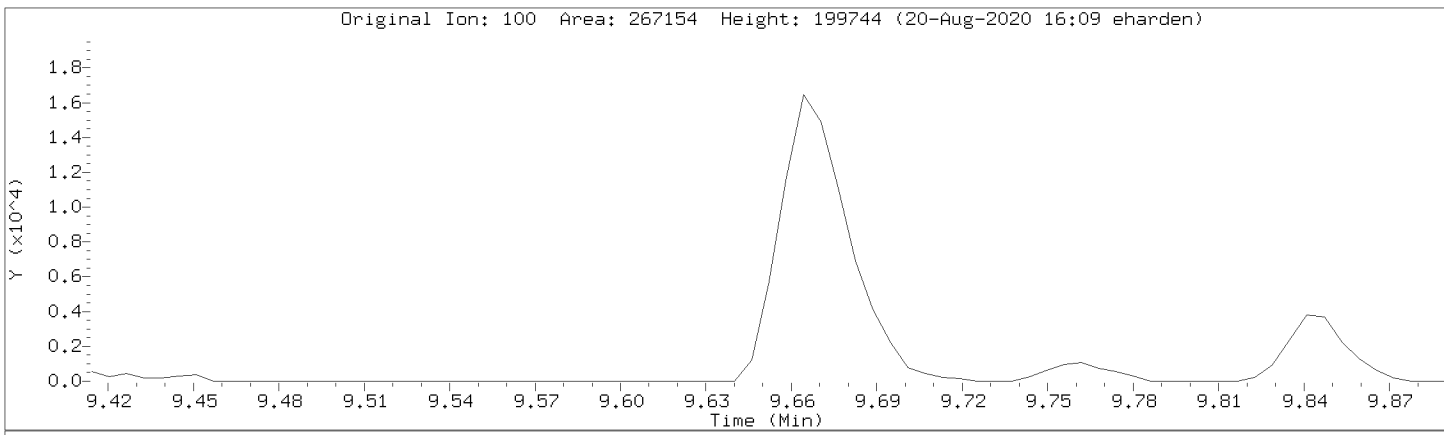
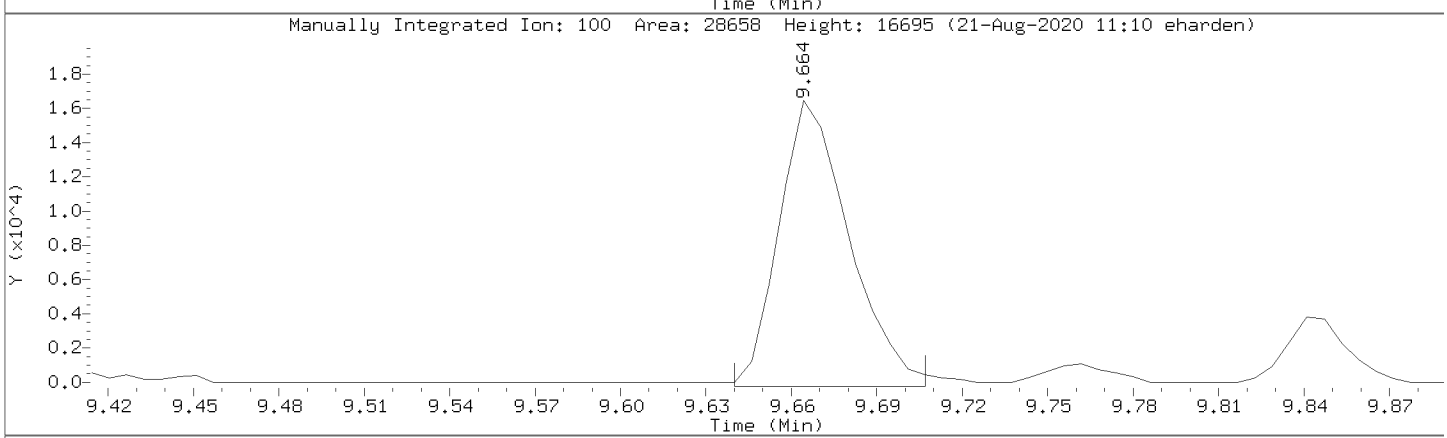
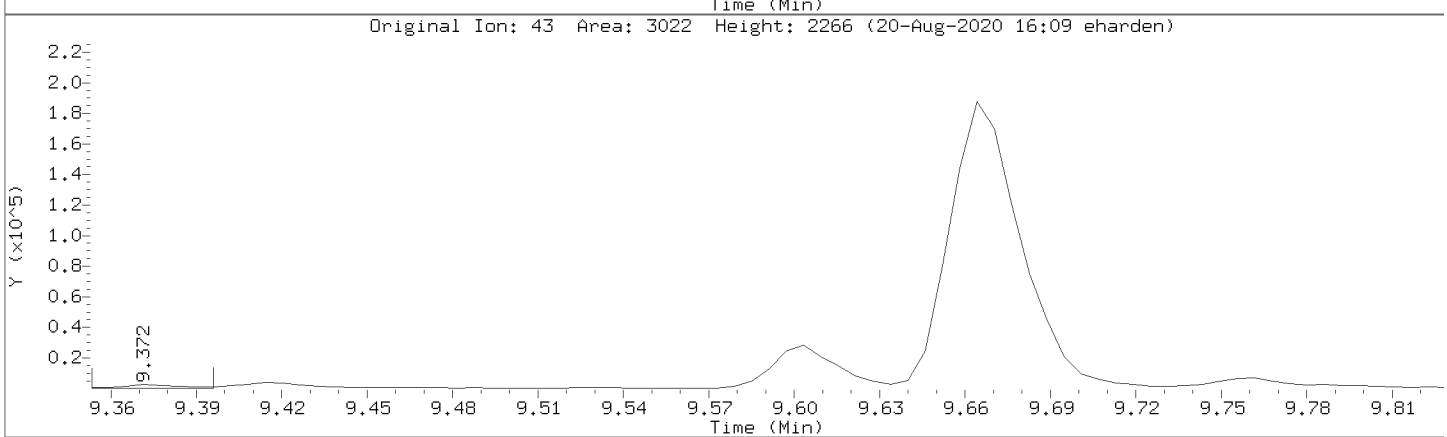
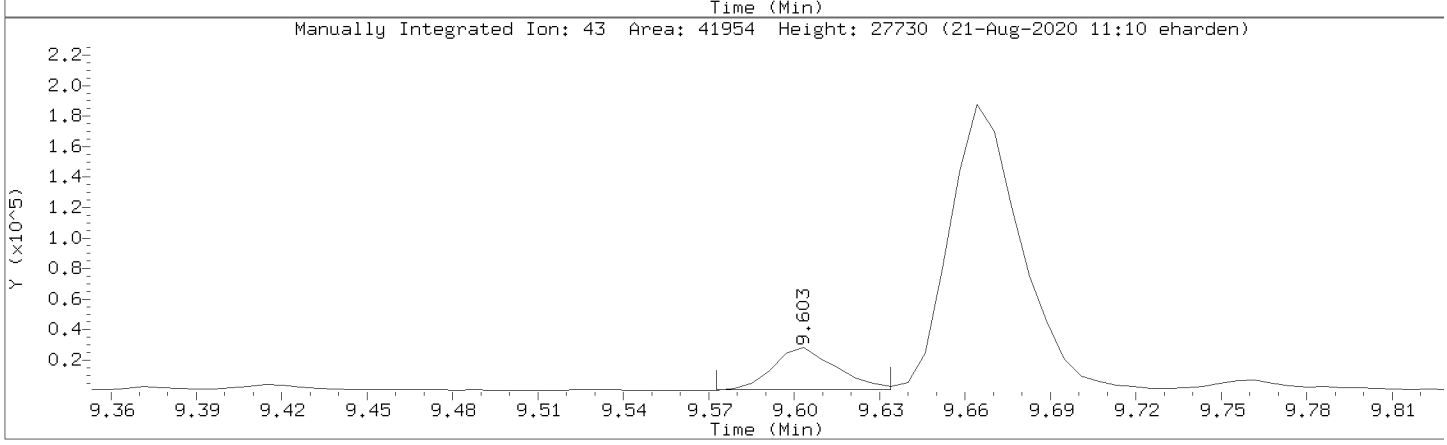
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1

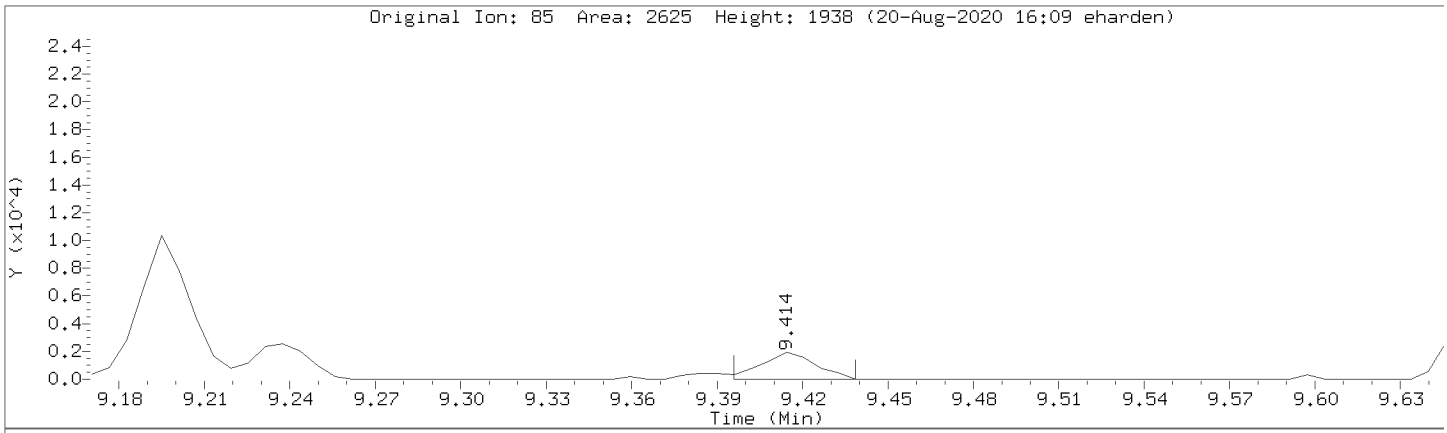


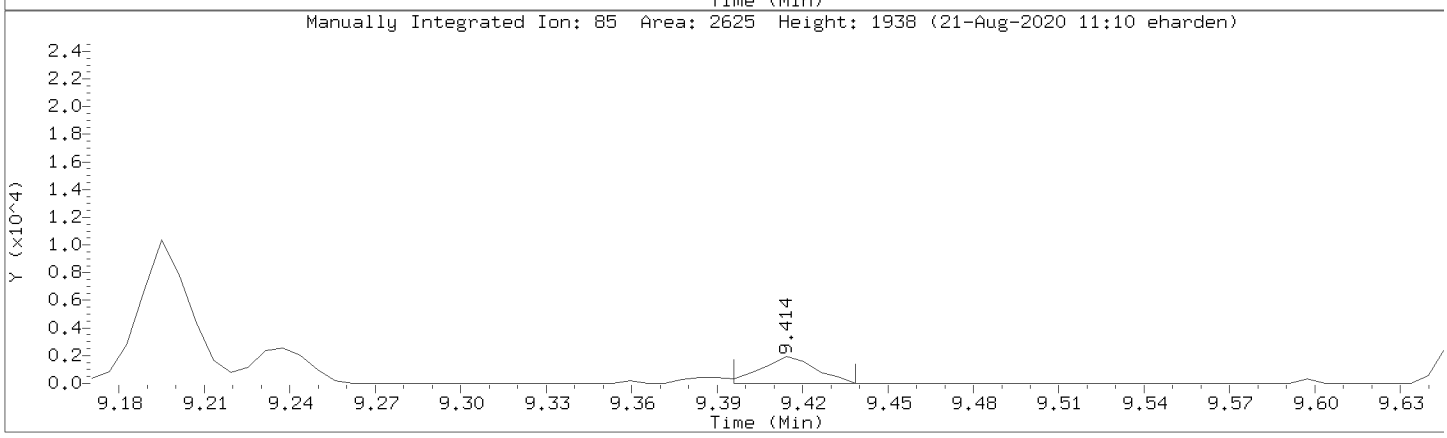






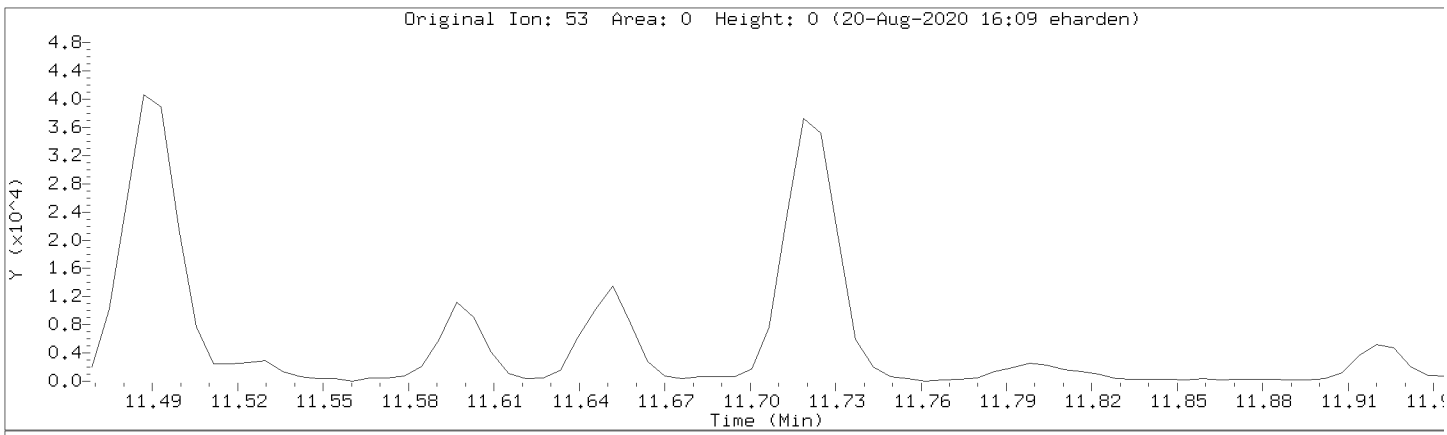
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

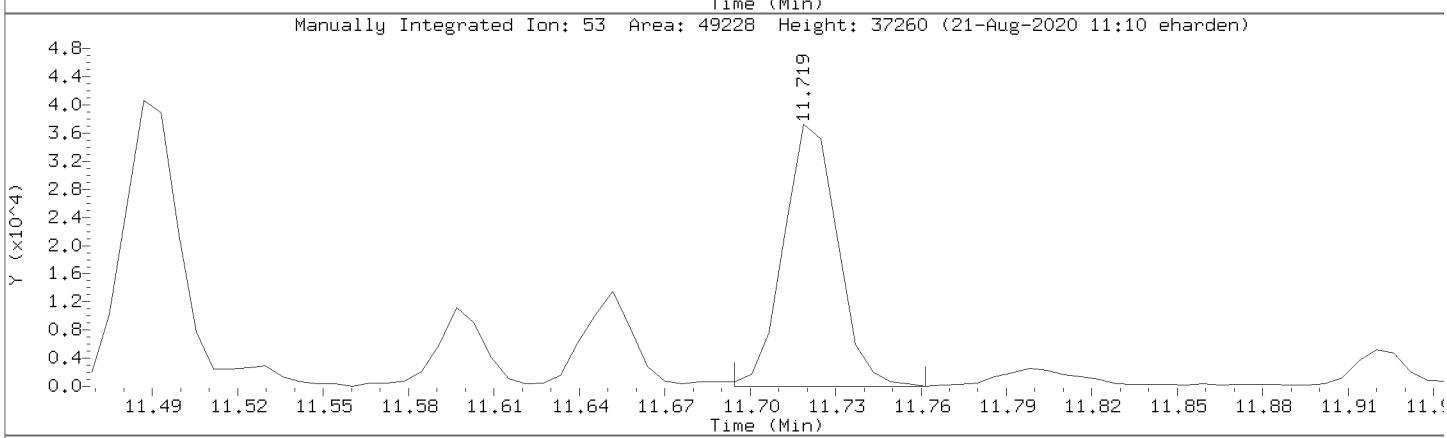


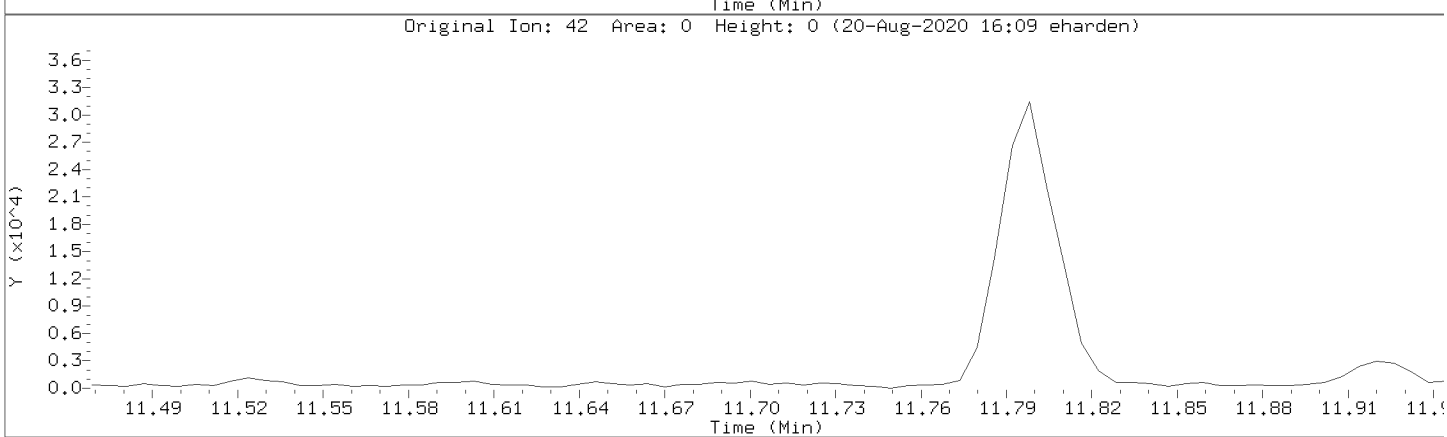


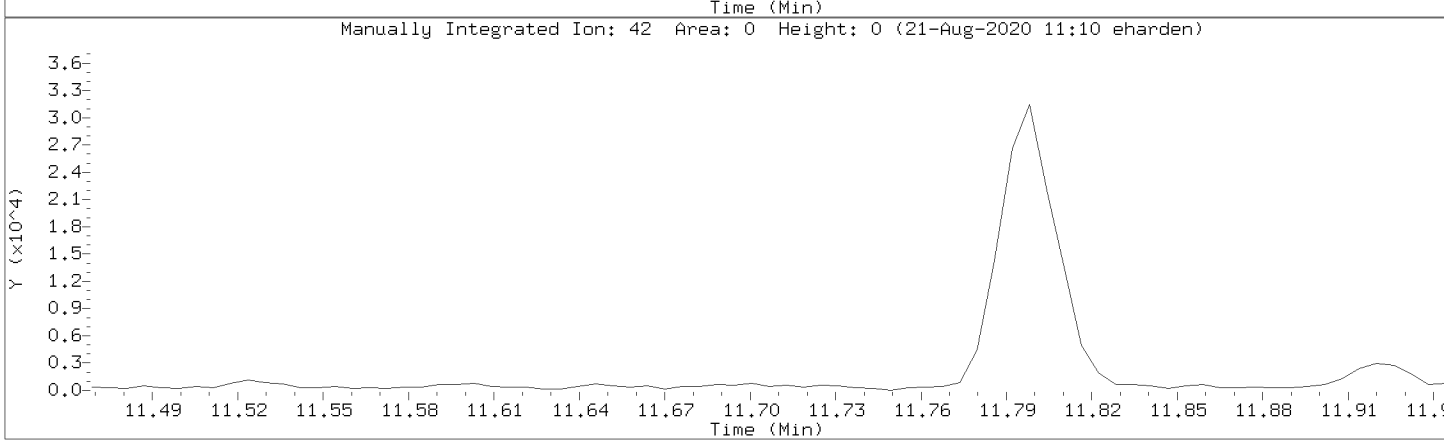
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6

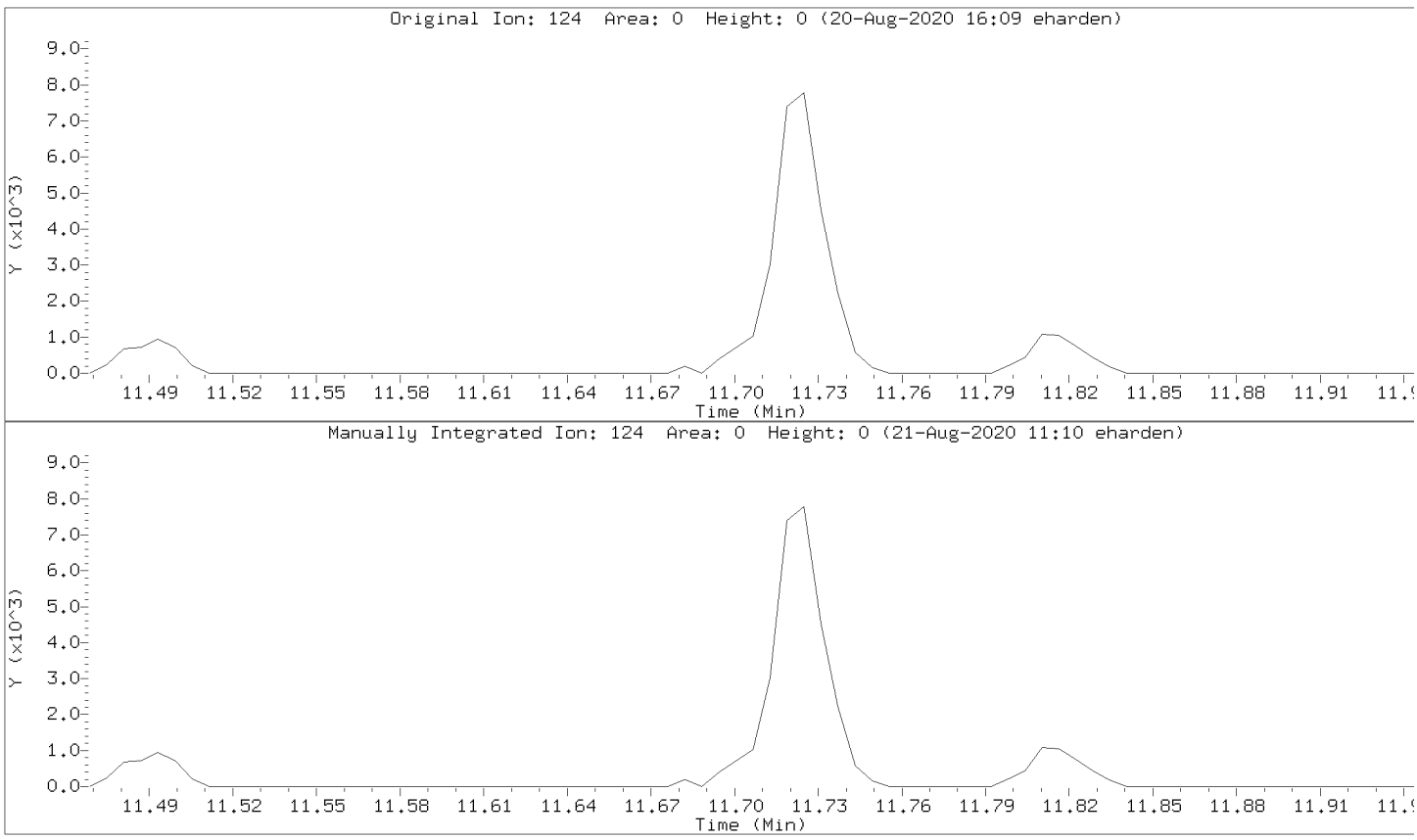








Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_11.D
Lab Smp Id: CAL9 Client Smp ID: CAL9
Inj Date : 20-AUG-2020 14:11
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal9,27245:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 14:11 Cal File: 082020_11.D
Als bottle: 9 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.410)	283760	75.0000	76.1(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	346933	75.0000	79.8	
3 Vinyl chloride	62	3.702	3.702	(0.471)	266129	75.0000	72.5	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	229006	75.0000	69.8	
5 Bromomethane	94	4.201	4.195	(0.535)	197842	75.0000	72.1	
6 Chloroethane	64	4.366	4.360	(0.556)	76609	75.0000	75.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	152397	75.0000	65.3	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	95070	75.0000	73.9	
9 1,1-Dichloroethene	61	5.226	5.226	(0.665)	307254	75.0000	74.0	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	190336	75.0000	69.5	
11 Carbon disulfide	76	5.287	5.293	(0.673)	644187	75.0000	70.1	
12 Iodomethane	142	5.445	5.439	(0.693)	174575	75.0000	74.4	
13 Acrolein	56	5.658	5.659	(0.720)	65220	150.000	152	
14 Allyl chloride	76	5.786	5.787	(0.736)	91135	75.0000	71.4	
15 Methylene Chloride	49	5.902	5.902	(0.751)	342732	75.0000	69.5	
16 Acetone	43	5.969	5.976	(0.760)	359242	150.000	150	
17 Methyl acetate	43	6.067	6.067	(0.772)	445182	150.000	157	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	200360	75.0000	71.5	
19 n-Hexane	86	6.110	6.110	(0.777)	24817	75.0000	83.6	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	507129	75.0000	77.6	
21 Acetonitrile	41	6.457	6.463	(0.822)	43661	150.000	168(H)	
22 Chloroprene	53	6.640	6.640	(0.845)	329381	75.0000	84.3	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	394304	75.0000	72.4	
24 Acrylonitrile	53	6.731	6.738	(0.857)	183534	150.000	155	
25 Vinyl acetate	43	6.859	6.860	(0.873)	438519	75.0000	81.4	
26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	296515	75.0000	73.9	
27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	277755	75.0000	66.1	
28 Bromochloromethane	128	7.335	7.335	(0.933)	121740	75.0000	69.4	
29 Cyclohexane	56	7.335	7.335	(0.882)	289677	75.0000	82.8	
30 Chloroform	83	7.372	7.372	(0.938)	435835	75.0000	70.8	
31 Ethyl acetate	43	7.426	7.433	(0.945)	516261	150.000	148	
32 Carbon tetrachloride	117	7.506	7.512	(0.902)	317911	75.0000	76.8	
33 Tetrahydrofuran	42	7.530	7.536	(0.958)	139651	150.000	164	
$ 34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	168498	50.0000	47.3	
35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	346786	75.0000	73.9	
36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	407706	150.000	154	
37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	260917	75.0000	80.1(H)	
* 38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	309362	50.0000		
39 Benzene	78	7.871	7.872	(0.946)	777686	75.0000	73.9	
40 Propionitrile	54	7.896	7.902	(1.005)	76528	150.000	145	
41 Methacrylonitrile	41	7.902	7.902	(1.005)	401655	150.000	150	
42 Isobutanol	43	7.975	7.987	(1.015)	20414	150.000	(MH)	WP
$ 43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	29467	50.0000	46.0	
44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	328819	75.0000	68.0	
45 Isopropyl acetate	43	8.134	8.134	(1.035)	448742	75.0000	77.9	
46 Trichloroethene	130	8.316	8.317	(1.000)	215771	75.0000	75.0	
* 47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	411283	50.0000		
48 Methylcyclohexane	98	8.316	8.317	(1.000)	104652	75.0000	76.8	
49 n-Butanol	56	8.512	8.524	(1.023)	10615	150.000	169(H)	
50 Dibromomethane	93	8.670	8.670	(1.043)	178140	75.0000	72.7	
51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	221116	75.0000	73.6	
52 Bromodichloromethane	83	8.768	8.768	(1.054)	335188	75.0000	77.7	
53 Methyl methacrylate	69	8.822	8.823	(1.061)	128004	75.0000	72.9	
54 1,4-Dioxane (p-Dioxane)	58	8.932	8.920	(1.074)	3243	150.000	(MH)	LT
55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	229530	150.000	147	
56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	334526	75.0000	79.8	
$ 57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	447242	50.0000	50.5	
58 Toluene	91	9.414	9.414	(1.132)	781683	75.0000	76.2	
59 2-Nitropropane	43	9.603	9.603	(1.155)	75539	75.0000	74.4(H)	
60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	44292	150.000	150(M)	WP
61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	333917	75.0000	79.8	
62 Tetrachloroethene	164	9.719	9.719	(0.920)	205799	75.0000	76.6	
63 Ethyl methacrylate	69	9.761	9.761	(1.174)	245737	75.0000	73.4(H)	
64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	182207	75.0000	70.1	
65 Dibromochloromethane	129	9.999	9.999	(0.947)	280478	75.0000	75.3	
66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	312981	75.0000	79.0	
67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	231783	75.0000	72.6	
68 2-Hexanone	43	10.273	10.280	(1.235)	571212	150.000	164	
69 Ethylbenzene	91	10.554	10.554	(0.999)	846583	75.0000	82.6	
* 70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	391574	50.0000		
71 Chlorobenzene	112	10.578	10.578	(1.002)	554970	75.0000	73.5	
72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	225655	75.0000	70.7	
73 m&p-Xylene	91	10.651	10.651	(1.009)	1353204	150.000	151	
74 o-Xylene	106	10.993	10.993	(1.041)	299124	75.0000	70.9	
75 Styrene	104	11.029	11.029	(1.044)	546784	75.0000	74.2	
76 Bromoform	173	11.103	11.103	(1.051)	260722	75.0000	73.7	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	479165	75.0000	75.6	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	166582	50.0000	51.8	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	91712	75.0000	71.3	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	1052699	75.0000	83.8	
81 Bromobenzene	156	11.578	11.578	(1.096)	312070	75.0000	78.8	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	302282	75.0000	72.2	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	695519	75.0000	83.9	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	220722	75.0000	73.6	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	228636	75.0000	75.5	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	797567	75.0000	73.6	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	319085	75.0000	72.8	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	78111	75.0000	77.5(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	710565	75.0000	73.0	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	731346	75.0000	74.8	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	858491	75.0000	74.0	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	710565	75.0000	73.0	
94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	523242	75.0000	78.3	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	251122	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	532968	75.0000	70.7	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	748624	75.0000	85.5	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	517606	75.0000	70.9	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	59552	75.0000	72.5	
100 Hexachloro-1,3-butadiene	225	13.815	13.822	(1.120)	164678	75.0000	73.6	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	399731	75.0000	80.8	
102 Naphthalene	128	14.193	14.193	(1.150)	711974	75.0000	72.4	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	369768	75.0000	80.4	

QC Flag Legend

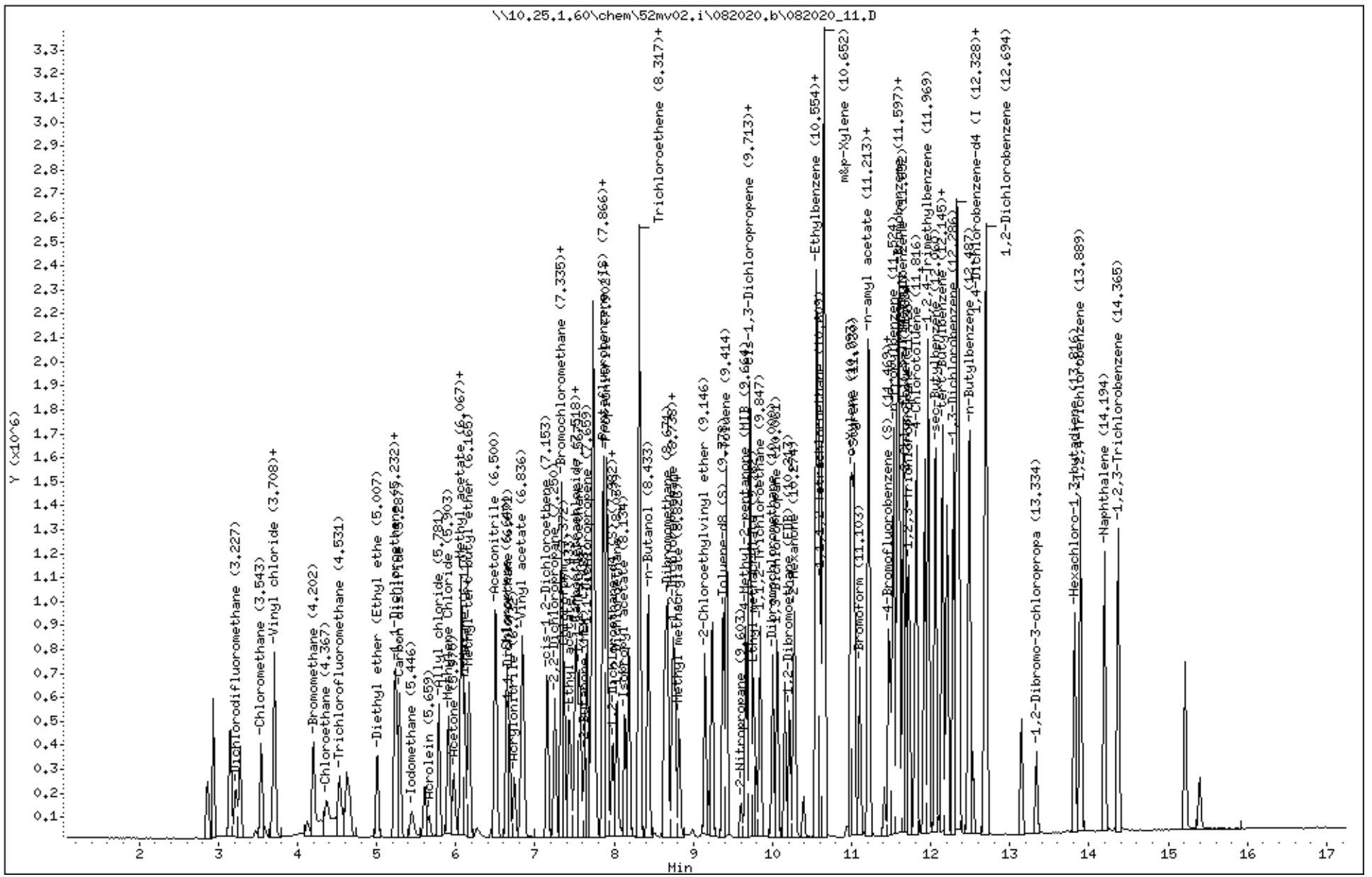
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_11.D
Date : 20-AUG-2020 14:11
Client ID: CAL9
Sample Info: CAL9,27245:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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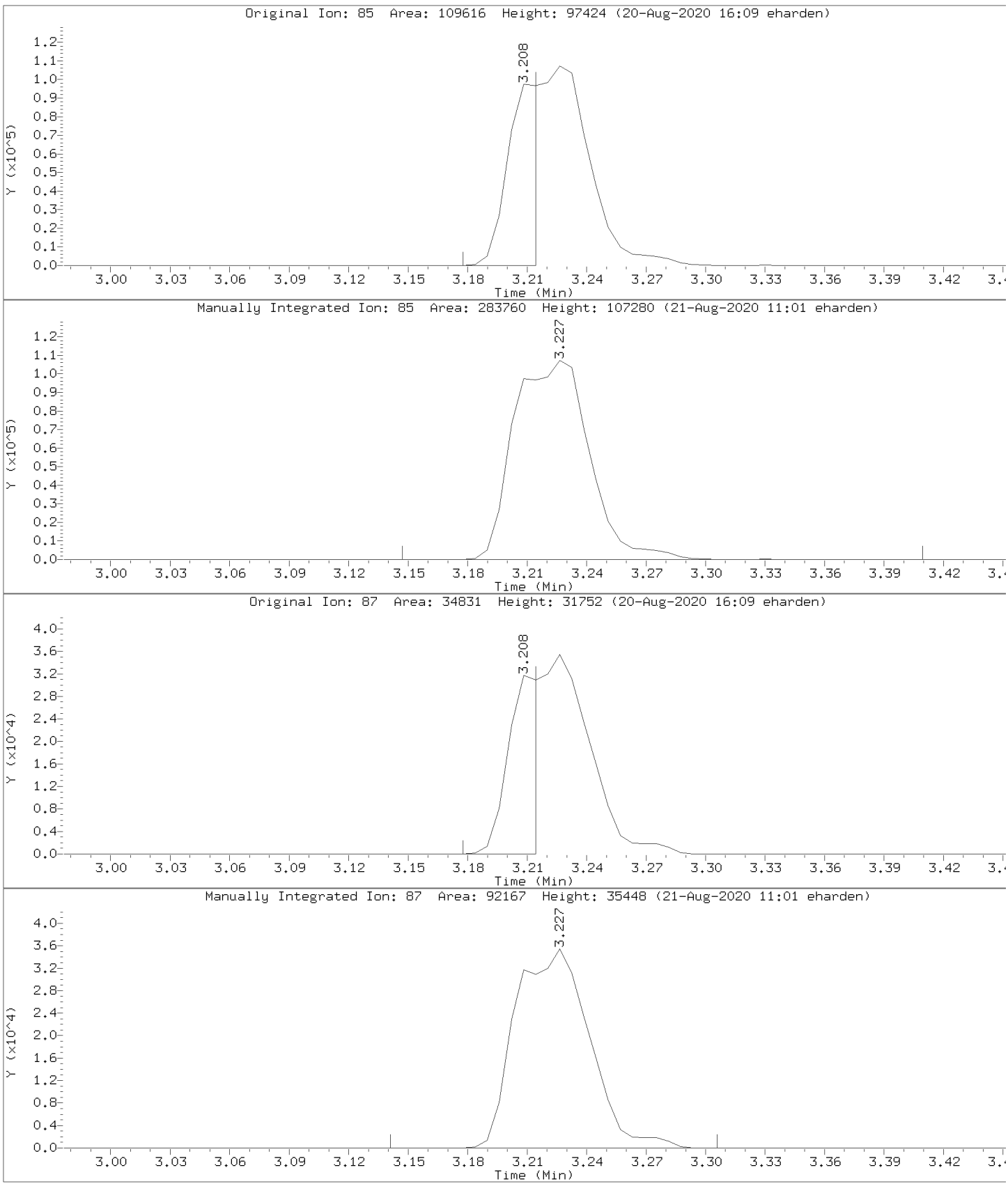
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



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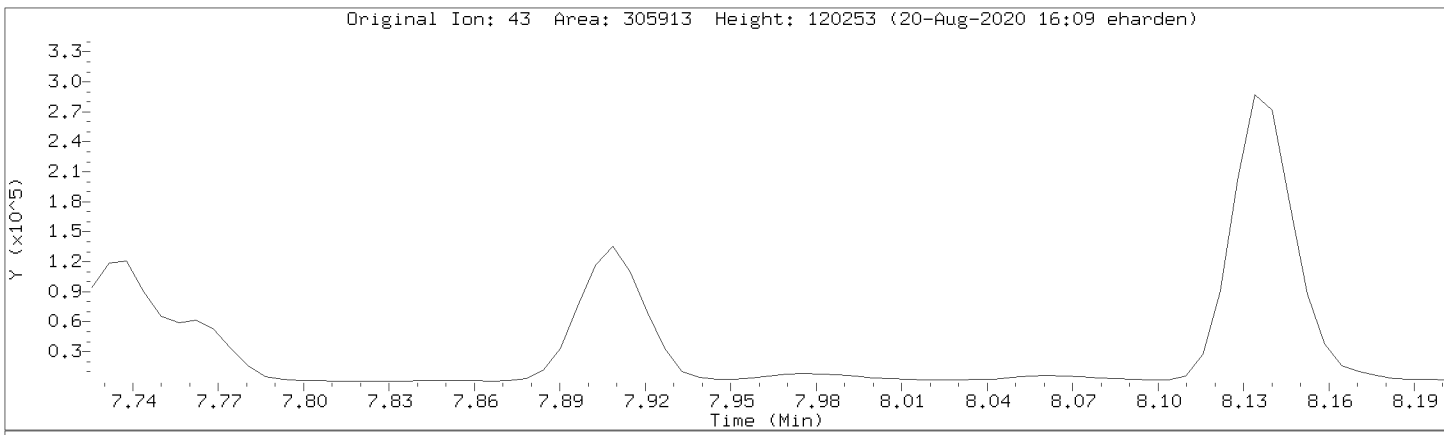
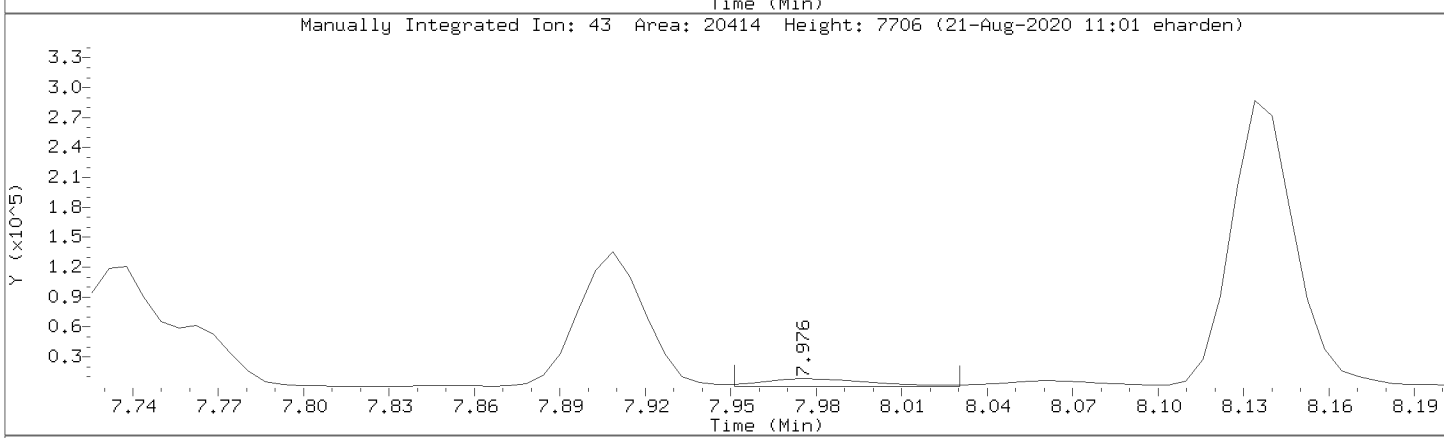
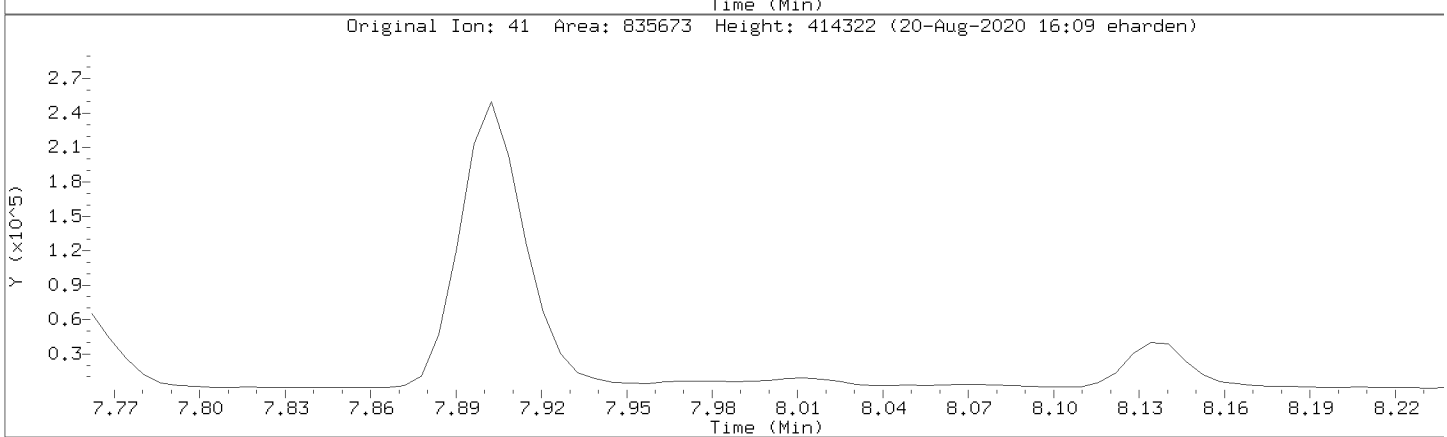
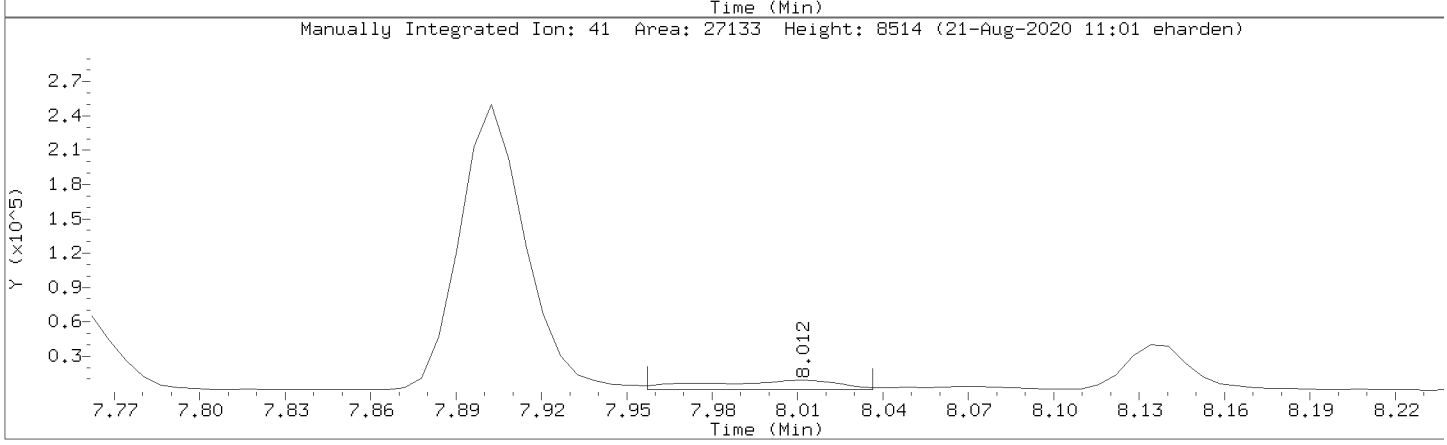
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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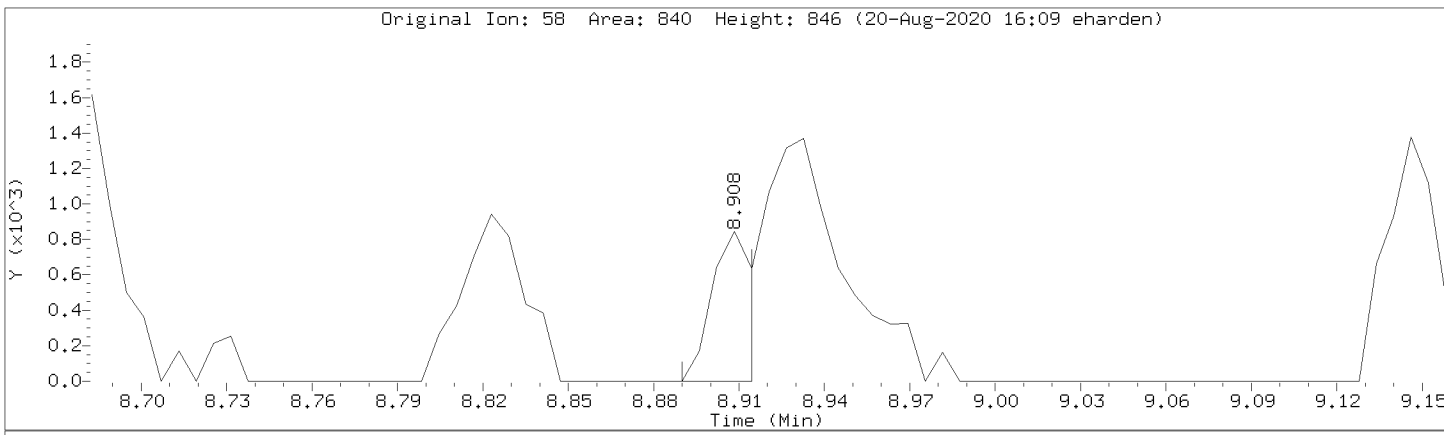
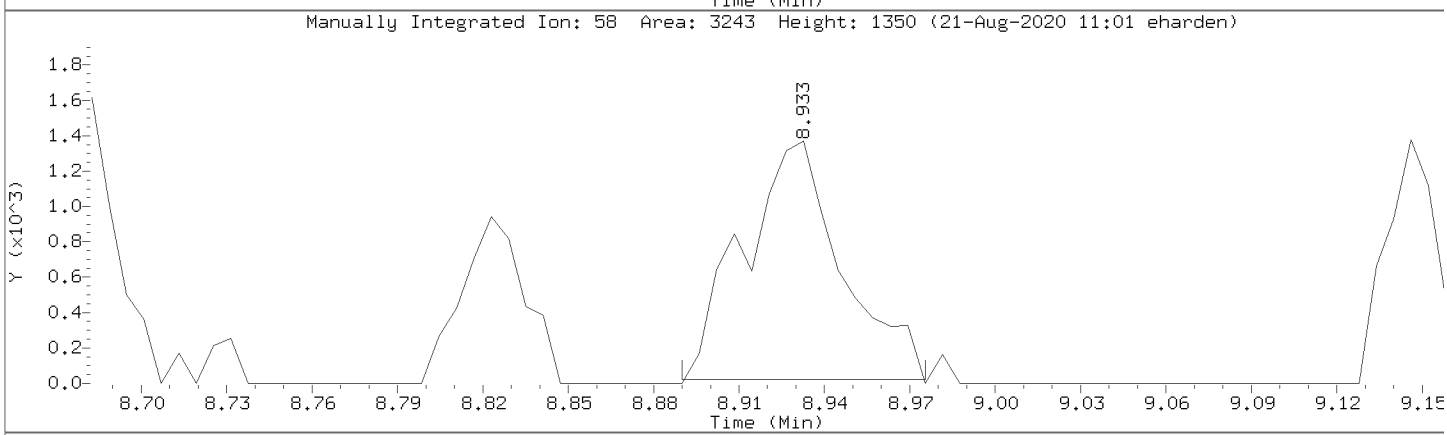
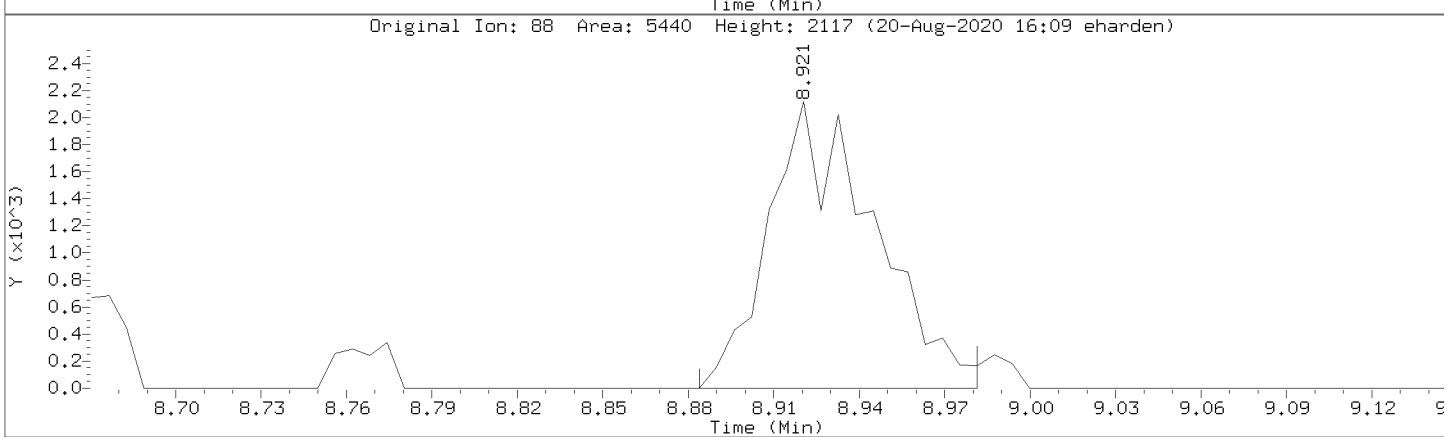
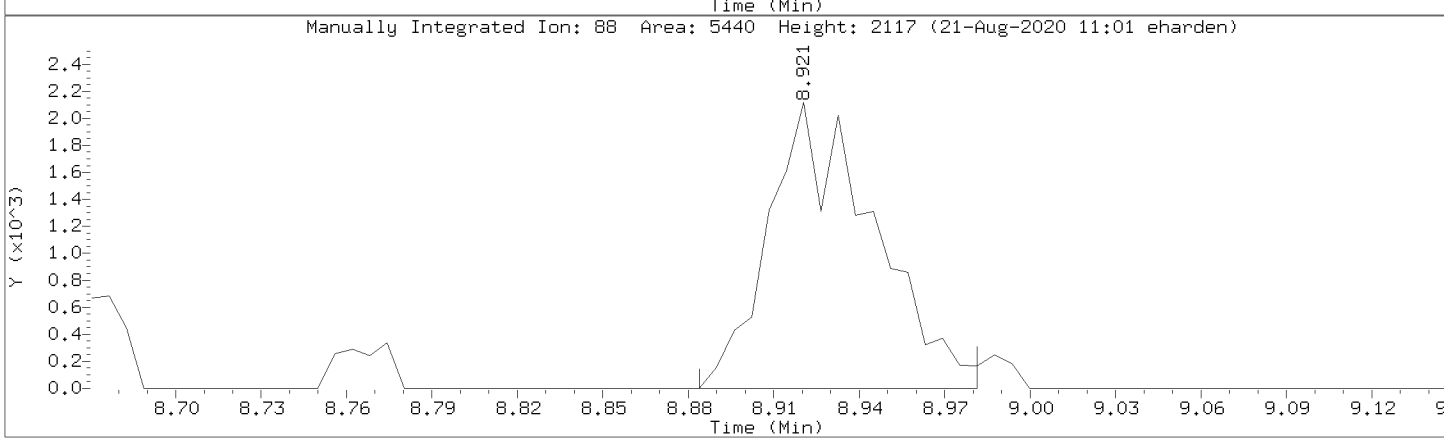
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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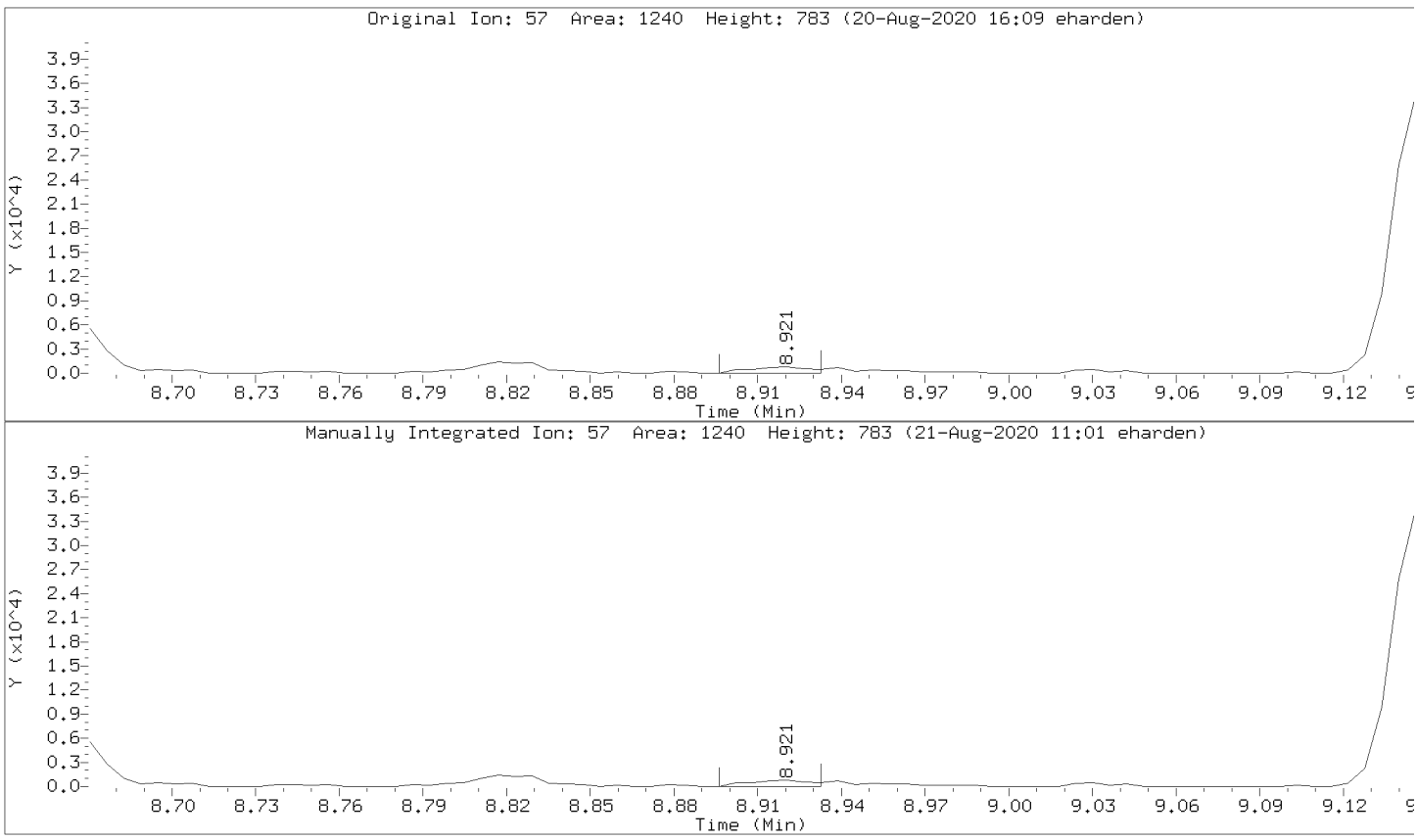
Instrument: 52mv02.i
Lab Sample ID: CAL9



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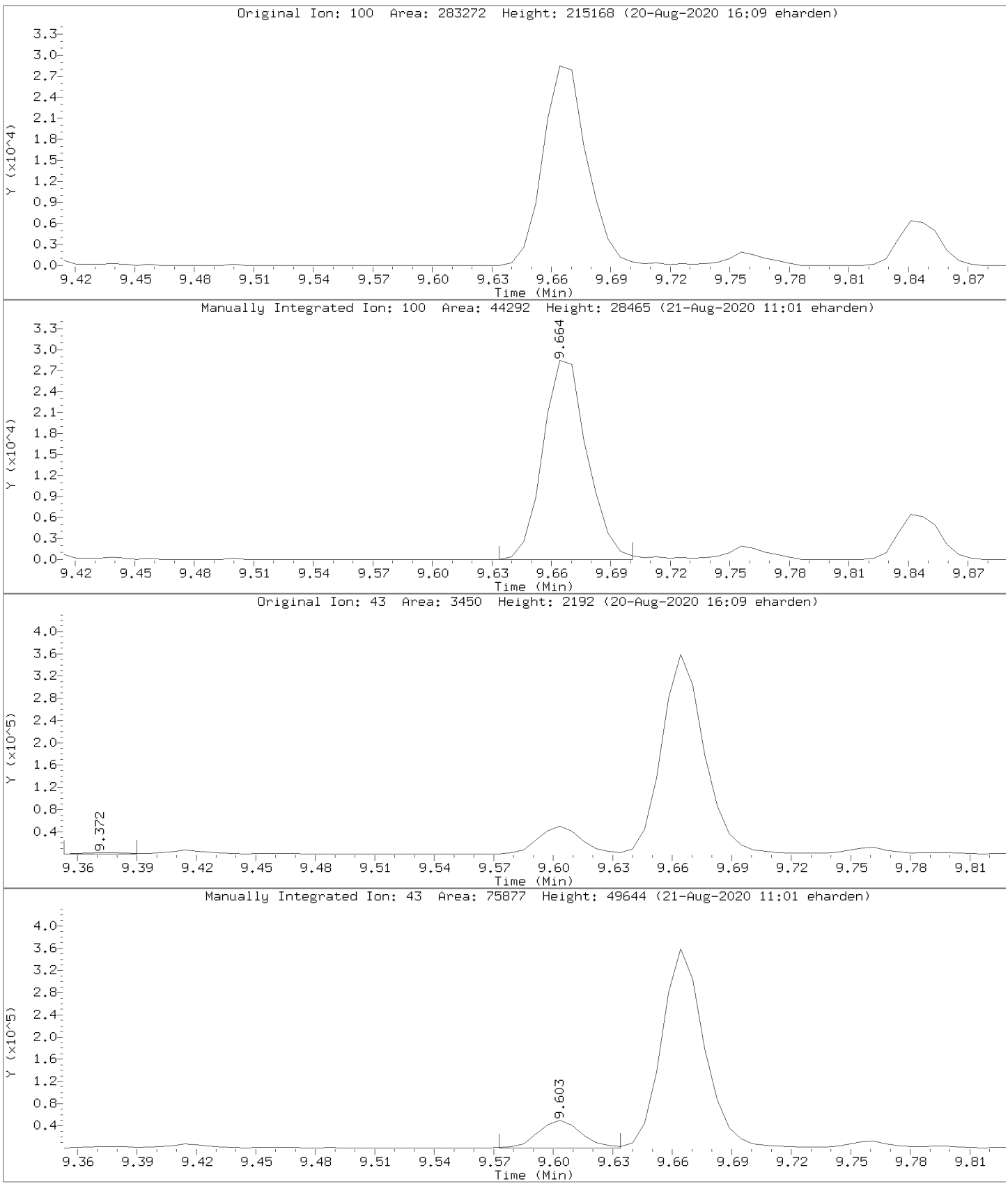
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1



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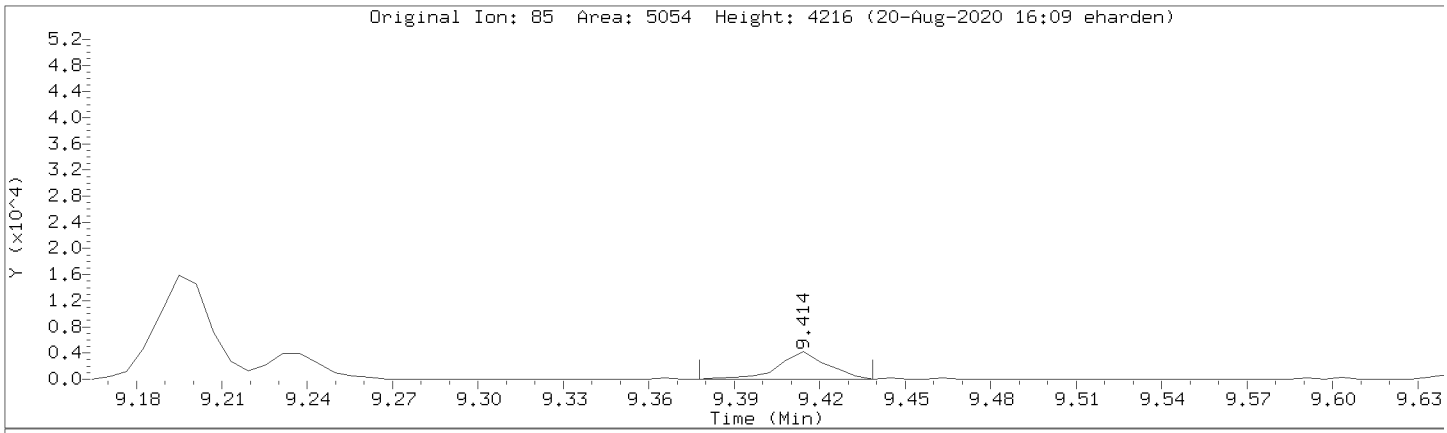
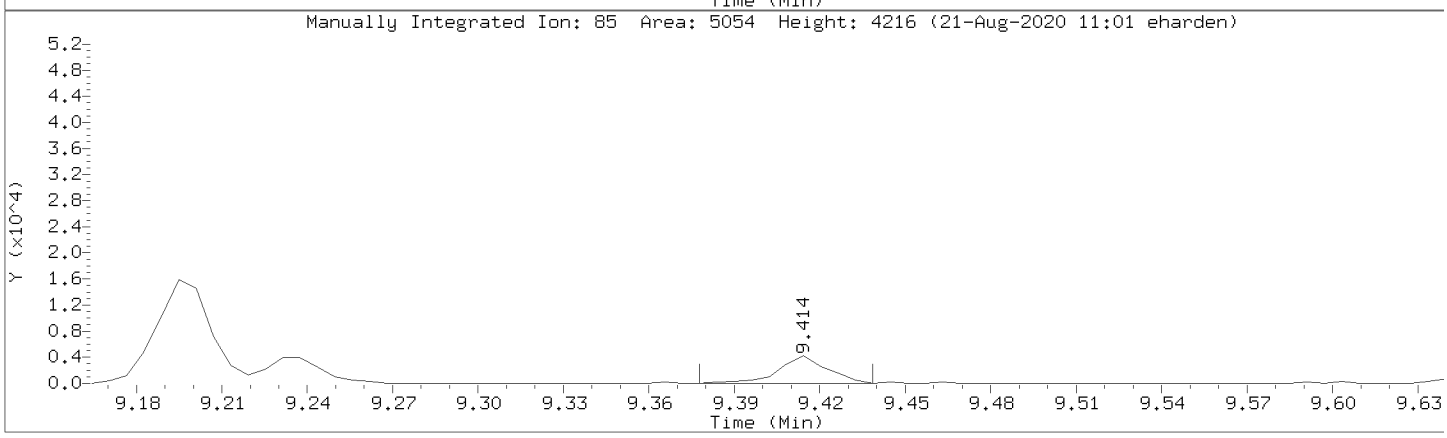
Instrument: 52mv02.i
Lab Sample ID: CAL9





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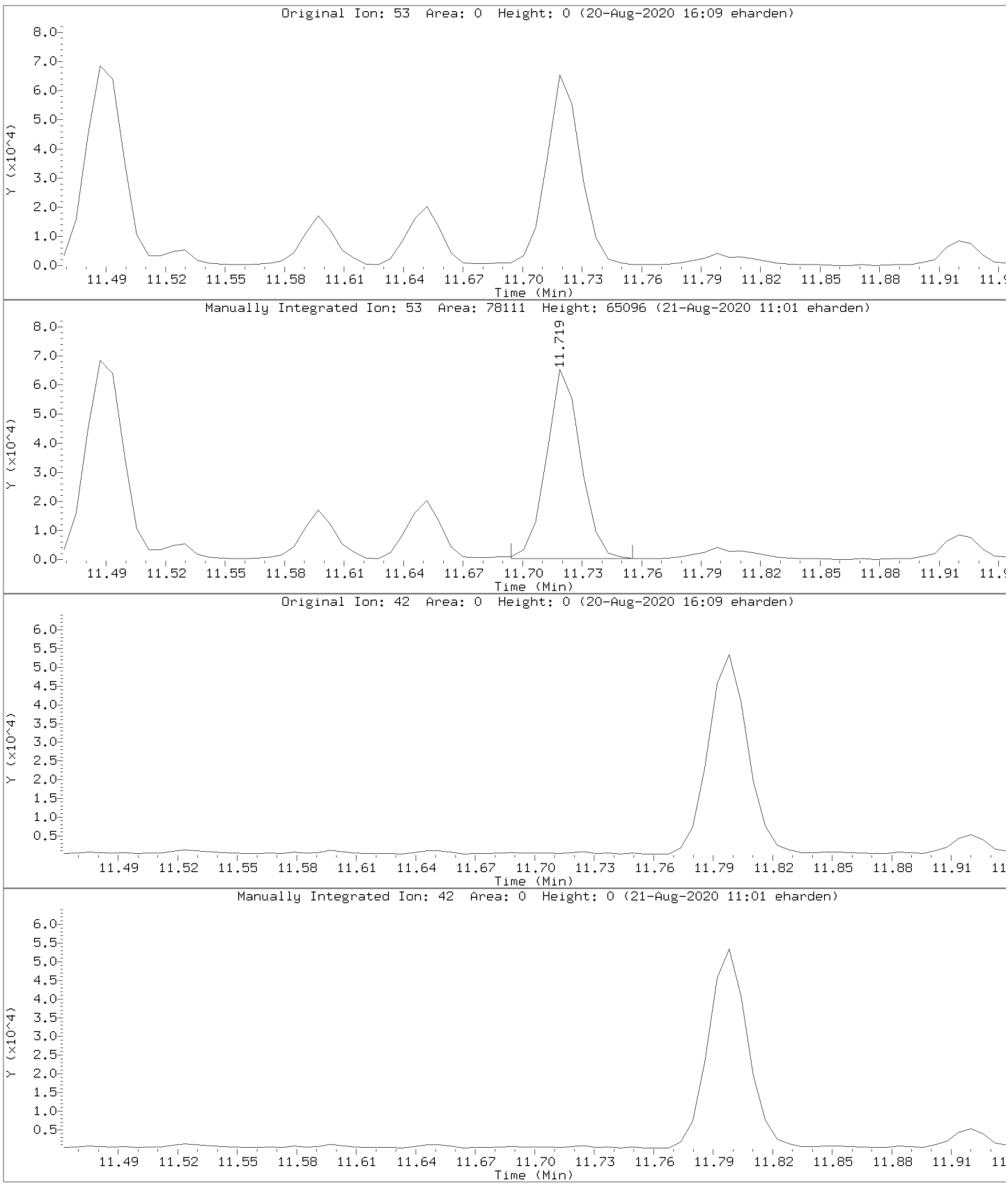
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6



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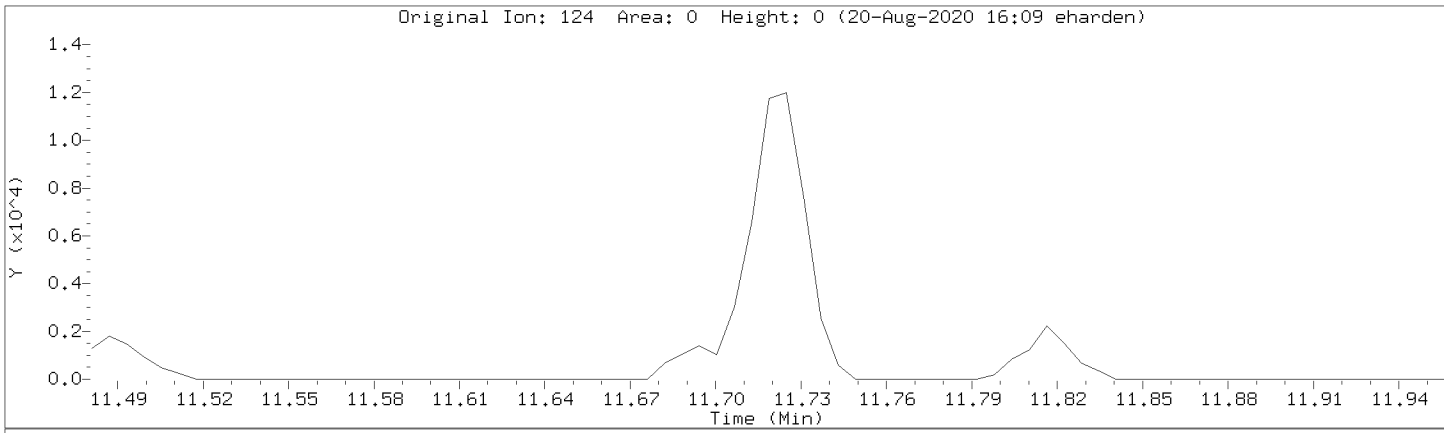
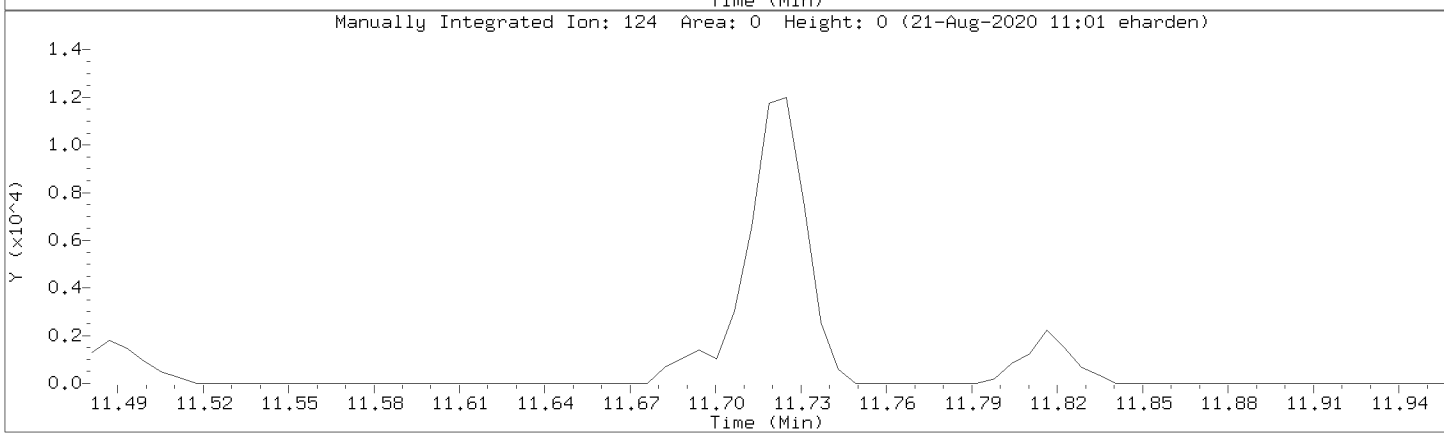
Lab Sample ID: CAL9





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_12.D
Lab Smp Id: CAL10 Client Smp ID: CAL10
Inj Date : 20-AUG-2020 14:36
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal10,27246:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 14:36 Cal File: 082020_12.D
Als bottle: 10 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.232	3.226	(0.411)	408577	100.000	102(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	484636	100.000	105	
3 Vinyl chloride	62	3.702	3.702	(0.471)	387049	100.000	98.7	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	337639	100.000	96.3	
5 Bromomethane	94	4.201	4.195	(0.535)	280008	100.000	96.6	
6 Chloroethane	64	4.366	4.360	(0.556)	102291	100.000	94.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	201296	100.000	80.8	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	132497	100.000	96.5	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	447052	100.000	101	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	271477	100.000	92.9	
11 Carbon disulfide	76	5.287	5.293	(0.673)	903417	100.000	92.1	
12 Iodomethane	142	5.445	5.439	(0.693)	281734	100.000	105	
13 Acrolein	56	5.659	5.659	(0.720)	92978	200.000	203	
14 Allyl chloride	76	5.787	5.787	(0.736)	131327	100.000	96.3	
15 Methylene Chloride	49	5.902	5.902	(0.751)	464439	100.000	88.2	
16 Acetone	43	5.969	5.976	(0.760)	504949	200.000	198	
17 Methyl acetate	43	6.067	6.067	(0.772)	615823	200.000	204(A)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	281562	100.000	94.1	
19 n-Hexane	86	6.110	6.110	(0.777)	34191	100.000	108	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	722402	100.000	103	
21 Acetonitrile	41	6.463	6.463	(0.822)	59347	200.000	214(AH)	
22 Chloroprene	53	6.640	6.640	(0.845)	465931	100.000	112	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	538565	100.000	92.6	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	257393	200.000	204(A)	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	592348	100.000	103	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	420353	100.000	98.0	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	400045	100.000	89.2	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	170642	100.000	91.1	
	29 Cyclohexane	56	7.335	7.335	(0.882)	419057	100.000	113	
	30 Chloroform	83	7.372	7.372	(0.938)	604780	100.000	92.0	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	715243	200.000	193	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	438244	100.000	99.7	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	196080	200.000	216(A)	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	173193	50.0000	45.5	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	483513	100.000	97.1	
	36 2-Butanone (MEK)	43	7.622	7.628	(0.970)	582167	200.000	205	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	369324	100.000	107(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	330367	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	1069569	100.000	95.8	
	40 Propionitrile	54	7.896	7.902	(1.005)	106137	200.000	188	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	553697	200.000	193	
	42 Isobutanol	43	7.981	7.987	(1.016)	27725	200.000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	30521	50.0000	44.6	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	462341	100.000	89.5	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	647452	100.000	105	
	46 Trichloroethene	130	8.317	8.317	(1.000)	309121	100.000	101	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	436570	50.0000		
	48 Methylcyclohexane	98	8.317	8.317	(1.000)	158128	100.000	109	
	49 n-Butanol	56	8.512	8.524	(1.023)	14392	200.000	216(AH)	
	50 Dibromomethane	93	8.670	8.670	(1.043)	246347	100.000	94.7	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	303772	100.000	95.3	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	472990	100.000	103	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	186585	100.000	99.8	
	54 1,4-Dioxane (p-Dioxane)	58	8.932	8.920	(1.074)	5966	200.000		
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	331081	200.000	199	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	477231	100.000	107	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	469795	50.0000	50.0	
	58 Toluene	91	9.414	9.414	(1.132)	1103221	100.000	101	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	107110	100.000	99.6(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	67349	200.000	216(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	476057	100.000	107	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	293850	100.000	102	
	63 Ethyl methacrylate	69	9.755	9.761	(1.173)	357290	100.000	100(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	256256	100.000	92.9	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	402726	100.000	100	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	445948	100.000	106	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	331903	100.000	96.5	
	68 2-Hexanone	43	10.273	10.280	(1.235)	835017	200.000	226	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	1239031	100.000	112	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	421679	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	778798	100.000	95.7	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	313159	100.000	91.1	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	1926275	200.000	199	
	74 o-Xylene	106	10.993	10.993	(1.041)	447143	100.000	98.2	
	75 Styrene	104	11.029	11.029	(1.044)	787917	100.000	99.1	
	76 Bromoform	173	11.103	11.103	(1.051)	373847	100.000	98.1	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.224	11.225	(1.063)	674839	100.000	98.7	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	181905	50.0000	52.6	
	79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	126903	100.000	91.6	
	80 n-Propylbenzene	91	11.523	11.523	(1.091)	1515194	100.000	112	
	81 Bromobenzene	156	11.578	11.578	(1.096)	444066	100.000	104	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	420224	100.000	93.1	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	994488	100.000	112	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	318275	100.000	98.4	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	325711	100.000	99.8	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	1159541	100.000	99.1	
	87 1,2,3-Trichloropropane	75	11.718	11.724	(1.110)	452394	100.000	95.9	
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	107903	100.000	99.4(M)	NI
	89 Cyclohexanone	98	Compound Not Detected.						
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	1046010	100.000	100	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	1050761	100.000	100	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	1234948	100.000	99.0	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	1046010	100.000	100	
	94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	748097	100.000	104	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	269551	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	761377	100.000	94.0	
	97 n-Butylbenzene	91	12.486	12.486	(1.012)	1072153	100.000	114	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	743908	100.000	94.9	
	99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	85330	100.000	96.8	
	100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	240583	100.000	100	
	101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	573550	100.000	108	
	102 Naphthalene	128	14.193	14.193	(1.150)	1058070	100.000	100	
	103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	534252	100.000	108	

QC Flag Legend

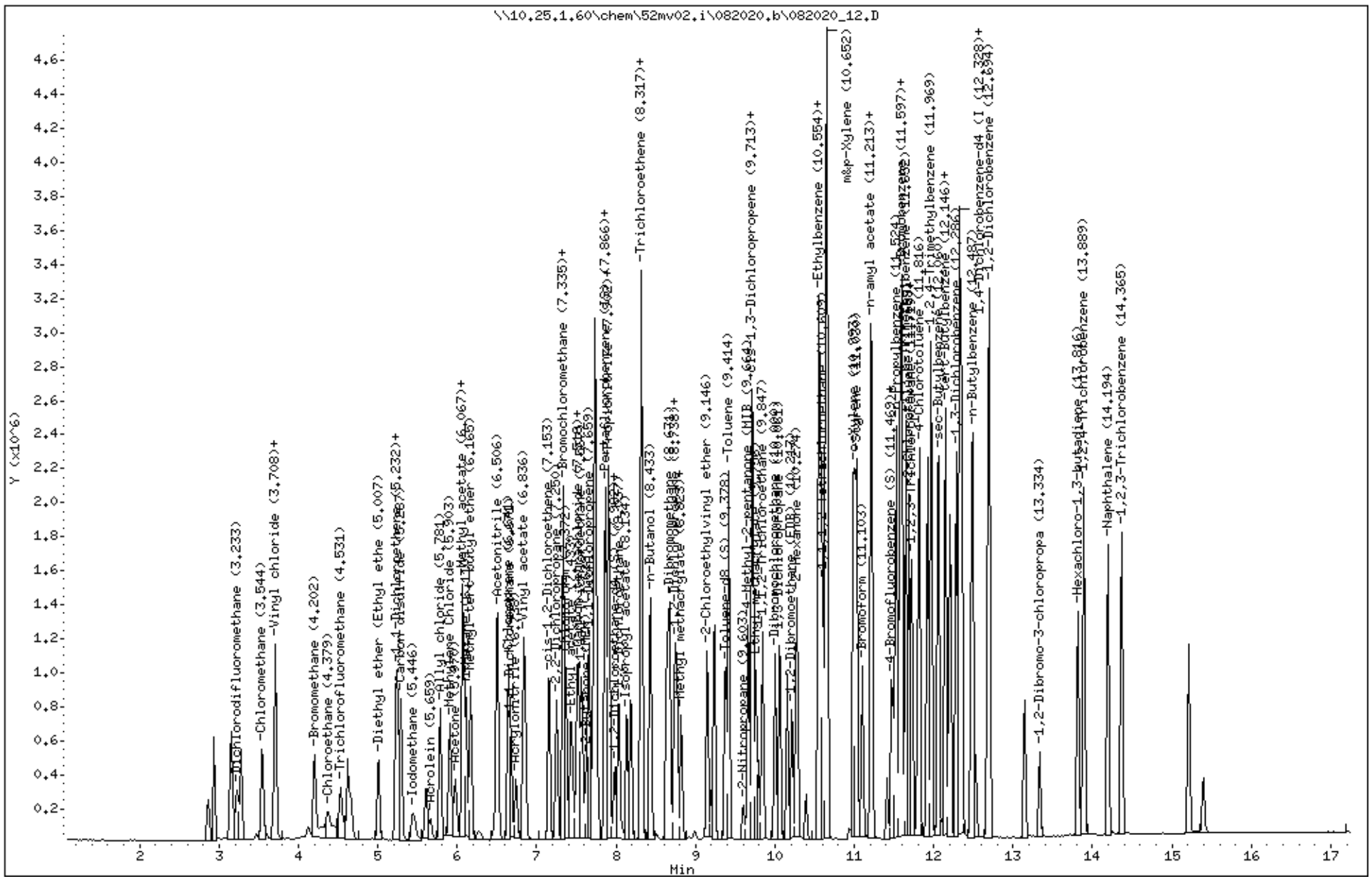
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_12.D
Date : 20-AUG-2020 14:36
Client ID: CAL10
Sample Info: CAL10,27246:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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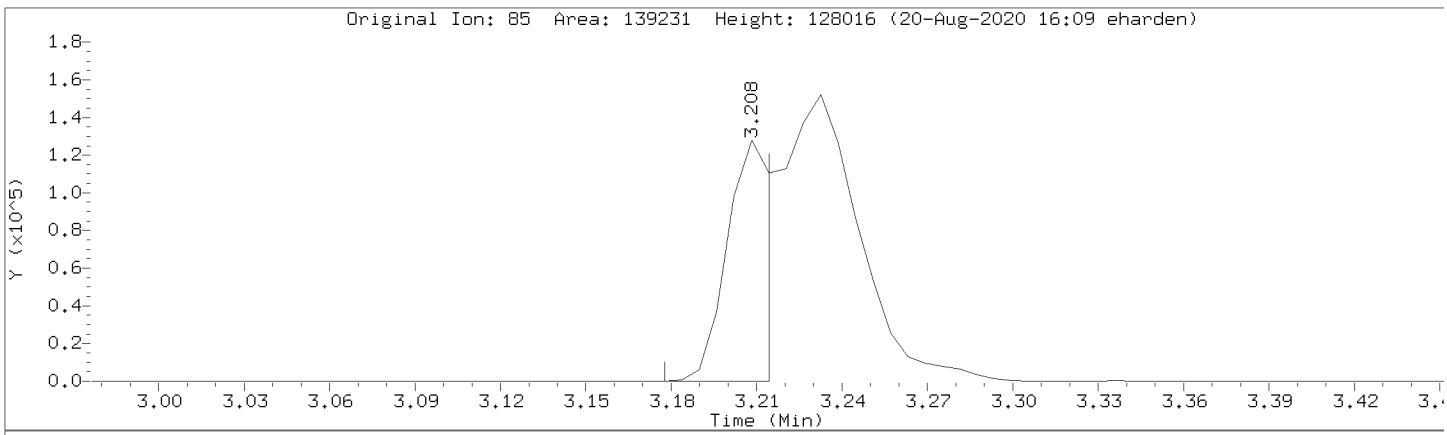
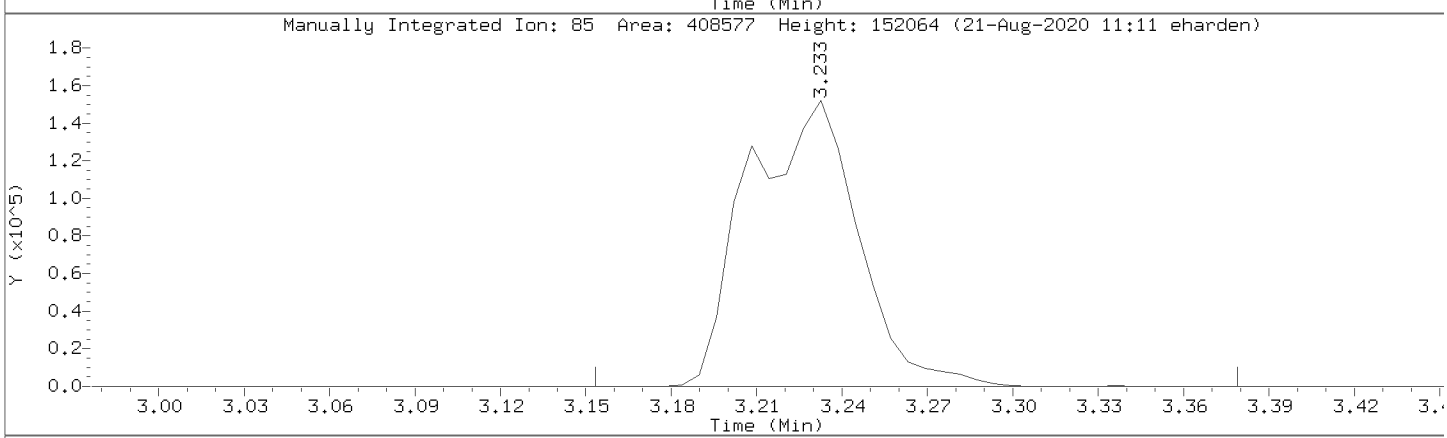
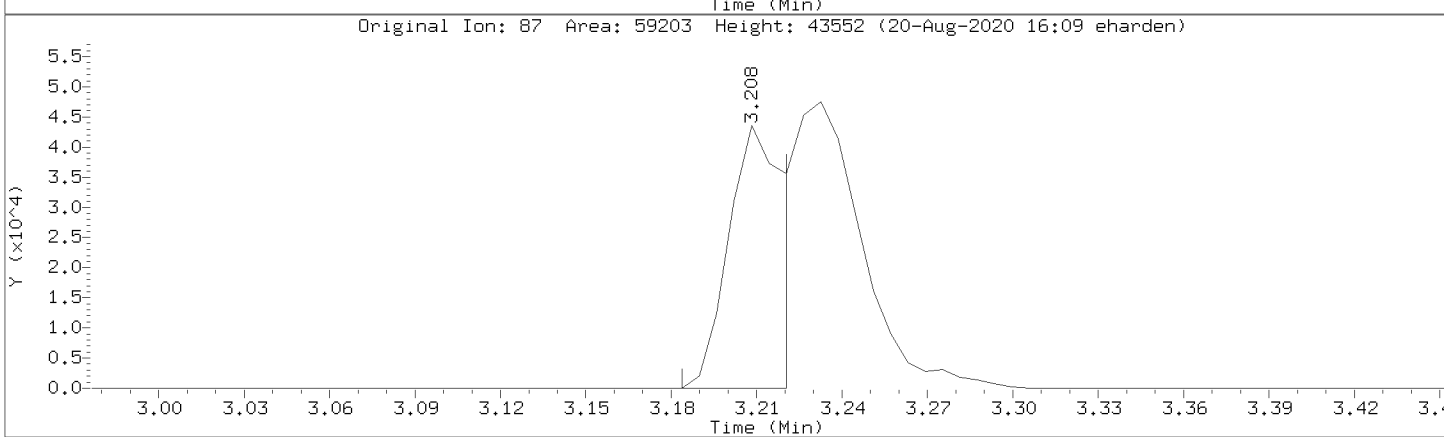
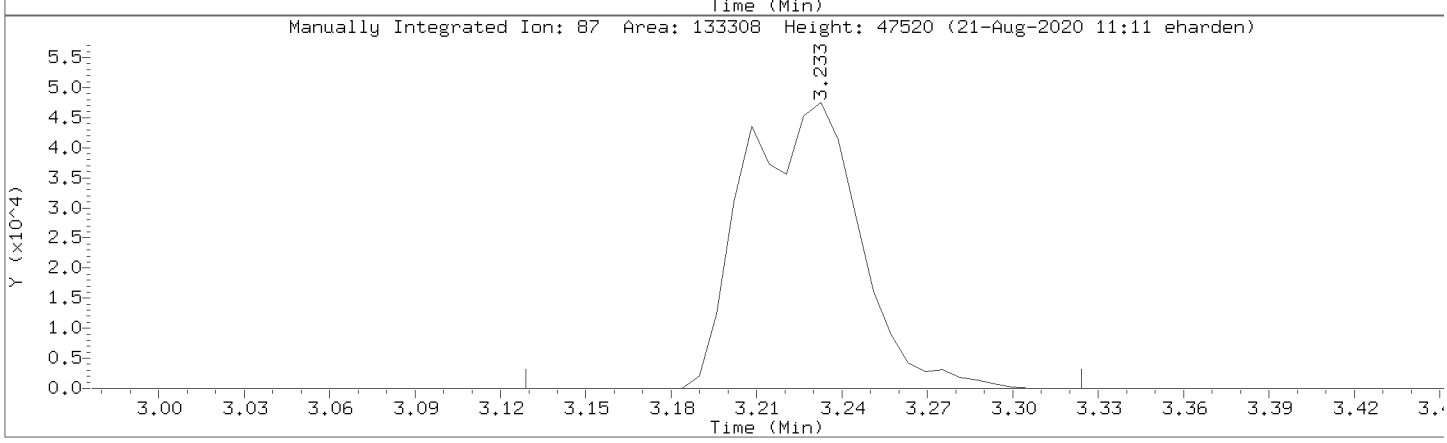
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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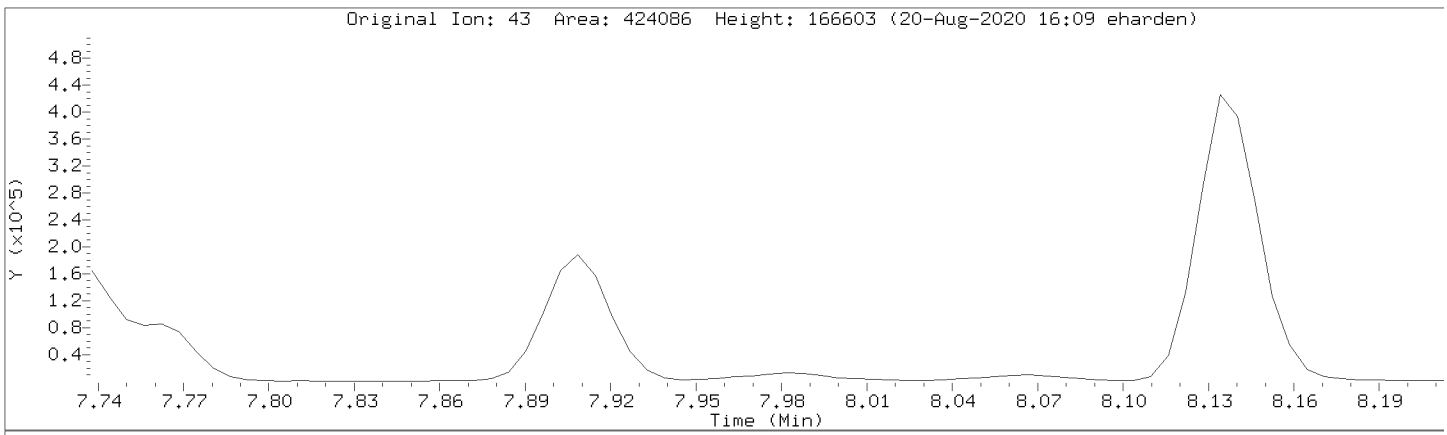
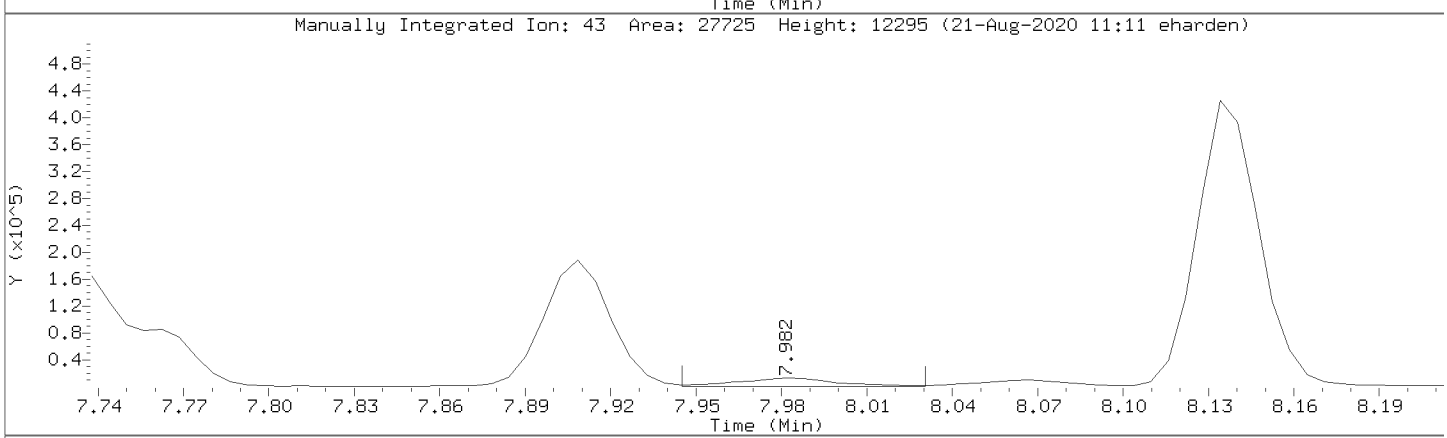
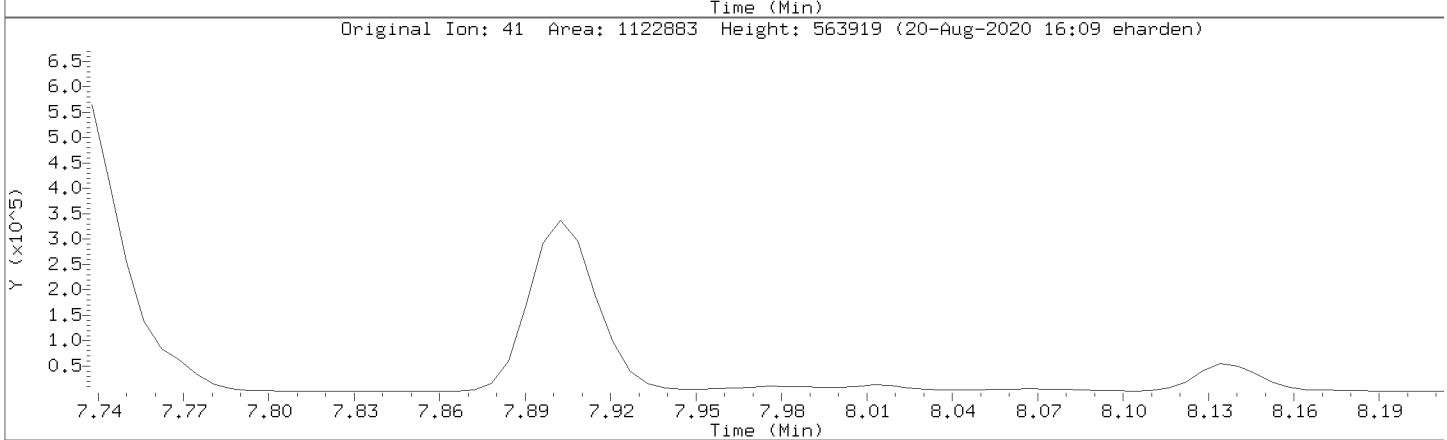
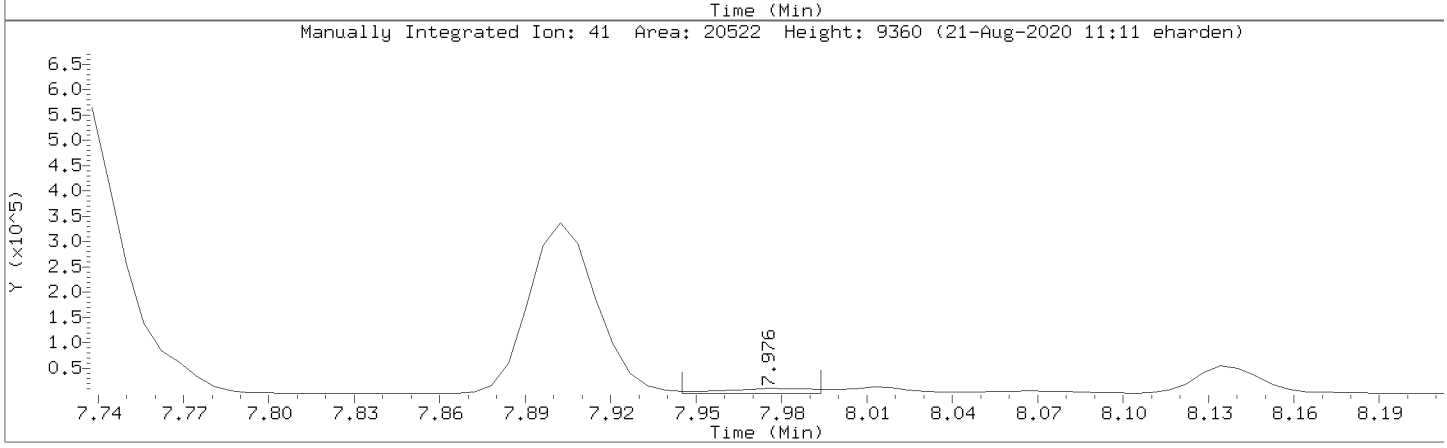
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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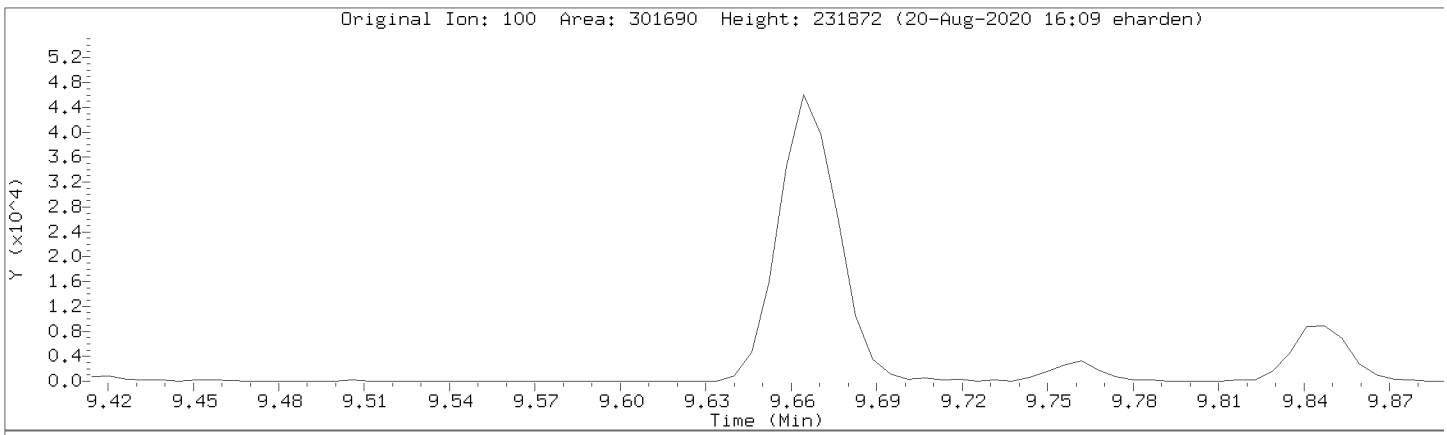
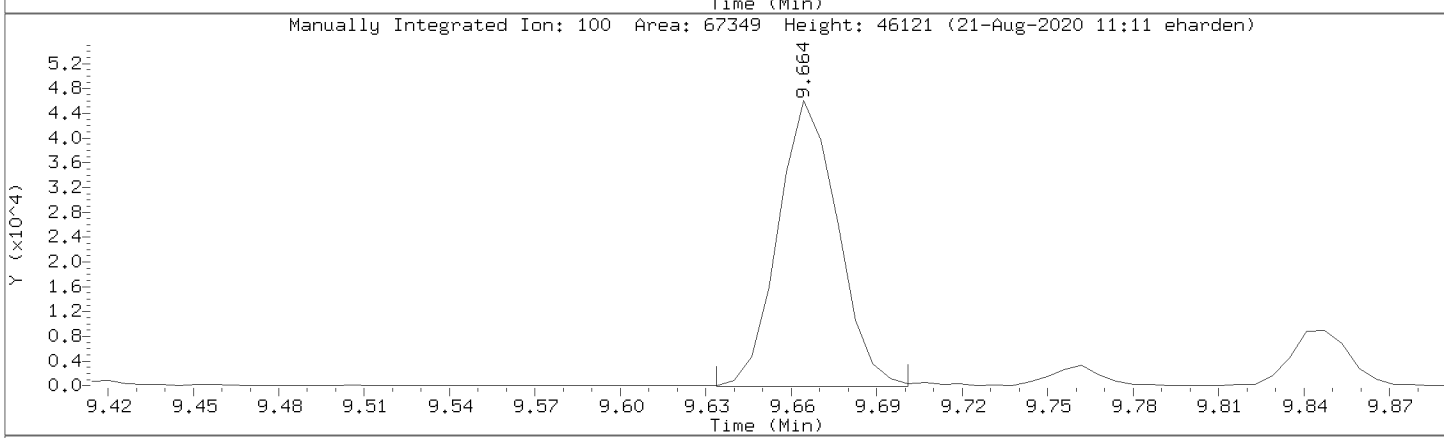
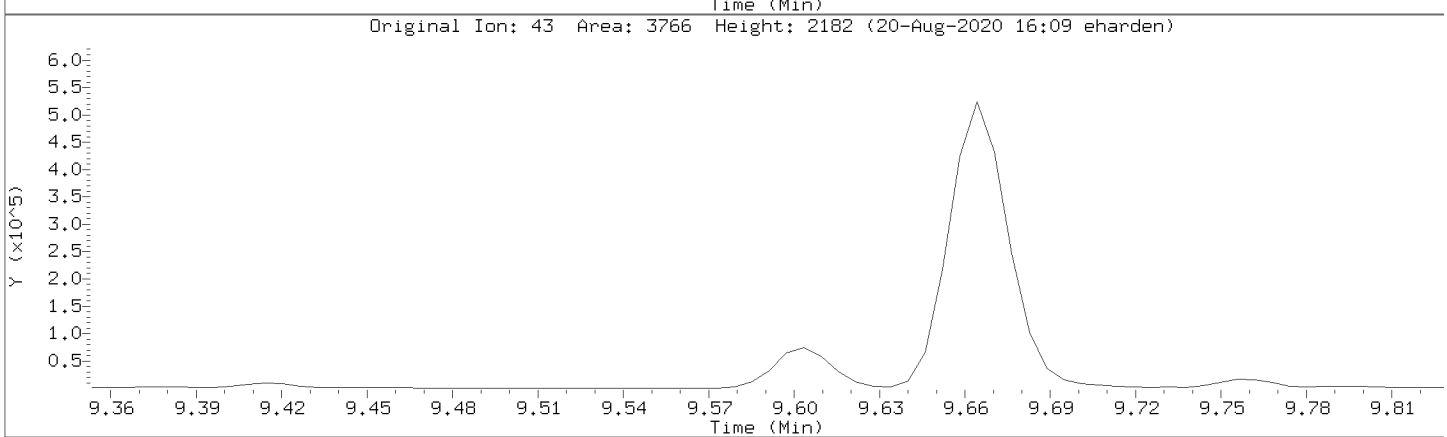
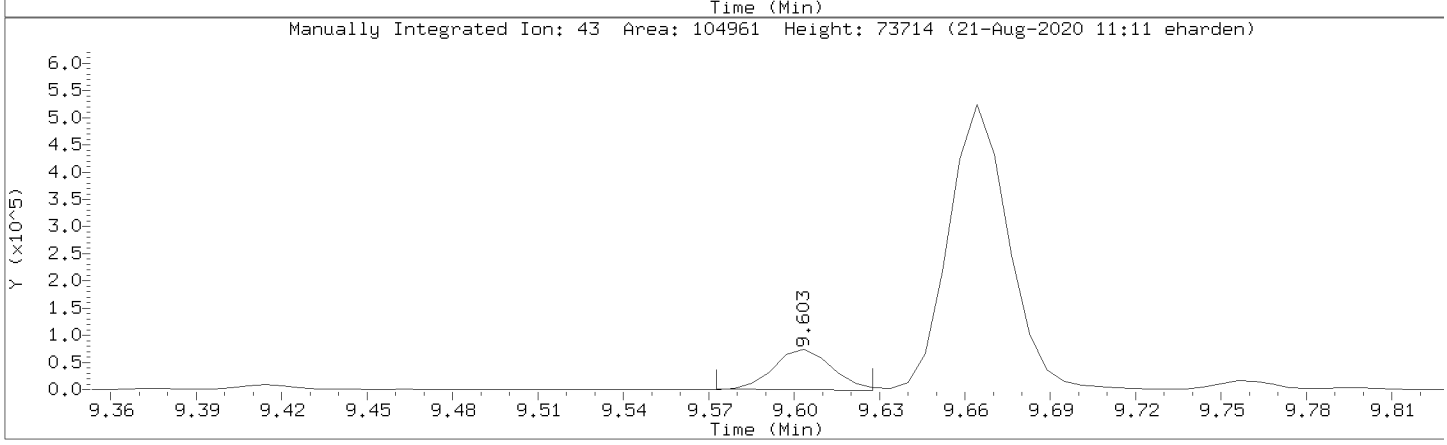
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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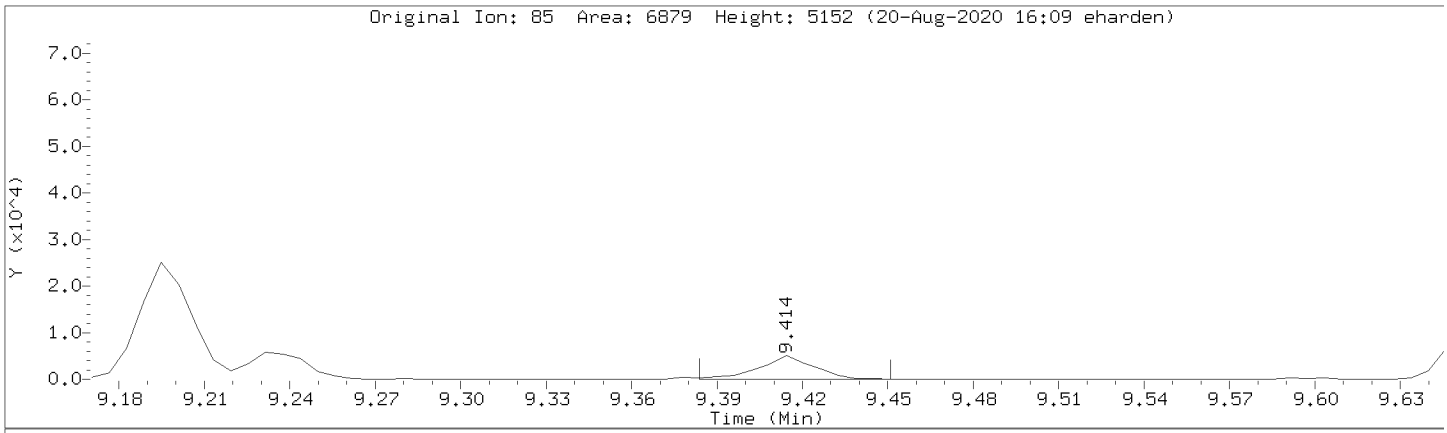
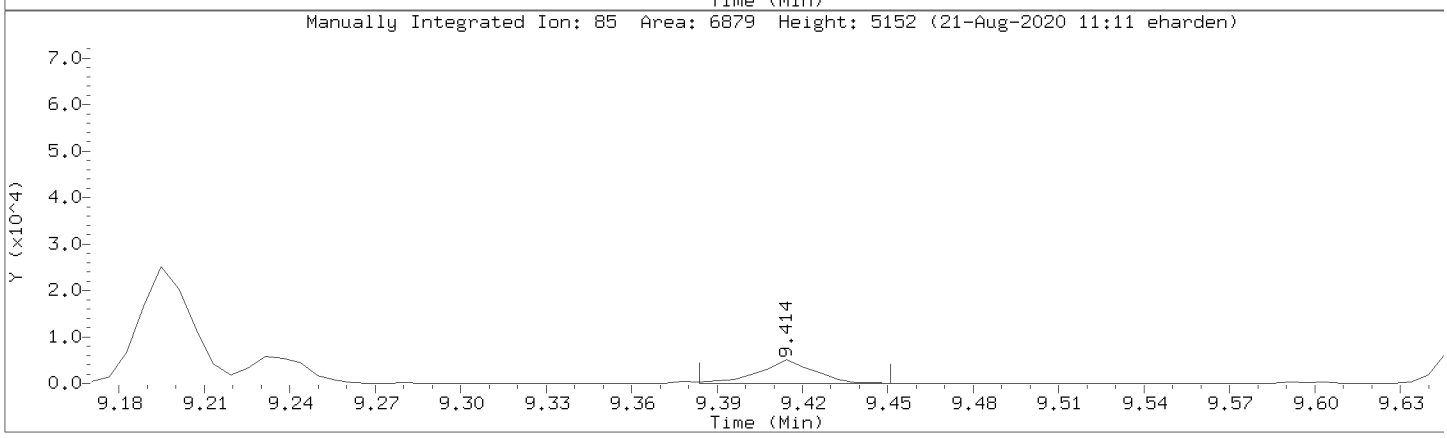
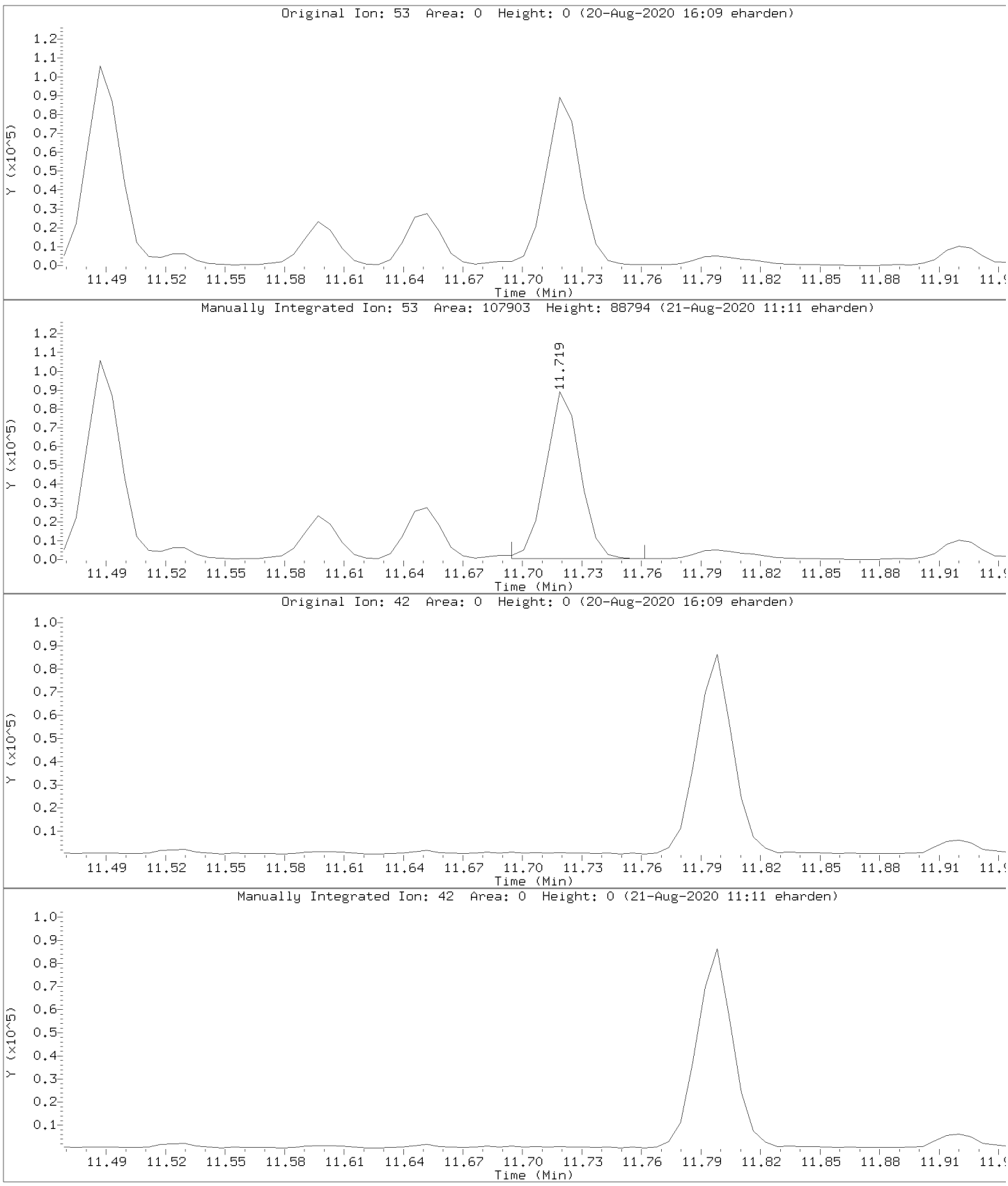
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10





Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_12.D
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6



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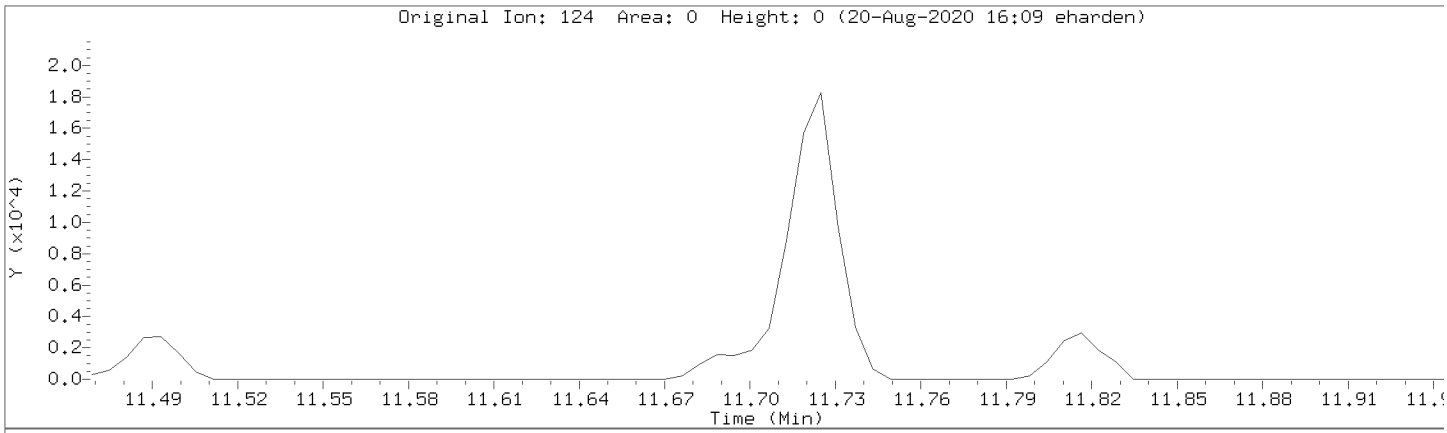
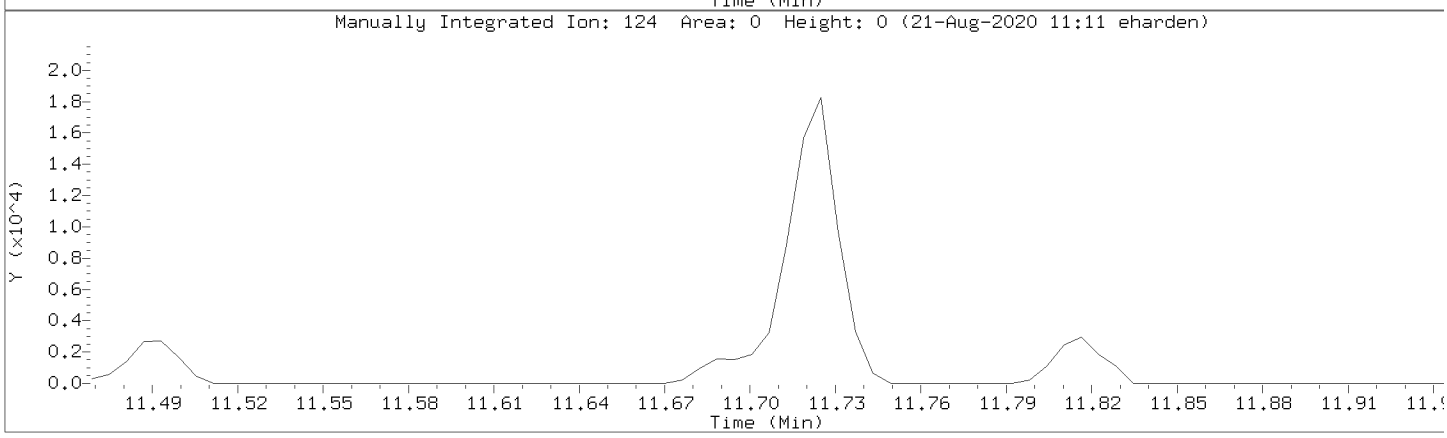
Lab Sample ID: CAL10





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_13.D
Lab Smp Id: CAL11 Client Smp ID: CAL11
Inj Date : 20-AUG-2020 15:01
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal11,27247:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 11 Calibration Sample, Level: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.411)	596195	150.000	136	
2 Chloromethane	50	3.543	3.543	(0.451)	739356	150.000	145	
3 Vinyl chloride	62	3.696	3.702	(0.470)	576689	150.000	133	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	505231	150.000	131	
5 Bromomethane	94	4.202	4.195	(0.535)	405786	150.000	128	
6 Chloroethane	64	4.372	4.360	(0.556)	160377	150.000	135	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	281645	150.000	102	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	213435	150.000	141	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	700428	150.000	143	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	416914	150.000	129	
11 Carbon disulfide	76	5.293	5.293	(0.673)	1405135	150.000	130	
12 Iodomethane	142	5.445	5.439	(0.693)	477239	150.000	149	
13 Acrolein	56	5.653	5.659	(0.719)	138935	300.000	275	
14 Allyl chloride	76	5.781	5.787	(0.736)	206328	150.000	137	
15 Methylene Chloride	49	5.903	5.902	(0.751)	727096	150.000	125	
16 Acetone	43	5.970	5.976	(0.760)	656255	300.000	234	
17 Methyl acetate	43	6.067	6.067	(0.772)	970273	300.000	292(A)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	446654	150.000	135	
19 n-Hexane	86	6.110	6.110	(0.777)	56907	150.000	163	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	1130159	150.000	147	
21 Acetonitrile	41	6.457	6.463	(0.822)	86780	300.000	285(AH)	
22 Chloroprene	53	6.640	6.640	(0.845)	759997	150.000	165	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	841882	150.000	131	
	24 Acrylonitrile	53	6.732	6.738	(0.857)	345438	300.000	248(A)	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	953920	150.000	150	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	675979	150.000	143	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	639550	150.000	129	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	262219	150.000	127	
	29 Cyclohexane	56	7.335	7.335	(0.882)	673959	150.000	169	
	30 Chloroform	83	7.372	7.372	(0.938)	938653	150.000	129	
	31 Ethyl acetate	43	7.427	7.433	(0.945)	1167339	300.000	285(A)	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	693313	150.000	147	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	267882	300.000	269(A)	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	173692	50.0000	41.4	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	769482	150.000	144	
	36 2-Butanone (MEK)	43	7.622	7.628	(0.970)	813342	300.000	260	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	593514	150.000	160(H)	
*	38 Pentafluorobenzene (IS)	168	7.860	7.859	(1.000)	364284	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	1687076	150.000	140	
	40 Propionitrile	54	7.896	7.902	(1.005)	166664	300.000	268(A)	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	899644	300.000	285(A)	
	42 Isobutanol	43	7.939	7.987	(1.010)	51350	300.000	326(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	31193	50.0000	41.3	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	727644	150.000	128	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	1065124	150.000	157	
	46 Trichloroethene	130	8.317	8.317	(1.000)	502843	150.000	153	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	469326	50.0000		
	48 Methylcyclohexane	98	8.317	8.317	(1.000)	251607	150.000	162	
	49 n-Butanol	56	8.506	8.524	(1.023)	20257	300.000	282(AM)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	389827	150.000	139	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	498266	150.000	145	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	761518	150.000	155	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	310093	150.000	154	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	8913	300.000	(M)	LT
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	556411	300.000	310(A)	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	771157	150.000	161	
$	57 Toluene-d8 (S)	98	9.378	9.377	(1.128)	506560	50.0000	50.1	
	58 Toluene	91	9.414	9.414	(1.132)	1804467	150.000	154	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	173571	150.000	150(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	110057	300.000	328(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	770276	150.000	161	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	474671	150.000	157	
	63 Ethyl methacrylate	69	9.762	9.761	(1.174)	589423	150.000	153(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	411208	150.000	139	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	661080	150.000	158	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	718701	150.000	159	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	540700	150.000	151	
	68 2-Hexanone	43	10.280	10.280	(1.236)	1321811	300.000	334	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	2030868	150.000	176	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	440117	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	1246902	150.000	147	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	502389	150.000	140	
	73 m&p-Xylene	91	10.652	10.651	(1.009)	3087209	300.000	306	
	74 o-Xylene	106	10.993	10.993	(1.041)	749110	150.000	157	
	75 Styrene	104	11.030	11.029	(1.044)	1284674	150.000	154	
	76 Bromoform	173	11.103	11.103	(1.051)	620516	150.000	156	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.225	11.225	(1.063)	1097042	150.000	153	
$ 78 4-Bromofluorobenzene (S)	95	11.469	11.468	(1.086)	197928	50.0000	54.8	
79 cis-1,4-Dichloro-2-butene	53	11.493	11.487	(1.088)	206357	150.000	143	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	2449319	150.000	173	
81 Bromobenzene	156	11.578	11.578	(1.096)	711831	150.000	160	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	670344	150.000	142	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	1583363	150.000	167	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	512053	150.000	151	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	520832	150.000	153	
86 Isopropylbenzene (Cumene)	105	11.213	11.212	(1.062)	1881332	150.000	154	
87 1,2,3-Trichloropropane	75	11.725	11.724	(1.110)	714757	150.000	145	
88 trans-1,4-Dichloro-2-butene	53	11.725	11.718	(1.110)	175075	150.000	154(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	1701781	150.000	153	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	1675381	150.000	150	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	2013841	150.000	152	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	1701781	150.000	153	
94 1,3-Dichlorobenzene	146	12.292	12.291	(0.996)	1189514	150.000	156	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	286487	50.0000		
96 1,4-Dichlorobenzene	146	12.353	12.352	(1.001)	1209618	150.000	140	
97 n-Butylbenzene	91	12.487	12.486	(1.012)	1702056	150.000	170	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	1195470	150.000	143	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	140776	150.000	150	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	396371	150.000	155	
101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	959966	150.000	170	
102 Naphthalene	128	14.194	14.193	(1.150)	1728714	150.000	153	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	908509	150.000	173	

QC Flag Legend

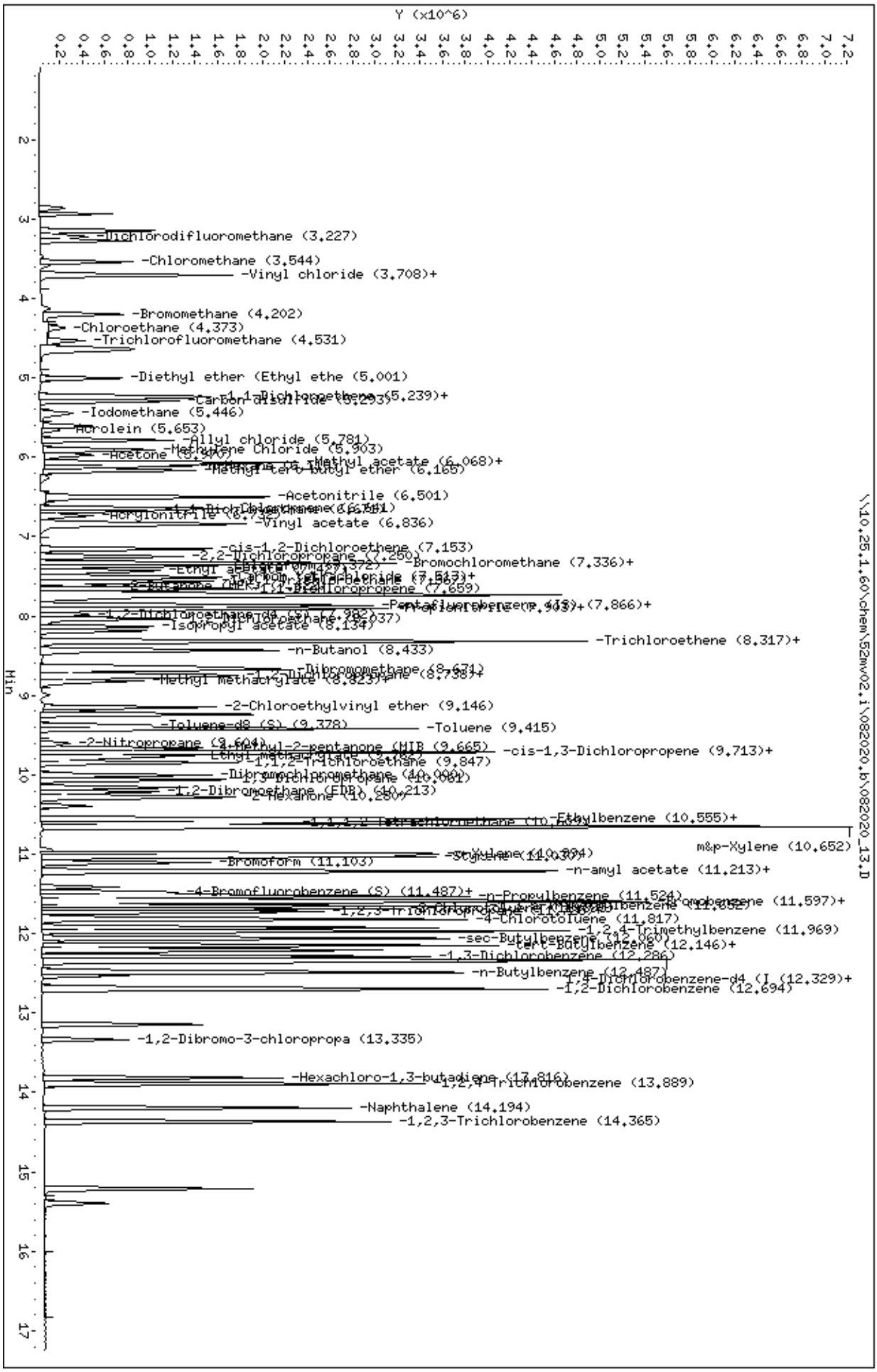
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_13.D
Date : 20-AUG-2020 15:01
Client ID: CAL11
Sample Info: CAL11,27247:1
Purge Volume: 5.0
Column phase: RTX-VMS

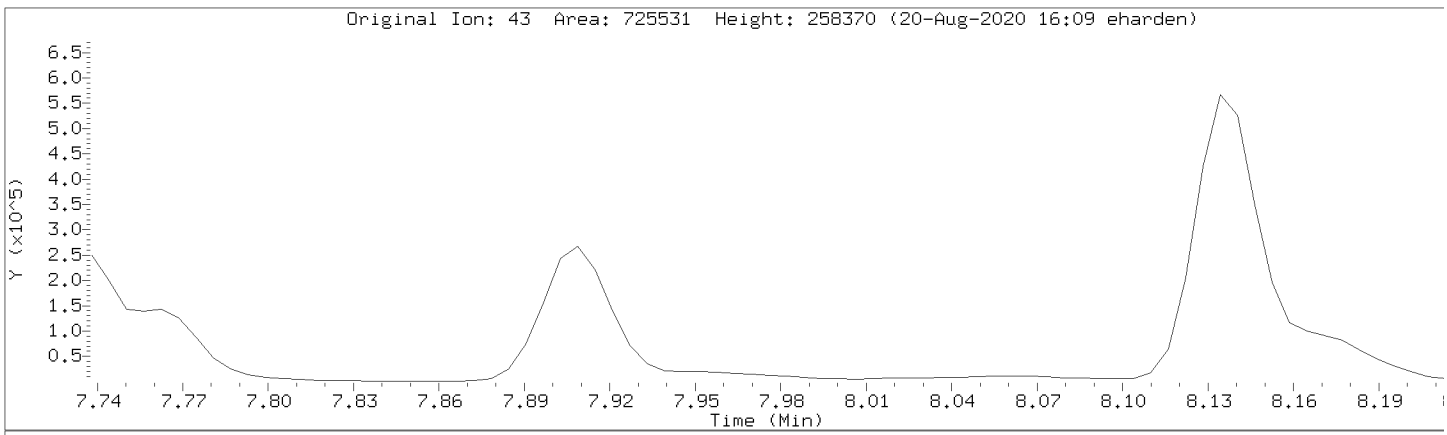
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

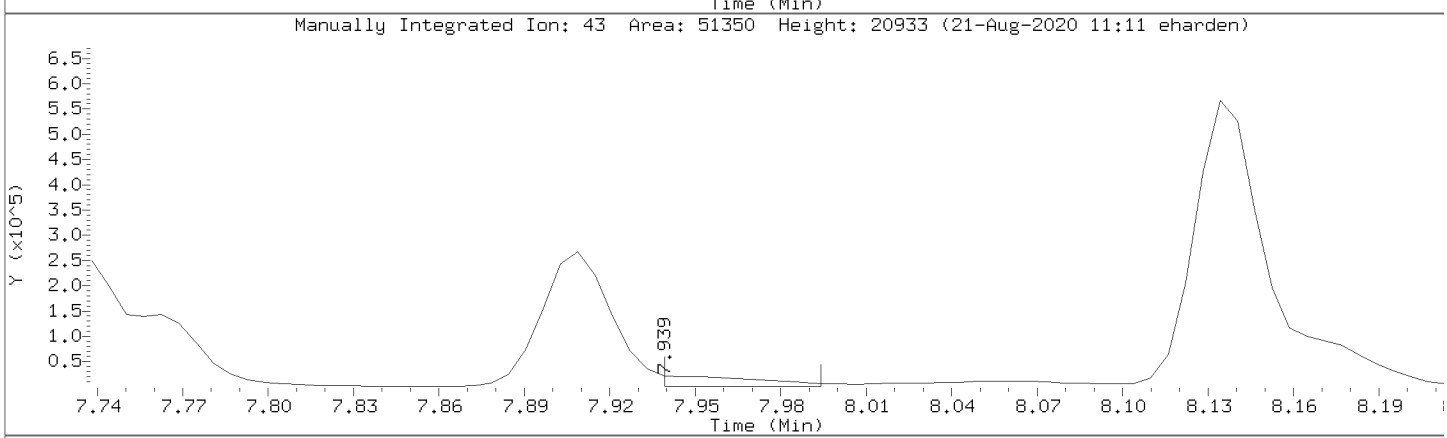


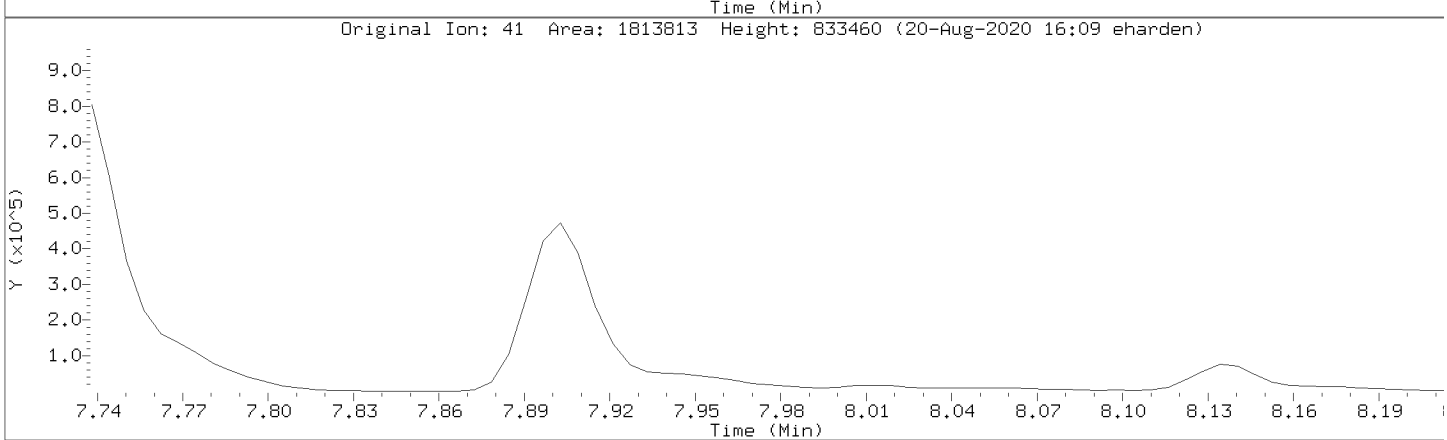
Page 4

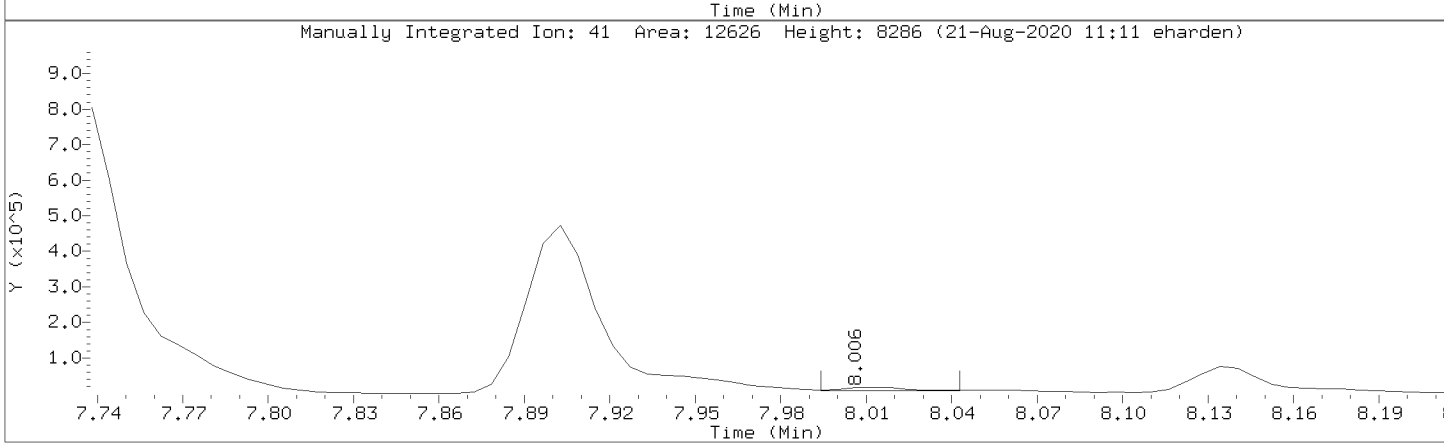
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_13.D
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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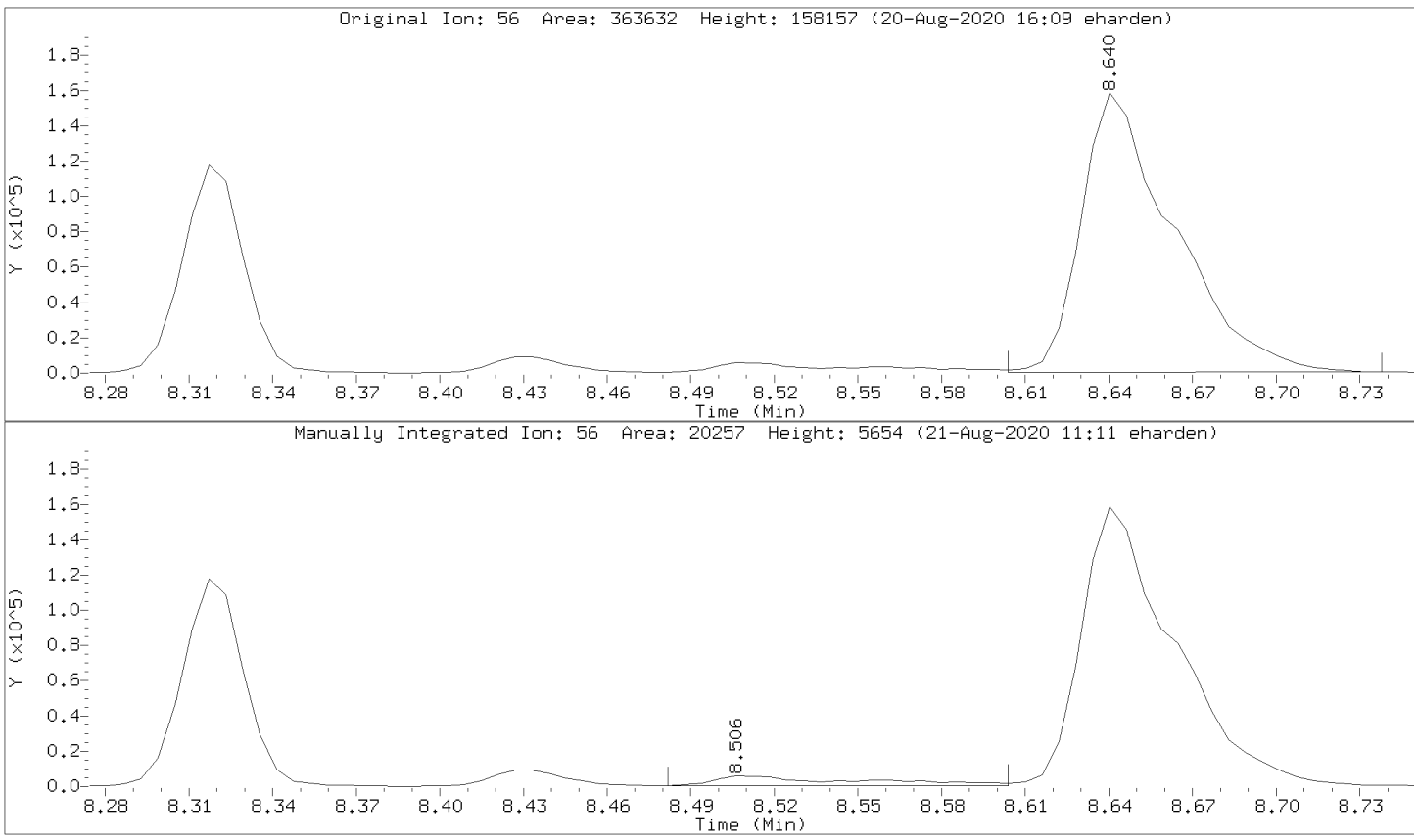
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3



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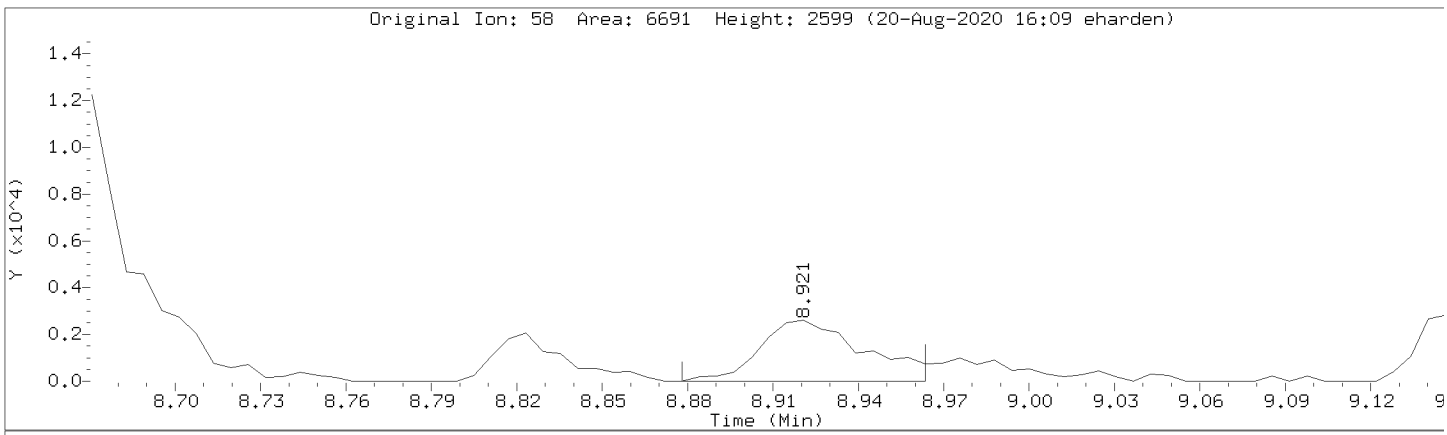
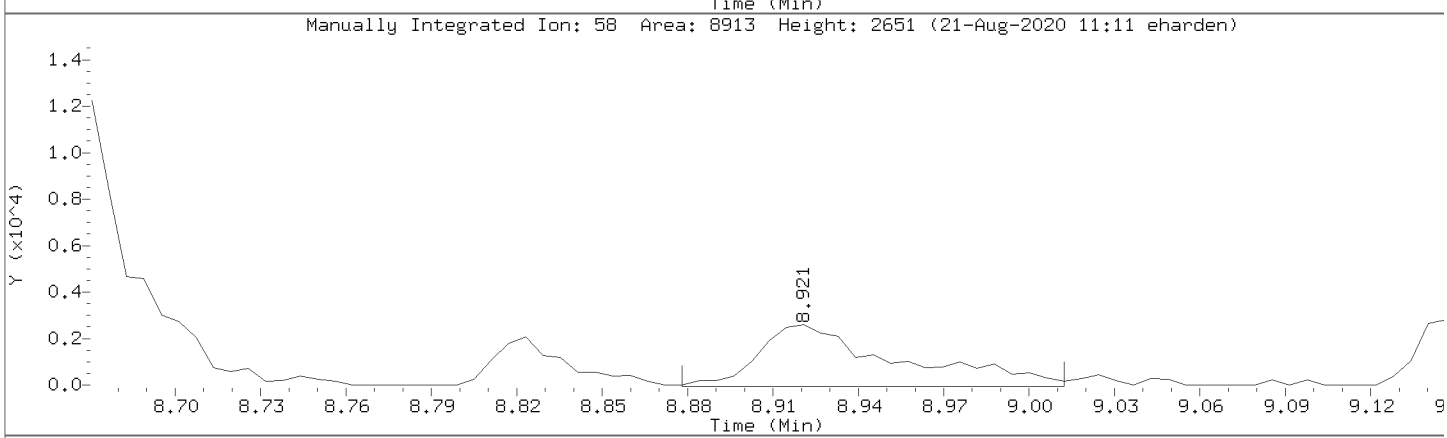
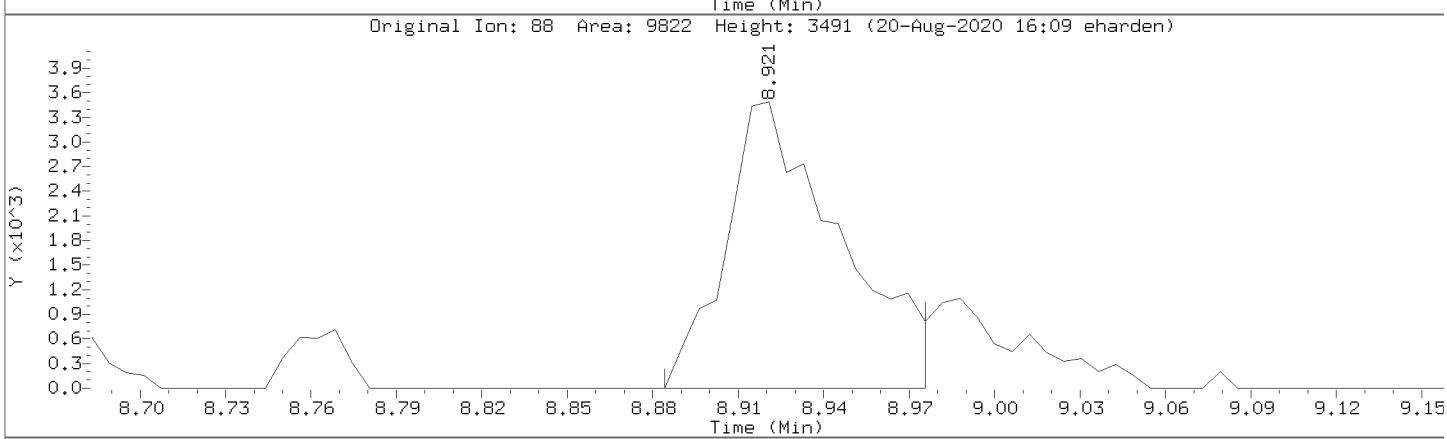
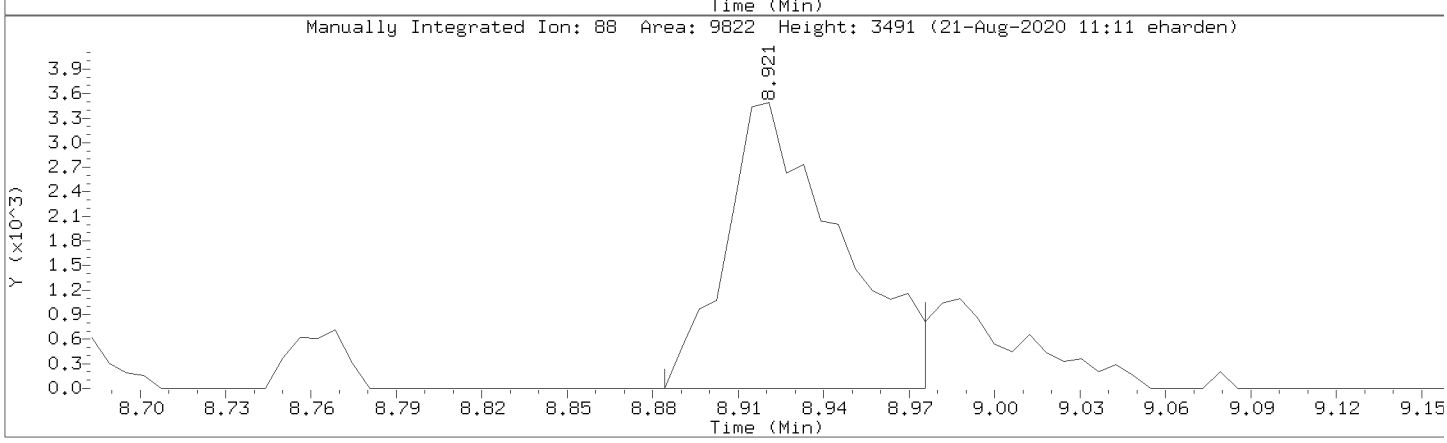
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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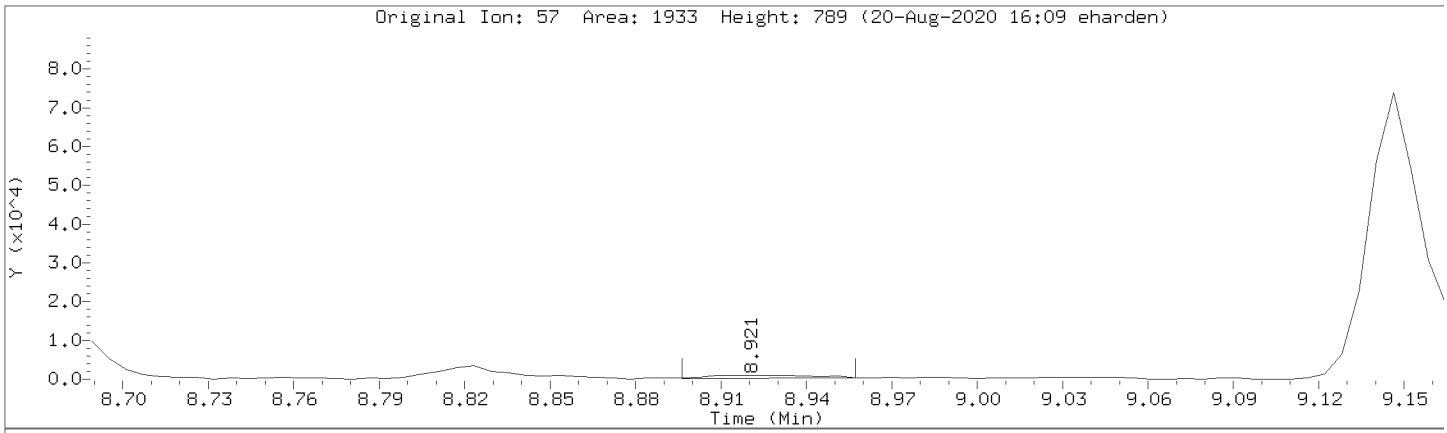
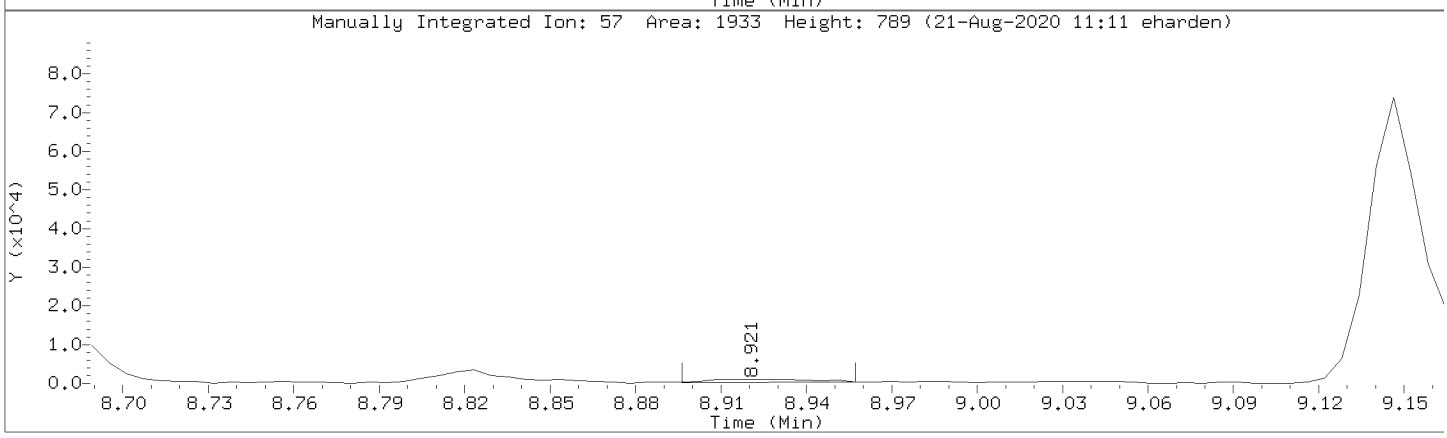
Instrument: 52mv02.i
Lab Sample ID: CAL11





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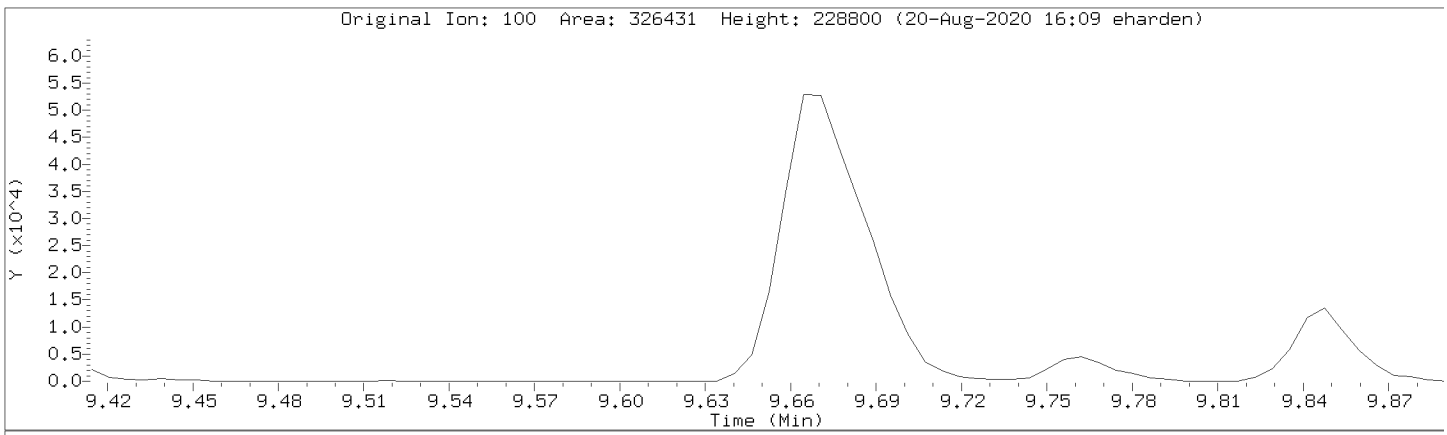
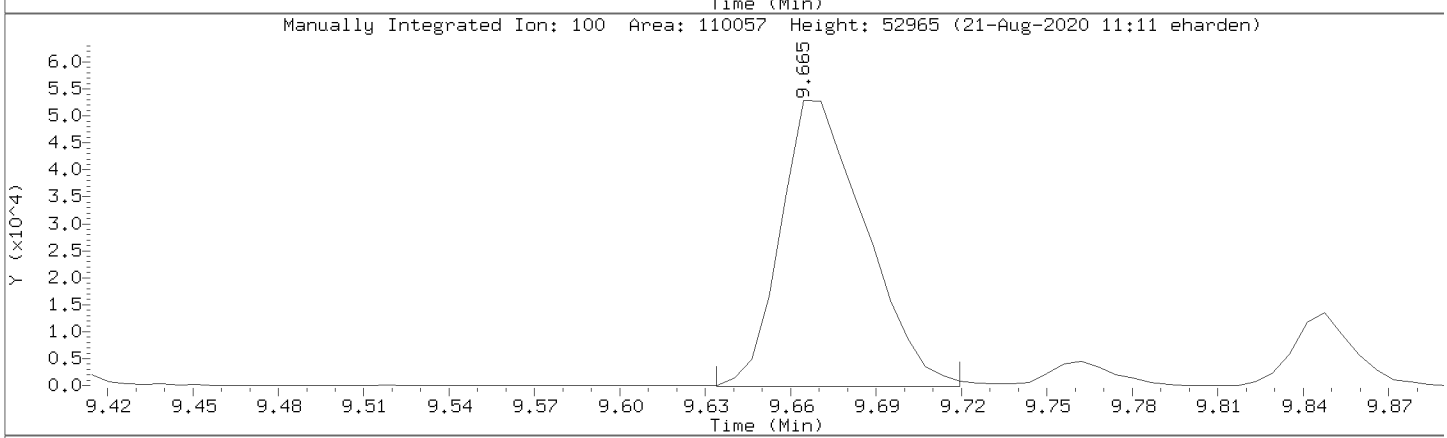
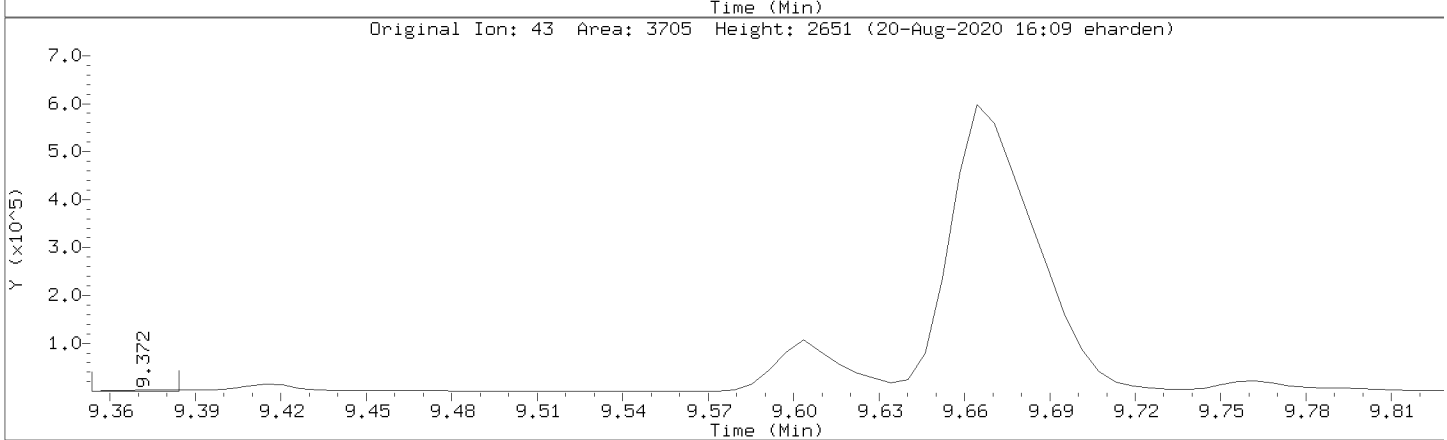
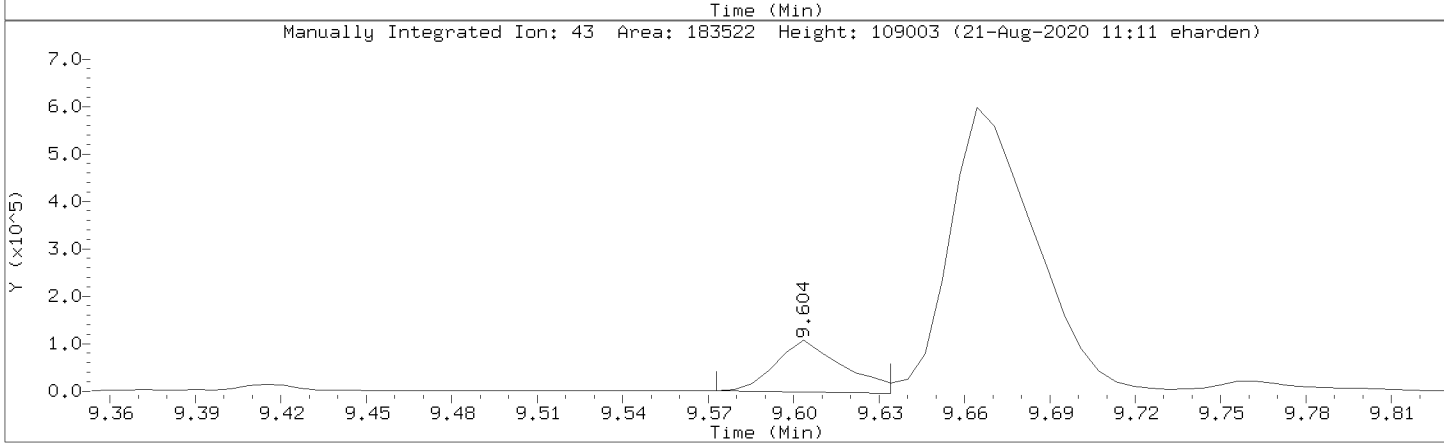
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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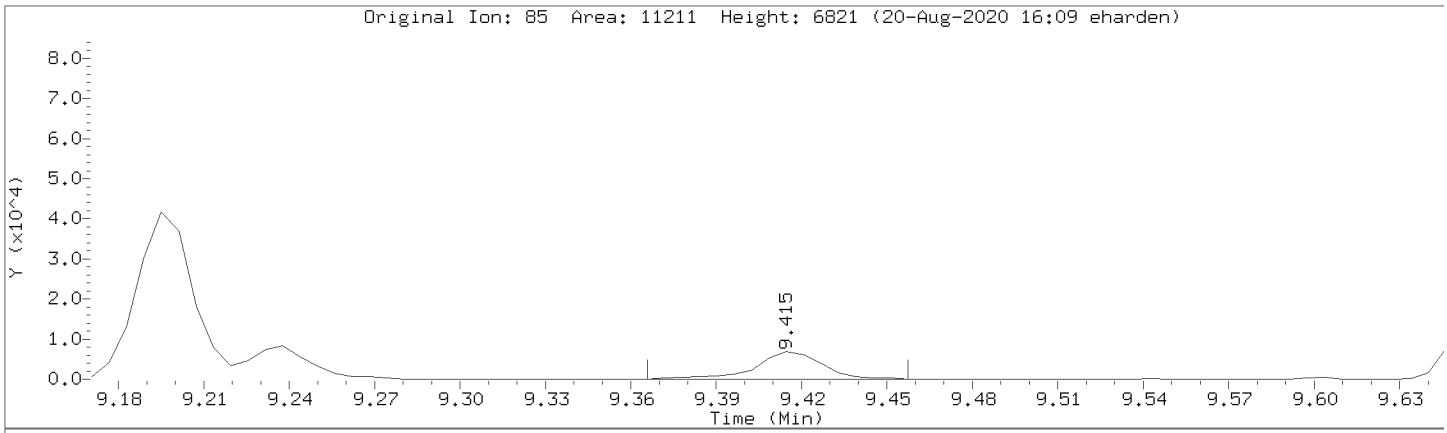
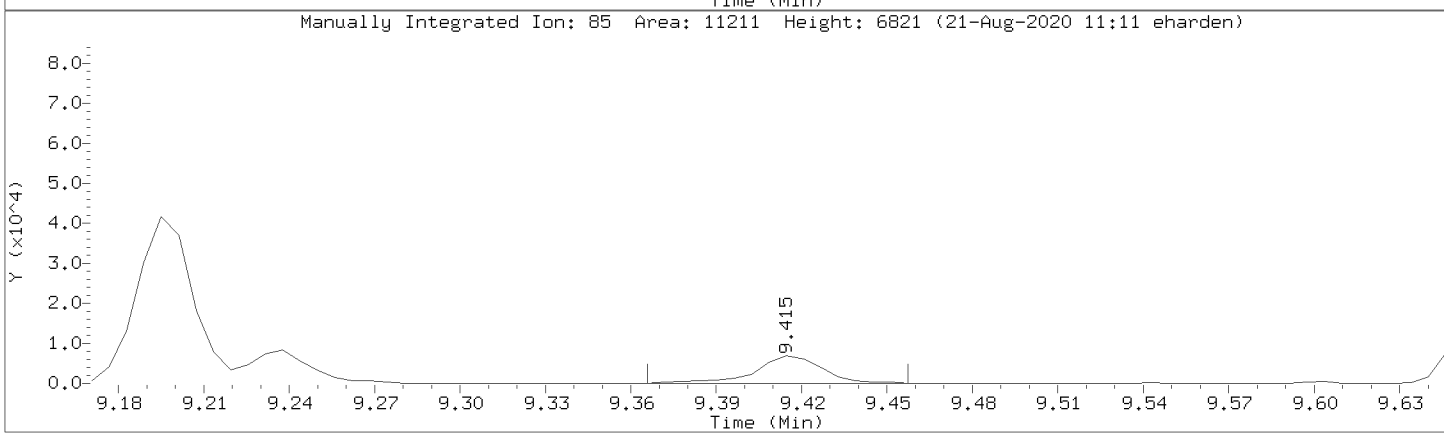
Instrument: 52mv02.i
Lab Sample ID: CAL11





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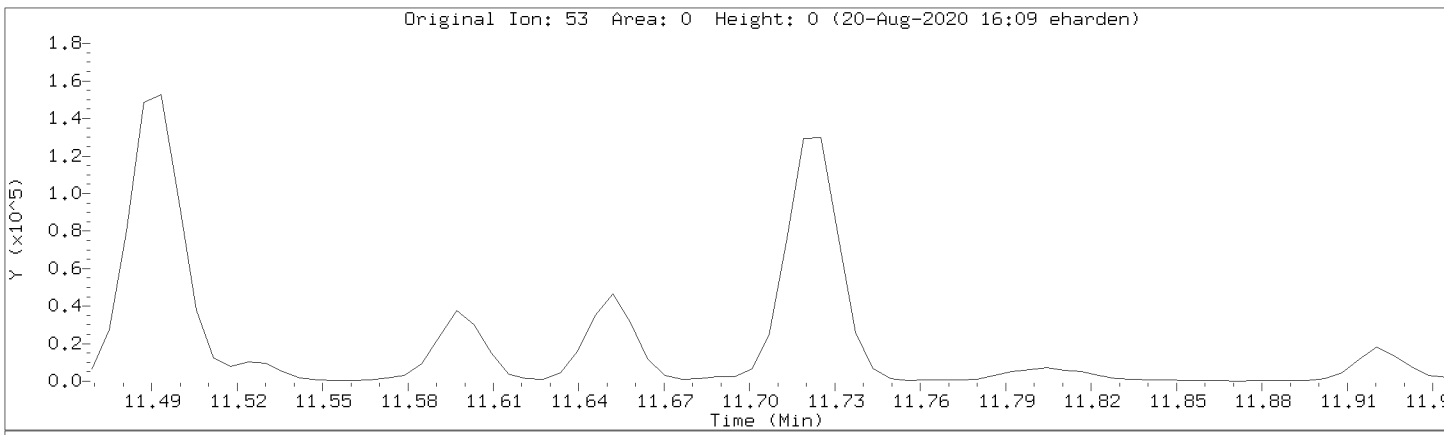
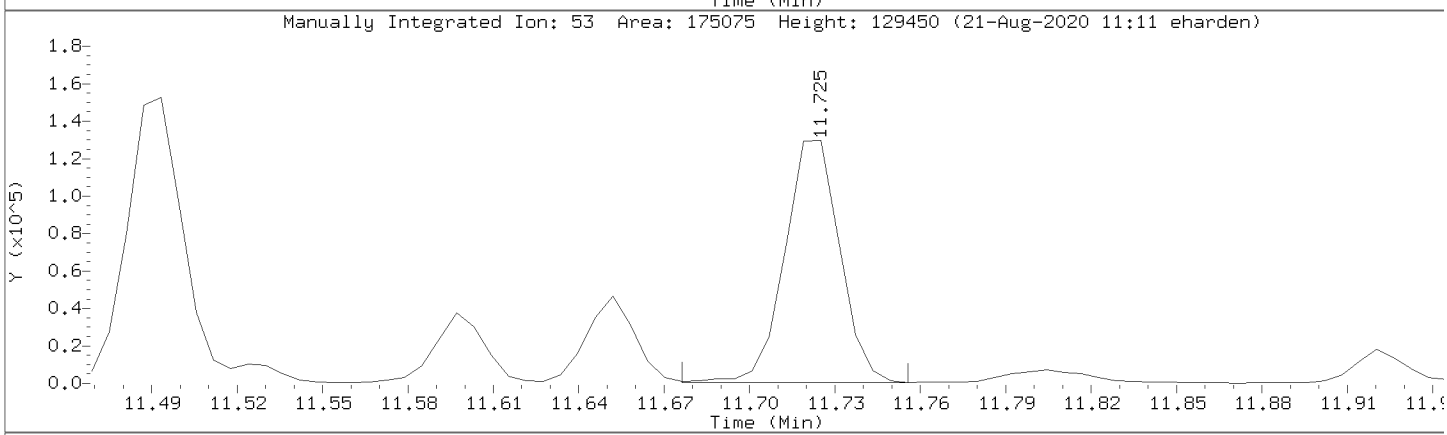
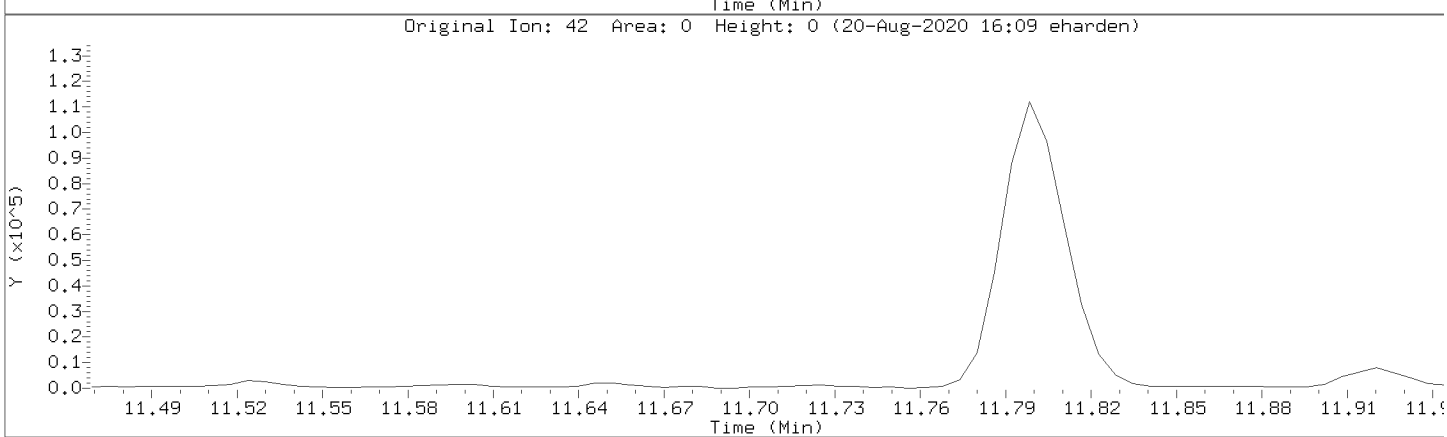
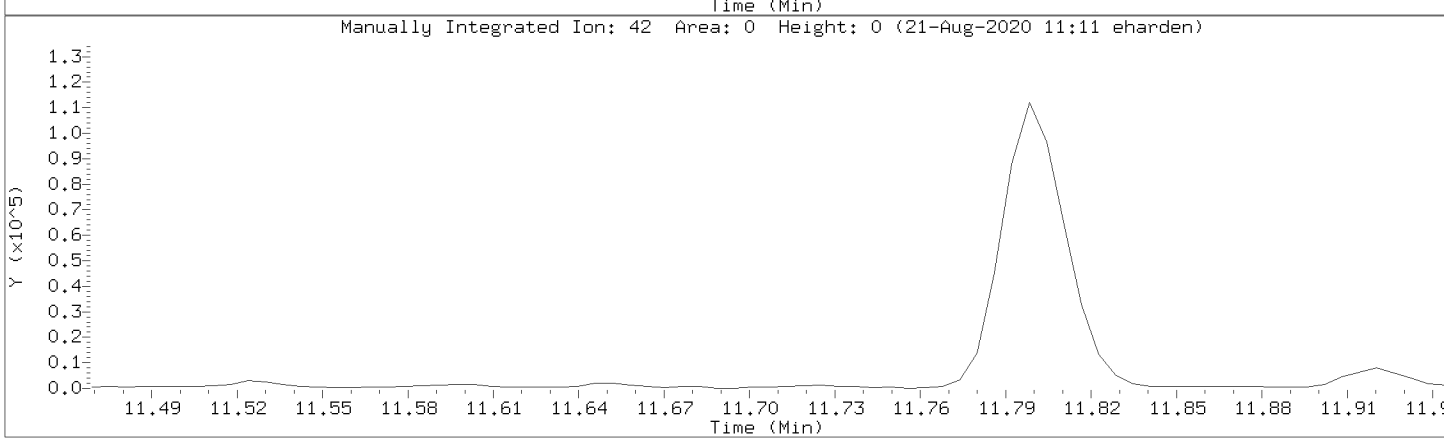
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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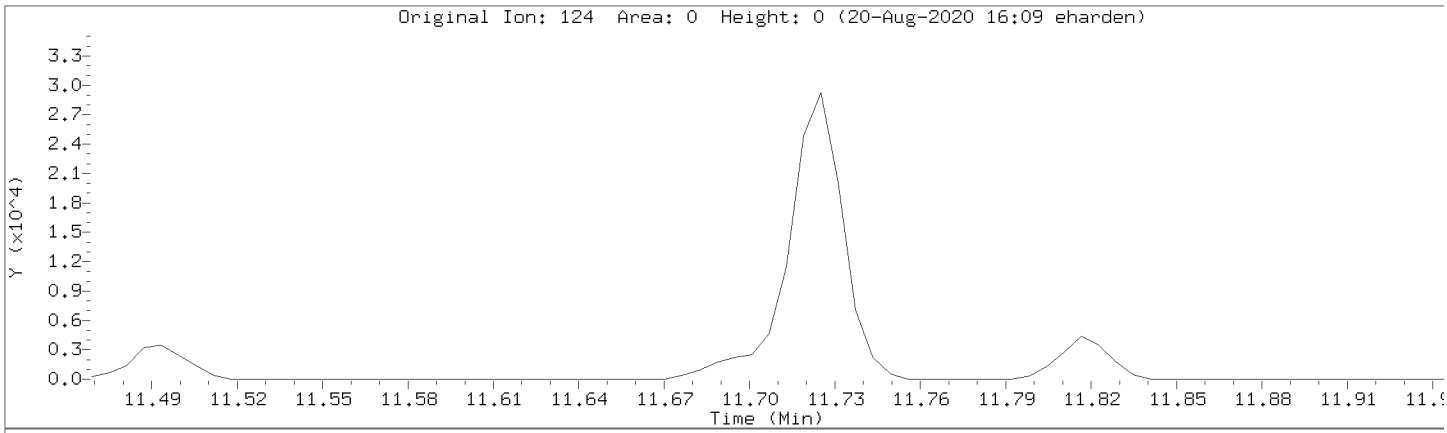
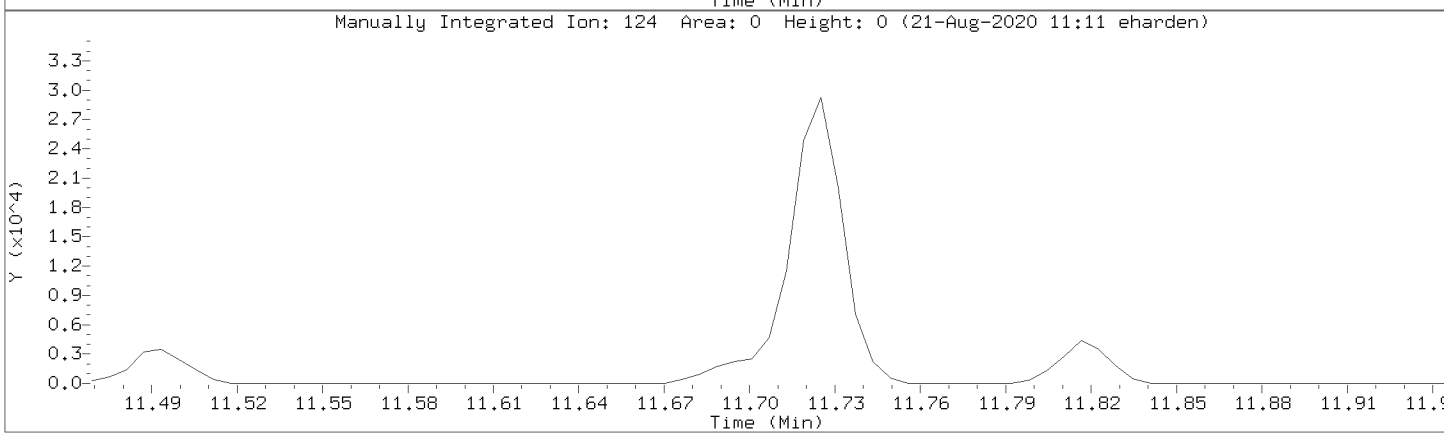
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_14.D
Lab Smp Id: CAL12 Client Smp ID: CAL12
Inj Date : 20-AUG-2020 15:26
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal12,27248:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 15:26 Cal File: 082020_14.D
Als bottle: 12 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.410)	843624	200.000	180	
2 Chloromethane	50	3.543	3.543	(0.451)	1035862	200.000	191	
3 Vinyl chloride	62	3.702	3.702	(0.471)	829656	200.000	180	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	724882	200.000	176	
5 Bromomethane	94	4.201	4.195	(0.535)	575423	200.000	171	
6 Chloroethane	64	4.372	4.360	(0.556)	201667	200.000	159	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	390171	200.000	133	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	307440	200.000	190	
9 1,1-Dichloroethene	61	5.226	5.226	(0.665)	1011414	200.000	194	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	600631	200.000	175	
11 Carbon disulfide	76	5.287	5.293	(0.673)	2019084	200.000	175	
12 Iodomethane	142	5.451	5.439	(0.694)	734096	200.000	200	
13 Acrolein	56	5.658	5.659	(0.720)	211690	400.000	394	
14 Allyl chloride	76	5.786	5.787	(0.736)	294574	200.000	184	
15 Methylene Chloride	49	5.908	5.902	(0.752)	1050051	200.000	170	
16 Acetone	43	5.969	5.976	(0.760)	1032420	400.000	346	
17 Methyl acetate	43	6.067	6.067	(0.772)	1381491	400.000	390(A)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	650447	200.000	185	
19 n-Hexane	86	6.110	6.110	(0.777)	81559	200.000	219(A)	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	1688062	200.000	206(A)	
21 Acetonitrile	41	6.457	6.463	(0.822)	123656	400.000	381(AH)	
22 Chloroprene	53	6.640	6.640	(0.845)	1112304	200.000	227(A)	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	1205231	200.000	176	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	581161	400.000	391(A)	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	1375005	200.000	203(A)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	992534	200.000	197	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	903801	200.000	171	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	387279	200.000	176	
	29 Cyclohexane	56	7.335	7.335	(0.882)	980896	200.000	229(A)	
	30 Chloroform	83	7.372	7.372	(0.938)	1342881	200.000	174	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	1641965	400.000	376(A)	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	1014164	200.000	200(A)	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	425365	400.000	401(A)	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	196115	50.0000	43.8	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	1082414	200.000	189	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	1209413	400.000	363(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	852371	200.000	214(AH)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	388427	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	2390433	200.000	186	
	40 Propionitrile	54	7.896	7.902	(1.005)	235361	400.000	356(A)	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	1267856	400.000	376(A)	
	42 Isobutanol	43	8.006	7.987	(1.019)	63350	400.000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	34530	50.0000	42.9	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	1018325	200.000	168	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	1505636	200.000	208(A)	
	46 Trichloroethene	130	8.316	8.317	(1.000)	711450	200.000	202(A)	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	502471	50.0000		
	48 Methylcyclohexane	98	8.316	8.317	(1.000)	366667	200.000	220(A)	
	49 n-Butanol	56	8.524	8.524	(1.025)	32202	400.000	419(AH)	
	50 Dibromomethane	93	8.670	8.670	(1.043)	548606	200.000	183	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	697290	200.000	190	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	1076005	200.000	204(A)	
	53 Methyl methacrylate	69	8.822	8.823	(1.061)	445324	200.000	206(A)	
	54 1,4-Dioxane (p-Dioxane)	58	8.926	8.920	(1.073)	12627	400.000		
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	804281	400.000	417(A)	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	1101907	200.000	215(A)	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	535532	50.0000	49.5	
	58 Toluene	91	9.414	9.414	(1.132)	2545722	200.000	203(A)	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	254950	200.000	206(AH)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.670	9.664	(1.163)	157776	400.000	439(AM)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	1100485	200.000	215(A)	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	675307	200.000	207(A)	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	846262	200.000	206(AH)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	576866	200.000	182	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	932240	200.000	206(A)	
	66 1,3-Dichloropropane	76	10.066	10.060	(1.210)	1015605	200.000	210(A)	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	770644	200.000	199	
	68 2-Hexanone	43	10.280	10.280	(1.236)	1882914	400.000	444(A)	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	2928963	200.000	236(A)	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	475366	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	1776013	200.000	194	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	724011	200.000	187	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	4406208	400.000	404(A)	
	74 o-Xylene	106	10.993	10.993	(1.041)	1080392	200.000	210(A)	
	75 Styrene	104	11.029	11.029	(1.044)	1852119	200.000	206(A)	
	76 Bromoform	173	11.103	11.103	(1.051)	891644	200.000	208(A)	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	1568685	200.000	203(A)	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	213757	50.0000	54.8	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	295248	200.000	189	
80 n-Propylbenzene	91	11.529	11.523	(1.092)	3505994	200.000	230(A)	
81 Bromobenzene	156	11.578	11.578	(1.096)	1028329	200.000	214(A)	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	952451	200.000	187	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	2283486	200.000	233(AH)	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	743796	200.000	204(A)	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	747393	200.000	203(A)	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	2752818	200.000	208(A)	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	984420	200.000	185	
88 trans-1,4-Dichloro-2-butene	53	11.724	11.718	(1.110)	245006	200.000	200(AM)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	2429584	200.000	210(A)	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	2397637	200.000	207(A)	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	2866460	200.000	208(A)	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	2429584	200.000	210(A)	
94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	1695278	200.000	214(A)	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	296897	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	1711879	200.000	192	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	2431584	200.000	235(A)	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	1704224	200.000	197	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	202261	200.000	208(A)	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	587132	200.000	222(A)	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	1407142	200.000	241(A)	
102 Naphthalene	128	14.193	14.193	(1.150)	2506120	200.000	214(A)	
103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	1299349	200.000	239(A)	

QC Flag Legend

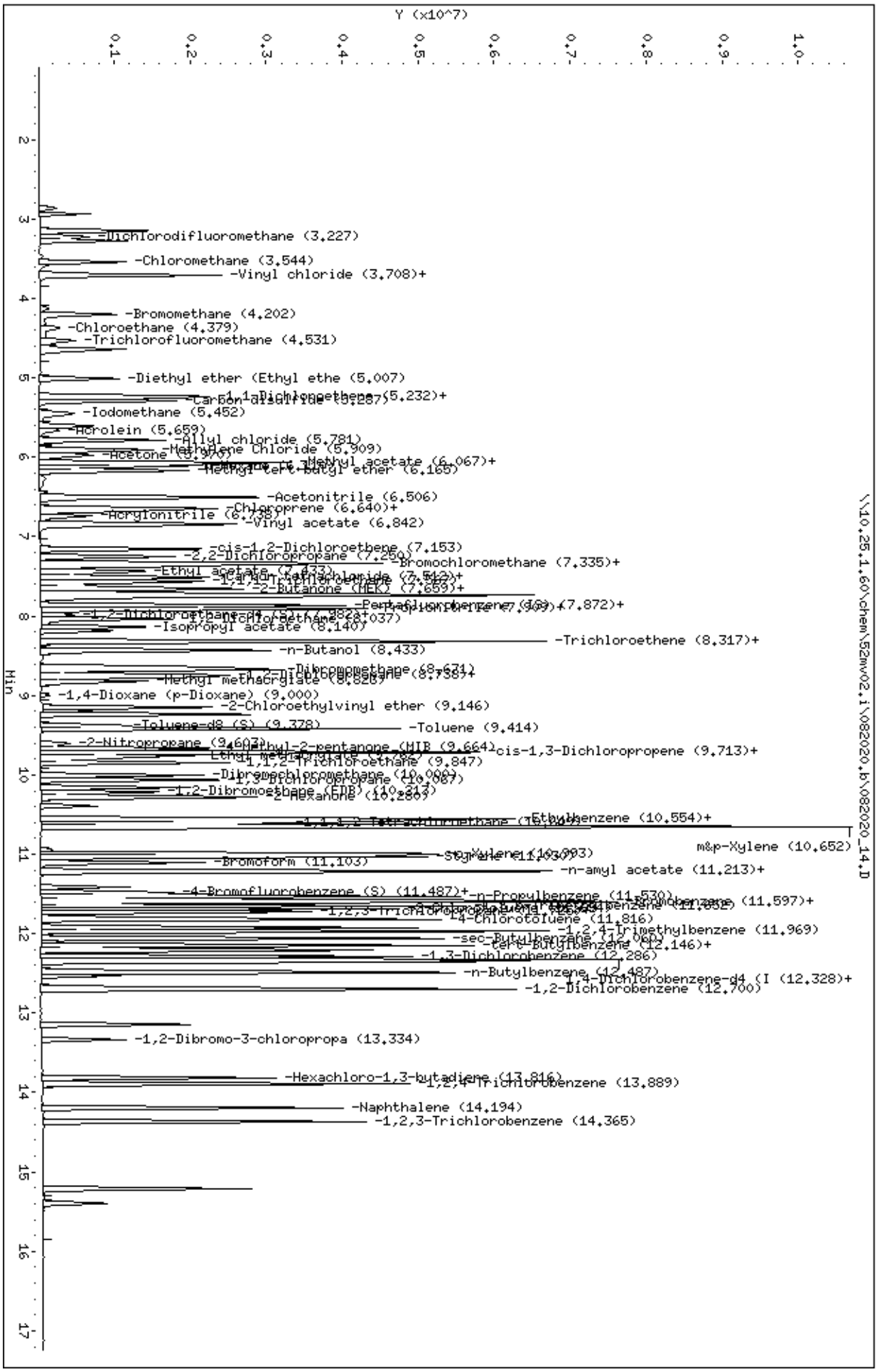
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_14.D
Date : 20-AUG-2020 15:26
Client ID: CAL12
Sample Info: CAL12,27248:1
Purge Volume: 5.0
Column phase: RTX-VMS

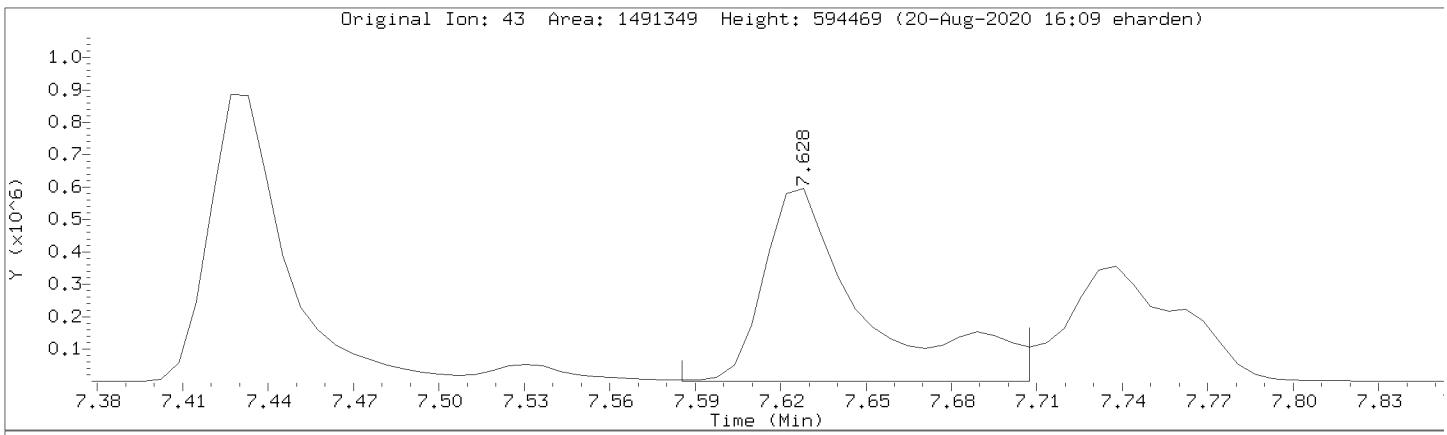
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

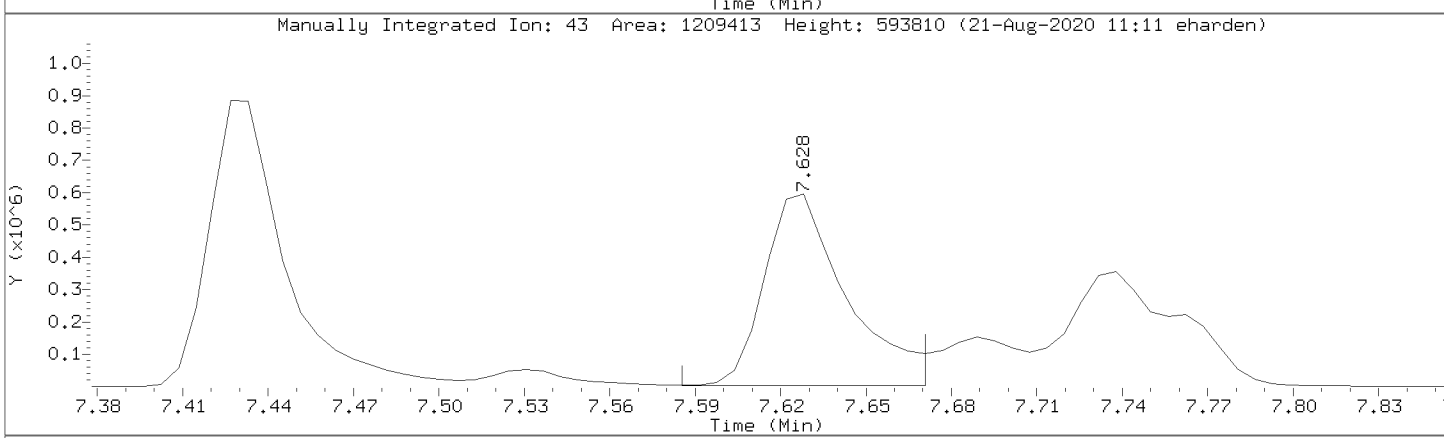


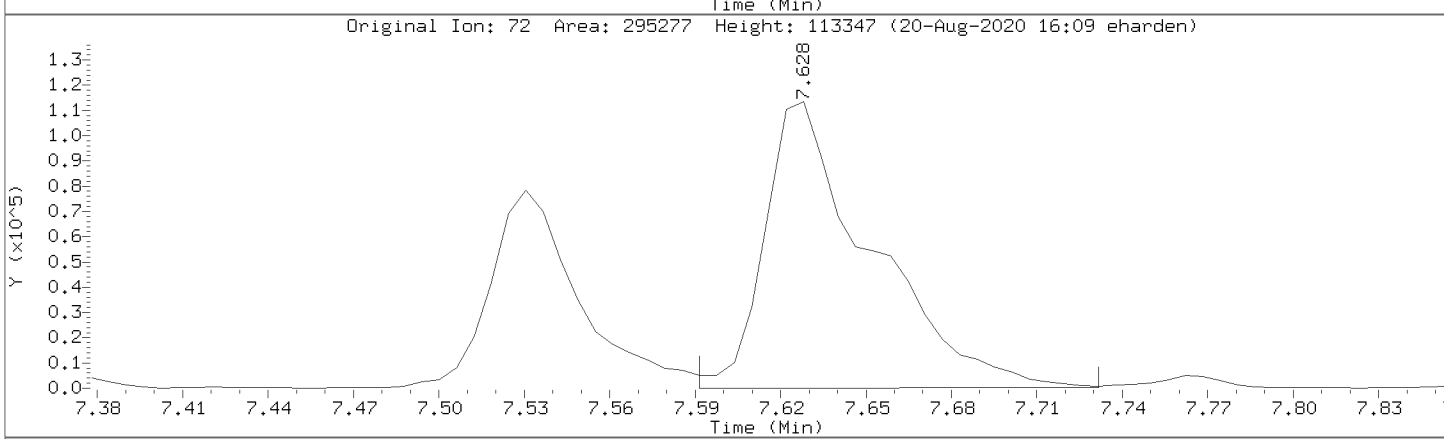
Page 4

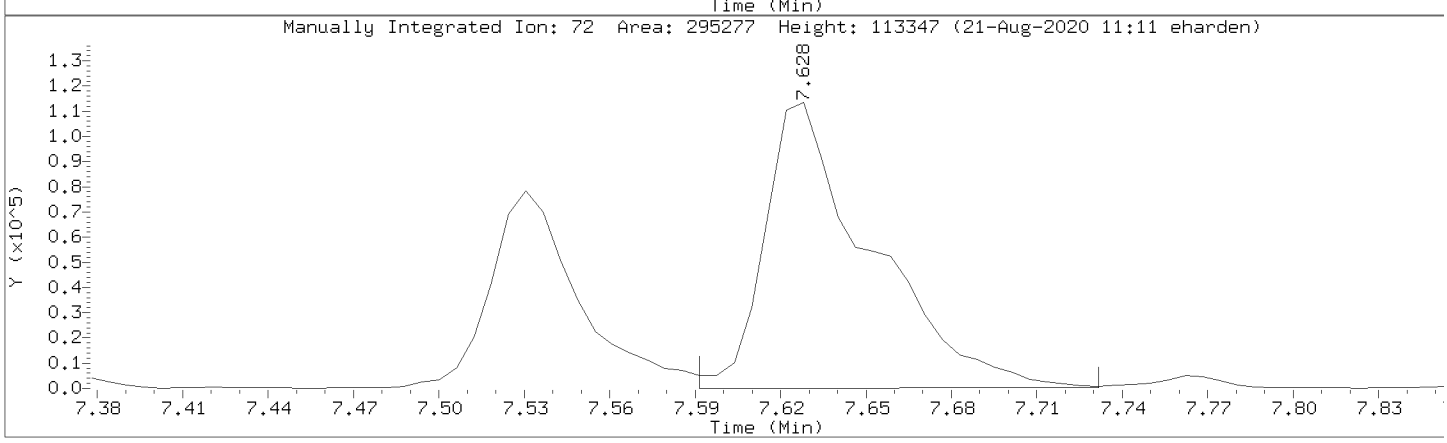
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_14.D
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3









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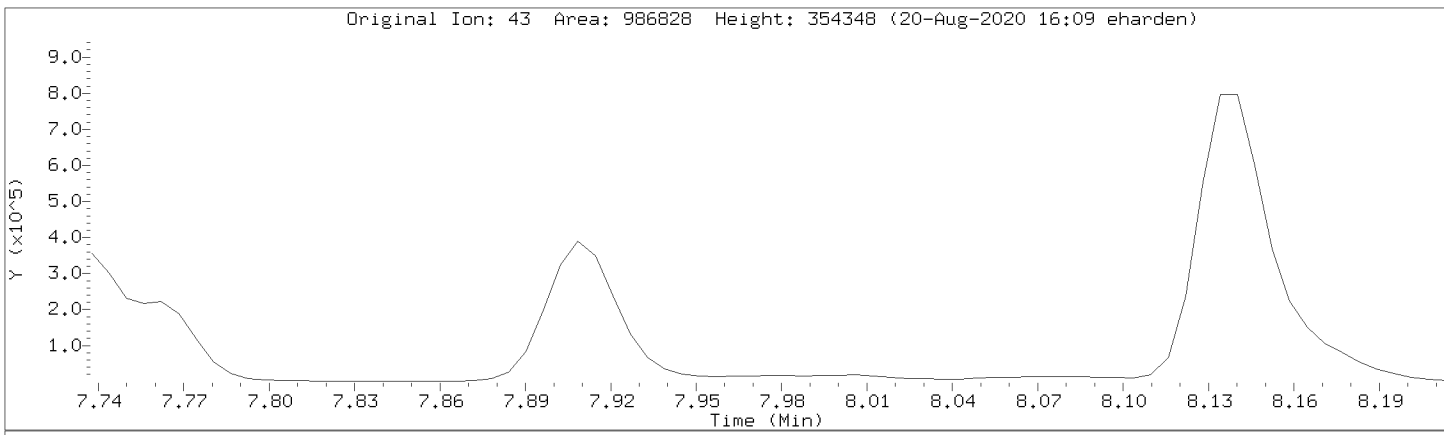
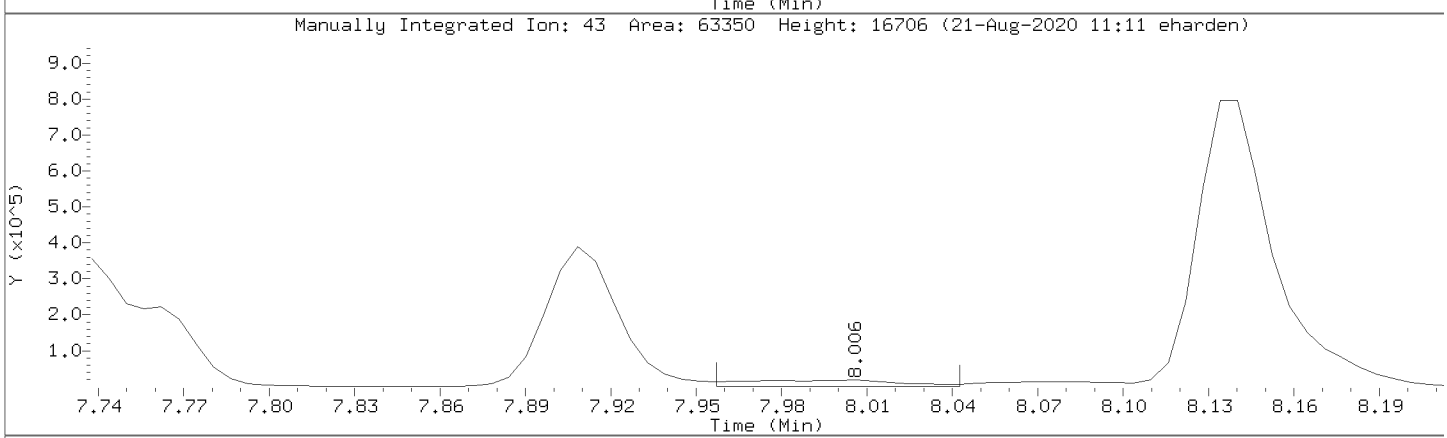
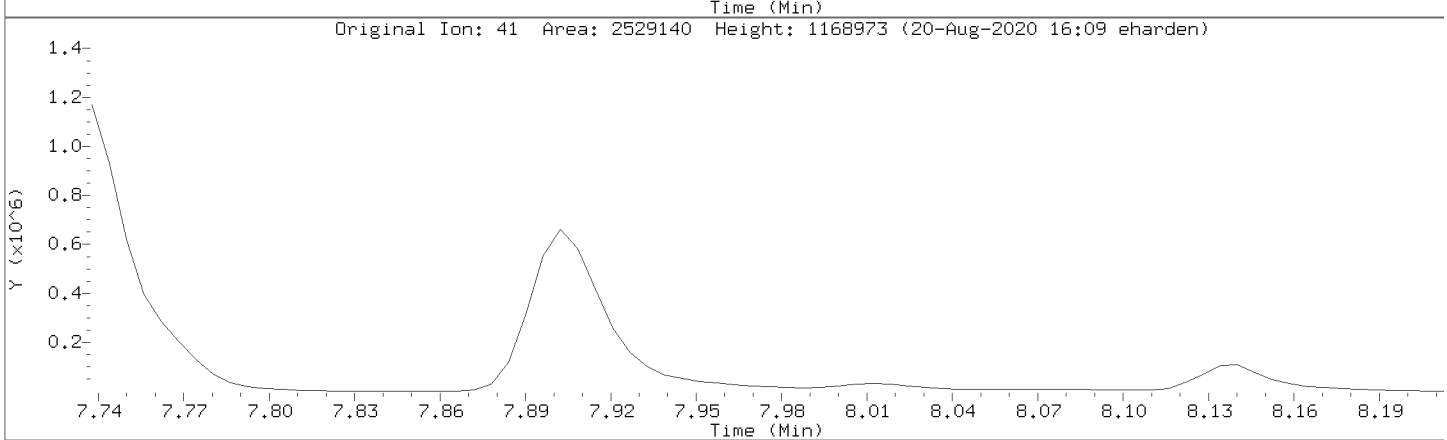
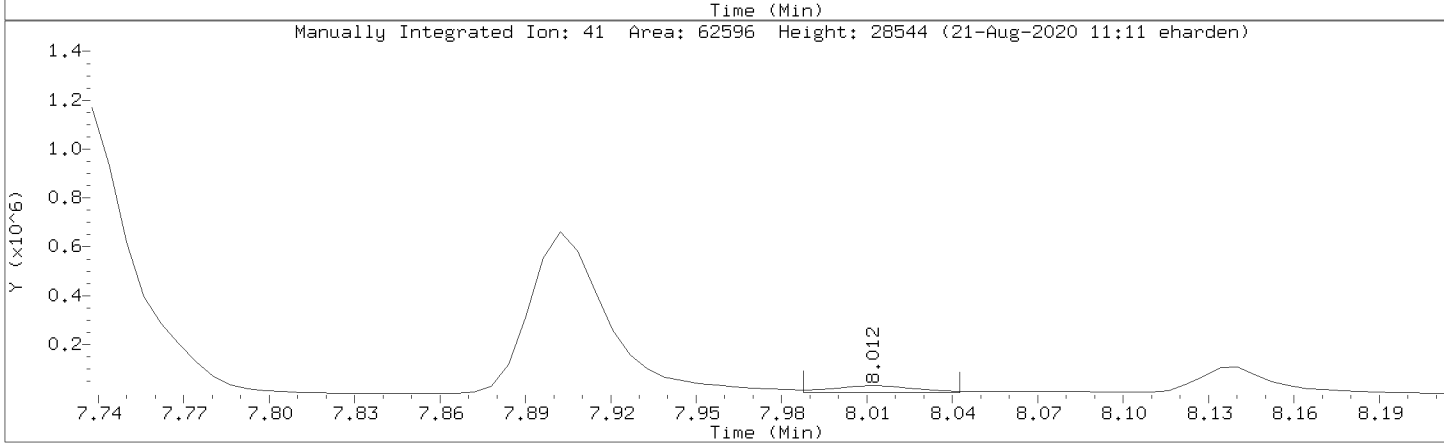
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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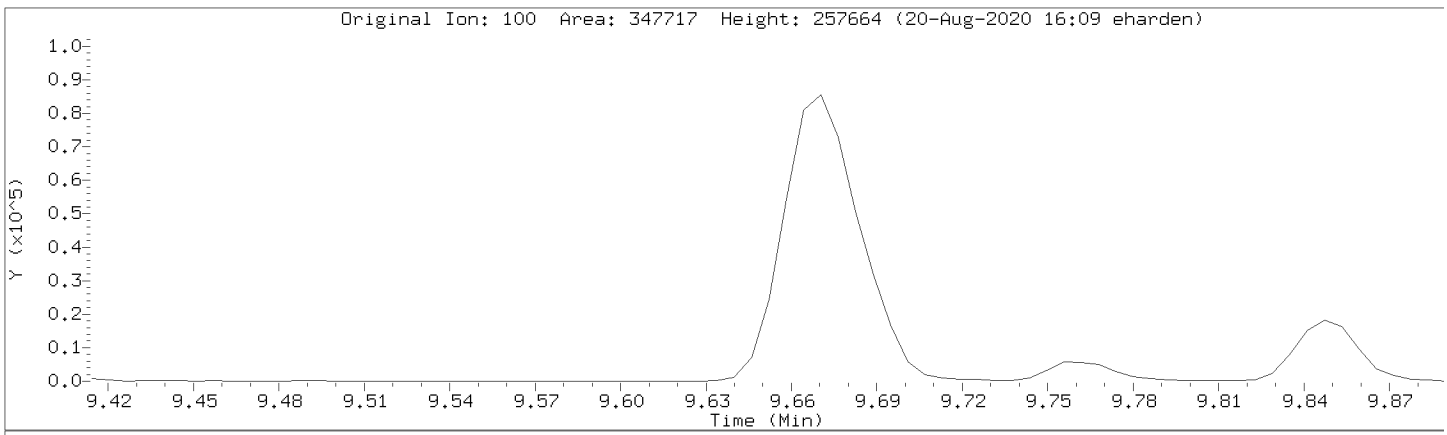
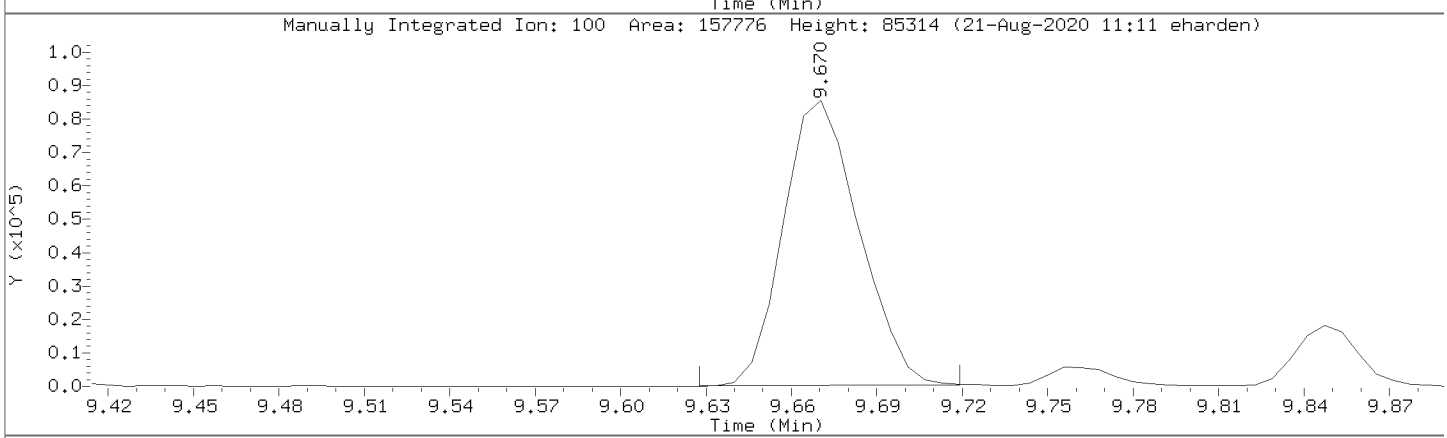
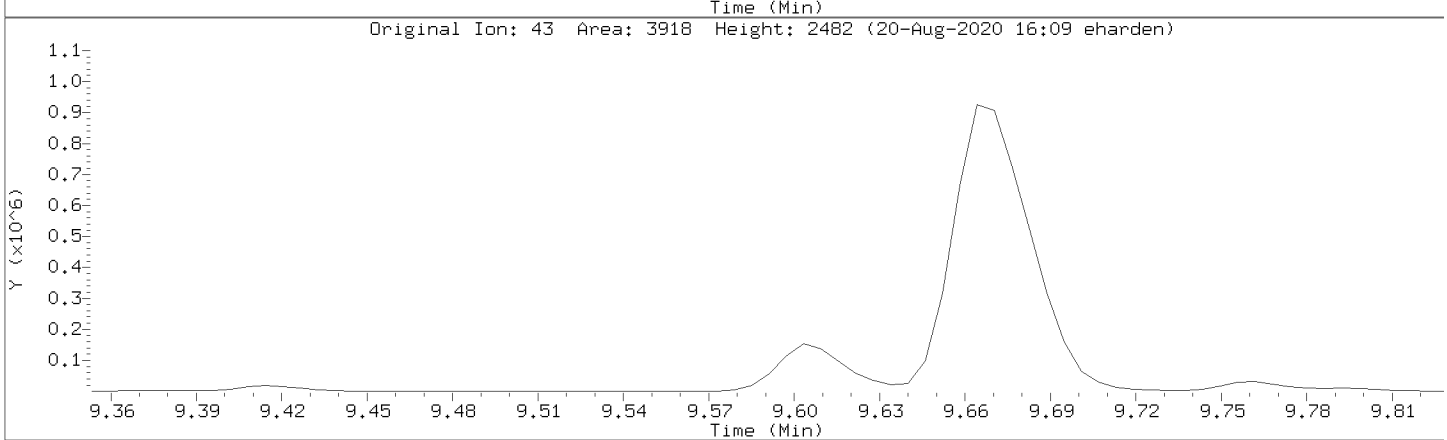
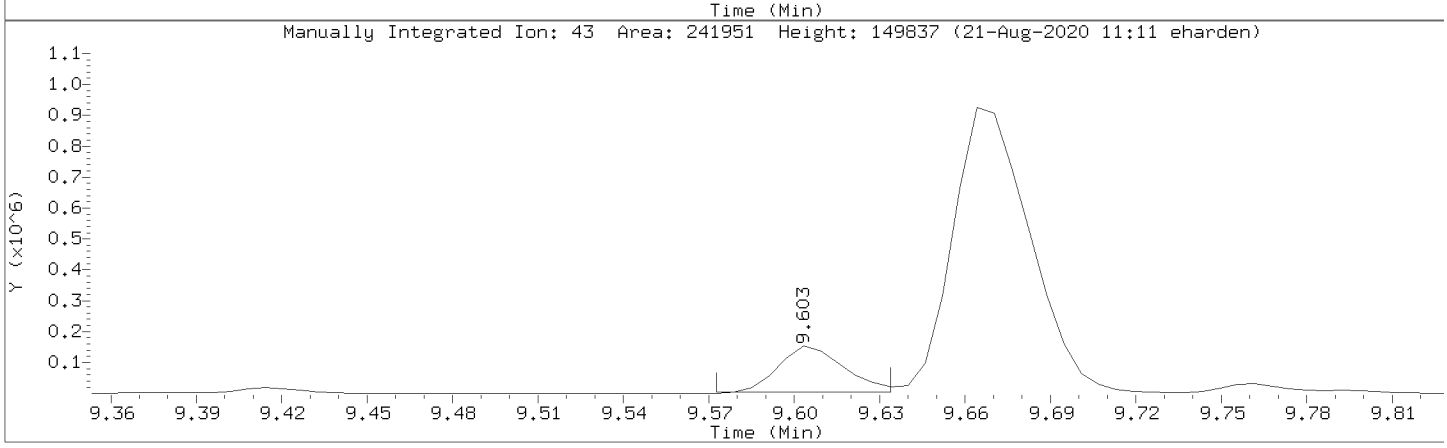
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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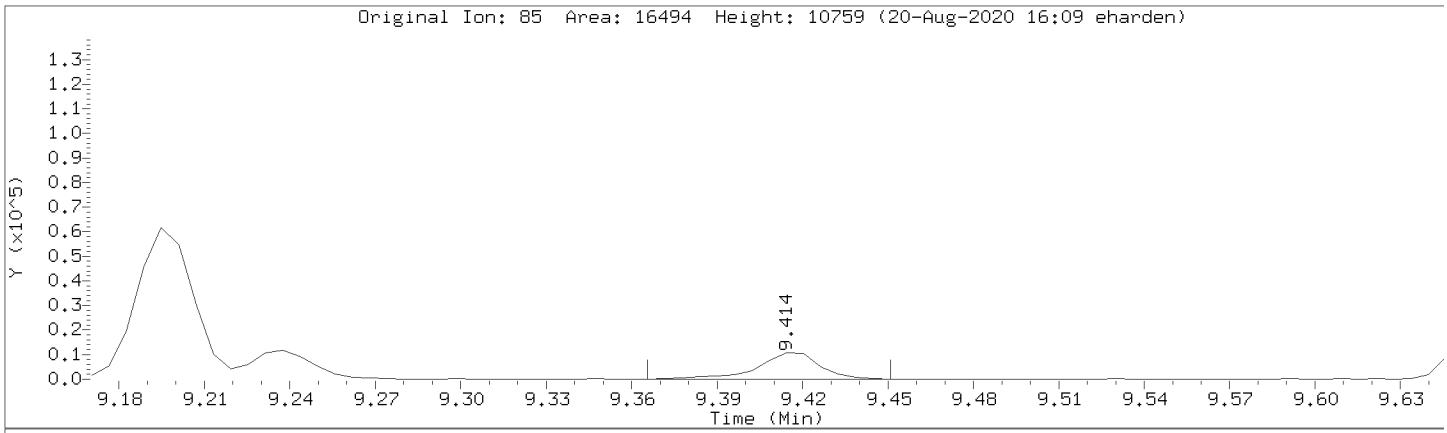
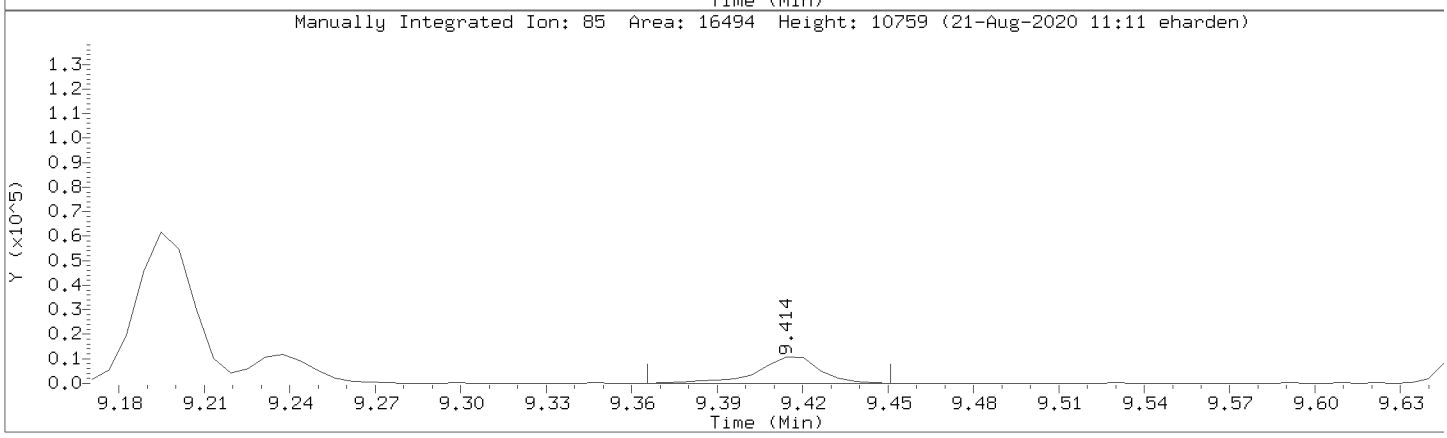
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12





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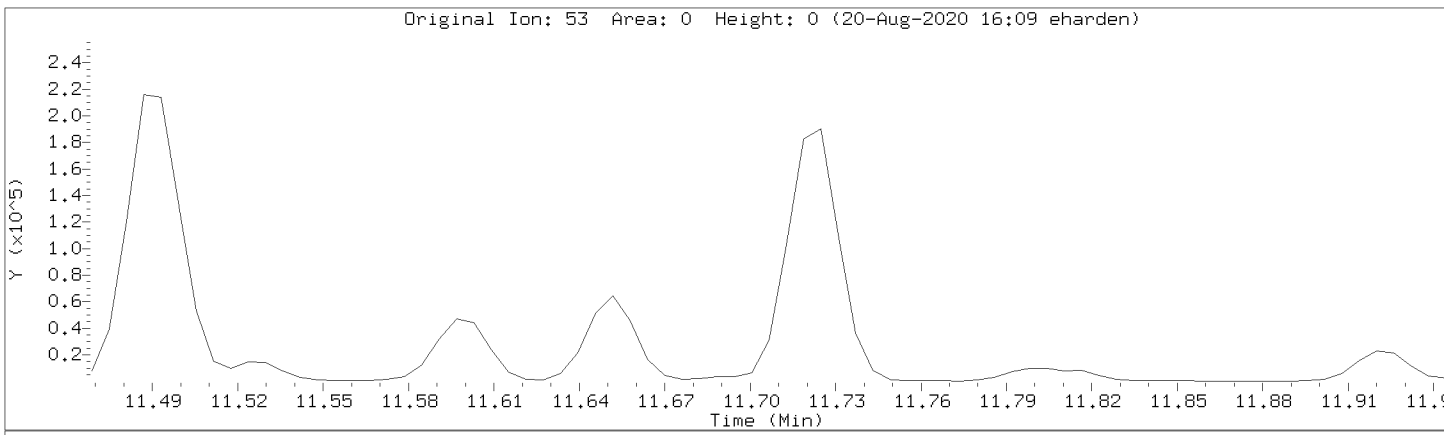
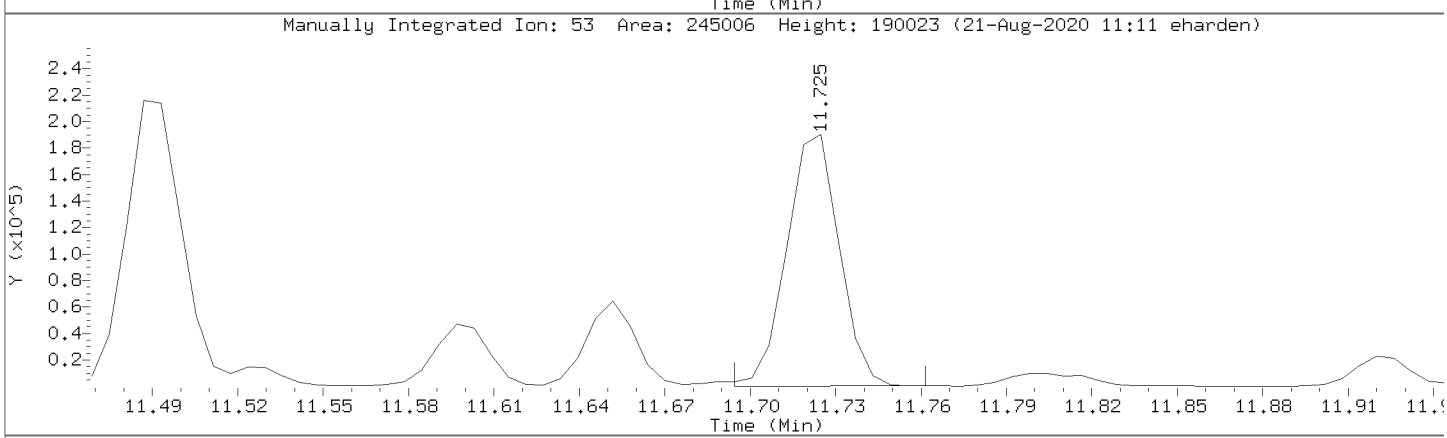
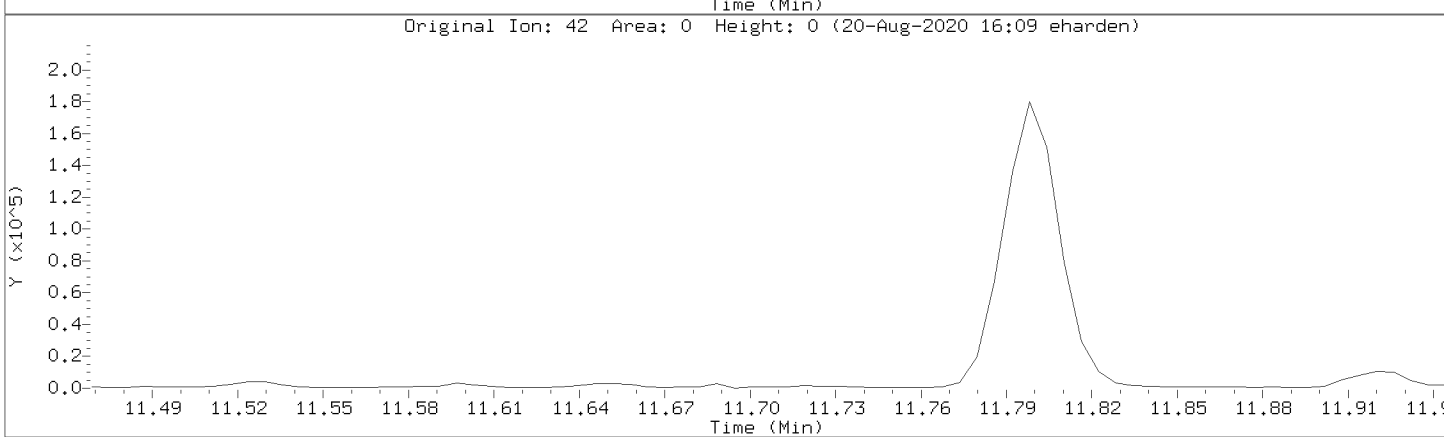
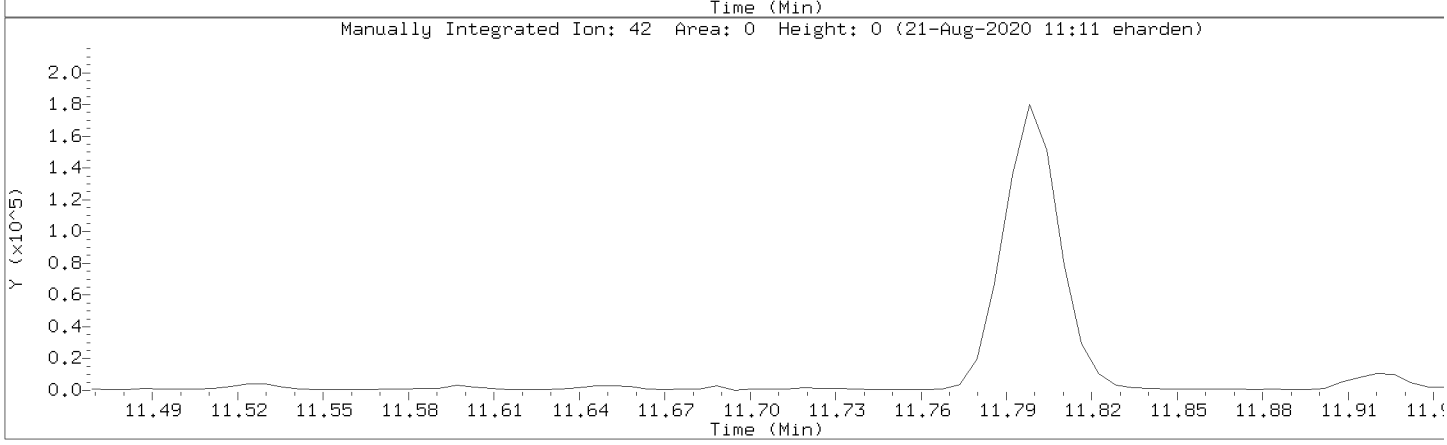
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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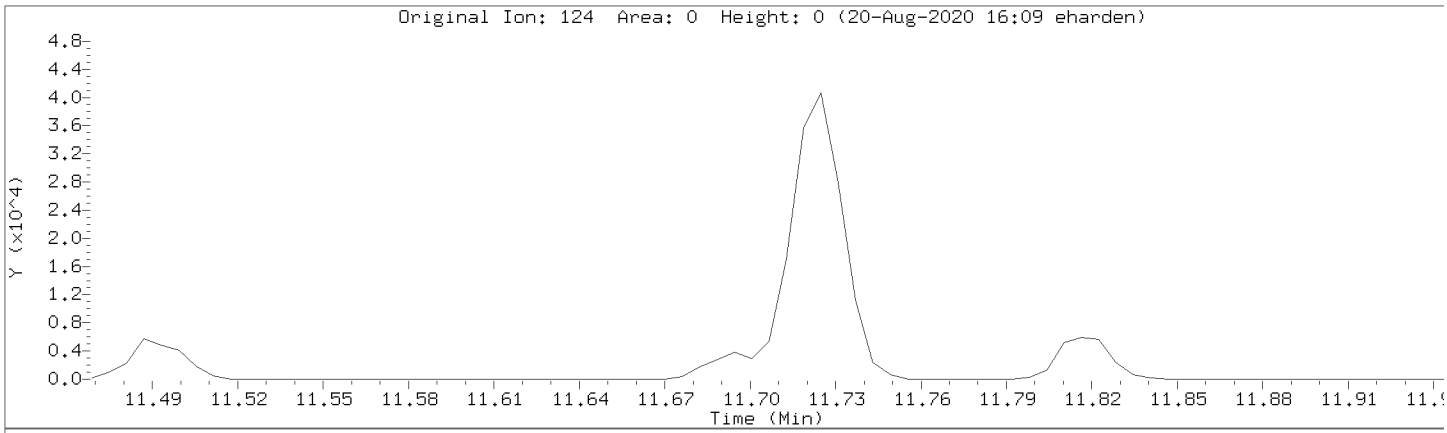
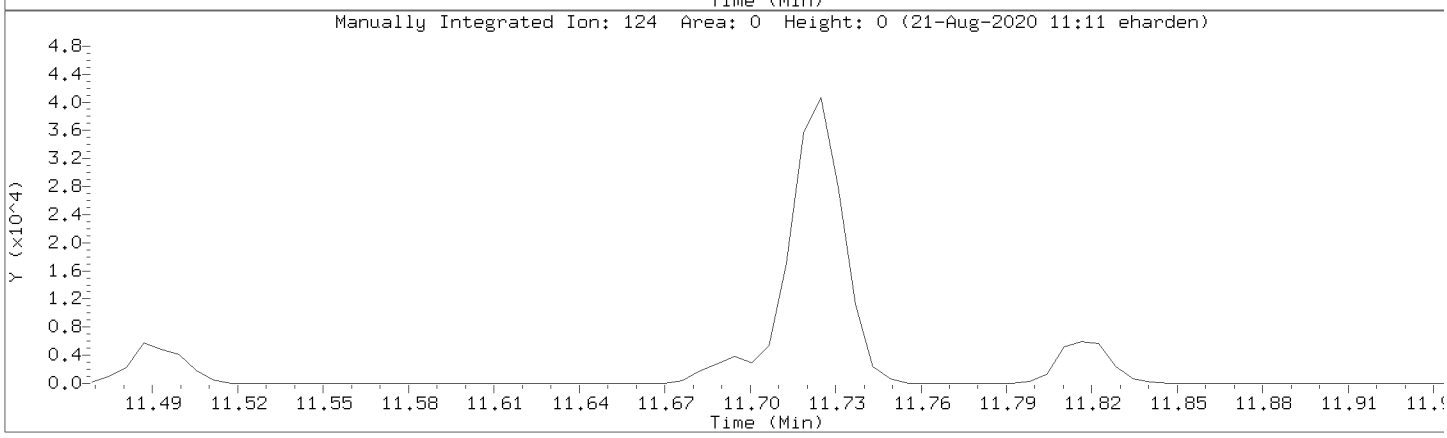
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12





SAMPLE NO.

1419858ICV

MSV - FORM VII VOA-1
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/20/2020 Time: 17:06

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082020.B\082020_18.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249328

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Wt Linear	40	24.82310	0.0100	-37.9422	20.0000
Acetonitrile	Wt Linear	40	45.08252	0.0100	12.7063	20.0000
Acrolein	Averaged	0.06923	0.04113	0.0100	-40.5887	20.0000
Acrylonitrile	Averaged	0.19127	0.17352	0.0100	-9.2796	20.0000
Benzene	Averaged	1.27880	1.23471	0.0100	-3.4482	20.0000
Bromobenzene	Averaged	0.50590	0.52741	0.0100	4.2522	20.0000
Bromochloromethane	Averaged	0.28358	0.25650	0.0100	-9.5467	20.0000
Bromodichloromethane	Averaged	0.52427	0.53160	0.0100	1.3963	20.0000
Bromoform	Averaged	0.45179	0.43515	0.1000	-3.6837	20.0000
Bromomethane	Wt Linear	20	23.62960	0.0100	18.1480	20.0000
2-Butanone (MEK)	Averaged	0.42919	0.26923	0.0100	-37.2693	20.0000
n-Butylbenzene	Averaged	1.74233	1.59435	0.0100	-8.4931	20.0000
sec-Butylbenzene	Wt Linear	20	17.56000	0.0100	-12.2000	20.0000
tert-Butylbenzene	Wt Linear	20	16.89826	0.0100	-15.5087	20.0000
Carbon disulfide	Averaged	1.48423	1.27936	0.0100	-13.8029	20.0000
Carbon tetrachloride	Averaged	0.50339	0.50026	0.0100	-0.6221	20.0000
Chlorobenzene	Averaged	0.96465	0.93844	0.3000	-2.7167	20.0000
Chloroethane	Wt Linear	20	12.67107	0.0100	-36.6446	20.0000
Chloroform	Averaged	0.99545	0.88461	0.0100	-11.1349	20.0000
Chloromethane	Wt Linear	20	18.23379	0.1000	-8.8310	20.0000
2-Chlorotoluene	Wt Linear	20	19.57548	0.0100	-2.1226	20.0000
4-Chlorotoluene	Wt Linear	20	18.13182	0.0100	-9.3409	20.0000
1,2-Dibromo-3-chloropropane	Averaged	0.16352	0.13836	0.0100	-15.3871	20.0000
Dibromochloromethane	Averaged	0.47553	0.47473	0.0100	-0.1686	20.0000
1,2-Dibromoethane (EDB)	Averaged	0.40786	0.40623	0.0100	-0.3978	20.0000
Dibromomethane	Averaged	0.29781	0.28268	0.0100	-5.0799	20.0000
1,2-Dichlorobenzene	Averaged	1.45432	1.36425	0.0100	-6.1934	20.0000
1,3-Dichlorobenzene	Averaged	1.33091	1.33610	0.0100	0.3903	20.0000
1,4-Dichlorobenzene	Averaged	1.50164	1.35286	0.0100	-9.9078	20.0000
Dichlorodifluoromethane	Averaged	0.60278	0.50357	0.0100	-16.4588	20.0000
1,1-Dichloroethane	Averaged	0.88035	0.79945	0.1000	-9.1896	20.0000
1,2-Dichloroethane	Averaged	0.78154	0.68274	0.0100	-12.6415	20.0000
1,1-Dichloroethene	Averaged	0.67064	0.59964	0.0100	-10.5866	20.0000
cis-1,2-Dichloroethene	Averaged	0.64880	0.60018	0.0100	-7.4943	20.0000
trans-1,2-Dichloroethene	Averaged	0.45304	0.38891	0.0100	-14.1553	20.0000
1,2-Dichloropropane	Averaged	0.36511	0.36208	0.0100	-0.8301	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 11:02

SAMPLE NO.

1419858ICV

MSV - FORM VII VOA-2
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/20/2020 Time: 17:06

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082020.B\082020_18.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249328

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,3-Dichloropropane	Averaged	0.48194	0.48242	0.0100	0.0987	20.0000
2,2-Dichloropropane	Averaged	0.67907	0.53477	0.0100	-21.2485	20.0000
1,1-Dichloropropene	Averaged	0.39618	0.37313	0.0100	-5.8167	20.0000
cis-1,3-Dichloropropene	Averaged	0.50984	0.49638	0.0100	-2.6405	20.0000
trans-1,3-Dichloropropene	Averaged	0.50883	0.49514	0.0100	-2.6903	20.0000
Ethyl acetate	Averaged	0.56197	0.49122	0.0100	-12.5887	20.0000
Ethylbenzene	Averaged	1.30807	1.28682	0.0100	-1.6246	20.0000
2-Hexanone	Averaged	0.42211	0.28352	0.0100	-32.8334	20.0000
Isopropylbenzene (Cumene)	Wt Linear	20	17.85189	0.0100	-10.7405	20.0000
p-Isopropyltoluene	Wt Linear	20	16.89826	0.0100	-15.5087	20.0000
Methylene Chloride	Averaged	0.79672	0.68891	0.0100	-13.5314	20.0000
4-Methyl-2-pentanone (MIBK)	Averaged	0.03578	0.03144	0.0100	-12.1476	20.0000
Methyl-tert-butyl ether	Averaged	1.05644	1.01790	0.0100	-3.6480	20.0000
Naphthalene	Wt Linear	20	16.32090	0.0100	-18.3955	20.0000
n-Propylbenzene	Averaged	1.60388	1.60259	0.0100	-0.0803	20.0000
Styrene	Wt Linear	20	17.64204	0.0100	-11.7898	20.0000
1,1,1,2-Tetrachloroethane	Averaged	0.40743	0.38534	0.3000	-5.4218	20.0000
1,1,2,2-Tetrachloroethane	Averaged	0.53495	0.49291	0.3000	-7.8595	20.0000
Tetrachloroethene	Averaged	0.34315	0.35395	0.0100	3.1459	20.0000
Toluene	Averaged	1.24680	1.24992	0.0100	0.2497	20.0000
1,2,3-Trichlorobenzene	Averaged	0.91538	0.87148	0.0100	-4.7954	20.0000
1,2,4-Trichlorobenzene	Averaged	0.98474	0.93125	0.0100	-5.4317	20.0000
1,1,1-Trichloroethane	Averaged	0.57038	0.54382	0.0100	-4.6553	20.0000
1,1,2-Trichloroethane	Averaged	0.31598	0.29895	0.0100	-5.3888	20.0000
Trichloroethene	Averaged	0.34963	0.35653	0.0100	1.9739	20.0000
Trichlorofluoromethane	Averaged	0.37716	0.28883	0.0100	-23.4190	20.0000
1,2,3-Trichloropropane	Averaged	0.55922	0.53202	0.0100	-4.8654	20.0000
1,2,4-Trimethylbenzene	Wt Linear	20	17.70907	0.0100	-11.4546	20.0000
1,3,5-Trimethylbenzene	Averaged	1.65100	1.59405	0.0100	-3.4490	20.0000
Vinyl acetate	Averaged	0.87084	0.47990	0.0100	-44.8924	20.0000
Vinyl chloride	Averaged	0.59325	0.47996	0.0100	-19.0961	20.0000
m&p-Xylene	Wt Linear	40	36.62116	0.0100	-8.4471	20.0000
o-Xylene	Wt Linear	20	17.08013	0.0100	-14.5993	20.0000
4-Bromofluorobenzene (S)	Averaged	0.41034	0.41596	0.0100	1.3689	20.0000
Dibromofluoromethane (S)	Averaged	0.57568	0.52418	0.0100	-8.9462	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.10356	0.09167	0.0100	-11.4833	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 11:02

SAMPLE NO.

1419858ICV

MSV - FORM VII VOA-3
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton

Calibration Date: 08/20/2020 Time: 17:06

Instrument ID: 52MV02 GC Column: Col 1

Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082020.B\082020_18.D

Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249328

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Toluene-d8 (S)	Averaged	1.07633	1.07582	0.0100	-0.0475	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 11:02

SAMPLE NO.

1432859CCV

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/26/2020 Time: 11:25

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082620.B\082620_03.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249328

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Wt Linear	40	42.41404	0.0100	6.0351	20.0000
Acetonitrile	Wt Linear	40	33.81256	0.0100	-15.4686	20.0000
Acrolein	Averaged	0.06923	0.05951	0.0100	-14.0414	20.0000
Acrylonitrile	Averaged	0.19127	0.19210	0.0100	0.4360	20.0000
Benzene	Averaged	1.27880	1.38722	0.0100	8.4781	20.0000
Bromobenzene	Averaged	0.50590	0.54981	0.0100	8.6805	20.0000
Bromochloromethane	Averaged	0.28358	0.29346	0.0100	3.4835	20.0000
Bromodichloromethane	Averaged	0.52427	0.61053	0.0100	16.4530	20.0000
Bromoform	Averaged	0.45179	0.46476	0.1000	2.8700	20.0000
Bromomethane	Wt Linear	20	25.05311	0.0100	25.2656	20.0000
2-Butanone (MEK)	Averaged	0.42919	0.42980	0.0100	0.1418	20.0000
n-Butylbenzene	Averaged	1.74233	1.71436	0.0100	-1.6053	20.0000
sec-Butylbenzene	Wt Linear	20	17.32600	0.0100	-13.3700	20.0000
tert-Butylbenzene	Wt Linear	20	16.85766	0.0100	-15.7117	20.0000
Carbon disulfide	Averaged	1.48423	1.52647	0.0100	2.8462	20.0000
Carbon tetrachloride	Averaged	0.50339	0.58409	0.0100	16.0298	20.0000
Chlorobenzene	Averaged	0.96465	1.02565	0.3000	6.3231	20.0000
Chloroethane	Wt Linear	20	23.96244	0.0100	19.8122	20.0000
Chloroform	Averaged	0.99545	1.06526	0.0100	7.0129	20.0000
Chloromethane	Wt Linear	20	21.50642	0.1000	7.5321	20.0000
2-Chlorotoluene	Wt Linear	20	20.06412	0.0100	0.3206	20.0000
4-Chlorotoluene	Wt Linear	20	19.73615	0.0100	-1.3192	20.0000
1,2-Dibromo-3-chloropropane	Averaged	0.16352	0.14564	0.0100	-10.9299	20.0000
Dibromochloromethane	Averaged	0.47553	0.51002	0.0100	7.2533	20.0000
1,2-Dibromoethane (EDB)	Averaged	0.40786	0.42116	0.0100	3.2624	20.0000
Dibromomethane	Averaged	0.29781	0.32839	0.0100	10.2664	20.0000
1,2-Dichlorobenzene	Averaged	1.45432	1.36768	0.0100	-5.9574	20.0000
1,3-Dichlorobenzene	Averaged	1.33091	1.33549	0.0100	0.3446	20.0000
1,4-Dichlorobenzene	Averaged	1.50164	1.51354	0.0100	0.7922	20.0000
Dichlorodifluoromethane	Averaged	0.60278	0.47407	0.0100	-21.3529	20.0000
1,1-Dichloroethane	Averaged	0.88035	0.94227	0.1000	7.0335	20.0000
1,2-Dichloroethane	Averaged	0.78154	0.81181	0.0100	3.8736	20.0000
1,1-Dichloroethene	Averaged	0.67064	0.70462	0.0100	5.0664	20.0000
cis-1,2-Dichloroethene	Averaged	0.64880	0.62013	0.0100	-4.4190	20.0000
trans-1,2-Dichloroethene	Averaged	0.45304	0.44659	0.0100	-1.4242	20.0000
1,2-Dichloropropane	Averaged	0.36511	0.37675	0.0100	3.1897	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 11:02

SAMPLE NO.

1432859CCV

MSV - FORM VII VOA-2
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/26/2020 Time: 11:25

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082620.B\082620_03.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249328

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,3-Dichloropropane	Averaged	0.48194	0.50697	0.0100	5.1930	20.0000
2,2-Dichloropropane	Averaged	0.67907	0.73196	0.0100	7.7895	20.0000
1,1-Dichloropropene	Averaged	0.39618	0.42365	0.0100	6.9344	20.0000
cis-1,3-Dichloropropene	Averaged	0.50984	0.55789	0.0100	9.4241	20.0000
trans-1,3-Dichloropropene	Averaged	0.50883	0.55789	0.0100	9.6409	20.0000
Ethyl acetate	Averaged	0.56197	0.51799	0.0100	-7.8256	20.0000
Ethylbenzene	Averaged	1.30807	1.32285	0.0100	1.1301	20.0000
2-Hexanone	Averaged	0.42211	0.45509	0.0100	7.8134	20.0000
Isopropylbenzene (Cumene)	Wt Linear	20	17.64587	0.0100	-11.7706	20.0000
p-Isopropyltoluene	Wt Linear	20	16.85766	0.0100	-15.7117	20.0000
Methylene Chloride	Averaged	0.79672	0.76765	0.0100	-3.6481	20.0000
4-Methyl-2-pentanone (MIBK)	Averaged	0.03578	0.03553	0.0100	-0.7137	20.0000
Methyl-tert-butyl ether	Averaged	1.05644	1.03058	0.0100	-2.4480	20.0000
Naphthalene	Wt Linear	20	14.19326	0.0100	-29.0337	20.0000
n-Propylbenzene	Averaged	1.60388	1.71030	0.0100	6.6351	20.0000
Styrene	Wt Linear	20	17.90694	0.0100	-10.4653	20.0000
1,1,1,2-Tetrachloroethane	Averaged	0.40743	0.43989	0.3000	7.9662	20.0000
1,1,2,2-Tetrachloroethane	Averaged	0.53495	0.56162	0.3000	4.9846	20.0000
Tetrachloroethene	Averaged	0.34315	0.38377	0.0100	11.8355	20.0000
Toluene	Averaged	1.24680	1.30556	0.0100	4.7124	20.0000
1,2,3-Trichlorobenzene	Averaged	0.91538	0.84208	0.0100	-8.0074	20.0000
1,2,4-Trichlorobenzene	Averaged	0.98474	0.89270	0.0100	-9.3458	20.0000
1,1,1-Trichloroethane	Averaged	0.57038	0.63405	0.0100	11.1636	20.0000
1,1,2-Trichloroethane	Averaged	0.31598	0.32076	0.0100	1.5137	20.0000
Trichloroethene	Averaged	0.34963	0.38861	0.0100	11.1476	20.0000
Trichlorofluoromethane	Averaged	0.37716	0.45883	0.0100	21.6549	20.0000
1,2,3-Trichloropropane	Averaged	0.55922	0.57333	0.0100	2.5220	20.0000
1,2,4-Trimethylbenzene	Wt Linear	20	18.22867	0.0100	-8.8566	20.0000
1,3,5-Trimethylbenzene	Averaged	1.65100	1.67755	0.0100	1.6080	20.0000
Vinyl acetate	Averaged	0.87084	0.79175	0.0100	-9.0822	20.0000
Vinyl chloride	Averaged	0.59325	0.54079	0.0100	-8.8422	20.0000
m&p-Xylene	Wt Linear	40	39.16540	0.0100	-2.0865	20.0000
o-Xylene	Wt Linear	20	16.73401	0.0100	-16.3299	20.0000
4-Bromofluorobenzene (S)	Averaged	0.41034	0.39803	0.0100	-3.0000	20.0000
Dibromofluoromethane (S)	Averaged	0.57568	0.55271	0.0100	-3.9901	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.10356	0.09634	0.0100	-6.9766	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 11:02

SAMPLE NO.

1432859CCV

MSV - FORM VII VOA-3
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Dayton

Calibration Date: 08/26/2020 Time: 11:25

Instrument ID: 52MV02 GC Column: Col 1

Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082620.B\082620_03.D

Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249328

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Toluene-d8 (S)	Averaged	1.07633	1.06754	0.0100	-0.8165	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 11:02

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_18.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 20-AUG-2020 17:06
Operator : EAH Inst ID: 52mv02.i
Smp Info : icv, 27249:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 11:40 Cal File: 082020_05.D
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.411)	62218	20.0000	16.7(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	81833	20.0000	18.2	
3 Vinyl chloride	62	3.702	3.702	(0.471)	59301	20.0000	16.2	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	43356	20.0000	13.2	
5 Bromomethane	94	4.195	4.195	(0.534)	70375	20.0000	23.6	
6 Chloroethane	64	4.360	4.360	(0.555)	13606	20.0000	12.7	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	35686	20.0000	15.3	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	23334	20.0000	18.2	
9 1,1-Dichloroethene	61	5.226	5.226	(0.665)	74088	20.0000	17.9	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	46759	20.0000	17.1	
11 Carbon disulfide	76	5.293	5.293	(0.673)	158069	20.0000	17.2	
12 Iodomethane	142	5.439	5.439	(0.692)	24702	20.0000	15.5	
13 Acrolein	56	5.659	5.659	(0.720)	10164	40.0000	23.8	
14 Allyl chloride	76	5.787	5.787	(0.736)	22210	20.0000	17.4	
15 Methylene Chloride	49	5.902	5.902	(0.751)	85117	20.0000	17.3	
16 Acetone	43	5.976	5.976	(0.760)	62754	40.0000	24.8	
17 Methyl acetate	43	6.067	6.067	(0.772)	104303	40.0000	36.3	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	48051	20.0000	17.2	
19 n-Hexane	86	6.110	6.110	(0.777)	5754	20.0000	19.4	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	125765	20.0000	19.3	
21 Acetonitrile	41	6.463	6.463	(0.822)	11809	40.0000	45.1	
22 Chloroprene	53	6.640	6.640	(0.845)	65755	20.0000	16.8	
23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	98775	20.0000	18.2	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	24 Acrylonitrile	53	6.738	6.738	(0.857)	42878	40.0000	36.3	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	59293	20.0000	11.0(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	74154	20.0000	18.5	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	66073	20.0000	15.8	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	31692	20.0000	18.1	
	29 Cyclohexane	56	7.335	7.335	(0.882)	61163	20.0000	18.4	
	30 Chloroform	83	7.372	7.372	(0.938)	109296	20.0000	17.8	
	31 Ethyl acetate	43	7.433	7.433	(0.946)	121384	40.0000	35.0	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	78185	20.0000	19.9	
	33 Tetrahydrofuran	42	7.536	7.536	(0.959)	32607	40.0000	36.5	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	161909	50.0000	45.5	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	84993	20.0000	19.1	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	66529	40.0000	25.1	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	58316	20.0000	18.8	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	308883	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	192970	20.0000	19.3	
	40 Propionitrile	54	7.902	7.902	(1.005)	18605	40.0000	35.3	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	97332	40.0000	36.3	
	42 Isobutanol	43	7.987	7.987	(1.016)	3741	40.0000	47.8(M)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	28315	50.0000	44.2	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	84355	20.0000	17.5	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	100534	20.0000	17.5	
	46 Trichloroethene	130	8.317	8.317	(1.000)	55722	20.0000	20.4	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	390720	50.0000		
	48 Methylcyclohexane	98	8.317	8.317	(1.000)	25333	20.0000	19.6	
	49 n-Butanol	56	8.524	8.524	(1.025)	2306	40.0000	38.6	
	50 Dibromomethane	93	8.670	8.670	(1.043)	44180	20.0000	19.0	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	56588	20.0000	19.8	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	83082	20.0000	20.3	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	27754	20.0000	17.2	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	950	40.0000	39.5	
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	45831	40.0000	32.2	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	77578	20.0000	19.5	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	420345	50.0000	50.0	
	58 Toluene	91	9.414	9.414	(1.132)	195347	20.0000	20.0	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	16542	20.0000	16.7	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	9826	40.0000	35.1(MH)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	77385	20.0000	19.5	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	52492	20.0000	20.6	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	52298	20.0000	17.0	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	46722	20.0000	18.9	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	70404	20.0000	20.0	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	75396	20.0000	20.0	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	60246	20.0000	19.9	
	68 2-Hexanone	43	10.280	10.280	(1.236)	88620	40.0000	26.9	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	190840	20.0000	19.7	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	370760	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	139175	20.0000	19.4	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	57148	20.0000	18.9	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	308621	40.0000	36.6	
	74 o-Xylene	106	10.993	10.993	(1.041)	66780	20.0000	17.1	
	75 Styrene	104	11.029	11.029	(1.044)	120102	20.0000	17.6	
	76 Bromoform	173	11.103	11.103	(1.051)	64534	20.0000	19.3	
	77 n-amyl acetate	43	11.225	11.225	(1.063)	96056	20.0000	16.6	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	154222	50.0000	50.7	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	22484	20.0000	18.5	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	237671	20.0000	20.0	
81 Bromobenzene	156	11.578	11.578	(1.096)	78217	20.0000	20.8	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	73100	20.0000	18.4	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	152266	20.0000	19.3	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	54826	20.0000	19.6	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	51146	20.0000	18.1	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	178840	20.0000	17.8	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	78900	20.0000	19.0	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	19932	20.0000	20.9(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	152436	20.0000	16.9	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	161183	20.0000	17.7	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	189442	20.0000	17.6	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	152436	20.0000	16.9	
94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	127626	20.0000	20.1	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	238803	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	129227	20.0000	18.0	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	152294	20.0000	18.3	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	130315	20.0000	18.8	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	13216	20.0000	16.9	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	39516	20.0000	18.6	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	88954	20.0000	18.9	
102 Naphthalene	128	14.193	14.193	(1.150)	148785	20.0000	16.3	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	83245	20.0000	19.0	

QC Flag Legend

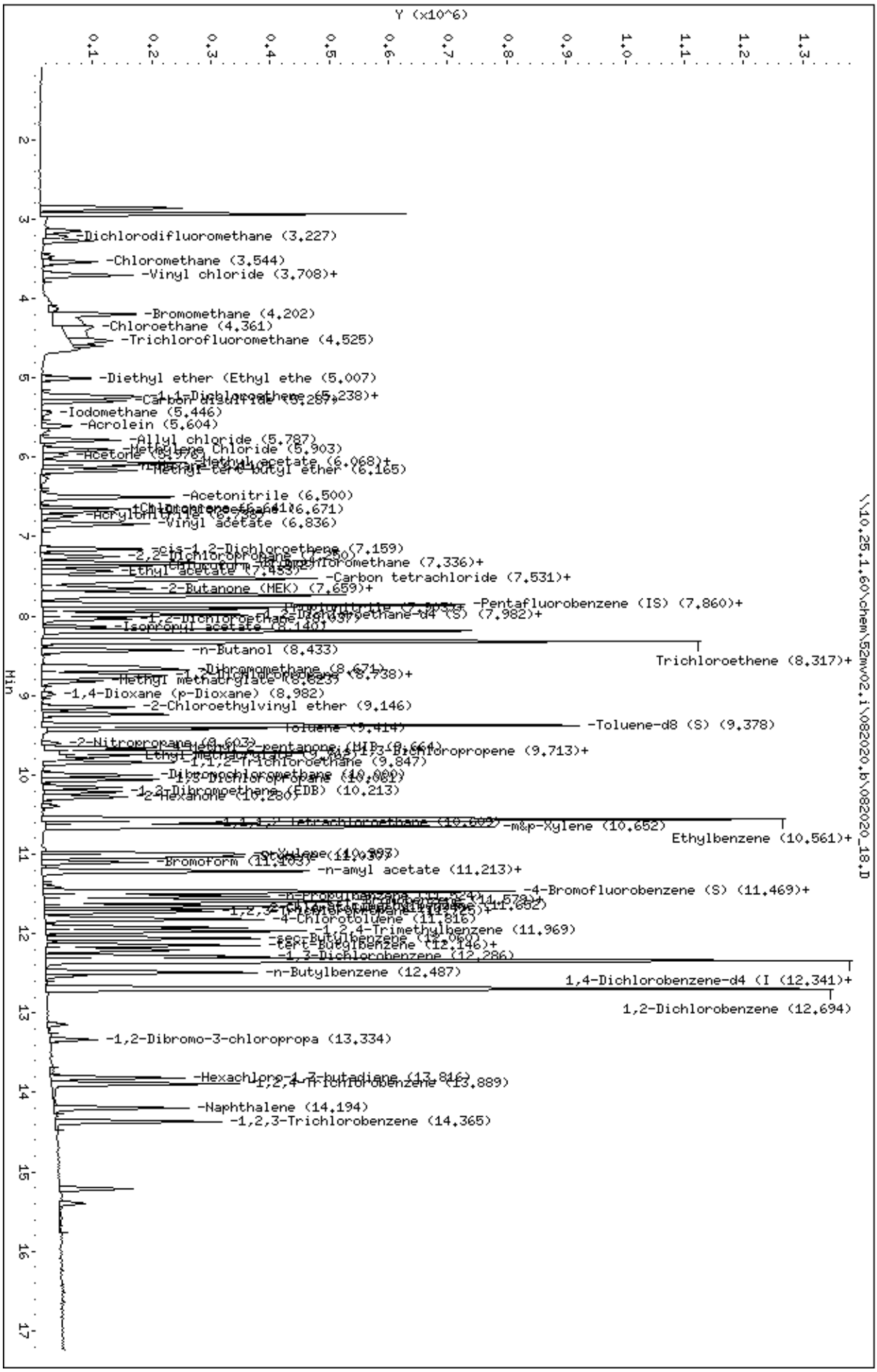
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

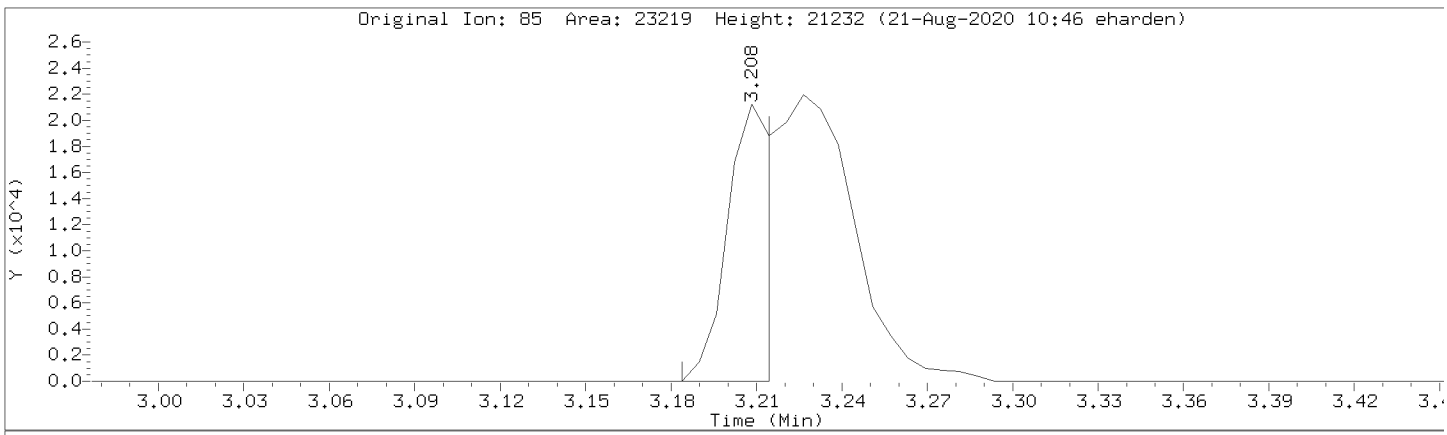
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_18.D
Date : 20-AUG-2020 17:06
Client ID: ICV
Sample Info: ICV, 27249:1
Purge Volume: 5.0
Column phase: RTX-VMS

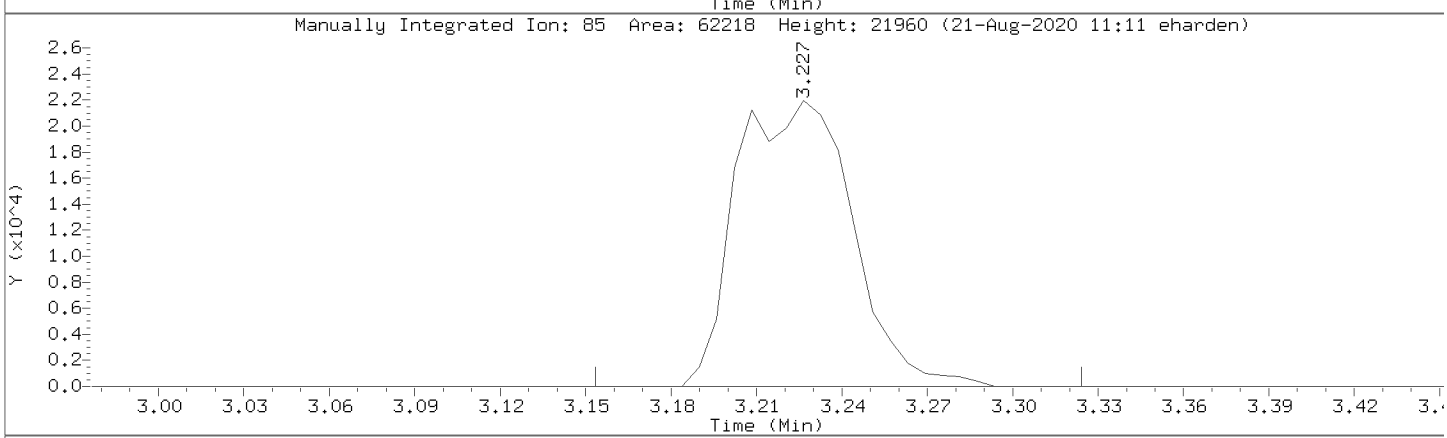
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

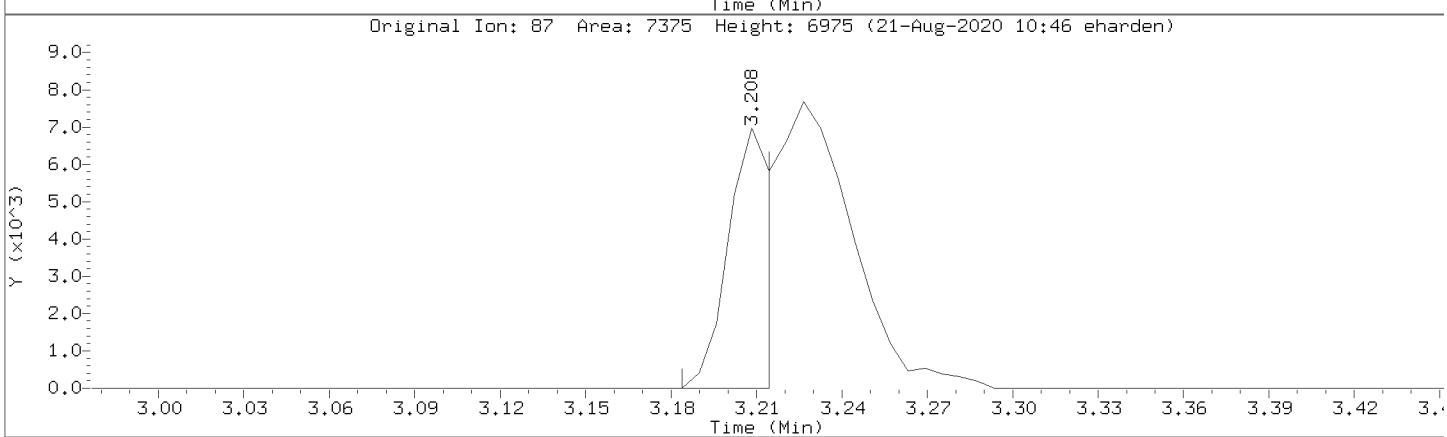


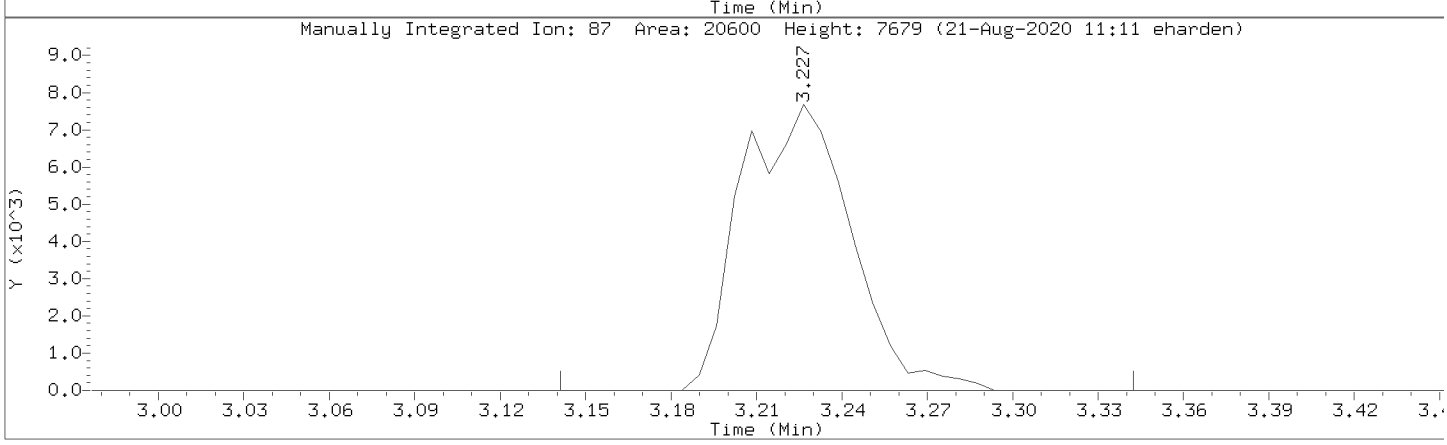
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_18.D
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



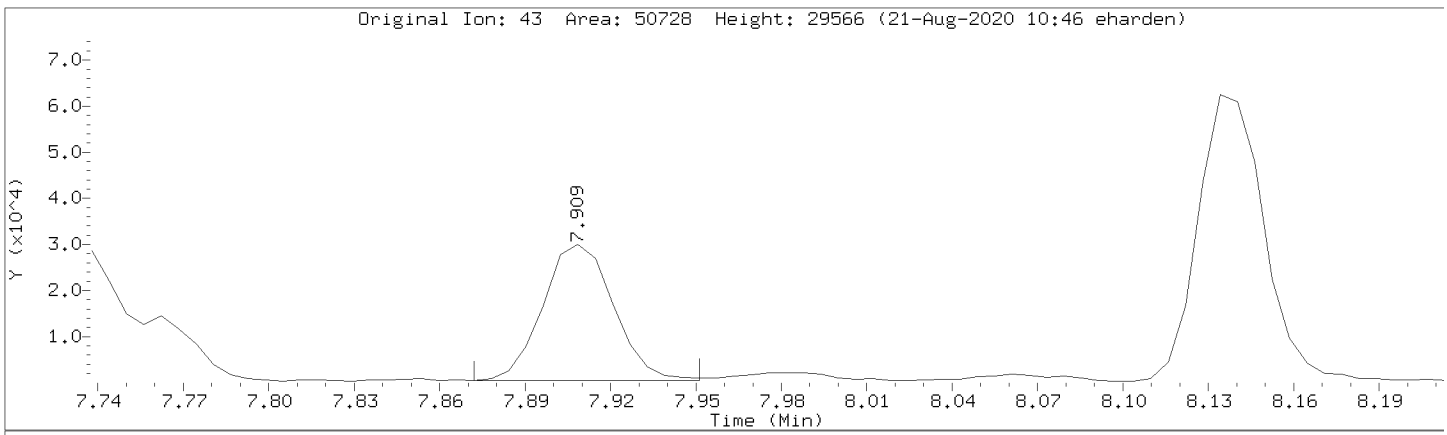


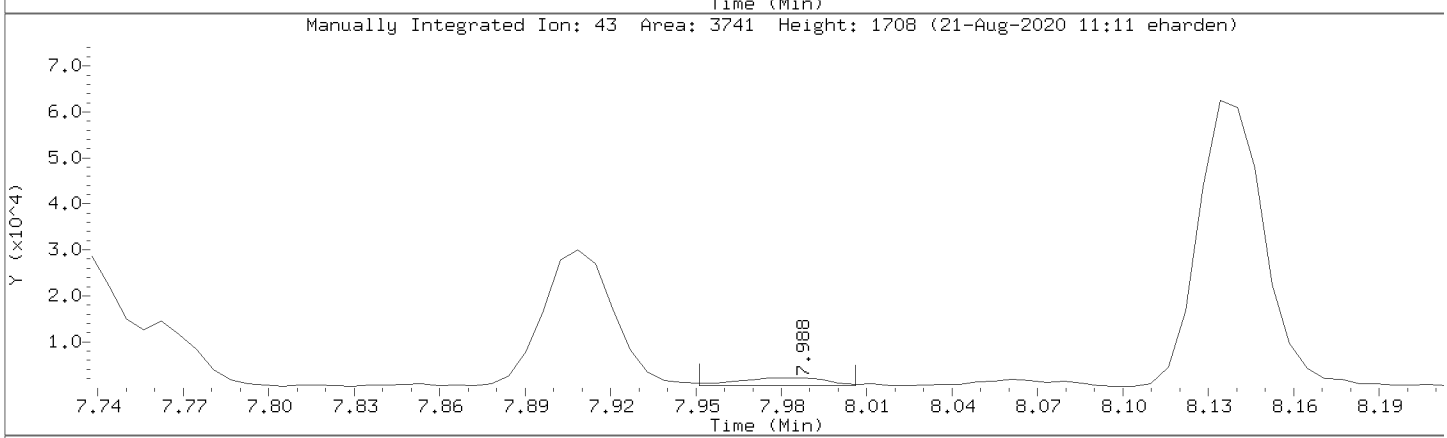


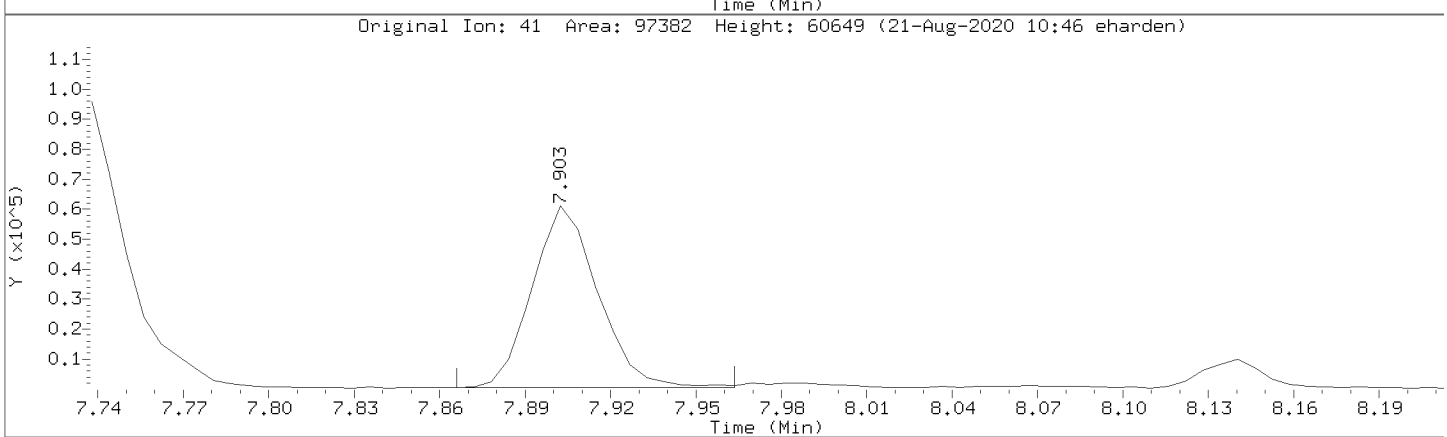


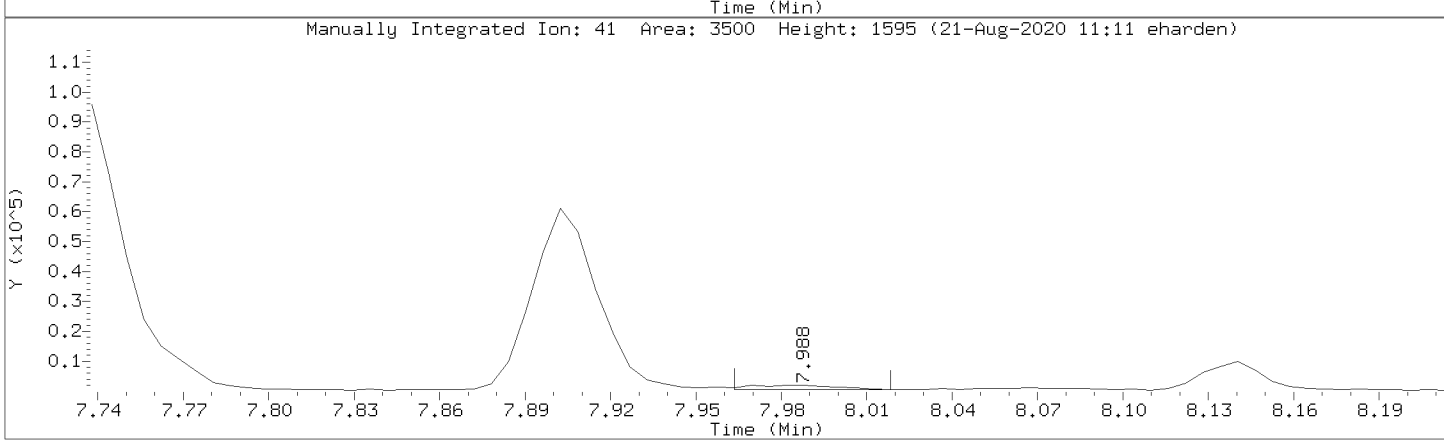
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_18.D
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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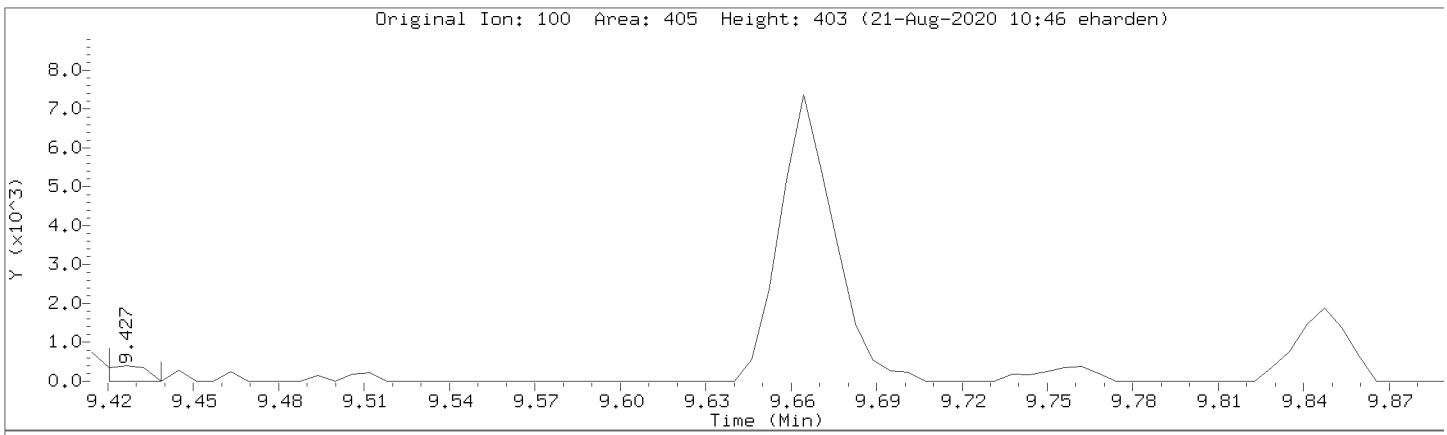
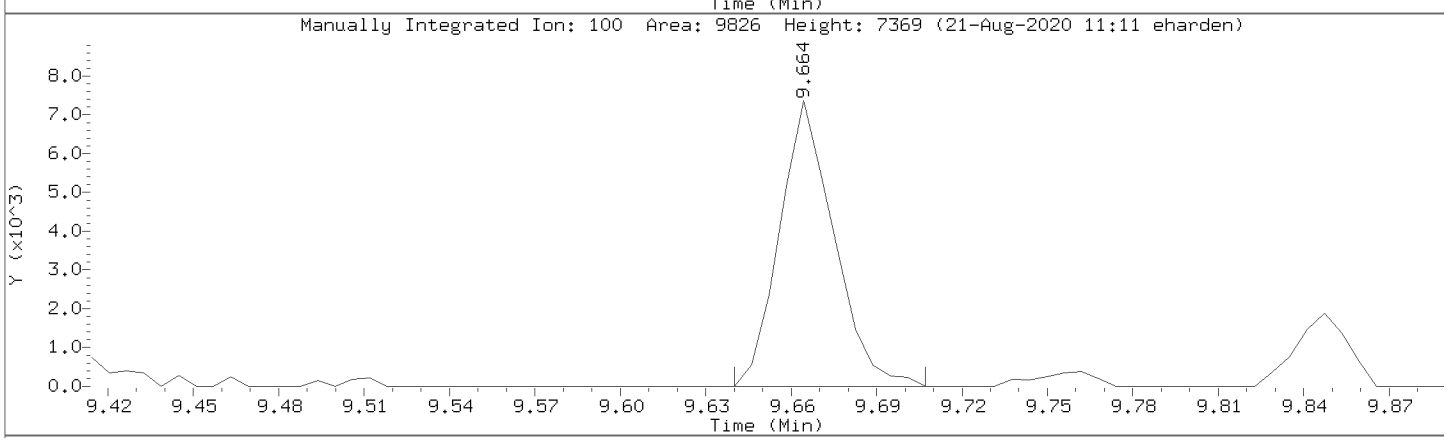
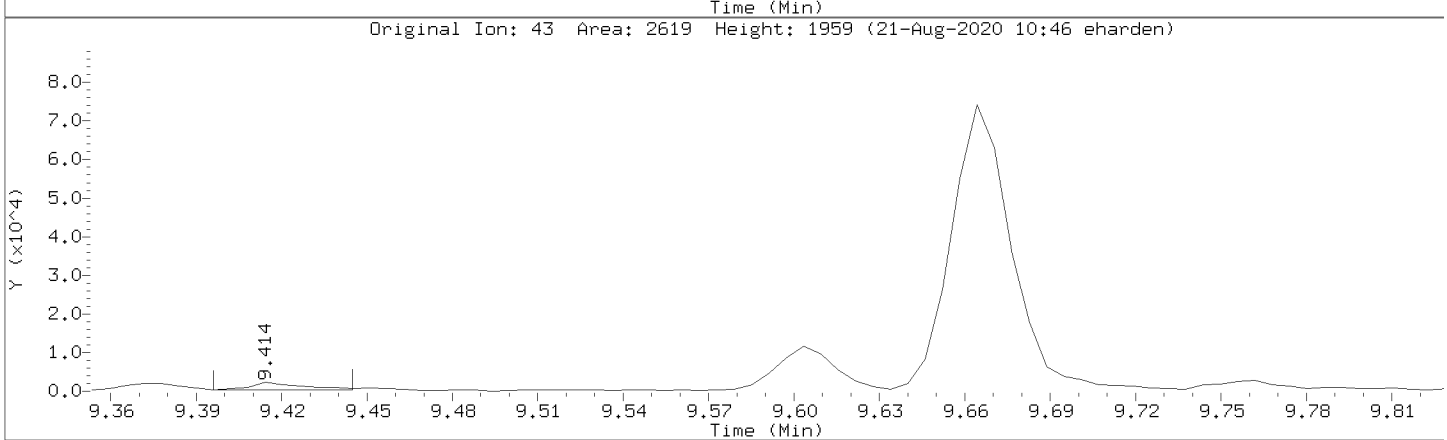
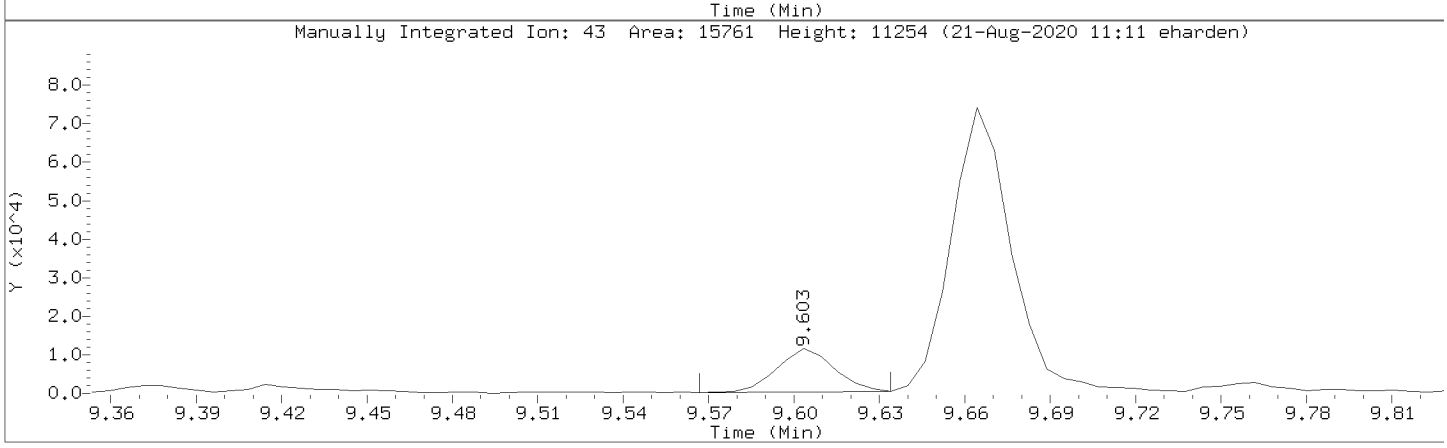
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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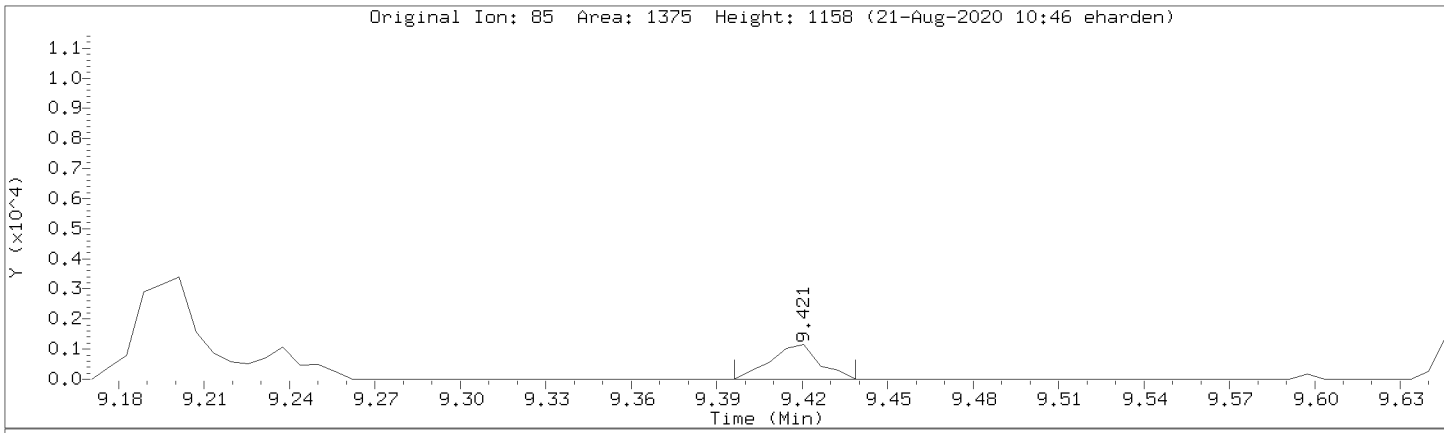
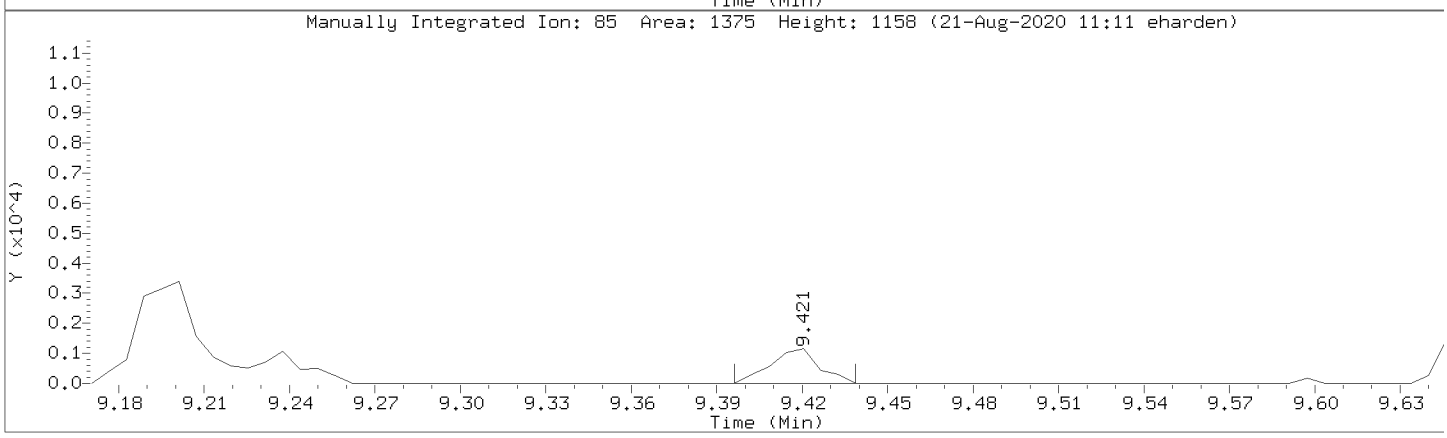
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV





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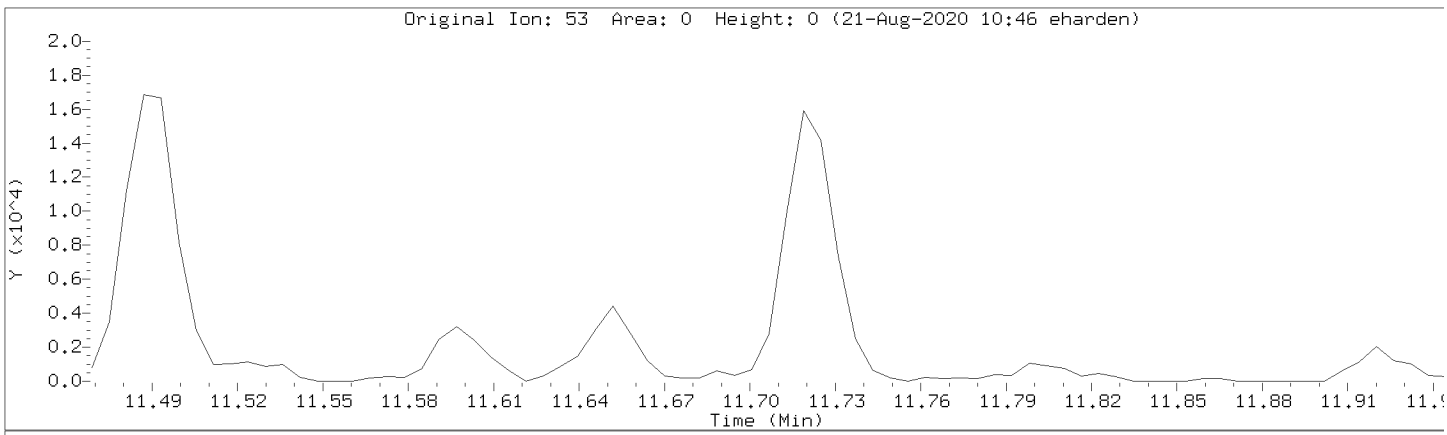
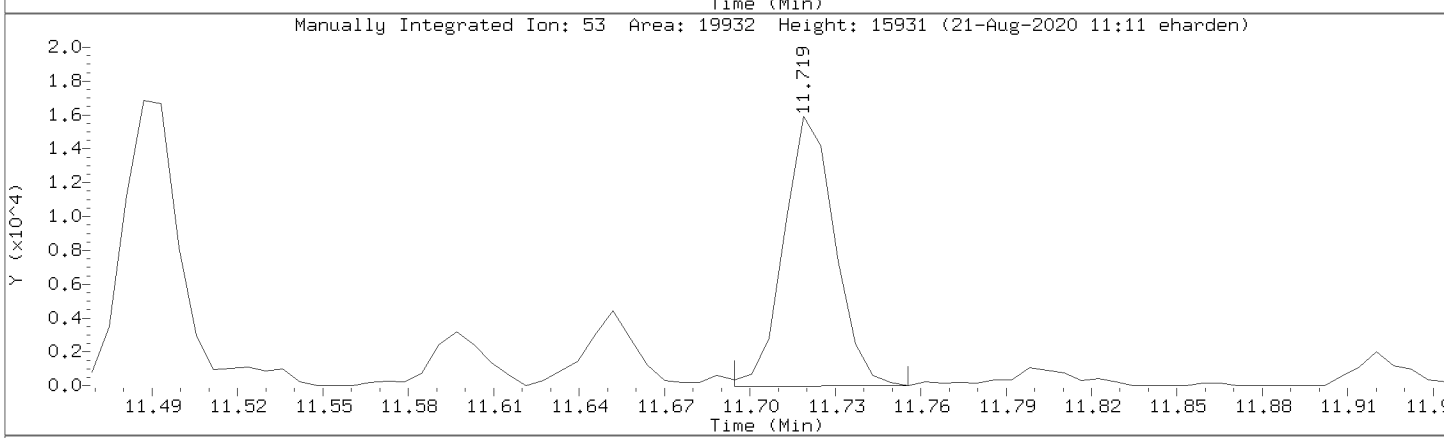
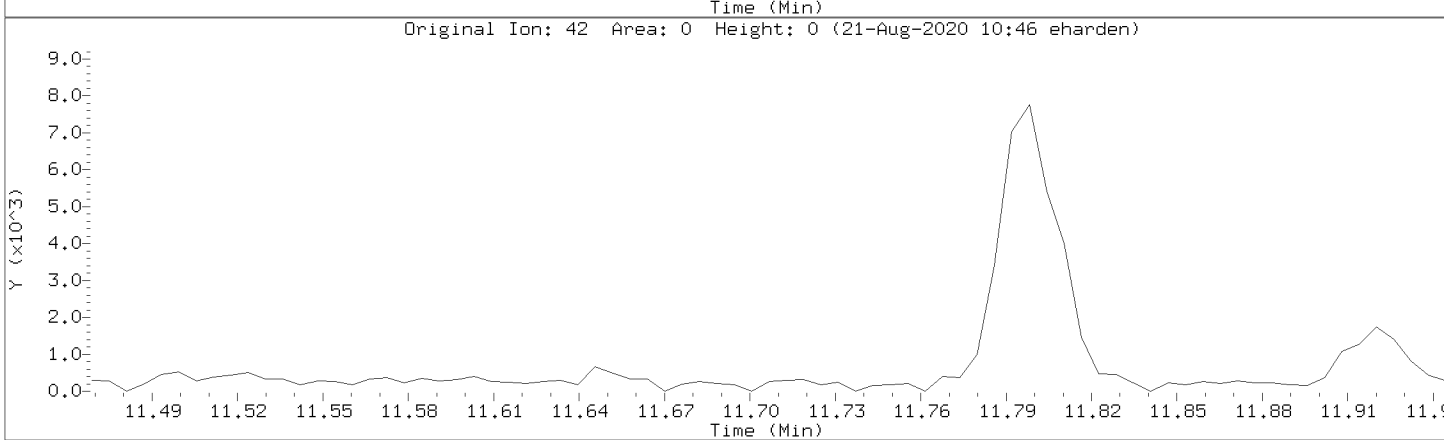
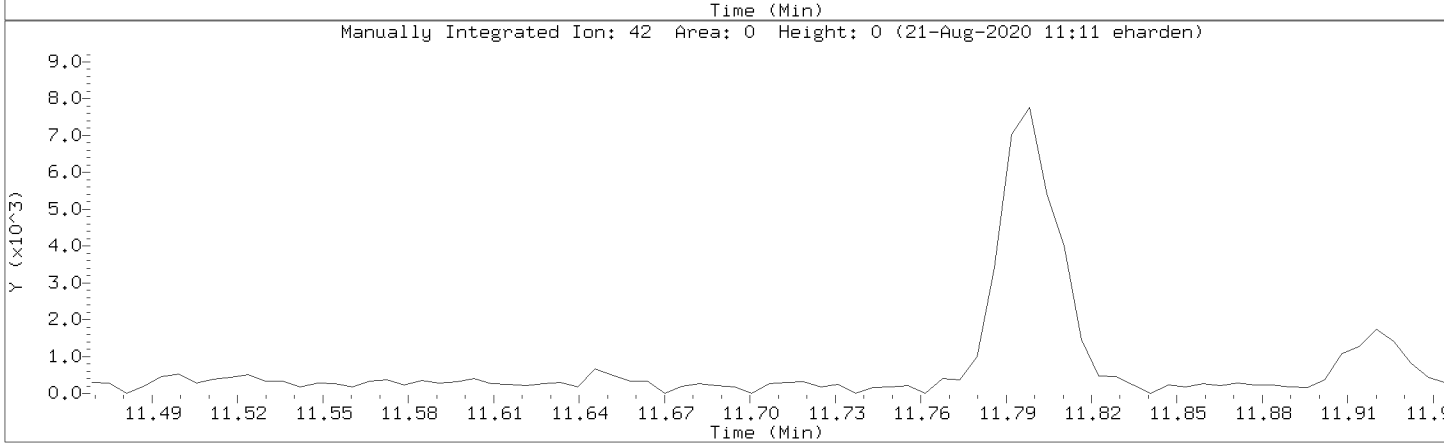
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6

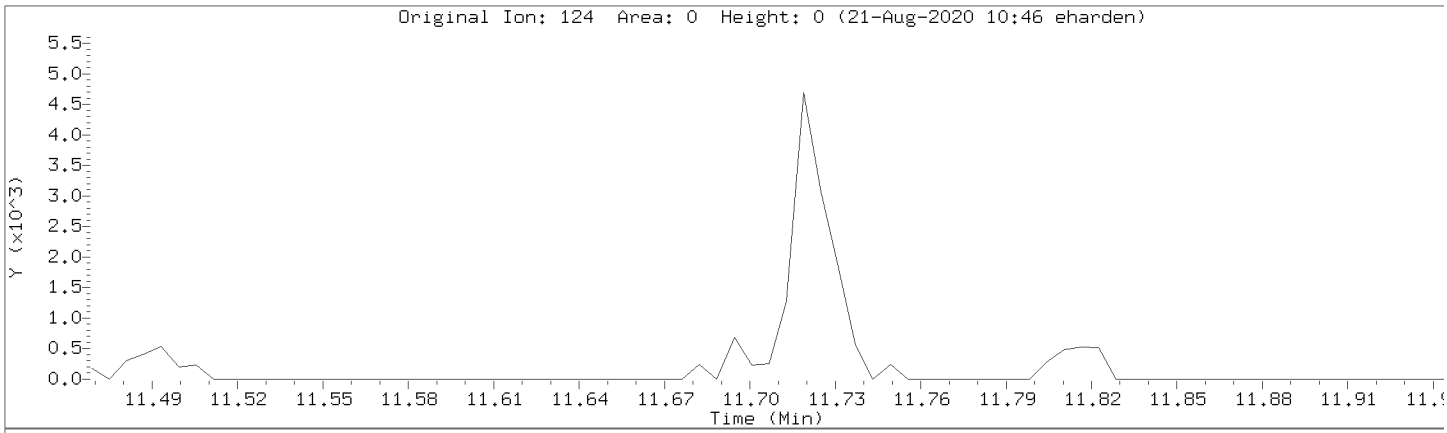


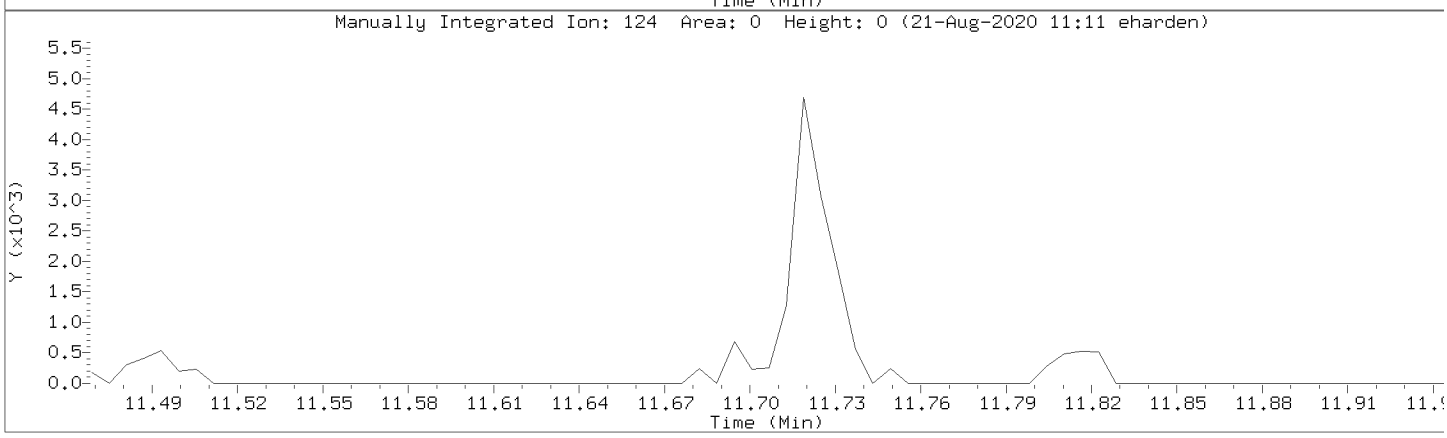






Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_18.D
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_03.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 26-AUG-2020 11:25
Operator : EAH Inst ID: 52mv02.i
Smp Info : ccv,27136:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.214	(0.409)	42240	20.0000	15.7	
2 Chloromethane	50	3.537	3.537	(0.450)	69147	20.0000	21.5	
3 Vinyl chloride	62	3.689	3.689	(0.469)	48185	20.0000	18.2	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	43243	20.0000	18.3	
5 Bromomethane	94	4.195	4.195	(0.534)	53443	20.0000	25.0	
6 Chloroethane	64	4.360	4.360	(0.555)	17981	20.0000	24.0	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	40882	20.0000	24.3	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	18600	20.0000	20.1	
9 1,1-Dichloroethene	61	5.232	5.232	(0.666)	62782	20.0000	21.0	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.250	(0.668)	41418	20.0000	21.0	
11 Carbon disulfide	76	5.293	5.293	(0.673)	136009	20.0000	20.6	
12 Iodomethane	142	5.439	5.439	(0.692)	16175	20.0000	14.5	
13 Acrolein	56	5.659	5.659	(0.720)	10605	40.0000	34.4	
14 Allyl chloride	76	5.780	5.780	(0.736)	17068	20.0000	18.6	
15 Methylene Chloride	49	5.902	5.902	(0.751)	68398	20.0000	19.3	
16 Acetone	43	5.969	5.969	(0.760)	75155	40.0000	42.4	
17 Methyl acetate	43	6.067	6.067	(0.772)	79476	40.0000	38.4	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	39791	20.0000	19.7	
19 n-Hexane	86	6.110	6.110	(0.777)	4293	20.0000	20.1	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	91825	20.0000	19.5	
21 Acetonitrile	41	6.451	6.451	(0.821)	6421	40.0000	33.8	
22 Chloroprene	53	6.640	6.640	(0.845)	56086	20.0000	19.9	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	83957	20.0000	21.4	
	24 Acrylonitrile	53	6.732	6.732	(0.857)	34233	40.0000	40.2	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	70545	20.0000	18.2(TM)	CO
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	55254	20.0000	19.1	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	65218	20.0000	21.6	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	26147	20.0000	20.7	
	29 Cyclohexane	56	7.335	7.335	(0.882)	47239	20.0000	19.0	
	30 Chloroform	83	7.372	7.372	(0.938)	94915	20.0000	21.4	
	31 Ethyl acetate	43	7.427	7.427	(0.945)	92306	40.0000	36.9	
	32 Carbon tetrachloride	117	7.506	7.506	(0.902)	68377	20.0000	23.2	
	33 Tetrahydrofuran	42	7.530	7.530	(0.958)	23406	40.0000	36.3	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	123116	50.0000	48.0	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	74226	20.0000	22.2	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	76590	40.0000	40.0	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	49595	20.0000	21.4	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	222751	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	162397	20.0000	21.7	
	40 Propionitrile	54	7.896	7.896	(1.005)	13826	40.0000	36.4	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	74952	40.0000	38.8	
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21459	50.0000	46.5	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	72333	20.0000	20.8	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	75691	20.0000	18.2	
	46 Trichloroethene	130	8.317	8.317	(1.000)	45493	20.0000	22.2	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	292666	50.0000		
	48 Methylcyclohexane	98	8.323	8.323	(1.001)	19880	20.0000	20.5	
	49 n-Butanol	56	8.530	8.530	(1.026)	1770	40.0000	39.6(M)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	38443	20.0000	22.0	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	44105	20.0000	20.6	
	52 Bromodichloromethane	83	8.762	8.762	(1.054)	71473	20.0000	23.3	
	53 Methyl methacrylate	69	8.816	8.816	(1.060)	19819	20.0000	16.4	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						(D)
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	32805	40.0000	30.9	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	65310	20.0000	21.9	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	312434	50.0000	49.6	
	58 Toluene	91	9.414	9.414	(1.132)	152837	20.0000	20.9	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	11985	20.0000	16.2	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	8318	40.0000	39.7	
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	65310	20.0000	21.9	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	41780	20.0000	22.4	
	63 Ethyl methacrylate	69	9.755	9.755	(1.173)	38745	20.0000	16.9	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	37550	20.0000	20.3	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	55525	20.0000	21.4	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	59349	20.0000	21.0	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	45851	20.0000	20.6	
	68 2-Hexanone	43	10.274	10.274	(1.235)	106551	40.0000	43.1	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	144016	20.0000	20.2	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	272170	50.0000		
	71 Chlorobenzene	112	10.572	10.572	(1.001)	111660	20.0000	21.3	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	47890	20.0000	21.6	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	242469	40.0000	39.2	
	74 o-Xylene	106	10.993	10.993	(1.041)	48000	20.0000	16.7	
	75 Styrene	104	11.029	11.029	(1.044)	89532	20.0000	17.9	
	76 Bromoform	173	11.103	11.103	(1.051)	50597	20.0000	20.6	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.225	11.225	(1.063)	77090	20.0000	18.0	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	108333	50.0000	48.5	
	79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	18292	20.0000	20.5	
	80 n-Propylbenzene	91	11.523	11.523	(1.091)	186197	20.0000	21.3	
	81 Bromobenzene	156	11.578	11.578	(1.096)	59857	20.0000	21.7	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	61142	20.0000	21.0	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	120951	20.0000	20.3	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	41271	20.0000	20.1	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	40937	20.0000	19.7	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	129720	20.0000	17.6	
	87 1,2,3-Trichloropropane	75	11.718	11.718	(1.110)	62417	20.0000	20.5	
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	14143	20.0000	20.2(M)	WP
	89 Cyclohexanone	98	Compound Not Detected.						(D)
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	114774	20.0000	16.8	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	125329	20.0000	18.2	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	141030	20.0000	17.3	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	114774	20.0000	16.8	
	94 1,3-Dichlorobenzene	146	12.285	12.285	(0.996)	96289	20.0000	20.1	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	180250	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	109126	20.0000	20.2	
	97 n-Butylbenzene	91	12.486	12.486	(1.012)	123605	20.0000	19.7	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	98610	20.0000	18.8	
	99 1,2-Dibromo-3-chloropropane	155	13.334	13.334	(1.081)	10501	20.0000	17.8	
	100 Hexachloro-1,3-butadiene	225	13.816	13.816	(1.120)	31005	20.0000	19.3	
	101 1,2,4-Trichlorobenzene	180	13.889	13.889	(1.125)	64364	20.0000	18.1	
	102 Naphthalene	128	14.193	14.193	(1.150)	97168	20.0000	14.2	
	103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	60714	20.0000	18.4	

QC Flag Legend

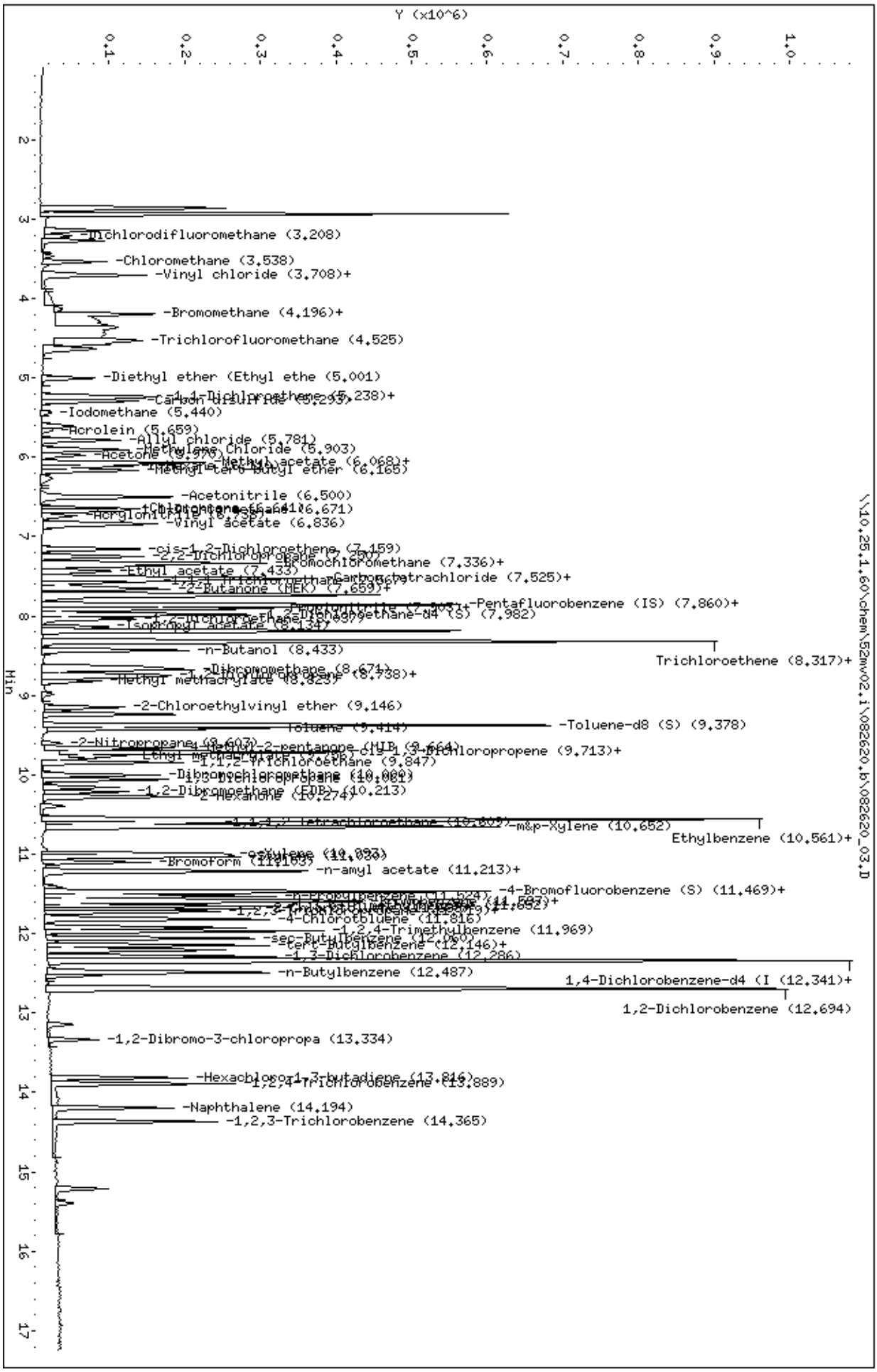
T - Target compound detected outside RT window.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_03.D
Date : 26-AUG-2020 11:25
Client ID: CCV
Sample Info: CCV,27136:1
Purge Volume: 5.0
Column phase: RTX-VMS

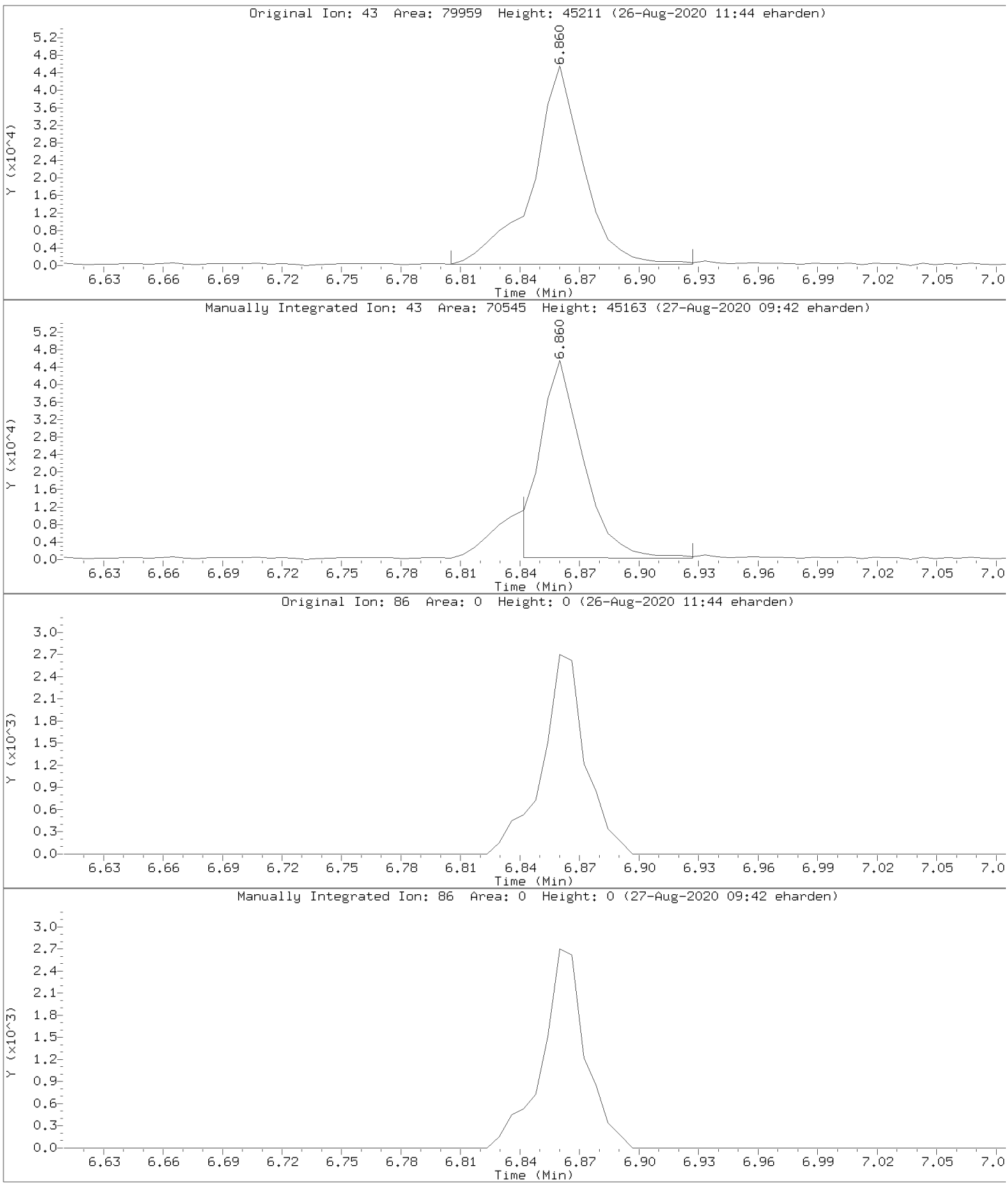
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Page 4

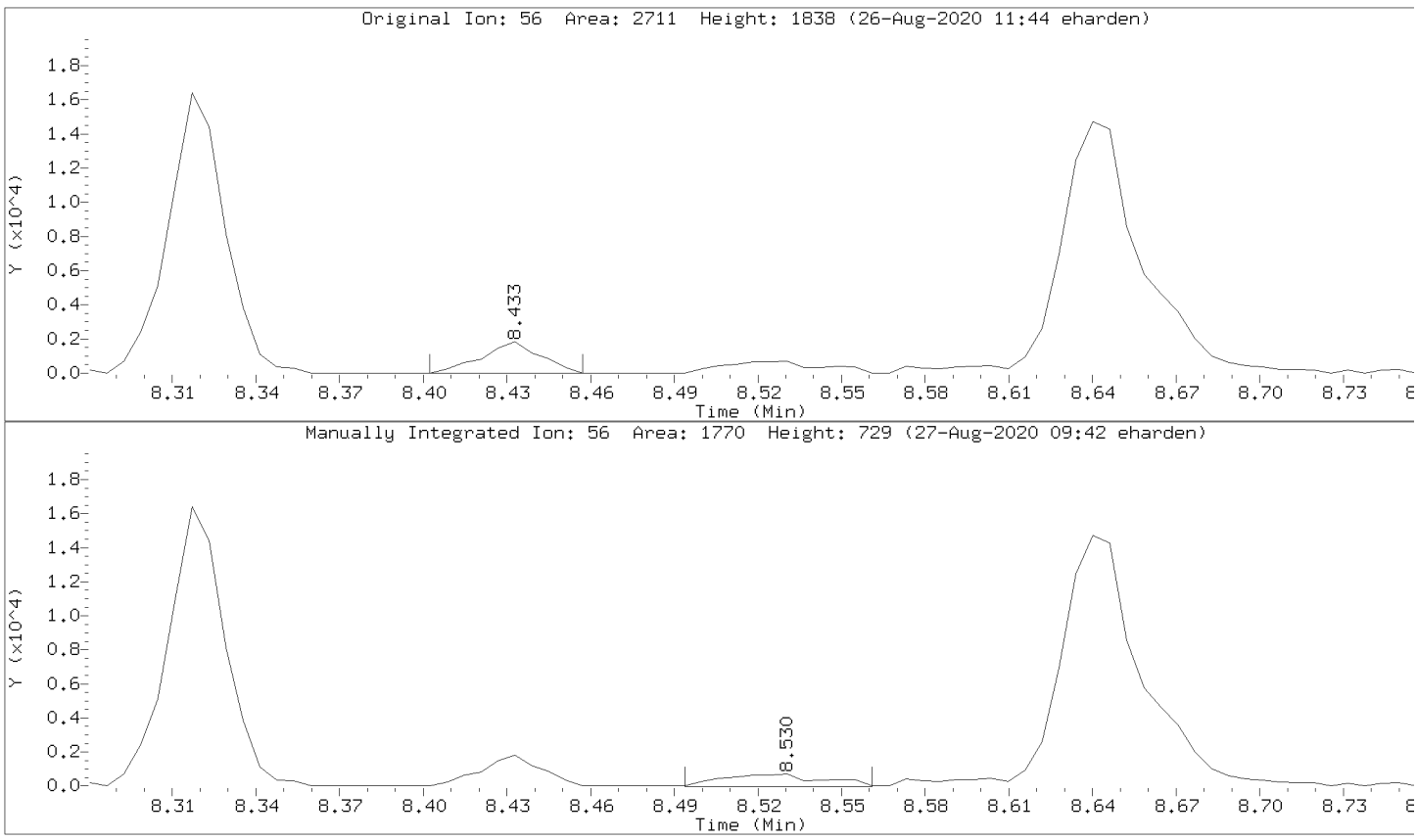
Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_03.D
Injection Date: 26-AUG-2020 11:25
Instrument: 52mv02.i
Lab Sample ID: CCV

Compound: Vinyl acetate Review Code: CO
CAS Number: 108-05-4



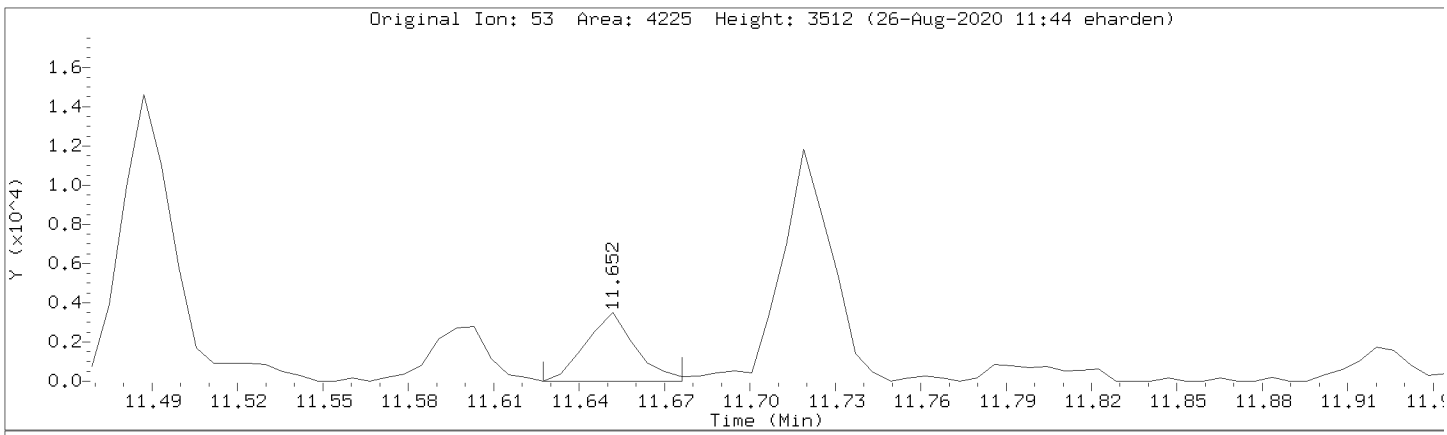
Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_03.D
Injection Date: 26-AUG-2020 11:25
Instrument: 52mv02.i
Lab Sample ID: CCV

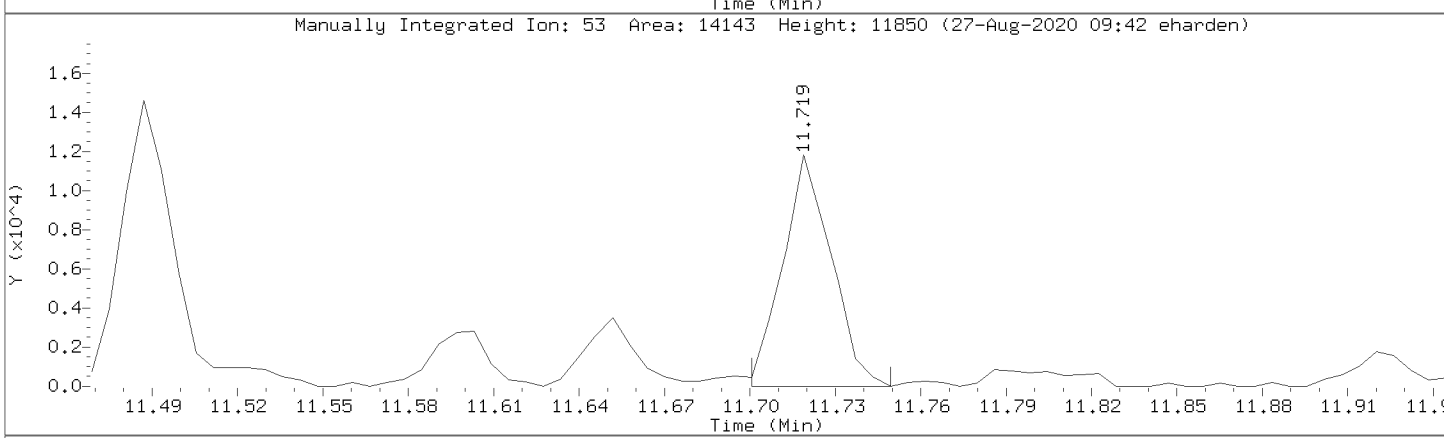
Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3

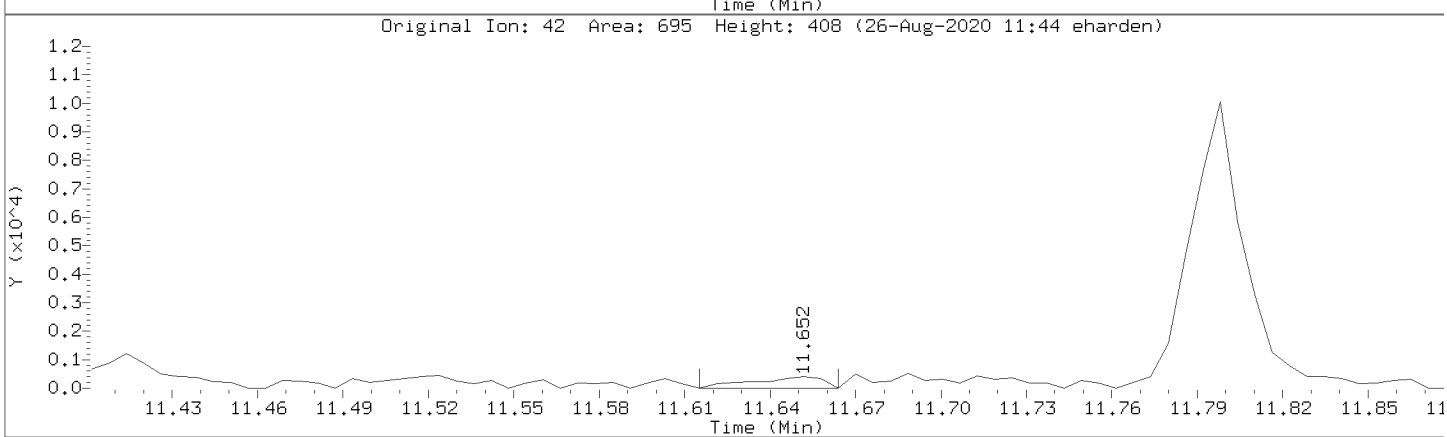


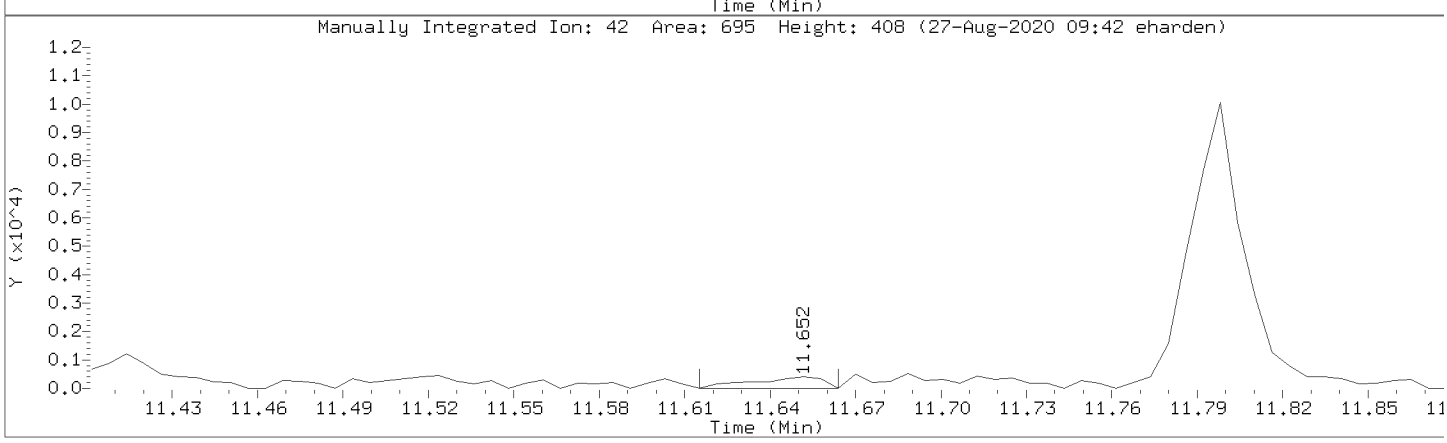
Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_03.D
Injection Date: 26-AUG-2020 11:25
Instrument: 52mv02.i
Lab Sample ID: CCV

Compound: trans-1,4-Dichloro-2-butene Review Code: WP
CAS Number: 110-57-6

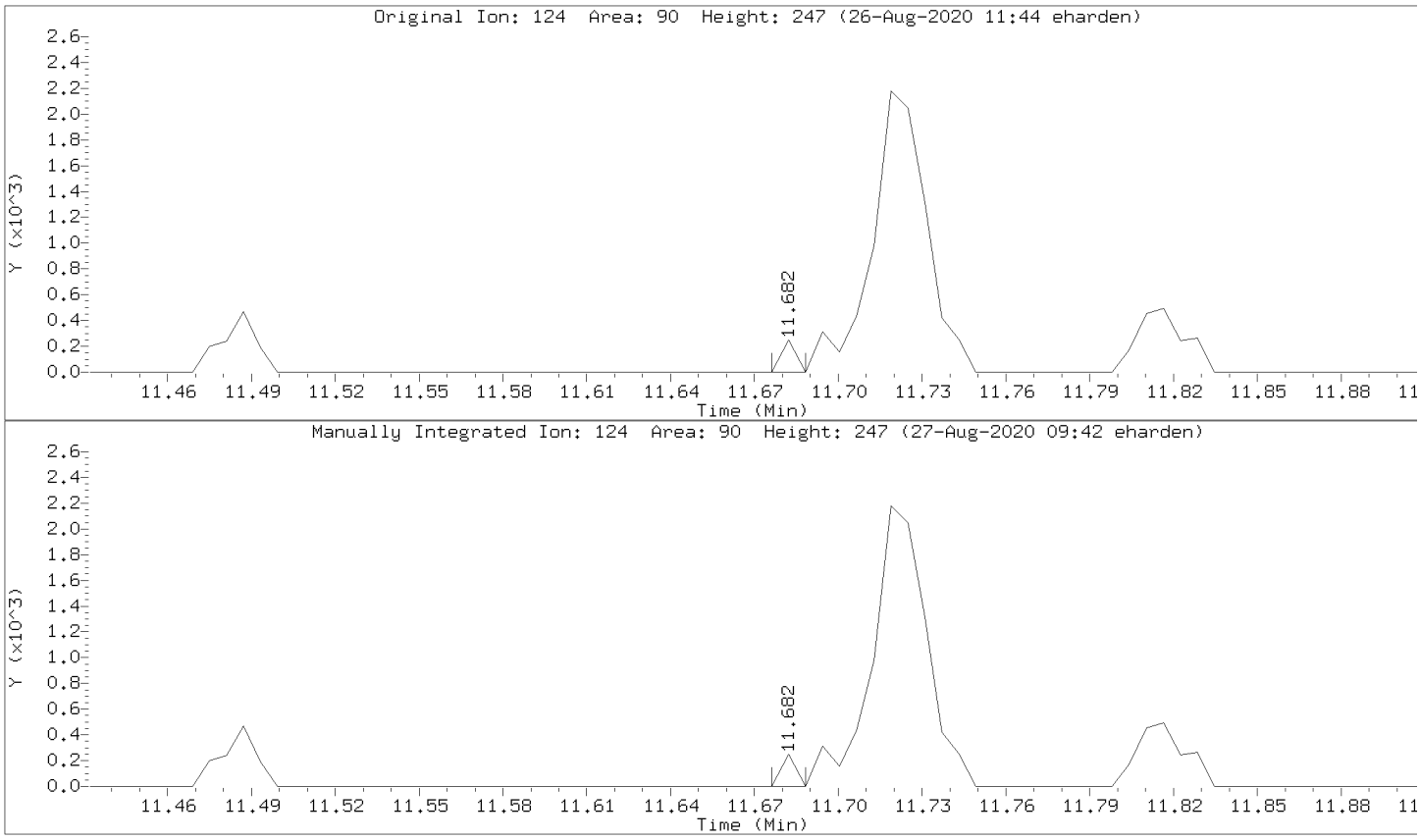








Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_03.D
Injection Date: 26-AUG-2020 11:25
Instrument: 52mv02.i
Lab Sample ID: CCV



Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_01.D

Date : 20-AUG-2020 09:57

Client ID: BFB

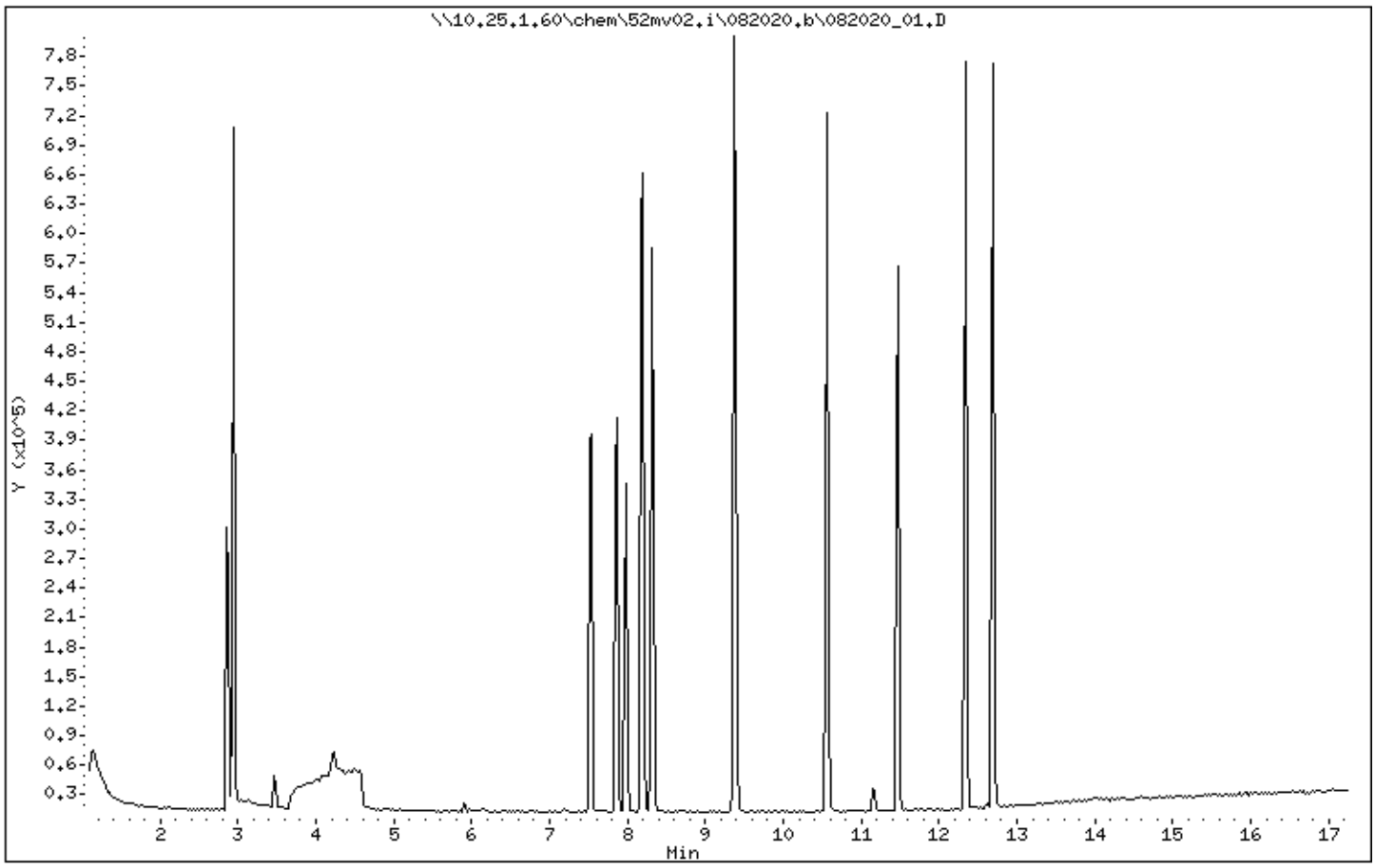
Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_01.D

Date : 20-AUG-2020 09:57

Client ID: BFB

Instrument: 52mv02.i

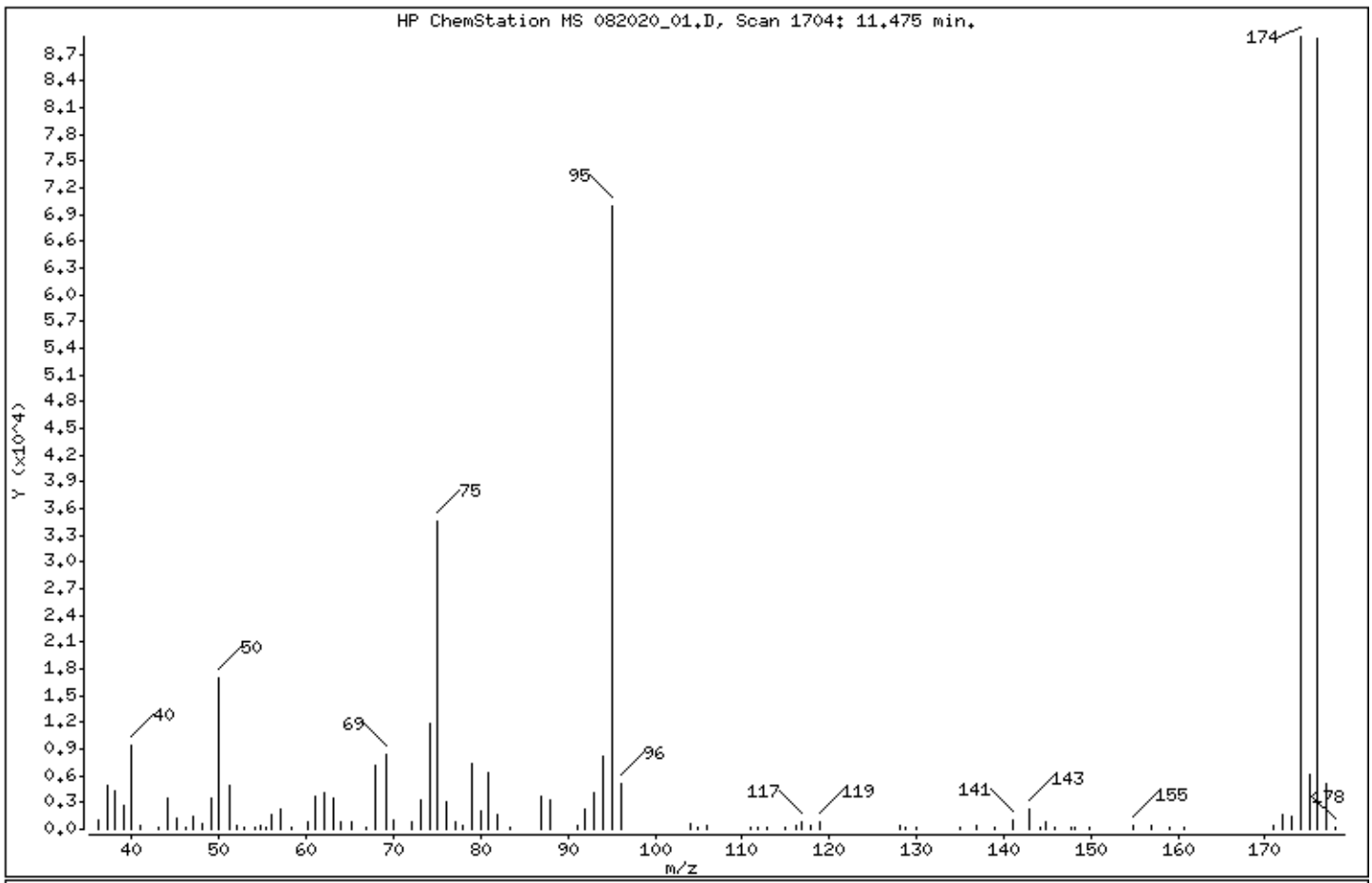
Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	24.30
75	30.00 - 60.00% of mass 95	49.31
96	5.00 - 9.00% of mass 95	7.36
173	Less than 2.00% of mass 174	2.18 (1.71)
174	Greater than 50.00% of mass 95	127.30
175	5.00 - 9.00% of mass 174	8.81 (6.92)
176	95.00 - 101.00% of mass 174	127.12 (99.86)
177	5.00 - 9.00% of mass 176	7.18 (5.65)

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_01.D

Date : 20-AUG-2020 09:57

Client ID: BFB

Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

Data File: 082020_01.D
Spectrum: HP ChemStation MS 082020_01.D, Scan 1704: 11.475 min.
Location of Maximum: 174.00
Number of points: 90

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	1098	60.10	905	87.90	3288	138.90	166
37.10	4897	61.10	3589	91.10	457	141.00	1123
38.10	4243	62.10	4175	92.00	2173	143.00	2215
39.00	2667	63.10	3523	93.00	4038	144.20	186
40.00	9368	63.90	778	94.10	8248	144.90	869
40.90	361	65.10	918	95.10	69920	145.90	188
43.00	292	66.90	193	96.10	5147	147.80	240
44.10	3452	68.00	7096	104.00	555	148.20	197
45.10	1204	69.10	8359	105.00	169	149.80	174
46.10	287	70.10	938	105.90	381	154.80	333
47.00	1467	72.00	732	110.90	175	156.90	307
48.00	627	73.10	3315	111.90	187	159.00	184
49.10	3548	74.10	11905	112.90	178	160.80	185
50.00	16992	75.10	34480	115.00	269	171.00	332
51.10	4943	76.00	3077	116.10	308	172.00	1687
52.00	318	77.10	845	116.90	765	173.00	1525
52.90	284	77.90	421	117.90	509	174.00	89008
54.10	194	78.90	7291	118.90	747	175.10	6163
54.80	315	80.00	1995	128.10	499	176.00	88880
55.30	249	80.90	6439	128.80	229	177.00	5023
56.10	1661	82.00	1621	130.00	283	178.10	199
57.10	2297	83.30	177	134.90	164		
58.20	201	87.00	3615	136.90	329		

Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_03TUNE.D

Date : 26-AUG-2020 11:25

Client ID: BFB

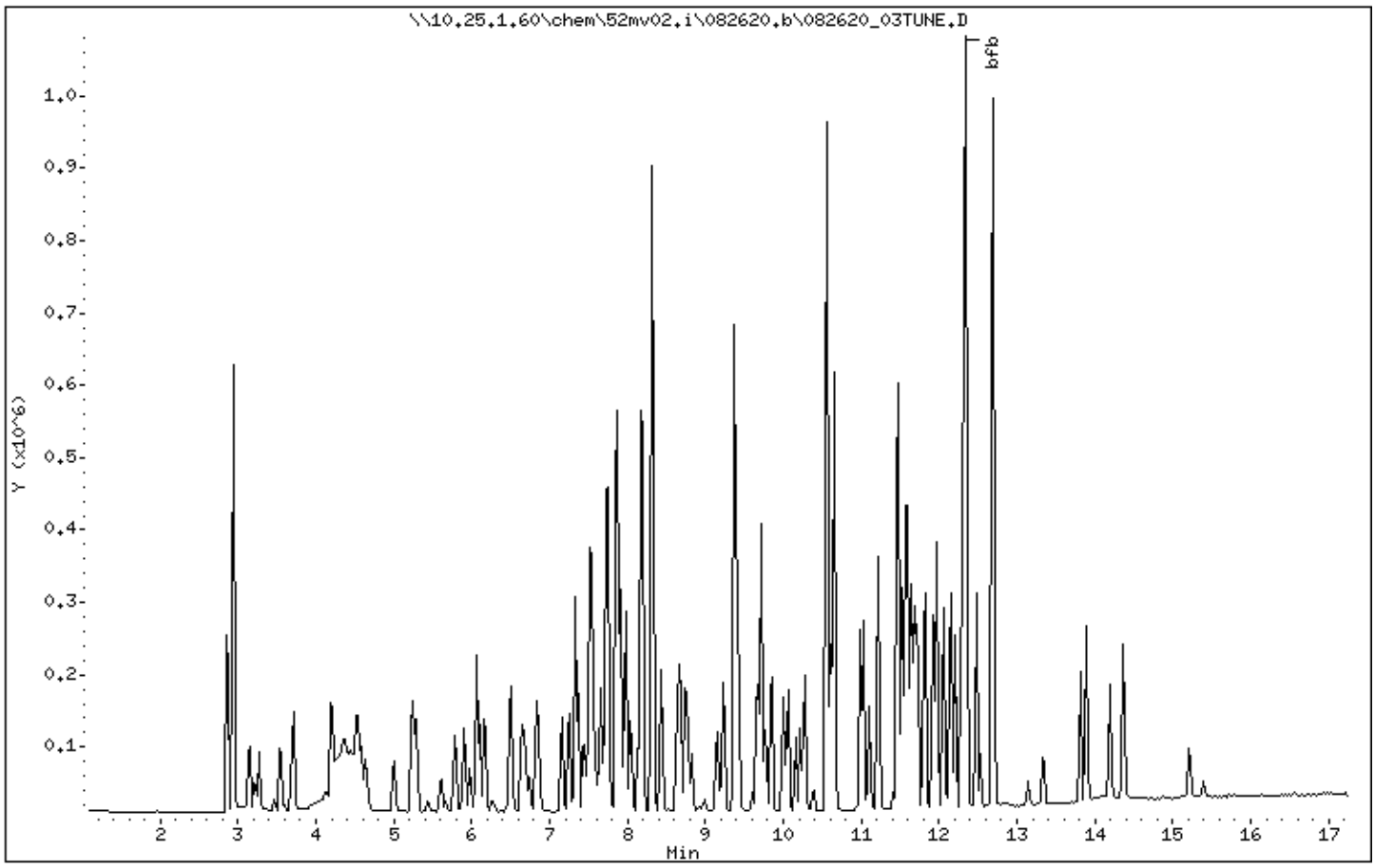
Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_03TUNE.D

Date : 26-AUG-2020 11:25

Client ID: BFB

Instrument: 52mv02.i

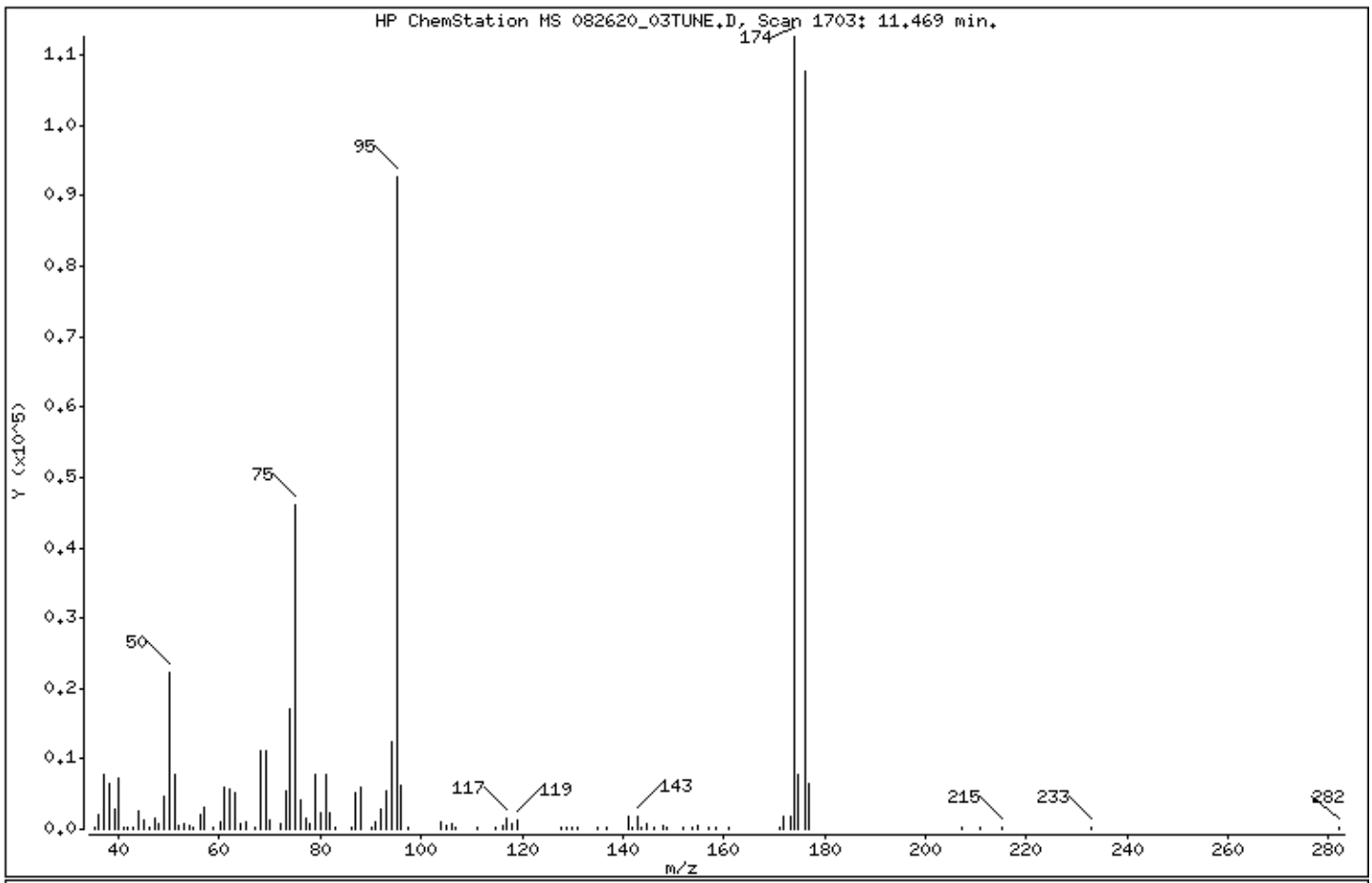
Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	24.05
75	30.00 - 60.00% of mass 95	49.82
96	5.00 - 9.00% of mass 95	6.80
173	Less than 2.00% of mass 174	2.07 (1.70)
174	Greater than 50.00% of mass 95	121.50
175	5.00 - 9.00% of mass 174	8.51 (7.00)
176	95.00 - 101.00% of mass 174	116.10 (95.55)
177	5.00 - 9.00% of mass 176	6.92 (5.96)

Date : 26-AUG-2020 11:25

Client ID: BFB Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS Column diameter: 0.18

Data File: 082620_03TUNE.D
Spectrum: HP ChemStation MS 082620_03TUNE.D, Scan 1703: 11.469 min.
Location of Maximum: 174.00
Number of points: 100

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.20	174	62.10	5700	92.00	2725	144.90	744
36.10	2001	63.00	5065	93.10	5497	146.10	162
37.10	7707	64.10	856	94.10	12305	148.10	554
38.10	6345	65.10	981	95.10	92712	148.80	160
39.10	2932	66.90	179	96.10	6307	152.00	156
40.00	7201	67.20	223	97.30	177	153.70	180
41.10	317	68.10	11177	104.00	1017	154.90	475
41.80	260	69.10	11066	105.10	402	157.00	360
43.00	316	70.10	1289	106.10	879	158.60	274
44.00	2647	72.10	667	106.90	216	161.00	219
45.10	1412	73.10	5427	111.10	249	171.00	351
46.20	154	74.10	17200	114.90	260	171.90	1941
47.10	1593	75.10	46192	116.10	600	173.10	1915
48.00	861	76.10	4049	117.00	1435	174.00	112648
49.00	4705	77.10	1530	118.00	764	174.90	7886
50.10	22296	77.90	777	119.10	1206	176.00	107640
51.10	7709	79.00	7714	127.80	383	177.00	6419
52.00	492	80.10	2323	128.80	326	207.20	224
52.90	751	81.00	7682	130.10	341	210.90	201
54.20	389	82.00	2362	130.90	174	215.10	298
54.80	280	82.80	185	135.00	281	232.90	297
56.10	1960	86.20	172	136.90	280	282.10	160
57.10	3138	86.90	5100	141.00	1719		
58.90	241	88.00	5865	141.90	280		
60.10	1125	90.10	272	143.00	1838		
61.10	5933	91.00	978	143.80	187		

SAMPLE NO.

BLANK

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 10:00
Lab Sample ID: 204601
Date Analyzed: 08/26/2020 12:40
Lab File ID: 082620.B\082620_06.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

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MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 10:00
Lab Sample ID: 204601
Date Analyzed: 08/26/2020 12:40
Lab File ID: 082620.B\082620_06.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_06.D
Lab Smp Id: 204601 Client Smp ID: MB
Inj Date : 26-AUG-2020 12:40
Operator : EAH Inst ID: 52mv02.i
Smp Info : 204601,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	117229	55.0090	55.0	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	185094	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	20726	54.0625	54.1	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	259612	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	267631	47.8889	47.9	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	228025	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	87632	46.8275	46.8	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						(D)
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						(D)
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	126112	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

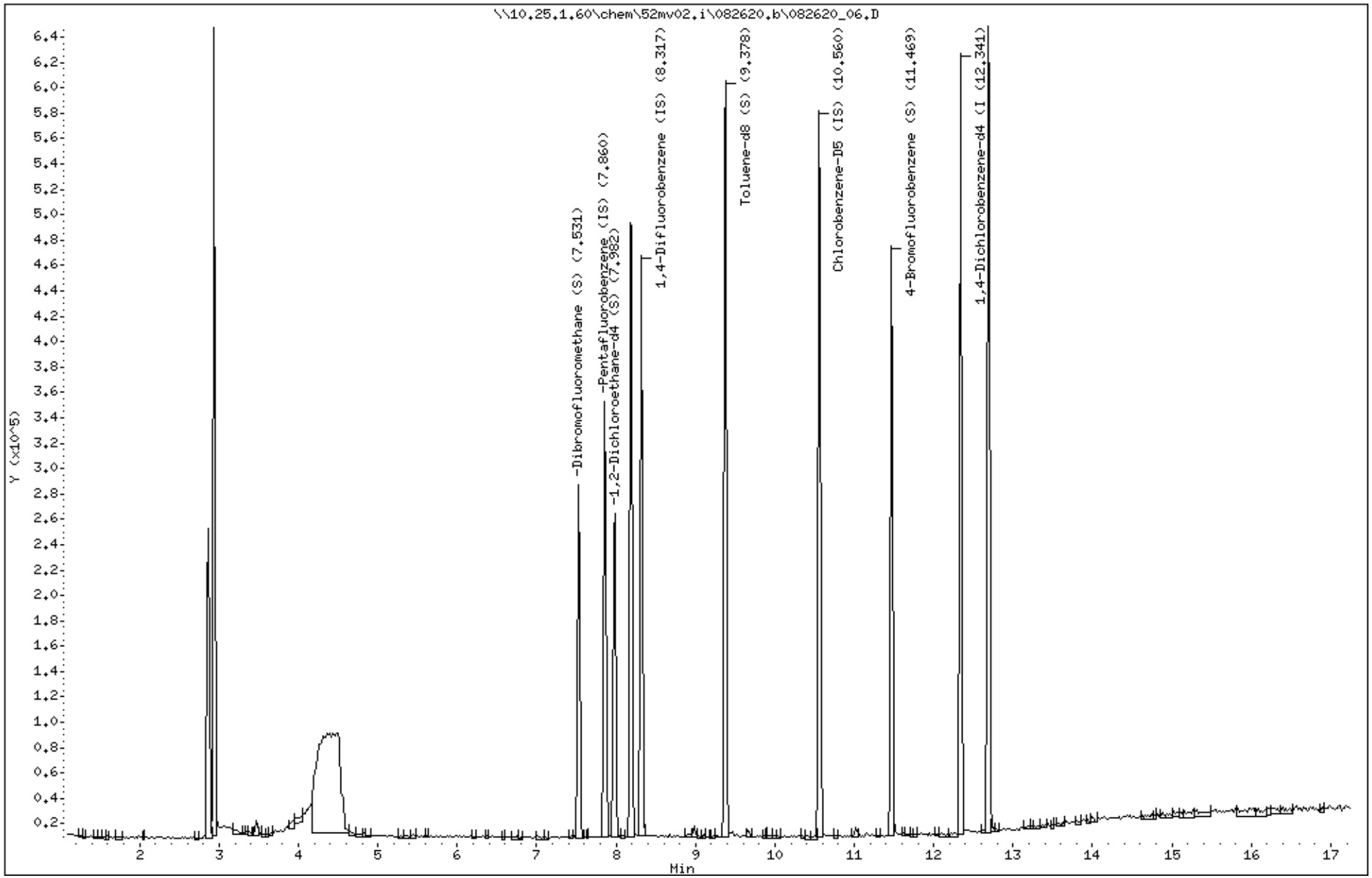
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_06.D
Date : 26-AUG-2020 12:40
Client ID: MB
Sample Info: 204601,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_06.D
Injection Date: 26-AUG-2020 12:40
Instrument: 52mv02.i
Lab Sample ID: 204601
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LCS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 10:00
Lab Sample ID: 204602
Date Analyzed: 08/26/2020 11:25
Lab File ID: 082620.B\082620_03B2983.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	1060	
75-05-8	Acetonitrile	845	
107-02-8	Acrolein	860	
107-13-1	Acrylonitrile	1000	
71-43-2	Benzene	542	
108-86-1	Bromobenzene	543	
74-97-5	Bromochloromethane	517	
75-27-4	Bromodichloromethane	582	
75-25-2	Bromoform	514	
74-83-9	Bromomethane	626	
78-93-3	2-Butanone (MEK)	1000	
104-51-8	n-Butylbenzene	492	
135-98-8	sec-Butylbenzene	433	
98-06-6	tert-Butylbenzene	421	
75-15-0	Carbon disulfide	514	
56-23-5	Carbon tetrachloride	580	
108-90-7	Chlorobenzene	532	
75-00-3	Chloroethane	599	
67-66-3	Chloroform	535	
74-87-3	Chloromethane	538	
95-49-8	2-Chlorotoluene	502	
106-43-4	4-Chlorotoluene	493	
96-12-8	1,2-Dibromo-3-chloropropane	445	
124-48-1	Dibromochloromethane	536	
106-93-4	1,2-Dibromoethane (EDB)	516	
74-95-3	Dibromomethane	551	
95-50-1	1,2-Dichlorobenzene	470	
541-73-1	1,3-Dichlorobenzene	502	
106-46-7	1,4-Dichlorobenzene	504	
75-71-8	Dichlorodifluoromethane	393	
75-34-3	1,1-Dichloroethane	535	
107-06-2	1,2-Dichloroethane	519	
75-35-4	1,1-Dichloroethene	525	
156-59-2	cis-1,2-Dichloroethene	478	
156-60-5	trans-1,2-Dichloroethene	493	
78-87-5	1,2-Dichloropropane	516	
142-28-9	1,3-Dichloropropane	526	

SAMPLE NO.

LCS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 10:00
Lab Sample ID: 204602
Date Analyzed: 08/26/2020 11:25
Lab File ID: 082620.B\082620_03B2983.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	539	
563-58-6	1,1-Dichloropropene	535	
10061-01-5	cis-1,3-Dichloropropene	547	
10061-02-6	trans-1,3-Dichloropropene	548	
141-78-6	Ethyl acetate	922	
100-41-4	Ethylbenzene	506	
591-78-6	2-Hexanone	1080	
98-82-8	Isopropylbenzene (Cumene)	441	
99-87-6	p-Isopropyltoluene	421	
75-09-2	Methylene Chloride	482	
108-10-1	4-Methyl-2-pentanone (MIBK)	993	
1634-04-4	Methyl-tert-butyl ether	488	
91-20-3	Naphthalene	355	
103-65-1	n-Propylbenzene	533	
100-42-5	Styrene	448	
630-20-6	1,1,1,2-Tetrachloroethane	540	
79-34-5	1,1,2,2-Tetrachloroethane	525	
127-18-4	Tetrachloroethene	559	
108-88-3	Toluene	524	
87-61-6	1,2,3-Trichlorobenzene	460	
120-82-1	1,2,4-Trichlorobenzene	453	
71-55-6	1,1,1-Trichloroethane	556	
79-00-5	1,1,2-Trichloroethane	508	
79-01-6	Trichloroethene	556	
75-69-4	Trichlorofluoromethane	608	
96-18-4	1,2,3-Trichloropropane	513	
95-63-6	1,2,4-Trimethylbenzene	456	
108-67-8	1,3,5-Trimethylbenzene	508	
108-05-4	Vinyl acetate	455	
75-01-4	Vinyl chloride	456	
1330-20-7	Xylene (Total)	1400	

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_03B2983.D
Lab Smp Id: 204602 Client Smp ID: MBLCS
Inj Date : 26-AUG-2020 11:25
Operator : EAH Inst ID: 52mv02.i
Smp Info : 204602,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.214	(0.409)	42240	15.7294	15.7	
2 Chloromethane	50	3.537	3.537	(0.450)	69147	21.5064	21.5	
3 Vinyl chloride	62	3.689	3.689	(0.469)	48185	18.2316	18.2	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	43243	18.2982	18.3	
5 Bromomethane	94	4.195	4.195	(0.534)	53443	25.0531	25.0	
6 Chloroethane	64	4.360	4.360	(0.555)	17981	23.9624	24.0	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	40882	24.3310	24.3	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	18600	20.0881	20.1	
9 1,1-Dichloroethene	61	5.232	5.232	(0.666)	62782	21.0133	21.0	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.250	(0.668)	41418	21.0138	21.0	
11 Carbon disulfide	76	5.293	5.293	(0.673)	136009	20.5692	20.6	
12 Iodomethane	142	5.439	5.439	(0.692)	16175	14.5076	14.5	
13 Acrolein	56	5.659	5.659	(0.720)	10605	34.3834	34.4	
14 Allyl chloride	76	5.780	5.780	(0.736)	17068	18.5674	18.6	
15 Methylene Chloride	49	5.902	5.902	(0.751)	68398	19.2704	19.3	
16 Acetone	43	5.969	5.969	(0.760)	75155	42.4140	42.4	
17 Methyl acetate	43	6.067	6.067	(0.772)	79476	38.3663	38.4	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	39791	19.7152	19.7	
19 n-Hexane	86	6.110	6.110	(0.777)	4293	20.0729	20.1	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	91825	19.5104	19.5	
21 Acetonitrile	41	6.451	6.451	(0.821)	6421	33.8126	33.8	
22 Chloroprene	53	6.640	6.640	(0.845)	56086	19.9344	19.9	
23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	83957	21.4067	21.4	
24 Acrylonitrile	53	6.732	6.732	(0.857)	34233	40.1744	40.2	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
25 Vinyl acetate	43	6.860	6.860	(0.873)	70545	18.1836	18.2(TM)	CO
26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	55254	19.1162	19.1	
27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	65218	21.5579	21.6	
28 Bromochloromethane	128	7.335	7.335	(0.933)	26147	20.6967	20.7	
29 Cyclohexane	56	7.335	7.335	(0.882)	47239	18.9698	19.0	
30 Chloroform	83	7.372	7.372	(0.938)	94915	21.4026	21.4	
31 Ethyl acetate	43	7.427	7.427	(0.945)	92306	36.8698	36.9	
32 Carbon tetrachloride	117	7.506	7.506	(0.902)	68377	23.2060	23.2	
33 Tetrahydrofuran	42	7.530	7.530	(0.958)	23406	36.3076	36.3	
$ 34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	123116	48.0050	48.0(R)	
35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	74226	22.2327	22.2	
36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	76590	40.0567	40.0	
37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	49595	21.3869	21.4	
* 38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	222751	50.0000		
39 Benzene	78	7.872	7.872	(0.946)	162397	21.6956	21.7	
40 Propionitrile	54	7.896	7.896	(1.005)	13826	36.4215	36.4	
41 Methacrylonitrile	41	7.902	7.902	(1.005)	74952	38.8121	38.8	
42 Isobutanol	43	Compound Not Detected.						(D)
$ 43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21459	46.5117	46.5(R)	
44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	72333	20.7747	20.8	
45 Isopropyl acetate	43	8.134	8.134	(1.035)	75691	18.2519	18.2	
46 Trichloroethene	130	8.317	8.317	(1.000)	45493	22.2295	22.2	
* 47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	292666	50.0000		
48 Methylcyclohexane	98	8.323	8.323	(1.001)	19880	20.4958	20.5	
49 n-Butanol	56	8.530	8.530	(1.026)	1770	39.5688	39.6(M)	WP
50 Dibromomethane	93	8.670	8.670	(1.043)	38443	22.0533	22.0	
51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	44105	20.6379	20.6	
52 Bromodichloromethane	83	8.762	8.762	(1.054)	71473	23.2906	23.3	
53 Methyl methacrylate	69	8.816	8.816	(1.060)	19819	16.4588	16.4	
54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						(D)
55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	32805	30.8758	30.9	
56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	65310	21.8848	21.9	
$ 57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	312434	49.5918	49.6(R)	
58 Toluene	91	9.414	9.414	(1.132)	152837	20.9425	20.9	
59 2-Nitropropane	43	9.603	9.603	(1.155)	11985	16.1836	16.2	
60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	8318	39.7145	39.7	
61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	65310	21.9282	21.9	
62 Tetrachloroethene	164	9.719	9.719	(0.920)	41780	22.3671	22.4	
63 Ethyl methacrylate	69	9.755	9.755	(1.173)	38745	16.8748	16.9	
64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	37550	20.3027	20.3	
65 Dibromochloromethane	129	9.999	9.999	(0.947)	55525	21.4507	21.4	
66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	59349	21.0386	21.0	
67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	45851	20.6525	20.6	
68 2-Hexanone	43	10.274	10.274	(1.235)	106551	43.1253	43.1	
69 Ethylbenzene	91	10.554	10.554	(0.999)	144016	20.2260	20.2	
* 70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	272170	50.0000		
71 Chlorobenzene	112	10.572	10.572	(1.001)	111660	21.2646	21.3	
72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	47890	21.5932	21.6	
73 m&p-Xylene	91	10.651	10.651	(1.009)	242469	39.1654	39.2	
74 o-Xylene	106	10.993	10.993	(1.041)	48000	16.7340	16.7	
75 Styrene	104	11.029	11.029	(1.044)	89532	17.9069	17.9	
76 Bromoform	173	11.103	11.103	(1.051)	50597	20.5740	20.6	
77 n-amyl acetate	43	11.225	11.225	(1.063)	77090	18.0384	18.0	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	108333	48.5000	48.5(R)	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
79	cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	18292	20.4683	20.5	
80	n-Propylbenzene	91	11.523	11.523	(1.091)	186197	21.3270	21.3	
81	Bromobenzene	156	11.578	11.578	(1.096)	59857	21.7361	21.7	
82	1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	61142	20.9969	21.0	
83	1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	120951	20.3216	20.3	
84	2-Chlorotoluene	126	11.694	11.694	(1.107)	41271	20.0641	20.1	
85	4-Chlorotoluene	126	11.816	11.816	(1.119)	40937	19.7362	19.7	
86	Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	129720	17.6459	17.6	
87	1,2,3-Trichloropropane	75	11.718	11.718	(1.110)	62417	20.5044	20.5	
88	trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	14143	20.1800	20.2(M)	WP
89	Cyclohexanone	98	Compound Not Detected.						(D)
90	tert-Butylbenzene	119	12.145	12.145	(0.984)	114774	16.8577	16.8	
91	1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	125329	18.2287	18.2	
92	sec-Butylbenzene	105	12.060	12.060	(0.977)	141030	17.3260	17.3	
93	p-Isopropyltoluene	119	12.145	12.145	(0.984)	114774	16.8577	16.8	
94	1,3-Dichlorobenzene	146	12.285	12.285	(0.996)	96289	20.0689	20.1	
* 95	1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	180250	50.0000		
96	1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	109126	20.1584	20.2	
97	n-Butylbenzene	91	12.486	12.486	(1.012)	123605	19.6789	19.7	
98	1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	98610	18.8085	18.8	
99	1,2-Dibromo-3-chloropropane	155	13.334	13.334	(1.081)	10501	17.8140	17.8	
100	Hexachloro-1,3-butadiene	225	13.816	13.816	(1.120)	31005	19.2936	19.3	
101	1,2,4-Trichlorobenzene	180	13.889	13.889	(1.125)	64364	18.1308	18.1	
102	Naphthalene	128	14.193	14.193	(1.150)	97168	14.1933	14.2	
103	1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	60714	18.3985	18.4	

QC Flag Legend

T - Target compound detected outside RT window.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

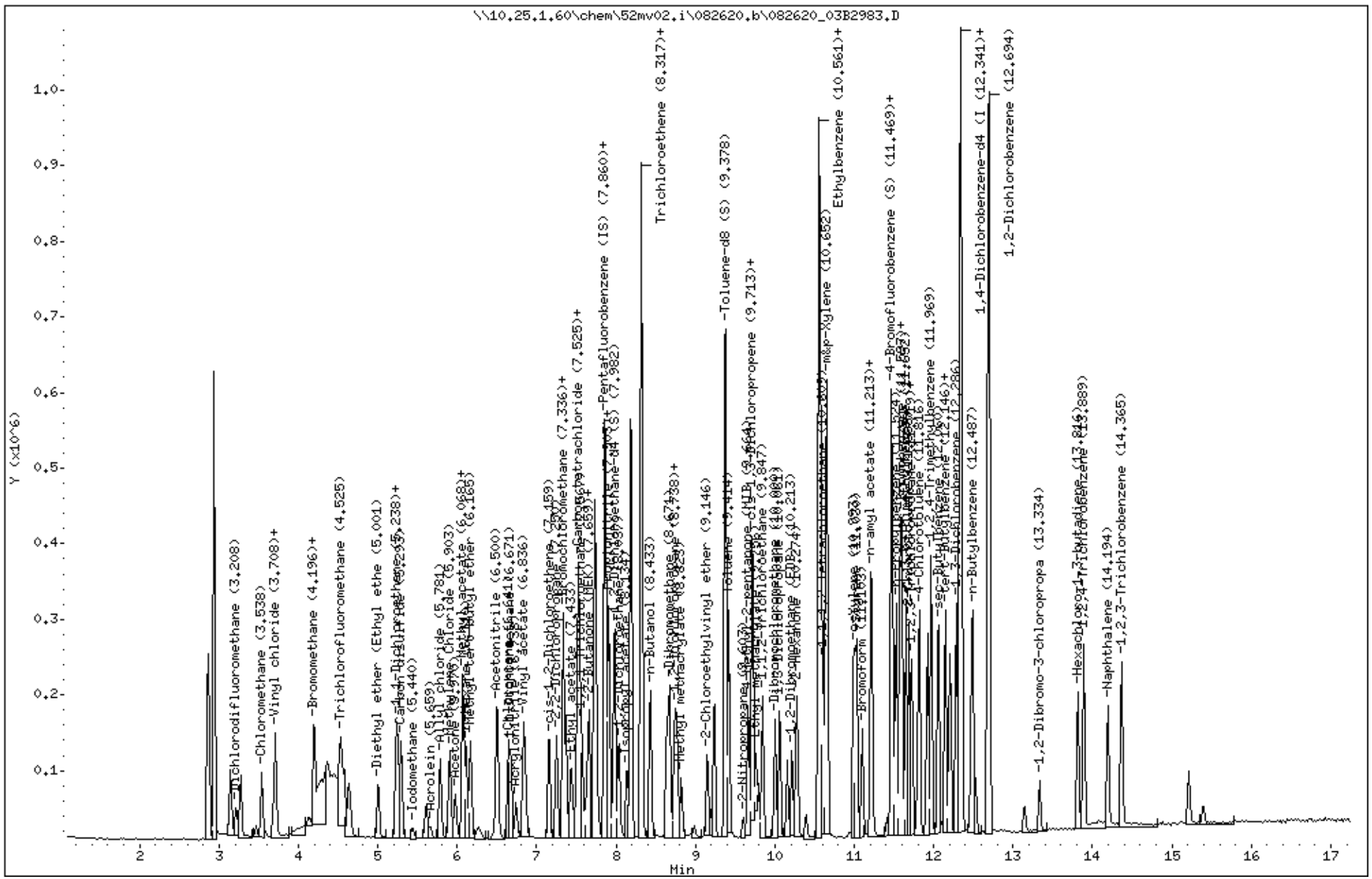
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_03B2983.D
Date : 26-AUG-2020 11:25
Client ID: MBLCS
Sample Info: 204602,

Instrument: 52mv02.i

Operator: EAH

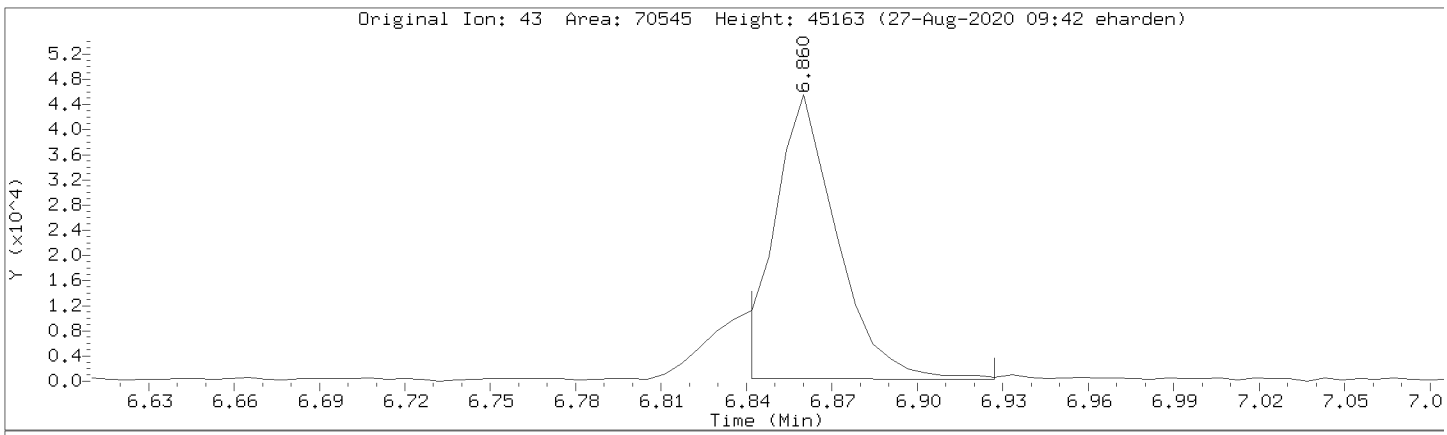
Column phase: RTX-VMS

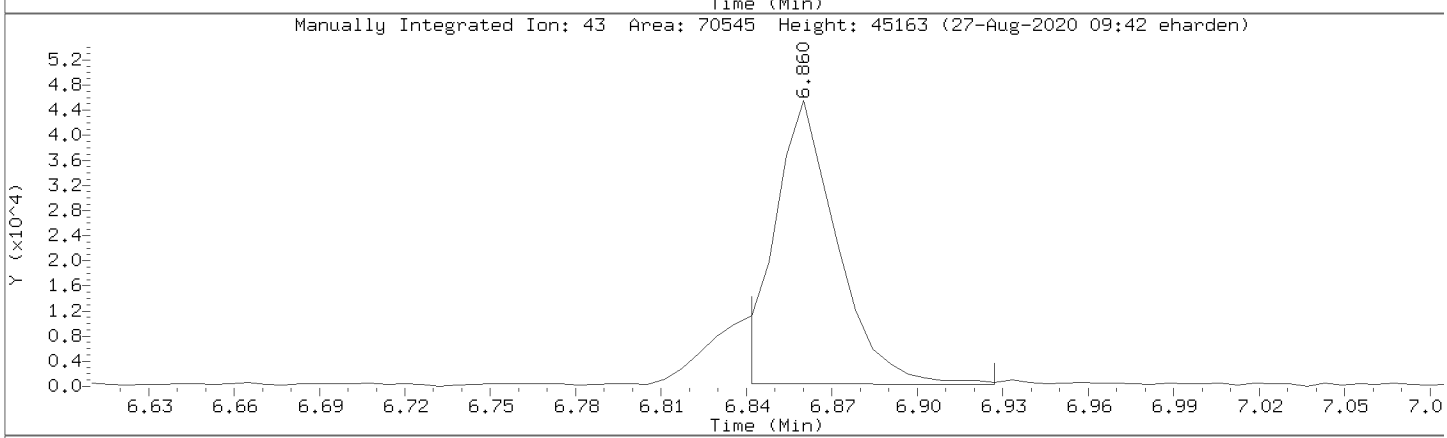
Column diameter: 0.18

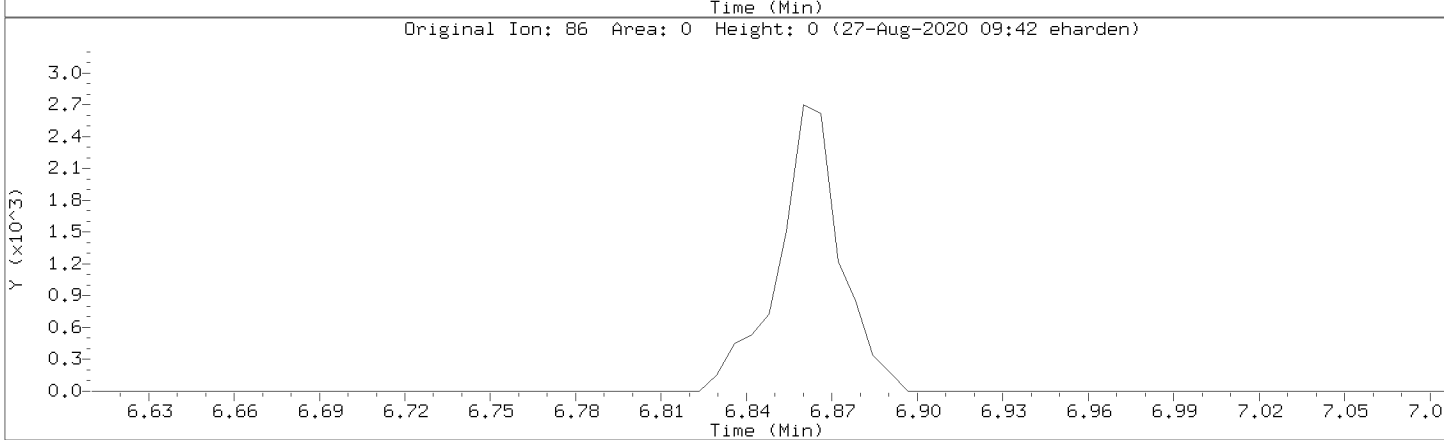


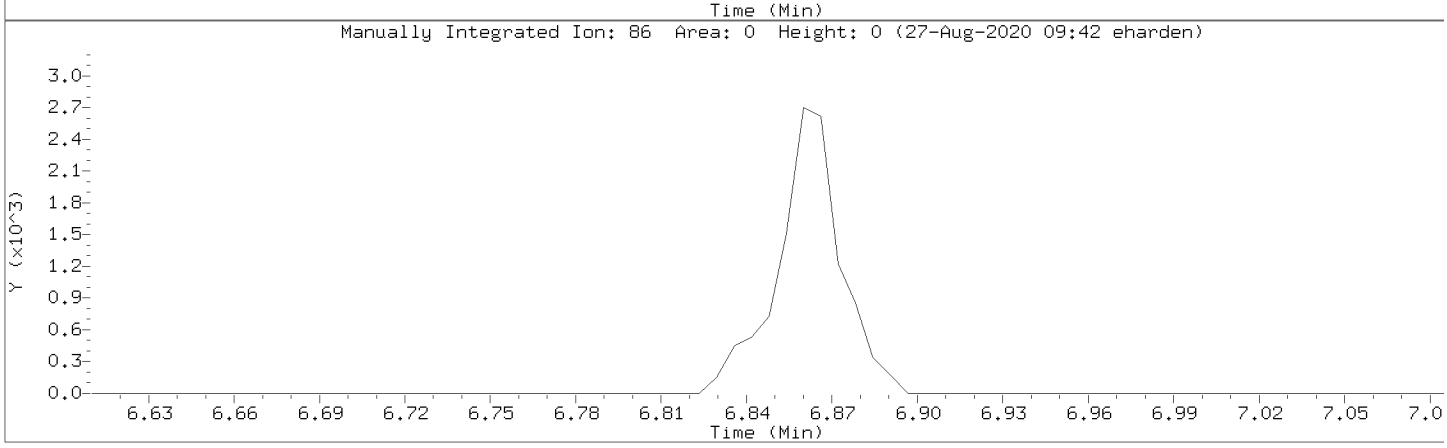
Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_03B2983.D
Injection Date: 26-AUG-2020 11:25
Instrument: 52mv02.i
Lab Sample ID: 204602

Compound: Vinyl acetate Review Code: CO
CAS Number: 108-05-4









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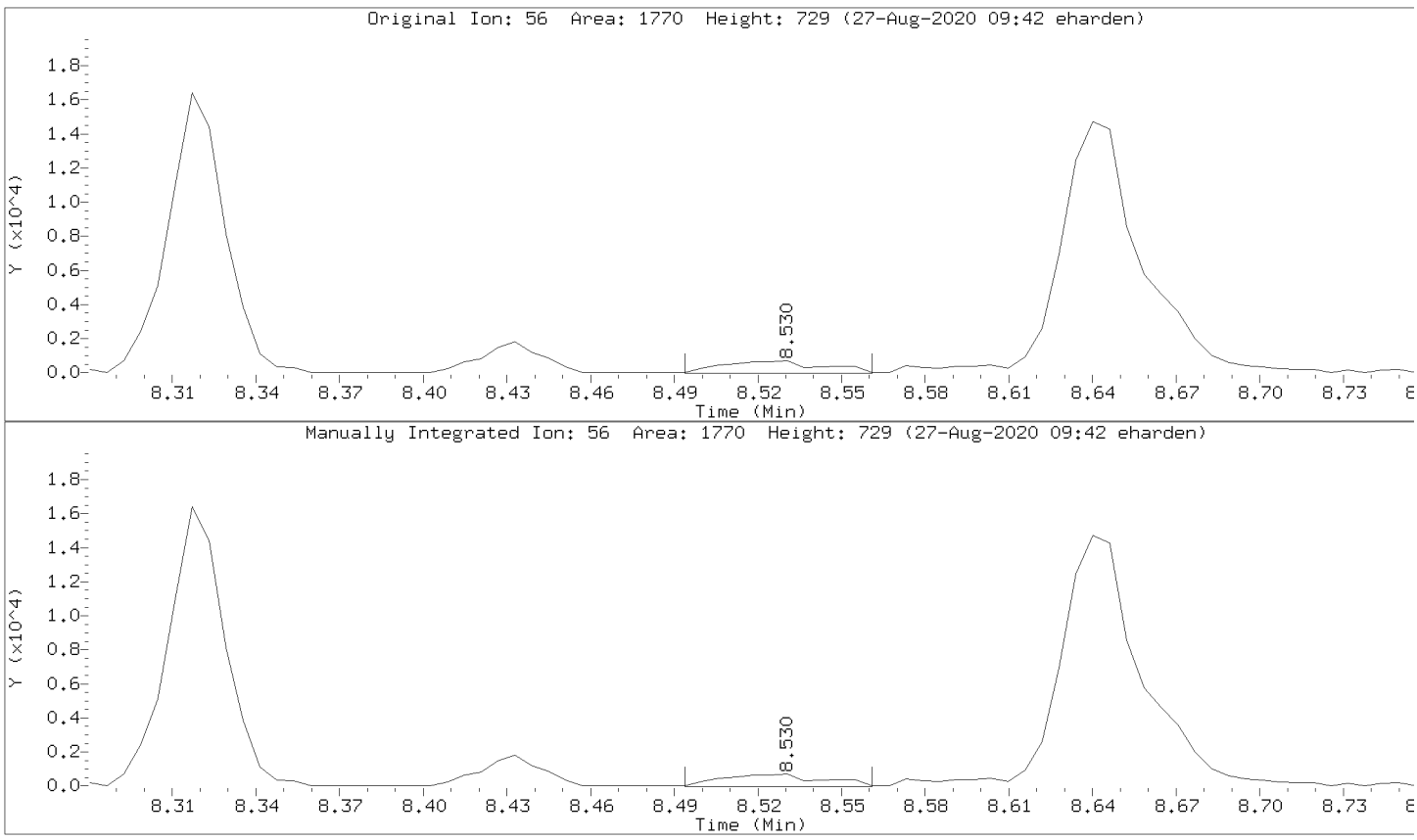
Injection Date: 26-AUG-2020 11:25
Instrument: 52mv02.i
Lab Sample ID: 204602

Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3



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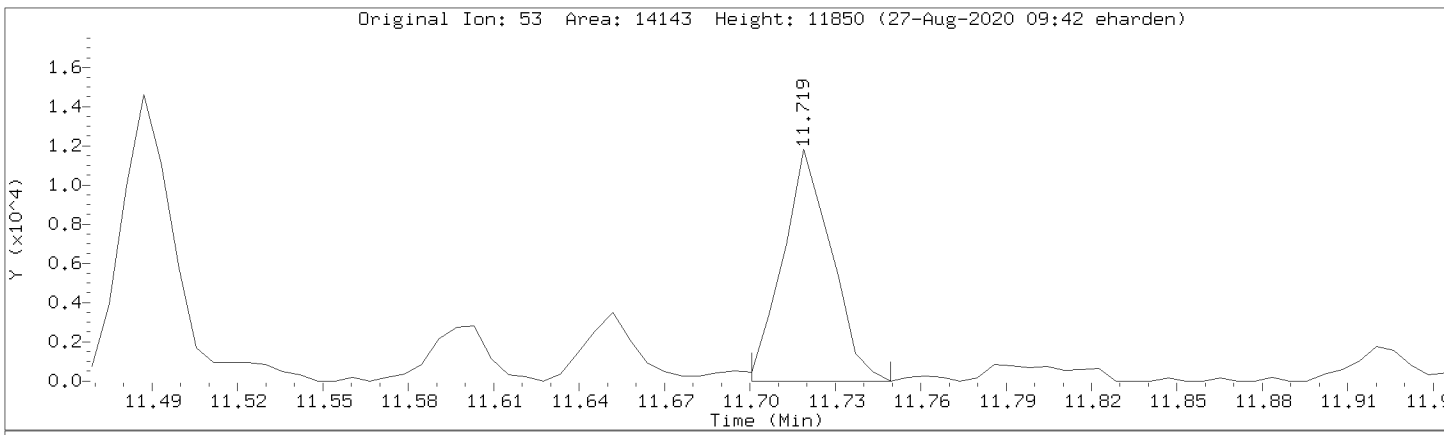
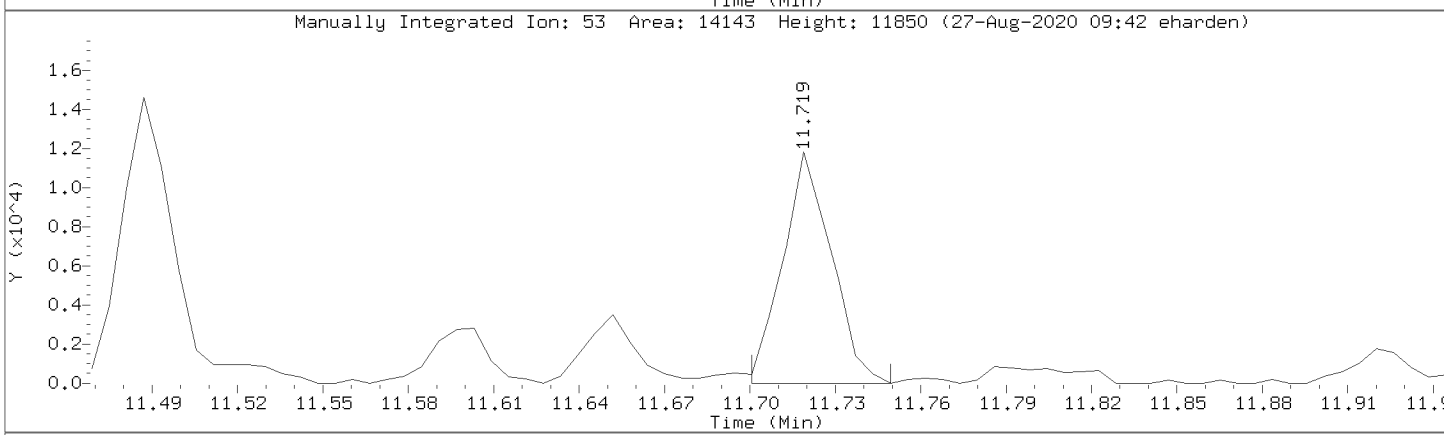
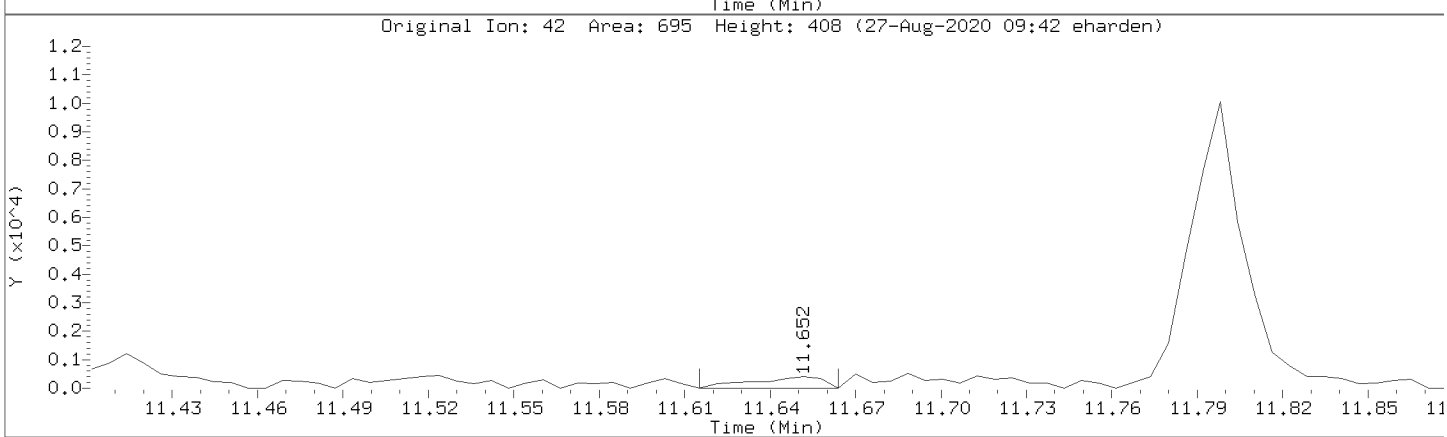
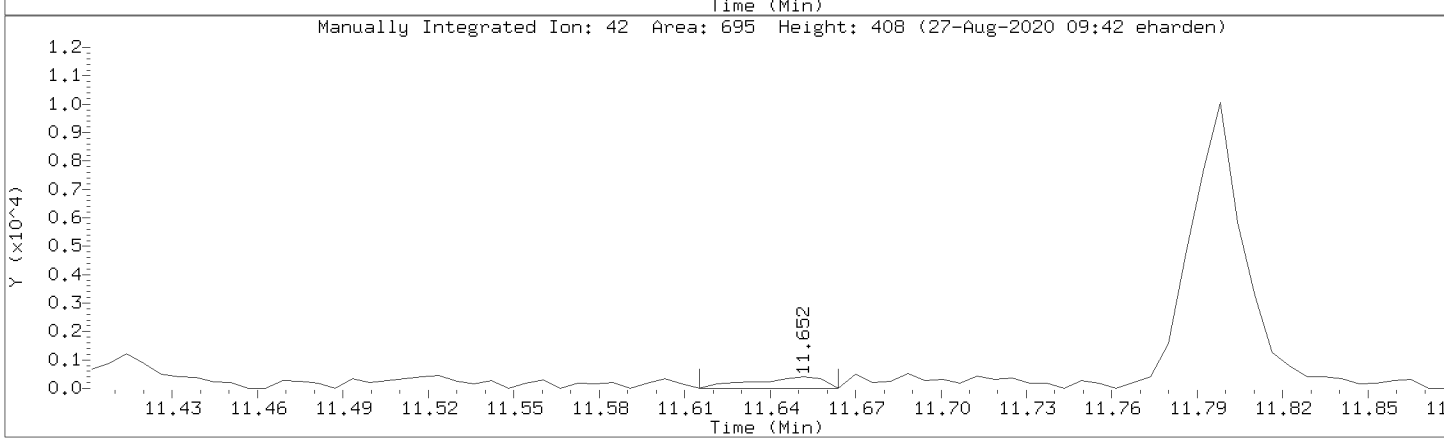
Injection Date: 26-AUG-2020 11:25
Instrument: 52mv02.i
Lab Sample ID: 204602

Compound: trans-1,4-Dichloro-2-butene Review Code: WP
CAS Number: 110-57-6









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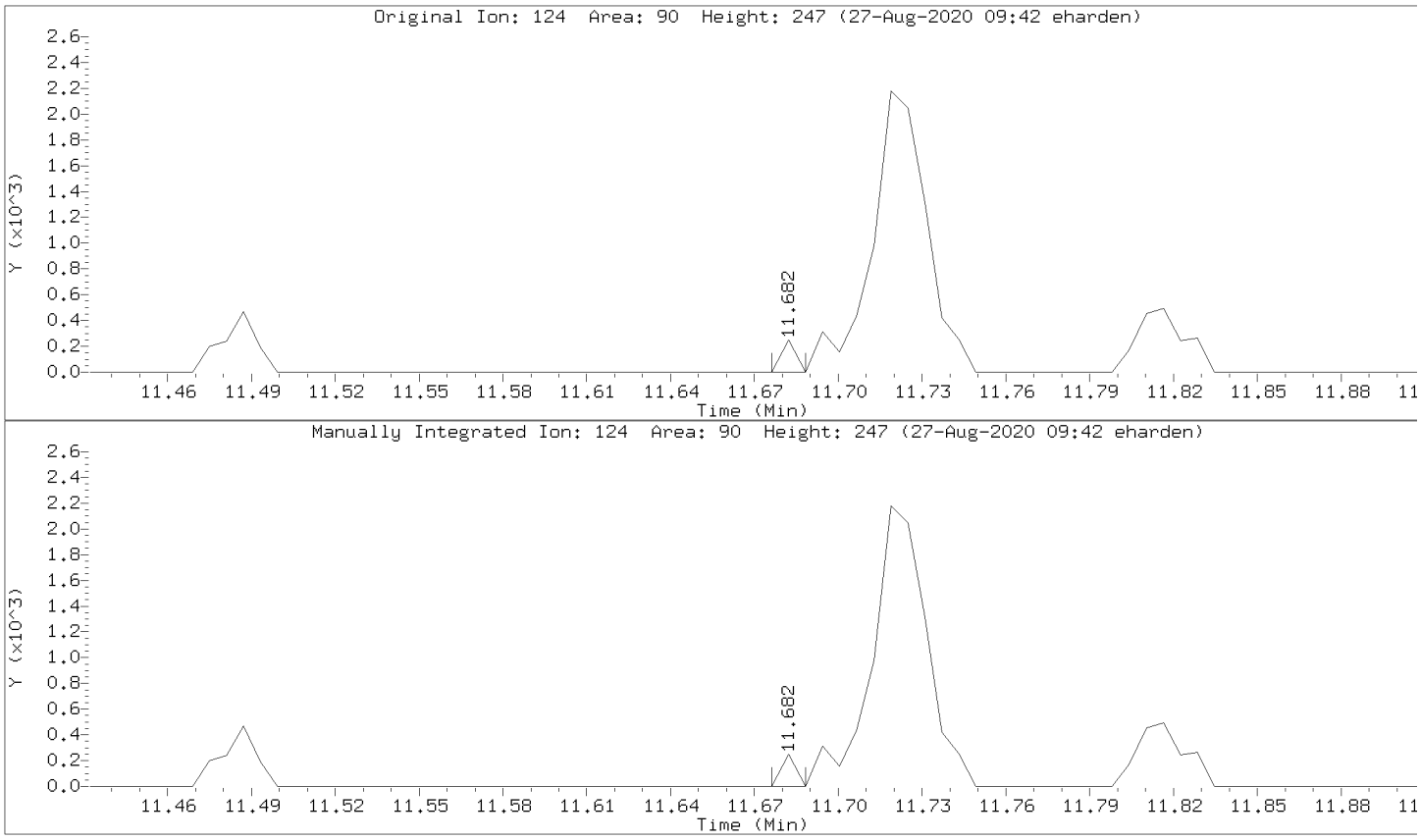
Injection Date: 26-AUG-2020 11:25
Instrument: 52mv02.i
Lab Sample ID: 204602



SAMPLE NO.

MS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/24/2020 16:20
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 204603
Date Analyzed: 08/26/2020 13:30
Lab File ID: 082620.B\082620_08.D
Initial wt/vol: 5.23 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 20.5%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	1410	
75-05-8	Acetonitrile	1880	
107-02-8	Acrolein	1200	
107-13-1	Acrylonitrile	1270	
71-43-2	Benzene	630	
108-86-1	Bromobenzene	635	
74-97-5	Bromochloromethane	612	
75-27-4	Bromodichloromethane	685	
75-25-2	Bromoform	640	
74-83-9	Bromomethane	797	
78-93-3	2-Butanone (MEK)	1250	
104-51-8	n-Butylbenzene	573	
135-98-8	sec-Butylbenzene	519	
98-06-6	tert-Butylbenzene	483	
75-15-0	Carbon disulfide	611	
56-23-5	Carbon tetrachloride	672	
108-90-7	Chlorobenzene	605	
75-00-3	Chloroethane	765	
67-66-3	Chloroform	627	
74-87-3	Chloromethane	685	
95-49-8	2-Chlorotoluene	586	
106-43-4	4-Chlorotoluene	556	
96-12-8	1,2-Dibromo-3-chloropropane	558	
124-48-1	Dibromochloromethane	662	
106-93-4	1,2-Dibromoethane (EDB)	612	
74-95-3	Dibromomethane	639	
95-50-1	1,2-Dichlorobenzene	562	
541-73-1	1,3-Dichlorobenzene	602	
106-46-7	1,4-Dichlorobenzene	585	
75-71-8	Dichlorodifluoromethane	500	
75-34-3	1,1-Dichloroethane	633	
107-06-2	1,2-Dichloroethane	625	
75-35-4	1,1-Dichloroethene	599	
156-59-2	cis-1,2-Dichloroethene	586	
156-60-5	trans-1,2-Dichloroethene	579	
78-87-5	1,2-Dichloropropane	610	
142-28-9	1,3-Dichloropropane	646	

SAMPLE NO.

MS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/24/2020 16:20
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 204603
Date Analyzed: 08/26/2020 13:30
Lab File ID: 082620.B\082620_08.D
Initial wt/vol: 5.23 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 20.5%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	626	
563-58-6	1,1-Dichloropropene	615	
10061-01-5	cis-1,3-Dichloropropene	620	
10061-02-6	trans-1,3-Dichloropropene	621	
141-78-6	Ethyl acetate	1160	
100-41-4	Ethylbenzene	576	
591-78-6	2-Hexanone	1390	
98-82-8	Isopropylbenzene (Cumene)	519	
99-87-6	p-Isopropyltoluene	483	
75-09-2	Methylene Chloride	612	
108-10-1	4-Methyl-2-pentanone (MIBK)	1280	
1634-04-4	Methyl-tert-butyl ether	594	
91-20-3	Naphthalene	436	
103-65-1	n-Propylbenzene	598	
100-42-5	Styrene	521	
630-20-6	1,1,1,2-Tetrachloroethane	628	
79-34-5	1,1,2,2-Tetrachloroethane	625	
127-18-4	Tetrachloroethene	635	
108-88-3	Toluene	605	
87-61-6	1,2,3-Trichlorobenzene	538	
120-82-1	1,2,4-Trichlorobenzene	548	
71-55-6	1,1,1-Trichloroethane	667	
79-00-5	1,1,2-Trichloroethane	608	
79-01-6	Trichloroethene	649	
75-69-4	Trichlorofluoromethane	1140	
96-18-4	1,2,3-Trichloropropane	608	
95-63-6	1,2,4-Trimethylbenzene	523	
108-67-8	1,3,5-Trimethylbenzene	610	
108-05-4	Vinyl acetate	597	
75-01-4	Vinyl chloride	596	
1330-20-7	Xylene (Total)	1620	

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_08.D
Lab Smp Id: 204603 Client Smp ID: BR8PB3SMMS
Inj Date : 26-AUG-2020 13:30
Operator : EAH Inst ID: 52mv02.i
Smp Info : 204603,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 4 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.214	(0.408)	43261	16.6373	16.6	
2 Chloromethane	50	3.537	3.537	(0.450)	70828	22.7986	22.8	
3 Vinyl chloride	62	3.683	3.689	(0.469)	50747	19.8299	19.8	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	40178	17.5581	17.6	
5 Bromomethane	94	4.195	4.195	(0.534)	54433	26.5194	26.5(R)	
6 Chloroethane	64	4.360	4.360	(0.555)	18455	25.4532	25.4	
7 Trichlorofluoromethane	101	4.543	4.531	(0.578)	61745	37.9513	38.0(RM)	LT
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	17200	19.1846	19.2	
9 1,1-Dichloroethene	61	5.232	5.232	(0.666)	57651	19.9280	19.9	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.250	(0.669)	40440	21.1897	21.2	
11 Carbon disulfide	76	5.293	5.293	(0.673)	130180	20.3326	20.3	
12 Iodomethane	142	5.439	5.439	(0.692)	18933	16.5376	16.5	
13 Acrolein	56	5.652	5.659	(0.719)	11888	39.8057	39.8	
14 Allyl chloride	76	5.780	5.780	(0.736)	17087	19.1970	19.2	
15 Methylene Chloride	49	5.902	5.902	(0.751)	70007	20.3698	20.4	
16 Acetone	43	5.969	5.969	(0.760)	80171	46.9101	46.9	
17 Methyl acetate	43	6.067	6.067	(0.772)	85223	42.5753	42.6(R)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	37677	19.2792	19.3	
19 n-Hexane	86	6.116	6.110	(0.778)	4527	21.8603	21.9	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	90040	19.7578	19.8	
21 Acetonitrile	41	6.457	6.451	(0.822)	11368	62.4270	62.4(R)	
22 Chloroprene	53	6.640	6.640	(0.845)	53588	19.6704	19.7	
23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	80012	21.0691	21.1	
24 Acrylonitrile	53	6.738	6.732	(0.857)	34871	42.2636	42.3(R)	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	6.860	6.860	(0.873)	74577	19.8525	19.8(M)	CO
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	54537	19.4862	19.5	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	61022	20.8316	20.8	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	24915	20.3675	20.4	
	29 Cyclohexane	56	7.335	7.335	(0.882)	45202	18.3446	18.3	
	30 Chloroform	83	7.372	7.372	(0.938)	89641	20.8754	20.9	
	31 Ethyl acetate	43	7.426	7.427	(0.945)	93607	38.6142	38.6(R)	
	32 Carbon tetrachloride	117	7.512	7.506	(0.903)	65218	22.3690	22.4	
	33 Tetrahydrofuran	42	7.530	7.530	(0.958)	25119	40.5052	40.5(R)	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	122852	49.4711	49.5	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	73311	22.1919	22.2	
	36 2-Butanone (MEK)	43	7.622	7.628	(0.970)	77012	41.5967	41.6	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	46967	20.4687	20.5	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	215686	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	155359	20.9758	21.0	
	40 Propionitrile	54	7.890	7.896	(1.004)	16200	44.0731	44.1(R)	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	74781	39.9920	40.0(R)	
	42 Isobutanol	43	7.908	7.908	(1.006)	40189	396.334	396(R)	
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	23091	51.6884	51.7	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	70153	20.8086	20.8	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	79425	19.7796	19.8	
	46 Trichloroethene	130	8.317	8.317	(1.000)	43725	21.5926	21.6	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	289590	50.0000		
	48 Methylcyclohexane	98	8.323	8.323	(1.001)	19995	20.8333	20.8	
	49 n-Butanol	56	8.512	8.530	(1.023)	1460	32.9853	33.0(RM)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	36707	21.2811	21.3	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	42917	20.2954	20.3	
	52 Bromodichloromethane	83	8.768	8.762	(1.054)	69254	22.8072	22.8	
	53 Methyl methacrylate	69	8.823	8.816	(1.061)	20560	17.2190	17.2	
	54 1,4-Dioxane (p-Dioxane)	58	8.908	8.932	(1.071)	718	40.2758	40.3	
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	32436	30.8540	30.8(R)	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	60952	20.6414	20.6	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	304161	48.7914	48.8	
	58 Toluene	91	9.414	9.414	(1.132)	145388	20.1334	20.1	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	13116	17.9546	18.0	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	8844	42.6744	42.7	
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	60952	20.6823	20.7	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	39938	21.1403	21.1	
	63 Ethyl methacrylate	69	9.761	9.755	(1.174)	37998	16.7322	16.7	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	37010	20.2233	20.2	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	57694	22.0377	22.0	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	59987	21.4906	21.5	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	45762	20.3803	20.4	
	68 2-Hexanone	43	10.273	10.274	(1.235)	113016	46.2278	46.2	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	138018	19.1654	19.2	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	275269	50.0000		
	71 Chlorobenzene	112	10.572	10.572	(1.001)	106903	20.1295	20.1	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	46860	20.8909	20.9	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	232949	37.2242	37.2	
	74 o-Xylene	106	10.993	10.993	(1.041)	48386	16.6803	16.7	
	75 Styrene	104	11.029	11.029	(1.044)	87633	17.3476	17.3	
	76 Bromoform	173	11.103	11.103	(1.051)	52990	21.3045	21.3	
	77 n-amyl acetate	43	11.225	11.225	(1.063)	75882	17.5746	17.6	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	109556	48.4953	48.5	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	17893	19.7965	19.8	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	175616	19.8886	19.9	
81 Bromobenzene	156	11.578	11.578	(1.096)	58813	21.1166	21.1	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	61220	20.7870	20.8	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	119803	20.2922	20.3	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	40546	19.5003	19.5	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	38733	18.4873	18.5	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	128395	17.2810	17.3	
87 1,2,3-Trichloropropane	75	11.718	11.718	(1.110)	62343	20.2495	20.2	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	15636	22.0591	22.0(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	108453	16.0845	16.1	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	118627	17.4156	17.4	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	139461	17.2739	17.3	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	108453	16.0845	16.1	
94 1,3-Dichlorobenzene	146	12.285	12.285	(0.996)	95387	20.0424	20.0	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	178798	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	104548	19.4696	19.5	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	118849	19.0754	19.1	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	97333	18.7157	18.7	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.334	(1.081)	10866	18.5829	18.6	
100 Hexachloro-1,3-butadiene	225	13.815	13.816	(1.120)	29186	18.3091	18.3	
101 1,2,4-Trichlorobenzene	180	13.895	13.889	(1.126)	64197	18.2306	18.2	
102 Naphthalene	128	14.193	14.193	(1.150)	98607	14.5081	14.5	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	58580	17.8960	17.9	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

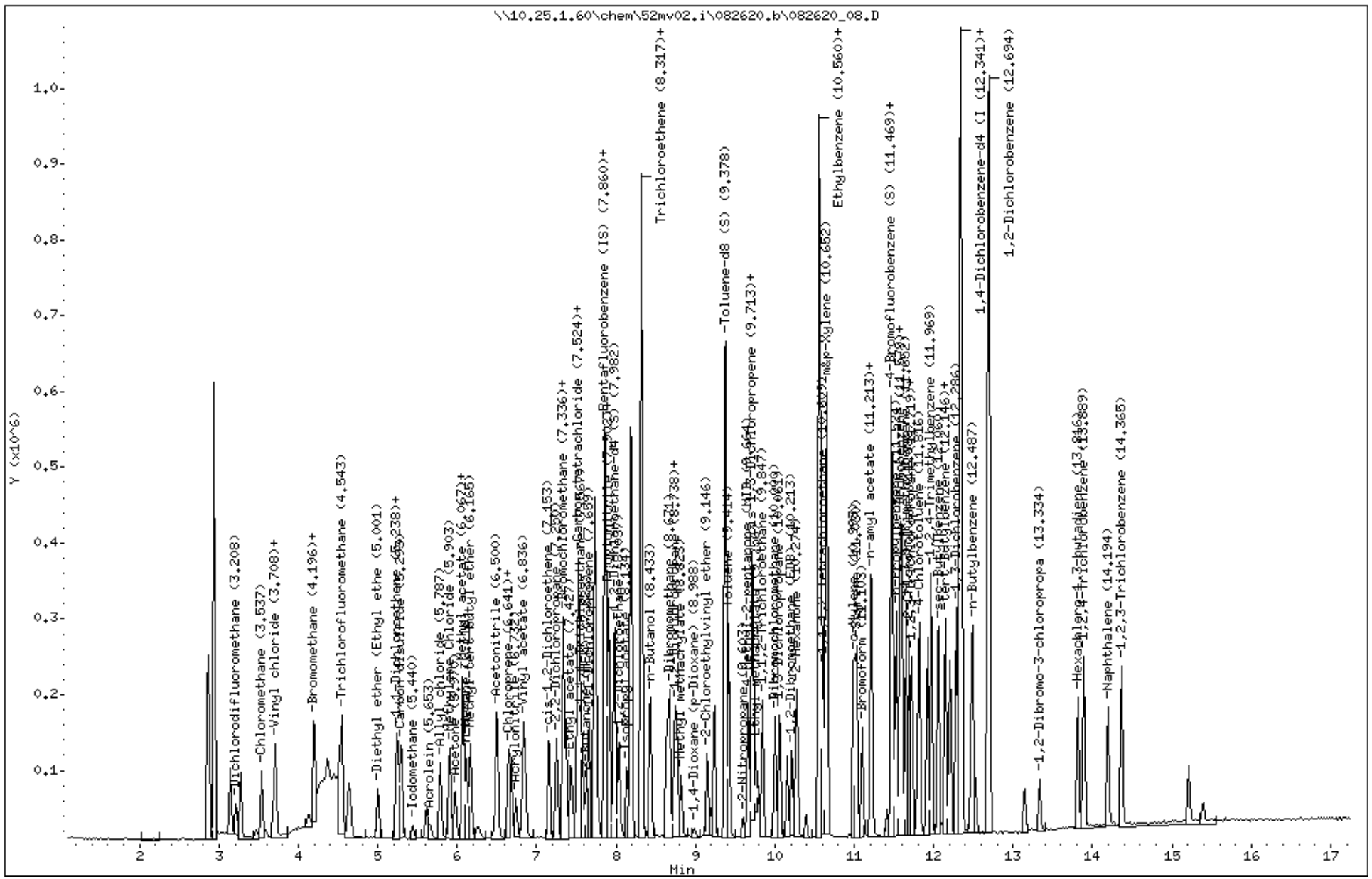
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_08.D
Date : 26-AUG-2020 13:30
Client ID: BR8PB3SMMS
Sample Info: 204603,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



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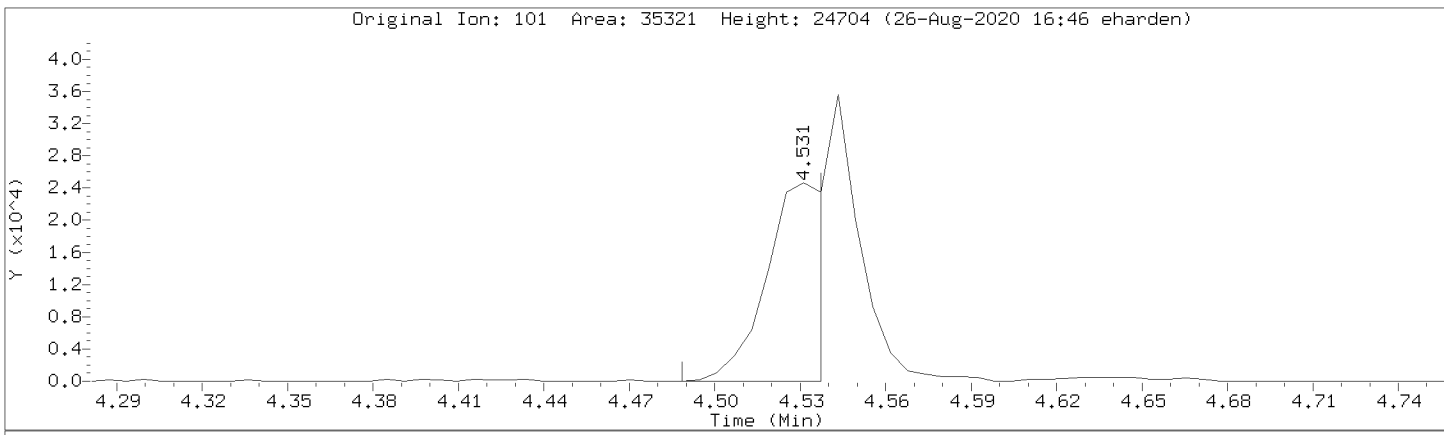
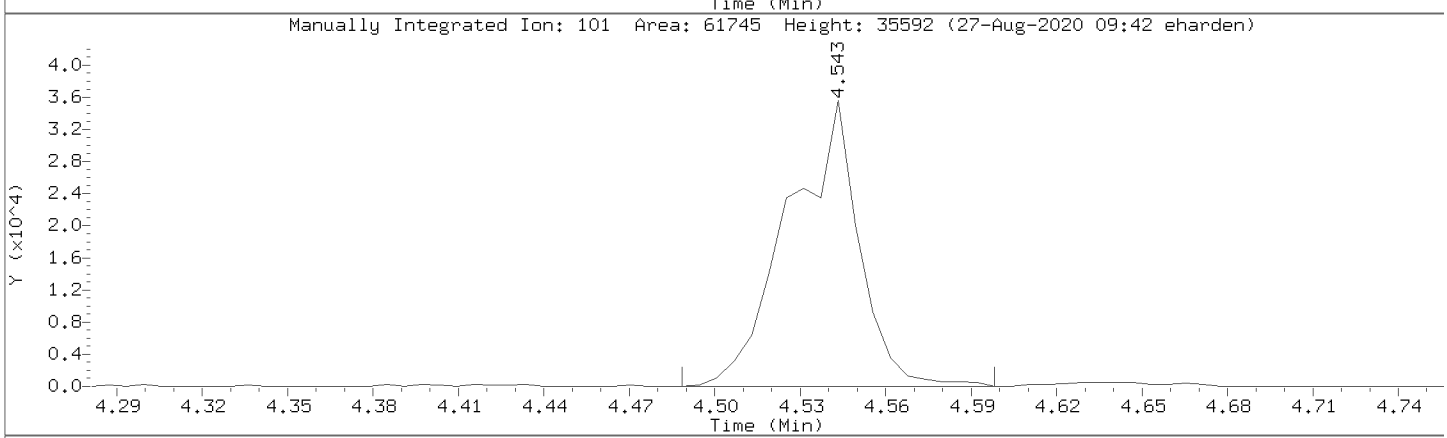
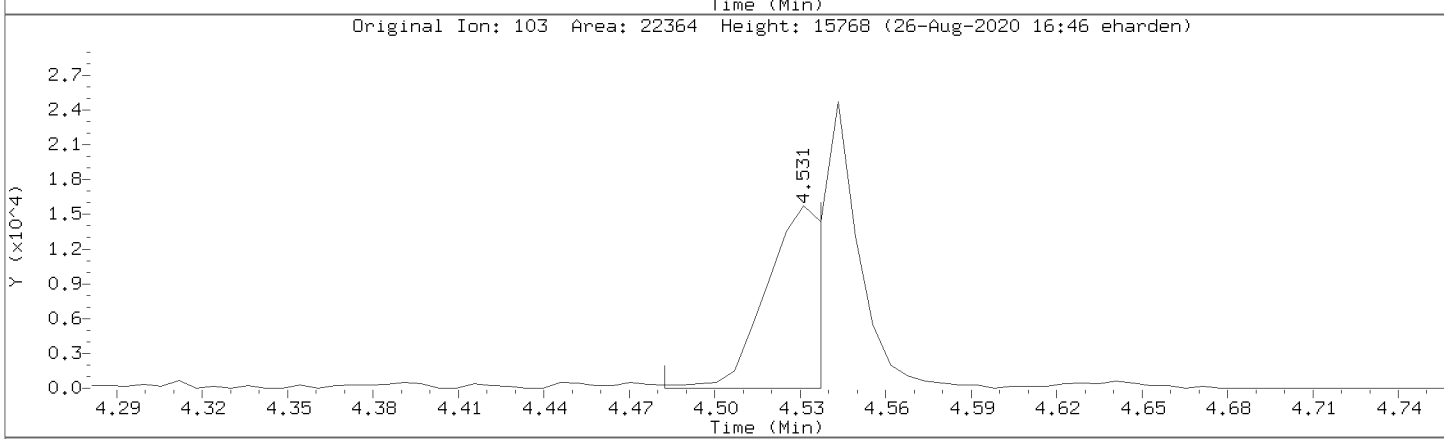
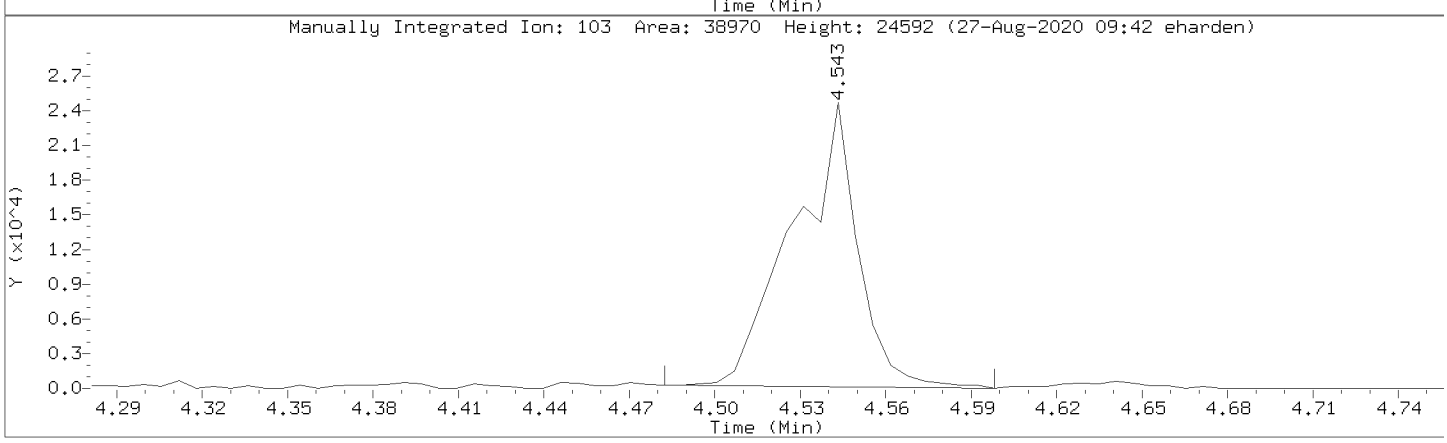
Injection Date: 26-AUG-2020 13:30
Instrument: 52mv02.i
Lab Sample ID: 204603

Compound: Trichlorofluoromethane Review Code: LT
CAS Number: 75-69-4









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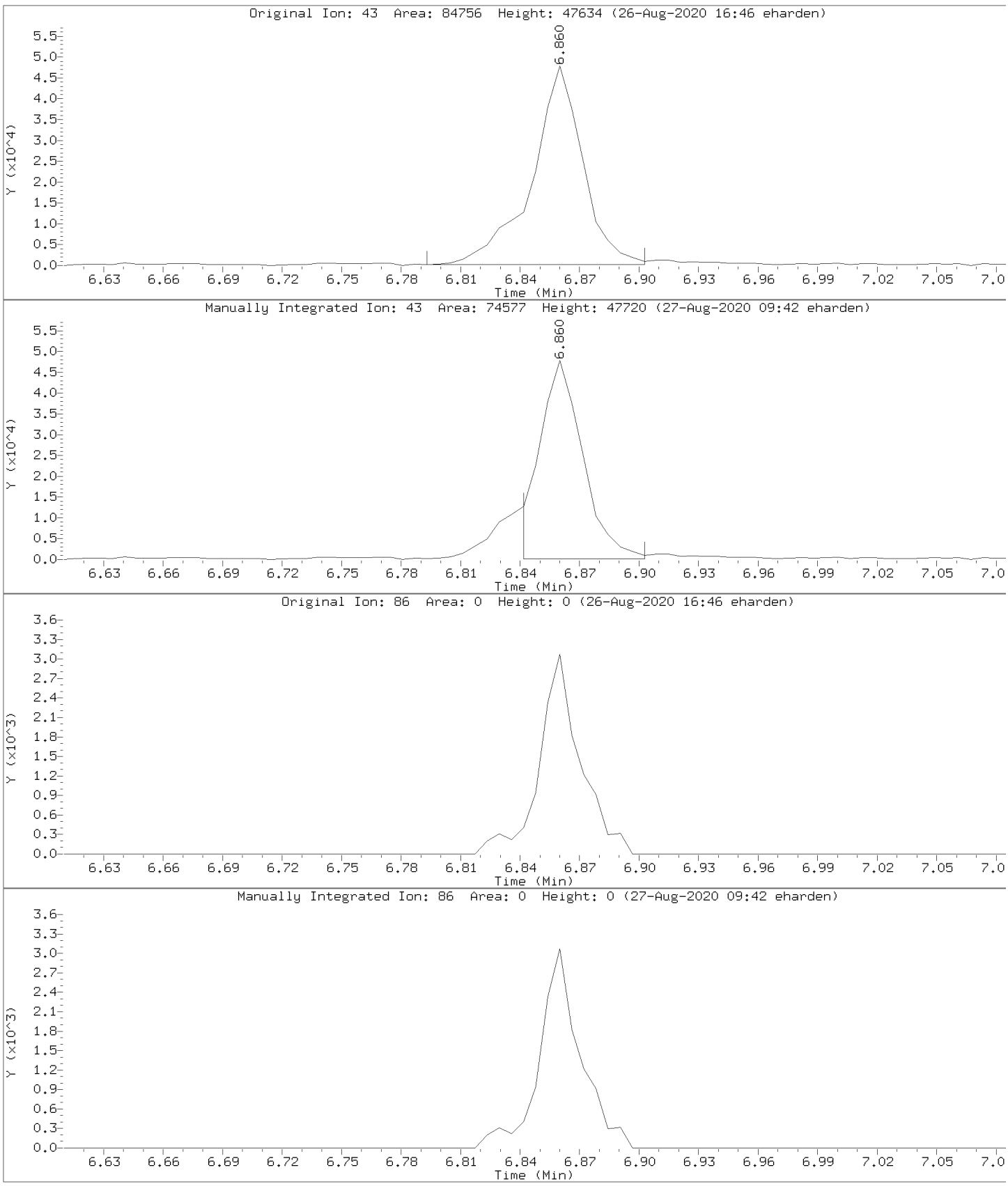
Injection Date: 26-AUG-2020 13:30
Instrument: 52mv02.i
Lab Sample ID: 204603

Compound: Vinyl acetate Review Code: CO
CAS Number: 108-05-4



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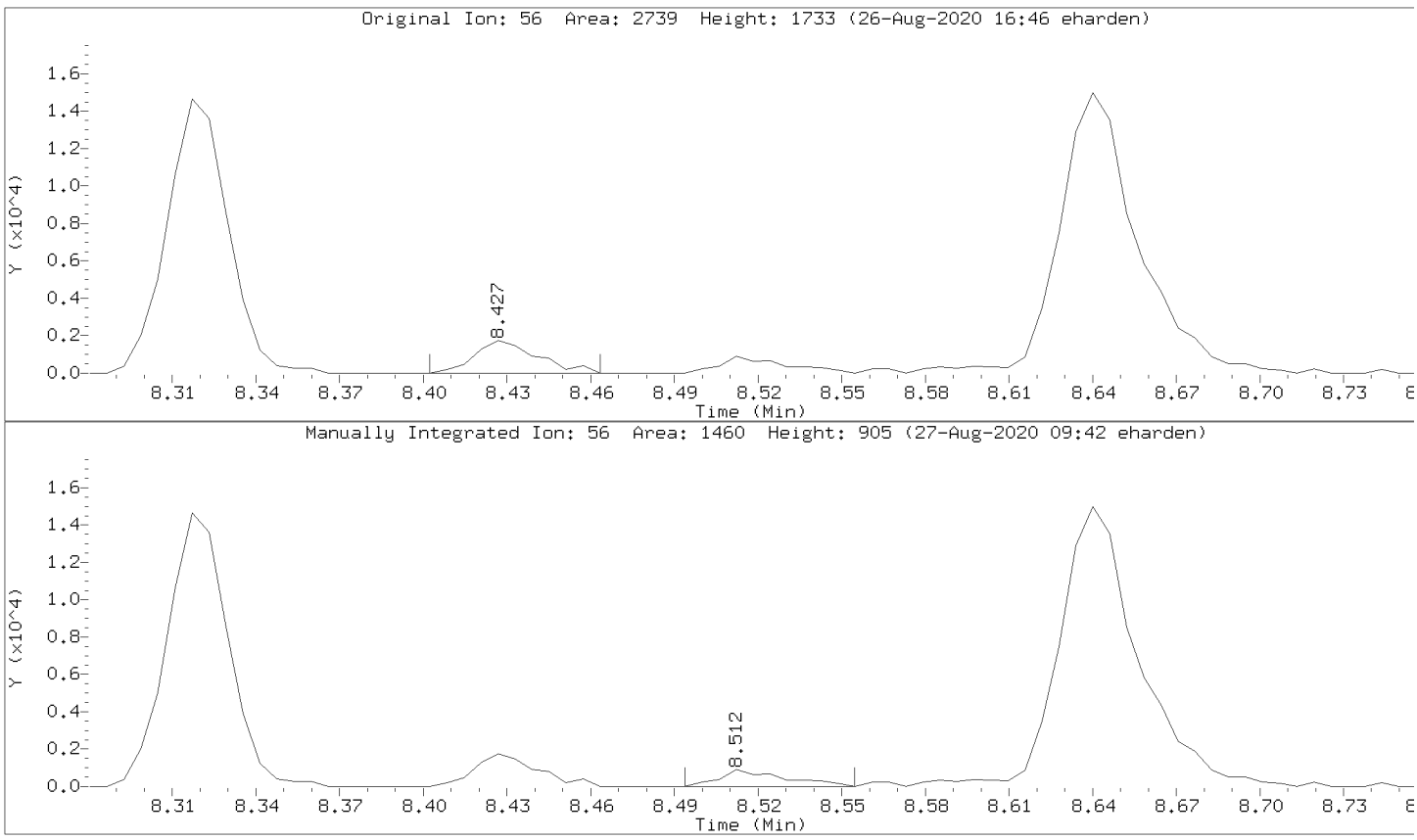
Injection Date: 26-AUG-2020 13:30
Instrument: 52mv02.i
Lab Sample ID: 204603

Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3



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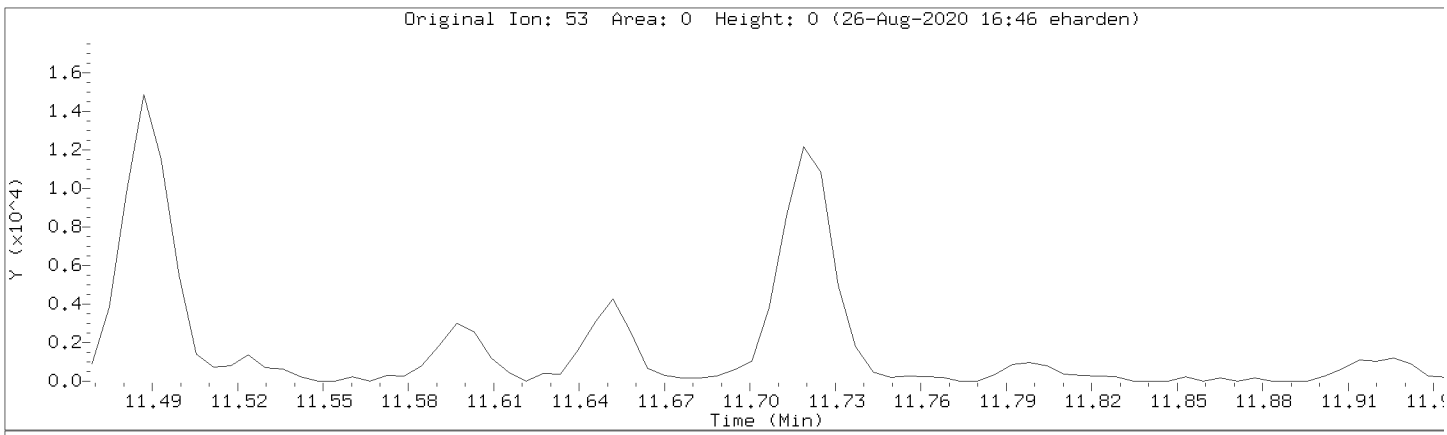
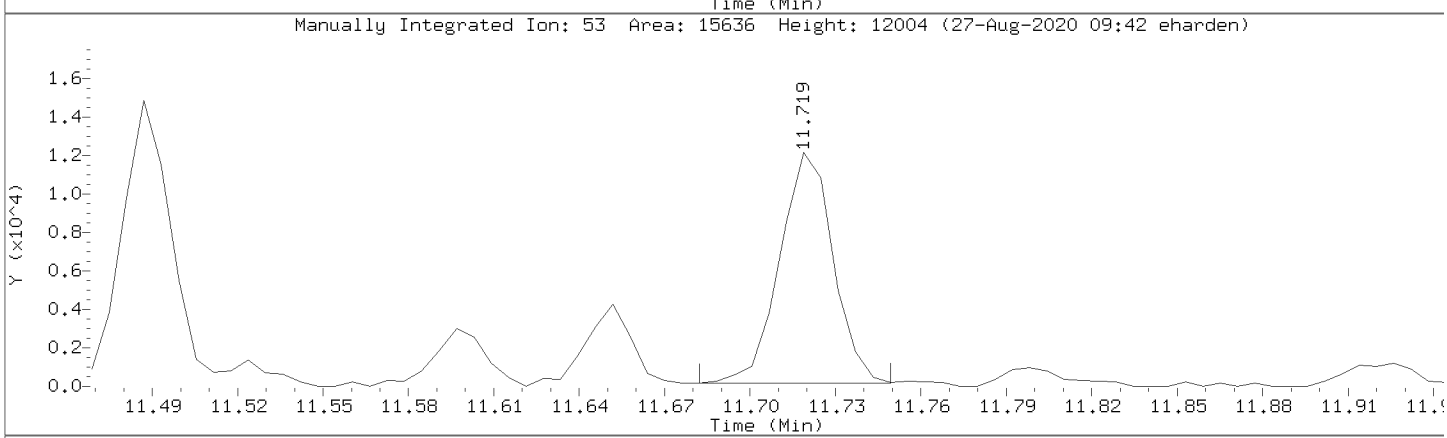
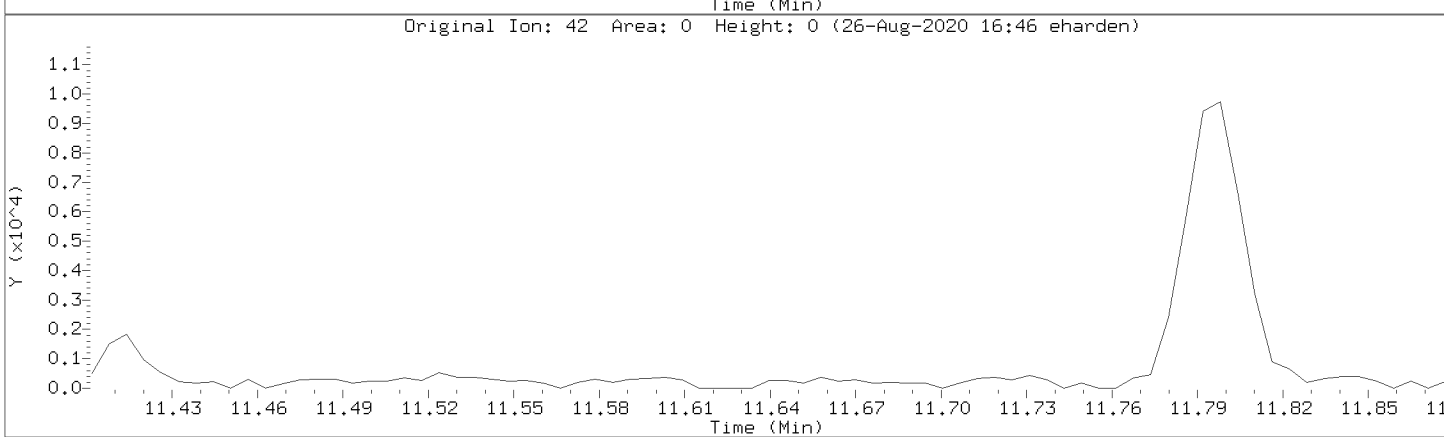
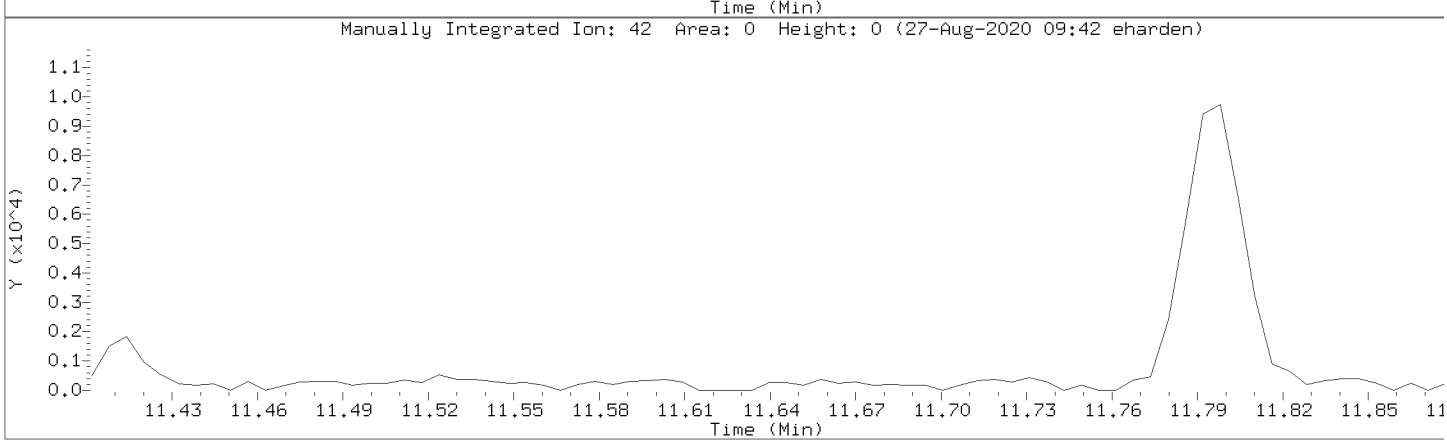
Injection Date: 26-AUG-2020 13:30
Instrument: 52mv02.i
Lab Sample ID: 204603

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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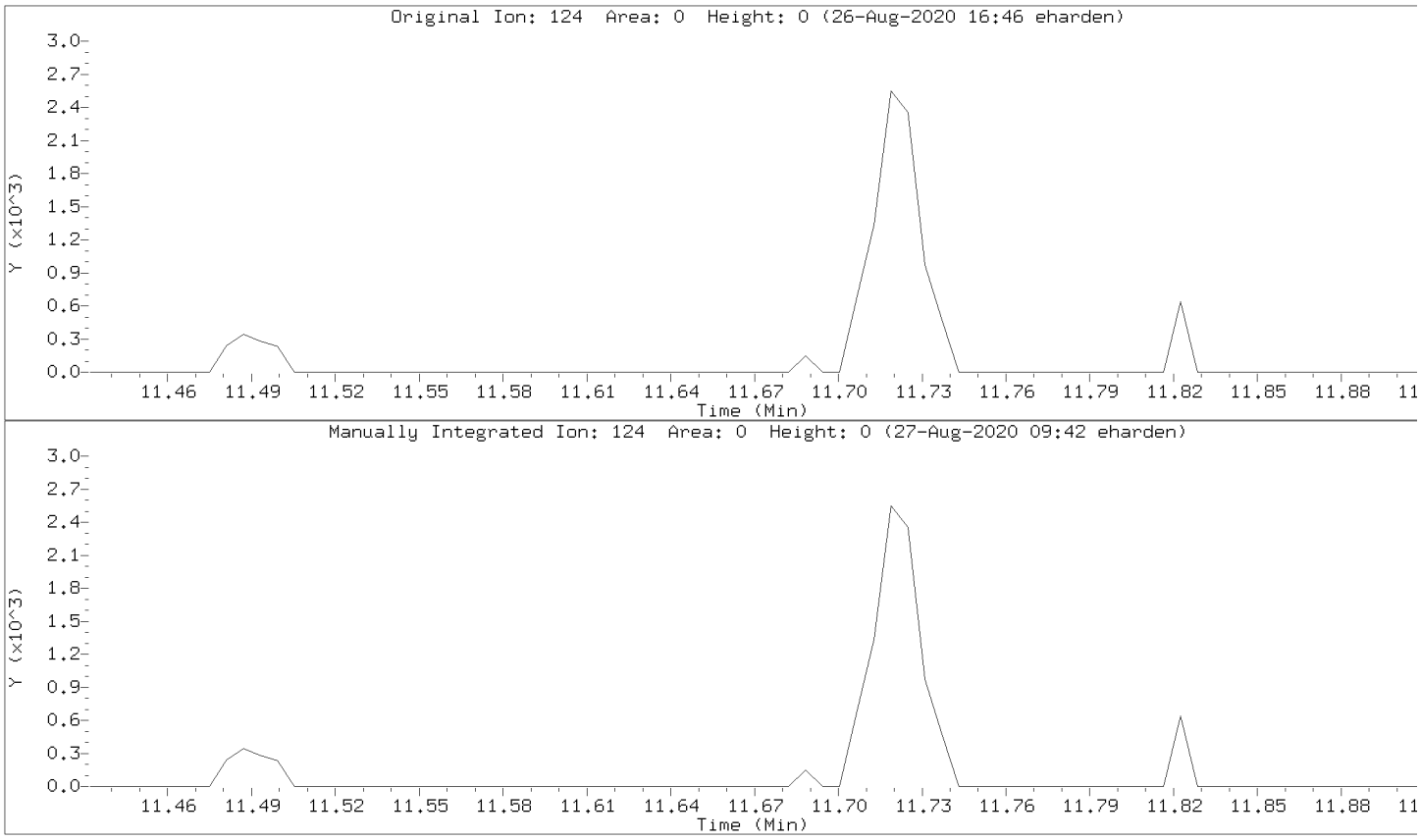
Injection Date: 26-AUG-2020 13:30
Instrument: 52mv02.i
Lab Sample ID: 204603



SAMPLE NO.

MSD

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/24/2020 16:20
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 204604
Date Analyzed: 08/26/2020 13:55
Lab File ID: 082620.B\082620_09.D
Initial wt/vol: 5.03 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 20.5%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	1390	
75-05-8	Acetonitrile	1690	
107-02-8	Acrolein	1190	
107-13-1	Acrylonitrile	1230	
71-43-2	Benzene	654	
108-86-1	Bromobenzene	694	
74-97-5	Bromochloromethane	635	
75-27-4	Bromodichloromethane	720	
75-25-2	Bromoform	668	
74-83-9	Bromomethane	781	
78-93-3	2-Butanone (MEK)	1270	
104-51-8	n-Butylbenzene	627	
135-98-8	sec-Butylbenzene	577	
98-06-6	tert-Butylbenzene	549	
75-15-0	Carbon disulfide	606	
56-23-5	Carbon tetrachloride	737	
108-90-7	Chlorobenzene	668	
75-00-3	Chloroethane	743	
67-66-3	Chloroform	655	
74-87-3	Chloromethane	726	
95-49-8	2-Chlorotoluene	652	
106-43-4	4-Chlorotoluene	595	
96-12-8	1,2-Dibromo-3-chloropropane	589	
124-48-1	Dibromochloromethane	698	
106-93-4	1,2-Dibromoethane (EDB)	647	
74-95-3	Dibromomethane	674	
95-50-1	1,2-Dichlorobenzene	634	
541-73-1	1,3-Dichlorobenzene	636	
106-46-7	1,4-Dichlorobenzene	629	
75-71-8	Dichlorodifluoromethane	516	
75-34-3	1,1-Dichloroethane	644	
107-06-2	1,2-Dichloroethane	624	
75-35-4	1,1-Dichloroethene	648	
156-59-2	cis-1,2-Dichloroethene	607	
156-60-5	trans-1,2-Dichloroethene	586	
78-87-5	1,2-Dichloropropane	635	
142-28-9	1,3-Dichloropropane	628	

SAMPLE NO.

MSD

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/24/2020 16:20
Matrix: Solid SDG No.: 5249328
Date Extracted: 08/26/2020 11:06
Lab Sample ID: 204604
Date Analyzed: 08/26/2020 13:55
Lab File ID: 082620.B\082620_09.D
Initial wt/vol: 5.03 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 20.5%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	667	
563-58-6	1,1-Dichloropropene	657	
10061-01-5	cis-1,3-Dichloropropene	667	
10061-02-6	trans-1,3-Dichloropropene	668	
141-78-6	Ethyl acetate	1190	
100-41-4	Ethylbenzene	636	
591-78-6	2-Hexanone	1380	
98-82-8	Isopropylbenzene (Cumene)	561	
99-87-6	p-Isopropyltoluene	549	
75-09-2	Methylene Chloride	602	
108-10-1	4-Methyl-2-pentanone (MIBK)	1200	
1634-04-4	Methyl-tert-butyl ether	607	
91-20-3	Naphthalene	489	
103-65-1	n-Propylbenzene	654	
100-42-5	Styrene	558	
630-20-6	1,1,1,2-Tetrachloroethane	673	
79-34-5	1,1,2,2-Tetrachloroethane	660	
127-18-4	Tetrachloroethene	718	
108-88-3	Toluene	655	
87-61-6	1,2,3-Trichlorobenzene	616	
120-82-1	1,2,4-Trichlorobenzene	601	
71-55-6	1,1,1-Trichloroethane	700	
79-00-5	1,1,2-Trichloroethane	635	
79-01-6	Trichloroethene	681	
75-69-4	Trichlorofluoromethane	1290	
96-18-4	1,2,3-Trichloropropane	642	
95-63-6	1,2,4-Trimethylbenzene	567	
108-67-8	1,3,5-Trimethylbenzene	659	
108-05-4	Vinyl acetate	591	
75-01-4	Vinyl chloride	602	
1330-20-7	Xylene (Total)	1780	

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_09.D
Lab Smp Id: 204604 Client Smp ID: BR8PB3SMMSD
Inj Date : 26-AUG-2020 13:55
Operator : EAH Inst ID: 52mv02.i
Smp Info : 204604,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 5 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.214	(0.409)	45171	16.5252	16.5	
2 Chloromethane	50	3.537	3.537	(0.450)	75815	23.2295	23.2	
3 Vinyl chloride	62	3.689	3.689	(0.469)	51820	19.2622	19.3	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	46747	19.4332	19.4	
5 Bromomethane	94	4.195	4.195	(0.534)	54310	25.0067	25.0	
6 Chloroethane	64	4.366	4.360	(0.556)	18173	23.7862	23.8	
7 Trichlorofluoromethane	101	4.543	4.531	(0.578)	70573	41.2632	41.3(R)	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	17893	18.9848	19.0	
9 1,1-Dichloroethene	61	5.232	5.232	(0.666)	63028	20.7248	20.7	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.250	(0.669)	42126	20.9973	21.0	
11 Carbon disulfide	76	5.293	5.293	(0.673)	130518	19.3918	19.4	
12 Iodomethane	142	5.439	5.439	(0.692)	23421	18.5999	18.6	
13 Acrolein	56	5.652	5.659	(0.719)	11916	37.9548	38.0	
14 Allyl chloride	76	5.787	5.780	(0.736)	17358	18.5510	18.6	
15 Methylene Chloride	49	5.902	5.902	(0.751)	69613	19.2679	19.3	
16 Acetone	43	5.969	5.969	(0.760)	80179	44.5405	44.5	
17 Methyl acetate	43	6.067	6.067	(0.772)	84739	40.2263	40.2(R)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	38546	18.7626	18.8	
19 n-Hexane	86	6.110	6.110	(0.777)	4908	22.5450	22.5	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	93104	19.4344	19.4	
21 Acetonitrile	41	6.457	6.451	(0.822)	10388	54.1699	54.2(R)	
22 Chloroprene	53	6.640	6.640	(0.845)	55487	19.3748	19.4	
23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	82307	20.6171	20.6	
24 Acrylonitrile	53	6.731	6.732	(0.857)	34031	39.2353	39.2(R)	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	6.859	6.860	(0.873)	74735	18.9249	18.9(M)	CO
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	57154	19.4259	19.4	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	65770	21.3582	21.4	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	26134	20.3227	20.3	
	29 Cyclohexane	56	7.335	7.335	(0.882)	49130	19.3931	19.4	
	30 Chloroform	83	7.372	7.372	(0.938)	94669	20.9718	21.0	
	31 Ethyl acetate	43	7.426	7.427	(0.945)	96743	37.9627	38.0(R)	
	32 Carbon tetrachloride	117	7.512	7.506	(0.903)	70710	23.5889	23.6	
	33 Tetrahydrofuran	42	7.530	7.530	(0.958)	24569	37.5178	37.5(R)	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	127687	48.9120	48.9	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	76099	22.4054	22.4	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	79120	40.6524	40.6	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	49641	21.0420	21.0	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	226737	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	159449	20.9389	20.9	
	40 Propionitrile	54	7.896	7.896	(1.005)	15325	39.6606	39.7(R)	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	77209	39.2780	39.3(R)	
	42 Isobutanol	43	7.908	7.908	(1.006)	41699	391.488	391(R)	
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	22209	47.2911	47.3	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	70806	19.9787	20.0	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	80863	19.1563	19.2	
	46 Trichloroethene	130	8.317	8.317	(1.000)	45379	21.7961	21.8	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	297738	50.0000		
	48 Methylcyclohexane	98	8.317	8.323	(1.000)	20091	20.3605	20.4	
	49 n-Butanol	56	8.505	8.530	(1.023)	1925	42.3008	42.3(RM)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	38247	21.5671	21.6	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	44160	20.3117	20.3	
	52 Bromodichloromethane	83	8.768	8.762	(1.054)	71917	23.0361	23.0	
	53 Methyl methacrylate	69	8.823	8.816	(1.061)	21162	17.2373	17.2	
	54 1,4-Dioxane (p-Dioxane)	58	8.914	8.932	(1.072)	599	32.6811	32.7(H)	
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	32619	30.2177	30.2(R)	
	56 cis-1,3-Dichloropropene	75	9.706	9.713	(1.167)	64800	21.3440	21.3	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	314270	49.0334	49.0	
	58 Toluene	91	9.414	9.414	(1.132)	155714	20.9732	21.0	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	12944	17.2132	17.2	
	60 4-Methyl-2-pentanone (MIBK)	100	9.670	9.664	(1.163)	8187	38.4232	38.4	
	61 trans-1,3-Dichloropropene	75	9.706	9.713	(1.167)	64800	21.3863	21.4	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	42762	22.9929	23.0	
	63 Ethyl methacrylate	69	9.755	9.755	(1.173)	40839	17.4556	17.4	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	38234	20.3204	20.3	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	57603	22.3507	22.4	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	57691	20.1025	20.1	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	45743	20.6939	20.7	
	68 2-Hexanone	43	10.273	10.274	(1.235)	110659	44.0250	44.0	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	144211	20.3419	20.3	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	270986	50.0000		
	71 Chlorobenzene	112	10.572	10.572	(1.001)	111781	21.3807	21.4	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	47595	21.5540	21.6	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	243015	39.4224	39.4	
	74 o-Xylene	106	10.993	10.993	(1.041)	50137	17.5317	17.5	
	75 Styrene	104	11.029	11.029	(1.044)	88925	17.8646	17.9	
	76 Bromoform	173	11.103	11.103	(1.051)	52317	21.3663	21.4	
	77 n-amyl acetate	43	11.224	11.225	(1.063)	77141	18.1257	18.1	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	112535	50.6013	50.6	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	16873	18.9630	19.0	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	181914	20.9275	20.9	
81 Bromobenzene	156	11.578	11.578	(1.096)	60926	22.2210	22.2	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	61281	21.1366	21.1	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	121750	21.0813	21.1	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	42775	20.8710	20.9	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	39325	19.0549	19.0	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	131406	17.9436	17.9	
87 1,2,3-Trichloropropane	75	11.718	11.718	(1.110)	62316	20.5607	20.6	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	14703	21.0707	21.1(TM)	WP
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	116216	17.5677	17.6	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	120970	18.1351	18.1	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	146078	18.4608	18.5	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	116216	17.5677	17.6	
94 1,3-Dichlorobenzene	146	12.285	12.285	(0.996)	94738	20.3494	20.3	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	174902	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	105799	20.1414	20.1	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	122325	20.0706	20.1	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	103292	20.3040	20.3	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.334	(1.081)	10788	18.8605	18.9	
100 Hexachloro-1,3-butadiene	225	13.815	13.816	(1.120)	32121	20.5992	20.6	
101 1,2,4-Trichlorobenzene	180	13.889	13.889	(1.125)	66309	19.2499	19.2	
102 Naphthalene	128	14.193	14.193	(1.150)	104273	15.6402	15.6	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	63082	19.7006	19.7	

QC Flag Legend

T - Target compound detected outside RT window.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

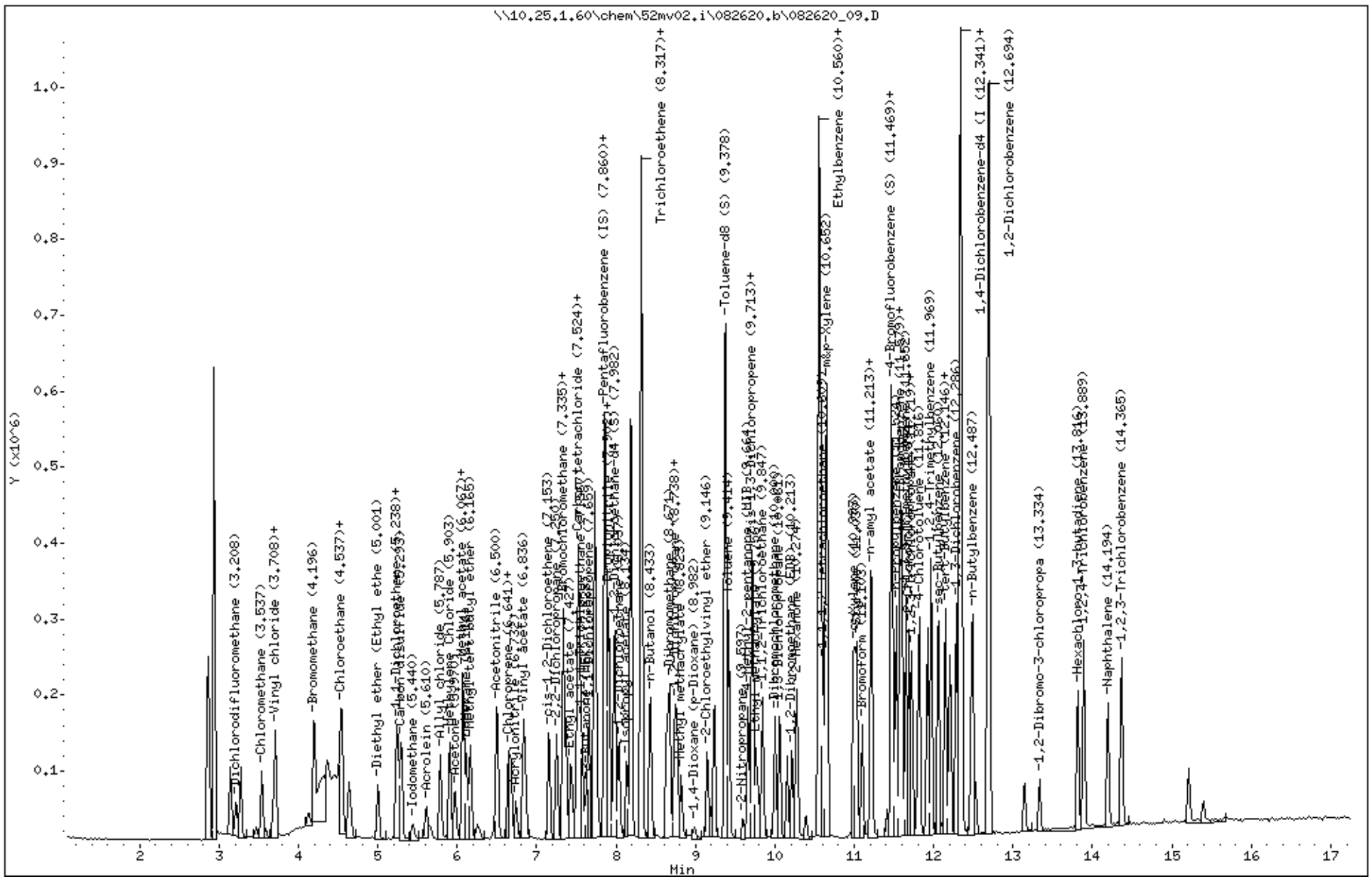
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_09.D
Date : 26-AUG-2020 13:55
Client ID: BR8PB3SMMSD
Sample Info: 204604,

Instrument: 52mv02.i

Operator: EAH

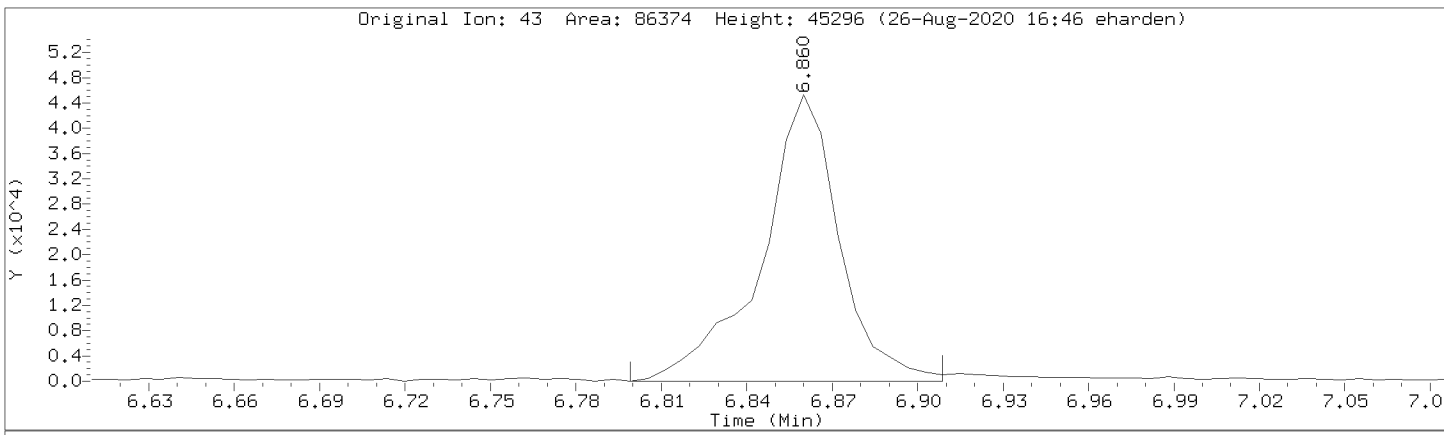
Column phase: RTX-VMS

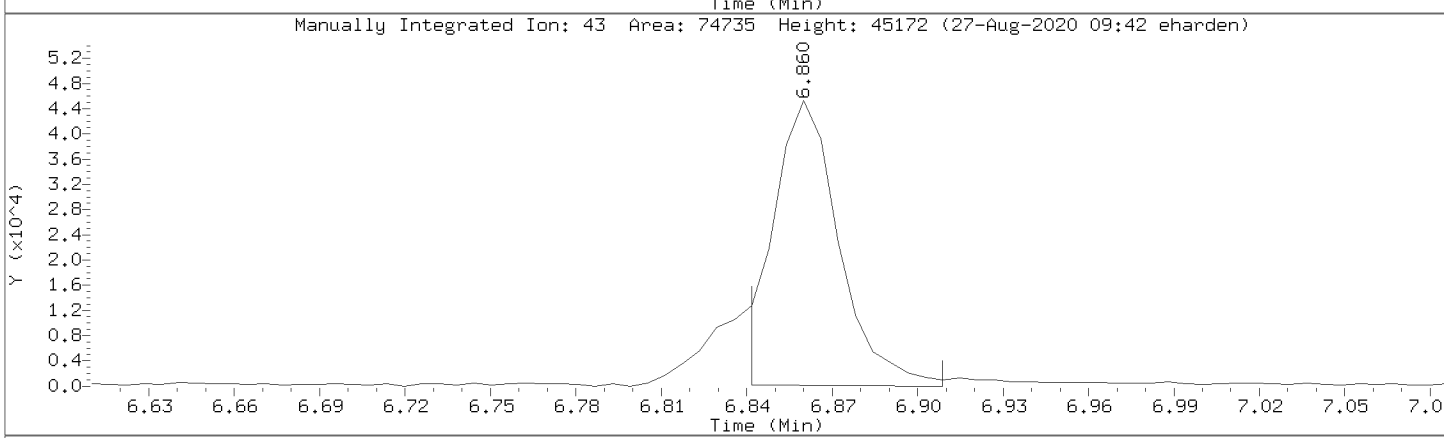
Column diameter: 0.18

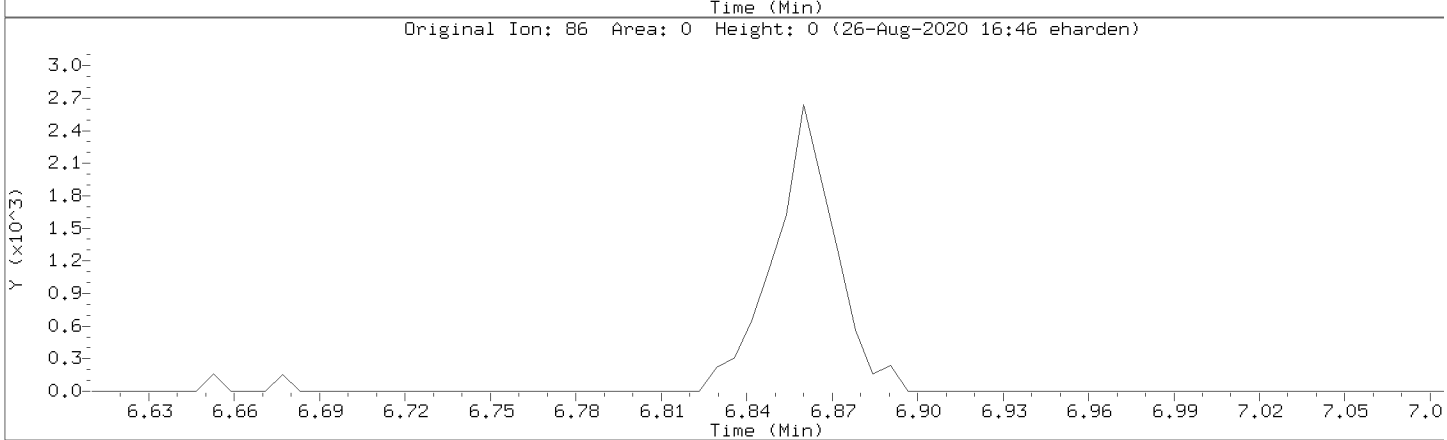


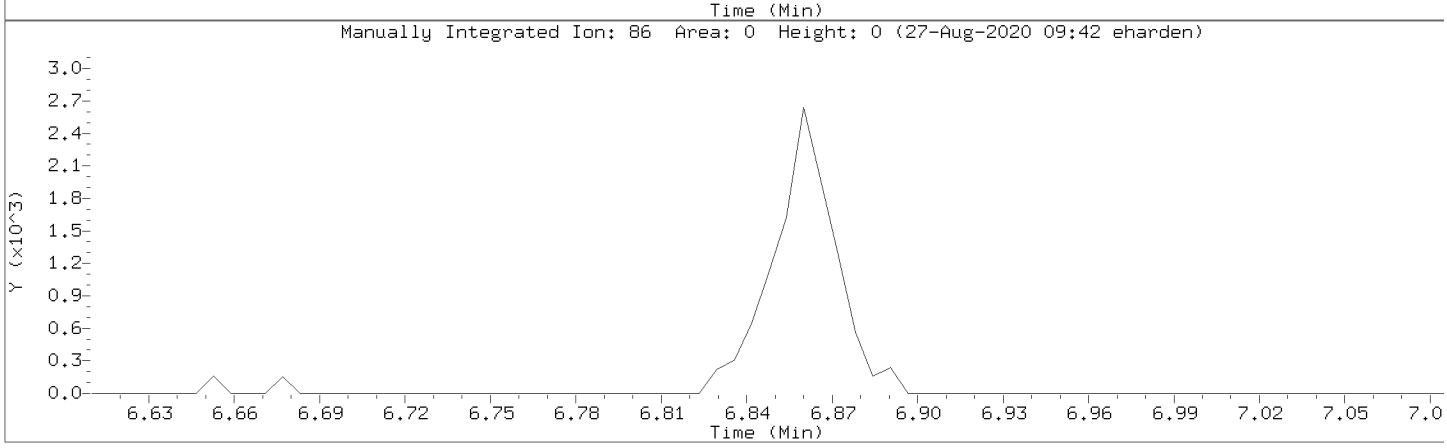
Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_09.D
Injection Date: 26-AUG-2020 13:55
Instrument: 52mv02.i
Lab Sample ID: 204604

Compound: Vinyl acetate Review Code: CO
CAS Number: 108-05-4



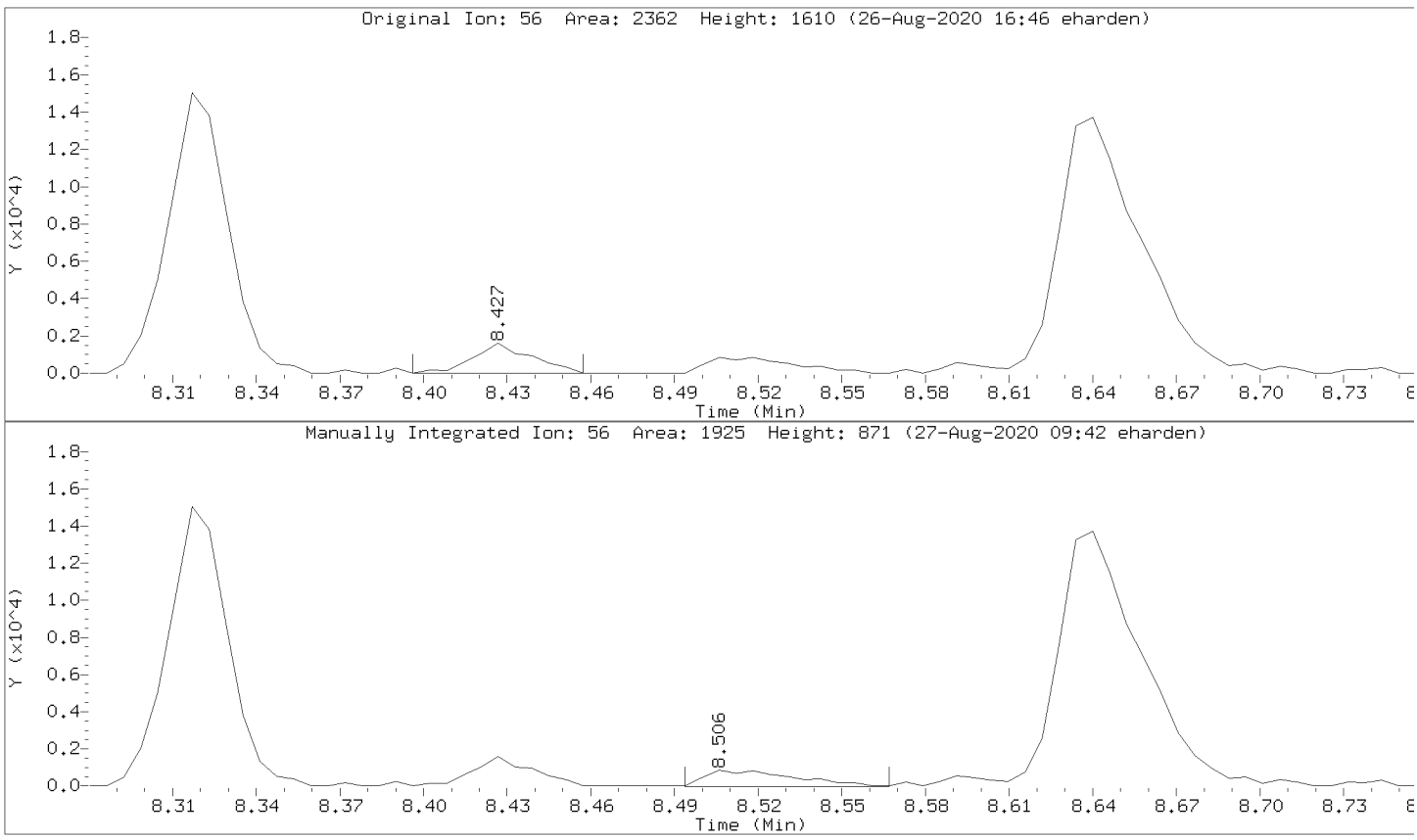






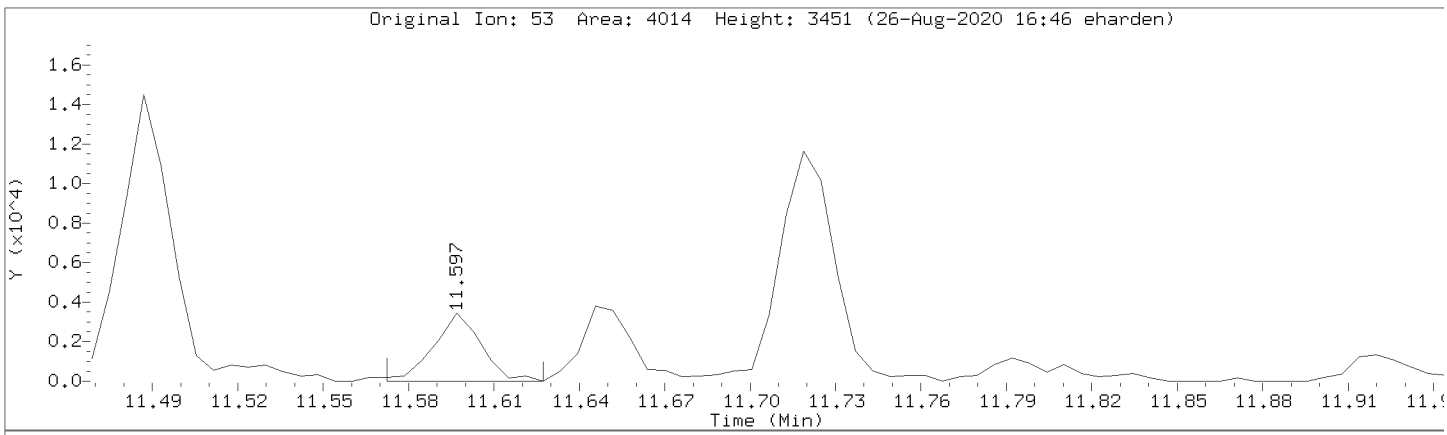
Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_09.D
Injection Date: 26-AUG-2020 13:55
Instrument: 52mv02.i
Lab Sample ID: 204604

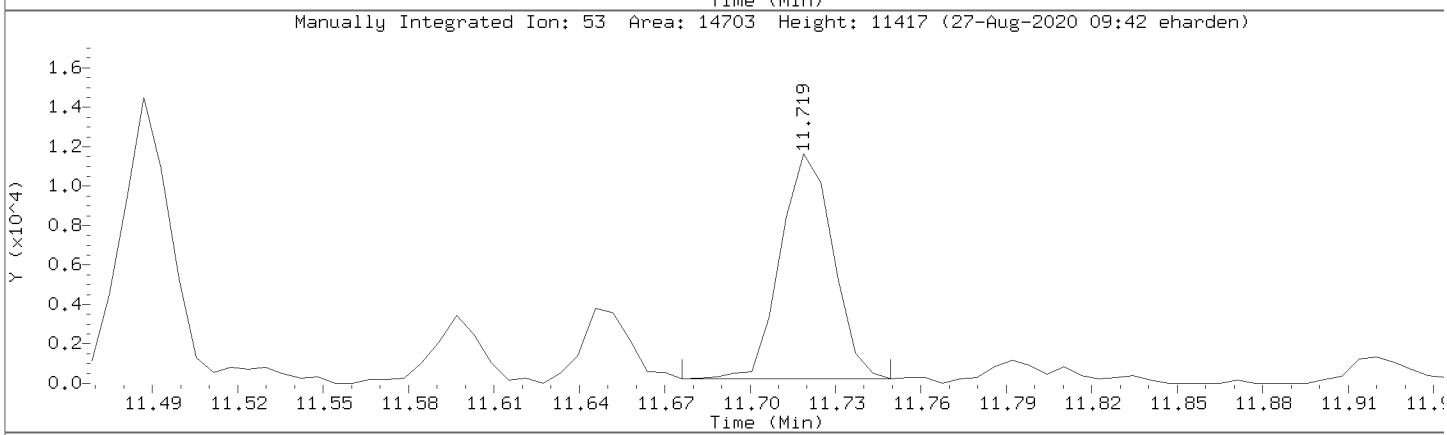
Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3

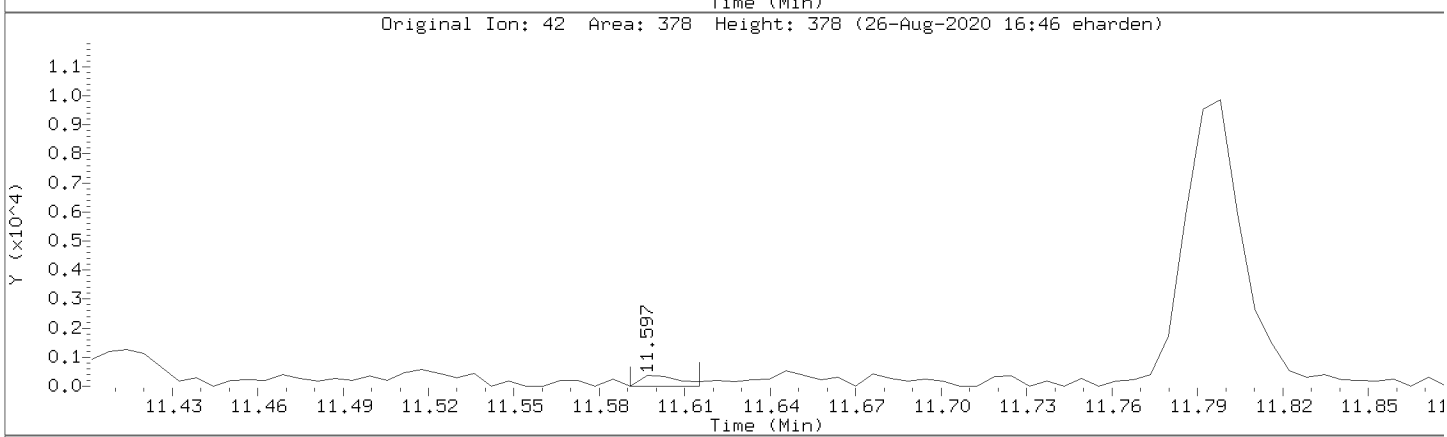


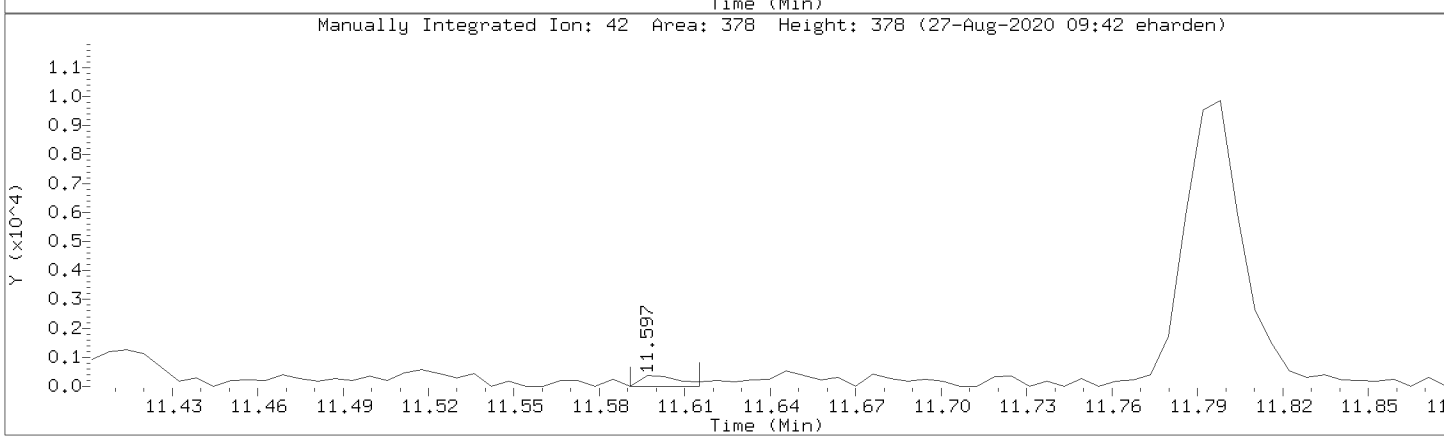
Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_09.D
Injection Date: 26-AUG-2020 13:55
Instrument: 52mv02.i
Lab Sample ID: 204604

Compound: trans-1,4-Dichloro-2-butene Review Code: WP
CAS Number: 110-57-6

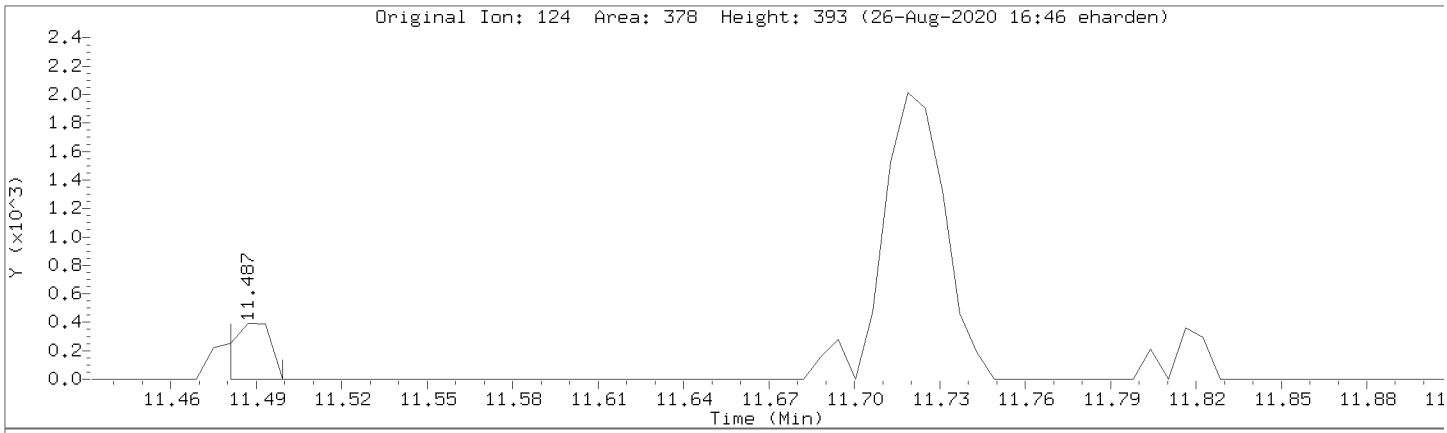


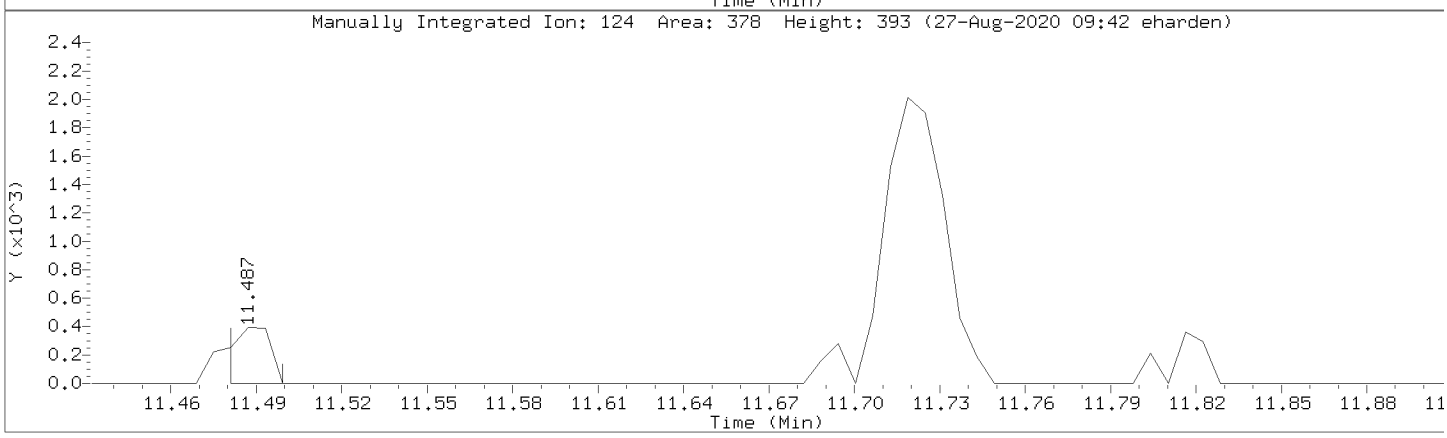






Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_09.D
Injection Date: 26-AUG-2020 13:55
Instrument: 52mv02.i
Lab Sample ID: 204604





Prep Log Report

Batch Information: MSV 8260B SM_P 48668

Template Version: EF-DAYT-O-001-Rev.00 (02Nov2018)

Prep Method	EPA 5035A	Analysis Method	EPA 8260B	Prepared By	EAH	Extracted Date/Time	08/26/2020 10:00:19:237
Instrument	52BL11	Ottawa Sand	8940	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Tare Weight (g)	Total Weight (g)	Initial Weight (g)	Final Volume (mL)	Preservation	Sample Notes
8260B SM_P	BLANK	**204601**	0	5	5.0000	5		
8260B SM_P	LCS	**204602**	0	5	5.0000	5		

Prep Log Report

Batch Information: MSV 8260B SM_P 48668 B **Template Version: EF-DAYT-O-001-Rev.00 (02Nov2018)**

Prep Method	EPA 5035A	Analysis Method	EPA 8260B	Prepared By	EAH	Extracted Date/Time	08/26/2020 11:06:53:290
Instrument	52BL11	Ottawa Sand	8940	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Tare Weight (g)	Total Weight (g)	Initial Weight (g)	Final Volume (mL)	Preservation	Sample Notes
8260B SM_P	MS	**204603**	0	5.23	5.2300	5		
8260B SM_P	MSD	**204604**	0	5.03	5.0300	5		
8260B SM_P	PS	**5249328001**	0	5.35	5.3500	5		
8260B SM_P	PS	**5249328002**	0	5.11	5.1100	5		
8260B SM_P	PS	**5249328003**	0	5.08	5.0800	5		
8260B SM_P	PS	**5249328004**	0	5.27	5.2700	5		
8260B SM_P	PS	**5249328005**	0	5.23	5.2300	5		
8260B SM_P	PS	**5249328006**	0	5.23	5.2300	5		
8260B SM_P	PS	**5249328007**	0	5.26	5.2600	5		
8260B SM_P	PS	**5249328008**	0	5.35	5.3500	5		

Prep Log Report

Batch Information: MSV 8260B SM_P 48668 C **Template Version: EF-DAYT-O-001-Rev.00 (02Nov2018)**

Prep Method	EPA 5035A	Analysis Method	EPA 8260B	Prepared By	EAH	Extracted Date/Time	08/26/2020 15:12:01:930
Instrument	52BL11	Ottawa Sand	8940	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Tare Weight (g)	Total Weight (g)	Initial Weight (g)	Final Volume (mL)	Preservation	Sample Notes
8260B SM_P	PS	**5249417001**	0	5.23	5.2300	5		
8260B SM_P	PS	**5249417002**	0	5.24	5.2400	5		
8260B SM_P	PS	**5249417003**	0	5.2	5.2000	5		
8260B SM_P	PS	**5249417004**	0	5.15	5.1500	5		
8260B SM_P	PS	**5249417005**	0	5.08	5.0800	5		
8260B SM_P	PS	**5249417006**	0	5.32	5.3200	5		

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
ISTD lot:
Lot:
Tune std: _____

Method: EPA 524.2
Surr. lot: 26400:1
Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/081920_02.D	TUNE,26558:1,	L/~~2919~~ 2933	BFB	1	7	BFB/all	8/19/20	09:34	EAH	
1/081920_03.D	CCV,27136:1	L/2860	CCALIB_7	1	7	8260BW_071720/	8/19/20	09:59	EAH	
1/081920_03TUNE.D	TUNE	L/2860	BFB	1	7	BFB/all	8/19/20	09:59	EAH	
1/081920_04.D	CCV,27137:1	L/2933	CCALIB_5	1	7	5242W_080720/a	8/19/20	10:24	EAH	
1/081920_04B2955.D	202255,	L/2955	LCS	1	7	5242W_080720/a	8/19/20	10:24	EAH	
1/081920_05.D	0.50 RLC	L/	RLC	1	<2	5242W_080720/a	8/19/20	10:49	EAH	
1/081920_06.D	0.40 RLC	L/	RLC	1	<2	5242W_080720/M	8/19/20	11:14	EAH	
1/081920_07.D	202254,	L/2955	BLANK	1	7	5242W_080720/a	8/19/20	11:39	EAH	
1/081920_08.D	5248591001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	12:06	EAH	
1/081920_09.D	5248591002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	12:32	EAH	
1/081920_10.D	5248591003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	12:57	EAH	
1/081920_11.D	5248591004,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	13:22	EAH	
1/081920_12.D	5248591005,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	13:47	EAH	
1/081920_13.D	5248713001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	14:12	EAH	
1/081920_14.D	5248713002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	14:37	EAH	
1/081920_15.D	5248713003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	15:02	EAH	
1/081920_16.D	5248588001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	15:27	EAH	
1/081920_17.D	5248588002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	15:52	EAH	
1/081920_18.D	5248588003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	16:17	EAH	
1/081920_19.D	5248590001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	16:42	EAH	
1/081920_20.D	5248590002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	17:07	EAH	
1/081920_21.D	5248590003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	17:32	EAH	
1/081920_22.D	5248650001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	17:57	EAH	
1/081920_23.D	5248650002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	18:22	EAH	
1/081920_24.D	5248792001,	L/~~2595~~ 2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	18:48	EAH	
1/081920_25.D	5248792002,	L/~~2595~~ 2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	19:13	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\081920.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 14:51 08/20/2020

Reviewed By/Date: _____ Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
ISTD lot:
Lot:
Tune std: _____

Method: SW846 8260
Surr. lot: 26400:5
Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/082020_01.D	TUNE,26400:1,	L/2957	BFB	1	7	BFB/all	8/20/20	09:57	EAH	
1/082020_02.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	10:23	EAH	
1/082020_03.D	CAL1,27237:1	L/2957	CALIB_1	1	<2	8260BSM_082020	8/20/20	10:50	EAH	
1/082020_04.D	CAL2,27238:1	L/2957	CALIB_2	1	<2	8260BSM_082020	8/20/20	11:15	EAH	
1/082020_05.D	CAL3,27239:1	L/2957	CALIB_3	1	<2	8260BSM_082020	8/20/20	11:40	EAH	
1/082020_06.D	CAL4,27240:1	L/2957	CALIB_4	1	<2	8260BSM_082020	8/20/20	12:05	EAH	
1/082020_07.D	CAL5,27241:1	L/2957	CALIB_5	1	<2	8260BSM_082020	8/20/20	12:30	EAH	
1/082020_08.D	CAL6,27242:1	L/2957	CALIB_6	1	<2	8260BSM_082020	8/20/20	12:55	EAH	
1/082020_09.D	CAL7,27243:1	L/2957	CALIB_7	1	<2	8260BSM_082020	8/20/20	13:20	EAH	
1/082020_10.D	CAL8,27244:1	L/2957	CALIB_8	1	<2	8260BSM_082020	8/20/20	13:45	EAH	
1/082020_11.D	CAL9,27245:1	L/2957	CALIB_9	1	<2	8260BSM_082020	8/20/20	14:11	EAH	
1/082020_12.D	CAL10,27246:1	L/2957	CALIB_10	1	<2	8260BSM_082020	8/20/20	14:36	EAH	
1/082020_13.D	CAL11,27247:1	L/2957	CALIB_11	1	<2	8260BSM_082020	8/20/20	15:01	EAH	
1/082020_14.D	CAL12,27248:1	L/2957	CALIB_12	1	<2	8260BSM_082020	8/20/20	15:26	EAH	
1/082020_15.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	15:51	EAH	
1/082020_16.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	16:16	EAH	
1/082020_17.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	16:41	EAH	
1/082020_18.D	ICV, 27249:1	L/2957	CCALIB_7	1	7	8260BSM_082020	8/20/20	17:06	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\082020.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 11:12 08/21/2020

Reviewed By/Date: _____ Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot:
Lot:
Tune std: _____

Method: SW846 8260

Surr. lot: 26400:5

Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/082520_01.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/25/20	10:18	EAH	
1/082520_02.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/25/20	10:43	EAH	
1/082520_03.D	CCV,27136:1	L/2957	CCALIB_7	1	7	8260BSM_082020	8/25/20	11:08	EAH	
1/082520_03B2977.D	204025,	S/2977	LCS	1		8260BSM_082020	8/25/20	11:08	EAH	
1/082520_03TUNE.D	TUNE,26400:1,	L/2957	BFB	1	7	BFB/all	8/25/20	11:08	EAH	
1/082520_04.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/25/20	11:33	EAH	
1/082520_05.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/25/20	11:58	EAH	
1/082520_06.D	204024,	S/2977	BLANK	1		8260BSM_082020	8/25/20	12:23	EAH	
1/082520_07.D	5249083001,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	12:48	EAH	
1/082520_08.D	5249083002,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	13:14	EAH	
1/082520_09.D	5249083003,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	13:39	EAH	
1/082520_10.D	5249083004,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	14:04	EAH	
1/082520_11.D	5249083005,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	14:29	EAH	
1/082520_12.D	5249198001,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	14:54	EAH	
1/082520_13.D	5249198002,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	15:19	EAH	
1/082520_14.D	5249198003,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	15:44	EAH	
1/082520_15.D	5249198004,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	16:09	EAH	
1/082520_16.D	5249198005,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	16:34	EAH	
1/082520_17.D	5249083006,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	16:59	EAH	
1/082520_18.D	5249083007,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	17:24	EAH	
1/082520_19.D	5249083008,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	17:49	EAH	
1/082520_20.D	5249083009,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	18:14	EAH	
1/082520_21.D	5249083010,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	18:40	EAH	
1/082520_22.D	5249083011,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	19:05	EAH	
1/082520_23.D	5249083012,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	19:30	EAH	
1/082520_24.D	204026,	S/2977	MS	1		8260BSM_082020	8/25/20	19:55	EAH	
1/082520_25.D	204027,	S/2977	MSD	1		8260BSM_082020	8/25/20	20:20	EAH	
1/082520_26.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/25/20	20:45	EAH	
1/082520_27.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/25/20	21:10	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\082520.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 14:53 08/27/2020

Reviewed By/Date: _____ Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium — Method: SW846 8260
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: — Surr. lot: 26400:5
Lot:
Tune std: _____ — Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/082620_01.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/26/20	10:35	EAH	
1/082620_02.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/26/20	11:00	EAH	
1/082620_03.D	CCV,27136:1	L/2957	CCALIB_7	1	7	8260BSM_082020	8/26/20	11:25	EAH	
1/082620_03B2983.D	204602,	S/2983	LCS	1		8260BSM_082020	8/26/20	11:25	EAH	
1/082620_03TUNE.D	TUNE,26400:1,	L/2957	BFB	1	7	BFB/all	8/26/20	11:25	EAH	
1/082620_04.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/26/20	11:50	EAH	
1/082620_05.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/26/20	12:15	EAH	
1/082620_06.D	204601,	S/2983	BLANK	1		8260BSM_082020	8/26/20	12:40	EAH	
1/082620_07.D	5249328001,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	13:05	EAH	
1/082620_08.D	204603,	S/2983	MS	1		8260BSM_082020	8/26/20	13:30	EAH	
1/082620_09.D	204604,	S/2983	MSD	1		8260BSM_082020	8/26/20	13:55	EAH	
1/082620_10.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/26/20	14:20	EAH	
1/082620_11.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/26/20	14:45	EAH	
1/082620_12.D	5249328002,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	15:11	EAH	
1/082620_13.D	5249328003,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	15:36	EAH	
1/082620_14.D	5249328004,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	16:01	EAH	
1/082620_15.D	5249328005,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	16:26	EAH	
1/082620_16.D	5249328006,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	16:51	EAH	
1/082620_17.D	5249328007,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	17:16	EAH	
1/082620_18.D	5249328008,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	17:41	EAH	
1/082620_19.D	5249417001,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	18:06	EAH	
1/082620_20.D	5249417002,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	18:31	EAH	
1/082620_21.D	5249417003,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	18:56	EAH	
1/082620_22.D	5249417004,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	19:21	EAH	
1/082620_23.D	5249417005,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	19:46	EAH	
1/082620_24.D	5249417006,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	20:11	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced, _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\082620.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:04 08/27/2020

Reviewed By/Date: _____ Page: 1 of 1

Standard Log Report

Standards Log Information for Standard #27466

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/26/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/01/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CCV

Notes:

MSV 8260 CCV

Compound Name and Concentration for Standard #27466

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	20 ug/L	1,1,1-Trichloroethane	20 ug/L
1,1,2,2-Tetrachloroethane	20 ug/L	1,1,2-Trichloroethane	20 ug/L
1,1,2-	20 ug/L	1,1-Dichloroethane	20 ug/L
1,1-Dichloroethene	20 ug/L	1,1-Dichloropropene	20 ug/L
1,2,3-Trichlorobenzene	20 ug/L	1,2,3-Trichloropropane	20 ug/L
1,2,4-Trichlorobenzene	20 ug/L	1,2,4-Trimethylbenzene	20 ug/L
1,2-Dibromo-3-	20 ug/L	1,2-Dibromoethane (EDB)	20 ug/L
1,2-Dichlorobenzene	20 ug/L	1,2-Dichloroethane	20 ug/L
1,2-Dichloropropane	20 ug/L	1,3,5-Trimethylbenzene	20 ug/L
1,3-Butadiene	20 ug/L	1,3-Dichlorobenzene	20 ug/L
1,3-Dichloropropane	20 ug/L	1,4-Dichlorobenzene	20 ug/L
1,4-Dioxane (p-Dioxane)	40 ug/L	2,2-Dichloropropane	20 ug/L
2-Butanone (MEK)	40 ug/L	2-Chloroethylvinyl ether	40 ug/L
2-Chlorotoluene	20 ug/L	2-Hexanone	40 ug/L
2-Nitropropane	20 ug/L	4-Chlorotoluene	20 ug/L
4-Methyl-2-pentanone	40 ug/L	Acetone	40 ug/L
Acetonitrile	40 ug/L	Acrolein	40 ug/L
Acrylonitrile	40 ug/L	Allyl chloride	20 ug/L
Benzene	20 ug/L	Bromobenzene	20 ug/L
Bromochloromethane	20 ug/L	Bromodichloromethane	20 ug/L
Bromoform	20 ug/L	Bromomethane	20 ug/L
Carbon disulfide	20 ug/L	Carbon tetrachloride	20 ug/L
Chlorobenzene	20 ug/L	Chloroethane	20 ug/L
Chloroform	20 ug/L	Chloromethane	20 ug/L
Chloroprene	20 ug/L	Cyclohexane	20 ug/L
DI Water	ug/L	Dibromochloromethane	20 ug/L
Dibromomethane	20 ug/L	Dichlorodifluoromethane	20 ug/L
Diethyl ether (Ethyl ether)	20 ug/L	Ethyl acetate	40 ug/L
Ethyl methacrylate	20 ug/L	Ethylbenzene	20 ug/L
Hexachloro-1,3-butadiene	20 ug/L	Iodomethane	20 ug/L
Isobutanol	40 ug/L	Isopropyl acetate	20 ug/L
Isopropylbenzene	20 ug/L	Methacrylonitrile	40 ug/L
Methanol	ug/L	Methyl acetate	40 ug/L
Methyl acrylate	20 ug/L	Methyl methacrylate	20 ug/L
Methyl-tert-butyl ether	20 ug/L	Methylcyclohexane	20 ug/L
Methylene Chloride	20 ug/L	Naphthalene	20 ug/L
Propionitrile	40 ug/L	Styrene	20 ug/L
TOTAL BTEX	120 ug/L	Tetrachloroethene	20 ug/L
Tetrahydrofuran	40 ug/L	Toluene	20 ug/L
Total Trihalomethanes	80 ug/L	Trichloroethene	20 ug/L
Trichlorofluoromethane	20 ug/L	Vinyl acetate	20 ug/L
Vinyl chloride	20 ug/L	Xylene (Total)	60 ug/L
cis-1,2-Dichloroethene	20 ug/L	cis-1,3-Dichloropropene	20 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
cis-1,4-Dichloro-2-butene	20 ug/L	m&p-Xylene	40 ug/L
n-Butanol	40 ug/L	n-Butylbenzene	20 ug/L
n-Hexane	20 ug/L	n-Propylbenzene	20 ug/L
n-amyl acetate	20 ug/L	o-Xylene	20 ug/L
p-Isopropyltoluene	20 ug/L	sec-Butylbenzene	20 ug/L
tert-Butylbenzene	20 ug/L	trans-1,2-Dichloroethene	20 ug/L
trans-1,3-Dichloropropene	20 ug/L	trans-1,4-Dichloro-2-	20 ug/L

Composed of Information for Standard #27466

Composed of Standard Seq	Volume	Units
27432	0.02	mL
26717	0.02	mL
1	49.96	mL

Standard Log Report

Standards Log Information for Standard #27432

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/25/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/01/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260GAS-SPK

Notes:

MSV 8260 Phenova Primary Gas Spike MIX

Compound Name and Concentration for Standard #27432

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	100 ug/mL	Acrolein	100 ug/mL
Acrylonitrile	100 ug/mL	Bromomethane	50 ug/mL
Chloroethane	50 ug/mL	Chloromethane	50 ug/mL
Dichlorodifluoromethane	50 ug/mL	Methanol	ug/mL
Methyl acetate	100 ug/mL	Trichlorofluoromethane	50 ug/mL
Vinyl acetate	50 ug/mL	Vinyl chloride	50 ug/mL

Composed of Information for Standard #27432

Composed of Standard Seq	Volume	Units
27399	0.625	mL
27397	0.25	mL
27388	23.25	mL
27049	0.625	mL
26387	0.25	mL

Standard Log Report

Standards Log Information for Standard #27399

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522735
Create Date:	08/24/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180018
Expire Date:	09/16/2020	**Manufacturer Lot ID:**	CL15665	**Standard ID:**	ACETATEPSTK

Notes:

MSV Phenova Custom Acetate Mix-Primary Source

Compound Name and Concentration for Standard #27399

Compound Name	Concentration	Compound Name	Concentration
Vinyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #27397

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522733
Create Date:	08/24/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180017
Expire Date:	09/18/2020	**Manufacturer Lot ID:**	CL15670	**Standard ID:**	AcrolienPSTK

Notes:

MSV Phenova Acrolein Stock Standard - Primary

Compound Name and Concentration for Standard #27397

Compound Name	Concentration	Compound Name	Concentration
Acrolein	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #27388

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	522732
Create Date:	08/24/2020	**Manufacturer:**	Fisher Scientific	**Part ID:**	A453-500
Expire Date:	02/20/2021	**Manufacturer Lot ID:**	198331	**Standard ID:**	RGNT179

Notes:

MSV P/T Methanol

Compound Name and Concentration for Standard #27388

Compound Name	Concentration	Compound Name	Concentration
Methanol			

Standard Log Report

Standards Log Information for Standard #27249

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-ICV

Notes:

MSV 8260 ICV

Compound Name and Concentration for Standard #27249

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	20 ug/L	1,1,1-Trichloroethane	20 ug/L
1,1,2,2-Tetrachloroethane	20 ug/L	1,1,2-Trichloroethane	20 ug/L
1,1,2-	20 ug/L	1,1-Dichloroethane	20 ug/L
1,1-Dichloroethene	20 ug/L	1,1-Dichloropropene	20 ug/L
1,2,3-Trichlorobenzene	20 ug/L	1,2,3-Trichloropropane	20 ug/L
1,2,4-Trichlorobenzene	20 ug/L	1,2,4-Trimethylbenzene	20 ug/L
1,2-Dibromo-3-	20 ug/L	1,2-Dibromoethane (EDB)	20 ug/L
1,2-Dichlorobenzene	20 ug/L	1,2-Dichloroethane	20 ug/L
1,2-Dichloropropane	20 ug/L	1,3,5-Trimethylbenzene	20 ug/L
1,3-Butadiene	20 ug/L	1,3-Dichlorobenzene	20 ug/L
1,3-Dichloropropane	20 ug/L	1,4-Dichlorobenzene	20 ug/L
1,4-Dioxane (p-Dioxane)	40 ug/L	2,2-Dichloropropane	20 ug/L
2-Butanone (MEK)	40 ug/L	2-Chloroethylvinyl ether	40 ug/L
2-Chlorotoluene	20 ug/L	2-Hexanone	40 ug/L
2-Nitropropane	20 ug/L	4-Chlorotoluene	20 ug/L
4-Methyl-2-pentanone	40 ug/L	Acetone	40 ug/L
Acetonitrile	40 ug/L	Acrolein	40 ug/L
Acrylonitrile	40 ug/L	Allyl chloride	20 ug/L
Benzene	20 ug/L	Bromobenzene	20 ug/L
Bromochloromethane	20 ug/L	Bromodichloromethane	20 ug/L
Bromoform	20 ug/L	Bromomethane	20 ug/L
Carbon disulfide	20 ug/L	Carbon tetrachloride	20 ug/L
Chlorobenzene	20 ug/L	Chloroethane	20 ug/L
Chloroform	20 ug/L	Chloromethane	20 ug/L
Chloroprene	20 ug/L	Cyclohexane	20 ug/L
Dibromochloromethane	20 ug/L	Dibromomethane	20 ug/L
Dichlorodifluoromethane	20 ug/L	Diethyl ether (Ethyl ether)	20 ug/L
Ethyl acetate	40 ug/L	Ethyl methacrylate	20 ug/L
Ethylbenzene	20 ug/L	Hexachloro-1,3-butadiene	20 ug/L
Iodomethane	20 ug/L	Isobutanol	40 ug/L
Isopropyl acetate	20 ug/L	Isopropylbenzene	20 ug/L
Methacrylonitrile	40 ug/L	Methanol	ug/L
Methyl acetate	40 ug/L	Methyl acrylate	20 ug/L
Methyl methacrylate	20 ug/L	Methyl-tert-butyl ether	20 ug/L
Methylcyclohexane	20 ug/L	Methylene Chloride	20 ug/L
Naphthalene	20 ug/L	Propionitrile	40 ug/L
Styrene	20 ug/L	TOTAL BTEX	120 ug/L
Tetrachloroethene	20 ug/L	Tetrahydrofuran	40 ug/L
Toluene	20 ug/L	Total Trihalomethanes	80 ug/L
Trichloroethene	20 ug/L	Trichlorofluoromethane	20 ug/L
Vinyl acetate	20 ug/L	Vinyl chloride	20 ug/L
Xylene (Total)	60 ug/L	cis-1,2-Dichloroethene	20 ug/L
cis-1,3-Dichloropropene	20 ug/L	cis-1,4-Dichloro-2-butene	20 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	40 ug/L	n-Butanol	40 ug/L
n-Butylbenzene	20 ug/L	n-Hexane	20 ug/L
n-Propylbenzene	20 ug/L	n-amyl acetate	20 ug/L
o-Xylene	20 ug/L	p-Isopropyltoluene	20 ug/L
sec-Butylbenzene	20 ug/L	tert-Butylbenzene	20 ug/L
trans-1,2-Dichloroethene	20 ug/L	trans-1,3-Dichloropropene	20 ug/L
trans-1,4-Dichloro-2-	20 ug/L		

Composed of Information for Standard #27249

Composed of Standard Seq	Volume	Units
27116	0.02	mL
26718	0.02	mL
1	49.96	mL

Standard Log Report

Standards Log Information for Standard #27248

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL12

Notes:

MSV 8260 200PPB

Compound Name and Concentration for Standard #27248

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	200 ug/L	1,1,1-Trichloroethane	200 ug/L
1,1,2,2-Tetrachloroethane	200 ug/L	1,1,2-Trichloroethane	200 ug/L
1,1,2-	200 ug/L	1,1-Dichloroethane	200 ug/L
1,1-Dichloroethene	200 ug/L	1,1-Dichloropropene	200 ug/L
1,2,3-Trichlorobenzene	200 ug/L	1,2,3-Trichloropropane	200 ug/L
1,2,4-Trichlorobenzene	200 ug/L	1,2,4-Trimethylbenzene	200 ug/L
1,2-Dibromo-3-	200 ug/L	1,2-Dibromoethane (EDB)	200 ug/L
1,2-Dichlorobenzene	200 ug/L	1,2-Dichloroethane	200 ug/L
1,2-Dichloropropane	200 ug/L	1,3,5-Trimethylbenzene	200 ug/L
1,3-Butadiene	200 ug/L	1,3-Dichlorobenzene	200 ug/L
1,3-Dichloropropane	200 ug/L	1,4-Dichlorobenzene	200 ug/L
1,4-Dioxane (p-Dioxane)	400 ug/L	2,2-Dichloropropane	200 ug/L
2-Butanone (MEK)	400 ug/L	2-Chloroethylvinyl ether	400 ug/L
2-Chlorotoluene	200 ug/L	2-Hexanone	400 ug/L
2-Nitropropane	200 ug/L	4-Chlorotoluene	200 ug/L
4-Methyl-2-pentanone	400 ug/L	Acetone	400 ug/L
Acetonitrile	400 ug/L	Acrolein	400 ug/L
Acrylonitrile	400 ug/L	Allyl chloride	200 ug/L
Benzene	200 ug/L	Bromobenzene	200 ug/L
Bromochloromethane	200 ug/L	Bromodichloromethane	200 ug/L
Bromoform	200 ug/L	Bromomethane	200 ug/L
Carbon disulfide	200 ug/L	Carbon tetrachloride	200 ug/L
Chlorobenzene	200 ug/L	Chloroethane	200 ug/L
Chloroform	200 ug/L	Chloromethane	200 ug/L
Chloroprene	200 ug/L	Cyclohexane	200 ug/L
Dibromochloromethane	200 ug/L	Dibromomethane	200 ug/L
Dichlorodifluoromethane	200 ug/L	Diethyl ether (Ethyl ether)	200 ug/L
Ethyl acetate	400 ug/L	Ethyl methacrylate	200 ug/L
Ethylbenzene	200 ug/L	Hexachloro-1,3-butadiene	200 ug/L
Iodomethane	200 ug/L	Isobutanol	400 ug/L
Isopropyl acetate	200 ug/L	Isopropylbenzene	200 ug/L
Methacrylonitrile	400 ug/L	Methanol	ug/L
Methyl acetate	400 ug/L	Methyl acrylate	200 ug/L
Methyl methacrylate	200 ug/L	Methyl-tert-butyl ether	200 ug/L
Methylcyclohexane	200 ug/L	Methylene Chloride	200 ug/L
Naphthalene	200 ug/L	Propionitrile	400 ug/L
Styrene	200 ug/L	TOTAL BTEX	1200 ug/L
Tetrachloroethene	200 ug/L	Tetrahydrofuran	400 ug/L
Toluene	200 ug/L	Total Trihalomethanes	800 ug/L
Trichloroethene	200 ug/L	Trichlorofluoromethane	200 ug/L
Vinyl acetate	200 ug/L	Vinyl chloride	200 ug/L
Xylene (Total)	600 ug/L	cis-1,2-Dichloroethene	200 ug/L
cis-1,3-Dichloropropene	200 ug/L	cis-1,4-Dichloro-2-butene	200 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	400 ug/L	n-Butanol	400 ug/L
n-Butylbenzene	200 ug/L	n-Hexane	200 ug/L
n-Propylbenzene	200 ug/L	n-amyl acetate	200 ug/L
o-Xylene	200 ug/L	p-Isopropyltoluene	200 ug/L
sec-Butylbenzene	200 ug/L	tert-Butylbenzene	200 ug/L
trans-1,2-Dichloroethene	200 ug/L	trans-1,3-Dichloropropene	200 ug/L
trans-1,4-Dichloro-2-	200 ug/L		

Composed of Information for Standard #27248

Composed of Standard Seq	Volume	Units
27114	0.2	mL
26717	0.2	mL
1	49.3	mL

Standard Log Report

Standards Log Information for Standard #27247

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL11

Notes:

MSV 8260 150PPB

Compound Name and Concentration for Standard #27247

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	150 ug/L	1,1,1-Trichloroethane	150 ug/L
1,1,2,2-Tetrachloroethane	150 ug/L	1,1,2-Trichloroethane	150 ug/L
1,1,2-	150 ug/L	1,1-Dichloroethane	150 ug/L
1,1-Dichloroethene	150 ug/L	1,1-Dichloropropene	150 ug/L
1,2,3-Trichlorobenzene	150 ug/L	1,2,3-Trichloropropane	150 ug/L
1,2,4-Trichlorobenzene	150 ug/L	1,2,4-Trimethylbenzene	150 ug/L
1,2-Dibromo-3-	150 ug/L	1,2-Dibromoethane (EDB)	150 ug/L
1,2-Dichlorobenzene	150 ug/L	1,2-Dichloroethane	150 ug/L
1,2-Dichloropropane	150 ug/L	1,3,5-Trimethylbenzene	150 ug/L
1,3-Butadiene	150 ug/L	1,3-Dichlorobenzene	150 ug/L
1,3-Dichloropropane	150 ug/L	1,4-Dichlorobenzene	150 ug/L
1,4-Dioxane (p-Dioxane)	300 ug/L	2,2-Dichloropropane	150 ug/L
2-Butanone (MEK)	300 ug/L	2-Chloroethylvinyl ether	300 ug/L
2-Chlorotoluene	150 ug/L	2-Hexanone	300 ug/L
2-Nitropropane	150 ug/L	4-Chlorotoluene	150 ug/L
4-Methyl-2-pentanone	300 ug/L	Acetone	300 ug/L
Acetonitrile	300 ug/L	Acrolein	300 ug/L
Acrylonitrile	300 ug/L	Allyl chloride	150 ug/L
Benzene	150 ug/L	Bromobenzene	150 ug/L
Bromochloromethane	150 ug/L	Bromodichloromethane	150 ug/L
Bromoform	150 ug/L	Bromomethane	150 ug/L
Carbon disulfide	150 ug/L	Carbon tetrachloride	150 ug/L
Chlorobenzene	150 ug/L	Chloroethane	150 ug/L
Chloroform	150 ug/L	Chloromethane	150 ug/L
Chloroprene	150 ug/L	Cyclohexane	150 ug/L
Dibromochloromethane	150 ug/L	Dibromomethane	150 ug/L
Dichlorodifluoromethane	150 ug/L	Diethyl ether (Ethyl ether)	150 ug/L
Ethyl acetate	300 ug/L	Ethyl methacrylate	150 ug/L
Ethylbenzene	150 ug/L	Hexachloro-1,3-butadiene	150 ug/L
Iodomethane	150 ug/L	Isobutanol	300 ug/L
Isopropyl acetate	150 ug/L	Isopropylbenzene	150 ug/L
Methacrylonitrile	300 ug/L	Methanol	ug/L
Methyl acetate	300 ug/L	Methyl acrylate	150 ug/L
Methyl methacrylate	150 ug/L	Methyl-tert-butyl ether	150 ug/L
Methylcyclohexane	150 ug/L	Methylene Chloride	150 ug/L
Naphthalene	150 ug/L	Propionitrile	300 ug/L
Styrene	150 ug/L	TOTAL BTEX	900 ug/L
Tetrachloroethene	150 ug/L	Tetrahydrofuran	300 ug/L
Toluene	150 ug/L	Total Trihalomethanes	600 ug/L
Trichloroethene	150 ug/L	Trichlorofluoromethane	150 ug/L
Vinyl acetate	150 ug/L	Vinyl chloride	150 ug/L
Xylene (Total)	450 ug/L	cis-1,2-Dichloroethene	150 ug/L
cis-1,3-Dichloropropene	150 ug/L	cis-1,4-Dichloro-2-butene	150 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	300 ug/L	n-Butanol	300 ug/L
n-Butylbenzene	150 ug/L	n-Hexane	150 ug/L
n-Propylbenzene	150 ug/L	n-amyl acetate	150 ug/L
o-Xylene	150 ug/L	p-Isopropyltoluene	150 ug/L
sec-Butylbenzene	150 ug/L	tert-Butylbenzene	150 ug/L
trans-1,2-Dichloroethene	150 ug/L	trans-1,3-Dichloropropene	150 ug/L
trans-1,4-Dichloro-2-	150 ug/L		

Composed of Information for Standard #27247

Composed of Standard Seq	Volume	Units
27114	0.15	mL
26717	0.15	mL
1	49.7	mL

Standard Log Report

Standards Log Information for Standard #27246

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL10

Notes:

MSV 8260 100PPB

Compound Name and Concentration for Standard #27246

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	100 ug/L	1,1,1-Trichloroethane	100 ug/L
1,1,2,2-Tetrachloroethane	100 ug/L	1,1,2-Trichloroethane	100 ug/L
1,1,2-	100 ug/L	1,1-Dichloroethane	100 ug/L
1,1-Dichloroethene	100 ug/L	1,1-Dichloropropene	100 ug/L
1,2,3-Trichlorobenzene	100 ug/L	1,2,3-Trichloropropane	100 ug/L
1,2,4-Trichlorobenzene	100 ug/L	1,2,4-Trimethylbenzene	100 ug/L
1,2-Dibromo-3-	100 ug/L	1,2-Dibromoethane (EDB)	100 ug/L
1,2-Dichlorobenzene	100 ug/L	1,2-Dichloroethane	100 ug/L
1,2-Dichloropropane	100 ug/L	1,3,5-Trimethylbenzene	100 ug/L
1,3-Butadiene	100 ug/L	1,3-Dichlorobenzene	100 ug/L
1,3-Dichloropropane	100 ug/L	1,4-Dichlorobenzene	100 ug/L
1,4-Dioxane (p-Dioxane)	200 ug/L	2,2-Dichloropropane	100 ug/L
2-Butanone (MEK)	200 ug/L	2-Chloroethylvinyl ether	200 ug/L
2-Chlorotoluene	100 ug/L	2-Hexanone	200 ug/L
2-Nitropropane	100 ug/L	4-Chlorotoluene	100 ug/L
4-Methyl-2-pentanone	200 ug/L	Acetone	200 ug/L
Acetonitrile	200 ug/L	Acrolein	200 ug/L
Acrylonitrile	200 ug/L	Allyl chloride	100 ug/L
Benzene	100 ug/L	Bromobenzene	100 ug/L
Bromochloromethane	100 ug/L	Bromodichloromethane	100 ug/L
Bromoform	100 ug/L	Bromomethane	100 ug/L
Carbon disulfide	100 ug/L	Carbon tetrachloride	100 ug/L
Chlorobenzene	100 ug/L	Chloroethane	100 ug/L
Chloroform	100 ug/L	Chloromethane	100 ug/L
Chloroprene	100 ug/L	Cyclohexane	100 ug/L
Dibromochloromethane	100 ug/L	Dibromomethane	100 ug/L
Dichlorodifluoromethane	100 ug/L	Diethyl ether (Ethyl ether)	100 ug/L
Ethyl acetate	200 ug/L	Ethyl methacrylate	100 ug/L
Ethylbenzene	100 ug/L	Hexachloro-1,3-butadiene	100 ug/L
Iodomethane	100 ug/L	Isobutanol	200 ug/L
Isopropyl acetate	100 ug/L	Isopropylbenzene	100 ug/L
Methacrylonitrile	200 ug/L	Methanol	ug/L
Methyl acetate	200 ug/L	Methyl acrylate	100 ug/L
Methyl methacrylate	100 ug/L	Methyl-tert-butyl ether	100 ug/L
Methylcyclohexane	100 ug/L	Methylene Chloride	100 ug/L
Naphthalene	100 ug/L	Propionitrile	200 ug/L
Styrene	100 ug/L	TOTAL BTEX	600 ug/L
Tetrachloroethene	100 ug/L	Tetrahydrofuran	200 ug/L
Toluene	100 ug/L	Total Trihalomethanes	400 ug/L
Trichloroethene	100 ug/L	Trichlorofluoromethane	100 ug/L
Vinyl acetate	100 ug/L	Vinyl chloride	100 ug/L
Xylene (Total)	300 ug/L	cis-1,2-Dichloroethene	100 ug/L
cis-1,3-Dichloropropene	100 ug/L	cis-1,4-Dichloro-2-butene	100 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	200 ug/L	n-Butanol	200 ug/L
n-Butylbenzene	100 ug/L	n-Hexane	100 ug/L
n-Propylbenzene	100 ug/L	n-amyl acetate	100 ug/L
o-Xylene	100 ug/L	p-Isopropyltoluene	100 ug/L
sec-Butylbenzene	100 ug/L	tert-Butylbenzene	100 ug/L
trans-1,2-Dichloroethene	100 ug/L	trans-1,3-Dichloropropene	100 ug/L
trans-1,4-Dichloro-2-	100 ug/L		

Composed of Information for Standard #27246

Composed of Standard Seq	Volume	Units
27114	0.1	mL
26717	0.1	mL
1	49.8	mL

Standard Log Report

Standards Log Information for Standard #27245

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL9

Notes:

MSV 8260 75PPB

Compound Name and Concentration for Standard #27245

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	75 ug/L	1,1,1-Trichloroethane	75 ug/L
1,1,2,2-Tetrachloroethane	75 ug/L	1,1,2-Trichloroethane	75 ug/L
1,1,2-	75 ug/L	1,1-Dichloroethane	75 ug/L
1,1-Dichloroethene	75 ug/L	1,1-Dichloropropene	75 ug/L
1,2,3-Trichlorobenzene	75 ug/L	1,2,3-Trichloropropane	75 ug/L
1,2,4-Trichlorobenzene	75 ug/L	1,2,4-Trimethylbenzene	75 ug/L
1,2-Dibromo-3-	75 ug/L	1,2-Dibromoethane (EDB)	75 ug/L
1,2-Dichlorobenzene	75 ug/L	1,2-Dichloroethane	75 ug/L
1,2-Dichloropropane	75 ug/L	1,3,5-Trimethylbenzene	75 ug/L
1,3-Butadiene	75 ug/L	1,3-Dichlorobenzene	75 ug/L
1,3-Dichloropropane	75 ug/L	1,4-Dichlorobenzene	75 ug/L
1,4-Dioxane (p-Dioxane)	150 ug/L	2,2-Dichloropropane	75 ug/L
2-Butanone (MEK)	150 ug/L	2-Chloroethylvinyl ether	150 ug/L
2-Chlorotoluene	75 ug/L	2-Hexanone	150 ug/L
2-Nitropropane	75 ug/L	4-Chlorotoluene	75 ug/L
4-Methyl-2-pentanone	150 ug/L	Acetone	150 ug/L
Acetonitrile	150 ug/L	Acrolein	150 ug/L
Acrylonitrile	150 ug/L	Allyl chloride	75 ug/L
Benzene	75 ug/L	Bromobenzene	75 ug/L
Bromochloromethane	75 ug/L	Bromodichloromethane	75 ug/L
Bromoform	75 ug/L	Bromomethane	75 ug/L
Carbon disulfide	75 ug/L	Carbon tetrachloride	75 ug/L
Chlorobenzene	75 ug/L	Chloroethane	75 ug/L
Chloroform	75 ug/L	Chloromethane	75 ug/L
Chloroprene	75 ug/L	Cyclohexane	75 ug/L
Dibromochloromethane	75 ug/L	Dibromomethane	75 ug/L
Dichlorodifluoromethane	75 ug/L	Diethyl ether (Ethyl ether)	75 ug/L
Ethyl acetate	150 ug/L	Ethyl methacrylate	75 ug/L
Ethylbenzene	75 ug/L	Hexachloro-1,3-butadiene	75 ug/L
Iodomethane	75 ug/L	Isobutanol	150 ug/L
Isopropyl acetate	75 ug/L	Isopropylbenzene	75 ug/L
Methacrylonitrile	150 ug/L	Methanol	ug/L
Methyl acetate	150 ug/L	Methyl acrylate	75 ug/L
Methyl methacrylate	75 ug/L	Methyl-tert-butyl ether	75 ug/L
Methylcyclohexane	75 ug/L	Methylene Chloride	75 ug/L
Naphthalene	75 ug/L	Propionitrile	150 ug/L
Styrene	75 ug/L	TOTAL BTEX	450 ug/L
Tetrachloroethene	75 ug/L	Tetrahydrofuran	150 ug/L
Toluene	75 ug/L	Total Trihalomethanes	300 ug/L
Trichloroethene	75 ug/L	Trichlorofluoromethane	75 ug/L
Vinyl acetate	75 ug/L	Vinyl chloride	75 ug/L
Xylene (Total)	225 ug/L	cis-1,2-Dichloroethene	75 ug/L
cis-1,3-Dichloropropene	75 ug/L	cis-1,4-Dichloro-2-butene	75 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	150 ug/L	n-Butanol	150 ug/L
n-Butylbenzene	75 ug/L	n-Hexane	75 ug/L
n-Propylbenzene	75 ug/L	n-amyl acetate	75 ug/L
o-Xylene	75 ug/L	p-Isopropyltoluene	75 ug/L
sec-Butylbenzene	75 ug/L	tert-Butylbenzene	75 ug/L
trans-1,2-Dichloroethene	75 ug/L	trans-1,3-Dichloropropene	75 ug/L
trans-1,4-Dichloro-2-	75 ug/L		

Composed of Information for Standard #27245

Composed of Standard Seq	Volume	Units
27114	0.075	mL
26717	0.075	mL
1	49.85	mL

Standard Log Report

Standards Log Information for Standard #27244

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL8

Notes:

MSV 8260 50PPB

Compound Name and Concentration for Standard #27244

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	50 ug/L	1,1,1-Trichloroethane	50 ug/L
1,1,2,2-Tetrachloroethane	50 ug/L	1,1,2-Trichloroethane	50 ug/L
1,1,2-	50 ug/L	1,1-Dichloroethane	50 ug/L
1,1-Dichloroethene	50 ug/L	1,1-Dichloropropene	50 ug/L
1,2,3-Trichlorobenzene	50 ug/L	1,2,3-Trichloropropane	50 ug/L
1,2,4-Trichlorobenzene	50 ug/L	1,2,4-Trimethylbenzene	50 ug/L
1,2-Dibromo-3-	50 ug/L	1,2-Dibromoethane (EDB)	50 ug/L
1,2-Dichlorobenzene	50 ug/L	1,2-Dichloroethane	50 ug/L
1,2-Dichloropropane	50 ug/L	1,3,5-Trimethylbenzene	50 ug/L
1,3-Butadiene	50 ug/L	1,3-Dichlorobenzene	50 ug/L
1,3-Dichloropropane	50 ug/L	1,4-Dichlorobenzene	50 ug/L
1,4-Dioxane (p-Dioxane)	100 ug/L	2,2-Dichloropropane	50 ug/L
2-Butanone (MEK)	100 ug/L	2-Chloroethylvinyl ether	100 ug/L
2-Chlorotoluene	50 ug/L	2-Hexanone	100 ug/L
2-Nitropropane	50 ug/L	4-Chlorotoluene	50 ug/L
4-Methyl-2-pentanone	100 ug/L	Acetone	100 ug/L
Acetonitrile	100 ug/L	Acrolein	100 ug/L
Acrylonitrile	100 ug/L	Allyl chloride	50 ug/L
Benzene	50 ug/L	Bromobenzene	50 ug/L
Bromochloromethane	50 ug/L	Bromodichloromethane	50 ug/L
Bromoform	50 ug/L	Bromomethane	50 ug/L
Carbon disulfide	50 ug/L	Carbon tetrachloride	50 ug/L
Chlorobenzene	50 ug/L	Chloroethane	50 ug/L
Chloroform	50 ug/L	Chloromethane	50 ug/L
Chloroprene	50 ug/L	Cyclohexane	50 ug/L
Dibromochloromethane	50 ug/L	Dibromomethane	50 ug/L
Dichlorodifluoromethane	50 ug/L	Diethyl ether (Ethyl ether)	50 ug/L
Ethyl acetate	100 ug/L	Ethyl methacrylate	50 ug/L
Ethylbenzene	50 ug/L	Hexachloro-1,3-butadiene	50 ug/L
Iodomethane	50 ug/L	Isobutanol	100 ug/L
Isopropyl acetate	50 ug/L	Isopropylbenzene	50 ug/L
Methacrylonitrile	100 ug/L	Methanol	ug/L
Methyl acetate	100 ug/L	Methyl acrylate	50 ug/L
Methyl methacrylate	50 ug/L	Methyl-tert-butyl ether	50 ug/L
Methylcyclohexane	50 ug/L	Methylene Chloride	50 ug/L
Naphthalene	50 ug/L	Propionitrile	100 ug/L
Styrene	50 ug/L	TOTAL BTEX	300 ug/L
Tetrachloroethene	50 ug/L	Tetrahydrofuran	100 ug/L
Toluene	50 ug/L	Total Trihalomethanes	200 ug/L
Trichloroethene	50 ug/L	Trichlorofluoromethane	50 ug/L
Vinyl acetate	50 ug/L	Vinyl chloride	50 ug/L
Xylene (Total)	150 ug/L	cis-1,2-Dichloroethene	50 ug/L
cis-1,3-Dichloropropene	50 ug/L	cis-1,4-Dichloro-2-butene	50 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	100 ug/L	n-Butanol	100 ug/L
n-Butylbenzene	50 ug/L	n-Hexane	50 ug/L
n-Propylbenzene	50 ug/L	n-amyl acetate	50 ug/L
o-Xylene	50 ug/L	p-Isopropyltoluene	50 ug/L
sec-Butylbenzene	50 ug/L	tert-Butylbenzene	50 ug/L
trans-1,2-Dichloroethene	50 ug/L	trans-1,3-Dichloropropene	50 ug/L
trans-1,4-Dichloro-2-	50 ug/L		

Composed of Information for Standard #27244

Composed of Standard Seq	Volume	Units
27114	0.05	mL
26717	0.05	mL
1	49.9	mL

Standard Log Report

Standards Log Information for Standard #27243

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL7

Notes:

MSV 8260 20PPB

Compound Name and Concentration for Standard #27243

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	20 ug/L	1,1,1-Trichloroethane	20 ug/L
1,1,2,2-Tetrachloroethane	20 ug/L	1,1,2-Trichloroethane	20 ug/L
1,1,2-	20 ug/L	1,1-Dichloroethane	20 ug/L
1,1-Dichloroethene	20 ug/L	1,1-Dichloropropene	20 ug/L
1,2,3-Trichlorobenzene	20 ug/L	1,2,3-Trichloropropane	20 ug/L
1,2,4-Trichlorobenzene	20 ug/L	1,2,4-Trimethylbenzene	20 ug/L
1,2-Dibromo-3-	20 ug/L	1,2-Dibromoethane (EDB)	20 ug/L
1,2-Dichlorobenzene	20 ug/L	1,2-Dichloroethane	20 ug/L
1,2-Dichloropropane	20 ug/L	1,3,5-Trimethylbenzene	20 ug/L
1,3-Butadiene	20 ug/L	1,3-Dichlorobenzene	20 ug/L
1,3-Dichloropropane	20 ug/L	1,4-Dichlorobenzene	20 ug/L
1,4-Dioxane (p-Dioxane)	40 ug/L	2,2-Dichloropropane	20 ug/L
2-Butanone (MEK)	40 ug/L	2-Chloroethylvinyl ether	40 ug/L
2-Chlorotoluene	20 ug/L	2-Hexanone	40 ug/L
2-Nitropropane	20 ug/L	4-Chlorotoluene	20 ug/L
4-Methyl-2-pentanone	40 ug/L	Acetone	40 ug/L
Acetonitrile	40 ug/L	Acrolein	40 ug/L
Acrylonitrile	40 ug/L	Allyl chloride	20 ug/L
Benzene	20 ug/L	Bromobenzene	20 ug/L
Bromochloromethane	20 ug/L	Bromodichloromethane	20 ug/L
Bromoform	20 ug/L	Bromomethane	20 ug/L
Carbon disulfide	20 ug/L	Carbon tetrachloride	20 ug/L
Chlorobenzene	20 ug/L	Chloroethane	20 ug/L
Chloroform	20 ug/L	Chloromethane	20 ug/L
Chloroprene	20 ug/L	Cyclohexane	20 ug/L
Dibromochloromethane	20 ug/L	Dibromomethane	20 ug/L
Dichlorodifluoromethane	20 ug/L	Diethyl ether (Ethyl ether)	20 ug/L
Ethyl acetate	40 ug/L	Ethyl methacrylate	20 ug/L
Ethylbenzene	20 ug/L	Hexachloro-1,3-butadiene	20 ug/L
Iodomethane	20 ug/L	Isobutanol	40 ug/L
Isopropyl acetate	20 ug/L	Isopropylbenzene	20 ug/L
Methacrylonitrile	40 ug/L	Methanol	ug/L
Methyl acetate	40 ug/L	Methyl acrylate	20 ug/L
Methyl methacrylate	20 ug/L	Methyl-tert-butyl ether	20 ug/L
Methylcyclohexane	20 ug/L	Methylene Chloride	20 ug/L
Naphthalene	20 ug/L	Propionitrile	40 ug/L
Styrene	20 ug/L	TOTAL BTEX	120 ug/L
Tetrachloroethene	20 ug/L	Tetrahydrofuran	40 ug/L
Toluene	20 ug/L	Total Trihalomethanes	80 ug/L
Trichloroethene	20 ug/L	Trichlorofluoromethane	20 ug/L
Vinyl acetate	20 ug/L	Vinyl chloride	20 ug/L
Xylene (Total)	60 ug/L	cis-1,2-Dichloroethene	20 ug/L
cis-1,3-Dichloropropene	20 ug/L	cis-1,4-Dichloro-2-butene	20 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	40 ug/L	n-Butanol	40 ug/L
n-Butylbenzene	20 ug/L	n-Hexane	20 ug/L
n-Propylbenzene	20 ug/L	n-amyl acetate	20 ug/L
o-Xylene	20 ug/L	p-Isopropyltoluene	20 ug/L
sec-Butylbenzene	20 ug/L	tert-Butylbenzene	20 ug/L
trans-1,2-Dichloroethene	20 ug/L	trans-1,3-Dichloropropene	20 ug/L
trans-1,4-Dichloro-2-	20 ug/L		

Composed of Information for Standard #27243

Composed of Standard Seq	Volume	Units
27114	0.02	mL
26717	0.02	mL
1	49.96	mL

Standard Log Report

Standards Log Information for Standard #27242

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL6

Notes:

MSV 8260 10PPB

Compound Name and Concentration for Standard #27242

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	10 ug/L	1,1,1-Trichloroethane	10 ug/L
1,1,2,2-Tetrachloroethane	10 ug/L	1,1,2-Trichloroethane	10 ug/L
1,1,2-	10 ug/L	1,1-Dichloroethane	10 ug/L
1,1-Dichloroethene	10 ug/L	1,1-Dichloropropene	10 ug/L
1,2,3-Trichlorobenzene	10 ug/L	1,2,3-Trichloropropane	10 ug/L
1,2,4-Trichlorobenzene	10 ug/L	1,2,4-Trimethylbenzene	10 ug/L
1,2-Dibromo-3-	10 ug/L	1,2-Dibromoethane (EDB)	10 ug/L
1,2-Dichlorobenzene	10 ug/L	1,2-Dichloroethane	10 ug/L
1,2-Dichloropropane	10 ug/L	1,3,5-Trimethylbenzene	10 ug/L
1,3-Butadiene	10 ug/L	1,3-Dichlorobenzene	10 ug/L
1,3-Dichloropropane	10 ug/L	1,4-Dichlorobenzene	10 ug/L
1,4-Dioxane (p-Dioxane)	20 ug/L	2,2-Dichloropropane	10 ug/L
2-Butanone (MEK)	20 ug/L	2-Chloroethylvinyl ether	20 ug/L
2-Chlorotoluene	10 ug/L	2-Hexanone	20 ug/L
2-Nitropropane	10 ug/L	4-Chlorotoluene	10 ug/L
4-Methyl-2-pentanone	20 ug/L	Acetone	20 ug/L
Acetonitrile	20 ug/L	Acrolein	20 ug/L
Acrylonitrile	20 ug/L	Allyl chloride	10 ug/L
Benzene	10 ug/L	Bromobenzene	10 ug/L
Bromochloromethane	10 ug/L	Bromodichloromethane	10 ug/L
Bromoform	10 ug/L	Bromomethane	10 ug/L
Carbon disulfide	10 ug/L	Carbon tetrachloride	10 ug/L
Chlorobenzene	10 ug/L	Chloroethane	10 ug/L
Chloroform	10 ug/L	Chloromethane	10 ug/L
Chloroprene	10 ug/L	Cyclohexane	10 ug/L
Dibromochloromethane	10 ug/L	Dibromomethane	10 ug/L
Dichlorodifluoromethane	10 ug/L	Diethyl ether (Ethyl ether)	10 ug/L
Ethyl acetate	20 ug/L	Ethyl methacrylate	10 ug/L
Ethylbenzene	10 ug/L	Hexachloro-1,3-butadiene	10 ug/L
Iodomethane	10 ug/L	Isobutanol	20 ug/L
Isopropyl acetate	10 ug/L	Isopropylbenzene	10 ug/L
Methacrylonitrile	20 ug/L	Methanol	ug/L
Methyl acetate	20 ug/L	Methyl acrylate	10 ug/L
Methyl methacrylate	10 ug/L	Methyl-tert-butyl ether	10 ug/L
Methylcyclohexane	10 ug/L	Methylene Chloride	10 ug/L
Naphthalene	10 ug/L	Propionitrile	20 ug/L
Styrene	10 ug/L	TOTAL BTEX	60 ug/L
Tetrachloroethene	10 ug/L	Tetrahydrofuran	20 ug/L
Toluene	10 ug/L	Total Trihalomethanes	40 ug/L
Trichloroethene	10 ug/L	Trichlorofluoromethane	10 ug/L
Vinyl acetate	10 ug/L	Vinyl chloride	10 ug/L
Xylene (Total)	30 ug/L	cis-1,2-Dichloroethene	10 ug/L
cis-1,3-Dichloropropene	10 ug/L	cis-1,4-Dichloro-2-butene	10 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	20 ug/L	n-Butanol	20 ug/L
n-Butylbenzene	10 ug/L	n-Hexane	10 ug/L
n-Propylbenzene	10 ug/L	n-amyl acetate	10 ug/L
o-Xylene	10 ug/L	p-Isopropyltoluene	10 ug/L
sec-Butylbenzene	10 ug/L	tert-Butylbenzene	10 ug/L
trans-1,2-Dichloroethene	10 ug/L	trans-1,3-Dichloropropene	10 ug/L
trans-1,4-Dichloro-2-	10 ug/L		

Composed of Information for Standard #27242

Composed of Standard Seq	Volume	Units
27114	0.01	mL
26717	0.01	mL
1	49.98	mL

Standard Log Report

Standards Log Information for Standard #27241

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL5

Notes:

MSV 8260 5PPB

Compound Name and Concentration for Standard #27241

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	5 ug/L	1,1,1-Trichloroethane	5 ug/L
1,1,2,2-Tetrachloroethane	5 ug/L	1,1,2-Trichloroethane	5 ug/L
1,1,2-	5 ug/L	1,1-Dichloroethane	5 ug/L
1,1-Dichloroethene	5 ug/L	1,1-Dichloropropene	5 ug/L
1,2,3-Trichlorobenzene	5 ug/L	1,2,3-Trichloropropane	5 ug/L
1,2,4-Trichlorobenzene	5 ug/L	1,2,4-Trimethylbenzene	5 ug/L
1,2-Dibromo-3-	5 ug/L	1,2-Dibromoethane (EDB)	5 ug/L
1,2-Dichlorobenzene	5 ug/L	1,2-Dichloroethane	5 ug/L
1,2-Dichloropropane	5 ug/L	1,3,5-Trimethylbenzene	5 ug/L
1,3-Butadiene	5 ug/L	1,3-Dichlorobenzene	5 ug/L
1,3-Dichloropropane	5 ug/L	1,4-Dichlorobenzene	5 ug/L
1,4-Dioxane (p-Dioxane)	10 ug/L	2,2-Dichloropropane	5 ug/L
2-Butanone (MEK)	10 ug/L	2-Chloroethylvinyl ether	10 ug/L
2-Chlorotoluene	5 ug/L	2-Hexanone	10 ug/L
2-Nitropropane	5 ug/L	4-Chlorotoluene	5 ug/L
4-Methyl-2-pentanone	10 ug/L	Acetone	10 ug/L
Acetonitrile	10 ug/L	Acrolein	10 ug/L
Acrylonitrile	10 ug/L	Allyl chloride	5 ug/L
Benzene	5 ug/L	Bromobenzene	5 ug/L
Bromochloromethane	5 ug/L	Bromodichloromethane	5 ug/L
Bromoform	5 ug/L	Bromomethane	5 ug/L
Carbon disulfide	5 ug/L	Carbon tetrachloride	5 ug/L
Chlorobenzene	5 ug/L	Chloroethane	5 ug/L
Chloroform	5 ug/L	Chloromethane	5 ug/L
Chloroprene	5 ug/L	Cyclohexane	5 ug/L
Dibromochloromethane	5 ug/L	Dibromomethane	5 ug/L
Dichlorodifluoromethane	5 ug/L	Diethyl ether (Ethyl ether)	5 ug/L
Ethyl acetate	10 ug/L	Ethyl methacrylate	5 ug/L
Ethylbenzene	5 ug/L	Hexachloro-1,3-butadiene	5 ug/L
Iodomethane	5 ug/L	Isobutanol	10 ug/L
Isopropyl acetate	5 ug/L	Isopropylbenzene	5 ug/L
Methacrylonitrile	10 ug/L	Methanol	ug/L
Methyl acetate	10 ug/L	Methyl acrylate	5 ug/L
Methyl methacrylate	5 ug/L	Methyl-tert-butyl ether	5 ug/L
Methylcyclohexane	5 ug/L	Methylene Chloride	5 ug/L
Naphthalene	5 ug/L	Propionitrile	10 ug/L
Styrene	5 ug/L	TOTAL BTEX	30 ug/L
Tetrachloroethene	5 ug/L	Tetrahydrofuran	10 ug/L
Toluene	5 ug/L	Total Trihalomethanes	20 ug/L
Trichloroethene	5 ug/L	Trichlorofluoromethane	5 ug/L
Vinyl acetate	5 ug/L	Vinyl chloride	5 ug/L
Xylene (Total)	15 ug/L	cis-1,2-Dichloroethene	5 ug/L
cis-1,3-Dichloropropene	5 ug/L	cis-1,4-Dichloro-2-butene	5 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	10 ug/L	n-Butanol	10 ug/L
n-Butylbenzene	5 ug/L	n-Hexane	5 ug/L
n-Propylbenzene	5 ug/L	n-amyl acetate	5 ug/L
o-Xylene	5 ug/L	p-Isopropyltoluene	5 ug/L
sec-Butylbenzene	5 ug/L	tert-Butylbenzene	5 ug/L
trans-1,2-Dichloroethene	5 ug/L	trans-1,3-Dichloropropene	5 ug/L
trans-1,4-Dichloro-2-	5 ug/L		

Composed of Information for Standard #27241

Composed of Standard Seq	Volume	Units
27114	0.005	mL
26717	0.005	mL
1	49.99	mL

Standard Log Report

Standards Log Information for Standard #27240

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL4

Notes:

MSV 8260 2PPB

Compound Name and Concentration for Standard #27240

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	2 ug/L	1,1,1-Trichloroethane	2 ug/L
1,1,2,2-Tetrachloroethane	2 ug/L	1,1,2-Trichloroethane	2 ug/L
1,1,2-	2 ug/L	1,1-Dichloroethane	2 ug/L
1,1-Dichloroethene	2 ug/L	1,1-Dichloropropene	2 ug/L
1,2,3-Trichlorobenzene	2 ug/L	1,2,3-Trichloropropane	2 ug/L
1,2,4-Trichlorobenzene	2 ug/L	1,2,4-Trimethylbenzene	2 ug/L
1,2-Dibromo-3-	2 ug/L	1,2-Dibromoethane (EDB)	2 ug/L
1,2-Dichlorobenzene	2 ug/L	1,2-Dichloroethane	2 ug/L
1,2-Dichloropropane	2 ug/L	1,3,5-Trimethylbenzene	2 ug/L
1,3-Butadiene	2 ug/L	1,3-Dichlorobenzene	2 ug/L
1,3-Dichloropropane	2 ug/L	1,4-Dichlorobenzene	2 ug/L
1,4-Dioxane (p-Dioxane)	4 ug/L	2,2-Dichloropropane	2 ug/L
2-Butanone (MEK)	4 ug/L	2-Chloroethylvinyl ether	4 ug/L
2-Chlorotoluene	2 ug/L	2-Hexanone	4 ug/L
2-Nitropropane	2 ug/L	4-Chlorotoluene	2 ug/L
4-Methyl-2-pentanone	4 ug/L	Acetone	4 ug/L
Acetonitrile	4 ug/L	Acrolein	4 ug/L
Acrylonitrile	4 ug/L	Allyl chloride	2 ug/L
Benzene	2 ug/L	Bromobenzene	2 ug/L
Bromochloromethane	2 ug/L	Bromodichloromethane	2 ug/L
Bromoform	2 ug/L	Bromomethane	2 ug/L
Carbon disulfide	2 ug/L	Carbon tetrachloride	2 ug/L
Chlorobenzene	2 ug/L	Chloroethane	2 ug/L
Chloroform	2 ug/L	Chloromethane	2 ug/L
Chloroprene	2 ug/L	Cyclohexane	2 ug/L
Dibromochloromethane	2 ug/L	Dibromomethane	2 ug/L
Dichlorodifluoromethane	2 ug/L	Diethyl ether (Ethyl ether)	2 ug/L
Ethyl acetate	4 ug/L	Ethyl methacrylate	2 ug/L
Ethylbenzene	2 ug/L	Hexachloro-1,3-butadiene	2 ug/L
Iodomethane	2 ug/L	Isobutanol	4 ug/L
Isopropyl acetate	2 ug/L	Isopropylbenzene	2 ug/L
Methacrylonitrile	4 ug/L	Methanol	ug/L
Methyl acetate	4 ug/L	Methyl acrylate	2 ug/L
Methyl methacrylate	2 ug/L	Methyl-tert-butyl ether	2 ug/L
Methylcyclohexane	2 ug/L	Methylene Chloride	2 ug/L
Naphthalene	2 ug/L	Propionitrile	4 ug/L
Styrene	2 ug/L	TOTAL BTEX	12 ug/L
Tetrachloroethene	2 ug/L	Tetrahydrofuran	4 ug/L
Toluene	2 ug/L	Total Trihalomethanes	8 ug/L
Trichloroethene	2 ug/L	Trichlorofluoromethane	2 ug/L
Vinyl acetate	2 ug/L	Vinyl chloride	2 ug/L
Xylene (Total)	6 ug/L	cis-1,2-Dichloroethene	2 ug/L
cis-1,3-Dichloropropene	2 ug/L	cis-1,4-Dichloro-2-butene	2 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	4 ug/L	n-Butanol	4 ug/L
n-Butylbenzene	2 ug/L	n-Hexane	2 ug/L
n-Propylbenzene	2 ug/L	n-amyl acetate	2 ug/L
o-Xylene	2 ug/L	p-Isopropyltoluene	2 ug/L
sec-Butylbenzene	2 ug/L	tert-Butylbenzene	2 ug/L
trans-1,2-Dichloroethene	2 ug/L	trans-1,3-Dichloropropene	2 ug/L
trans-1,4-Dichloro-2-	2 ug/L		

Composed of Information for Standard #27240

Composed of Standard Seq	Volume	Units
27114	0.002	mL
26717	0.002	mL
1	49.996	mL

Standard Log Report

Standards Log Information for Standard #27239

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL3

Notes:

MSV 8260 1PPB

Compound Name and Concentration for Standard #27239

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	1 ug/L	1,1,1-Trichloroethane	1 ug/L
1,1,2,2-Tetrachloroethane	1 ug/L	1,1,2-Trichloroethane	1 ug/L
1,1,2-	1 ug/L	1,1-Dichloroethane	1 ug/L
1,1-Dichloroethene	1 ug/L	1,1-Dichloropropene	1 ug/L
1,2,3-Trichlorobenzene	1 ug/L	1,2,3-Trichloropropane	1 ug/L
1,2,4-Trichlorobenzene	1 ug/L	1,2,4-Trimethylbenzene	1 ug/L
1,2-Dibromo-3-	1 ug/L	1,2-Dibromoethane (EDB)	1 ug/L
1,2-Dichlorobenzene	1 ug/L	1,2-Dichloroethane	1 ug/L
1,2-Dichloropropane	1 ug/L	1,3,5-Trimethylbenzene	1 ug/L
1,3-Butadiene	1 ug/L	1,3-Dichlorobenzene	1 ug/L
1,3-Dichloropropane	1 ug/L	1,4-Dichlorobenzene	1 ug/L
1,4-Dioxane (p-Dioxane)	2 ug/L	2,2-Dichloropropane	1 ug/L
2-Butanone (MEK)	2 ug/L	2-Chloroethylvinyl ether	2 ug/L
2-Chlorotoluene	1 ug/L	2-Hexanone	2 ug/L
2-Nitropropane	1 ug/L	4-Chlorotoluene	1 ug/L
4-Methyl-2-pentanone	2 ug/L	Acetone	2 ug/L
Acetonitrile	2 ug/L	Acrolein	2 ug/L
Acrylonitrile	2 ug/L	Allyl chloride	1 ug/L
Benzene	1 ug/L	Bromobenzene	1 ug/L
Bromochloromethane	1 ug/L	Bromodichloromethane	1 ug/L
Bromoform	1 ug/L	Bromomethane	1 ug/L
Carbon disulfide	1 ug/L	Carbon tetrachloride	1 ug/L
Chlorobenzene	1 ug/L	Chloroethane	1 ug/L
Chloroform	1 ug/L	Chloromethane	1 ug/L
Chloroprene	1 ug/L	Cyclohexane	1 ug/L
Dibromochloromethane	1 ug/L	Dibromomethane	1 ug/L
Dichlorodifluoromethane	1 ug/L	Diethyl ether (Ethyl ether)	1 ug/L
Ethyl acetate	2 ug/L	Ethyl methacrylate	1 ug/L
Ethylbenzene	1 ug/L	Hexachloro-1,3-butadiene	1 ug/L
Iodomethane	1 ug/L	Isobutanol	2 ug/L
Isopropyl acetate	1 ug/L	Isopropylbenzene	1 ug/L
Methacrylonitrile	2 ug/L	Methanol	ug/L
Methyl acetate	2 ug/L	Methyl acrylate	1 ug/L
Methyl methacrylate	1 ug/L	Methyl-tert-butyl ether	1 ug/L
Methylcyclohexane	1 ug/L	Methylene Chloride	1 ug/L
Naphthalene	1 ug/L	Propionitrile	2 ug/L
Styrene	1 ug/L	TOTAL BTEX	6 ug/L
Tetrachloroethene	1 ug/L	Tetrahydrofuran	2 ug/L
Toluene	1 ug/L	Total Trihalomethanes	4 ug/L
Trichloroethene	1 ug/L	Trichlorofluoromethane	1 ug/L
Vinyl acetate	1 ug/L	Vinyl chloride	1 ug/L
Xylene (Total)	3 ug/L	cis-1,2-Dichloroethene	1 ug/L
cis-1,3-Dichloropropene	1 ug/L	cis-1,4-Dichloro-2-butene	1 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	2 ug/L	n-Butanol	2 ug/L
n-Butylbenzene	1 ug/L	n-Hexane	1 ug/L
n-Propylbenzene	1 ug/L	n-amyl acetate	1 ug/L
o-Xylene	1 ug/L	p-Isopropyltoluene	1 ug/L
sec-Butylbenzene	1 ug/L	tert-Butylbenzene	1 ug/L
trans-1,2-Dichloroethene	1 ug/L	trans-1,3-Dichloropropene	1 ug/L
trans-1,4-Dichloro-2-	1 ug/L		

Composed of Information for Standard #27239

Composed of Standard Seq	Volume	Units
27114	0.001	mL
26717	0.001	mL
1	49.998	mL

Standard Log Report

Standards Log Information for Standard #27238

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	100 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL2

Notes:

MSV 8260 0.5PPB

Compound Name and Concentration for Standard #27238

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	.5 ug/L	1,1,1-Trichloroethane	.5 ug/L
1,1,2,2-Tetrachloroethane	.5 ug/L	1,1,2-Trichloroethane	.5 ug/L
1,1,2-	.5 ug/L	1,1-Dichloroethane	.5 ug/L
1,1-Dichloroethene	.5 ug/L	1,1-Dichloropropene	.5 ug/L
1,2,3-Trichlorobenzene	.5 ug/L	1,2,3-Trichloropropane	.5 ug/L
1,2,4-Trichlorobenzene	.5 ug/L	1,2,4-Trimethylbenzene	.5 ug/L
1,2-Dibromo-3-	.5 ug/L	1,2-Dibromoethane (EDB)	.5 ug/L
1,2-Dichlorobenzene	.5 ug/L	1,2-Dichloroethane	.5 ug/L
1,2-Dichloropropane	.5 ug/L	1,3,5-Trimethylbenzene	.5 ug/L
1,3-Butadiene	.5 ug/L	1,3-Dichlorobenzene	.5 ug/L
1,3-Dichloropropane	.5 ug/L	1,4-Dichlorobenzene	.5 ug/L
1,4-Dioxane (p-Dioxane)	1 ug/L	2,2-Dichloropropane	.5 ug/L
2-Butanone (MEK)	1 ug/L	2-Chloroethylvinyl ether	1 ug/L
2-Chlorotoluene	.5 ug/L	2-Hexanone	1 ug/L
2-Nitropropane	.5 ug/L	4-Chlorotoluene	.5 ug/L
4-Methyl-2-pentanone	1 ug/L	Acetone	1 ug/L
Acetonitrile	1 ug/L	Acrolein	1 ug/L
Acrylonitrile	1 ug/L	Allyl chloride	.5 ug/L
Benzene	.5 ug/L	Bromobenzene	.5 ug/L
Bromochloromethane	.5 ug/L	Bromodichloromethane	.5 ug/L
Bromoform	.5 ug/L	Bromomethane	.5 ug/L
Carbon disulfide	.5 ug/L	Carbon tetrachloride	.5 ug/L
Chlorobenzene	.5 ug/L	Chloroethane	.5 ug/L
Chloroform	.5 ug/L	Chloromethane	.5 ug/L
Chloroprene	.5 ug/L	Cyclohexane	.5 ug/L
Dibromochloromethane	.5 ug/L	Dibromomethane	.5 ug/L
Dichlorodifluoromethane	.5 ug/L	Diethyl ether (Ethyl ether)	.5 ug/L
Ethyl acetate	1 ug/L	Ethyl methacrylate	.5 ug/L
Ethylbenzene	.5 ug/L	Hexachloro-1,3-butadiene	.5 ug/L
Iodomethane	.5 ug/L	Isobutanol	1 ug/L
Isopropyl acetate	.5 ug/L	Isopropylbenzene	.5 ug/L
Methacrylonitrile	1 ug/L	Methanol	ug/L
Methyl acetate	1 ug/L	Methyl acrylate	.5 ug/L
Methyl methacrylate	.5 ug/L	Methyl-tert-butyl ether	.5 ug/L
Methylcyclohexane	.5 ug/L	Methylene Chloride	.5 ug/L
Naphthalene	.5 ug/L	Propionitrile	1 ug/L
Styrene	.5 ug/L	TOTAL BTEX	3 ug/L
Tetrachloroethene	.5 ug/L	Tetrahydrofuran	1 ug/L
Toluene	.5 ug/L	Total Trihalomethanes	2 ug/L
Trichloroethene	.5 ug/L	Trichlorofluoromethane	.5 ug/L
Vinyl acetate	.5 ug/L	Vinyl chloride	.5 ug/L
Xylene (Total)	1.5 ug/L	cis-1,2-Dichloroethene	.5 ug/L
cis-1,3-Dichloropropene	.5 ug/L	cis-1,4-Dichloro-2-butene	.5 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	1 ug/L	n-Butanol	1 ug/L
n-Butylbenzene	.5 ug/L	n-Hexane	.5 ug/L
n-Propylbenzene	.5 ug/L	n-amyl acetate	.5 ug/L
o-Xylene	.5 ug/L	p-Isopropyltoluene	.5 ug/L
sec-Butylbenzene	.5 ug/L	tert-Butylbenzene	.5 ug/L
trans-1,2-Dichloroethene	.5 ug/L	trans-1,3-Dichloropropene	.5 ug/L
trans-1,4-Dichloro-2-	.5 ug/L		

Composed of Information for Standard #27238

Composed of Standard Seq	Volume	Units
27114	0.001	mL
26717	0.001	mL
1	99.998	mL

Standard Log Report

Standards Log Information for Standard #27237

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	100 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL1

Notes:

MSV 8260 0.2 PPB

Compound Name and Concentration for Standard #27237

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	.2 ug/L	1,1,1-Trichloroethane	.2 ug/L
1,1,2,2-Tetrachloroethane	.2 ug/L	1,1,2-Trichloroethane	.2 ug/L
1,1,2-	.2 ug/L	1,1-Dichloroethane	.2 ug/L
1,1-Dichloroethene	.2 ug/L	1,1-Dichloropropene	.2 ug/L
1,2,3-Trichlorobenzene	.2 ug/L	1,2,3-Trichloropropane	.2 ug/L
1,2,4-Trichlorobenzene	.2 ug/L	1,2,4-Trimethylbenzene	.2 ug/L
1,2-Dibromo-3-	.2 ug/L	1,2-Dibromoethane (EDB)	.2 ug/L
1,2-Dichlorobenzene	.2 ug/L	1,2-Dichloroethane	.2 ug/L
1,2-Dichloropropane	.2 ug/L	1,3,5-Trimethylbenzene	.2 ug/L
1,3-Butadiene	.2 ug/L	1,3-Dichlorobenzene	.2 ug/L
1,3-Dichloropropane	.2 ug/L	1,4-Dichlorobenzene	.2 ug/L
1,4-Dioxane (p-Dioxane)	.4 ug/L	2,2-Dichloropropane	.2 ug/L
2-Butanone (MEK)	.4 ug/L	2-Chloroethylvinyl ether	.4 ug/L
2-Chlorotoluene	.2 ug/L	2-Hexanone	.4 ug/L
2-Nitropropane	.2 ug/L	4-Chlorotoluene	.2 ug/L
4-Methyl-2-pentanone	.4 ug/L	Acetone	.4 ug/L
Acetonitrile	.4 ug/L	Acrolein	.4 ug/L
Acrylonitrile	.4 ug/L	Allyl chloride	.2 ug/L
Benzene	.2 ug/L	Bromobenzene	.2 ug/L
Bromochloromethane	.2 ug/L	Bromodichloromethane	.2 ug/L
Bromoform	.2 ug/L	Bromomethane	.2 ug/L
Carbon disulfide	.2 ug/L	Carbon tetrachloride	.2 ug/L
Chlorobenzene	.2 ug/L	Chloroethane	.2 ug/L
Chloroform	.2 ug/L	Chloromethane	.2 ug/L
Chloroprene	.2 ug/L	Cyclohexane	.2 ug/L
Dibromochloromethane	.2 ug/L	Dibromomethane	.2 ug/L
Dichlorodifluoromethane	.2 ug/L	Diethyl ether (Ethyl ether)	.2 ug/L
Ethyl acetate	.4 ug/L	Ethyl methacrylate	.2 ug/L
Ethylbenzene	.2 ug/L	Hexachloro-1,3-butadiene	.2 ug/L
Iodomethane	.2 ug/L	Isobutanol	.4 ug/L
Isopropyl acetate	.2 ug/L	Isopropylbenzene	.2 ug/L
Methacrylonitrile	.4 ug/L	Methanol	ug/L
Methyl acetate	.4 ug/L	Methyl acrylate	.2 ug/L
Methyl methacrylate	.2 ug/L	Methyl-tert-butyl ether	.2 ug/L
Methylcyclohexane	.2 ug/L	Methylene Chloride	.2 ug/L
Naphthalene	.2 ug/L	Propionitrile	.4 ug/L
Styrene	.2 ug/L	TOTAL BTEX	1.2 ug/L
Tetrachloroethene	.2 ug/L	Tetrahydrofuran	.4 ug/L
Toluene	.2 ug/L	Total Trihalomethanes	.8 ug/L
Trichloroethene	.2 ug/L	Trichlorofluoromethane	.2 ug/L
Vinyl acetate	.2 ug/L	Vinyl chloride	.2 ug/L
Xylene (Total)	.6 ug/L	cis-1,2-Dichloroethene	.2 ug/L
cis-1,3-Dichloropropene	.2 ug/L	cis-1,4-Dichloro-2-butene	.2 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	.4 ug/L	n-Butanol	.4 ug/L
n-Butylbenzene	.2 ug/L	n-Hexane	.2 ug/L
n-Propylbenzene	.2 ug/L	n-amyl acetate	.2 ug/L
o-Xylene	.2 ug/L	p-Isopropyltoluene	.2 ug/L
sec-Butylbenzene	.2 ug/L	tert-Butylbenzene	.2 ug/L
trans-1,2-Dichloroethene	.2 ug/L	trans-1,3-Dichloropropene	.2 ug/L
trans-1,4-Dichloro-2-	.2 ug/L		

Composed of Information for Standard #27237

Composed of Standard Seq	Volume	Units
27114	0.0004	mL
26717	0.0004	mL
1	99.9992	mL

Standard Log Report

Standards Log Information for Standard #27116

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/18/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260GAS-SPK

Notes:

MSV 8260 Agilent Secondary Gas Spike MIX

Compound Name and Concentration for Standard #27116

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	100 ug/mL	Acrolein	100 ug/mL
Acrylonitrile	100 ug/mL	Bromomethane	50 ug/mL
Chloroethane	50 ug/mL	Chloromethane	50 ug/mL
Dichlorodifluoromethane	50 ug/mL	Methanol	ug/mL
Methyl acetate	100 ug/mL	Trichlorofluoromethane	50 ug/mL
Vinyl acetate	50 ug/mL	Vinyl chloride	50 ug/mL

Composed of Information for Standard #27116

Composed of Standard Seq	Volume	Units
26774	23.5	mL
26712	0.625	mL
26711	0.25	mL
26710	0.625	mL

Standard Log Report

Standards Log Information for Standard #27114

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/18/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260GAS-SPK

Notes:

MSV 8260 Phenova Primary Gas Spike MIX

Compound Name and Concentration for Standard #27114

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	100 ug/mL	Acrolein	100 ug/mL
Acrylonitrile	100 ug/mL	Bromomethane	50 ug/mL
Chloroethane	50 ug/mL	Chloromethane	50 ug/mL
Dichlorodifluoromethane	50 ug/mL	Methanol	ug/mL
Methyl acetate	100 ug/mL	Trichlorofluoromethane	50 ug/mL
Vinyl acetate	50 ug/mL	Vinyl chloride	50 ug/mL

Composed of Information for Standard #27114

Composed of Standard Seq	Volume	Units
26774	23.25	mL
26387	0.25	mL
26386	0.625	mL
26385	0.25	mL
24913	0.625	mL

Standard Log Report

Standards Log Information for Standard #27049

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522700
Create Date:	08/17/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180002
Expire Date:	07/31/2025	**Manufacturer Lot ID:**	CL15196	**Standard ID:**	MSV-GAS-PS

Notes:

MSV 502.2 Cal Mix#1-Primary Source

Compound Name and Concentration for Standard #27049

Compound Name	Concentration	Compound Name	Concentration
Bromomethane	2000 ug/mL	Chloroethane	2000 ug/mL
Chloromethane	2000 ug/mL	Dichlorodifluoromethane	2000 ug/mL
Trichlorofluoromethane	2000 ug/mL	Vinyl chloride	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #26774

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	522674
Create Date:	08/07/2020	**Manufacturer:**	Fisher Scientific	**Part ID:**	A453-500
Expire Date:	02/03/2021	**Manufacturer Lot ID:**	198331	**Standard ID:**	RGNT179

Notes:

MSV P/T Methanol

Compound Name and Concentration for Standard #26774

Compound Name	Concentration	Compound Name	Concentration
Methanol			

Standard Log Report

Standards Log Information for Standard #26718

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/06/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/05/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-SPK

Notes:

MSV 8260 Agilent Secondary Mega Mix Spike

Compound Name and Concentration for Standard #26718

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	50 ug/mL	1,1,1-Trichloroethane	50 ug/mL
1,1,2,2-Tetrachloroethane	50 ug/mL	1,1,2-Trichloroethane	50 ug/mL
1,1,2-	50 ug/mL	1,1-Dichloroethane	50 ug/mL
1,1-Dichloroethene	50 ug/mL	1,1-Dichloropropene	50 ug/mL
1,2,3-Trichlorobenzene	50 ug/mL	1,2,3-Trichloropropane	50 ug/mL
1,2,4-Trichlorobenzene	50 ug/mL	1,2,4-Trimethylbenzene	50 ug/mL
1,2-Dibromo-3-	50 ug/mL	1,2-Dibromoethane (EDB)	50 ug/mL
1,2-Dichlorobenzene	50 ug/mL	1,2-Dichloroethane	50 ug/mL
1,2-Dichloropropane	50 ug/mL	1,3,5-Trimethylbenzene	50 ug/mL
1,3-Butadiene	50 ug/mL	1,3-Dichlorobenzene	50 ug/mL
1,3-Dichloropropane	50 ug/mL	1,4-Dichlorobenzene	50 ug/mL
1,4-Dioxane (p-Dioxane)	100 ug/mL	2,2-Dichloropropane	50 ug/mL
2-Butanone (MEK)	100 ug/mL	2-Chlorotoluene	50 ug/mL
2-Hexanone	100 ug/mL	2-Nitropropane	50 ug/mL
4-Chlorotoluene	50 ug/mL	4-Methyl-2-pentanone	100 ug/mL
Acetone	100 ug/mL	Acetonitrile	100 ug/mL
Allyl chloride	50 ug/mL	Benzene	50 ug/mL
Bromobenzene	50 ug/mL	Bromochloromethane	50 ug/mL
Bromodichloromethane	50 ug/mL	Bromoform	50 ug/mL
Carbon disulfide	50 ug/mL	Carbon tetrachloride	50 ug/mL
Chlorobenzene	50 ug/mL	Chloroform	50 ug/mL
Chloroprene	50 ug/mL	Cyclohexane	50 ug/mL
Dibromochloromethane	50 ug/mL	Dibromomethane	50 ug/mL
Diethyl ether (Ethyl ether)	50 ug/mL	Ethyl acetate	100 ug/mL
Ethyl methacrylate	50 ug/mL	Ethylbenzene	50 ug/mL
Hexachloro-1,3-butadiene	50 ug/mL	Iodomethane	50 ug/mL
Isobutanol	100 ug/mL	Isopropyl acetate	50 ug/mL
Isopropylbenzene	50 ug/mL	Methacrylonitrile	100 ug/mL
Methanol	ug/mL	Methyl acrylate	50 ug/mL
Methyl methacrylate	50 ug/mL	Methyl-tert-butyl ether	50 ug/mL
Methylcyclohexane	50 ug/mL	Methylene Chloride	50 ug/mL
Naphthalene	50 ug/mL	Propionitrile	100 ug/mL
Styrene	50 ug/mL	TOTAL BTEX	300 ug/mL
Tetrachloroethene	50 ug/mL	Tetrahydrofuran	100 ug/mL
Toluene	50 ug/mL	Total Trihalomethanes	200 ug/mL
Trichloroethene	50 ug/mL	Xylene (Total)	150 ug/mL
cis-1,2-Dichloroethene	50 ug/mL	cis-1,3-Dichloropropene	50 ug/mL
cis-1,4-Dichloro-2-butene	50 ug/mL	m&p-Xylene	100 ug/mL
n-Butanol	100 ug/mL	n-Butylbenzene	50 ug/mL
n-Hexane	50 ug/mL	n-Propylbenzene	50 ug/mL
n-amyl acetate	50 ug/mL	o-Xylene	50 ug/mL
p-Isopropyltoluene	50 ug/mL	sec-Butylbenzene	50 ug/mL
tert-Butylbenzene	50 ug/mL	trans-1,2-Dichloroethene	50 ug/mL

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
trans-1,3-Dichloropropene	50 ug/mL	trans-1,4-Dichloro-2-	50 ug/mL

Composed of Information for Standard #26718

Composed of Standard Seq	Volume	Units
26117	21.375	mL
25570	0.25	mL
25569	0.25	mL
25568	0.625	mL
25566	0.625	mL
25565	0.625	mL
25564	0.625	mL

Standard Log Report

Standards Log Information for Standard #26717

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/06/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/05/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-SPK

Notes:

MSV 8260 Phenova Primary Mega Mix Spike

Compound Name and Concentration for Standard #26717

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	50 ug/mL	1,1,1-Trichloroethane	50 ug/mL
1,1,2,2-Tetrachloroethane	50 ug/mL	1,1,2-Trichloroethane	50 ug/mL
1,1,2-	50 ug/mL	1,1-Dichloroethane	50 ug/mL
1,1-Dichloroethene	50 ug/mL	1,1-Dichloropropene	50 ug/mL
1,2,3-Trichlorobenzene	50 ug/mL	1,2,3-Trichloropropane	50 ug/mL
1,2,4-Trichlorobenzene	50 ug/mL	1,2,4-Trimethylbenzene	50 ug/mL
1,2-Dibromo-3-	50 ug/mL	1,2-Dibromoethane (EDB)	50 ug/mL
1,2-Dichlorobenzene	50 ug/mL	1,2-Dichloroethane	50 ug/mL
1,2-Dichloropropane	50 ug/mL	1,3,5-Trimethylbenzene	50 ug/mL
1,3-Butadiene	50 ug/mL	1,3-Dichlorobenzene	50 ug/mL
1,3-Dichloropropane	50 ug/mL	1,4-Dichlorobenzene	50 ug/mL
1,4-Dioxane (p-Dioxane)	100 ug/mL	2,2-Dichloropropane	50 ug/mL
2-Butanone (MEK)	100 ug/mL	2-Chlorotoluene	50 ug/mL
2-Hexanone	100 ug/mL	2-Nitropropane	50 ug/mL
4-Chlorotoluene	50 ug/mL	4-Methyl-2-pentanone	100 ug/mL
Acetone	100 ug/mL	Acetonitrile	100 ug/mL
Allyl chloride	50 ug/mL	Benzene	50 ug/mL
Bromobenzene	50 ug/mL	Bromochloromethane	50 ug/mL
Bromodichloromethane	50 ug/mL	Bromoform	50 ug/mL
Carbon disulfide	50 ug/mL	Carbon tetrachloride	50 ug/mL
Chlorobenzene	50 ug/mL	Chloroform	50 ug/mL
Chloroprene	50 ug/mL	Cyclohexane	50 ug/mL
Dibromochloromethane	50 ug/mL	Dibromomethane	50 ug/mL
Diethyl ether (Ethyl ether)	50 ug/mL	Ethyl acetate	100 ug/mL
Ethyl methacrylate	50 ug/mL	Ethylbenzene	50 ug/mL
Hexachloro-1,3-butadiene	50 ug/mL	Iodomethane	50 ug/mL
Isobutanol	100 ug/mL	Isopropyl acetate	50 ug/mL
Isopropylbenzene	50 ug/mL	Methacrylonitrile	100 ug/mL
Methanol	ug/mL	Methyl acrylate	50 ug/mL
Methyl methacrylate	50 ug/mL	Methyl-tert-butyl ether	50 ug/mL
Methylcyclohexane	50 ug/mL	Methylene Chloride	50 ug/mL
Naphthalene	50 ug/mL	Propionitrile	100 ug/mL
Styrene	50 ug/mL	TOTAL BTEX	300 ug/mL
Tetrachloroethene	50 ug/mL	Tetrahydrofuran	100 ug/mL
Toluene	50 ug/mL	Total Trihalomethanes	200 ug/mL
Trichloroethene	50 ug/mL	Xylene (Total)	150 ug/mL
cis-1,2-Dichloroethene	50 ug/mL	cis-1,3-Dichloropropene	50 ug/mL
cis-1,4-Dichloro-2-butene	50 ug/mL	m&p-Xylene	100 ug/mL
n-Butanol	100 ug/mL	n-Butylbenzene	50 ug/mL
n-Hexane	50 ug/mL	n-Propylbenzene	50 ug/mL
n-amyl acetate	50 ug/mL	o-Xylene	50 ug/mL
p-Isopropyltoluene	50 ug/mL	sec-Butylbenzene	50 ug/mL
tert-Butylbenzene	50 ug/mL	trans-1,2-Dichloroethene	50 ug/mL

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
trans-1,3-Dichloropropene	50 ug/mL	trans-1,4-Dichloro-2-	50 ug/mL

Composed of Information for Standard #26717

Composed of Standard Seq	Volume	Units
26117	22.625	mL
23770	0.625	mL
23769	0.625	mL
23768	0.625	mL
23767	0.25	mL
23766	0.25	mL

Standard Log Report

Standards Log Information for Standard #26712

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522672
Create Date:	08/06/2020	**Manufacturer:**	Agilent	**Part ID:**	3095185
Expire Date:	11/30/2020	**Manufacturer Lot ID:**	0006547794	**Standard ID:**	ACETATESTK

Notes:

MSV Custom Acetate Mix-Secondary Source

Compound Name and Concentration for Standard #26712

Compound Name	Concentration	Compound Name	Concentration
Vinyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26711

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522671
Create Date:	08/06/2020	**Manufacturer:**	Agilent	**Part ID:**	3059401
Expire Date:	11/30/2020	**Manufacturer Lot ID:**	0006547796	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #26711

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	10000 ug/mL	Acrolein	10000 ug/mL
Acrylonitrile	10000 ug/mL	Methyl acetate	10000 ug/mL

Standard Log Report

Standards Log Information for Standard #26710

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522670
Create Date:	08/06/2020	**Manufacturer:**	Agilent	**Part ID:**	3059400
Expire Date:	08/31/2022	**Manufacturer Lot ID:**	0006547006	**Standard ID:**	MSV-GAS-SS

Notes:

MSV 502.2 Cal Mix#1-Secondary Source

Compound Name and Concentration for Standard #26710

Compound Name	Concentration	Compound Name	Concentration
Bromomethane	2000 ug/mL	Chloroethane	2000 ug/mL
Chloromethane	2000 ug/mL	Dichlorodifluoromethane	2000 ug/mL
Trichlorofluoromethane	2000 ug/mL	Vinyl chloride	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #26400

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	10 mL	**Lot ID:**	PACE
Create Date:	07/30/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/29/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-ISSS

Notes:

MSV Working MV02 524/8260 IS/Surrogate

Compound Name and Concentration for Standard #26400

Compound Name	Concentration	Compound Name	Concentration
1,2-Dichlorobenzene-d4 (S)	50 mg/L	1,2-Dichloroethane-d4 (S)	50 mg/L
1,4-Dichlorobenzene-d4	50 mg/L	1,4-Difluorobenzene (IS)	50 mg/L
4-Bromofluorobenzene (S)	50 mg/L	Chlorobenzene-D5 (IS)	50 mg/L
Dibromofluoromethane (S)	50 mg/L	Fluorobenzene (IS)	50 mg/L
Methanol	mg/L	Pentafluorobenzene (IS)	50 mg/L
Toluene-d8 (S)	50 mg/L		

Composed of Information for Standard #26400

Composed of Standard Seq	Volume	Units
26117	9.1	mL
24910	0.25	mL
24909	0.25	mL
24908	0.2	mL
24907	0.2	mL

Standard Log Report

Standards Log Information for Standard #26387

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522645
Create Date:	07/29/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180007
Expire Date:	10/31/2020	**Manufacturer Lot ID:**	CL15234	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Reactives Std-Primary Source

Compound Name and Concentration for Standard #26387

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	10000 ug/mL	Acrylonitrile	10000 ug/mL
Methyl acetate	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26386

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522644
Create Date:	07/29/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180018
Expire Date:	08/27/2020	**Manufacturer Lot ID:**	CL15596	**Standard ID:**	ACETATEPSTK

Notes:

MSV Phenova Custom Acetate Mix-Primary Source

Compound Name and Concentration for Standard #26386

Compound Name	Concentration	Compound Name	Concentration
Vinyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26385

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522643
Create Date:	07/29/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180017
Expire Date:	08/27/2020	**Manufacturer Lot ID:**	CL15595	**Standard ID:**	AcrolienPSTK

Notes:

MSV Phenova Acrolein Stock Standard - Primary

Compound Name and Concentration for Standard #26385

Compound Name	Concentration	Compound Name	Concentration
Acrolein	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26117

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	522617
Create Date:	07/22/2020	**Manufacturer:**	Fisher Scientific	**Part ID:**	A453-500
Expire Date:	01/18/2021	**Manufacturer Lot ID:**	198331	**Standard ID:**	RGNT179

Notes:

MSV P/T Methanol

Compound Name and Concentration for Standard #26117

Compound Name	Concentration	Compound Name	Concentration
Methanol			

Standard Log Report

Standards Log Information for Standard #25570

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522580
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059390
Expire Date:	04/30/2021	**Manufacturer Lot ID:**	0006527178	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #25570

Compound Name	Concentration	Compound Name	Concentration
n-Butanol	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25569

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522579
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059399
Expire Date:	07/31/2022	**Manufacturer Lot ID:**	00006542413	**Standard ID:**	VOACALMX1

Notes:

MSV VOA Calibration Mix#1-Secondary Source

Compound Name and Concentration for Standard #25569

Compound Name	Concentration	Compound Name	Concentration
1,4-Dioxane (p-Dioxane)	10000 ug/mL	2-Butanone (MEK)	10000 ug/mL
2-Hexanone	10000 ug/mL	4-Methyl-2-pentanone	10000 ug/mL
Acetone	10000 ug/mL	Acetonitrile	10000 ug/mL
Ethyl acetate	10000 ug/mL	Isobutanol	10000 ug/mL
Methacrylonitrile	10000 ug/mL	Propionitrile	10000 ug/mL
Tetrahydrofuran	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25568

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522578
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059396
Expire Date:	04/30/2022	**Manufacturer Lot ID:**	0006527210	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #25568

Compound Name	Concentration	Compound Name	Concentration
Chloroprene	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25566

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522576
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3154935
Expire Date:	09/30/2020	**Manufacturer Lot ID:**	0006537291	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #25566

Compound Name	Concentration	Compound Name	Concentration
Isopropyl acetate	2000 ug/mL	Methyl acrylate	2000 ug/mL
n-amyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25565

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522575
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3083487
Expire Date:	04/30/2021	**Manufacturer Lot ID:**	0006527215	**Standard ID:**	ButadieneSTK

Notes:

MSV 1,3-Butadiene Stock-Secondary Source

Compound Name and Concentration for Standard #25565

Compound Name	Concentration	Compound Name	Concentration
1,3-Butadiene	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25564

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522574
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059393
Expire Date:	07/31/2022	**Manufacturer Lot ID:**	0006542412	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Mix-Agilent Secondary Source

Compound Name and Concentration for Standard #25564

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	2000 ug/mL	1,1,1-Trichloroethane	2000 ug/mL
1,1,2,2-Tetrachloroethane	2000 ug/mL	1,1,2-Trichloroethane	2000 ug/mL
1,1,2-	2000 ug/mL	1,1-Dichloroethane	2000 ug/mL
1,1-Dichloroethene	2000 ug/mL	1,1-Dichloropropene	2000 ug/mL
1,2,3-Trichlorobenzene	2000 ug/mL	1,2,3-Trichloropropane	2000 ug/mL
1,2,4-Trichlorobenzene	2000 ug/mL	1,2,4-Trimethylbenzene	2000 ug/mL
1,2-Dibromo-3-	2000 ug/mL	1,2-Dibromoethane (EDB)	2000 ug/mL
1,2-Dichlorobenzene	2000 ug/mL	1,2-Dichloroethane	2000 ug/mL
1,2-Dichloropropane	2000 ug/mL	1,3,5-Trimethylbenzene	2000 ug/mL
1,3-Dichlorobenzene	2000 ug/mL	1,3-Dichloropropane	2000 ug/mL
1,4-Dichlorobenzene	2000 ug/mL	2,2-Dichloropropane	2000 ug/mL
2-Chlorotoluene	2000 ug/mL	2-Nitropropane	2000 ug/mL
4-Chlorotoluene	2000 ug/mL	Allyl chloride	2000 ug/mL
Benzene	2000 ug/mL	Bromobenzene	2000 ug/mL
Bromochloromethane	2000 ug/mL	Bromodichloromethane	2000 ug/mL
Bromoform	2000 ug/mL	Carbon disulfide	2000 ug/mL
Carbon tetrachloride	2000 ug/mL	Chlorobenzene	2000 ug/mL
Chloroform	2000 ug/mL	Cyclohexane	2000 ug/mL
Dibromochloromethane	2000 ug/mL	Dibromomethane	2000 ug/mL
Diethyl ether (Ethyl ether)	2000 ug/mL	Ethyl methacrylate	2000 ug/mL
Ethylbenzene	2000 ug/mL	Hexachloro-1,3-butadiene	2000 ug/mL
Iodomethane	2000 ug/mL	Isopropylbenzene	2000 ug/mL
Methyl methacrylate	2000 ug/mL	Methyl-tert-butyl ether	2000 ug/mL
Methylcyclohexane	2000 ug/mL	Methylene Chloride	2000 ug/mL
Naphthalene	2000 ug/mL	Styrene	2000 ug/mL
TOTAL BTEX	12000 ug/mL	Tetrachloroethene	2000 ug/mL
Toluene	2000 ug/mL	Total Trihalomethanes	8000 ug/mL
Trichloroethene	2000 ug/mL	Xylene (Total)	6000 ug/mL
cis-1,2-Dichloroethene	2000 ug/mL	cis-1,3-Dichloropropene	2000 ug/mL
cis-1,4-Dichloro-2-butene	2000 ug/mL	m&p-Xylene	4000 ug/mL
n-Butylbenzene	2000 ug/mL	n-Hexane	2000 ug/mL
n-Propylbenzene	2000 ug/mL	o-Xylene	2000 ug/mL
p-Isopropyltoluene	2000 ug/mL	sec-Butylbenzene	2000 ug/mL
tert-Butylbenzene	2000 ug/mL	trans-1,2-Dichloroethene	2000 ug/mL
trans-1,3-Dichloropropene	2000 ug/mL	trans-1,4-Dichloro-2-	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #24913

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522539
Create Date:	06/23/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180002
Expire Date:	08/31/2024	**Manufacturer Lot ID:**	CL14053	**Standard ID:**	MSV-GAS-PS

Notes:

MSV 502.2 Cal Mix#1-Primary Source

Compound Name and Concentration for Standard #24913

Compound Name	Concentration	Compound Name	Concentration
Bromomethane	2000 ug/mL	Chloroethane	2000 ug/mL
Chloromethane	2000 ug/mL	Dichlorodifluoromethane	2000 ug/mL
Trichlorofluoromethane	2000 ug/mL	Vinyl chloride	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #24910

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522538
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30030
Expire Date:	02/28/2025	**Manufacturer Lot ID:**	A0158124	**Standard ID:**	524 IS STK

Notes:

MSV 524.2 Fluorobenzene IS Stock

Compound Name and Concentration for Standard #24910

Compound Name	Concentration	Compound Name	Concentration
Fluorobenzene (IS)	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #24909

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522537
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30049
Expire Date:	08/31/2028	**Manufacturer Lot ID:**	A0160880	**Standard ID:**	524 Surr STK

Notes:

MSV 524 Surrogate 1,2-Dichlorobenzene-d4

Compound Name and Concentration for Standard #24909

Compound Name	Concentration	Compound Name	Concentration
1,2-Dichlorobenzene-d4 (S)	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #24908

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522536
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30240
Expire Date:	01/31/2025	**Manufacturer Lot ID:**	A0156492	**Standard ID:**	8260 SUR STK

Notes:

MSV 8260 Surrogate Stock

Compound Name and Concentration for Standard #24908

Compound Name	Concentration	Compound Name	Concentration
1,2-Dichloroethane-d4 (S)	2500 ug/mL	4-Bromofluorobenzene (S)	2500 ug/mL
Dibromofluoromethane (S)	2500 ug/mL	Toluene-d8 (S)	2500 ug/mL

Standard Log Report

Standards Log Information for Standard #24907

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522535
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30074
Expire Date:	04/30/2025	**Manufacturer Lot ID:**	A0159786	**Standard ID:**	8260 IS

Notes:

MSV 8260 IS Stock

Compound Name and Concentration for Standard #24907

Compound Name	Concentration	Compound Name	Concentration
1,4-Dichlorobenzene-d4	2500 ug/mL	1,4-Difluorobenzene (IS)	2500 ug/mL
Chlorobenzene-D5 (IS)	2500 ug/mL	Pentafluorobenzene (IS)	2500 ug/mL

Standard Log Report

Standards Log Information for Standard #23770

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522451
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180001
Expire Date:	12/31/2021	**Manufacturer Lot ID:**	CL14606	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Mix-Primary Source

Compound Name and Concentration for Standard #23770

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	2000 ug/mL	1,1,1-Trichloroethane	2000 ug/mL
1,1,2,2-Tetrachloroethane	2000 ug/mL	1,1,2-Trichloroethane	2000 ug/mL
1,1,2-	2000 ug/mL	1,1-Dichloroethane	2000 ug/mL
1,1-Dichloroethene	2000 ug/mL	1,1-Dichloropropene	2000 ug/mL
1,2,3-Trichlorobenzene	2000 ug/mL	1,2,3-Trichloropropane	2000 ug/mL
1,2,4-Trichlorobenzene	2000 ug/mL	1,2,4-Trimethylbenzene	2000 ug/mL
1,2-Dibromo-3-	2000 ug/mL	1,2-Dibromoethane (EDB)	2000 ug/mL
1,2-Dichlorobenzene	2000 ug/mL	1,2-Dichloroethane	2000 ug/mL
1,2-Dichloropropane	2000 ug/mL	1,3,5-Trimethylbenzene	2000 ug/mL
1,3-Dichlorobenzene	2000 ug/mL	1,3-Dichloropropane	2000 ug/mL
1,4-Dichlorobenzene	2000 ug/mL	2,2-Dichloropropane	2000 ug/mL
2-Chlorotoluene	2000 ug/mL	2-Nitropropane	2000 ug/mL
4-Chlorotoluene	2000 ug/mL	Allyl chloride	2000 ug/mL
Benzene	2000 ug/mL	Bromobenzene	2000 ug/mL
Bromochloromethane	2000 ug/mL	Bromodichloromethane	2000 ug/mL
Bromoform	2000 ug/mL	Carbon disulfide	2000 ug/mL
Carbon tetrachloride	2000 ug/mL	Chlorobenzene	2000 ug/mL
Chloroform	2000 ug/mL	Chloroprene	2000 ug/mL
Cyclohexane	2000 ug/mL	Dibromochloromethane	2000 ug/mL
Dibromomethane	2000 ug/mL	Diethyl ether (Ethyl ether)	2000 ug/mL
Ethyl methacrylate	2000 ug/mL	Ethylbenzene	2000 ug/mL
Hexachloro-1,3-butadiene	2000 ug/mL	Iodomethane	2000 ug/mL
Isopropylbenzene	2000 ug/mL	Methyl methacrylate	2000 ug/mL
Methyl-tert-butyl ether	2000 ug/mL	Methylcyclohexane	2000 ug/mL
Methylene Chloride	2000 ug/mL	Naphthalene	2000 ug/mL
Styrene	2000 ug/mL	TOTAL BTEX	12000 ug/mL
Tetrachloroethene	2000 ug/mL	Toluene	2000 ug/mL
Total Trihalomethanes	8000 ug/mL	Trichloroethene	2000 ug/mL
Xylene (Total)	6000 ug/mL	cis-1,2-Dichloroethene	2000 ug/mL
cis-1,3-Dichloropropene	2000 ug/mL	cis-1,4-Dichloro-2-butene	2000 ug/mL
m&p-Xylene	4000 ug/mL	n-Butylbenzene	2000 ug/mL
n-Hexane	2000 ug/mL	n-Propylbenzene	2000 ug/mL
o-Xylene	2000 ug/mL	p-Isopropyltoluene	2000 ug/mL
sec-Butylbenzene	2000 ug/mL	tert-Butylbenzene	2000 ug/mL
trans-1,2-Dichloroethene	2000 ug/mL	trans-1,3-Dichloropropene	2000 ug/mL
trans-1,4-Dichloro-2-	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23769

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522450
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180006
Expire Date:	11/30/2020	**Manufacturer Lot ID:**	CL14585	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Supplemental Std-Primary Source

Compound Name and Concentration for Standard #23769

Compound Name	Concentration	Compound Name	Concentration
Isopropyl acetate	2000 ug/mL	Methyl acrylate	2000 ug/mL
n-amyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23768

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522449
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180004
Expire Date:	11/30/2021	**Manufacturer Lot ID:**	CL14652	**Standard ID:**	ButadieneSTK

Notes:

MSV 1,3-Butadiene Stock-Primary Source

Compound Name and Concentration for Standard #23768

Compound Name	Concentration	Compound Name	Concentration
1,3-Butadiene	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23767

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522448
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180003
Expire Date:	11/30/2022	**Manufacturer Lot ID:**	CL14587	**Standard ID:**	VOACALMX1

Notes:

MSV VOA Calibration Mix#1-Primary Source

Compound Name and Concentration for Standard #23767

Compound Name	Concentration	Compound Name	Concentration
1,4-Dioxane (p-Dioxane)	10000 ug/mL	2-Butanone (MEK)	10000 ug/mL
2-Hexanone	10000 ug/mL	4-Methyl-2-pentanone	10000 ug/mL
Acetone	10000 ug/mL	Acetonitrile	10000 ug/mL
Ethyl acetate	10000 ug/mL	Isobutanol	10000 ug/mL
Methacrylonitrile	10000 ug/mL	Propionitrile	10000 ug/mL
Tetrahydrofuran	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23766

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522447
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180005
Expire Date:	12/31/2020	**Manufacturer Lot ID:**	CL14607	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Supplemental Std-Primary Source

Compound Name and Concentration for Standard #23766

Compound Name	Concentration	Compound Name	Concentration
n-Butanol	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #8940

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	521408
Create Date:	05/09/2019	**Manufacturer:**	Fisher Scientific	**Part ID:**	S23-3
Expire Date:	09/01/2022	**Manufacturer Lot ID:**	175767	**Standard ID:**	RGNT210

Notes:

MSV Ottowa Sand

Compound Name and Concentration for Standard #8940

Compound Name	Concentration	Compound Name	Concentration
Ottawa Sand	mg/kg		

Standard Log Report

Standards Log Information for Standard #1

STOCK STANDARD

Created By:	GR1	**Volume of Standard:**	1000 mL	**Lot ID:**	PACE
Create Date:	01/01/2018	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	01/01/2025	**Manufacturer Lot ID:**	PACE	**Standard ID:**	RGNT389

Notes:

DI Water

Compound Name and Concentration for Standard #1

Compound Name	Concentration	Compound Name	Concentration
DI Water			

The standards listed are from Pace's LIMS52.

521408
REC. 04/19/18 BY EF
Exp. 9/1/22 By
Open 1/9/19 By

STD
8940

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

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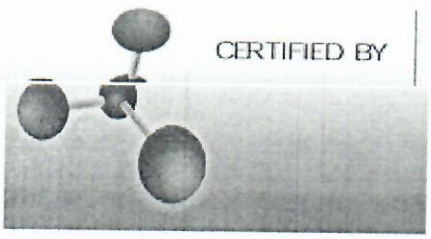
Catalog Number	**S23**	**Quality Test / Release Date**	**9/26/2017**
Lot Number	**175767**		
Description	**SAND, OTTAWA**		
Country of Origin	**United States**	*** Suggested Retest Date**	**Sep-2022**

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless to Yellow-Brown Beads
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
MESH SIZE	PASS/FAIL	= PASS TEST	PASS TEST



Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

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Catalog Number: AL0-180005
Description: Additions Mix 1
Storage: Freeze (-18-0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14607
Certification Date: January 22, 2020
Expiration Date: December 31, 2020

Andrea L Gill

522447
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STO# 23766

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
n-Decane	124-18-5	2001	0.230%
n-Dodecane	112-40-3	2000	0.115%
n-Undecane	1120-21-4	1999	0.115%
n-Octane	111-65-9	2000	0.115%
n-Nonane	111-84-2	2001	0.167%
3,3-dimethyl-1-butanol	624-95-3	10002	0.157%
1-Chlorobutane	109-69-3	2000	0.230%
1-Propanol	71-23-8	10000	0.226%
2-Bromo-1-chloropropane	3017-95-6	2000	1.042%
2-Butanol	78-92-2	2000	0.230%
2-Methylpentane	107-83-5	2000	0.115%
4-Methyl-2-pentanol	108-11-2	1999	0.230%
Benzyl chloride	100-44-7	1999	0.140%
Butylcyclohexane	1678-93-9	2001	0.230%
Hexachloroethane	67-72-1	2001	0.230%
2-Chloroethanol	107-07-3	2000	0.230%
Nitrobenzene	98-95-3	2000	0.230%
1-Methylnaphthalene	90-12-0	2000	0.115%
Isooctane	540-84-1	2000	0.115%
1-Butanol	71-36-3	10000	0.226%
n-Heptane	142-82-5	2000	0.204%
Isopropanol (2-Propanol)	67-63-0	10000	0.105%

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Catalog Number: AL0-180003
Description: Elevated VOA Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14587
Certification Date: January 12, 2020
Expiration Date: November 30, 2022

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522448
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STD# 23767

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Acetone	67-64-1	10000	3.527%
Acetonitrile	75-05-8	10000	0.225%
tert-Amyl alcohol	75-85-4	10002	0.104%
tert-Butanol	75-65-0	10000	0.105%
2-Butanone	78-93-3	10000	0.225%
Cyclohexanone	108-94-1	10000	0.225%
1,4-Dioxane	123-91-1	10001	0.225%
Ethanol	64-17-5	10000	0.225%
Ethyl acetate	141-78-6	10000	0.225%
Isobutanol (2-methyl-1-propanol)	78-83-1	10000	0.225%
2-Hexanone	591-78-6	10000	0.105%
Methacrylonitrile	126-98-7	10000	0.105%
4-Methyl-2-pentanone	108-10-1	10000	0.225%
Propionitrile	107-12-0	10000	0.225%
Tetrahydrofuran	109-99-9	10000	0.225%

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Catalog Number: AL0-180004
Description: Custom 8260 Additions Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14652
Certification Date: January 21, 2020
Expiration Date: November 30, 2021

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522449
REC.05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STD#23768

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
1,3-Butadiene	106-99-0	2005	5.367%
Dicyclopentadiene	77-73-6	2000	13.563%
4-Ethyltoluene	622-96-8	2000	13.560%
Propene	115-07-1	1981	8.812%

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Catalog Number: AL0-180006
Description: Additions Mix 2
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14585
Certification Date: January 12, 2020
Expiration Date: November 30, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522450
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STO# 23769

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Methyl acrylate	96-33-3	2000	4.712%
n-Amyl acetate	628-63-7	2000	3.289%
Ethyl acrylate	140-88-5	2000	5.106%
Butyl Acetate	123-86-4	2000	4.627%
tert-Butyl Acetate	540-88-5	2000	5.102%
tert-Butyl Formate	762-75-4	10000	4.021%
Isopropyl acetate	108-21-4	2000	4.640%

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Catalog Number: AL0-180001
Description: Custom VOA Cal Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: > 1 mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14606
Certification Date: March 3, 2020
Expiration Date: December 31, 2021

522451
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STOck 23770

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Allyl Chloride	107-05-1	2000	0.492%
tert-Amyl Ethyl Ether (TAEE)	919-94-8	2000	0.215%
tert-Amyl Methyl Ether (TAME)	994-05-8	2000	0.632%
Benzene	71-43-2	2000	0.519%
Bromobenzene	108-86-1	2000	0.479%
Bromoform	75-25-2	2000	0.487%
Bromochloromethane	74-97-5	2000	0.545%
Bromodichloromethane	75-27-4	2000	0.481%
n-Butylbenzene	104-51-8	2000	0.480%
sec-Butylbenzene	135-98-8	2000	0.478%
tert-Butylbenzene	98-06-6	2000	0.481%
Ethyl-tert Butyl Ether (ETBE)	637-92-3	2000	0.635%
Carbon disulfide	75-15-0	2000	0.480%
Carbon tetrachloride	56-23-5	2000	0.519%
Chlorobenzene	108-90-7	2000	0.519%
Chloroform	67-66-3	2000	0.519%
Chloroprene	126-99-8	2000	1.518%
2-Chlorotoluene	95-49-8	2000	0.478%
4-Chlorotoluene	106-43-4	2000	0.479%
Cyclohexane	110-82-7	2000	0.507%
Dibromochloromethane	124-48-1	2000	0.480%
1,2-Dibromo-3-Chloropropane	96-12-8	2000	0.479%
Dibromomethane	74-95-3	2000	0.508%
Dibromomethane	106-93-4	2000	0.508%
1,2-Dichlorobenzene	95-50-1	2000	0.478%
1,3-Dichlorobenzene	541-73-1	2000	0.479%

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Catalog Number: AL0-180001
Description: Custom VOA Cal Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: > 1 mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14606
Certification Date: March 3, 2020
Expiration Date: December 31, 2021

OFFICE USE

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
1,4-Dichlorobenzene	106-46-7	2001	0.215%
cis-1,4-Dichloro-2-butene	1476-11-5	2000	0.480%
trans-1,4-Dichloro-2-butene	110-57-6	2000	0.492%
1,1-Dichloroethane	75-34-3	2000	0.546%
1,2-Dichloroethane	107-06-2	2000	0.545%
1,1-Dichloroethene	75-35-4	2000	0.507%
cis-1,2-Dichloroethene	156-59-2	2000	0.545%
trans-1,2-Dichloroethene	156-60-5	2000	0.558%
1,2-Dichloropropane	78-87-5	2000	0.524%
1,3-Dichloropropane	142-28-9	2000	0.478%
2,2-Dichloropropane	594-20-7	2000	0.519%
1,1-Dichloropropene	563-58-6	2000	0.218%
cis-1,3-Dichloropropene	10061-01-5	2001	0.507%
trans-1,3-Dichloropropene	10061-02-6	2000	0.507%
Ethyl Ether	60-29-7	2000	0.624%
Diisopropyl ether (DIPE)	108-20-3	2000	0.622%
Ethylbenzene	100-41-4	2000	0.519%
Ethyl methacrylate	97-63-2	2000	0.500%
Hexachlorobutadiene	87-68-3	2000	0.479%
n-Hexane	110-54-3	2000	0.507%
Iodomethane (methyl iodide)	74-88-4	1999	0.216%
Isopropylbenzene	98-82-8	2000	0.507%
p-isopropyltoluene	99-87-6	2000	0.507%
Methyl-tert-butyl ether (MTBE)	1634-04-4	2000	0.649%
Methylcyclohexane	108-87-2	2000	0.479%
Methyl methacrylate	80-62-6	2000	0.479%

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Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180001
Description: Custom VOA Cal Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: > 1 mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14606
Certification Date: March 3, 2020
Expiration Date: December 31, 2021

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Methylene Chloride	75-09-2	2000	0.479%
2-Methylnaphthalene	91-57-6	2000	0.479%
Naphthalene	91-20-3	2000	0.217%
2-Nitropropane	79-46-9	2000	0.509%
N-Propylbenzene	103-65-1	2000	0.519%
Styrene	100-42-5	2000	0.501%
1,1,1,2-Tetrachloroethane	630-20-6	2000	0.505%
1,1,2,2-Tetrachloroethane	79-34-5	2000	0.480%
Tetrachloroethene	127-18-4	2000	0.519%
Toluene	108-88-3	2000	0.519%
1,2,3-Trichlorobenzene	87-61-6	2000	0.293%
1,2,4-Trichlorobenzene	120-82-1	2000	0.478%
1,1,1-Trichloroethane	71-55-6	2001	1.009%
1,1,2-Trichloroethane	79-00-5	2000	0.479%
Trichloroethene	79-01-6	2000	0.479%
1,2,3-Trichloropropane	96-18-4	2000	0.479%
1,1,2-Trichlorotrifluoroethane	76-13-1	2000	0.644%
1,2,3-Trimethylbenzene	526-73-8	2000	0.215%
1,2,4-Trimethylbenzene	95-63-6	2000	0.507%
1,3,5-Trimethylbenzene	108-67-8	2000	0.507%
m-Xylene	108-38-3	2000	0.478%
o-Xylene	95-47-6	2000	0.479%
p-Xylene	106-42-3	2000	0.478%

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30074 **Lot No.:** A0159786

Description : 8260 Internal Standard Mix

8260 Internal Standard Mix 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Pentafluorobenzene **CAS #** 363-72-4 **Purity** 99%	(Lot MKCH1850)	2,507.0 µg/mL	+/- 14.5759 µg/mL +/- 140.5650 µg/mL +/- 143.8540 µg/mL		Gravimetric Unstressed Stressed
2	1,4-Difluorobenzene **CAS #** 540-36-3 **Purity** 99%	(Lot MKBN8571V)	2,506.6 µg/mL	+/- 14.5736 µg/mL +/- 140.5426 µg/mL +/- 143.8311 µg/mL		Gravimetric Unstressed Stressed
3	Chlorobenzene-d5 **CAS #** 3114-55-4 **Purity** 99%	(Lot PR-29571)	2,504.8 µg/mL	+/- 14.5631 µg/mL +/- 140.4416 µg/mL +/- 143.7278 µg/mL		Gravimetric Unstressed Stressed
4	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 **Purity** 99%	(Lot PR-30447)	2,508.0 µg/mL	+/- 14.5817 µg/mL +/- 140.6211 µg/mL +/- 143.9114 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30240 **Lot No.:** A0156492

Description : 8260A Surrogate Mix

8260A Surrogate Mix 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dibromofluoromethane **CAS #** 1868-53-7 **Purity** 99%	(Lot 0012016)	2,501.9 µg/mL	+/- 14.5463 µg/mL +/- 140.2790 µg/mL +/- 143.5614 µg/mL		Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 **Purity** 99%	(Lot PR-29377)	2,500.9 µg/mL	+/- 14.5404 µg/mL +/- 140.2230 µg/mL +/- 143.5040 µg/mL		Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 **Purity** 99%	(Lot I-21928)	2,500.5 µg/mL	+/- 14.5381 µg/mL +/- 140.2006 µg/mL +/- 143.4811 µg/mL		Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 **Purity** 99%	(Lot 20401KO)	2,501.2 µg/mL	+/- 14.5422 µg/mL +/- 140.2398 µg/mL +/- 143.5212 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30049 **Lot No.:** A0160880

Description : 1,2-Dichlorobenzene-d4 Mix

1, 2-Dichlorobenzene-d4 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound			Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,2-Dichlorobenzene-d4			2,000.0 µg/mL	+/-	11.8794	µg/mL	Gravimetric
	CAS #	2199-69-1	(Lot M-2097)		+/-	112.1643	µg/mL	Unstressed
	Purity	99%			+/-	114.7876	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30030 **Lot No.:** A0158124

Description : Fluorobenzene Mixture

Fluorobenzene 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Fluorobenzene		2,006.0 µg/mL	+/- 11.7723	µg/mL	Gravimetric
	CAS # 462-06-6	(Lot BCBZ5549)		+/- 112.4858	µg/mL	Unstressed
	Purity 99%			+/- 115.1173	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180002
Description: 8260 Gases Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14053
Certification Date: January 12, 2020
Expiration Date: August 31, 2024

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STD# 24913

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Bromomethane	74-83-9	2000	6.589%
Chloroethane	75-00-3	2001	4.979%
Chloromethane	74-87-3	2009	7.022%
Chlorodifluoromethane	75-45-6	2000	0.405%
Dichlorodifluoromethane	75-71-8	2006	8.740%
Dichlorofluoromethane	75-43-4	2007	8.745%
Trichlorofluoromethane	75-69-4	1996	4.584%
Vinyl Chloride	75-01-4	2001	7.920%

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STD# 2556 4

Product Name: Custom Standard

Product Number: CUS-00002034

Lot Issue Date: 17-Jun-2020

Lot Number: 0006542412

Expiration Date: 31-Jul-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,1,1,2-tetrachloroethane	000630-20-6	RM12632	2008 ± 10 µg/mL
1,1,1-trichloroethane	000071-55-6	RM15035	2008 ± 10 µg/mL
1,1,2,2-tetrachloroethane	000079-34-5	NT00390	2006 ± 10 µg/mL
1,1,2-trichlorotrifluoroethane	000076-13-1	RM04848	2000 ± 10 µg/mL
1,1,2-trichloroethane	000079-00-5	RM01175	2007 ± 10 µg/mL
1,1-dichloroethane	000075-34-3	RM15556	2003 ± 10 µg/mL
1,1-dichloroethene	000075-35-4	RM01356	2008 ± 10 µg/mL
1,1-dichloropropene	000563-58-6	RM16247	2008 ± 10 µg/mL
1,2,3-trichlorobenzene	000087-61-6	RM10193	2002 ± 10 µg/mL
1,2,3-trichloropropane	000096-18-4	RM13082	2009 ± 10 µg/mL
1,2,3-trimethylbenzene	000526-73-8	RM13689	2009 ± 10 µg/mL
1,2,4-trichlorobenzene	000120-82-1	RM09454	2007 ± 10 µg/mL
1,2,4-trimethylbenzene	000095-63-6	RM06731	2000 ± 10 µg/mL
1,2-dibromo-3-chloropropane	000096-12-8	RM13666	2003 ± 10 µg/mL
1,2-dichlorobenzene	000095-50-1	RM13636	2008 ± 10 µg/mL
1,2-dichloroethane	000107-06-2	RM04655	2007 ± 10 µg/mL
1,2-dibromoethane	000106-93-4	RM00018	2009 ± 10 µg/mL

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ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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Product Number: CUS-00002034 **Lot Number:** 0006542412

1,2-dichloropropane	000078-87-5	RM12821	2004 ± 10 µg/mL
1,3,5-trimethylbenzene	000108-67-8	NT01632	2001 ± 10 µg/mL
1,3-dichlorobenzene	000541-73-1	NT00356	2005 ± 10 µg/mL
1,3-dichloropropane	000142-28-9	RM09825	2010 ± 10 µg/mL
1,4-dichlorobenzene	000106-46-7	RM12826	2006 ± 10 µg/mL
2,2-dichloropropane	000594-20-7	RM12927	2007 ± 10 µg/mL
2-chlorotoluene	000095-49-8	RM13774	2009 ± 10 µg/mL
allyl chloride	000107-05-1	RM12242	2001 ± 10 µg/mL
4-chlorotoluene	000106-43-4	RM11750	2003 ± 10 µg/mL
4-isopropyltoluene	000099-87-6	RM09747	2009 ± 10 µg/mL
benzene	000071-43-2	RM03830	2009 ± 10 µg/mL
bromobenzene	000108-86-1	RM10227	2009 ± 10 µg/mL
bromoform	000075-25-2	RM07516	2004 ± 10 µg/mL
bromochloromethane	000074-97-5	RM00009	2001 ± 10 µg/mL
carbon disulfide	000075-15-0	RM08158	2010 ± 10 µg/mL
carbon tetrachloride	000056-23-5	RM07576	2005 ± 10 µg/mL
chlorobenzene	000108-90-7	RM01874	2006 ± 10 µg/mL
dibromochloromethane	000124-48-1	RM14843-01	2007 ± 10 µg/mL
chloroform	000067-66-3	RM13988	2005 ± 10 µg/mL
cis-1,2-dichloroethene	000156-59-2	RM15008	2007 ± 10 µg/mL
cis-1,3-dichloropropene	010061-01-5	RM12891	2007 ± 10 µg/mL
cis-1,4-dichloro-2-butene	001476-11-5	RM11674	2005 ± 10 µg/mL

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Product Number: CUS-00002034 **Lot Number:** 0006542412

cyclohexane	000110-82-7	RM11622	2006 ± 10 µg/mL
dibromomethane	000074-95-3	RM12878	2010 ± 10 µg/mL
bromodichloromethane	000075-27-4	RM14215	2004 ± 10 µg/mL
diethyl ether	000060-29-7	RM11151	2007 ± 10 µg/mL
ethyl methacrylate	000097-63-2	RM04592	2008 ± 10 µg/mL
ethylbenzene	000100-41-4	RM00783	2008 ± 10 µg/mL
hexachlorobutadiene	000087-68-3	RM09157	2009 ± 10 µg/mL
n-hexane	000110-54-3	RM10581	2010 ± 10 µg/mL
methyl iodide	000074-88-4	RM14171	2008 ± 10 µg/mL
isopropylbenzene	000098-82-8	RM00835	2009 ± 10 µg/mL
methyl methacrylate	000080-62-6	RM04912	2008 ± 10 µg/mL
tert-butylmethyl ether	001634-04-4	RM06568	2008 ± 10 µg/mL
methylcyclohexane	000108-87-2	RM10295	2008 ± 10 µg/mL
methylene chloride	000075-09-2	RM09575	2008 ± 10 µg/mL
naphthalene	000091-20-3	RM02406	2010 ± 10 µg/mL
n-butylbenzene	000104-51-8	NT01633	2009 ± 10 µg/mL
n-propylbenzene	000103-65-1	RM02470	2007 ± 10 µg/mL
m-xylene	000108-38-3	RM15919	2008 ± 10 µg/mL
o-xylene	000095-47-6	NT00774	1999 ± 10 µg/mL
p-xylene	000106-42-3	RM09445	2007 ± 10 µg/mL
sec-butylbenzene	000135-98-8	NT01548	2009 ± 10 µg/mL
styrene	000100-42-5	RM11083	2001 ± 10 µg/mL

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Product Number: CUS-00002034 **Lot Number:** 0006542412

tert-butylbenzene	000098-06-6	NT01547	2009 ± 10 µg/mL
tetrachloroethene	000127-18-4	RM06491	2002 ± 10 µg/mL
toluene	000108-88-3	RM06650	2000 ± 10 µg/mL
trans-1,2-dichloroethene	000156-60-5	RM07565	2009 ± 10 µg/mL
trans-1,3-dichloropropene	010061-02-6	RM12254	2008 ± 10 µg/mL
trans-1,4-dichloro-2-butene	000110-57-6	RM13971	2005 ± 10 µg/mL
trichloroethene	000079-01-6	RM14232	2008 ± 10 µg/mL
2-methylnaphthalene	000091-57-6	RM01258	2009 ± 10 µg/mL
2-nitropropane	000079-46-9	RM12249	2007 ± 10 µg/mL
isopropyl ether	000108-20-3	RM03712	2004 ± 10 µg/mL
tert-amyl methyl ether	000994-05-8	RM00554	2008 ± 10 µg/mL
tert-butyl ethyl ether	000637-92-3	RM05137	2007 ± 10 µg/mL
tert-amyl ethyl ether	000919-94-8	RM12453	2007 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

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Product Name: Custom Standard

Product Number: CUS-00002374

Lot Issue Date: 23-Mar-2020

Lot Number: 0006527215

Expiration Date: 30-Apr-2021

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,3-butadiene	000106-99-0	RM14006	2000 ± 10 µg/mL
4-ethyltoluene	000622-96-8	RM14957	2010 ± 10 µg/mL
dicyclopentadiene	000077-73-6	RM16067	2008 ± 10 µg/mL
propene	000115-07-1	RM11969	2000 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

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STD# 25566

Product Name: Custom Standard

Product Number: CUS-00002584

Lot Issue Date: 12-May-2020

Lot Number: 0006537291

Expiration Date: 30-Sep-2020

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
methyl acrylate	000096-33-3	NT00903	2007 ± 10 µg/mL
pentyl acetate	000628-63-7	RM02455	2006 ± 10 µg/mL
ethyl acrylate	000140-88-5	RM04396	2006 ± 10 µg/mL
n-butyl acetate	000123-86-4	RM07291	2008 ± 10 µg/mL
t-butyl acetate	000540-88-5	RM11665	2002 ± 10 µg/mL
tert-butyl formate	000762-75-4	RM10789	10040 ± 50 µg/mL
isopropyl acetate	000108-21-4	RM00997	2007 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002344

Lot Issue Date: 19-Mar-2020

Lot Number: 0006527210

Expiration Date: 30-Apr-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
chloroprene	000126-99-8	RM15691	2000 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

M Bourgeois

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

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ISO 17025 Cert No. AT-1937

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Certificate of Analysis

522579
REC. 06/26/20 BY EF
Exp. __/__/__ By -
Open __/__/__ By -

STD# 25569

Product Name: Custom Standard

Product Number: CUS-00002036

Lot Issue Date: 22-Jun-2020

Lot Number: 0006542413

Expiration Date: 31-Jul-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,4-dioxane	000123-91-1	RM00526	10035 ± 50 µg/mL
acetonitrile	000075-05-8	RM14601	10040 ± 50 µg/mL
ethyl alcohol	000064-17-5	RM15111	10040 ± 50 µg/mL
ethyl acetate	000141-78-6	RM12930	10025 ± 50 µg/mL
isobutyl alcohol	000078-83-1	RM13876	10030 ± 50 µg/mL
tert-butanol	000075-65-0	RM01883	10040 ± 50 µg/mL
2-butanone	000078-93-3	RM06696	10039 ± 50 µg/mL
2-hexanone	000591-78-6	RM10228	10030 ± 50 µg/mL
4-methyl-2-pentanone	000108-10-1	RM14374	10028 ± 50 µg/mL
acetone	000067-64-1	RM13477	10040 ± 50 µg/mL
methacrylonitrile	000126-98-7	RM10100	10030 ± 50 µg/mL
propionitrile	000107-12-0	RM15267	10036 ± 50 µg/mL
tert-pentanol	000075-85-4	RM11924	10030 ± 50 µg/mL
tetrahydrofuran	000109-99-9	RM14318	10041 ± 50 µg/mL
cyclohexanone	000108-94-1	RM10703	10030 ± 50 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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ISO 17025 Cert No. AT-1937

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522580
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STD# 25570

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002032

Lot Issue Date: 23-Mar-2020

Lot Number: 0006527178

Expiration Date: 30-Apr-2021

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
n-decane	000124-18-5	RM16108	2006 ± 10 µg/mL
n-dodecane	000112-40-3	RM15591	2003 ± 10 µg/mL
n-undecane	001120-21-4	RM04270	2009 ± 10 µg/mL
n-octane	000111-65-9	NT01970	2004 ± 10 µg/mL
n-nonane	000111-84-2	RM15036	2009 ± 10 µg/mL
3,3-dimethyl-1-butanol	000624-95-3	RM15245	10024 ± 50 µg/mL
1-chlorobutane	000109-69-3	RM03678	2007 ± 10 µg/mL
1-propanol	000071-23-8	RM11119	10029 ± 50 µg/mL
2-bromo-1-chloropropane	003017-85-6	RM09192	2009 ± 10 µg/mL
sec-butanol	000078-92-2	RM01299	2008 ± 10 µg/mL
2-methylpentane	000107-83-5	RM11010	2009 ± 10 µg/mL
4-methyl-2-pentanol	000108-11-2	RM02348	2009 ± 10 µg/mL
benzyl chloride	000100-44-7	RM12844	2009 ± 10 µg/mL
butylcyclohexane	001678-93-9	RM13072	2008 ± 10 µg/mL
hexachloroethane	000067-72-1	RM06859	2007 ± 10 µg/mL
2-chloroethanol	000107-07-3	NT01518	2008 ± 10 µg/mL
nitrobenzene	000098-95-3	RM11472	2009 ± 10 µg/mL

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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ISO 17025 Cert No. AT-1937

Certificate of Analysis

Product Number: CUS-00002032 **Lot Number:** 0006527178

1-methylnaphthalene	000090-12-0	RM07712	2002 ± 10 µg/mL
2,2,4-trimethylpentane	000540-84-1	RM14637	2007 ± 10 µg/mL
1-butanol	000071-36-3	RM06085	10008 ± 50 µg/mL
n-heptane	000142-82-5	RM14537	2009 ± 10 µg/mL
isopropyl alcohol	000067-63-0	RM10189	10030 ± 50 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

Certificate of Analysis
ThermoFisher SCIENTIFIC

522617
REC. 07/22/20 BY EF
Exp. 01/18/21 By -
Open 04/22/20 By -

Certificate of Analysis

STD# 26117

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A453	Quality Test / Release Date	02/19/2020
Lot Number	198331		
Description	METHANOL, PURGE & TRAP GRADE		
Country of Origin	Venezuela	Suggested Retest Date	Feb/2025
Chemical Origin	Organic - synthetic		
BSE/TSE Comment	This product is derived from petroleum products. It does not contain any materials that are of human or animal origin, nor does it come into contact with such materials during the manufacturing process. Therefore, to the best of our knowledge, there is no potential for BSE or TSE to be present in this product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear colorless liquid free of suspended matter.
2-BUTANONE	ppb	<= 50	<25
ACETONE	ppb	<= 50	<25
AROMATIC COMPOUNDS	ppb	<= 10	<10
ASSAY	%	>= 99.9	>99.99
CARBON TETRACHLORIDE	ppb	<= 10	<10
CHLOROFORM	ppb	<= 10	<10
EVAPORATION RESIDUE	ppm	<= 1	0.22
HEPTANE	ppb	<= 50	<10
HEXANE	ppb	<= 50	<10
ISO-OCTANE	ppb	<= 50	<10
METHYL ISO-AMYL KETONE	ppb	<= 50	<25
METHYLENE CHLORIDE	ppb	<= 10	<10
OTHER DETECTABLE ALKANES	ppb	<= 50	<10
OTHER DETECTABLE CHLOROHYDROCARBONS	ppb	<= 10	<10
OTHER DETECTABLE KETONES	ppb	<= 50	<25
OTHER DETECTABLE PEAKS AS HEXANE	ppb	<= 50	<10
PENTANE	ppb	<= 50	<10
TITRATABLE ACID	MEQ/G	<= 0.0003	0.0003
TITRATABLE BASE	MEQ/G	<= 0.0002	<0.0002
VOLATILE ORGANIC CMPDS (EPA8260B OR EQUIV)	PASS/FAIL	= PASS TEST	PASS TEST

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

WATER (KARL FISCHER)	%	<= 0.2	<0.01

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

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522643
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STD# 26 385

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180017
Description: Acrolein
Storage: Freeze (-18 - 0ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL15595
Certification Date: July 28, 2020
Expiration Date: August 27, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Acrolein	107-02-8	10000	0.301%

Notes: Due to the nature of acrolein in solution, long term storage is not recommended. Please use immediately.

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

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ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

Certificate of Analysis

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STD# 26386

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180018
Description: Vinyl Acetate
Storage: Freeze (-18 - 0 °C)
Provided As: 1 mL in 2 mL Ampoule in P&T Methanol

Lot Number: CL15596
Certification Date: July 28, 2020
Expiration Date: August 27, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Vinyl Acetate	108-05-4	2000	0.615%

Notes: Due to the nature of Vinyl Acetate in solution, long term storage is not recommended. Please use immediately.

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

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Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

Certificate of Analysis

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180007
Description: Reactives Mix
Storage: Freeze (-18-0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL15234
Certification Date: April 28, 2020
Expiration Date: October 31, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
2-Chloroethyl vinyl ether	110-75-8	10001	0.106%
Methyl acetate	79-20-9	10001	0.225%
Acrylonitrile	107-13-1	10000	0.115%

ACCREDITED
Reference Material Producer
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Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ACCREDITED
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Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002037

Lot Number: 0006547006

522670
REC. 08/06/20 BY EF
Exp. __/__/__ By -
Open __/__/__ By -

STD#26710

Lot Issue Date: 21-Jul-2020

Expiration Date: 31-Aug-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
bromomethane	000074-83-9	RM00064	2006 ± 10 µg/mL
chloroethane	000075-00-3	RM00065	2009 ± 10 µg/mL
chloromethane	000074-87-3	RM12571	2009 ± 10 µg/mL
chlorodifluoromethane	000075-45-6	RM04765	2010 ± 10 µg/mL
dichlorodifluoromethane	000075-71-8	RM05289	2010 ± 10 µg/mL
dichlorofluoromethane	000075-43-4	RM05287	2010 ± 10 µg/mL
trichlorofluoromethane	000075-69-4	RM00017	2004 ± 10 µg/mL
vinyl chloride	000075-01-4	RM05458	2009 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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ISO 17025 Cert No. AT-1937

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Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002038

Lot Number: 0006547796

522671
REC. 08/06/20 BY EF
Exp. --/--/-- By
Open --/--/-- By

STD# 26711

Lot Issue Date: 15-Jul-2020

Expiration Date: 30-Nov-2020

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
2-chloroethylvinyl ether	000110-75-8	RM06940	10044 ± 50 µg/mL
acrolein	000107-02-8	RM15726	10043 ± 50 µg/mL
methyl acetate	000079-20-9	NT02091	10043 ± 50 µg/mL
acrylonitrile	000107-13-1	RM14521	10048 ± 50 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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ISO 17025 Cert No. AT-1937

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Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002379

Lot Number: 0006547794

522672
REC.08/06/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

Lot Issue Date: 15-Jul-2020

Expiration Date: 30-Nov-2020

Description: STD# 26712

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
vinyl acetate	000108-05-4	RM12298	2004 ± 10 µg/mL

Matrix: water (low TOC, < 50 ppb)

Storage Conditions: Store Refrigerated (2° - 8°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

M Bourgeois

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

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Certificate of Analysis
ThermoFisher SCIENTIFIC

522674
REC. 08/07/20 BY EF
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STO# 26774

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A453	Quality Test / Release Date	02/19/2020
Lot Number	198331		
Description	METHANOL, PURGE & TRAP GRADE		
Country of Origin	Venezuela	Suggested Retest Date	Feb/2025
Chemical Origin	Organic - synthetic		
BSE/TSE Comment	This product is derived from petroleum products. It does not contain any materials that are of human or animal origin, nor does it come into contact with such materials during the manufacturing process. Therefore, to the best of our knowledge, there is no potential for BSE or TSE to be present in this product.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear colorless liquid free of suspended matter.
2-BUTANONE	ppb	<= 50	<25
ACETONE	ppb	<= 50	<25
AROMATIC COMPOUNDS	ppb	<= 10	<10
ASSAY	%	>= 99.9	>99.99
CARBON TETRACHLORIDE	ppb	<= 10	<10
CHLOROFORM	ppb	<= 10	<10
EVAPORATION RESIDUE	ppm	<= 1	0.22
HEPTANE	ppb	<= 50	<10
HEXANE	ppb	<= 50	<10
ISO-OCTANE	ppb	<= 50	<10
METHYL ISO-AMYL KETONE	ppb	<= 50	<25
METHYLENE CHLORIDE	ppb	<= 10	<10
OTHER DETECTABLE ALKANES	ppb	<= 50	<10
OTHER DETECTABLE CHLOROHYDROCARBONS	ppb	<= 10	<10
OTHER DETECTABLE KETONES	ppb	<= 50	<25
OTHER DETECTABLE PEAKS AS HEXANE	ppb	<= 50	<10
PENTANE	ppb	<= 50	<10
TITRATABLE ACID	MEQ/G	<= 0.0003	0.0003
TITRATABLE BASE	MEQ/G	<= 0.0002	<0.0002
VOLATILE ORGANIC CMPDS (EPA8260B OR EQUIV)	PASS/FAIL	= PASS TEST	PASS TEST

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

WATER (KARL FISCHER)	%	<= 0.2	<0.01

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

phenova Certified Reference Materials | A Phenomenex Company

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180002
Description: 8260 Gases Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL15196
Certification Date: July 16, 2020
Expiration Date: July 31, 2025

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522700
REC.08/10/20 BY EF
Exp. --/--/-- By
Open --/--/-- By

STD # 27049

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Bromomethane	74-83-9	2003	5.904%
Chloroethane	75-00-3	2007	9.993%
Chloromethane	74-87-3	2005	3.509%
Chlorodifluoromethane	75-45-6	2001	0.865%
Dichlorodifluoromethane	75-71-8	2009	5.442%
Dichlorofluoromethane	75-43-4	2002	15.893%
Trichlorofluoromethane	75-69-4	1986	5.494%
Vinyl chloride	75-01-4	1997	5.851%

ILS-46916-18_UB

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

phenova Certified Reference Materials | A Phenomenex Company

Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

Certificate of Analysis
ThermoFisher SCIENTIFIC

522732
REC. 08/24/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STD# 27388

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A453	Quality Test / Release Date	02/19/2020
Lot Number	198331		
Description	METHANOL, PURGE & TRAP GRADE		
Country of Origin	Venezuela	Suggested Retest Date	Feb/2025
Chemical Origin	Organic - synthetic		
BSE/TSE Comment	This product is derived from petroleum products. It does not contain any materials that are of human or animal origin, nor does it come into contact with such materials during the manufacturing process. Therefore, to the best of our knowledge, there is no potential for BSE or TSE to be present in this product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear colorless liquid free of suspended matter.
2-BUTANONE	ppb	<= 50	<25
ACETONE	ppb	<= 50	<25
AROMATIC COMPOUNDS	ppb	<= 10	<10
ASSAY	%	>= 99.9	>99.99
CARBON TETRACHLORIDE	ppb	<= 10	<10
CHLOROFORM	ppb	<= 10	<10
EVAPORATION RESIDUE	ppm	<= 1	0.22
HEPTANE	ppb	<= 50	<10
HEXANE	ppb	<= 50	<10
ISO-OCTANE	ppb	<= 50	<10
METHYL ISO-AMYL KETONE	ppb	<= 50	<25
METHYLENE CHLORIDE	ppb	<= 10	<10
OTHER DETECTABLE ALKANES	ppb	<= 50	<10
OTHER DETECTABLE CHLOROHYDROCARBONS	ppb	<= 10	<10
OTHER DETECTABLE KETONES	ppb	<= 50	<25
OTHER DETECTABLE PEAKS AS HEXANE	ppb	<= 50	<10
PENTANE	ppb	<= 50	<10
TITRATABLE ACID	MEQ/G	<= 0.0003	0.0003
TITRATABLE BASE	MEQ/G	<= 0.0002	<0.0002
VOLATILE ORGANIC CMPDS (EPA8260B OR EQUIV)	PASS/FAIL	= PASS TEST	PASS TEST

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

WATER (KARL FISCHER)	%	<= 0.2	<0.01

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

phenova Certified Reference Materials | A Phenomenex Company

Produced by Phenova
6390 Joyce Drive STE 100, Golden, CO 80403 USA ▪ Tel: 303-940-0033 ▪ Fax: 303-940-0043 ▪ info@phenova.com
Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180017
Description: Acrolein
Storage: Freeze (-18 - 0ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL15670
Certification Date: August 19, 2020
Expiration Date: September 18, 2020

522733
REC.08/21/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STD# 27397

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Acrolein	107-02-8	10000	0.571%

Notes: Due to the nature of acrolein in solution, long term storage is not recommended. Please use immediately.

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Reference Material Producer
Certicate No. 2427.02

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180018
Description: Vinyl Acetate
Storage: Freeze (-18 - 0 °C)
Provided As: 1 mL in 2 mL Ampoule in P&T Methanol

Lot Number: CL15665
Certification Date: August 17, 2020
Expiration Date: September 16, 2020

522735
REC.08/20/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STD# 27399

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Vinyl Acetate	108-05-4	2000	0.352%

Notes: Due to the nature of Vinyl Acetate in solution, long term storage is not recommended. Please use immediately.

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Certicate No. 2427.02

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ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

IL8469T018_us

SAMPLE NO.

BR8PB3SM

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249328 Contract: RUSH VOC Soils

Lab Sample ID: 5249328001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	20.5		%	1	08/26/2020 14:50

SAMPLE NO.

BR8PB3SS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249328 Contract: RUSH VOC Soils

Lab Sample ID: 5249328002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	20.6		%	1	08/26/2020 14:51

SAMPLE NO.

BR8WSSS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249328 Contract: RUSH VOC Soils

Lab Sample ID: 5249328003 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	19.3		%	1	08/26/2020 14:52

SAMPLE NO.

0825R6

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249328 Contract: RUSH VOC Soils

Lab Sample ID: 5249328004 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	23.0		%	1	08/26/2020 15:08

SAMPLE NO.

0825R7

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249328 Contract: RUSH VOC Soils

Lab Sample ID: 5249328005 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	21.6		%	1	08/26/2020 15:09

SAMPLE NO.

0825R8

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249328 Contract: RUSH VOC Soils

Lab Sample ID: 5249328006 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	19.5		%	1	08/26/2020 15:09

SAMPLE NO.

0825R9

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249328 Contract: RUSH VOC Soils

Lab Sample ID: 5249328007 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	18.0		%	1	08/26/2020 15:10

SAMPLE NO.

0825R10

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249328 Contract: RUSH VOC Soils

Lab Sample ID: 5249328008 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	23.2		%	1	08/26/2020 15:12

FORM XII INORGANIC-1

PREPARATION LOG

Lab Name: Pace Analytical - Dayton SDG No. : 5249328 Contract: RUSH VOC Soils

Preparation Method: ASTM D2216 Batch: PMST 1481

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
5249328001	BR8PB3SM	08/26/2020	1	1
5249328002	BR8PB3SS	08/26/2020	1	1
5249328003	BR8WSSS	08/26/2020	1	1
5249328004	0825R6	08/26/2020	1	1
5249328005	0825R7	08/26/2020	1	1
5249328006	0825R8	08/26/2020	1	1
5249328007	0825R9	08/26/2020	1	1
5249328008	0825R10	08/26/2020	1	1

FORM XIII INORGANIC-1

ANALYSIS RUN LOG

Lab Name: Pace Analytical - Dayton SDG No. : 5249328 Contract: RUSH VOC Soils

Instrument ID: 52BL03 Analysis Method: ASTM D2216

Start Date: 08/26/2020 14:50 End Date: 08/26/2020 15:12

Sample Name	Lab Sample ID	D/F	Date	Time	MOIST
BR8PB3SM	5249328001	1	08/26/2020	14:50	X
BR8PB3SS	5249328002	1	08/26/2020	14:51	X
BR8WSSS	5249328003	1	08/26/2020	14:52	X
0825R6	5249328004	1	08/26/2020	15:08	X
0825R7	5249328005	1	08/26/2020	15:09	X
0825R8	5249328006	1	08/26/2020	15:09	X
0825R9	5249328007	1	08/26/2020	15:10	X
0825R10	5249328008	1	08/26/2020	15:12	X

Prep Log Report

Batch Information: PMST 48707

Template Version: EF-DAYT-I-038-Rev.00 (02Nov2018)

Analysis Method	ASTM D2216	Analyzed By	SEP	Instrument	52BL03	Oven ID	52OV01
Thermometer ID	52TC01	Oven Temp Correction Factor	0	Oven Temp In1 (C) | Corr | Date/Time | Init	104.2 | 104.2 | 08/26/2020 15:25 | SEP	Oven Temp Out1 (C) | Corr | Date/Time | Init	104.8 | 104.8 | 08/27/2020 09:22 | SEP
Desic. In 1 ID | Date/Time | Init	52DS13 | 08/27/2020 09:22 | SEP	Desic. Out 1 Date/Time | Init	08/27/2020 15:30 | EH1	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**5249328001**	Y		79.54	20.46	08/26/2020 14:50:37	10.5503	1.0097	13.0043	10.5503	M	
DRY WEIGHT	PS	**5249328002**	Y		79.42	20.58	08/26/2020 14:51:45	9.7001	1.0039	11.9535	9.7001	M	
DRY WEIGHT	PS	**5249328003**	Y		80.67	19.33	08/26/2020 14:52:33	9.1058	1.0048	11.0466	9.1058	M	
DRY WEIGHT	PS	**5249328004**	Y		77.03	22.97	08/26/2020 15:08:29	9.5471	1.0017	12.0956	9.5471	M	
DRY WEIGHT	PS	**5249328005**	Y		78.42	21.58	08/26/2020 15:09:14	9.2348	1.0105	11.4976	9.2348	M	
DRY WEIGHT	PS	**5249328006**	Y		80.51	19.49	08/26/2020 15:09:57	10.5111	1.0066	12.8119	10.5111	M	
DRY WEIGHT	PS	**5249328007**	Y		81.97	18.03	08/26/2020 15:10:43	12.6141	1.0065	15.1671	12.6141	M	
DRY WEIGHT	PS	**5249328008**	Y		76.83	23.17	08/26/2020 15:12:06	8.737	1.0102	11.0673	8.737	M	

Prep Log Report

Batch Information: PMST 48707

Template Version: EF-DAYT-I-038-Rev.00 (02Nov2018)

Analysis Method	ASTM D2216	Analyzed By	SEP	Instrument	52BL03	Oven ID	52OV01
Thermometer ID	52TC01	Oven Temp Correction Factor	0	Oven Temp In1 (C) | Corr | Date/Time | Init	104.2 | 104.2 | 08/26/2020 15:25 | SEP	Oven Temp Out1 (C) | Corr | Date/Time | Init	104.8 | 104.8 | 08/27/2020 09:22 | SEP
Desic. In 1 ID | Date/Time | Init	52DS13 | 08/27/2020 09:22 | SEP	Desic. Out 1 Date/Time | Init	08/27/2020 15:30 | EH1	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	Client Sample ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**5249328001**	Y		BR8PB3SM	79.54	20.46	08/26/2020 14:50:37	10.5503	1.0097	13.0043	10.5503	M	
DRY WEIGHT	PS	**5249328002**	Y		BR8PB3SS	79.42	20.58	08/26/2020 14:51:45	9.7001	1.0039	11.9535	9.7001	M	
DRY WEIGHT	PS	**5249328003**	Y		BR8PBWSSS	80.67	19.33	08/26/2020 14:52:33	9.1058	1.0048	11.0466	9.1058	M	
DRY WEIGHT	PS	**5249328004**	Y		0825R6	77.03	22.97	08/26/2020 15:08:29	9.5471	1.0017	12.0956	9.5471	M	
DRY WEIGHT	PS	**5249328005**	Y		0825R7	78.42	21.58	08/26/2020 15:09:14	9.2348	1.0105	11.4976	9.2348	M	
DRY WEIGHT	PS	**5249328006**	Y		0825R8	80.51	19.49	08/26/2020 15:09:57	10.5111	1.0066	12.8119	10.5111	M	
DRY WEIGHT	PS	**5249328007**	Y		0825R9	81.97	18.03	08/26/2020 15:10:43	12.6141	1.0065	15.1671	12.6141	M	
DRY WEIGHT	PS	**5249328008**	Y		0825R10	76.83	23.17	08/26/2020 15:12:06	8.737	1.0102	11.0673	8.737	M	

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 5249417

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

August 27, 2020

John Bowen
MAKSolve, LLC
261 Regency Dr
Dayton, OH 45459

RE: Project: RUSH VOC Soils
Pace Project No.: 5249417

Dear John Bowen:

Enclosed are the analytical results for sample(s) received by the laboratory on August 26, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Dayton

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christina Schneider
christina.schneider@pacelabs.com
(937)832-8242
Project Manager

Enclosures

cc: Barbara McGavern, MAKSolve, LLC

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

CERTIFICATIONS

Project:	RUSH VOC Soils
Pace Project No.:	5249417

Pace Analytical Services Dayton

25 Holiday Drive, Englewood, OH 45322
Florida Certification #: E871136
Ohio VAP Certification #: CL0032
Kentucky UST Certification #: 123049
Kentucky Wastewater Certification #: KY98039
Ohio EPA Drinking Water Lab #872

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SAMPLE SUMMARY

Project: RUSH VOC Soils
Pace Project No.: 5249417

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5249417001	**BLA6WSSS**	Solid	08/26/20 11:43	08/26/20 14:53
5249417002	**GR6WWSS**	Solid	08/26/20 11:46	08/26/20 14:53
5249417003	**GR6WSSS**	Solid	08/26/20 11:48	08/26/20 14:53
5249417004	**GR6PBSS**	Solid	08/26/20 11:49	08/26/20 14:53
5249417005	**GR6PBSM**	Solid	08/26/20 11:50	08/26/20 14:53
5249417006	**YL8WNSS**	Solid	08/26/20 13:00	08/26/20 14:53

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Englewood, OH 45322
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SAMPLE ANALYTE COUNT

Project: RUSH VOC Soils
Pace Project No.: 5249417

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5249417001	**BLA6WSSS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249417002	**GR6WWSS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249417003	**GR6WSSS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249417004	**GR6PBSS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249417005	**GR6PBSM**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249417006	**YL8WNSS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1

PASI-DAY = Pace Analytical Services - Dayton

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249417

Sample: BLA6WSSS **Lab ID: 5249417001** Collected: 08/26/20 11:43 Received: 08/26/20 14:53 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	309	16.8	1	08/26/20 15:12	08/26/20 18:06	67-64-1	
Acetonitrile	ND	ug/kg	247	12.2	1	08/26/20 15:12	08/26/20 18:06	75-05-8	
Acrolein	ND	ug/kg	309	9.1	1	08/26/20 15:12	08/26/20 18:06	107-02-8	
Acrylonitrile	ND	ug/kg	123	1.4	1	08/26/20 15:12	08/26/20 18:06	107-13-1	
Benzene	ND	ug/kg	6.2	1.0	1	08/26/20 15:12	08/26/20 18:06	71-43-2	
Bromobenzene	ND	ug/kg	30.9	0.96	1	08/26/20 15:12	08/26/20 18:06	108-86-1	
Bromochloromethane	ND	ug/kg	30.9	0.76	1	08/26/20 15:12	08/26/20 18:06	74-97-5	
Bromodichloromethane	ND	ug/kg	30.9	0.97	1	08/26/20 15:12	08/26/20 18:06	75-27-4	
Bromoform	ND	ug/kg	30.9	0.74	1	08/26/20 15:12	08/26/20 18:06	75-25-2	
Bromomethane	ND	ug/kg	154	0.97	1	08/26/20 15:12	08/26/20 18:06	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	123	1.7	1	08/26/20 15:12	08/26/20 18:06	78-93-3	
n-Butylbenzene	ND	ug/kg	30.9	2.0	1	08/26/20 15:12	08/26/20 18:06	104-51-8	
sec-Butylbenzene	ND	ug/kg	30.9	1.7	1	08/26/20 15:12	08/26/20 18:06	135-98-8	
tert-Butylbenzene	ND	ug/kg	30.9	1.5	1	08/26/20 15:12	08/26/20 18:06	98-06-6	
Carbon disulfide	ND	ug/kg	123	1.9	1	08/26/20 15:12	08/26/20 18:06	75-15-0	
Carbon tetrachloride	ND	ug/kg	30.9	1.8	1	08/26/20 15:12	08/26/20 18:06	56-23-5	
Chlorobenzene	ND	ug/kg	30.9	0.94	1	08/26/20 15:12	08/26/20 18:06	108-90-7	
Chloroethane	ND	ug/kg	30.9	1.8	1	08/26/20 15:12	08/26/20 18:06	75-00-3	
Chloroform	ND	ug/kg	30.9	1.3	1	08/26/20 15:12	08/26/20 18:06	67-66-3	
Chloromethane	ND	ug/kg	30.9	0.96	1	08/26/20 15:12	08/26/20 18:06	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	30.9	1.0	1	08/26/20 15:12	08/26/20 18:06	95-49-8	
4-Chlorotoluene	ND	ug/kg	30.9	1.0	1	08/26/20 15:12	08/26/20 18:06	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	61.7	0.99	1	08/26/20 15:12	08/26/20 18:06	96-12-8	
Dibromochloromethane	ND	ug/kg	30.9	0.76	1	08/26/20 15:12	08/26/20 18:06	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	30.9	0.70	1	08/26/20 15:12	08/26/20 18:06	106-93-4	
Dibromomethane	ND	ug/kg	30.9	0.96	1	08/26/20 15:12	08/26/20 18:06	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	30.9	0.85	1	08/26/20 15:12	08/26/20 18:06	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	30.9	0.86	1	08/26/20 15:12	08/26/20 18:06	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	30.9	0.70	1	08/26/20 15:12	08/26/20 18:06	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	30.9	2.6	1	08/26/20 15:12	08/26/20 18:06	75-71-8	
1,1-Dichloroethane	ND	ug/kg	30.9	1.3	1	08/26/20 15:12	08/26/20 18:06	75-34-3	
1,2-Dichloroethane	ND	ug/kg	30.9	1.3	1	08/26/20 15:12	08/26/20 18:06	107-06-2	
1,1-Dichloroethene	ND	ug/kg	30.9	2.1	1	08/26/20 15:12	08/26/20 18:06	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	30.9	1.1	1	08/26/20 15:12	08/26/20 18:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	30.9	1.5	1	08/26/20 15:12	08/26/20 18:06	156-60-5	
1,2-Dichloropropane	ND	ug/kg	30.9	0.87	1	08/26/20 15:12	08/26/20 18:06	78-87-5	
1,3-Dichloropropane	ND	ug/kg	30.9	0.78	1	08/26/20 15:12	08/26/20 18:06	142-28-9	
2,2-Dichloropropane	ND	ug/kg	30.9	1.8	1	08/26/20 15:12	08/26/20 18:06	594-20-7	
1,1-Dichloropropene	ND	ug/kg	30.9	1.6	1	08/26/20 15:12	08/26/20 18:06	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	30.9	0.80	1	08/26/20 15:12	08/26/20 18:06	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	30.9	1.1	1	08/26/20 15:12	08/26/20 18:06	10061-02-6	
Ethyl acetate	ND	ug/kg	61.7	2.1	1	08/26/20 15:12	08/26/20 18:06	141-78-6	
Ethylbenzene	ND	ug/kg	30.9	1.4	1	08/26/20 15:12	08/26/20 18:06	100-41-4	
2-Hexanone	ND	ug/kg	123	5.6	1	08/26/20 15:12	08/26/20 18:06	591-78-6	N2

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25 Holiday Drive
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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249417

Sample: BLA6WSSS **Lab ID: 5249417001** Collected: 08/26/20 11:43 Received: 08/26/20 14:53 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	30.9	1.3	1	08/26/20 15:12	08/26/20 18:06	98-82-8	
p-Isopropyltoluene	ND	ug/kg	30.9	6.2	1	08/26/20 15:12	08/26/20 18:06	99-87-6	
Methylene Chloride	ND	ug/kg	154	2.0	1	08/26/20 15:12	08/26/20 18:06	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	123	3.6	1	08/26/20 15:12	08/26/20 18:06	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	61.7	1.4	1	08/26/20 15:12	08/26/20 18:06	1634-04-4	
Naphthalene	ND	ug/kg	30.9	0.77	1	08/26/20 15:12	08/26/20 18:06	91-20-3	
n-Propylbenzene	ND	ug/kg	30.9	1.3	1	08/26/20 15:12	08/26/20 18:06	103-65-1	
Styrene	ND	ug/kg	30.9	1.2	1	08/26/20 15:12	08/26/20 18:06	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	30.9	0.74	1	08/26/20 15:12	08/26/20 18:06	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	30.9	0.69	1	08/26/20 15:12	08/26/20 18:06	79-34-5	
Tetrachloroethene	ND	ug/kg	30.9	1.8	1	08/26/20 15:12	08/26/20 18:06	127-18-4	
Toluene	ND	ug/kg	30.9	1.1	1	08/26/20 15:12	08/26/20 18:06	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	30.9	0.72	1	08/26/20 15:12	08/26/20 18:06	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	30.9	0.82	1	08/26/20 15:12	08/26/20 18:06	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	30.9	1.5	1	08/26/20 15:12	08/26/20 18:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	30.9	0.98	1	08/26/20 15:12	08/26/20 18:06	79-00-5	
Trichloroethene	ND	ug/kg	30.9	1.4	1	08/26/20 15:12	08/26/20 18:06	79-01-6	
Trichlorofluoromethane	ND	ug/kg	30.9	2.2	1	08/26/20 15:12	08/26/20 18:06	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	30.9	1.6	1	08/26/20 15:12	08/26/20 18:06	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	30.9	1.0	1	08/26/20 15:12	08/26/20 18:06	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	30.9	1.1	1	08/26/20 15:12	08/26/20 18:06	108-67-8	
Vinyl acetate	ND	ug/kg	61.7	2.4	1	08/26/20 15:12	08/26/20 18:06	108-05-4	
Vinyl chloride	ND	ug/kg	30.9	2.2	1	08/26/20 15:12	08/26/20 18:06	75-01-4	
Xylene (Total)	ND	ug/kg	61.7	3.2	1	08/26/20 15:12	08/26/20 18:06	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	108	%.	78-126		1	08/26/20 15:12	08/26/20 18:06	1868-53-7	
Toluene-d8 (S)	96	%.	80-120		1	08/26/20 15:12	08/26/20 18:06	2037-26-5	
4-Bromofluorobenzene (S)	92	%.	80-120		1	08/26/20 15:12	08/26/20 18:06	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%.	76-127		1	08/26/20 15:12	08/26/20 18:06	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**22.6**	%	0.10	0.10	1		08/26/20 15:26		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249417

Sample: GR6WWSS **Lab ID: 5249417002** Collected: 08/26/20 11:46 Received: 08/26/20 14:53 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	276	15.0	1	08/26/20 15:12	08/26/20 18:31	67-64-1	
Acetonitrile	ND	ug/kg	221	10.9	1	08/26/20 15:12	08/26/20 18:31	75-05-8	
Acrolein	ND	ug/kg	276	8.1	1	08/26/20 15:12	08/26/20 18:31	107-02-8	
Acrylonitrile	ND	ug/kg	110	1.2	1	08/26/20 15:12	08/26/20 18:31	107-13-1	
Benzene	ND	ug/kg	5.5	0.89	1	08/26/20 15:12	08/26/20 18:31	71-43-2	
Bromobenzene	ND	ug/kg	27.6	0.86	1	08/26/20 15:12	08/26/20 18:31	108-86-1	
Bromochloromethane	ND	ug/kg	27.6	0.68	1	08/26/20 15:12	08/26/20 18:31	74-97-5	
Bromodichloromethane	ND	ug/kg	27.6	0.87	1	08/26/20 15:12	08/26/20 18:31	75-27-4	
Bromoform	ND	ug/kg	27.6	0.67	1	08/26/20 15:12	08/26/20 18:31	75-25-2	
Bromomethane	ND	ug/kg	138	0.86	1	08/26/20 15:12	08/26/20 18:31	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	110	1.6	1	08/26/20 15:12	08/26/20 18:31	78-93-3	
n-Butylbenzene	ND	ug/kg	27.6	1.8	1	08/26/20 15:12	08/26/20 18:31	104-51-8	
sec-Butylbenzene	ND	ug/kg	27.6	1.5	1	08/26/20 15:12	08/26/20 18:31	135-98-8	
tert-Butylbenzene	ND	ug/kg	27.6	1.4	1	08/26/20 15:12	08/26/20 18:31	98-06-6	
Carbon disulfide	ND	ug/kg	110	1.7	1	08/26/20 15:12	08/26/20 18:31	75-15-0	
Carbon tetrachloride	ND	ug/kg	27.6	1.6	1	08/26/20 15:12	08/26/20 18:31	56-23-5	
Chlorobenzene	ND	ug/kg	27.6	0.84	1	08/26/20 15:12	08/26/20 18:31	108-90-7	
Chloroethane	ND	ug/kg	27.6	1.6	1	08/26/20 15:12	08/26/20 18:31	75-00-3	
Chloroform	ND	ug/kg	27.6	1.1	1	08/26/20 15:12	08/26/20 18:31	67-66-3	
Chloromethane	ND	ug/kg	27.6	0.86	1	08/26/20 15:12	08/26/20 18:31	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	27.6	0.90	1	08/26/20 15:12	08/26/20 18:31	95-49-8	
4-Chlorotoluene	ND	ug/kg	27.6	0.89	1	08/26/20 15:12	08/26/20 18:31	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	55.2	0.89	1	08/26/20 15:12	08/26/20 18:31	96-12-8	
Dibromochloromethane	ND	ug/kg	27.6	0.68	1	08/26/20 15:12	08/26/20 18:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	27.6	0.62	1	08/26/20 15:12	08/26/20 18:31	106-93-4	
Dibromomethane	ND	ug/kg	27.6	0.86	1	08/26/20 15:12	08/26/20 18:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	27.6	0.76	1	08/26/20 15:12	08/26/20 18:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	27.6	0.77	1	08/26/20 15:12	08/26/20 18:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	27.6	0.63	1	08/26/20 15:12	08/26/20 18:31	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	27.6	2.4	1	08/26/20 15:12	08/26/20 18:31	75-71-8	
1,1-Dichloroethane	ND	ug/kg	27.6	1.2	1	08/26/20 15:12	08/26/20 18:31	75-34-3	
1,2-Dichloroethane	ND	ug/kg	27.6	1.1	1	08/26/20 15:12	08/26/20 18:31	107-06-2	
1,1-Dichloroethene	ND	ug/kg	27.6	1.9	1	08/26/20 15:12	08/26/20 18:31	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	27.6	1.0	1	08/26/20 15:12	08/26/20 18:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	27.6	1.3	1	08/26/20 15:12	08/26/20 18:31	156-60-5	
1,2-Dichloropropane	ND	ug/kg	27.6	0.78	1	08/26/20 15:12	08/26/20 18:31	78-87-5	
1,3-Dichloropropane	ND	ug/kg	27.6	0.69	1	08/26/20 15:12	08/26/20 18:31	142-28-9	
2,2-Dichloropropane	ND	ug/kg	27.6	1.6	1	08/26/20 15:12	08/26/20 18:31	594-20-7	
1,1-Dichloropropene	ND	ug/kg	27.6	1.4	1	08/26/20 15:12	08/26/20 18:31	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	27.6	0.72	1	08/26/20 15:12	08/26/20 18:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	27.6	0.94	1	08/26/20 15:12	08/26/20 18:31	10061-02-6	
Ethyl acetate	ND	ug/kg	55.2	1.9	1	08/26/20 15:12	08/26/20 18:31	141-78-6	
Ethylbenzene	ND	ug/kg	27.6	1.3	1	08/26/20 15:12	08/26/20 18:31	100-41-4	
2-Hexanone	ND	ug/kg	110	5.0	1	08/26/20 15:12	08/26/20 18:31	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249417

Sample: GR6WWSS **Lab ID: 5249417002** Collected: 08/26/20 11:46 Received: 08/26/20 14:53 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	27.6	1.1	1	08/26/20 15:12	08/26/20 18:31	98-82-8	
p-Isopropyltoluene	ND	ug/kg	27.6	5.5	1	08/26/20 15:12	08/26/20 18:31	99-87-6	
Methylene Chloride	ND	ug/kg	138	1.8	1	08/26/20 15:12	08/26/20 18:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	110	3.2	1	08/26/20 15:12	08/26/20 18:31	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	55.2	1.3	1	08/26/20 15:12	08/26/20 18:31	1634-04-4	
Naphthalene	ND	ug/kg	27.6	0.69	1	08/26/20 15:12	08/26/20 18:31	91-20-3	
n-Propylbenzene	ND	ug/kg	27.6	1.2	1	08/26/20 15:12	08/26/20 18:31	103-65-1	
Styrene	ND	ug/kg	27.6	1.1	1	08/26/20 15:12	08/26/20 18:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	27.6	0.66	1	08/26/20 15:12	08/26/20 18:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	27.6	0.61	1	08/26/20 15:12	08/26/20 18:31	79-34-5	
Tetrachloroethene	ND	ug/kg	27.6	1.6	1	08/26/20 15:12	08/26/20 18:31	127-18-4	
Toluene	ND	ug/kg	27.6	0.96	1	08/26/20 15:12	08/26/20 18:31	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	27.6	0.64	1	08/26/20 15:12	08/26/20 18:31	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	27.6	0.74	1	08/26/20 15:12	08/26/20 18:31	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	27.6	1.4	1	08/26/20 15:12	08/26/20 18:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	27.6	0.88	1	08/26/20 15:12	08/26/20 18:31	79-00-5	
Trichloroethene	ND	ug/kg	27.6	1.2	1	08/26/20 15:12	08/26/20 18:31	79-01-6	
Trichlorofluoromethane	ND	ug/kg	27.6	2.0	1	08/26/20 15:12	08/26/20 18:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	27.6	1.4	1	08/26/20 15:12	08/26/20 18:31	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	27.6	0.91	1	08/26/20 15:12	08/26/20 18:31	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	27.6	1.0	1	08/26/20 15:12	08/26/20 18:31	108-67-8	
Vinyl acetate	ND	ug/kg	55.2	2.1	1	08/26/20 15:12	08/26/20 18:31	108-05-4	
Vinyl chloride	ND	ug/kg	27.6	2.0	1	08/26/20 15:12	08/26/20 18:31	75-01-4	
Xylene (Total)	ND	ug/kg	55.2	2.9	1	08/26/20 15:12	08/26/20 18:31	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	106	%.	78-126		1	08/26/20 15:12	08/26/20 18:31	1868-53-7	
Toluene-d8 (S)	97	%.	80-120		1	08/26/20 15:12	08/26/20 18:31	2037-26-5	
4-Bromofluorobenzene (S)	95	%.	80-120		1	08/26/20 15:12	08/26/20 18:31	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%.	76-127		1	08/26/20 15:12	08/26/20 18:31	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**13.5**	%	0.10	0.10	1		08/26/20 15:27		N2

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249417

Sample: GR6WSSS **Lab ID: 5249417003** Collected: 08/26/20 11:48 Received: 08/26/20 14:53 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	284	15.4	1	08/26/20 15:12	08/26/20 18:56	67-64-1	
Acetonitrile	ND	ug/kg	227	11.2	1	08/26/20 15:12	08/26/20 18:56	75-05-8	
Acrolein	ND	ug/kg	284	8.4	1	08/26/20 15:12	08/26/20 18:56	107-02-8	
Acrylonitrile	ND	ug/kg	114	1.3	1	08/26/20 15:12	08/26/20 18:56	107-13-1	
Benzene	ND	ug/kg	5.7	0.92	1	08/26/20 15:12	08/26/20 18:56	71-43-2	
Bromobenzene	ND	ug/kg	28.4	0.88	1	08/26/20 15:12	08/26/20 18:56	108-86-1	
Bromochloromethane	ND	ug/kg	28.4	0.70	1	08/26/20 15:12	08/26/20 18:56	74-97-5	
Bromodichloromethane	ND	ug/kg	28.4	0.90	1	08/26/20 15:12	08/26/20 18:56	75-27-4	
Bromoform	ND	ug/kg	28.4	0.68	1	08/26/20 15:12	08/26/20 18:56	75-25-2	
Bromomethane	ND	ug/kg	142	0.89	1	08/26/20 15:12	08/26/20 18:56	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	114	1.6	1	08/26/20 15:12	08/26/20 18:56	78-93-3	
n-Butylbenzene	ND	ug/kg	28.4	1.8	1	08/26/20 15:12	08/26/20 18:56	104-51-8	
sec-Butylbenzene	ND	ug/kg	28.4	1.6	1	08/26/20 15:12	08/26/20 18:56	135-98-8	
tert-Butylbenzene	ND	ug/kg	28.4	1.4	1	08/26/20 15:12	08/26/20 18:56	98-06-6	
Carbon disulfide	ND	ug/kg	114	1.8	1	08/26/20 15:12	08/26/20 18:56	75-15-0	
Carbon tetrachloride	ND	ug/kg	28.4	1.6	1	08/26/20 15:12	08/26/20 18:56	56-23-5	
Chlorobenzene	ND	ug/kg	28.4	0.87	1	08/26/20 15:12	08/26/20 18:56	108-90-7	
Chloroethane	ND	ug/kg	28.4	1.6	1	08/26/20 15:12	08/26/20 18:56	75-00-3	
Chloroform	ND	ug/kg	28.4	1.2	1	08/26/20 15:12	08/26/20 18:56	67-66-3	
Chloromethane	ND	ug/kg	28.4	0.89	1	08/26/20 15:12	08/26/20 18:56	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	28.4	0.92	1	08/26/20 15:12	08/26/20 18:56	95-49-8	
4-Chlorotoluene	ND	ug/kg	28.4	0.92	1	08/26/20 15:12	08/26/20 18:56	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	56.8	0.91	1	08/26/20 15:12	08/26/20 18:56	96-12-8	
Dibromochloromethane	ND	ug/kg	28.4	0.70	1	08/26/20 15:12	08/26/20 18:56	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	28.4	0.64	1	08/26/20 15:12	08/26/20 18:56	106-93-4	
Dibromomethane	ND	ug/kg	28.4	0.88	1	08/26/20 15:12	08/26/20 18:56	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	28.4	0.79	1	08/26/20 15:12	08/26/20 18:56	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	28.4	0.79	1	08/26/20 15:12	08/26/20 18:56	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	28.4	0.65	1	08/26/20 15:12	08/26/20 18:56	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	28.4	2.4	1	08/26/20 15:12	08/26/20 18:56	75-71-8	
1,1-Dichloroethane	ND	ug/kg	28.4	1.2	1	08/26/20 15:12	08/26/20 18:56	75-34-3	
1,2-Dichloroethane	ND	ug/kg	28.4	1.2	1	08/26/20 15:12	08/26/20 18:56	107-06-2	
1,1-Dichloroethene	ND	ug/kg	28.4	1.9	1	08/26/20 15:12	08/26/20 18:56	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	28.4	1.0	1	08/26/20 15:12	08/26/20 18:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	28.4	1.4	1	08/26/20 15:12	08/26/20 18:56	156-60-5	
1,2-Dichloropropane	ND	ug/kg	28.4	0.80	1	08/26/20 15:12	08/26/20 18:56	78-87-5	
1,3-Dichloropropane	ND	ug/kg	28.4	0.71	1	08/26/20 15:12	08/26/20 18:56	142-28-9	
2,2-Dichloropropane	ND	ug/kg	28.4	1.7	1	08/26/20 15:12	08/26/20 18:56	594-20-7	
1,1-Dichloropropene	ND	ug/kg	28.4	1.4	1	08/26/20 15:12	08/26/20 18:56	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	28.4	0.74	1	08/26/20 15:12	08/26/20 18:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	28.4	0.97	1	08/26/20 15:12	08/26/20 18:56	10061-02-6	
Ethyl acetate	ND	ug/kg	56.8	1.9	1	08/26/20 15:12	08/26/20 18:56	141-78-6	
Ethylbenzene	ND	ug/kg	28.4	1.3	1	08/26/20 15:12	08/26/20 18:56	100-41-4	
2-Hexanone	ND	ug/kg	114	5.1	1	08/26/20 15:12	08/26/20 18:56	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249417

Sample: GR6WSSS **Lab ID: 5249417003** Collected: 08/26/20 11:48 Received: 08/26/20 14:53 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	28.4	1.2	1	08/26/20 15:12	08/26/20 18:56	98-82-8	
p-Isopropyltoluene	ND	ug/kg	28.4	5.7	1	08/26/20 15:12	08/26/20 18:56	99-87-6	
Methylene Chloride	ND	ug/kg	142	1.8	1	08/26/20 15:12	08/26/20 18:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	114	3.3	1	08/26/20 15:12	08/26/20 18:56	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	56.8	1.3	1	08/26/20 15:12	08/26/20 18:56	1634-04-4	
Naphthalene	ND	ug/kg	28.4	0.71	1	08/26/20 15:12	08/26/20 18:56	91-20-3	
n-Propylbenzene	ND	ug/kg	28.4	1.2	1	08/26/20 15:12	08/26/20 18:56	103-65-1	
Styrene	ND	ug/kg	28.4	1.1	1	08/26/20 15:12	08/26/20 18:56	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	28.4	0.68	1	08/26/20 15:12	08/26/20 18:56	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	28.4	0.63	1	08/26/20 15:12	08/26/20 18:56	79-34-5	
Tetrachloroethene	ND	ug/kg	28.4	1.6	1	08/26/20 15:12	08/26/20 18:56	127-18-4	
Toluene	ND	ug/kg	28.4	0.99	1	08/26/20 15:12	08/26/20 18:56	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	28.4	0.66	1	08/26/20 15:12	08/26/20 18:56	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	28.4	0.76	1	08/26/20 15:12	08/26/20 18:56	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	28.4	1.4	1	08/26/20 15:12	08/26/20 18:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	28.4	0.90	1	08/26/20 15:12	08/26/20 18:56	79-00-5	
Trichloroethene	ND	ug/kg	28.4	1.3	1	08/26/20 15:12	08/26/20 18:56	79-01-6	
Trichlorofluoromethane	ND	ug/kg	28.4	2.0	1	08/26/20 15:12	08/26/20 18:56	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	28.4	1.4	1	08/26/20 15:12	08/26/20 18:56	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	28.4	0.94	1	08/26/20 15:12	08/26/20 18:56	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	28.4	1.0	1	08/26/20 15:12	08/26/20 18:56	108-67-8	
Vinyl acetate	ND	ug/kg	56.8	2.2	1	08/26/20 15:12	08/26/20 18:56	108-05-4	
Vinyl chloride	ND	ug/kg	28.4	2.1	1	08/26/20 15:12	08/26/20 18:56	75-01-4	
Xylene (Total)	ND	ug/kg	56.8	3.0	1	08/26/20 15:12	08/26/20 18:56	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	107	%.	78-126		1	08/26/20 15:12	08/26/20 18:56	1868-53-7	
Toluene-d8 (S)	98	%.	80-120		1	08/26/20 15:12	08/26/20 18:56	2037-26-5	
4-Bromofluorobenzene (S)	92	%.	80-120		1	08/26/20 15:12	08/26/20 18:56	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%.	76-127		1	08/26/20 15:12	08/26/20 18:56	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**15.3**	%	0.10	0.10	1		08/26/20 15:29		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249417

Sample: GR6PBSS **Lab ID: 5249417004** Collected: 08/26/20 11:49 Received: 08/26/20 14:53 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	284	15.4	1	08/26/20 15:12	08/26/20 19:21	67-64-1	
Acetonitrile	ND	ug/kg	227	11.2	1	08/26/20 15:12	08/26/20 19:21	75-05-8	
Acrolein	ND	ug/kg	284	8.4	1	08/26/20 15:12	08/26/20 19:21	107-02-8	
Acrylonitrile	ND	ug/kg	114	1.3	1	08/26/20 15:12	08/26/20 19:21	107-13-1	
Benzene	ND	ug/kg	5.7	0.92	1	08/26/20 15:12	08/26/20 19:21	71-43-2	
Bromobenzene	ND	ug/kg	28.4	0.88	1	08/26/20 15:12	08/26/20 19:21	108-86-1	
Bromochloromethane	ND	ug/kg	28.4	0.70	1	08/26/20 15:12	08/26/20 19:21	74-97-5	
Bromodichloromethane	ND	ug/kg	28.4	0.89	1	08/26/20 15:12	08/26/20 19:21	75-27-4	
Bromoform	ND	ug/kg	28.4	0.68	1	08/26/20 15:12	08/26/20 19:21	75-25-2	
Bromomethane	ND	ug/kg	142	0.89	1	08/26/20 15:12	08/26/20 19:21	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	114	1.6	1	08/26/20 15:12	08/26/20 19:21	78-93-3	
n-Butylbenzene	ND	ug/kg	28.4	1.8	1	08/26/20 15:12	08/26/20 19:21	104-51-8	
sec-Butylbenzene	ND	ug/kg	28.4	1.6	1	08/26/20 15:12	08/26/20 19:21	135-98-8	
tert-Butylbenzene	ND	ug/kg	28.4	1.4	1	08/26/20 15:12	08/26/20 19:21	98-06-6	
Carbon disulfide	ND	ug/kg	114	1.8	1	08/26/20 15:12	08/26/20 19:21	75-15-0	
Carbon tetrachloride	ND	ug/kg	28.4	1.6	1	08/26/20 15:12	08/26/20 19:21	56-23-5	
Chlorobenzene	ND	ug/kg	28.4	0.87	1	08/26/20 15:12	08/26/20 19:21	108-90-7	
Chloroethane	ND	ug/kg	28.4	1.6	1	08/26/20 15:12	08/26/20 19:21	75-00-3	
Chloroform	ND	ug/kg	28.4	1.2	1	08/26/20 15:12	08/26/20 19:21	67-66-3	
Chloromethane	ND	ug/kg	28.4	0.89	1	08/26/20 15:12	08/26/20 19:21	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	28.4	0.92	1	08/26/20 15:12	08/26/20 19:21	95-49-8	
4-Chlorotoluene	ND	ug/kg	28.4	0.92	1	08/26/20 15:12	08/26/20 19:21	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	56.8	0.91	1	08/26/20 15:12	08/26/20 19:21	96-12-8	
Dibromochloromethane	ND	ug/kg	28.4	0.70	1	08/26/20 15:12	08/26/20 19:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	28.4	0.64	1	08/26/20 15:12	08/26/20 19:21	106-93-4	
Dibromomethane	ND	ug/kg	28.4	0.88	1	08/26/20 15:12	08/26/20 19:21	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	28.4	0.79	1	08/26/20 15:12	08/26/20 19:21	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	28.4	0.79	1	08/26/20 15:12	08/26/20 19:21	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	28.4	0.65	1	08/26/20 15:12	08/26/20 19:21	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	28.4	2.4	1	08/26/20 15:12	08/26/20 19:21	75-71-8	
1,1-Dichloroethane	ND	ug/kg	28.4	1.2	1	08/26/20 15:12	08/26/20 19:21	75-34-3	
1,2-Dichloroethane	ND	ug/kg	28.4	1.2	1	08/26/20 15:12	08/26/20 19:21	107-06-2	
1,1-Dichloroethene	ND	ug/kg	28.4	1.9	1	08/26/20 15:12	08/26/20 19:21	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	28.4	1.0	1	08/26/20 15:12	08/26/20 19:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	28.4	1.4	1	08/26/20 15:12	08/26/20 19:21	156-60-5	
1,2-Dichloropropane	ND	ug/kg	28.4	0.80	1	08/26/20 15:12	08/26/20 19:21	78-87-5	
1,3-Dichloropropane	ND	ug/kg	28.4	0.71	1	08/26/20 15:12	08/26/20 19:21	142-28-9	
2,2-Dichloropropane	ND	ug/kg	28.4	1.7	1	08/26/20 15:12	08/26/20 19:21	594-20-7	
1,1-Dichloropropene	ND	ug/kg	28.4	1.4	1	08/26/20 15:12	08/26/20 19:21	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	28.4	0.74	1	08/26/20 15:12	08/26/20 19:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	28.4	0.97	1	08/26/20 15:12	08/26/20 19:21	10061-02-6	
Ethyl acetate	ND	ug/kg	56.8	1.9	1	08/26/20 15:12	08/26/20 19:21	141-78-6	
Ethylbenzene	ND	ug/kg	28.4	1.3	1	08/26/20 15:12	08/26/20 19:21	100-41-4	
2-Hexanone	ND	ug/kg	114	5.1	1	08/26/20 15:12	08/26/20 19:21	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249417

Sample: GR6PBSS **Lab ID: 5249417004** Collected: 08/26/20 11:49 Received: 08/26/20 14:53 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	28.4	1.2	1	08/26/20 15:12	08/26/20 19:21	98-82-8	
p-Isopropyltoluene	ND	ug/kg	28.4	5.7	1	08/26/20 15:12	08/26/20 19:21	99-87-6	
Methylene Chloride	ND	ug/kg	142	1.8	1	08/26/20 15:12	08/26/20 19:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	114	3.3	1	08/26/20 15:12	08/26/20 19:21	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	56.8	1.3	1	08/26/20 15:12	08/26/20 19:21	1634-04-4	
Naphthalene	ND	ug/kg	28.4	0.71	1	08/26/20 15:12	08/26/20 19:21	91-20-3	
n-Propylbenzene	ND	ug/kg	28.4	1.2	1	08/26/20 15:12	08/26/20 19:21	103-65-1	
Styrene	ND	ug/kg	28.4	1.1	1	08/26/20 15:12	08/26/20 19:21	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	28.4	0.68	1	08/26/20 15:12	08/26/20 19:21	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	28.4	0.63	1	08/26/20 15:12	08/26/20 19:21	79-34-5	
Tetrachloroethene	ND	ug/kg	28.4	1.6	1	08/26/20 15:12	08/26/20 19:21	127-18-4	
Toluene	ND	ug/kg	28.4	0.99	1	08/26/20 15:12	08/26/20 19:21	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	28.4	0.66	1	08/26/20 15:12	08/26/20 19:21	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	28.4	0.76	1	08/26/20 15:12	08/26/20 19:21	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	28.4	1.4	1	08/26/20 15:12	08/26/20 19:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	28.4	0.90	1	08/26/20 15:12	08/26/20 19:21	79-00-5	
Trichloroethene	ND	ug/kg	28.4	1.3	1	08/26/20 15:12	08/26/20 19:21	79-01-6	
Trichlorofluoromethane	ND	ug/kg	28.4	2.0	1	08/26/20 15:12	08/26/20 19:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	28.4	1.4	1	08/26/20 15:12	08/26/20 19:21	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	28.4	0.94	1	08/26/20 15:12	08/26/20 19:21	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	28.4	1.0	1	08/26/20 15:12	08/26/20 19:21	108-67-8	
Vinyl acetate	ND	ug/kg	56.8	2.2	1	08/26/20 15:12	08/26/20 19:21	108-05-4	
Vinyl chloride	ND	ug/kg	28.4	2.1	1	08/26/20 15:12	08/26/20 19:21	75-01-4	
Xylene (Total)	ND	ug/kg	56.8	3.0	1	08/26/20 15:12	08/26/20 19:21	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	107	%.	78-126		1	08/26/20 15:12	08/26/20 19:21	1868-53-7	
Toluene-d8 (S)	98	%.	80-120		1	08/26/20 15:12	08/26/20 19:21	2037-26-5	
4-Bromofluorobenzene (S)	91	%.	80-120		1	08/26/20 15:12	08/26/20 19:21	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%.	76-127		1	08/26/20 15:12	08/26/20 19:21	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**14.5**	%	0.10	0.10	1		08/26/20 15:31		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249417

Sample: GR6PBSM **Lab ID: 5249417005** Collected: 08/26/20 11:50 Received: 08/26/20 14:53 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	288	15.7	1	08/26/20 15:12	08/26/20 19:46	67-64-1	
Acetonitrile	ND	ug/kg	231	11.4	1	08/26/20 15:12	08/26/20 19:46	75-05-8	
Acrolein	ND	ug/kg	288	8.5	1	08/26/20 15:12	08/26/20 19:46	107-02-8	
Acrylonitrile	ND	ug/kg	115	1.3	1	08/26/20 15:12	08/26/20 19:46	107-13-1	
Benzene	ND	ug/kg	5.8	0.93	1	08/26/20 15:12	08/26/20 19:46	71-43-2	
Bromobenzene	ND	ug/kg	28.8	0.89	1	08/26/20 15:12	08/26/20 19:46	108-86-1	
Bromochloromethane	ND	ug/kg	28.8	0.71	1	08/26/20 15:12	08/26/20 19:46	74-97-5	
Bromodichloromethane	ND	ug/kg	28.8	0.91	1	08/26/20 15:12	08/26/20 19:46	75-27-4	
Bromoform	ND	ug/kg	28.8	0.70	1	08/26/20 15:12	08/26/20 19:46	75-25-2	
Bromomethane	ND	ug/kg	144	0.90	1	08/26/20 15:12	08/26/20 19:46	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	115	1.6	1	08/26/20 15:12	08/26/20 19:46	78-93-3	
n-Butylbenzene	ND	ug/kg	28.8	1.9	1	08/26/20 15:12	08/26/20 19:46	104-51-8	
sec-Butylbenzene	ND	ug/kg	28.8	1.6	1	08/26/20 15:12	08/26/20 19:46	135-98-8	
tert-Butylbenzene	ND	ug/kg	28.8	1.4	1	08/26/20 15:12	08/26/20 19:46	98-06-6	
Carbon disulfide	ND	ug/kg	115	1.8	1	08/26/20 15:12	08/26/20 19:46	75-15-0	
Carbon tetrachloride	ND	ug/kg	28.8	1.7	1	08/26/20 15:12	08/26/20 19:46	56-23-5	
Chlorobenzene	ND	ug/kg	28.8	0.88	1	08/26/20 15:12	08/26/20 19:46	108-90-7	
Chloroethane	ND	ug/kg	28.8	1.7	1	08/26/20 15:12	08/26/20 19:46	75-00-3	
Chloroform	ND	ug/kg	28.8	1.2	1	08/26/20 15:12	08/26/20 19:46	67-66-3	
Chloromethane	ND	ug/kg	28.8	0.90	1	08/26/20 15:12	08/26/20 19:46	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	28.8	0.94	1	08/26/20 15:12	08/26/20 19:46	95-49-8	
4-Chlorotoluene	ND	ug/kg	28.8	0.93	1	08/26/20 15:12	08/26/20 19:46	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	57.6	0.93	1	08/26/20 15:12	08/26/20 19:46	96-12-8	
Dibromochloromethane	ND	ug/kg	28.8	0.71	1	08/26/20 15:12	08/26/20 19:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	28.8	0.65	1	08/26/20 15:12	08/26/20 19:46	106-93-4	
Dibromomethane	ND	ug/kg	28.8	0.89	1	08/26/20 15:12	08/26/20 19:46	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	28.8	0.80	1	08/26/20 15:12	08/26/20 19:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	28.8	0.80	1	08/26/20 15:12	08/26/20 19:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	28.8	0.66	1	08/26/20 15:12	08/26/20 19:46	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	28.8	2.5	1	08/26/20 15:12	08/26/20 19:46	75-71-8	
1,1-Dichloroethane	ND	ug/kg	28.8	1.2	1	08/26/20 15:12	08/26/20 19:46	75-34-3	
1,2-Dichloroethane	ND	ug/kg	28.8	1.2	1	08/26/20 15:12	08/26/20 19:46	107-06-2	
1,1-Dichloroethene	ND	ug/kg	28.8	2.0	1	08/26/20 15:12	08/26/20 19:46	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	28.8	1.1	1	08/26/20 15:12	08/26/20 19:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	28.8	1.4	1	08/26/20 15:12	08/26/20 19:46	156-60-5	
1,2-Dichloropropane	ND	ug/kg	28.8	0.82	1	08/26/20 15:12	08/26/20 19:46	78-87-5	
1,3-Dichloropropane	ND	ug/kg	28.8	0.73	1	08/26/20 15:12	08/26/20 19:46	142-28-9	
2,2-Dichloropropane	ND	ug/kg	28.8	1.7	1	08/26/20 15:12	08/26/20 19:46	594-20-7	
1,1-Dichloropropene	ND	ug/kg	28.8	1.5	1	08/26/20 15:12	08/26/20 19:46	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	28.8	0.75	1	08/26/20 15:12	08/26/20 19:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	28.8	0.99	1	08/26/20 15:12	08/26/20 19:46	10061-02-6	
Ethyl acetate	ND	ug/kg	57.6	2.0	1	08/26/20 15:12	08/26/20 19:46	141-78-6	
Ethylbenzene	ND	ug/kg	28.8	1.3	1	08/26/20 15:12	08/26/20 19:46	100-41-4	
2-Hexanone	ND	ug/kg	115	5.2	1	08/26/20 15:12	08/26/20 19:46	591-78-6	N2

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249417

Sample: GR6PBSM **Lab ID: 5249417005** Collected: 08/26/20 11:50 Received: 08/26/20 14:53 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	28.8	1.2	1	08/26/20 15:12	08/26/20 19:46	98-82-8	
p-Isopropyltoluene	ND	ug/kg	28.8	5.8	1	08/26/20 15:12	08/26/20 19:46	99-87-6	
Methylene Chloride	ND	ug/kg	144	1.9	1	08/26/20 15:12	08/26/20 19:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	115	3.3	1	08/26/20 15:12	08/26/20 19:46	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	57.6	1.3	1	08/26/20 15:12	08/26/20 19:46	1634-04-4	
Naphthalene	ND	ug/kg	28.8	0.72	1	08/26/20 15:12	08/26/20 19:46	91-20-3	
n-Propylbenzene	ND	ug/kg	28.8	1.2	1	08/26/20 15:12	08/26/20 19:46	103-65-1	
Styrene	ND	ug/kg	28.8	1.1	1	08/26/20 15:12	08/26/20 19:46	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	28.8	0.69	1	08/26/20 15:12	08/26/20 19:46	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	28.8	0.64	1	08/26/20 15:12	08/26/20 19:46	79-34-5	
Tetrachloroethene	ND	ug/kg	28.8	1.7	1	08/26/20 15:12	08/26/20 19:46	127-18-4	
Toluene	ND	ug/kg	28.8	1.0	1	08/26/20 15:12	08/26/20 19:46	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	28.8	0.67	1	08/26/20 15:12	08/26/20 19:46	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	28.8	0.77	1	08/26/20 15:12	08/26/20 19:46	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	28.8	1.4	1	08/26/20 15:12	08/26/20 19:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	28.8	0.92	1	08/26/20 15:12	08/26/20 19:46	79-00-5	
Trichloroethene	ND	ug/kg	28.8	1.3	1	08/26/20 15:12	08/26/20 19:46	79-01-6	
Trichlorofluoromethane	ND	ug/kg	28.8	2.1	1	08/26/20 15:12	08/26/20 19:46	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	28.8	1.5	1	08/26/20 15:12	08/26/20 19:46	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	28.8	0.95	1	08/26/20 15:12	08/26/20 19:46	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	28.8	1.1	1	08/26/20 15:12	08/26/20 19:46	108-67-8	
Vinyl acetate	ND	ug/kg	57.6	2.2	1	08/26/20 15:12	08/26/20 19:46	108-05-4	
Vinyl chloride	ND	ug/kg	28.8	2.1	1	08/26/20 15:12	08/26/20 19:46	75-01-4	
Xylene (Total)	ND	ug/kg	57.6	3.0	1	08/26/20 15:12	08/26/20 19:46	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	109	%.	78-126		1	08/26/20 15:12	08/26/20 19:46	1868-53-7	
Toluene-d8 (S)	99	%.	80-120		1	08/26/20 15:12	08/26/20 19:46	2037-26-5	
4-Bromofluorobenzene (S)	92	%.	80-120		1	08/26/20 15:12	08/26/20 19:46	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%.	76-127		1	08/26/20 15:12	08/26/20 19:46	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**14.6**	%	0.10	0.10	1		08/26/20 15:31		N2

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25 Holiday Drive
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(937)832-8242

ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249417

Sample: YL8WNSS **Lab ID: 5249417006** Collected: 08/26/20 13:00 Received: 08/26/20 14:53 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	288	15.7	1	08/26/20 15:12	08/26/20 20:11	67-64-1	
Acetonitrile	ND	ug/kg	231	11.4	1	08/26/20 15:12	08/26/20 20:11	75-05-8	
Acrolein	ND	ug/kg	288	8.5	1	08/26/20 15:12	08/26/20 20:11	107-02-8	
Acrylonitrile	ND	ug/kg	115	1.3	1	08/26/20 15:12	08/26/20 20:11	107-13-1	
Benzene	ND	ug/kg	5.8	0.93	1	08/26/20 15:12	08/26/20 20:11	71-43-2	
Bromobenzene	ND	ug/kg	28.8	0.89	1	08/26/20 15:12	08/26/20 20:11	108-86-1	
Bromochloromethane	ND	ug/kg	28.8	0.71	1	08/26/20 15:12	08/26/20 20:11	74-97-5	
Bromodichloromethane	ND	ug/kg	28.8	0.91	1	08/26/20 15:12	08/26/20 20:11	75-27-4	
Bromoform	ND	ug/kg	28.8	0.70	1	08/26/20 15:12	08/26/20 20:11	75-25-2	
Bromomethane	ND	ug/kg	144	0.90	1	08/26/20 15:12	08/26/20 20:11	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	115	1.6	1	08/26/20 15:12	08/26/20 20:11	78-93-3	
n-Butylbenzene	ND	ug/kg	28.8	1.9	1	08/26/20 15:12	08/26/20 20:11	104-51-8	
sec-Butylbenzene	ND	ug/kg	28.8	1.6	1	08/26/20 15:12	08/26/20 20:11	135-98-8	
tert-Butylbenzene	ND	ug/kg	28.8	1.4	1	08/26/20 15:12	08/26/20 20:11	98-06-6	
Carbon disulfide	ND	ug/kg	115	1.8	1	08/26/20 15:12	08/26/20 20:11	75-15-0	
Carbon tetrachloride	ND	ug/kg	28.8	1.7	1	08/26/20 15:12	08/26/20 20:11	56-23-5	
Chlorobenzene	ND	ug/kg	28.8	0.88	1	08/26/20 15:12	08/26/20 20:11	108-90-7	
Chloroethane	ND	ug/kg	28.8	1.7	1	08/26/20 15:12	08/26/20 20:11	75-00-3	
Chloroform	ND	ug/kg	28.8	1.2	1	08/26/20 15:12	08/26/20 20:11	67-66-3	
Chloromethane	ND	ug/kg	28.8	0.90	1	08/26/20 15:12	08/26/20 20:11	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	28.8	0.94	1	08/26/20 15:12	08/26/20 20:11	95-49-8	
4-Chlorotoluene	ND	ug/kg	28.8	0.93	1	08/26/20 15:12	08/26/20 20:11	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	57.6	0.93	1	08/26/20 15:12	08/26/20 20:11	96-12-8	
Dibromochloromethane	ND	ug/kg	28.8	0.71	1	08/26/20 15:12	08/26/20 20:11	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	28.8	0.65	1	08/26/20 15:12	08/26/20 20:11	106-93-4	
Dibromomethane	ND	ug/kg	28.8	0.89	1	08/26/20 15:12	08/26/20 20:11	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	28.8	0.80	1	08/26/20 15:12	08/26/20 20:11	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	28.8	0.80	1	08/26/20 15:12	08/26/20 20:11	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	28.8	0.66	1	08/26/20 15:12	08/26/20 20:11	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	28.8	2.5	1	08/26/20 15:12	08/26/20 20:11	75-71-8	
1,1-Dichloroethane	ND	ug/kg	28.8	1.2	1	08/26/20 15:12	08/26/20 20:11	75-34-3	
1,2-Dichloroethane	ND	ug/kg	28.8	1.2	1	08/26/20 15:12	08/26/20 20:11	107-06-2	
1,1-Dichloroethene	ND	ug/kg	28.8	2.0	1	08/26/20 15:12	08/26/20 20:11	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	28.8	1.1	1	08/26/20 15:12	08/26/20 20:11	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	28.8	1.4	1	08/26/20 15:12	08/26/20 20:11	156-60-5	
1,2-Dichloropropane	ND	ug/kg	28.8	0.82	1	08/26/20 15:12	08/26/20 20:11	78-87-5	
1,3-Dichloropropane	ND	ug/kg	28.8	0.73	1	08/26/20 15:12	08/26/20 20:11	142-28-9	
2,2-Dichloropropane	ND	ug/kg	28.8	1.7	1	08/26/20 15:12	08/26/20 20:11	594-20-7	
1,1-Dichloropropene	ND	ug/kg	28.8	1.5	1	08/26/20 15:12	08/26/20 20:11	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	28.8	0.75	1	08/26/20 15:12	08/26/20 20:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	28.8	0.99	1	08/26/20 15:12	08/26/20 20:11	10061-02-6	
Ethyl acetate	ND	ug/kg	57.6	2.0	1	08/26/20 15:12	08/26/20 20:11	141-78-6	
Ethylbenzene	ND	ug/kg	28.8	1.3	1	08/26/20 15:12	08/26/20 20:11	100-41-4	
2-Hexanone	ND	ug/kg	115	5.2	1	08/26/20 15:12	08/26/20 20:11	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249417

Sample: YL8WNSS **Lab ID: 5249417006** Collected: 08/26/20 13:00 Received: 08/26/20 14:53 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	28.8	1.2	1	08/26/20 15:12	08/26/20 20:11	98-82-8	
p-Isopropyltoluene	ND	ug/kg	28.8	5.8	1	08/26/20 15:12	08/26/20 20:11	99-87-6	
Methylene Chloride	ND	ug/kg	144	1.9	1	08/26/20 15:12	08/26/20 20:11	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	115	3.3	1	08/26/20 15:12	08/26/20 20:11	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	57.6	1.3	1	08/26/20 15:12	08/26/20 20:11	1634-04-4	
Naphthalene	ND	ug/kg	28.8	0.72	1	08/26/20 15:12	08/26/20 20:11	91-20-3	
n-Propylbenzene	ND	ug/kg	28.8	1.2	1	08/26/20 15:12	08/26/20 20:11	103-65-1	
Styrene	ND	ug/kg	28.8	1.1	1	08/26/20 15:12	08/26/20 20:11	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	28.8	0.69	1	08/26/20 15:12	08/26/20 20:11	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	28.8	0.64	1	08/26/20 15:12	08/26/20 20:11	79-34-5	
Tetrachloroethene	ND	ug/kg	28.8	1.7	1	08/26/20 15:12	08/26/20 20:11	127-18-4	
Toluene	ND	ug/kg	28.8	1.0	1	08/26/20 15:12	08/26/20 20:11	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	28.8	0.67	1	08/26/20 15:12	08/26/20 20:11	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	28.8	0.77	1	08/26/20 15:12	08/26/20 20:11	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	28.8	1.4	1	08/26/20 15:12	08/26/20 20:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	28.8	0.92	1	08/26/20 15:12	08/26/20 20:11	79-00-5	
Trichloroethene	**16.4J**	ug/kg	28.8	1.3	1	08/26/20 15:12	08/26/20 20:11	79-01-6	
Trichlorofluoromethane	ND	ug/kg	28.8	2.1	1	08/26/20 15:12	08/26/20 20:11	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	28.8	1.5	1	08/26/20 15:12	08/26/20 20:11	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	28.8	0.95	1	08/26/20 15:12	08/26/20 20:11	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	28.8	1.1	1	08/26/20 15:12	08/26/20 20:11	108-67-8	
Vinyl acetate	ND	ug/kg	57.6	2.2	1	08/26/20 15:12	08/26/20 20:11	108-05-4	
Vinyl chloride	ND	ug/kg	28.8	2.1	1	08/26/20 15:12	08/26/20 20:11	75-01-4	
Xylene (Total)	ND	ug/kg	57.6	3.0	1	08/26/20 15:12	08/26/20 20:11	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	108	%.	78-126		1	08/26/20 15:12	08/26/20 20:11	1868-53-7	
Toluene-d8 (S)	99	%.	80-120		1	08/26/20 15:12	08/26/20 20:11	2037-26-5	
4-Bromofluorobenzene (S)	94	%.	80-120		1	08/26/20 15:12	08/26/20 20:11	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%.	76-127		1	08/26/20 15:12	08/26/20 20:11	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**18.5**	%	0.10	0.10	1		08/26/20 15:32		N2

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QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249417

QC Batch: 48668
QC Batch Method: EPA 5035A
Analysis Method: EPA 8260B
Analysis Description: 8260B MSV 5035A Med Level
Laboratory: Pace Analytical Services - Dayton
Associated Lab Samples: 5249417001, 5249417002, 5249417003, 5249417004, 5249417005, 5249417006

METHOD BLANK: 204601
Matrix: Solid
Associated Lab Samples: 5249417001, 5249417002, 5249417003, 5249417004, 5249417005, 5249417006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	25.0	0.60	08/26/20 12:40	
1,1,1-Trichloroethane	ug/kg	ND	25.0	1.2	08/26/20 12:40	
1,1,2,2-Tetrachloroethane	ug/kg	ND	25.0	0.56	08/26/20 12:40	
1,1,2-Trichloroethane	ug/kg	ND	25.0	0.80	08/26/20 12:40	
1,1-Dichloroethane	ug/kg	ND	25.0	1.1	08/26/20 12:40	
1,1-Dichloroethene	ug/kg	ND	25.0	1.7	08/26/20 12:40	N2
1,1-Dichloropropene	ug/kg	ND	25.0	1.3	08/26/20 12:40	
1,2,3-Trichlorobenzene	ug/kg	ND	25.0	0.58	08/26/20 12:40	N2
1,2,3-Trichloropropane	ug/kg	ND	25.0	1.3	08/26/20 12:40	
1,2,4-Trichlorobenzene	ug/kg	ND	25.0	0.67	08/26/20 12:40	
1,2,4-Trimethylbenzene	ug/kg	ND	25.0	0.83	08/26/20 12:40	
1,2-Dibromo-3-chloropropane	ug/kg	ND	50.0	0.80	08/26/20 12:40	
1,2-Dibromoethane (EDB)	ug/kg	ND	25.0	0.57	08/26/20 12:40	
1,2-Dichlorobenzene	ug/kg	ND	25.0	0.69	08/26/20 12:40	
1,2-Dichloroethane	ug/kg	ND	25.0	1.0	08/26/20 12:40	
1,2-Dichloropropane	ug/kg	ND	25.0	0.71	08/26/20 12:40	
1,3,5-Trimethylbenzene	ug/kg	ND	25.0	0.92	08/26/20 12:40	
1,3-Dichlorobenzene	ug/kg	ND	25.0	0.69	08/26/20 12:40	
1,3-Dichloropropane	ug/kg	ND	25.0	0.63	08/26/20 12:40	
1,4-Dichlorobenzene	ug/kg	ND	25.0	0.57	08/26/20 12:40	
2,2-Dichloropropane	ug/kg	ND	25.0	1.5	08/26/20 12:40	
2-Butanone (MEK)	ug/kg	ND	100	1.4	08/26/20 12:40	
2-Chlorotoluene	ug/kg	ND	25.0	0.81	08/26/20 12:40	
2-Hexanone	ug/kg	ND	100	4.5	08/26/20 12:40	N2
4-Chlorotoluene	ug/kg	ND	25.0	0.81	08/26/20 12:40	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	100	2.9	08/26/20 12:40	N2
Acetone	ug/kg	ND	250	13.6	08/26/20 12:40	
Acetonitrile	ug/kg	ND	200	9.9	08/26/20 12:40	
Acrolein	ug/kg	ND	250	7.4	08/26/20 12:40	
Acrylonitrile	ug/kg	ND	100	1.1	08/26/20 12:40	
Benzene	ug/kg	ND	5.0	0.81	08/26/20 12:40	
Bromobenzene	ug/kg	ND	25.0	0.78	08/26/20 12:40	
Bromochloromethane	ug/kg	ND	25.0	0.61	08/26/20 12:40	
Bromodichloromethane	ug/kg	ND	25.0	0.79	08/26/20 12:40	
Bromoform	ug/kg	ND	25.0	0.60	08/26/20 12:40	
Bromomethane	ug/kg	ND	125	0.78	08/26/20 12:40	N2
Carbon disulfide	ug/kg	ND	100	1.6	08/26/20 12:40	
Carbon tetrachloride	ug/kg	ND	25.0	1.4	08/26/20 12:40	
Chlorobenzene	ug/kg	ND	25.0	0.76	08/26/20 12:40	
Chloroethane	ug/kg	ND	25.0	1.4	08/26/20 12:40	

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25 Holiday Drive
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(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249417

METHOD BLANK: 204601 Matrix: Solid
Associated Lab Samples: 5249417001, 5249417002, 5249417003, 5249417004, 5249417005, 5249417006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloroform	ug/kg	ND	25.0	1.0	08/26/20 12:40	
Chloromethane	ug/kg	ND	25.0	0.78	08/26/20 12:40	N2
cis-1,2-Dichloroethene	ug/kg	ND	25.0	0.91	08/26/20 12:40	
cis-1,3-Dichloropropene	ug/kg	ND	25.0	0.65	08/26/20 12:40	
Dibromochloromethane	ug/kg	ND	25.0	0.61	08/26/20 12:40	
Dibromomethane	ug/kg	ND	25.0	0.78	08/26/20 12:40	
Dichlorodifluoromethane	ug/kg	ND	25.0	2.1	08/26/20 12:40	
Ethyl acetate	ug/kg	ND	50.0	1.7	08/26/20 12:40	
Ethylbenzene	ug/kg	ND	25.0	1.2	08/26/20 12:40	
Isopropylbenzene (Cumene)	ug/kg	ND	25.0	1.0	08/26/20 12:40	
Methyl-tert-butyl ether	ug/kg	ND	50.0	1.2	08/26/20 12:40	
Methylene Chloride	ug/kg	ND	125	1.6	08/26/20 12:40	
n-Butylbenzene	ug/kg	ND	25.0	1.6	08/26/20 12:40	
n-Propylbenzene	ug/kg	ND	25.0	1.1	08/26/20 12:40	
Naphthalene	ug/kg	ND	25.0	0.63	08/26/20 12:40	
p-Isopropyltoluene	ug/kg	ND	25.0	5.0	08/26/20 12:40	
sec-Butylbenzene	ug/kg	ND	25.0	1.4	08/26/20 12:40	
Styrene	ug/kg	ND	25.0	0.96	08/26/20 12:40	
tert-Butylbenzene	ug/kg	ND	25.0	1.2	08/26/20 12:40	
Tetrachloroethene	ug/kg	ND	25.0	1.4	08/26/20 12:40	
Toluene	ug/kg	ND	25.0	0.87	08/26/20 12:40	
trans-1,2-Dichloroethene	ug/kg	ND	25.0	1.2	08/26/20 12:40	
trans-1,3-Dichloropropene	ug/kg	ND	25.0	0.86	08/26/20 12:40	
Trichloroethene	ug/kg	ND	25.0	1.1	08/26/20 12:40	
Trichlorofluoromethane	ug/kg	ND	25.0	1.8	08/26/20 12:40	
Vinyl acetate	ug/kg	ND	50.0	1.9	08/26/20 12:40	
Vinyl chloride	ug/kg	ND	25.0	1.8	08/26/20 12:40	
Xylene (Total)	ug/kg	ND	50.0	2.6	08/26/20 12:40	
1,2-Dichloroethane-d4 (S)	%.	108	76-127		08/26/20 12:40	
4-Bromofluorobenzene (S)	%.	94	80-120		08/26/20 12:40	
Dibromofluoromethane (S)	%.	110	78-126		08/26/20 12:40	
Toluene-d8 (S)	%.	96	80-120		08/26/20 12:40	

LABORATORY CONTROL SAMPLE: 204602

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	500	540	108	70-130	
1,1,1-Trichloroethane	ug/kg	500	556	111	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	500	525	105	70-130	
1,1,2-Trichloroethane	ug/kg	500	508	102	70-130	
1,1-Dichloroethane	ug/kg	500	535	107	70-130	
1,1-Dichloroethene	ug/kg	500	525	105	70-130	N2
1,1-Dichloropropene	ug/kg	500	535	107	70-130	
1,2,3-Trichlorobenzene	ug/kg	500	460	92	70-130	N2

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(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249417

LABORATORY CONTROL SAMPLE: 204602

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichloropropane	ug/kg	500	513	103	70-130	
1,2,4-Trichlorobenzene	ug/kg	500	453	91	70-130	
1,2,4-Trimethylbenzene	ug/kg	500	456	91	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	500	445	89	70-130	
1,2-Dibromoethane (EDB)	ug/kg	500	516	103	70-130	
1,2-Dichlorobenzene	ug/kg	500	470	94	70-130	
1,2-Dichloroethane	ug/kg	500	519	104	70-130	
1,2-Dichloropropane	ug/kg	500	516	103	70-130	
1,3,5-Trimethylbenzene	ug/kg	500	508	102	70-130	
1,3-Dichlorobenzene	ug/kg	500	502	100	50-150	
1,3-Dichloropropane	ug/kg	500	526	105	70-130	
1,4-Dichlorobenzene	ug/kg	500	504	101	50-150	
2,2-Dichloropropane	ug/kg	500	539	108	70-130	
2-Butanone (MEK)	ug/kg	1000	1000	100	50-150	
2-Chlorotoluene	ug/kg	500	502	100	70-130	
2-Hexanone	ug/kg	1000	1080	108	50-150	N2
4-Chlorotoluene	ug/kg	500	493	99	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	1000	993	99	70-130	N2
Acetone	ug/kg	1000	1060	106	50-150	
Acetonitrile	ug/kg	1000	845	85	70-130	
Acrolein	ug/kg	1000	860	86	70-130	
Acrylonitrile	ug/kg	1000	1000	100	70-130	
Benzene	ug/kg	500	542	108	70-130	
Bromobenzene	ug/kg	500	543	109	70-130	
Bromochloromethane	ug/kg	500	517	103	70-130	
Bromodichloromethane	ug/kg	500	582	116	70-130	
Bromoform	ug/kg	500	514	103	70-130	
Bromomethane	ug/kg	500	626	125	50-150	N2
Carbon disulfide	ug/kg	500	514	103	70-130	
Carbon tetrachloride	ug/kg	500	580	116	70-130	
Chlorobenzene	ug/kg	500	532	106	70-130	
Chloroethane	ug/kg	500	599	120	50-150	
Chloroform	ug/kg	500	535	107	70-130	
Chloromethane	ug/kg	500	538	108	50-150	N2
cis-1,2-Dichloroethene	ug/kg	500	478	96	70-130	
cis-1,3-Dichloropropene	ug/kg	500	547	109	70-130	
Dibromochloromethane	ug/kg	500	536	107	70-130	
Dibromomethane	ug/kg	500	551	110	70-130	
Dichlorodifluoromethane	ug/kg	500	393	79	50-150	
Ethyl acetate	ug/kg	1000	922	92	70-130	
Ethylbenzene	ug/kg	500	506	101	70-130	
Isopropylbenzene (Cumene)	ug/kg	500	441	88	70-130	
Methyl-tert-butyl ether	ug/kg	500	488	98	70-130	
Methylene Chloride	ug/kg	500	482	96	70-130	
n-Butylbenzene	ug/kg	500	492	98	70-130	
n-Propylbenzene	ug/kg	500	533	107	70-130	
Naphthalene	ug/kg	500	355	71	50-150	

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QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249417

LABORATORY CONTROL SAMPLE: 204602

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/kg	500	421	84	70-130	
sec-Butylbenzene	ug/kg	500	433	87	70-130	
Styrene	ug/kg	500	448	90	70-130	
tert-Butylbenzene	ug/kg	500	421	84	70-130	
Tetrachloroethene	ug/kg	500	559	112	70-130	
Toluene	ug/kg	500	524	105	70-130	
trans-1,2-Dichloroethene	ug/kg	500	493	99	70-130	
trans-1,3-Dichloropropene	ug/kg	500	548	110	70-130	
Trichloroethene	ug/kg	500	556	111	70-130	
Trichlorofluoromethane	ug/kg	500	608	122	50-150	
Vinyl acetate	ug/kg	500	455	91	70-130	
Vinyl chloride	ug/kg	500	456	91	50-150	
Xylene (Total)	ug/kg	1500	1400	93	70-130	
1,2-Dichloroethane-d4 (S)	%.			93	76-127	
4-Bromofluorobenzene (S)	%.			97	80-120	
Dibromofluoromethane (S)	%.			96	78-126	
Toluene-d8 (S)	%.			99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 204603 204604

Parameter	Units	5249328001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/kg	ND	601	625	628	673	104	108	48-135	7	20	
1,1,1-Trichloroethane	ug/kg	ND	601	625	667	700	111	112	49-123	5	23	
1,1,2,2-Tetrachloroethane	ug/kg	ND	601	625	625	660	104	106	43-135	6	26	
1,1,2-Trichloroethane	ug/kg	ND	601	625	608	635	101	102	52-138	4	21	
1,1-Dichloroethane	ug/kg	ND	601	625	633	644	105	103	61-129	2	20	
1,1-Dichloroethene	ug/kg	ND	601	625	599	648	100	104	41-127	8	28	N2
1,1-Dichloropropene	ug/kg	ND	601	625	615	657	102	105	44-119	7	25	
1,2,3-Trichlorobenzene	ug/kg	ND	601	625	538	616	89	99	10-110	13	30	N2
1,2,3-Trichloropropane	ug/kg	ND	601	625	608	642	101	103	46-128	5	24	
1,2,4-Trichlorobenzene	ug/kg	ND	601	625	548	601	91	96	11-130	9	38	
1,2,4-Trimethylbenzene	ug/kg	ND	601	625	523	567	87	91	24-153	8	25	
1,2-Dibromo-3-chloropropane	ug/kg	ND	601	625	558	589	93	94	30-146	5	26	
1,2-Dibromoethane (EDB)	ug/kg	ND	601	625	612	647	102	103	51-136	5	20	
1,2-Dichlorobenzene	ug/kg	ND	601	625	562	634	94	102	31-137	12	25	
1,2-Dichloroethane	ug/kg	ND	601	625	625	624	104	100	65-124	0	20	
1,2-Dichloropropane	ug/kg	ND	601	625	610	635	101	102	64-124	4	20	
1,3,5-Trimethylbenzene	ug/kg	ND	601	625	610	659	101	105	31-140	8	24	
1,3-Dichlorobenzene	ug/kg	ND	601	625	602	636	100	102	30-136	5	25	
1,3-Dichloropropane	ug/kg	ND	601	625	646	628	107	101	57-127	3	21	
1,4-Dichlorobenzene	ug/kg	ND	601	625	585	629	97	101	36-131	7	24	
2,2-Dichloropropane	ug/kg	ND	601	625	626	667	104	107	45-124	6	17	
2-Butanone (MEK)	ug/kg	ND	1200	1250	1250	1270	104	102	35-149	2	22	

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(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249417

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 204603 204604

Parameter	Units	5249328001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2-Chlorotoluene	ug/kg	ND	601	625	586	652	98	104	37-129	11	24	
2-Hexanone	ug/kg	ND	1200	1250	1390	1380	116	110	34-134	1	23	N2
4-Chlorotoluene	ug/kg	ND	601	625	556	595	92	95	32-131	7	23	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	1200	1250	1280	1200	107	96	49-137	7	24	N2
Acetone	ug/kg	ND	1200	1250	1410	1390	117	111	12-177	1	34	
Acetonitrile	ug/kg	ND	1200	1250	1880	1690	156	135	41-152	10	38	M1
Acrolein	ug/kg	ND	1200	1250	1200	1190	100	95	10-200	1	48	
Acrylonitrile	ug/kg	ND	1200	1250	1270	1230	106	98	54-136	4	26	
Benzene	ug/kg	ND	601	625	630	654	105	105	61-122	4	20	
Bromobenzene	ug/kg	ND	601	625	635	694	106	111	38-133	9	21	
Bromochloromethane	ug/kg	ND	601	625	612	635	102	102	70-130	4	19	
Bromodichloromethane	ug/kg	ND	601	625	685	720	114	115	53-131	5	21	
Bromoform	ug/kg	ND	601	625	640	668	107	107	49-127	4	22	
Bromomethane	ug/kg	ND	601	625	797	781	133	125	15-168	2	22	N2
Carbon disulfide	ug/kg	ND	601	625	611	606	102	97	43-118	1	33	
Carbon tetrachloride	ug/kg	ND	601	625	672	737	112	118	39-121	9	23	
Chlorobenzene	ug/kg	ND	601	625	605	668	101	107	46-130	10	21	
Chloroethane	ug/kg	ND	601	625	765	743	127	119	6-154	3	86	
Chloroform	ug/kg	ND	601	625	627	655	104	105	62-128	4	19	
Chloromethane	ug/kg	ND	601	625	685	726	114	116	50-132	6	25	N2
cis-1,2-Dichloroethene	ug/kg	ND	601	625	586	607	97	97	61-127	4	20	
cis-1,3-Dichloropropene	ug/kg	ND	601	625	620	667	103	107	55-125	7	21	
Dibromochloromethane	ug/kg	ND	601	625	662	698	110	112	53-133	5	21	
Dibromomethane	ug/kg	ND	601	625	639	674	106	108	64-127	5	20	
Dichlorodifluoromethane	ug/kg	ND	601	625	500	516	83	83	10-184	3	69	
Ethyl acetate	ug/kg	ND	1200	1250	1160	1190	97	95	10-155	2	40	
Ethylbenzene	ug/kg	ND	601	625	576	636	96	102	40-129	10	23	
Isopropylbenzene (Cumene)	ug/kg	ND	601	625	519	561	86	90	42-121	8	24	
Methyl-tert-butyl ether	ug/kg	ND	601	625	594	607	99	97	60-132	2	27	
Methylene Chloride	ug/kg	ND	601	625	612	602	102	96	46-146	2	39	
n-Butylbenzene	ug/kg	ND	601	625	573	627	95	100	20-127	9	29	
n-Propylbenzene	ug/kg	ND	601	625	598	654	99	105	33-126	9	25	
Naphthalene	ug/kg	ND	601	625	436	489	73	78	8-150	11	31	
p-Isopropyltoluene	ug/kg	ND	601	625	483	549	80	88	27-131	13	26	
sec-Butylbenzene	ug/kg	ND	601	625	519	577	86	92	27-130	11	26	
Styrene	ug/kg	ND	601	625	521	558	87	89	41-132	7	22	
tert-Butylbenzene	ug/kg	ND	601	625	483	549	80	88	36-129	13	25	
Tetrachloroethene	ug/kg	ND	601	625	635	718	106	115	36-128	12	23	
Toluene	ug/kg	ND	601	625	605	655	101	105	50-125	8	20	
trans-1,2-Dichloroethene	ug/kg	ND	601	625	579	586	96	94	51-127	1	31	
trans-1,3-Dichloropropene	ug/kg	ND	601	625	621	668	103	107	55-126	7	21	
Trichloroethene	ug/kg	8.4J	601	625	649	681	107	108	47-132	5	20	
Trichlorofluoromethane	ug/kg	ND	601	625	1140	1290	190	206	14-140	12	24	M1
Vinyl acetate	ug/kg	ND	601	625	597	591	99	95	10-127	1	50	

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(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249417

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 204603 204604

Parameter	Units	5249328001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Vinyl chloride	ug/kg	ND	601	625	596	602	99	96	35-130	1	54	
Xylene (Total)	ug/kg	ND	1800	1870	1620	1780	90	95	70-130	9	32	
1,2-Dichloroethane-d4 (S)	%.						103	95	76-127			
4-Bromofluorobenzene (S)	%.						97	101	80-120			
Dibromofluoromethane (S)	%.						99	98	78-126			
Toluene-d8 (S)	%.						98	98	80-120			

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QUALIFIERS

Project: RUSH VOC Soils
Pace Project No.: 5249417

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RUSH VOC Soils
Pace Project No.: 5249417

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
5249417001	**BLA6WSSS**	EPA 5035A	48668	EPA 8260B	48748
5249417002	**GR6WWSS**	EPA 5035A	48668	EPA 8260B	48748
5249417003	**GR6WSSS**	EPA 5035A	48668	EPA 8260B	48748
5249417004	**GR6PBSS**	EPA 5035A	48668	EPA 8260B	48748
5249417005	**GR6PBSM**	EPA 5035A	48668	EPA 8260B	48748
5249417006	**YL8WNSS**	EPA 5035A	48668	EPA 8260B	48748
5249417001	**BLA6WSSS**	ASTM D2216	48724		
5249417002	**GR6WWSS**	ASTM D2216	48724		
5249417003	**GR6WSSS**	ASTM D2216	48724		
5249417004	**GR6PBSS**	ASTM D2216	48724		
5249417005	**GR6PBSM**	ASTM D2216	48724		
5249417006	**YL8WNSS**	ASTM D2216	48724		

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LAB USE ONLY- Affix Work

WO# : 5249417

5249417

ALL SHADI

Page 25 of 25

25 of 405

Company: MAKSolve

Address: 261 Regency Ridge Dr. Dayton OH 45459

Report To: Barb@maksolve.com

Copy To: John@maksolve.com

Customer Project Name/Number: Spinnaker 084-20

Phone: 3072516465

Email:

Collected By (print): Barb McGavern

Collected By (signature): Barb McGavern

Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: ____ [X] Hold: 30 days

Billing Information: Bill to MAKSolve

Email To: Barb@maksolve.com

Site Collection Info/Address: 518 E. Water Street

State: OH County/City: Troy Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET

Site/Facility ID #:

Compliance Monitoring? [ ] Yes [X] No

DW PWS ID #:

DW Location Code:

Purchase Order #:

Quote #: 00076556

Immediately Packed on Ice: [X] Yes [ ] No

Turnaround Date Required: RUSH for 8/27/20

Field Filtered (if applicable): [ ] Yes [ ] No

Rush: [ ] Same Day [X] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Analysis: ____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other ____

Container Preservative Type: 0 0

Analyses

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	PCE (8260)	TCE (8260)
BLA6WSSS	SL	Grab	8/26	1143					X	X
GR6WWSS	SL	Grab	8/26	1146					X	X
GR6WSSS	SL	Grab	8/26	1148					X	X
GR6PBSS	SL	Grab	8/26	1149					X	X
GR6PBSM	SL	Grab	8/26	1152					X	X
YL8WNSS	SL	Grab	8/26	1300					X	X

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips: ____	
Sample pH Acceptable	Y N NA
pH Strips: ____	
Sulfide Present	Y N NA
Lead Acetate Strips: ____	

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:
Level 4 data pkg
1 jar per sample

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2519618

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: ____
Cooler 1 Temp Upon Receipt: ____oC
Cooler 1 Therm Corr. Factor: ____oC
Cooler 1 Corrected Temp: ____oC
Comments: 6.0

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: ____ of: ____

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Barbara McGavern / MAKSolve	8/26/20 1406	[signature]	8/26/20 1453
[signature]	Date/Time:	Received by/Company: (Signature)	Date/Time:
[signature]	Date/Time:	Received by/Company: (Signature)	Date/Time:

MSV - FORM II VOA-1
SOLID VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Dayton SDG No.: 5249417 Contract: RUSH VOC Soils

Instrument ID: 52MV02

LAB SAMPLE ID	SAMPLE NAME	12D4	BFB	DIBF	TOL8
204601	204601BLANK	108	94	110	96
204602	204602LCS	93	97	96	99
5249417001	BLA6WSSS	105	92	108	96
5249417002	GR6WWSS	106	95	106	97
5249417003	GR6WSSS	105	92	107	98
5249417004	GR6PBSS	105	91	107	98
5249417005	GR6PBSM	108	92	109	99
5249417006	YL8WNSS	107	94	108	99

	QC LIMITS
(12D4) = 1,2-Dichloroethane-d4 (S)	(76-127)
(BFB) = 4-Bromofluorobenzene (S)	(80-120)
(DIBF) = Dibromofluoromethane (S)	(78-126)
(TOL8) = Toluene-d8 (S)	(80-120)

* Values outside of QC Limits

MSV - FORM III VOA-1

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Dayton

Lab Sample ID: 204602LCS

Date Extracted: 08/26/2020

Date Analyzed (1): 08/26/2020

Instrument: 52MV02

LCS Lot No:

Lab File ID: 082620.B\082620_03B2983.D

SDG No.: 5249417

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
Acetone	1000	1060	106	50-150
Acetonitrile	1000	845	85	70-130
Acrolein	1000	860	86	70-130
Acrylonitrile	1000	1000	100	70-130
Benzene	500	542	108	70-130
Bromobenzene	500	543	109	70-130
Bromochloromethane	500	517	103	70-130
Bromodichloromethane	500	582	116	70-130
Bromoform	500	514	103	70-130
Bromomethane	500	626	125	50-150
2-Butanone (MEK)	1000	1000	100	50-150
n-Butylbenzene	500	492	98	70-130
sec-Butylbenzene	500	433	87	70-130
tert-Butylbenzene	500	421	84	70-130
Carbon disulfide	500	514	103	70-130
Carbon tetrachloride	500	580	116	70-130
Chlorobenzene	500	532	106	70-130
Chloroethane	500	599	120	50-150
Chloroform	500	535	107	70-130
Chloromethane	500	538	108	50-150
2-Chlorotoluene	500	502	100	70-130
4-Chlorotoluene	500	493	99	70-130
1,2-Dibromo-3-chloropropane	500	445	89	70-130
Dibromochloromethane	500	536	107	70-130
1,2-Dibromoethane (EDB)	500	516	103	70-130
Dibromomethane	500	551	110	70-130
1,2-Dichlorobenzene	500	470	94	70-130
1,3-Dichlorobenzene	500	502	100	50-150
1,4-Dichlorobenzene	500	504	101	50-150
Dichlorodifluoromethane	500	393	79	50-150
1,1-Dichloroethane	500	535	107	70-130
1,2-Dichloroethane	500	519	104	70-130
1,1-Dichloroethene	500	525	105	70-130
cis-1,2-Dichloroethene	500	478	96	70-130
trans-1,2-Dichloroethene	500	493	99	70-130
1,2-Dichloropropane	500	516	103	70-130
1,3-Dichloropropane	500	526	105	70-130
2,2-Dichloropropane	500	539	108	70-130
1,1-Dichloropropene	500	535	107	70-130
cis-1,3-Dichloropropene	500	547	109	70-130
trans-1,3-Dichloropropene	500	548	110	70-130
Ethyl acetate	1000	922	92	70-130
Ethylbenzene	500	506	101	70-130
2-Hexanone	1000	1080	108	50-150
Isopropylbenzene (Cumene)	500	441	88	70-130
p-Isopropyltoluene	500	421	84	70-130
Methylene Chloride	500	482	96	70-130

MSV - FORM III VOA-2

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Dayton

Lab Sample ID: 204602LCS

Date Extracted: 08/26/2020

Date Analyzed (1): 08/26/2020

Instrument: 52MV02

LCS Lot No:

Lab File ID: 082620.B\082620_03B2983.D

SDG No.: 5249417

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
4-Methyl-2-pentanone (MIBK)	1000	993	99	70-130
Methyl-tert-butyl ether	500	488	98	70-130
Naphthalene	500	355	71	50-150
n-Propylbenzene	500	533	107	70-130
Styrene	500	448	90	70-130
1,1,1,2-Tetrachloroethane	500	540	108	70-130
1,1,2,2-Tetrachloroethane	500	525	105	70-130
Tetrachloroethene	500	559	112	70-130
Toluene	500	524	105	70-130
1,2,3-Trichlorobenzene	500	460	92	70-130
1,2,4-Trichlorobenzene	500	453	91	70-130
1,1,1-Trichloroethane	500	556	111	70-130
1,1,2-Trichloroethane	500	508	102	70-130
Trichloroethene	500	556	111	70-130
Trichlorofluoromethane	500	608	122	50-150
1,2,3-Trichloropropane	500	513	103	70-130
1,2,4-Trimethylbenzene	500	456	91	70-130
1,3,5-Trimethylbenzene	500	508	102	70-130
Vinyl acetate	500	455	91	70-130
Vinyl chloride	500	456	91	50-150
Xylene (Total)	1500	1400	93	70-130

Spike Recovery: 0 out of 68 outside limits.

09/02/2020 12:04

MSV - FORM III VOA-1

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Dayton

Matrix Spike - Sample No: 204603MS

Date Extracted: 08/26/2020

Date Analyzed (1): 08/26/2020

Instrument: 52MV02

Lab File ID: 082620.B\082620_08.D

Parent Sample ID: 5249328001

SDG No.: 5249417

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	601	ND	628	104	48-135
1,1,1-Trichloroethane	601	ND	667	111	49-123
1,1,2,2-Tetrachloroethane	601	ND	625	104	43-135
1,1,2-Trichloroethane	601	ND	608	101	52-138
1,1-Dichloroethane	601	ND	633	105	61-129
1,1-Dichloroethene	601	ND	599	100	41-127
1,1-Dichloropropene	601	ND	615	102	44-119
1,2,3-Trichlorobenzene	601	ND	538	89	10-110
1,2,3-Trichloropropane	601	ND	608	101	46-128
1,2,4-Trichlorobenzene	601	ND	548	91	11-130
1,2,4-Trimethylbenzene	601	ND	523	87	24-153
1,2-Dibromo-3-chloropropane	601	ND	558	93	30-146
1,2-Dibromoethane (EDB)	601	ND	612	102	51-136
1,2-Dichlorobenzene	601	ND	562	94	31-137
1,2-Dichloroethane	601	ND	625	104	65-124
1,2-Dichloropropane	601	ND	610	101	64-124
1,3,5-Trimethylbenzene	601	ND	610	101	31-140
1,3-Dichlorobenzene	601	ND	602	100	30-136
1,3-Dichloropropane	601	ND	646	107	57-127
1,4-Dichlorobenzene	601	ND	585	97	36-131
2,2-Dichloropropane	601	ND	626	104	45-124
2-Butanone (MEK)	1200	ND	1250	104	35-149
2-Chlorotoluene	601	ND	586	98	37-129
2-Hexanone	1200	ND	1390	116	34-134
4-Chlorotoluene	601	ND	556	92	32-131
4-Methyl-2-pentanone (MIBK)	1200	ND	1280	107	49-137
Acetone	1200	ND	1410	117	12-177
Acetonitrile	1200	ND	1880	156	41-152
Acrolein	1200	ND	1200	100	10-200
Acrylonitrile	1200	ND	1270	106	54-136
Benzene	601	ND	630	105	61-122
Bromobenzene	601	ND	635	106	38-133
Bromochloromethane	601	ND	612	102	70-130
Bromodichloromethane	601	ND	685	114	53-131
Bromoform	601	ND	640	107	49-127
Bromomethane	601	ND	797	133	15-168
Carbon disulfide	601	ND	611	102	43-118
Carbon tetrachloride	601	ND	672	112	39-121
Chlorobenzene	601	ND	605	101	46-130
Chloroethane	601	ND	765	127	6-154
Chloroform	601	ND	627	104	62-128
Chloromethane	601	ND	685	114	50-132
Dibromochloromethane	601	ND	662	110	53-133
Dibromomethane	601	ND	639	106	64-127
Dichlorodifluoromethane	601	ND	500	83	10-184
Ethyl acetate	1200	ND	1160	97	10-155
Ethylbenzene	601	ND	576	96	40-129

MSV - FORM III VOA-2

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Dayton

Matrix Spike - Sample No: 204603MS

Date Extracted: 08/26/2020

Date Analyzed (1): 08/26/2020

Instrument: 52MV02

Lab File ID: 082620.B\082620_08.D

Parent Sample ID: 5249328001

SDG No.: 5249417

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
Isopropylbenzene (Cumene)	601	ND	519	86	42-121
Methyl-tert-butyl ether	601	ND	594	99	60-132
Methylene Chloride	601	ND	612	102	46-146
Naphthalene	601	ND	436	73	8-150
Styrene	601	ND	521	87	41-132
Tetrachloroethene	601	ND	635	106	36-128
Toluene	601	ND	605	101	50-125
Trichloroethene	601	8.4J	649	107	47-132
Trichlorofluoromethane	601	ND	1140	190	14-140
Vinyl acetate	601	ND	597	99	10-127
Vinyl chloride	601	ND	596	99	35-130
Xylene (Total)	1800	ND	1620	90	70-130
cis-1,2-Dichloroethene	601	ND	586	97	61-127
cis-1,3-Dichloropropene	601	ND	620	103	55-125
n-Butylbenzene	601	ND	573	95	20-127
n-Propylbenzene	601	ND	598	99	33-126
p-Isopropyltoluene	601	ND	483	80	27-131
sec-Butylbenzene	601	ND	519	86	27-130
tert-Butylbenzene	601	ND	483	80	36-129
trans-1,2-Dichloroethene	601	ND	579	96	51-127
trans-1,3-Dichloropropene	601	ND	621	103	55-126

Spike Recovery: 2 out of 68 outside limits.

09/02/2020 12:04

MSV - FORM III VOA-3

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 52MV02 Matrix Spike Duplicate - Sample No: 204604MSD

Lab File ID (2): 082620.B\082620_09.D Date Analyzed (2): 08/26/2020

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
1,1,1,2-Tetrachloroethane	625	673	108	7	0-20	48-135
1,1,1-Trichloroethane	625	700	112	5	0-23	49-123
1,1,2,2-Tetrachloroethane	625	660	106	6	0-26	43-135
1,1,2-Trichloroethane	625	635	102	4	0-21	52-138
1,1-Dichloroethane	625	644	103	2	0-20	61-129
1,1-Dichloroethene	625	648	104	8	0-28	41-127
1,1-Dichloropropene	625	657	105	7	0-25	44-119
1,2,3-Trichlorobenzene	625	616	99	13	0-30	10-110
1,2,3-Trichloropropane	625	642	103	5	0-24	46-128
1,2,4-Trichlorobenzene	625	601	96	9	0-38	11-130
1,2,4-Trimethylbenzene	625	567	91	8	0-25	24-153
1,2-Dibromo-3-chloropropane	625	589	94	5	0-26	30-146
1,2-Dibromoethane (EDB)	625	647	103	5	0-20	51-136
1,2-Dichlorobenzene	625	634	102	12	0-25	31-137
1,2-Dichloroethane	625	624	100	0	0-20	65-124
1,2-Dichloropropane	625	635	102	4	0-20	64-124
1,3,5-Trimethylbenzene	625	659	105	8	0-24	31-140
1,3-Dichlorobenzene	625	636	102	5	0-25	30-136
1,3-Dichloropropane	625	628	101	3	0-21	57-127
1,4-Dichlorobenzene	625	629	101	7	0-24	36-131
2,2-Dichloropropane	625	667	107	6	0-17	45-124
2-Butanone (MEK)	1250	1270	102	2	0-22	35-149
2-Chlorotoluene	625	652	104	11	0-24	37-129
2-Hexanone	1250	1380	110	1	0-23	34-134
4-Chlorotoluene	625	595	95	7	0-23	32-131
4-Methyl-2-pentanone (MIBK)	1250	1200	96	7	0-24	49-137
Acetone	1250	1390	111	1	0-34	12-177
Acetonitrile	1250	1690	135	10	0-38	41-152
Acrolein	1250	1190	95	1	0-48	10-200
Acrylonitrile	1250	1230	98	4	0-26	54-136
Benzene	625	654	105	4	0-20	61-122
Bromobenzene	625	694	111	9	0-21	38-133
Bromochloromethane	625	635	102	4	0-19	70-130
Bromodichloromethane	625	720	115	5	0-21	53-131
Bromoform	625	668	107	4	0-22	49-127
Bromomethane	625	781	125	2	0-22	15-168
Carbon disulfide	625	606	97	1	0-33	43-118
Carbon tetrachloride	625	737	118	9	0-23	39-121
Chlorobenzene	625	668	107	10	0-21	46-130
Chloroethane	625	743	119	3	0-86	6-154
Chloroform	625	655	105	4	0-19	62-128
Chloromethane	625	726	116	6	0-25	50-132
Dibromochloromethane	625	698	112	5	0-21	53-133
Dibromomethane	625	674	108	5	0-20	64-127
Dichlorodifluoromethane	625	516	83	3	0-69	10-184
Ethyl acetate	1250	1190	95	2	0-40	10-155
Ethylbenzene	625	636	102	10	0-23	40-129
Isopropylbenzene (Cumene)	625	561	90	8	0-24	42-121
Methyl-tert-butyl ether	625	607	97	2	0-27	60-132

MSV - FORM III VOA-4

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 52MV02 Matrix Spike Duplicate - Sample No: 204604MSD

Lab File ID (2): 082620.B\082620_09.D Date Analyzed (2): 08/26/2020

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Methylene Chloride	625	602	96	2	0-39	46-146
Naphthalene	625	489	78	11	0-31	8-150
Styrene	625	558	89	7	0-22	41-132
Tetrachloroethene	625	718	115	12	0-23	36-128
Toluene	625	655	105	8	0-20	50-125
Trichloroethene	625	681	108	5	0-20	47-132
Trichlorofluoromethane	625	1290	206	12	0-24	14-140
Vinyl acetate	625	591	95	1	0-50	10-127
Vinyl chloride	625	602	96	1	0-54	35-130
Xylene (Total)	1870	1780	95	9	0-32	70-130
cis-1,2-Dichloroethene	625	607	97	4	0-20	61-127
cis-1,3-Dichloropropene	625	667	107	7	0-21	55-125
n-Butylbenzene	625	627	100	9	0-29	20-127
n-Propylbenzene	625	654	105	9	0-25	33-126
p-Isopropyltoluene	625	549	88	13	0-26	27-131
sec-Butylbenzene	625	577	92	11	0-26	27-130
tert-Butylbenzene	625	549	88	13	0-25	36-129
trans-1,2-Dichloroethene	625	586	94	1	0-31	51-127
trans-1,3-Dichloropropene	625	668	107	7	0-21	55-126

RPD: 0 out of 68 outside limits.

Spike Recovery: 1 out of 68 outside limits.

09/02/2020 12:04

SAMPLE NO.

204601BLANK

MSV - FORM IV VOA-1
VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Dayton SDG No.: 5249417 Contract: RUSH VOC Soils

Instrument ID: 52MV02 Matrix: Solid Lab Sample ID: 204601

Lab File ID: 082620.B\082620_06.D Date Analyzed: 08/26/2020 Time:12:40

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
204602LCS	204602	082620.B\082620_03B2983.	08/26/2020 11:25
BLA6WSSS	5249417001	082620.B\082620_19.D	08/26/2020 18:06
GR6WWSS	5249417002	082620.B\082620_20.D	08/26/2020 18:31
GR6WSSS	5249417003	082620.B\082620_21.D	08/26/2020 18:56
GR6PBSS	5249417004	082620.B\082620_22.D	08/26/2020 19:21
GR6PBSM	5249417005	082620.B\082620_23.D	08/26/2020 19:46
YL8WNSS	5249417006	082620.B\082620_24.D	08/26/2020 20:11

MSV - FORM V VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Dayton SDG No.: 5249417 Contract: RUSH VOC Soils

Lab File ID: 082020.B\082020_01.D BFB Injection Date 08/20/2020

Instrument ID: 52MV02 BFB Injection Time 09:57

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	24.30	
75	30.00 - 60.00% of mass 95	49.31	
95	Mass 95 relative abundance	100.00	
96	5.00 - 9.00% of mass 95	7.36	
173	Less than 2.00% of mass 174	2.18	(1.71)[1]
174	Greater than 50.00% of mass 95	127.30	
175	5.00 - 9.00% of mass 174	8.81	(6.92)[1]
176	95.00 - 101.00% of mass 174	127.12	(99.86)[1]
177	5.00 - 9.00% of mass 176	7.18	(5.65)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1419846CAL1	1419846CAL1	082020.B\082020_03.D	08/20/2020	10:50
1419847CAL2	1419847CAL2	082020.B\082020_04.D	08/20/2020	11:15
1419848CAL3	1419848CAL3	082020.B\082020_05.D	08/20/2020	11:40
1419849CAL4	1419849CAL4	082020.B\082020_06.D	08/20/2020	12:05
1419850CAL5	1419850CAL5	082020.B\082020_07.D	08/20/2020	12:30
1419851CAL6	1419851CAL6	082020.B\082020_08.D	08/20/2020	12:55
1419852CAL7	1419852CAL7	082020.B\082020_09.D	08/20/2020	13:20
1419853CAL8	1419853CAL8	082020.B\082020_10.D	08/20/2020	13:45
1419854CAL9	1419854CAL9	082020.B\082020_11.D	08/20/2020	14:11
1419855CAL10	1419855CAL10	082020.B\082020_12.D	08/20/2020	14:36
1419856CAL11	1419856CAL11	082020.B\082020_13.D	08/20/2020	15:01
1419857CAL12	1419857CAL12	082020.B\082020_14.D	08/20/2020	15:26
1419858ICV	1419858ICV	082020.B\082020_18.D	08/20/2020	17:06

MSV - FORM V VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Dayton SDG No.: 5249417 Contract: RUSH VOC Soils

Lab File ID: 082620.B\082620_03TUNE.D BFB Injection Date 08/26/2020

Instrument ID: 52MV02 BFB Injection Time 11:25

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	24.05	
75	30.00 - 60.00% of mass 95	49.82	
95	Mass 95 relative abundance	100.00	
96	5.00 - 9.00% of mass 95	6.80	
173	Less than 2.00% of mass 174	2.07	(1.70)[1]
174	Greater than 50.00% of mass 95	121.50	
175	5.00 - 9.00% of mass 174	8.51	(7.00)[1]
176	95.00 - 101.00% of mass 174	116.10	(95.55)[1]
177	5.00 - 9.00% of mass 176	6.92	(5.96)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1432859CCV	1432859CCV	082620.B\082620_03.D	08/26/2020	11:25
204602LCS	204602LCS	082620.B\082620_03B2983.D	08/26/2020	11:25
204601BLANK	204601BLANK	082620.B\082620_06.D	08/26/2020	12:40
BLA6WSSS	5249417001	082620.B\082620_19.D	08/26/2020	18:06
GR6WWSS	5249417002	082620.B\082620_20.D	08/26/2020	18:31
GR6WSSS	5249417003	082620.B\082620_21.D	08/26/2020	18:56
GR6PBSS	5249417004	082620.B\082620_22.D	08/26/2020	19:21
GR6PBSM	5249417005	082620.B\082620_23.D	08/26/2020	19:46
YL8WNSS	5249417006	082620.B\082620_24.D	08/26/2020	20:11

MSV - FORM VIII VOA-1
MSV INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Dayton SDG No.: 5249417 Contract: RUSH VOC Soils

Sample ID : 1432859CCV Date Analyzed: 08/26/2020

Instrument ID: 52MV02 GC Column: Col 1 Time Analyzed: 11:25

Lab File ID: 082620.B\082620_03.D

		AREA CBZ	RT	AREA DCB	RT	AREA DFB	RT	AREA PFB	RT
12 HOUR STD		272170	10.561	180250	12.341	292666	8.317	222751	7.86
UPPER LIMIT		544340	11.061	360500	12.841	585332	8.817	445502	8.36
LOWER LIMIT		136085	10.061	90125	11.841	146333	7.817	111375.5	7.36
LAB SAMPLE ID	SAMPLE NO.								
204601	204601BLANK	228025	10.56	126112	12.341	259612	8.317	185094	7.86
204602	204602LCS	272170	10.561	180250	12.341	292666	8.317	222751	7.86
5249417001	BLA6WSSS	240581	10.561	133458	12.341	282563	8.317	201761	7.86
5249417002	GR6WWSS	229088	10.561	126937	12.341	267518	8.317	194816	7.86
5249417003	GR6WSSS	245369	10.56	131571	12.341	279712	8.317	201473	7.86
5249417004	GR6PBSS	239291	10.561	129486	12.341	273488	8.317	200424	7.86
5249417005	GR6PBSM	242703	10.561	130183	12.341	276898	8.317	199536	7.86
5249417006	YL8WNSS	241630	10.561	131697	12.341	279680	8.317	201963	7.86

CBZ = Chlorobenzene-D5 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
DFB = 1,4-Difluorobenzene (IS)
PFB = Pentafluorobenzene (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

BLA6WSSS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 14:53
Matrix: Solid SDG No.: 5249417
Date Extracted: 08/26/2020 15:12
Lab Sample ID: 5249417001
Date Analyzed: 08/26/2020 18:06
Lab File ID: 082620.B\082620_19.D
Initial wt/vol: 5.23 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 22.6%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

BLA6WSSS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 14:53
Matrix: Solid SDG No.: 5249417
Date Extracted: 08/26/2020 15:12
Lab Sample ID: 5249417001
Date Analyzed: 08/26/2020 18:06
Lab File ID: 082620.B\082620_19.D
Initial wt/vol: 5.23 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 22.6%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_19.D
Lab Smp Id: 5249417001 Client Smp ID: BLA6WSSS
Inj Date : 26-AUG-2020 18:06
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249417001,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	125497	54.0241	54.0	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	201761	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21851	52.2886	52.3	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	282563	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	292668	48.1153	48.1	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	240581	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.469	11.468	(1.086)	90421	45.7962	45.8	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
	80 n-Propylbenzene	91	Compound Not Detected.						
	81 Bromobenzene	156	Compound Not Detected.						
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
	83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
	84 2-Chlorotoluene	126	Compound Not Detected.						
	85 4-Chlorotoluene	126	Compound Not Detected.						
	86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
	87 1,2,3-Trichloropropane	75	Compound Not Detected.						
	88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	89 Cyclohexanone	98	Compound Not Detected.						
	90 tert-Butylbenzene	119	Compound Not Detected.						
	91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
	92 sec-Butylbenzene	105	Compound Not Detected.						
	93 p-Isopropyltoluene	119	Compound Not Detected.						
	94 1,3-Dichlorobenzene	146	Compound Not Detected.						
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	133458	50.0000		
	96 1,4-Dichlorobenzene	146	Compound Not Detected.						
	97 n-Butylbenzene	91	Compound Not Detected.						
	98 1,2-Dichlorobenzene	146	Compound Not Detected.						
	99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
	102 Naphthalene	128	Compound Not Detected.						
	103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

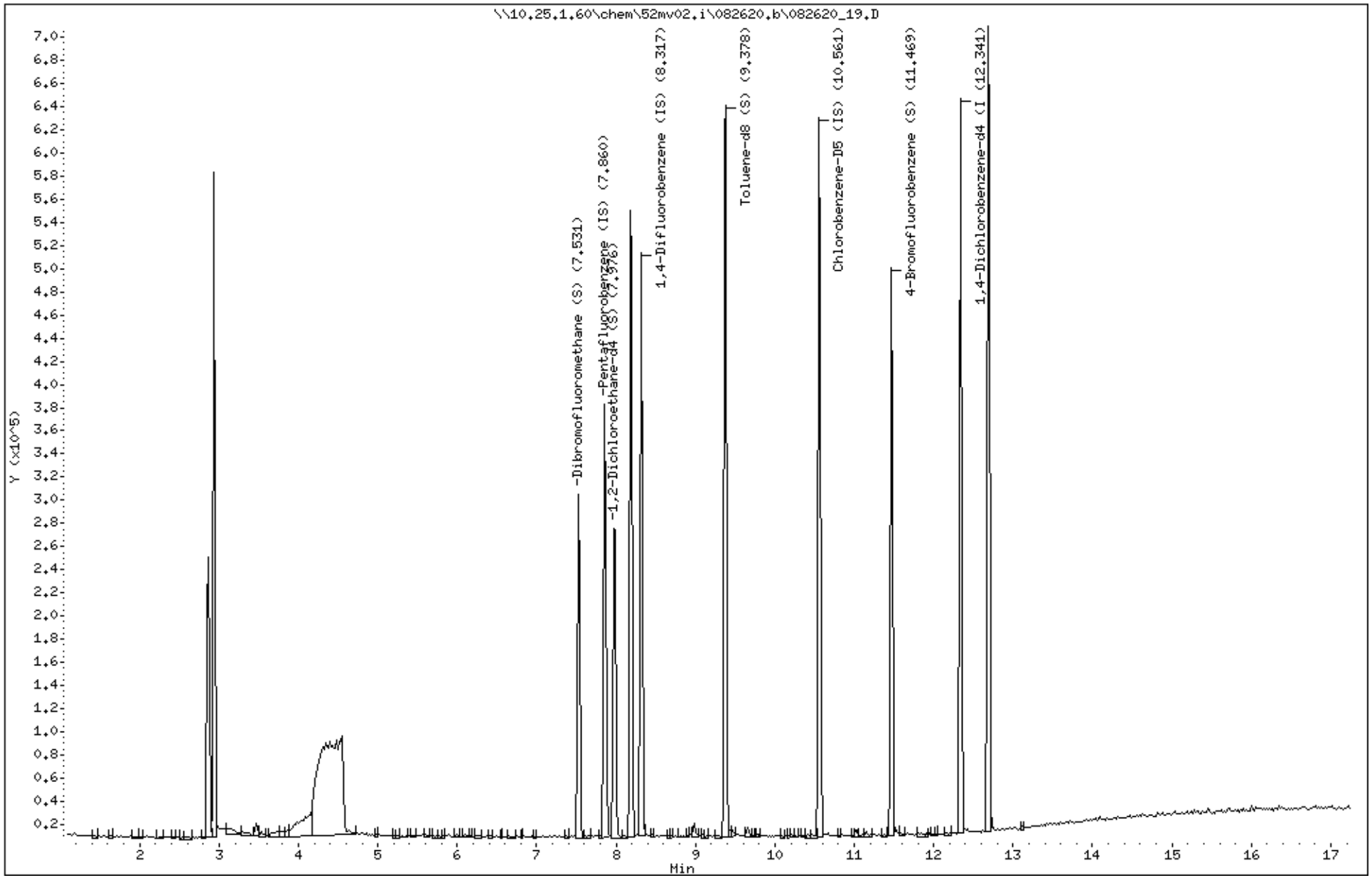
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_19.D
Date : 26-AUG-2020 18:06
Client ID: BLA6WSSS
Sample Info: 5249417001,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_19.D
Injection Date: 26-AUG-2020 18:06
Instrument: 52mv02.i
Lab Sample ID: 5249417001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

GR6WWSS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 14:53
Matrix: Solid SDG No.: 5249417
Date Extracted: 08/26/2020 15:12
Lab Sample ID: 5249417002
Date Analyzed: 08/26/2020 18:31
Lab File ID: 082620.B\082620_20.D
Initial wt/vol: 5.24 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 13.5%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

GR6WWSS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 14:53
Matrix: Solid SDG No.: 5249417
Date Extracted: 08/26/2020 15:12
Lab Sample ID: 5249417002
Date Analyzed: 08/26/2020 18:31
Lab File ID: 082620.B\082620_20.D
Initial wt/vol: 5.24 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 13.5%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_20.D
Lab Smp Id: 5249417002 Client Smp ID: GR6WWSS
Inj Date : 26-AUG-2020 18:31
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249417002,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	118515	52.8372	52.8	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						(D)
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	194816	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21385	52.9977	53.0	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	267518	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	279903	48.6047	48.6	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	229088	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	89386	47.5432	47.5	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	126937	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

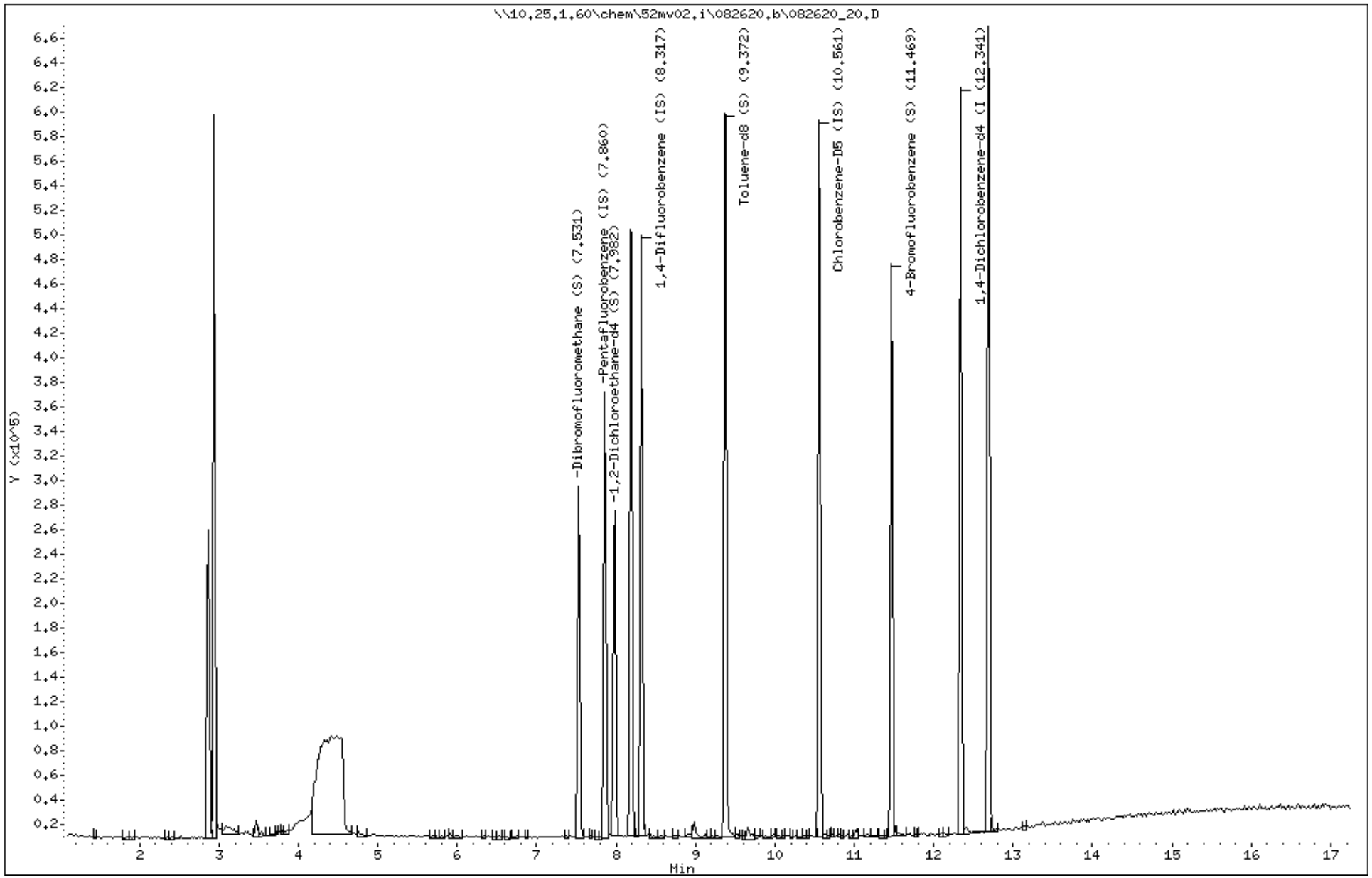
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_20.D
Date : 26-AUG-2020 18:31
Client ID: GR6WWSS
Sample Info: 5249417002,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_20.D
Injection Date: 26-AUG-2020 18:31
Instrument: 52mv02.i
Lab Sample ID: 5249417002
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

GR6WSSS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 14:53
Matrix: Solid SDG No.: 5249417
Date Extracted: 08/26/2020 15:12
Lab Sample ID: 5249417003
Date Analyzed: 08/26/2020 18:56
Lab File ID: 082620.B\082620_21.D
Initial wt/vol: 5.2 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 15.3%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

GR6WSSS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 14:53
Matrix: Solid SDG No.: 5249417
Date Extracted: 08/26/2020 15:12
Lab Sample ID: 5249417003
Date Analyzed: 08/26/2020 18:56
Lab File ID: 082620.B\082620_21.D
Initial wt/vol: 5.2 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 15.3%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_21.D
Lab Smp Id: 5249417003 Client Smp ID: GR6WWSS
Inj Date : 26-AUG-2020 18:56
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249417003,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	124286	53.5793	53.6	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						(D)
	37 1,1-Dichloropropene	75	Compound Not Detected.						
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	201473	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21829	52.3106	52.3	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	279712	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	293966	48.8213	48.8	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	245369	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	92373	45.8719	45.9	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	131571	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

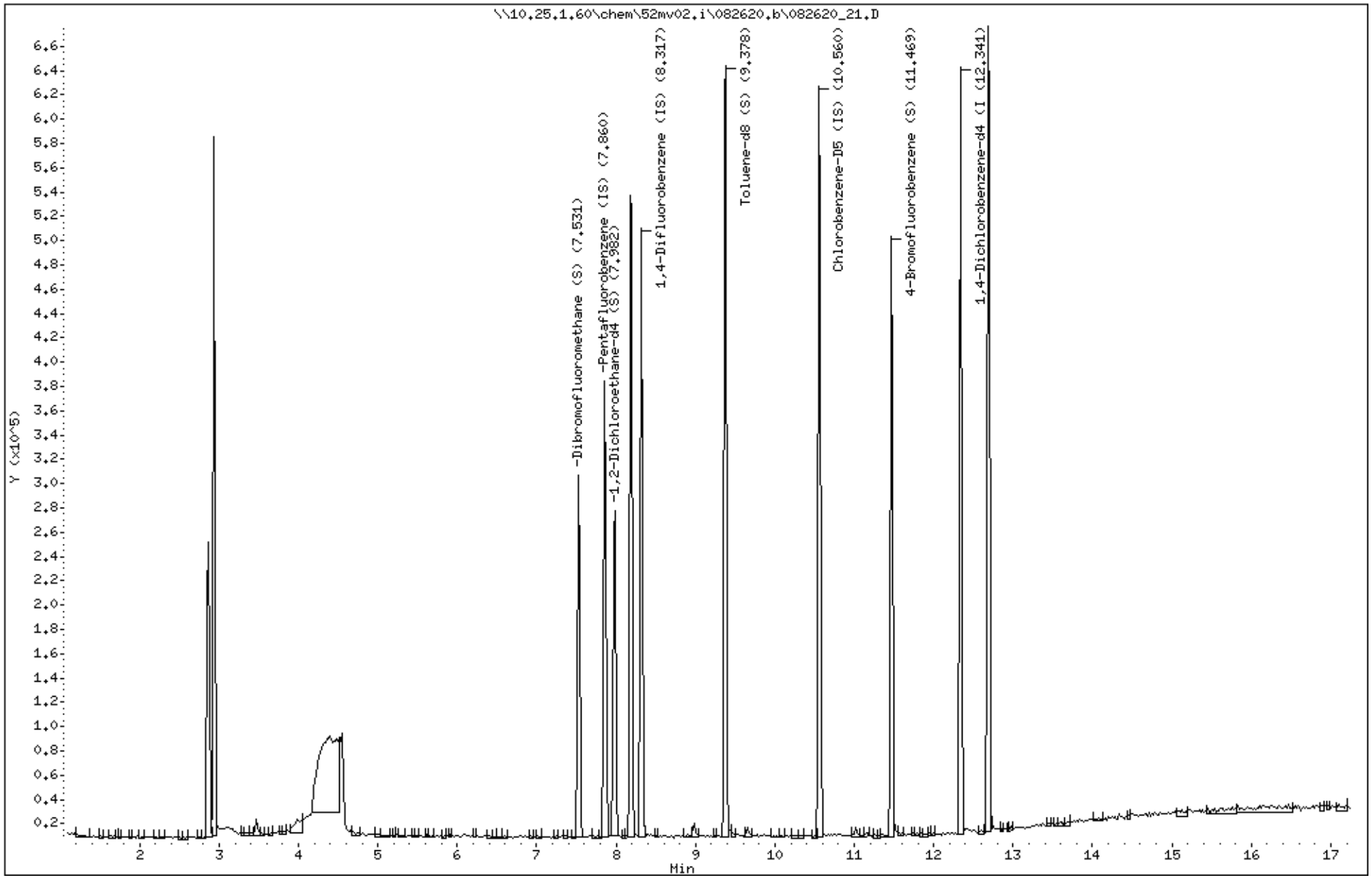
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_21.D
Date : 26-AUG-2020 18:56
Client ID: GR6WWSS
Sample Info: 5249417003,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_21.D
Injection Date: 26-AUG-2020 18:56
Instrument: 52mv02.i
Lab Sample ID: 5249417003
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

GR6PBSS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 14:53
Matrix: Solid SDG No.: 5249417
Date Extracted: 08/26/2020 15:12
Lab Sample ID: 5249417004
Date Analyzed: 08/26/2020 19:21
Lab File ID: 082620.B\082620_22.D
Initial wt/vol: 5.15 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 14.5%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

GR6PBSS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 14:53
Matrix: Solid SDG No.: 5249417
Date Extracted: 08/26/2020 15:12
Lab Sample ID: 5249417004
Date Analyzed: 08/26/2020 19:21
Lab File ID: 082620.B\082620_22.D
Initial wt/vol: 5.15 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 14.5%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_22.D
Lab Smp Id: 5249417004 Client Smp ID: GR6PBSS
Inj Date : 26-AUG-2020 19:21
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249417004,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	123632	53.5763	53.6	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	200424	50.0000	(H)	
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21728	52.3411	52.3	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	273488	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	288131	48.9413	48.9	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	239291	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.469	11.468	(1.086)	89839	45.7467	45.7	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	129486	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:

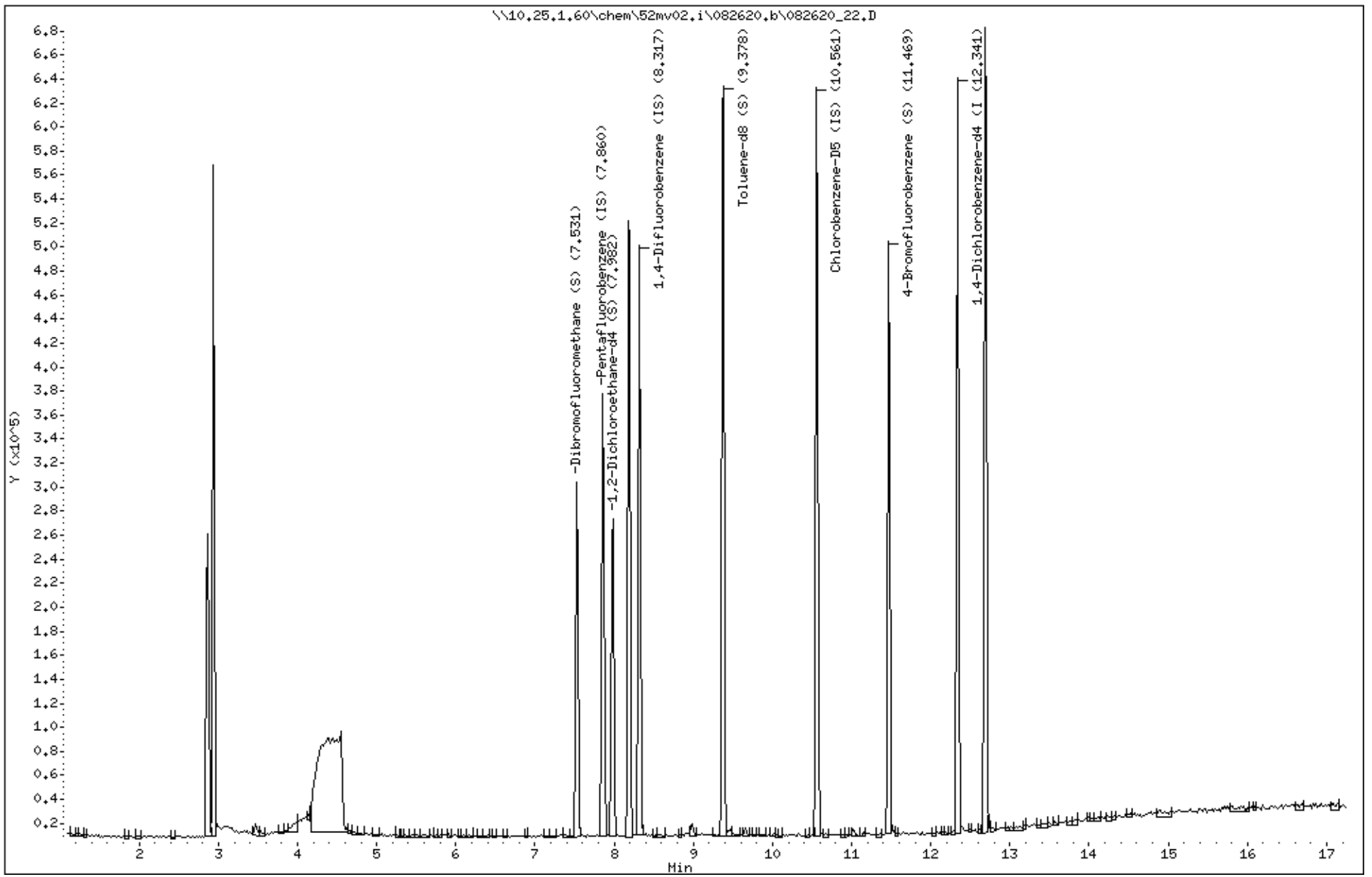
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_22.D
Date : 26-AUG-2020 19:21
Client ID: GR6PBSS
Sample Info: 5249417004,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_22.D
Injection Date: 26-AUG-2020 19:21
Instrument: 52mv02.i
Lab Sample ID: 5249417004
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

GR6PBSM

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 14:53
Matrix: Solid SDG No.: 5249417
Date Extracted: 08/26/2020 15:12
Lab Sample ID: 5249417005
Date Analyzed: 08/26/2020 19:46
Lab File ID: 082620.B\082620_23.D
Initial wt/vol: 5.08 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 14.6%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

GR6PBSM

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 14:53
Matrix: Solid SDG No.: 5249417
Date Extracted: 08/26/2020 15:12
Lab Sample ID: 5249417005
Date Analyzed: 08/26/2020 19:46
Lab File ID: 082620.B\082620_23.D
Initial wt/vol: 5.08 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 14.6%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_23.D
Lab Smp Id: 5249417005 Client Smp ID: GR6PBSM
Inj Date : 26-AUG-2020 19:46
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249417005,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	124681	54.2713	54.3	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	199536	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	22265	53.8734	53.9	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	276898	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	293663	49.2666	49.3	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	242703	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	92114	46.2457	46.2	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
80	n-Propylbenzene	91	Compound Not Detected.						
81	Bromobenzene	156	Compound Not Detected.						
82	1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83	1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84	2-Chlorotoluene	126	Compound Not Detected.						
85	4-Chlorotoluene	126	Compound Not Detected.						
86	Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87	1,2,3-Trichloropropane	75	Compound Not Detected.						
88	trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89	Cyclohexanone	98	Compound Not Detected.						
90	tert-Butylbenzene	119	Compound Not Detected.						
91	1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92	sec-Butylbenzene	105	Compound Not Detected.						
93	p-Isopropyltoluene	119	Compound Not Detected.						
94	1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95	1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	130183	50.0000		
96	1,4-Dichlorobenzene	146	Compound Not Detected.						
97	n-Butylbenzene	91	Compound Not Detected.						
98	1,2-Dichlorobenzene	146	Compound Not Detected.						
99	1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100	Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101	1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102	Naphthalene	128	Compound Not Detected.						
103	1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

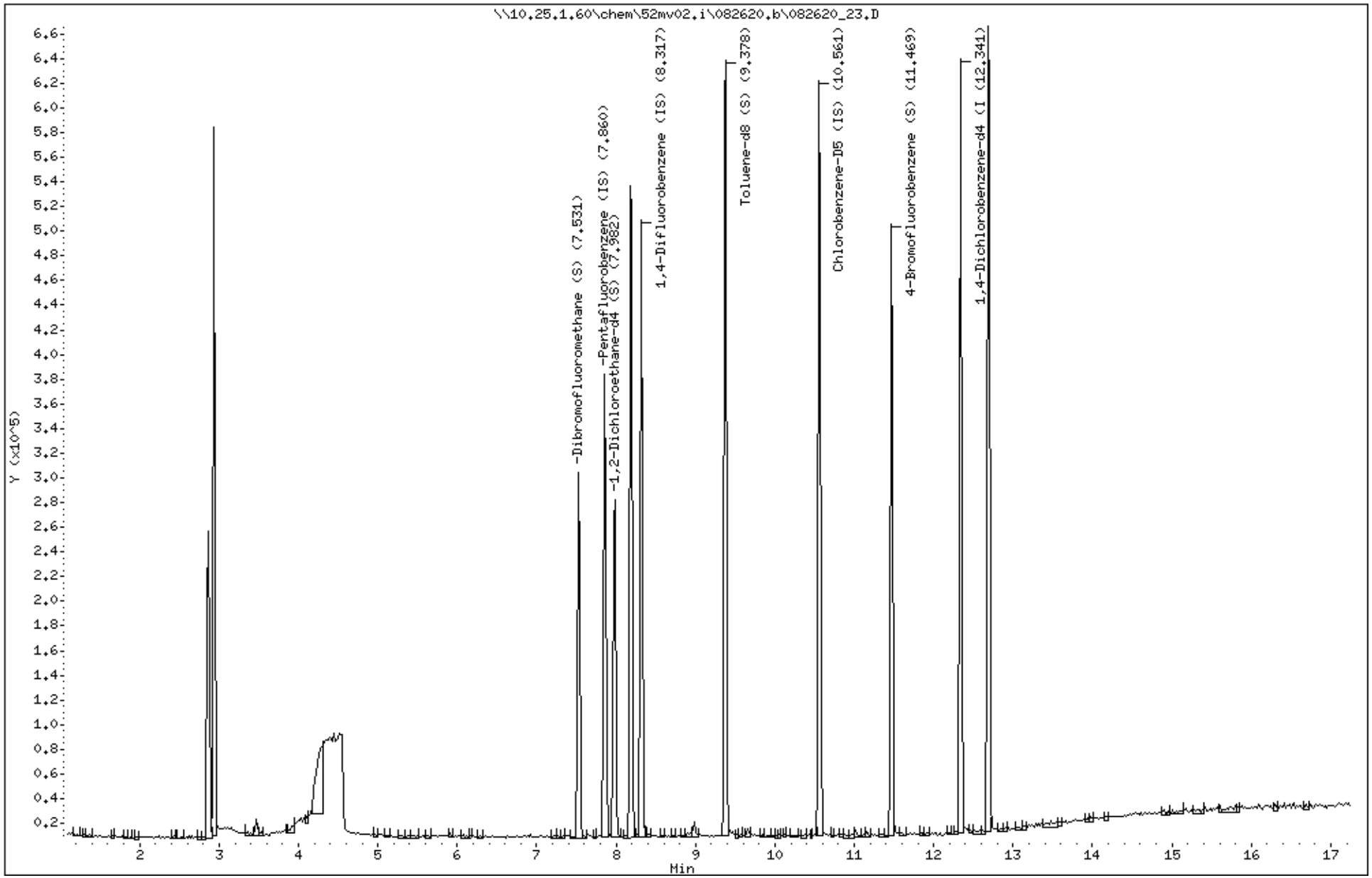
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_23.D
Date : 26-AUG-2020 19:46
Client ID: GR6PBSM
Sample Info: 5249417005,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_23.D
Injection Date: 26-AUG-2020 19:46
Instrument: 52mv02.i
Lab Sample ID: 5249417005
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

YL8WNSS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 14:53
Matrix: Solid SDG No.: 5249417
Date Extracted: 08/26/2020 15:12
Lab Sample ID: 5249417006
Date Analyzed: 08/26/2020 20:11
Lab File ID: 082620.B\082620_24.D
Initial wt/vol: 5.32 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 18.5%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

YL8WNSS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/26/2020 14:53
Matrix: Solid SDG No.: 5249417
Date Extracted: 08/26/2020 15:12
Lab Sample ID: 5249417006
Date Analyzed: 08/26/2020 20:11
Lab File ID: 082620.B\082620_24.D
Initial wt/vol: 5.32 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 18.5%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	16.4	J
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_24.D
Lab Smp Id: 5249417006 Client Smp ID: YL8WNSS
Inj Date : 26-AUG-2020 20:11
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249417006,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	125717	54.0647	54.1	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	201963	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	22394	53.5343	53.5	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.317	8.317	(1.000)	1116	0.57064	0.571	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	279680	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	297340	49.3873	49.4	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	241630	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	92738	46.7658	46.8	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	131697	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

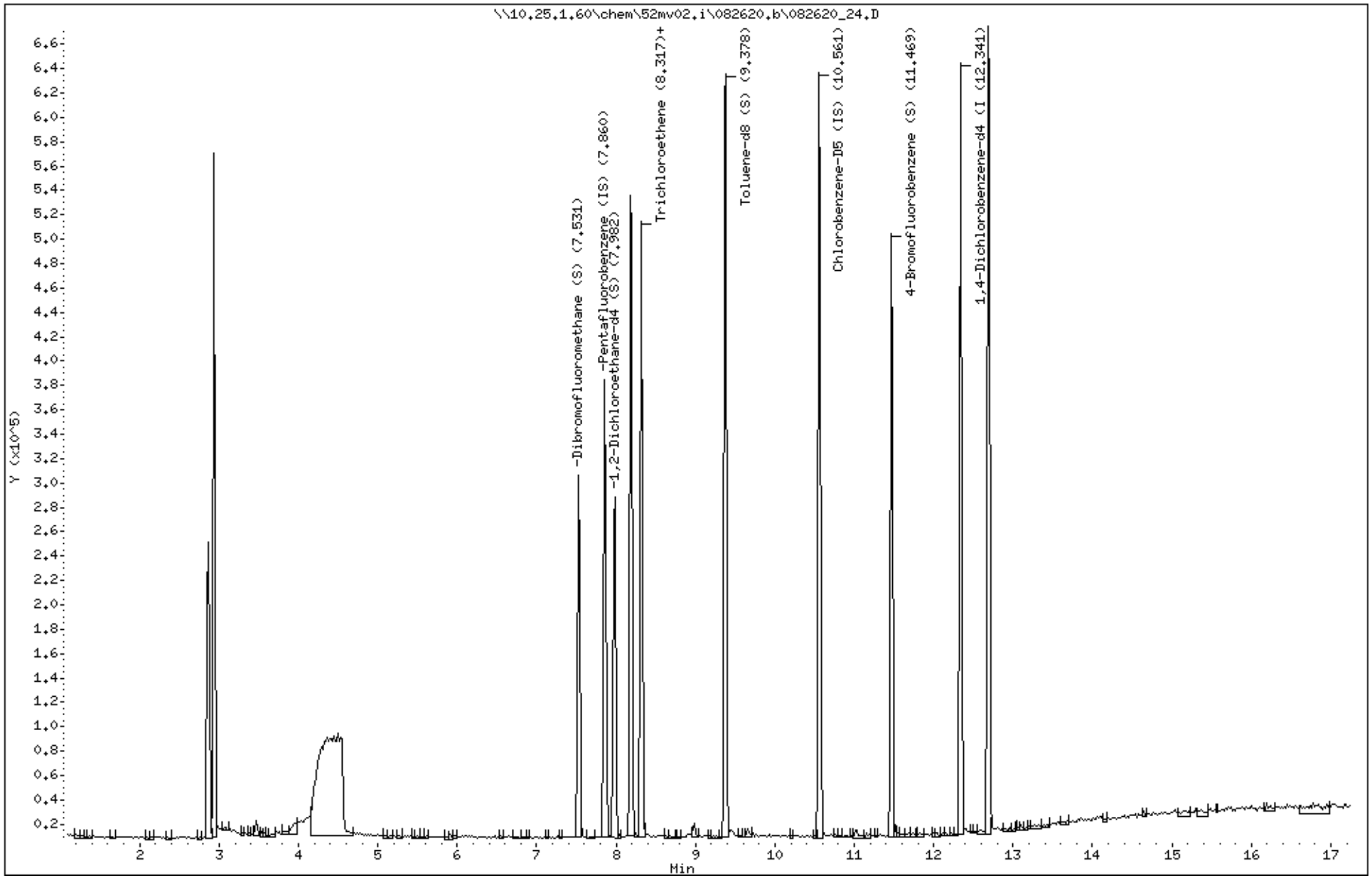
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_24.D
Date : 26-AUG-2020 20:11
Client ID: YL8WNSS
Sample Info: 5249417006,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_24.D
Injection Date: 26-AUG-2020 20:11
Instrument: 52mv02.i
Lab Sample ID: 5249417006
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

MSV - FORM VI VOA-1

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249417

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Acetone	Wt Linear			0.62900	0.55994	0.50057	0.45567
Acetonitrile	Wt Linear				0.06914	0.02812	0.03538
Acrolein	Averaged				0.08416	0.06550	0.06663
Acrylonitrile	Averaged			0.21923	0.20463	0.19660	0.17821
Benzene	Averaged	1.47226	1.17470	1.10627	1.43668	1.30598	1.38283
Bromobenzene	Averaged		0.44187	0.42245	0.49777	0.46884	0.54542
Bromochloromethane	Averaged		0.31597	0.30786	0.31639	0.29311	0.30419
Bromodichloromethane	Averaged		0.37292	0.40712	0.57953	0.49521	0.61500
Bromoform	Averaged		0.43514	0.43198	0.48641	0.42825	0.47385
Bromomethane	Wt Linear			1.52273	1.15152	0.76564	0.66086
2-Butanone (MEK)	Averaged			0.50647	0.40123	0.44364	0.43519
n-Butylbenzene	Averaged			1.39216	1.45958	1.44353	1.59712
sec-Butylbenzene	Wt Linear		1.18759	1.24368	1.67899	1.52562	1.84820
tert-Butylbenzene	Wt Linear		1.05533	1.23614	1.25134	1.14366	1.44555
Carbon disulfide	Averaged		1.57701	1.57013	1.73228	1.48016	1.64695
Carbon tetrachloride	Averaged			0.40579	0.50689	0.49562	0.54603
Chlorobenzene	Averaged		1.00310	0.91983	1.08642	0.90944	1.03666
Chloroethane	Wt Linear			0.21117	0.31149	0.17587	0.20642
Chloroform	Averaged		0.91551	1.14590	1.17564	1.07349	1.06717
Chloromethane	Wt Linear		1.70187	1.21534	1.00675	0.83064	0.79315
2-Chlorotoluene	Wt Linear		0.20503	0.23617	0.27463	0.30975	0.37215
4-Chlorotoluene	Wt Linear		0.30194	0.21412	0.30492	0.29219	0.31811
1,2-Dibromo-3-chloropropane	Averaged				0.21563	0.16898	0.14356
Dibromochloromethane	Averaged		0.39061	0.41330	0.50471	0.47639	0.52153
1,2-Dibromoethane (EDB)	Averaged		0.39922	0.39891	0.44521	0.38546	0.43818
Dibromomethane	Averaged		0.30841	0.27910	0.31794	0.30634	0.32971
1,2-Dichlorobenzene	Averaged	1.62186	1.64056	1.43913	1.59814	1.34139	1.48556
1,3-Dichlorobenzene	Averaged	1.46004	1.15332	1.12127	1.39100	1.22471	1.36866
1,4-Dichlorobenzene	Averaged	1.92711	1.64810	1.47102	1.57896	1.41215	1.52701
Dichlorodifluoromethane	Averaged		0.59716	0.66099	0.60136	0.62199	0.59348
1,1-Dichloroethane	Averaged		0.89883	0.86932	1.02064	0.92741	0.97039
1,2-Dichloroethane	Averaged			0.94445	0.99469	0.81825	0.81708
1,1-Dichloroethene	Averaged		0.62480	0.59321	0.74340	0.67088	0.75046
cis-1,2-Dichloroethene	Averaged		0.61860	0.67545	0.71938	0.63203	0.67887

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 12:04

MSV - FORM VI VOA-2

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249417

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
trans-1,2-Dichloroethene	Averaged		0.55331	0.47234	0.48357	0.41487	0.49134
1,2-Dichloropropane	Averaged		0.34955	0.36433	0.39290	0.35841	0.38826
1,3-Dichloropropane	Averaged		0.31663	0.43033	0.53682	0.46817	0.51113
2,2-Dichloropropane	Averaged		0.79065	0.80509	0.78585	0.68606	0.73428
1,1-Dichloropropene	Averaged		0.33046	0.35306	0.39409	0.34712	0.40174
cis-1,3-Dichloropropene	Averaged			0.40994	0.46953	0.45855	0.51880
trans-1,3-Dichloropropene	Averaged			0.40977	0.46953	0.45855	0.51319
Ethyl acetate	Averaged		0.62504	0.56797	0.61081	0.52501	0.56996
Ethylbenzene	Averaged		1.16922	1.07603	1.16044	1.13282	1.26091
2-Hexanone	Averaged			0.32992	0.32976	0.36720	0.41358
Isopropylbenzene (Cumene)	Wt Linear		0.73184	0.72215	0.88627	0.85802	1.07692
p-Isopropyltoluene	Wt Linear		1.05533	1.23614	1.25134	1.14366	1.44555
Methylene Chloride	Averaged			0.95867	0.99674	0.81915	0.85680
4-Methyl-2-pentanone (MIBK)	Averaged					0.03167	0.03396
Methyl-tert-butyl ether	Averaged		1.04371	0.98592	1.12170	0.97810	1.03498
Naphthalene	Wt Linear		1.29997	1.18745	1.36631	1.29132	1.36736
n-Propylbenzene	Averaged		1.17895	1.25876	1.48439	1.43680	1.65273
Styrene	Wt Linear		0.51595	0.49065	0.60308	0.57764	0.71624
1,1,1,2-Tetrachloroethane	Averaged		0.39735	0.45216	0.48731	0.40596	0.42534
1,1,2,2-Tetrachloroethane	Averaged			0.55212	0.57143	0.54413	0.58617
Tetrachloroethene	Averaged		0.28810	0.33725	0.33197	0.34833	0.35819
Toluene	Averaged		1.09209	1.19764	1.30569	1.22009	1.30131
1,2,3-Trichlorobenzene	Averaged		0.85249	0.82329	0.83816	0.81429	0.82024
1,2,4-Trichlorobenzene	Averaged			0.89496	0.87936	0.88914	0.92716
1,1,1-Trichloroethane	Averaged		0.51511	0.55802	0.63628	0.56094	0.61942
1,1,2-Trichloroethane	Averaged		0.37160	0.30364	0.37829	0.29572	0.32933
Trichloroethene	Averaged	0.28552	0.31598	0.34344	0.39369	0.32979	0.38287
Trichlorofluoromethane	Averaged			0.48751	0.40869	0.39167	0.37503
1,2,3-Trichloropropane	Averaged	0.67083	0.55786	0.50074	0.60209	0.54758	0.55729
1,2,4-Trimethylbenzene	Wt Linear		1.28216	1.05543	1.25794	1.29529	1.61333
1,3,5-Trimethylbenzene	Averaged			1.28003	1.37323	1.37049	1.59529
Vinyl acetate	Averaged					0.58340	0.90658
Vinyl chloride	Averaged		0.71725	0.64891	0.61115	0.59900	0.56828
m&p-Xylene	Wt Linear	0.80750	0.71388	0.69095	0.86918	0.85161	0.98882

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 12:04

MSV - FORM VI VOA-3

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249417

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
o-Xylene	Wt Linear		0.36816	0.33352	0.37551	0.36020	0.41933
4-Bromofluorobenzene (S)	Averaged	0.37583	0.38941	0.39051	0.38275	0.39379	0.40003
Dibromofluoromethane (S)	Averaged	0.62769	0.63739	0.63657	0.62879	0.60966	0.59270
1,2-Dichloroethane-d4 (S)	Averaged	0.11531	0.11871	0.12158	0.11740	0.10453	0.10269
Toluene-d8 (S)	Averaged	1.07880	1.06882	1.06855	1.06786	1.07640	1.08438

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-4

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249417

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10	CAL11	CAL12
Acetone	Wt Linear	0.41297	0.37566	0.38708	0.38211		
Acetonitrile	Wt Linear	0.03841	0.04679	0.04704	0.04491	0.03970	0.03979
Acrolein	Averaged	0.06891	0.06557	0.07027	0.07036	0.06357	0.06812
Acrylonitrile	Averaged	0.19915	0.17729	0.19776	0.19478	0.15804	0.18702
Benzene	Averaged	1.31989	1.27390	1.26059	1.22497	1.19823	1.18934
Bromobenzene	Averaged	0.53532	0.51542	0.53131	0.52655	0.53912	0.54081
Bromochloromethane	Averaged	0.29998	0.27204	0.26235	0.25826	0.23994	0.24926
Bromodichloromethane	Averaged	0.57885	0.55715	0.54332	0.54171	0.54086	0.53536
Bromoform	Averaged	0.45373	0.43426	0.44389	0.44328	0.46996	0.46892
Bromomethane	Wt Linear	0.57307	0.44908	0.42634	0.42378		
2-Butanone (MEK)	Averaged	0.45432	0.40986	0.43930	0.44055	0.37212	0.38920
n-Butylbenzene	Averaged	1.64990	1.87691	1.98741	1.98878	1.98038	2.04750
sec-Butylbenzene	Wt Linear	2.02276	2.15907	2.27908	2.29075	2.34314	2.41368
tert-Butylbenzene	Wt Linear	1.56217	1.76643	1.88637	1.94028	1.98006	2.04581
Carbon disulfide	Averaged	1.55020	1.42898	1.38821	1.36729	1.28575	1.29953
Carbon tetrachloride	Averaged	0.54343	0.52196	0.51532	0.50192	0.49242	0.50459
Chlorobenzene	Averaged	0.97199	0.93701	0.94485	0.92345	0.94437	0.93402
Chloroethane	Wt Linear	0.17297	0.17535	0.16509	0.15481		
Chloroform	Averaged	1.02572	0.96877	0.93921	0.91532	0.85890	0.86431
Chloromethane	Wt Linear	0.77949	0.73419	0.74763	0.73348	0.67654	0.66670
2-Chlorotoluene	Wt Linear	0.37818	0.37125	0.37579	0.37739	0.38782	0.39117
4-Chlorotoluene	Wt Linear	0.34412	0.37138	0.38926	0.38621	0.39446	0.39306
1,2-Dibromo-3-chloropropane	Averaged	0.14501	0.14799	0.15810	0.15828	0.16380	0.17031
Dibromochloromethane	Averaged	0.49970	0.47857	0.47752	0.47753	0.50069	0.49027
1,2-Dibromoethane (EDB)	Averaged	0.41880	0.39767	0.39462	0.39355	0.40951	0.40529
Dibromomethane	Averaged	0.31359	0.30014	0.28875	0.28214	0.27687	0.27295
1,2-Dichlorobenzene	Averaged	1.38076	1.36447	1.37412	1.37990	1.39095	1.43503
1,3-Dichlorobenzene	Averaged	1.32401	1.33959	1.38908	1.38767	1.38402	1.42750
1,4-Dichlorobenzene	Averaged	1.40109	1.37817	1.41490	1.41231	1.40741	1.44148
Dichlorodifluoromethane	Averaged	0.63941	0.59785	0.61150	0.61837	0.54554	0.54297
1,1-Dichloroethane	Averaged	0.91623	0.87020	0.84971	0.81510	0.77035	0.77571
1,2-Dichloroethane	Averaged	0.78755	0.72382	0.70860	0.69974	0.66582	0.65542
1,1-Dichloroethene	Averaged	0.69997	0.66374	0.66212	0.67660	0.64092	0.65097
cis-1,2-Dichloroethene	Averaged	0.64084	0.63911	0.63898	0.63619	0.61855	0.63882

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 12:04

MSV - FORM VI VOA-5

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249417

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10	CAL11	CAL12
trans-1,2-Dichloroethene	Averaged	0.45350	0.42924	0.43177	0.42614	0.40870	0.41864
1,2-Dichloropropane	Averaged	0.38813	0.36744	0.35842	0.34791	0.35389	0.34693
1,3-Dichloropropane	Averaged	0.50225	0.50220	0.50732	0.51074	0.51045	0.50531
2,2-Dichloropropane	Averaged	0.66678	0.63008	0.59855	0.60546	0.58521	0.58171
1,1-Dichloropropene	Averaged	0.41853	0.42140	0.42293	0.42298	0.42154	0.42409
cis-1,3-Dichloropropene	Averaged	0.52492	0.53191	0.54225	0.54657	0.54771	0.54824
trans-1,3-Dichloropropene	Averaged	0.52492	0.53127	0.54126	0.54522	0.54708	0.54754
Ethyl acetate	Averaged	0.56493	0.55790	0.55626	0.54125	0.53408	0.52840
Ethylbenzene	Averaged	1.24337	1.35695	1.44133	1.46916	1.53813	1.54037
2-Hexanone	Averaged	0.43312	0.46856	0.46295	0.47817	0.46940	0.46841
Isopropylbenzene (Cumene)	Wt Linear	1.13672	1.27637	1.35788	1.37491	1.42487	1.44774
p-Isopropyltoluene	Wt Linear	1.56217	1.76643	1.88637	1.94028	1.98006	2.04581
Methylene Chloride	Averaged	0.80589	0.74727	0.73858	0.70291	0.66532	0.67584
4-Methyl-2-pentanone (MIBK)	Averaged	0.03057	0.03726	0.03590	0.03857	0.03908	0.03925
Methyl-tert-butyl ether	Averaged	1.06283	1.08682	1.09285	1.09333	1.03414	1.08647
Naphthalene	Wt Linear	1.41816	1.68396	1.89011	1.96265	2.01139	2.11026
n-Propylbenzene	Averaged	1.60570	1.73759	1.79225	1.79662	1.85505	1.84384
Styrene	Wt Linear	0.77986	0.88210	0.93092	0.93426	0.97298	0.97405
1,1,1,2-Tetrachloroethane	Averaged	0.41282	0.38406	0.38418	0.37132	0.38050	0.38077
1,1,2,2-Tetrachloroethane	Averaged	0.55539	0.51874	0.51464	0.49827	0.50770	0.50090
Tetrachloroethene	Averaged	0.35335	0.34404	0.35038	0.34843	0.35950	0.35515
Toluene	Averaged	1.25999	1.25926	1.26706	1.26351	1.28160	1.26660
1,2,3-Trichlorobenzene	Averaged	0.87483	0.92204	0.98164	0.99100	1.05707	1.09411
1,2,4-Trichlorobenzene	Averaged	0.86786	0.96199	1.06119	1.06390	1.11694	1.18487
1,1,1-Trichloroethane	Averaged	0.60969	0.57373	0.56212	0.55376	0.54652	0.53855
1,1,2-Trichloroethane	Averaged	0.32889	0.30035	0.29535	0.29349	0.29206	0.28701
Trichloroethene	Averaged	0.37458	0.35481	0.34975	0.35403	0.35714	0.35398
Trichlorofluoromethane	Averaged	0.37535	0.34595	0.32841	0.30466		
1,2,3-Trichloropropane	Averaged	0.57805	0.55752	0.54325	0.53642	0.54134	0.51772
1,2,4-Trimethylbenzene	Wt Linear	1.71069	1.86363	1.94154	1.94909	1.94934	2.01891
1,3,5-Trimethylbenzene	Averaged	1.68023	1.75448	1.84643	1.84471	1.84227	1.92279
Vinyl acetate	Averaged	0.90400	0.97338	0.94500	0.89650	0.87287	0.88498
Vinyl chloride	Averaged	0.58640	0.57381	0.57350	0.58579	0.52769	0.53398
m&p-Xylene	Wt Linear	1.06052	1.12895	1.15194	1.14203	1.16909	1.15864

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 12:04

MSV - FORM VI VOA-6

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249417

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10	CAL11	CAL12
o-Xylene	Wt Linear	0.42934	0.48412	0.50927	0.53019	0.56736	0.56819
4-Bromofluorobenzene (S)	Averaged	0.41167	0.42397	0.42542	0.43138	0.44972	0.44967
Dibromofluoromethane (S)	Averaged	0.57485	0.54985	0.54466	0.52424	0.47680	0.50490
1,2-Dichloroethane-d4 (S)	Averaged	0.10484	0.09552	0.09525	0.09239	0.08563	0.08890
Toluene-d8 (S)	Averaged	1.08337	1.07913	1.08743	1.07610	1.07934	1.06580

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 12:04

MSV - FORM VI VOA-7

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249417

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Acetone	Wt Linear		0.99848	0.01374774	0.38153	
Acetonitrile	Wt Linear		0.99061	0.00060749	0.04173	
Acrolein	Averaged	8.73847			0.06923	
Acrylonitrile	Averaged	8.87425			0.19127	
Benzene	Averaged	8.62942			1.27880	
Bromobenzene	Averaged	8.48252			0.50590	
Bromochloromethane	Averaged	9.85318			0.28358	
Bromodichloromethane	Averaged	14.00186			0.52427	
Bromoform	Averaged	4.41496			0.45179	
Bromomethane	Wt Linear		0.99117	0.02722209	0.42450	
2-Butanone (MEK)	Averaged	8.88630			0.42919	
n-Butylbenzene	Averaged	14.94450			1.74233	
sec-Butylbenzene	Wt Linear		0.99752	-0.0235130	2.32577	
tert-Butylbenzene	Wt Linear		0.99539	-0.0212852	1.95174	
Carbon disulfide	Averaged	9.71280			1.48423	
Carbon tetrachloride	Averaged	7.73071			0.50339	
Chlorobenzene	Averaged	5.75373			0.96465	
Chloroethane	Wt Linear		0.99271	0.00289449	0.16240	
Chloroform	Averaged	10.99465			0.99545	
Chloromethane	Wt Linear		0.99766	0.01147544	0.69502	
2-Chlorotoluene	Wt Linear		0.99948	-0.0028441	0.38497	
4-Chlorotoluene	Wt Linear		0.99856	-0.0028784	0.38834	
1,2-Dibromo-3-chloropropane	Averaged	13.38306			0.16352	
Dibromochloromethane	Averaged	8.28025			0.47553	
1,2-Dibromoethane (EDB)	Averaged	4.64138			0.40786	
Dibromomethane	Averaged	6.36753			0.29781	
1,2-Dichlorobenzene	Averaged	7.39530			1.45432	
1,3-Dichlorobenzene	Averaged	8.08472			1.33091	
1,4-Dichlorobenzene	Averaged	10.46018			1.50164	
Dichlorodifluoromethane	Averaged	5.84563			0.60278	
1,1-Dichloroethane	Averaged	8.80603			0.88035	
1,2-Dichloroethane	Averaged	14.72899			0.78154	
1,1-Dichloroethene	Averaged	7.00161			0.67064	
cis-1,2-Dichloroethene	Averaged	4.67942			0.64880	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 12:04

MSV - FORM VI VOA-8

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249417

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
trans-1,2-Dichloroethene	Averaged	9.66545			0.45304	
1,2-Dichloropropane	Averaged	4.68693			0.36511	
1,3-Dichloropropane	Averaged	12.73991			0.48194	
2,2-Dichloropropane	Averaged	12.80164			0.67907	
1,1-Dichloropropene	Averaged	8.96428			0.39618	
cis-1,3-Dichloropropene	Averaged	9.32428			0.50984	
trans-1,3-Dichloropropene	Averaged	9.26560			0.50883	
Ethyl acetate	Averaged	5.68883			0.56197	
Ethylbenzene	Averaged	12.90669			1.30807	
2-Hexanone	Averaged	14.03454			0.42211	
Isopropylbenzene (Cumene)	Wt Linear		0.99637	-0.0156127	1.39474	
p-Isopropyltoluene	Wt Linear		0.99539	-0.0212852	1.95174	
Methylene Chloride	Averaged	14.30697			0.79672	
4-Methyl-2-pentanone (MIBK)	Averaged	9.46365			0.03578	
Methyl-tert-butyl ether	Averaged	4.34204			1.05644	
Naphthalene	Wt Linear		0.99209	-0.0210899	1.97334	
n-Propylbenzene	Averaged	14.69415			1.60388	
Styrene	Wt Linear		0.99669	-0.0104898	0.94781	
1,1,1,2-Tetrachloroethane	Averaged	8.73379			0.40743	
1,1,2,2-Tetrachloroethane	Averaged	5.80301			0.53495	
Tetrachloroethene	Averaged	5.85748			0.34315	
Toluene	Averaged	4.82081			1.24680	
1,2,3-Trichlorobenzene	Averaged	11.00536			0.91538	
1,2,4-Trichlorobenzene	Averaged	11.50100			0.98474	
1,1,1-Trichloroethane	Averaged	6.44871			0.57038	
1,1,2-Trichloroethane	Averaged	10.24085			0.31598	
Trichloroethene	Averaged	8.38981			0.34963	
Trichlorofluoromethane	Averaged	14.86295			0.37716	
1,2,3-Trichloropropane	Averaged	7.81870			0.55922	
1,2,4-Trimethylbenzene	Wt Linear		0.99797	-0.0184252	1.95772	
1,3,5-Trimethylbenzene	Averaged	14.19477			1.65100	
Vinyl acetate	Averaged	13.85329			0.87084	
Vinyl chloride	Averaged	8.94064			0.59325	
m&p-Xylene	Wt Linear		0.99877	-0.0092364	1.14911	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 12:04

MSV - FORM VI VOA-9

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249417

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
o-Xylene	Wt Linear		0.99470	-0.0052424	0.54262	
4-Bromofluorobenzene (S)	Averaged	6.19963			0.41034	
Dibromofluoromethane (S)	Averaged	9.59315			0.57568	
1,2-Dichloroethane-d4 (S)	Averaged	11.94143			0.10356	
Toluene-d8 (S)	Averaged	0.66305			1.07633	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 12:04

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_03.D
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 20-AUG-2020 10:50
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal1,27237:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 10:50 Cal File: 082020_03.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						(D)
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						(D)
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						(D)
9 1,1-Dichloroethene	61	5.238	5.226	(0.666)	569	0.20000	0.208	
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						(D)
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						(D)
17 Methyl acetate	43	Compound Not Detected.						(D)
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						(D)
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	863	0.20000	0.240	
24 Acrylonitrile	53	Compound Not Detected.						
25 Vinyl acetate	43	Compound Not Detected.						
26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	737	0.20000	0.278(T)	
27 2,2-Dichloropropane	77	Compound Not Detected.						
28 Bromochloromethane	128	Compound Not Detected.						(D)
29 Cyclohexane	56	Compound Not Detected.						(D)
30 Chloroform	83	7.372	7.372	(0.938)	932	0.20000	0.236(M)	NI
31 Ethyl acetate	43	Compound Not Detected.						(D)
32 Carbon tetrachloride	117	7.512	7.512	(0.903)	576	0.20000	0.202	
33 Tetrahydrofuran	42	Compound Not Detected.						
$ 34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	128324	50.0000	54.5	
35 1,1,1-Trichloroethane	97	Compound Not Detected.						(D)
36 2-Butanone (MEK)	43	Compound Not Detected.						
37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
* 38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	204440	50.0000		
39 Benzene	78	7.878	7.872	(0.947)	1748	0.20000	0.230	
40 Propionitrile	54	Compound Not Detected.						(D)
41 Methacrylonitrile	41	Compound Not Detected.						(D)
42 Isobutanol	43	Compound Not Detected.						
$ 43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	23574	50.0000	55.7	
44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	1197	0.20000	0.364	
45 Isopropyl acetate	43	Compound Not Detected.						(D)
46 Trichloroethene	130	8.323	8.317	(1.001)	339	0.20000	0.163	
* 47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	296822	50.0000		
48 Methylcyclohexane	98	Compound Not Detected.						
49 n-Butanol	56	Compound Not Detected.						(D)
50 Dibromomethane	93	8.676	8.670	(1.043)	169	0.20000	0.0956	
51 1,2-Dichloropropane	63	Compound Not Detected.						
52 Bromodichloromethane	83	Compound Not Detected.						
53 Methyl methacrylate	69	Compound Not Detected.						(D)
54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
56 cis-1,3-Dichloropropene	75	9.719	9.713	(1.169)	492	0.20000	0.162	
$ 57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	320213	50.0000	50.1	
58 Toluene	91	9.420	9.414	(1.133)	1693	0.20000	0.229	
59 2-Nitropropane	43	Compound Not Detected.						(D)
60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
62 Tetrachloroethene	164	Compound Not Detected.						
63 Ethyl methacrylate	69	Compound Not Detected.						(D)
64 1,1,2-Trichloroethane	83	Compound Not Detected.						(D)
65 Dibromochloromethane	129	Compound Not Detected.						
66 1,3-Dichloropropane	76	10.066	10.060	(1.210)	722	0.20000	0.252	
67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	477	0.20000	0.225	
68 2-Hexanone	43	Compound Not Detected.						
69 Ethylbenzene	91	10.560	10.554	(1.000)	1806	0.20000	0.266	
* 70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	259753	50.0000		
71 Chlorobenzene	112	10.584	10.578	(1.002)	1258	0.20000	0.251	
72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
73 m&p-Xylene	91	10.657	10.651	(1.009)	1678	0.40000	0.330	
74 o-Xylene	106	Compound Not Detected.						
75 Styrene	104	Compound Not Detected.						(D)
76 Bromoform	173	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	97623	50.0000	45.8	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)
	80 n-Propylbenzene	91	11.529	11.523	(1.092)	1365	0.20000	0.164	
	81 Bromobenzene	156	11.584	11.578	(1.097)	395	0.20000	0.148	
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
	83 1,3,5-Trimethylbenzene	105	11.657	11.651	(0.945)	1019	0.20000	0.227	
	84 2-Chlorotoluene	126	Compound Not Detected.						(D)
	85 4-Chlorotoluene	126	Compound Not Detected.						(D)
	86 Isopropylbenzene (Cumene)	105	11.218	11.212	(1.062)	845	0.20000	0.141	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	697	0.20000	0.243	
	88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	89 Cyclohexanone	98	Compound Not Detected.						
	90 tert-Butylbenzene	119	Compound Not Detected.						(D)
	91 1,2,4-Trimethylbenzene	105	11.974	11.968	(0.970)	588	0.20000	0.130	
	92 sec-Butylbenzene	105	Compound Not Detected.						
	93 p-Isopropyltoluene	119	12.151	12.145	(0.985)	466	0.20000	0.105	
	94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	794	0.20000	0.221	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	135955	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	1048	0.20000	0.263	
	97 n-Butylbenzene	91	Compound Not Detected.						
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	882	0.20000	0.225	
	99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
	102 Naphthalene	128	Compound Not Detected.						
	103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

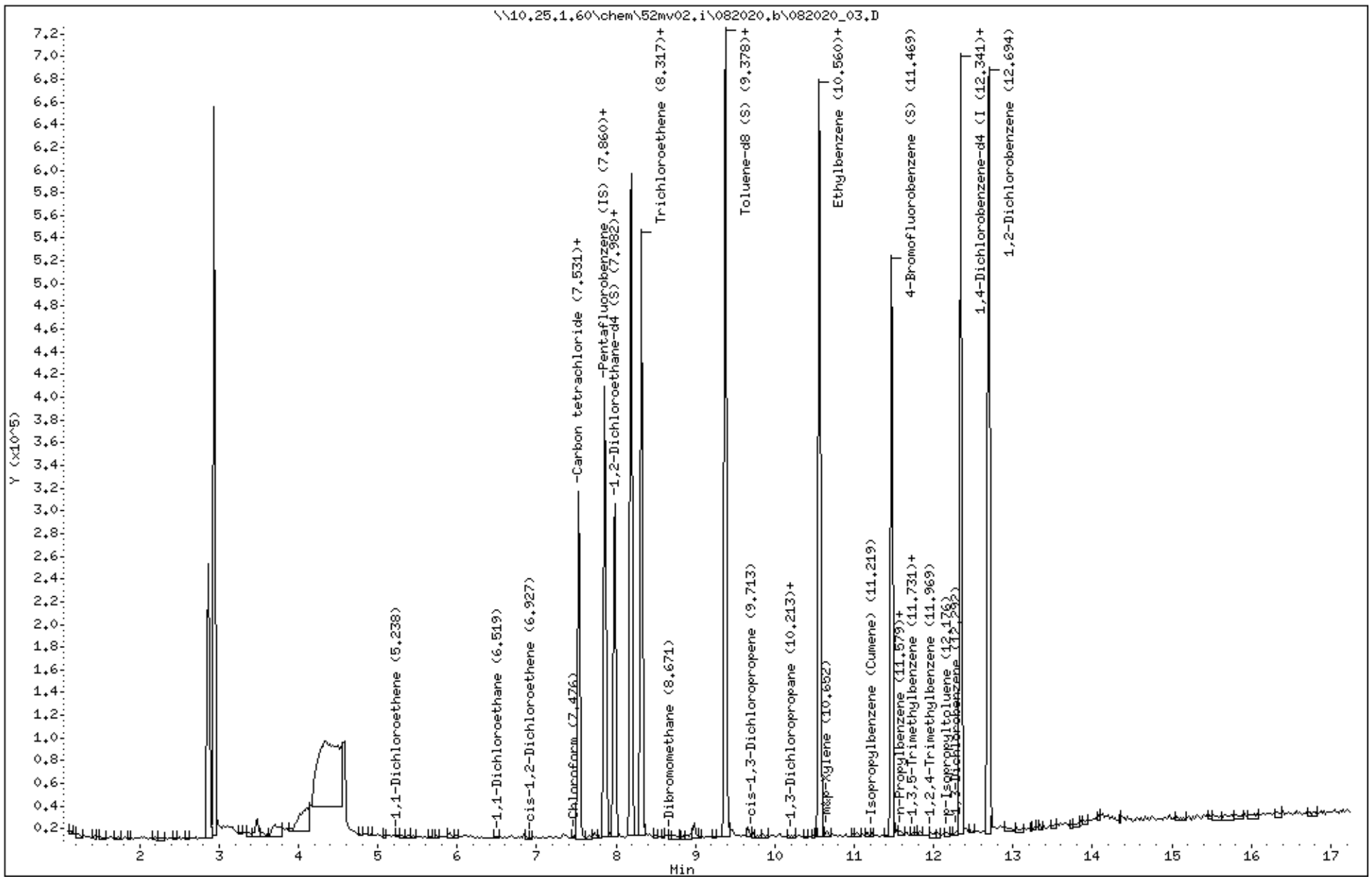
T - Target compound detected outside RT window.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
NI: Indicates that the peak was not integrated at all by the computer software.

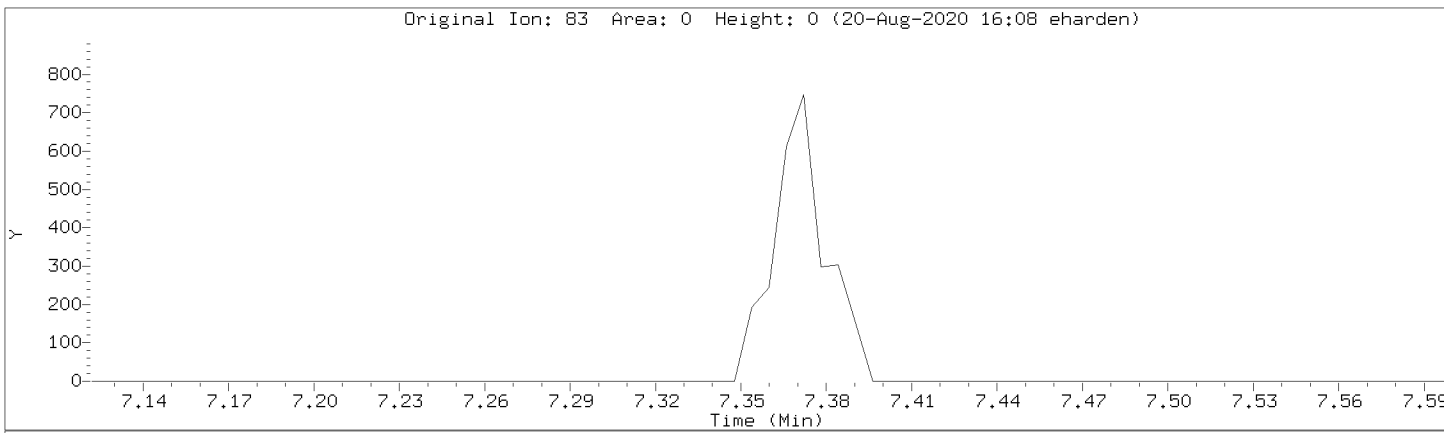
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_03.D
Date : 20-AUG-2020 10:50
Client ID: CAL1
Sample Info: CAL1,27237:1
Purge Volume: 5.0
Column phase: RTX-VMS

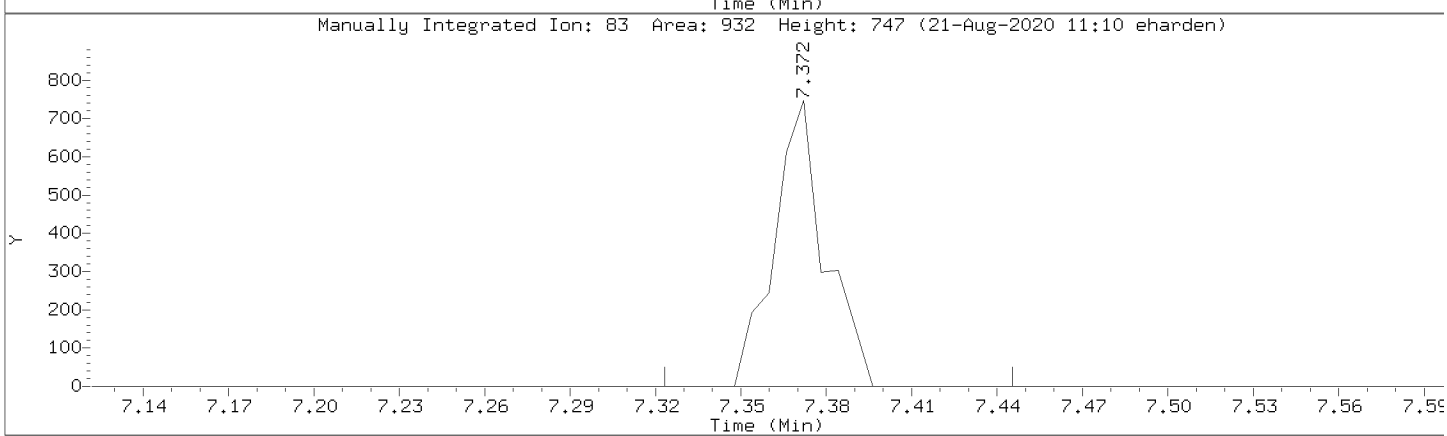
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

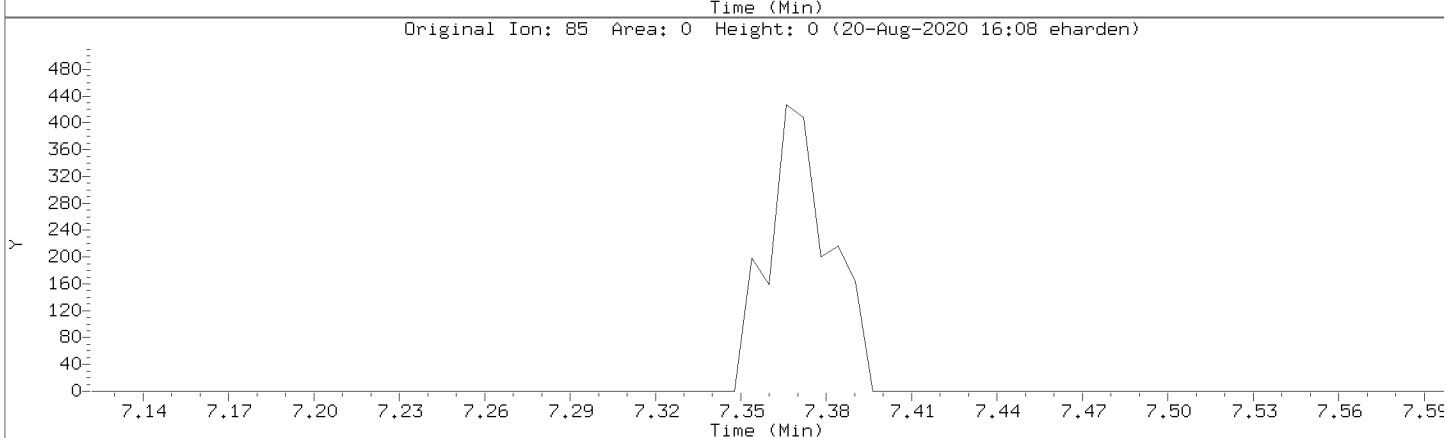


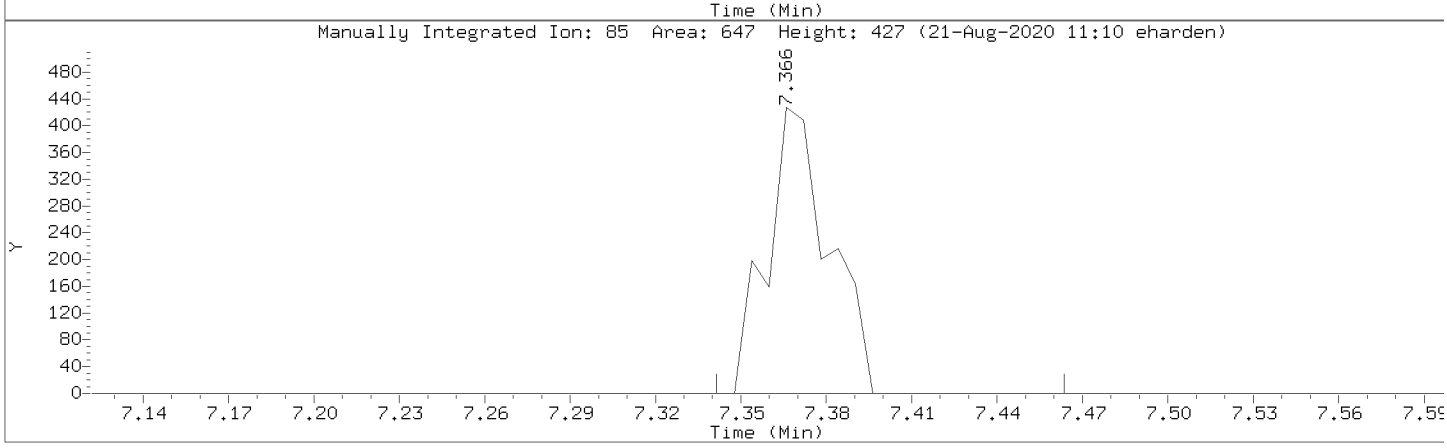
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_03.D
Injection Date: 20-AUG-2020 10:50
Instrument: 52mv02.i
Lab Sample ID: CAL1

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3









Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_04.D
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 20-AUG-2020 11:15
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal2,27238:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 11:15 Cal File: 082020_04.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.226	(0.408)	1253	0.50000	0.745(MH)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	3571	0.50000	1.04	
3 Vinyl chloride	62	3.708	3.702	(0.472)	1505	0.50000	0.604(M)	LT
4 1,3-Butadiene	39	3.708	3.708	(0.472)	1520	0.50000	0.683	
5 Bromomethane	94	4.195	4.195	(0.534)	5381	0.50000	1.82	
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						(D)
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	1311	0.50000	0.466	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	1053	0.50000	0.567(M)	LT
11 Carbon disulfide	76	5.293	5.293	(0.673)	3309	0.50000	0.531	
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						(D)
14 Allyl chloride	76	5.780	5.787	(0.736)	303	0.50000	0.350	
15 Methylene Chloride	49	5.908	5.902	(0.752)	2179	0.50000	0.634(M)	NI
16 Acetone	43	5.988	5.976	(0.762)	5178	1.00000	2.84	
17 Methyl acetate	43	6.073	6.067	(0.773)	3562	1.00000	1.60	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	1161	0.50000	0.611	
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	6.171	6.165	(0.785)	2190	0.50000	0.493(T)	
21 Acetonitrile	41	Compound Not Detected.						
22 Chloroprene	53	6.646	6.640	(0.846)	1072	0.50000	0.397	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	1886	0.50000	0.510	
	24 Acrylonitrile	53	Compound Not Detected.						(D)
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	1298	0.50000	0.477	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	1659	0.50000	0.592(T)	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	663	0.50000	0.557	
	29 Cyclohexane	56	7.335	7.335	(0.882)	767	0.50000	0.308	
	30 Chloroform	83	7.372	7.372	(0.938)	1921	0.50000	0.460(M)	NI
	31 Ethyl acetate	43	7.433	7.433	(0.946)	2623	1.00000	1.11(T)	
	32 Carbon tetrachloride	117	7.518	7.512	(0.904)	765	0.50000	0.262	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	1518	1.00000	2.16	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	133742	50.0000	55.4	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	1565	0.50000	0.452	
	36 2-Butanone (MEK)	43	Compound Not Detected.						(D)
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	1004	0.50000	0.417(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	209828	50.0000		
	39 Benzene	78	7.865	7.872	(0.946)	3569	0.50000	0.459	
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	2101	1.00000	1.15	
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	24908	50.0000	57.3	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	2134	0.50000	0.633	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	1482	0.50000	0.370	
	46 Trichloroethene	130	8.317	8.317	(1.000)	960	0.50000	0.452	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	303821	50.0000		
	48 Methylcyclohexane	98	8.329	8.317	(1.001)	565	0.50000	0.561(M)	LT
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.676	8.670	(1.043)	937	0.50000	0.518	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	1062	0.50000	0.479	
	52 Bromodichloromethane	83	8.774	8.768	(1.055)	1133	0.50000	0.356	
	53 Methyl methacrylate	69	8.835	8.823	(1.062)	345	0.50000	0.308(TH)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	996	0.50000	0.321	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	324729	50.0000	49.6	
	58 Toluene	91	9.420	9.414	(1.133)	3318	0.50000	0.438	
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	996	0.50000	0.315(M)	NI
	62 Tetrachloroethene	164	9.713	9.719	(0.920)	770	0.50000	0.420	
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	1129	0.50000	0.588	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	1044	0.50000	0.411(M)	NI
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	962	0.50000	0.328	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	1067	0.50000	0.489	
	68 2-Hexanone	43	Compound Not Detected.						(D)
	69 Ethylbenzene	91	10.560	10.554	(1.000)	3125	0.50000	0.447	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	267272	50.0000		
	71 Chlorobenzene	112	10.572	10.578	(1.001)	2681	0.50000	0.520	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	1062	0.50000	0.488	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	3816	1.00000	0.730	
	74 o-Xylene	106	10.993	10.993	(1.041)	984	0.50000	0.402	
	75 Styrene	104	11.029	11.029	(1.044)	1379	0.50000	0.337	
	76 Bromoform	173	11.103	11.103	(1.051)	1163	0.50000	0.482(M)	NI

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.231	11.225	(1.063)	1438	0.50000	0.387	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	104078	50.0000	47.4	
79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)
80 n-Propylbenzene	91	11.529	11.523	(1.092)	3151	0.50000	0.368	
81 Bromobenzene	156	11.584	11.578	(1.097)	1181	0.50000	0.431	
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						(D)
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	1752	0.50000	0.364(H)	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	548	0.50000	0.295	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	807	0.50000	0.443	
86 Isopropylbenzene (Cumene)	105	11.206	11.212	(1.061)	1956	0.50000	0.316	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	1491	0.50000	0.508	
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	1540	0.50000	0.324	
91 1,2,4-Trimethylbenzene	105	11.974	11.968	(0.970)	1871	0.50000	0.385	
92 sec-Butylbenzene	105	12.066	12.060	(0.978)	1733	0.50000	0.300	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	1540	0.50000	0.324	
94 1,3-Dichlorobenzene	146	12.297	12.291	(0.997)	1683	0.50000	0.437	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	145926	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	2405	0.50000	0.563	
97 n-Butylbenzene	91	12.480	12.486	(1.011)	1826	0.50000	0.359	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	2394	0.50000	0.570	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	415	0.50000	0.870	
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						(D)
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	852	0.50000	0.308	
102 Naphthalene	128	14.206	14.193	(1.151)	1897	0.50000	0.399(M)	NI
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	1244	0.50000	0.466	

QC Flag Legend

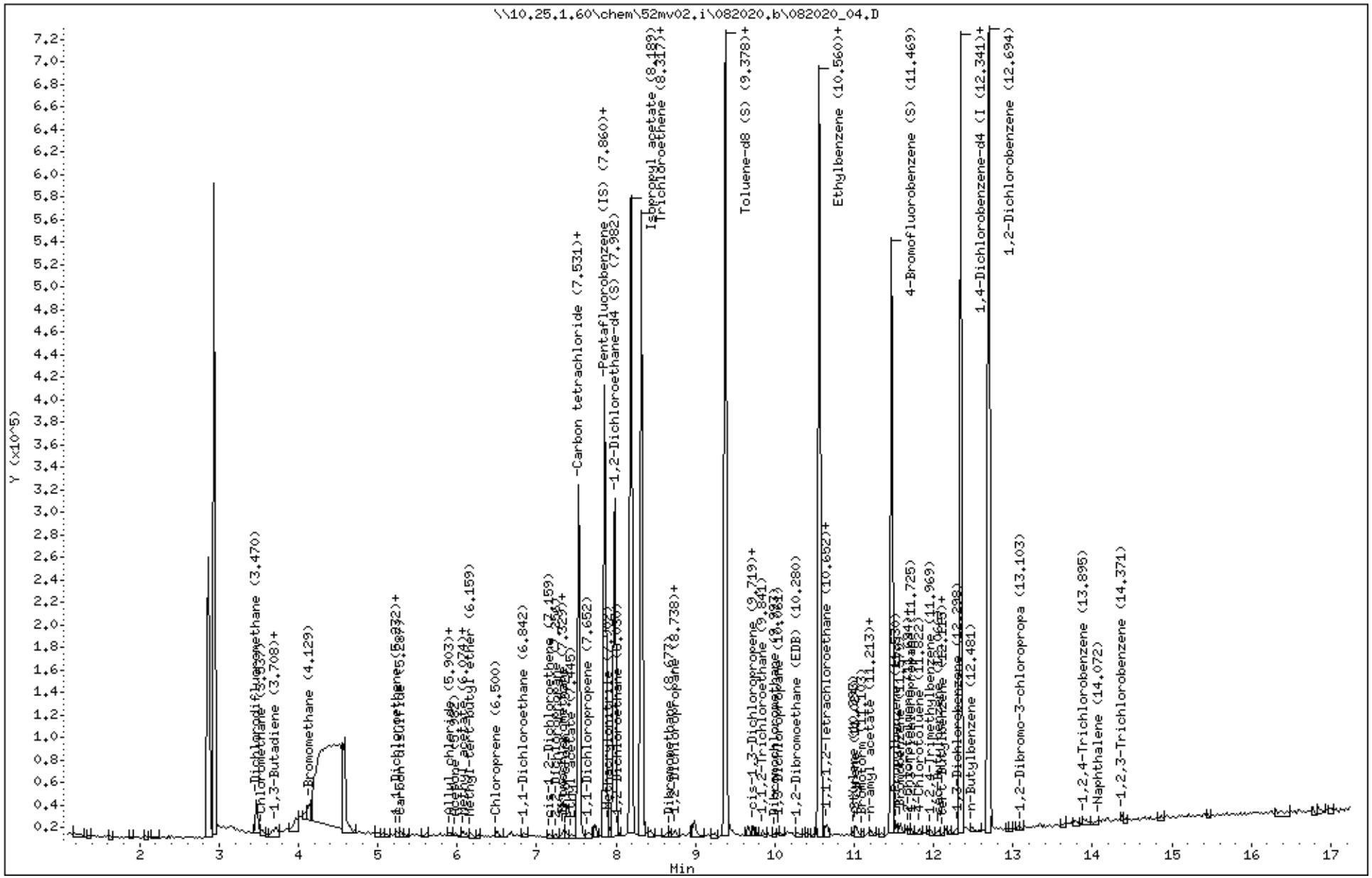
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.

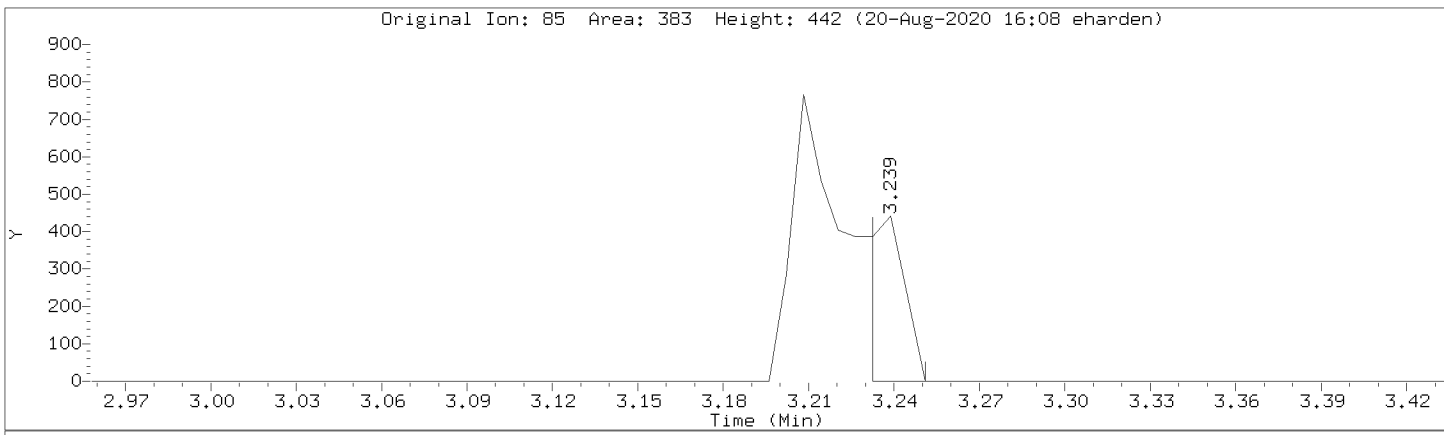
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_04.D
Date : 20-AUG-2020 11:15
Client ID: CAL2
Sample Info: CAL2,27238:1
Purge Volume: 5.0
Column phase: RTX-VMS

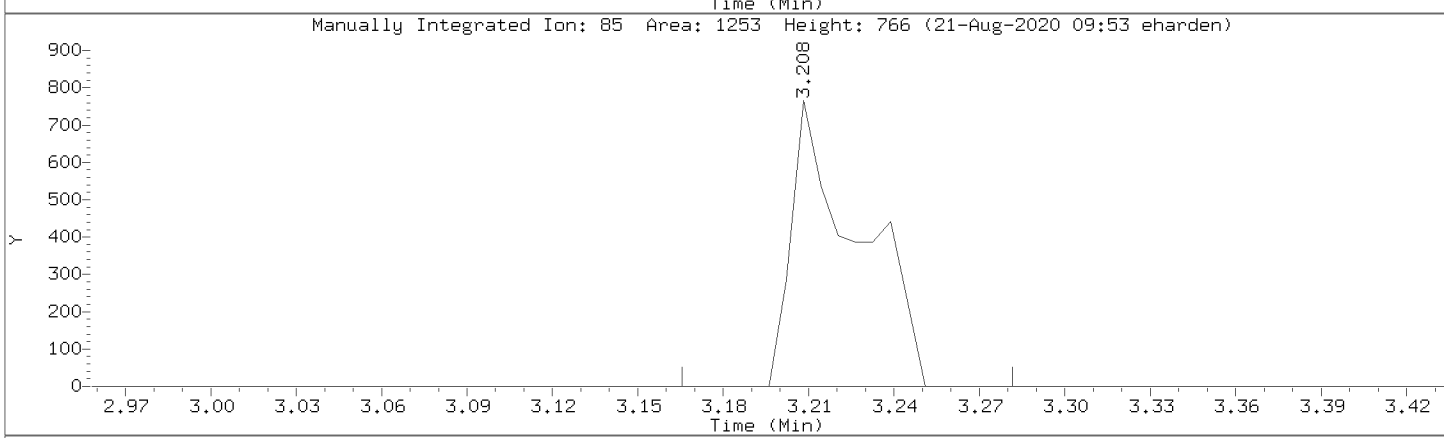
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

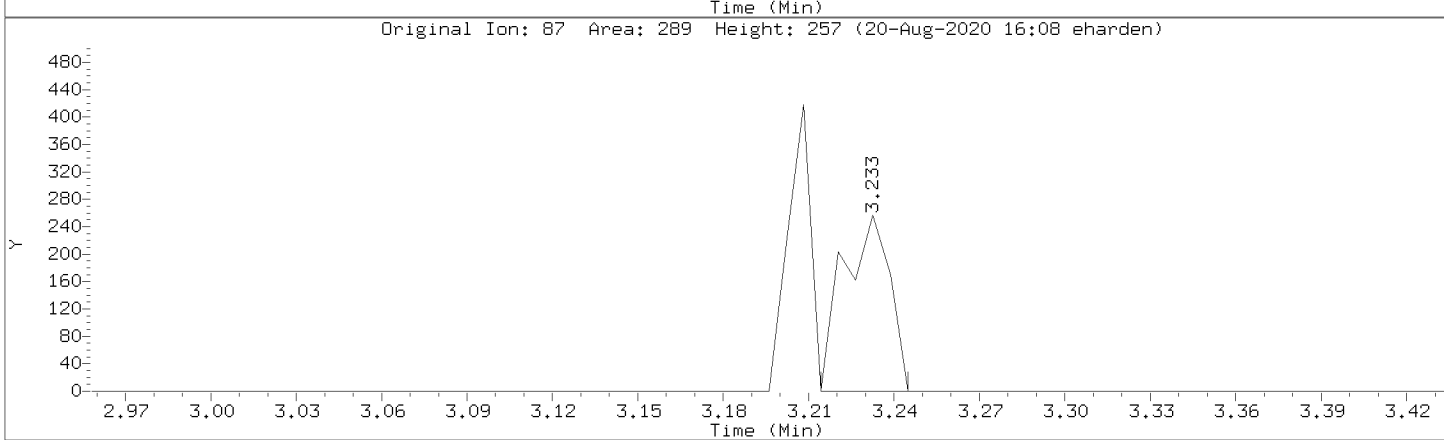


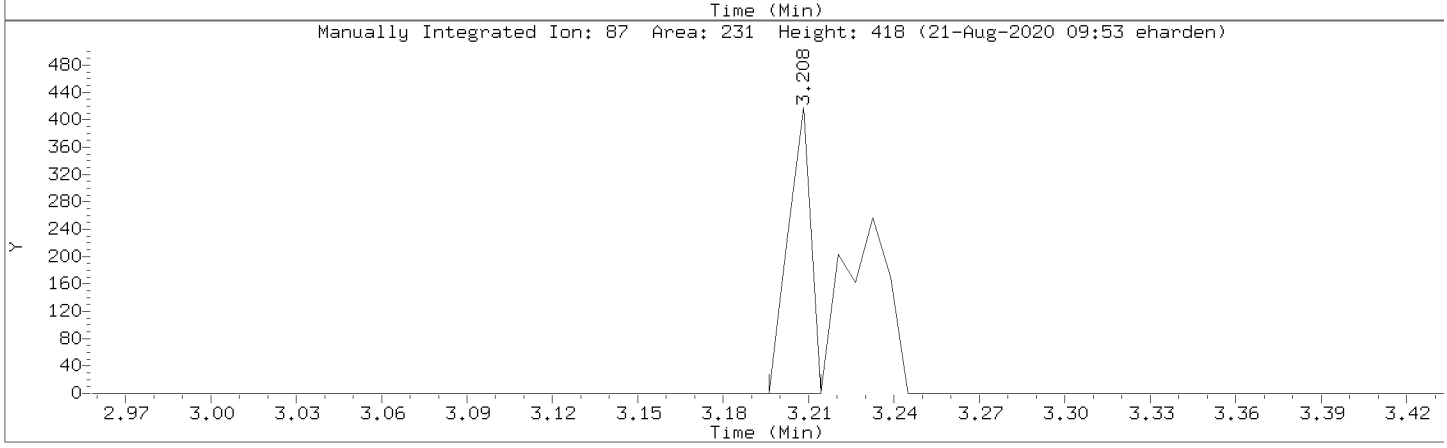
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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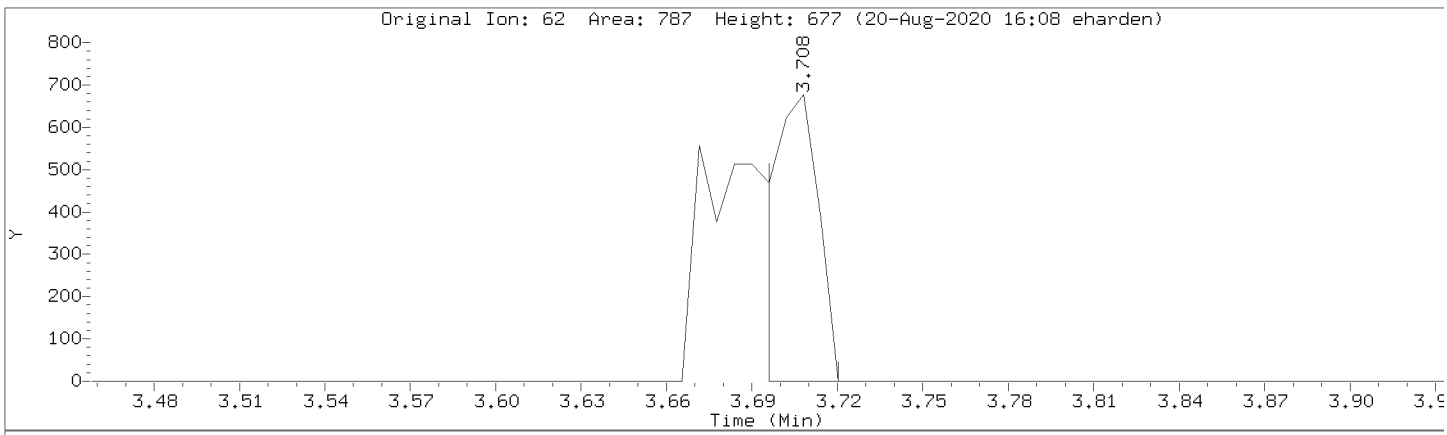
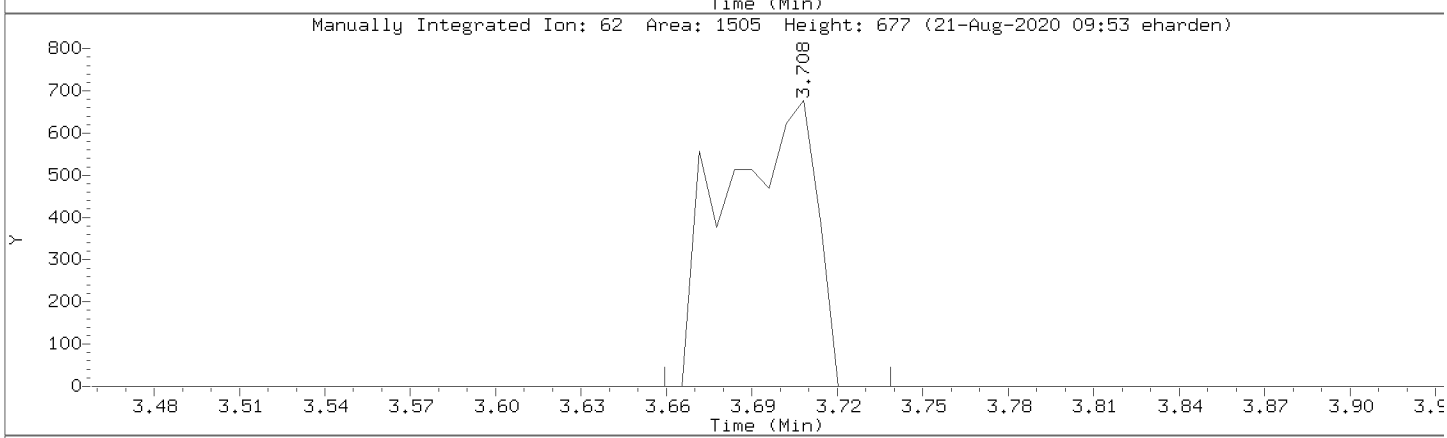
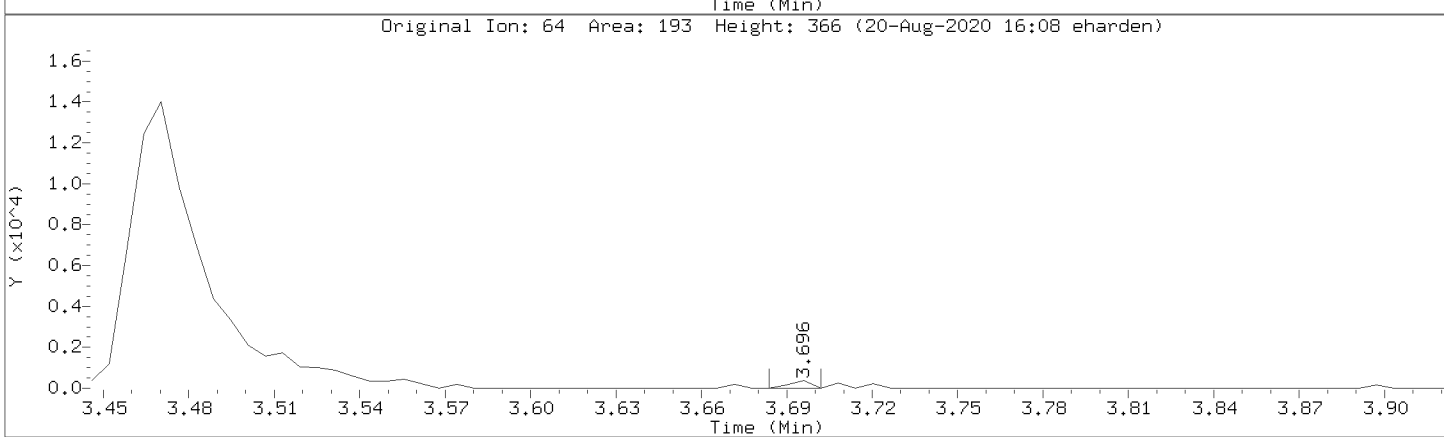
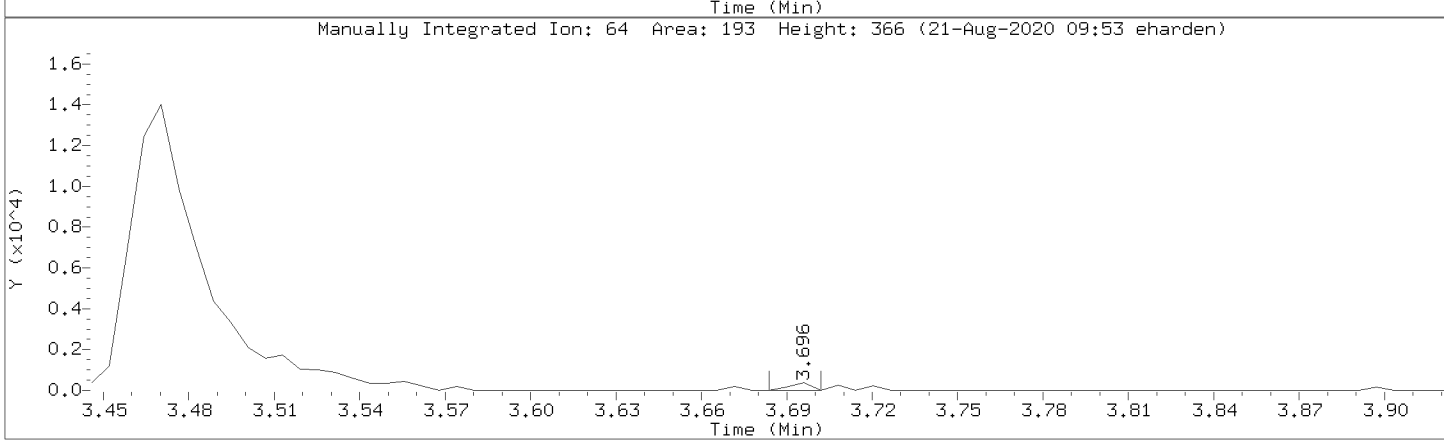
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4









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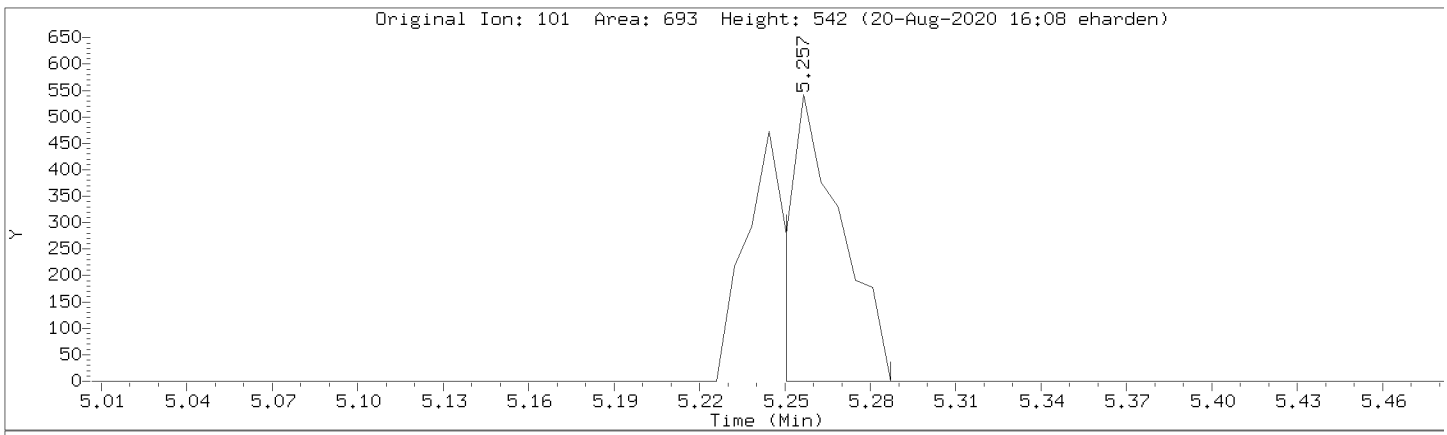
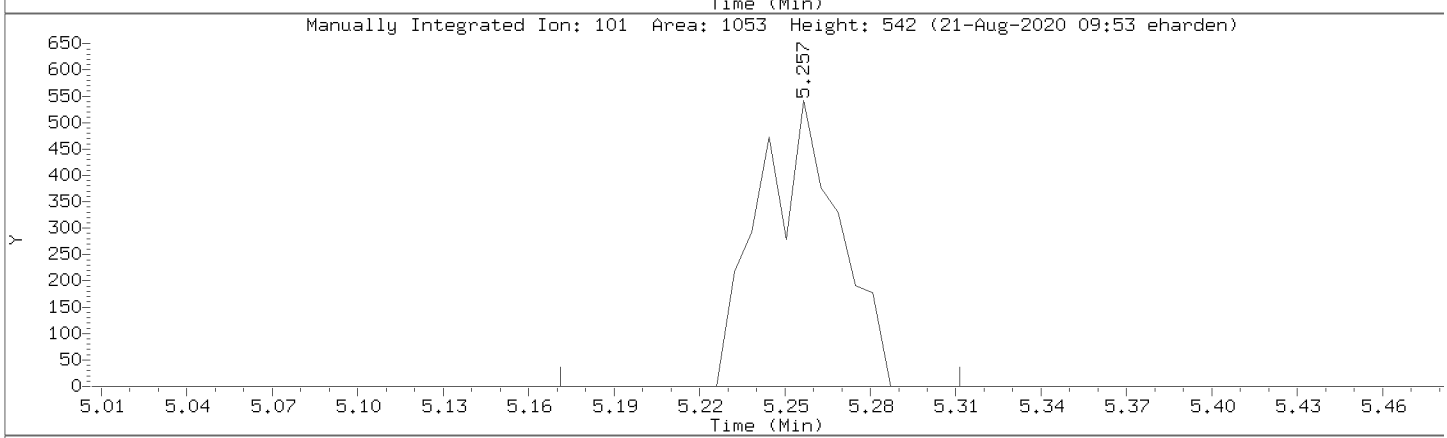
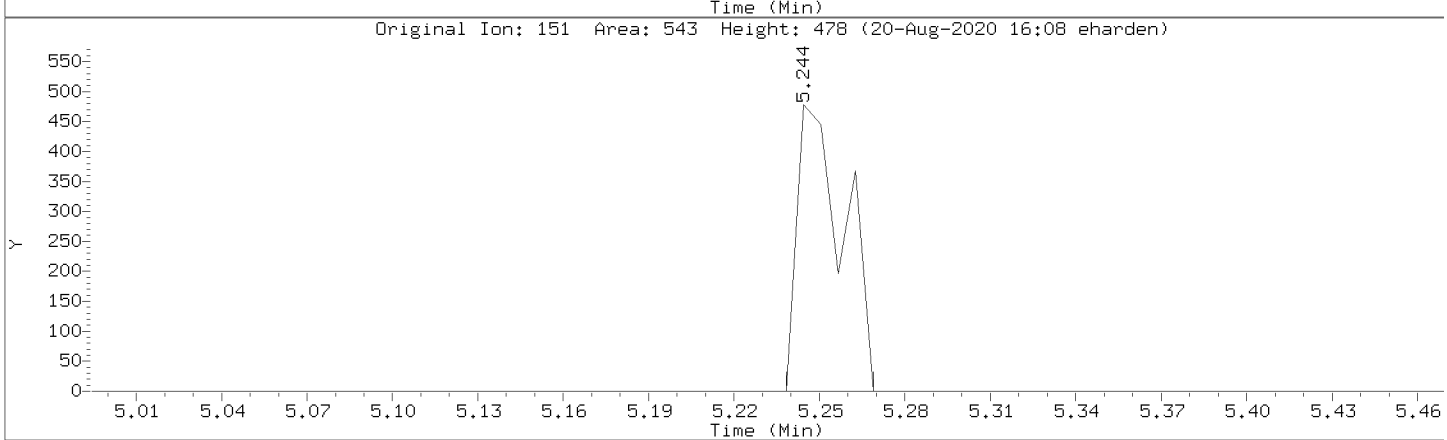
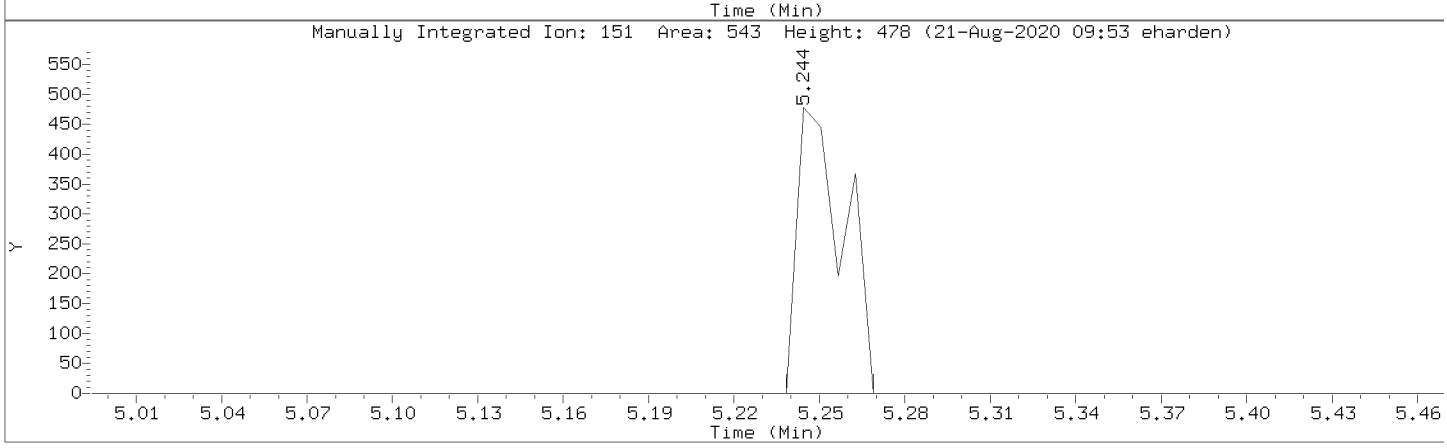
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: 1,1,2-Trichlorotrifluoroethane Review Code: LT
CAS Number: 76-13-1









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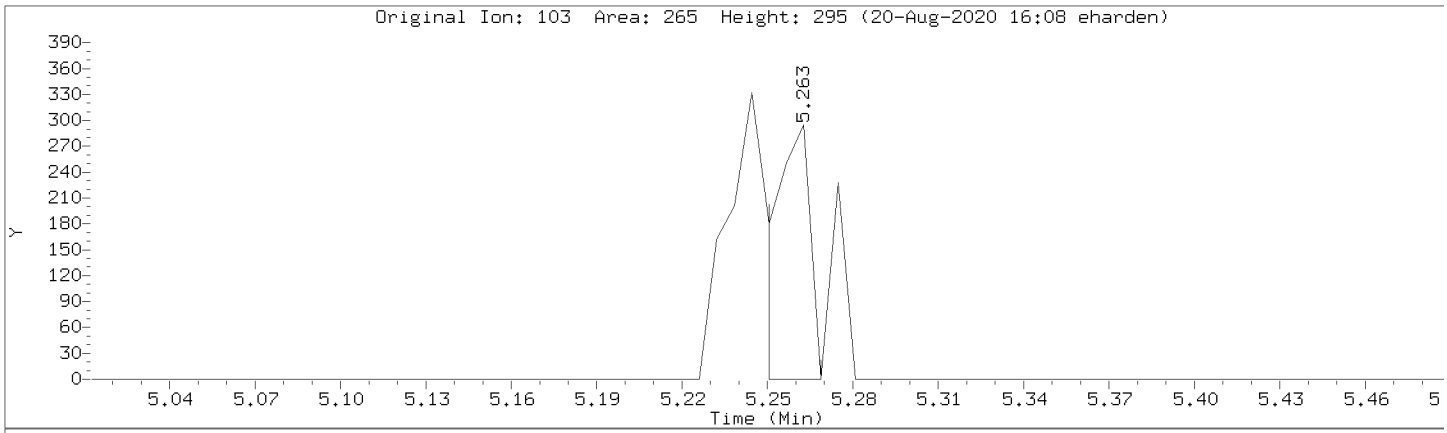
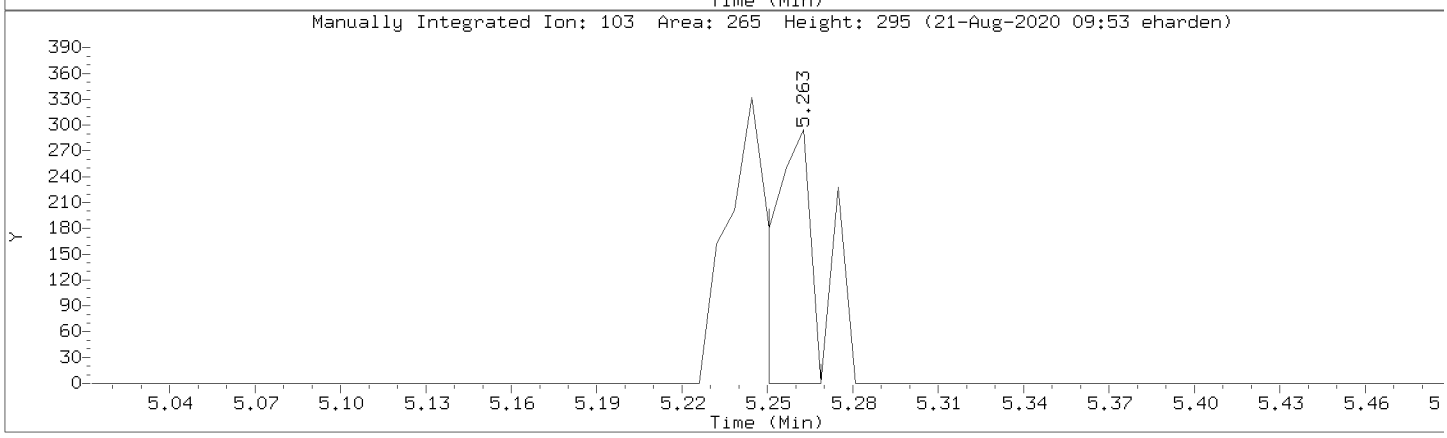
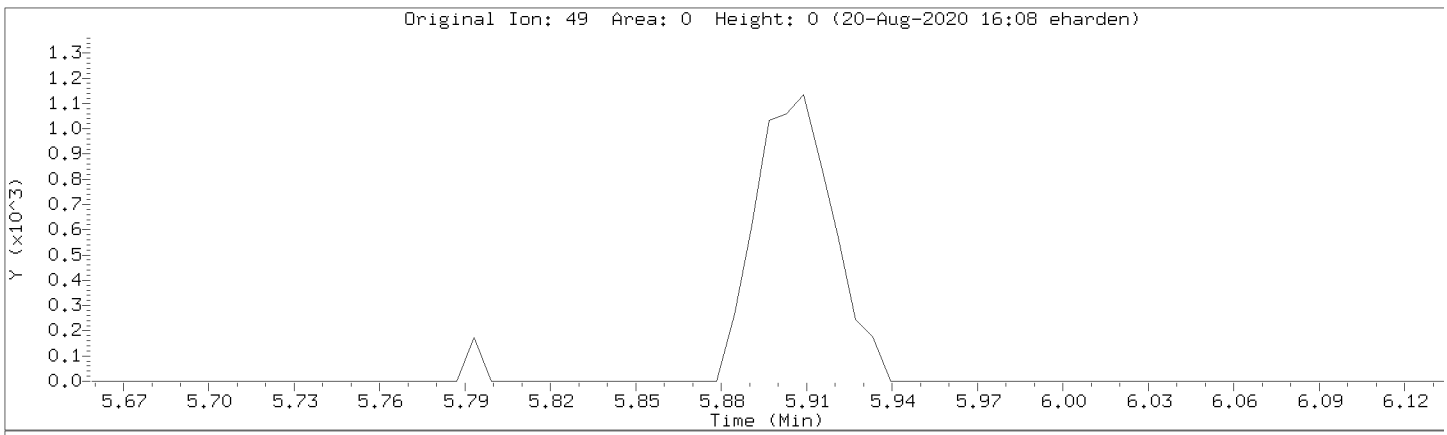
Instrument: 52mv02.i
Lab Sample ID: CAL2

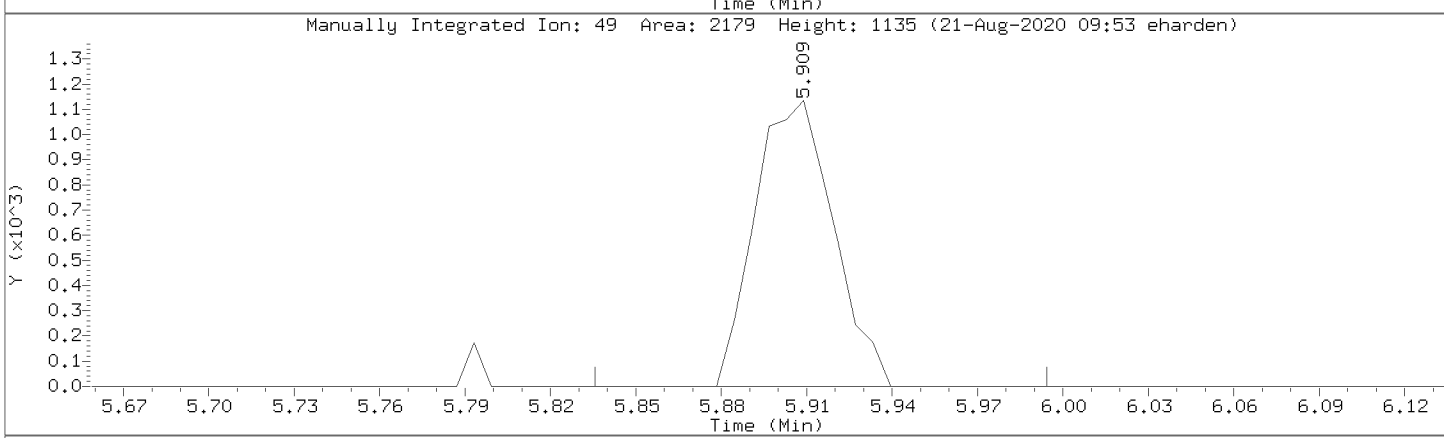


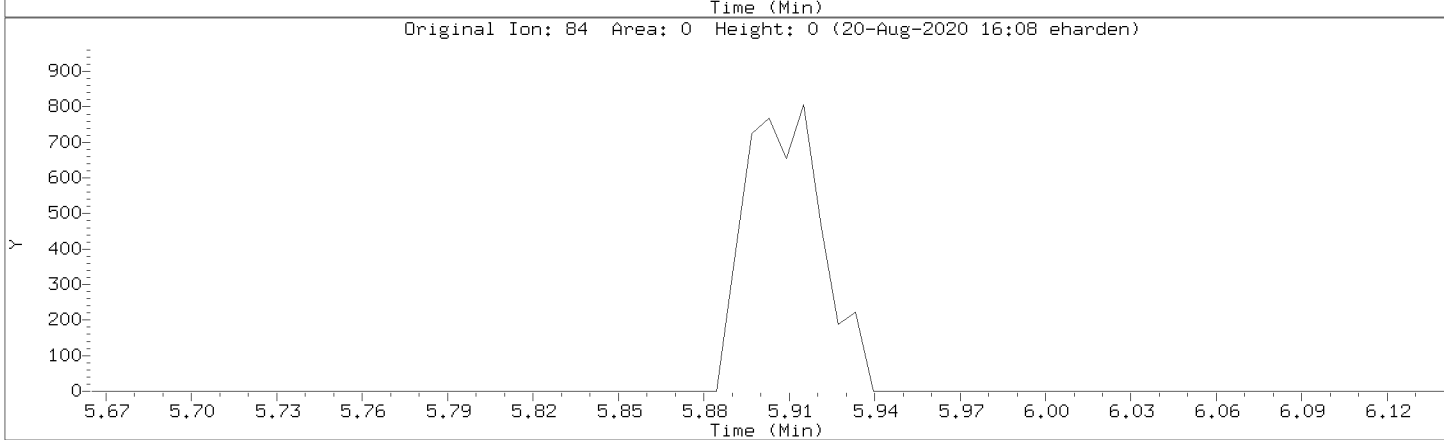


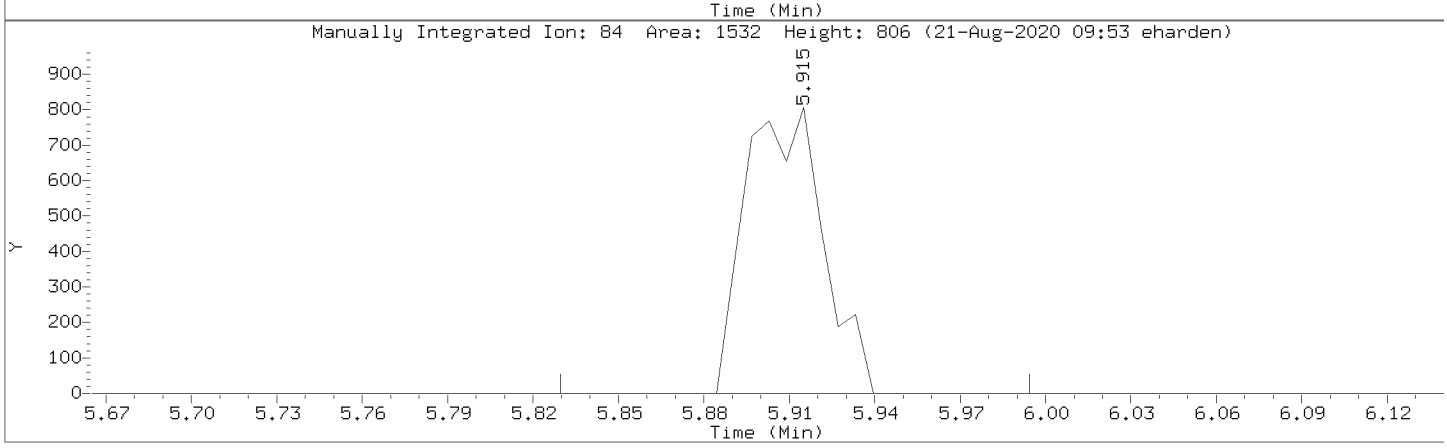
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2









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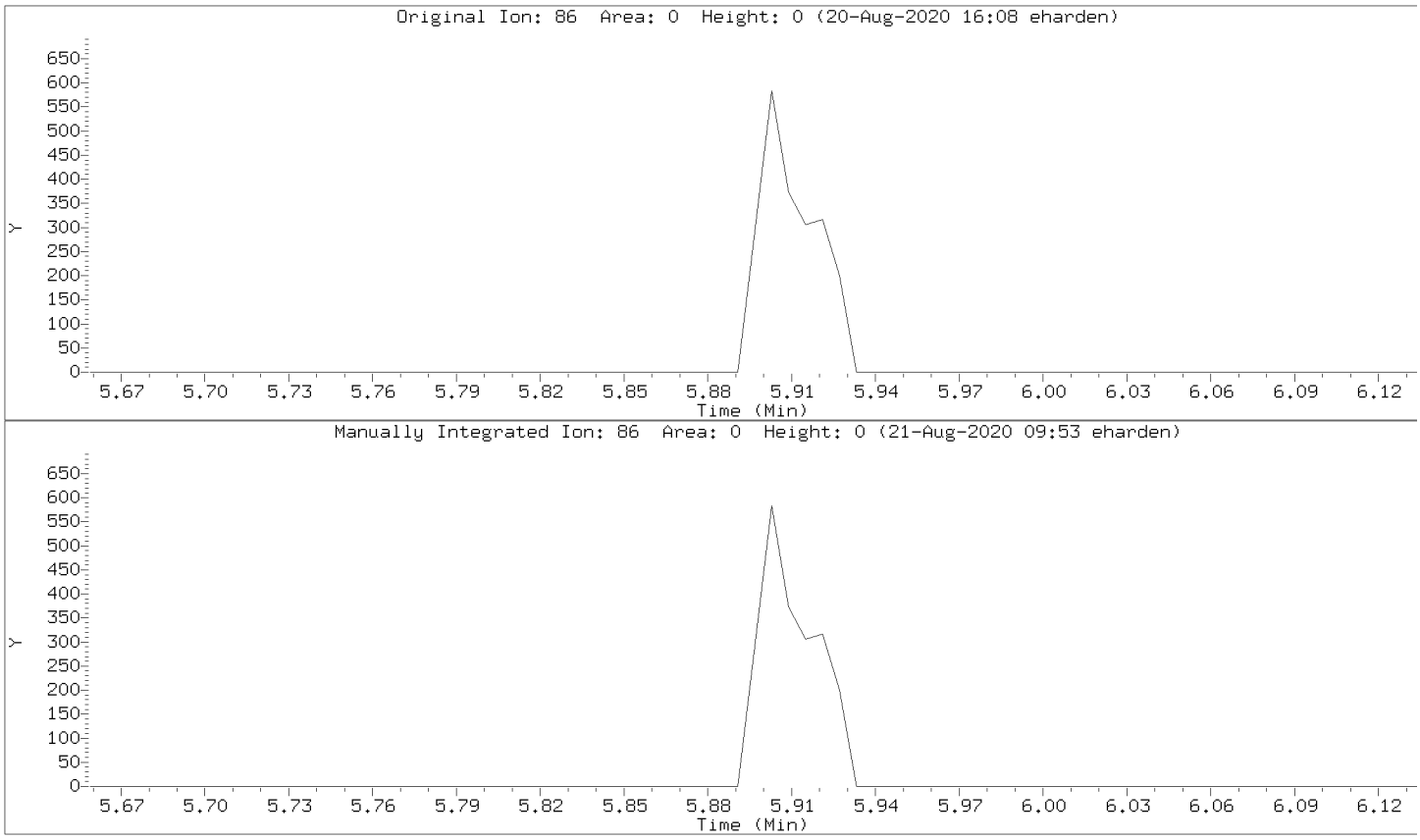
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2



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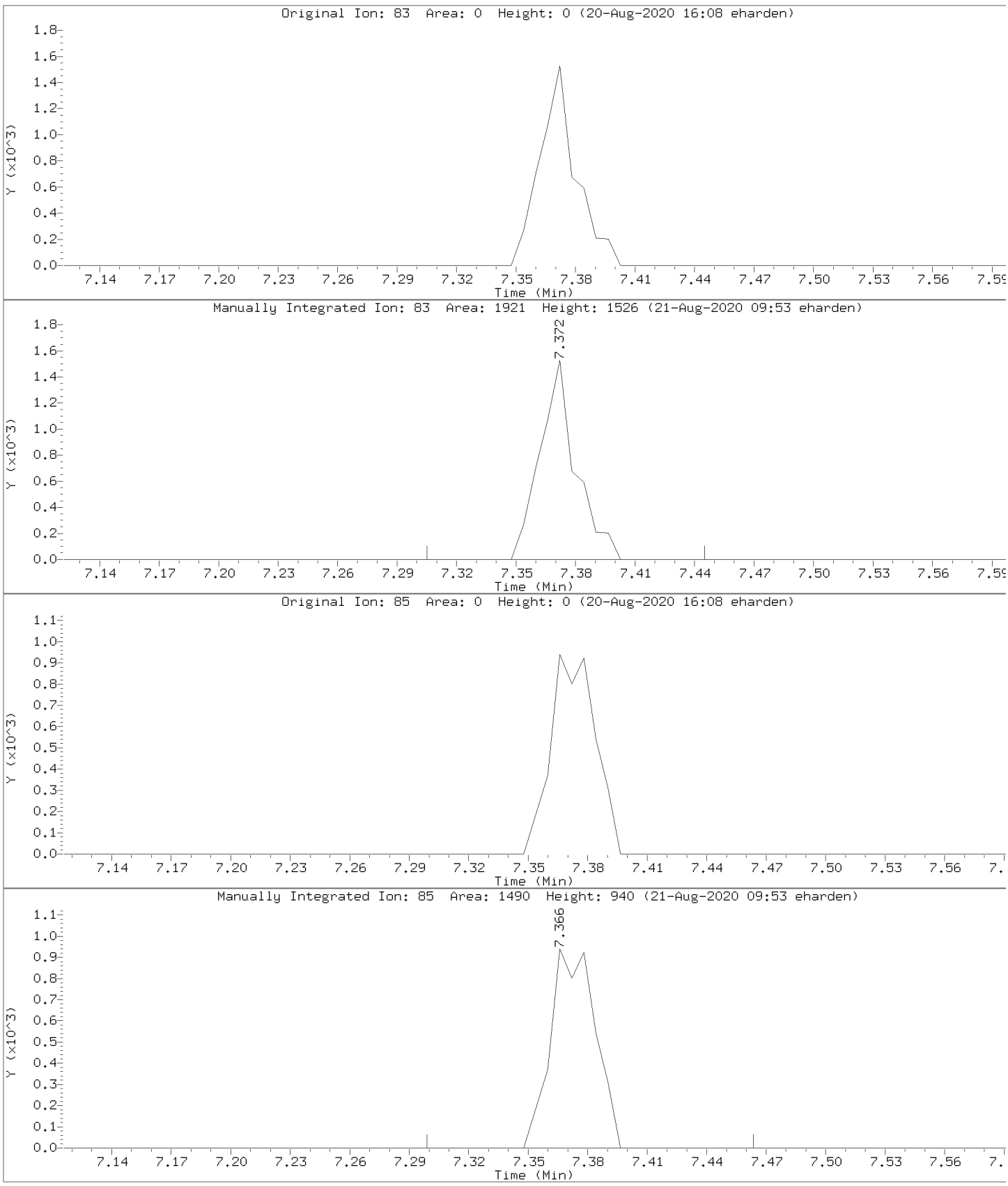
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3



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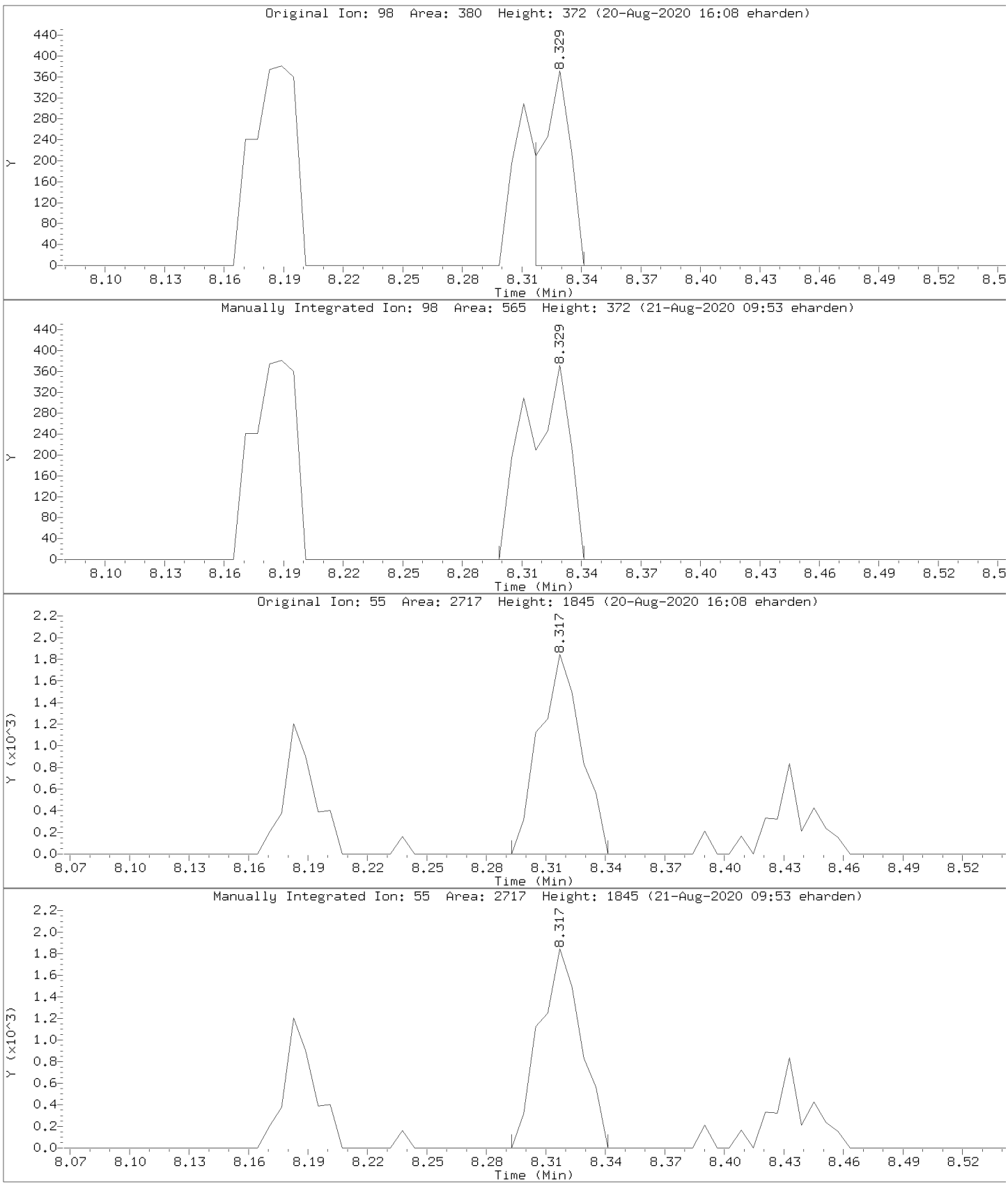
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Methylcyclohexane Review Code: LT
CAS Number: 108-87-2



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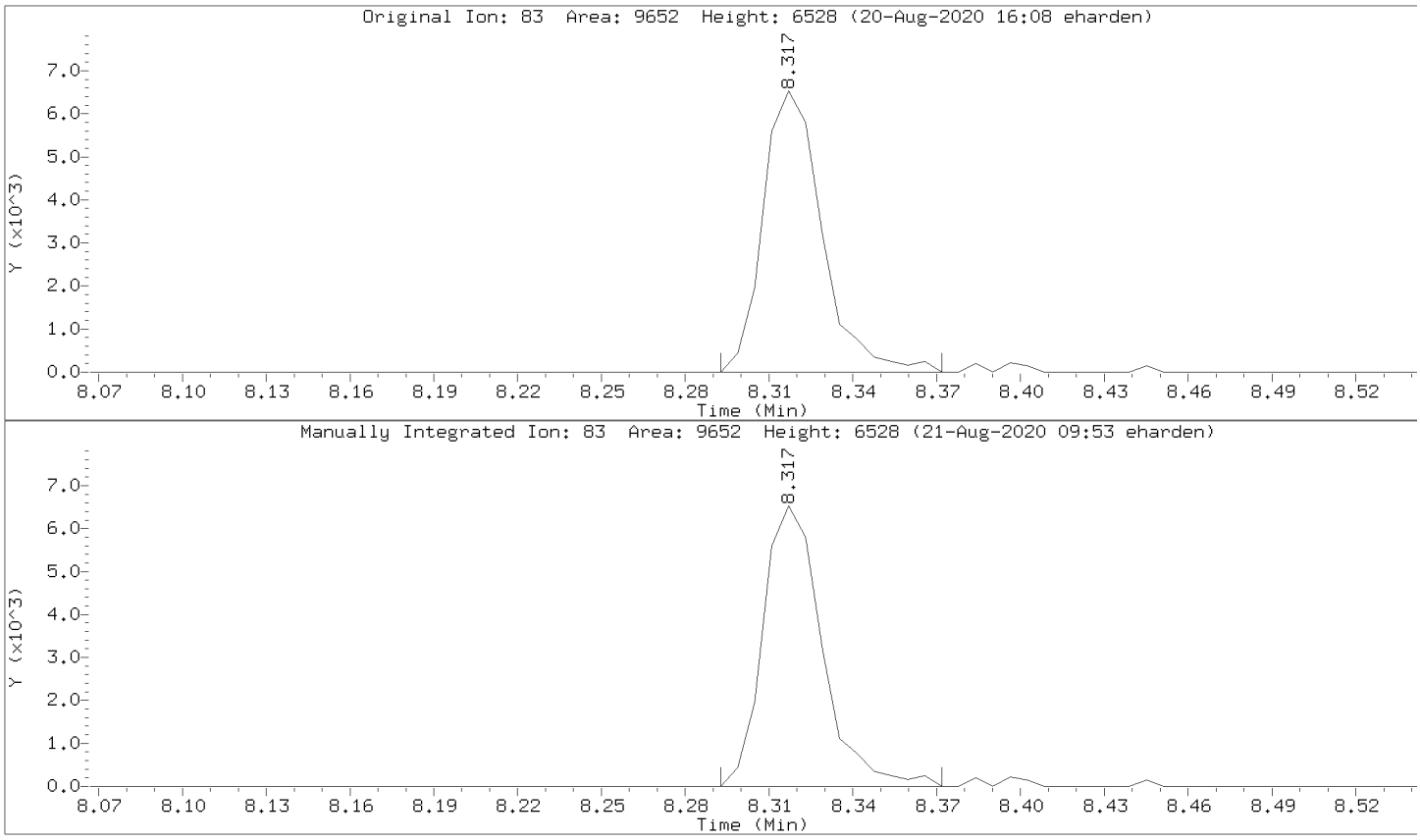
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2



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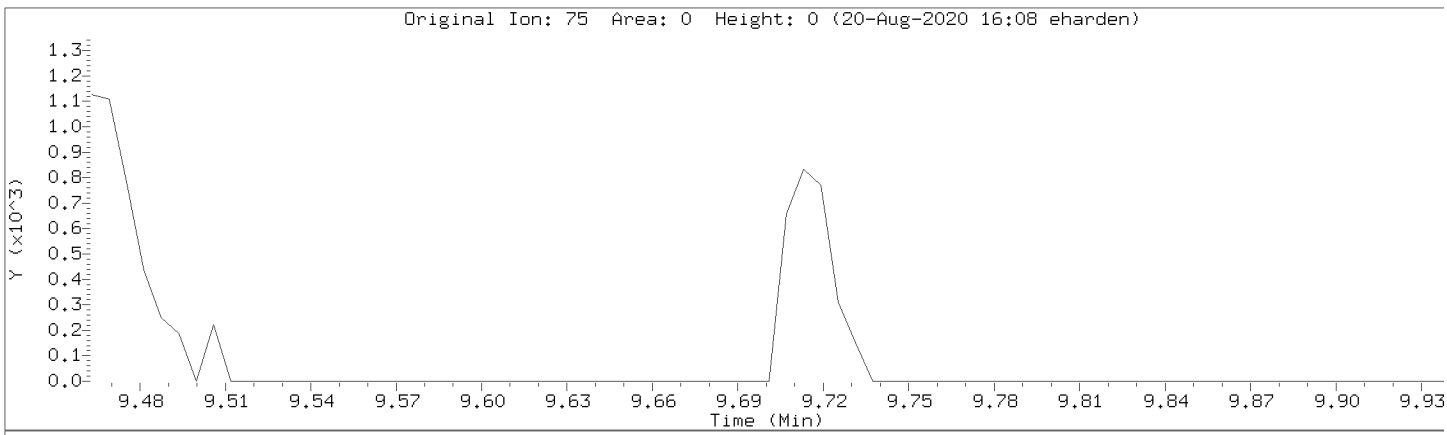
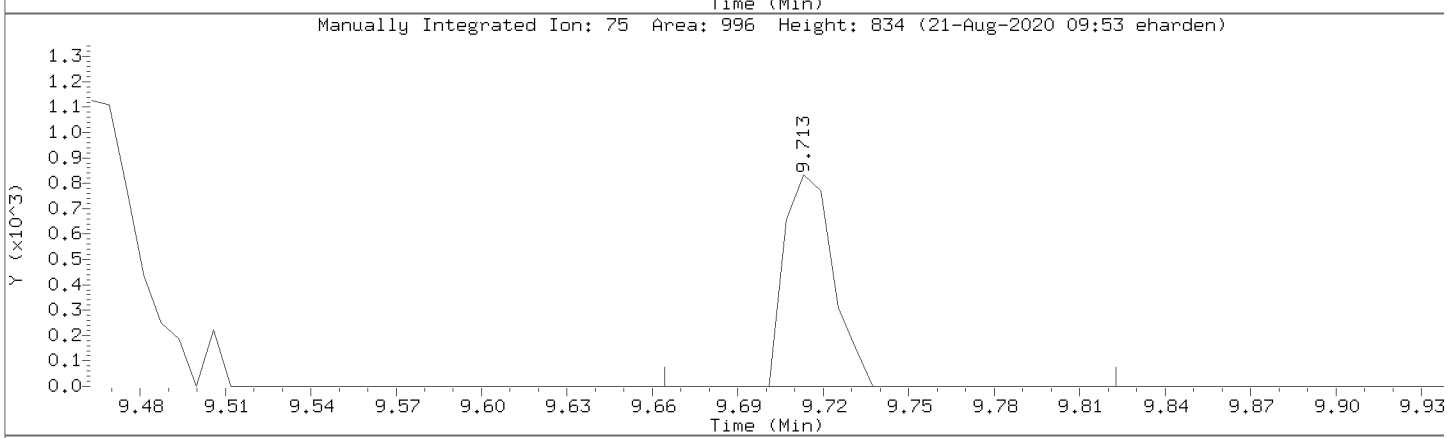
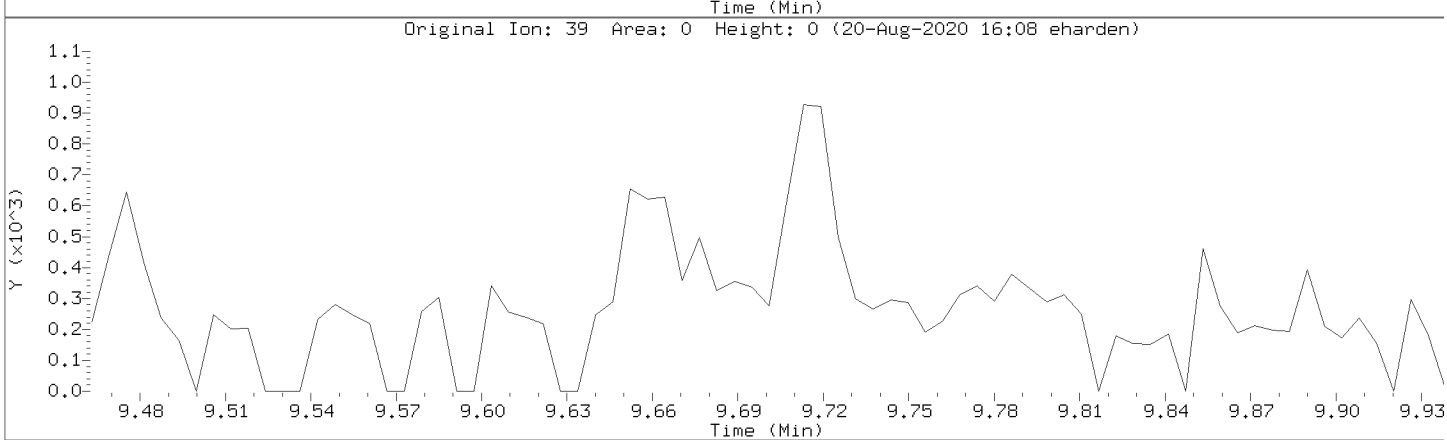
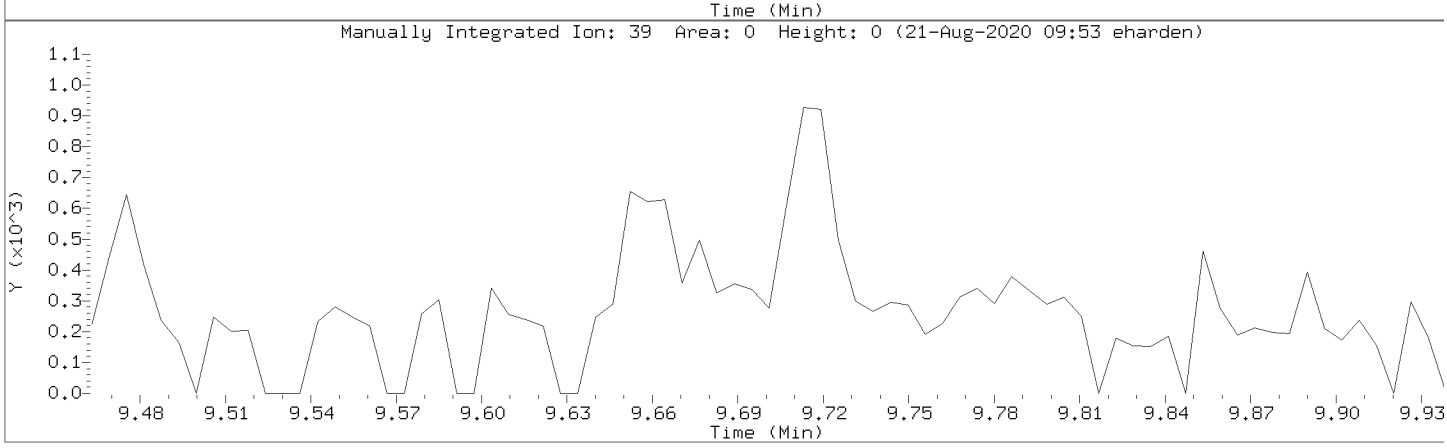
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: trans-1,3-Dichloropropene Review Code: NI
CAS Number: 10061-02-6









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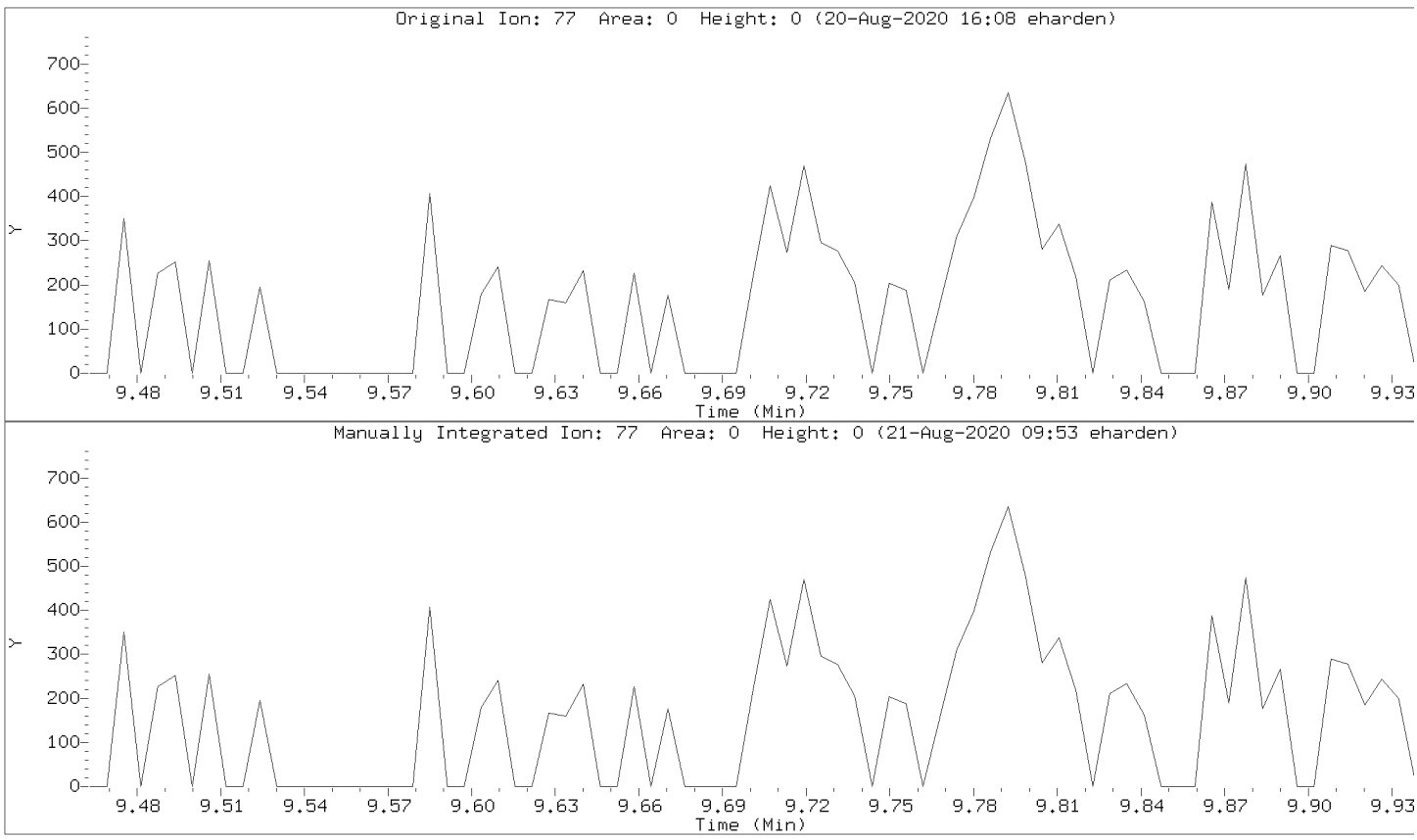
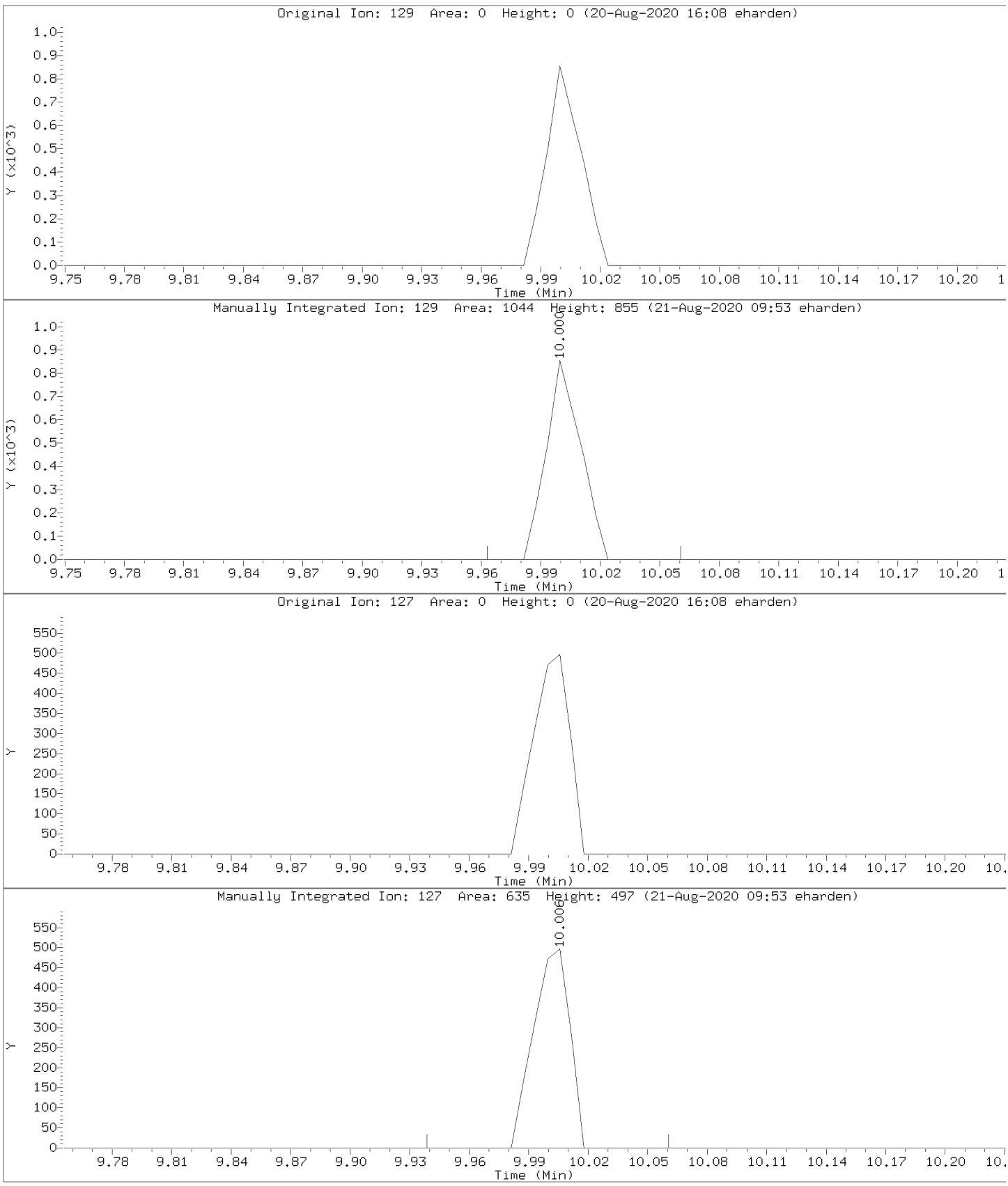
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2



Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Dibromochloromethane Review Code: NI
CAS Number: 124-48-1



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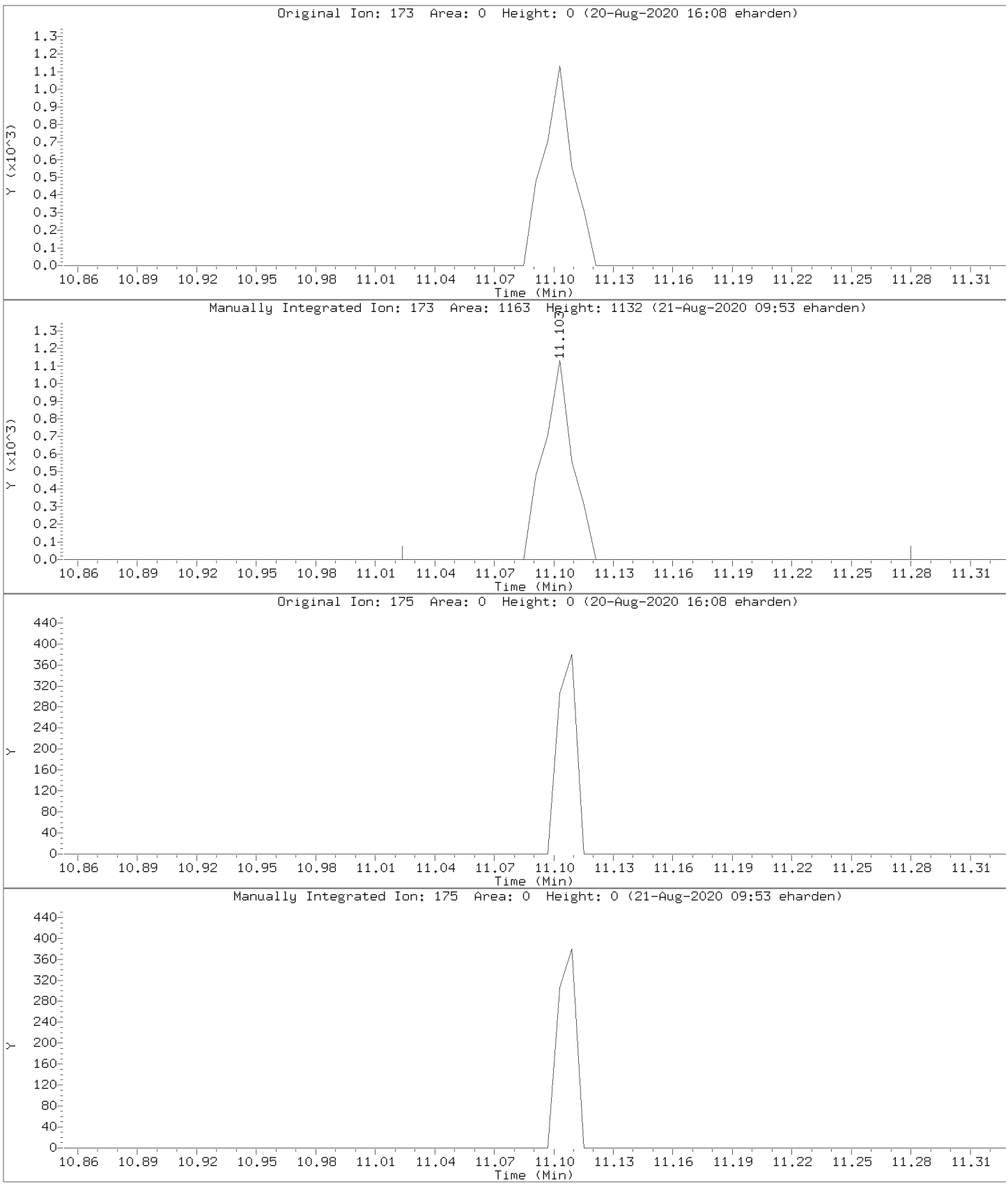
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2



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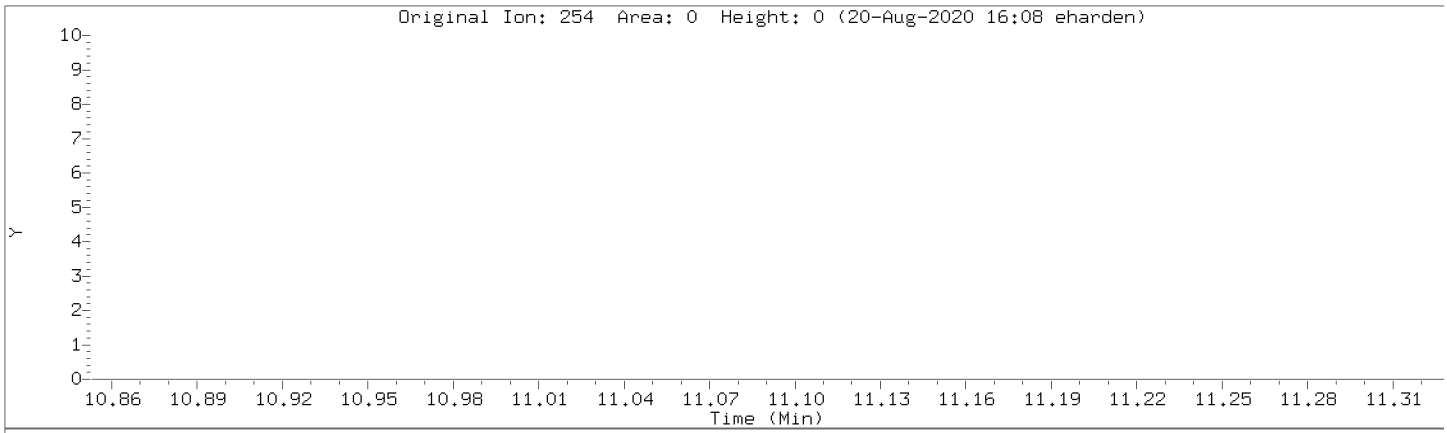
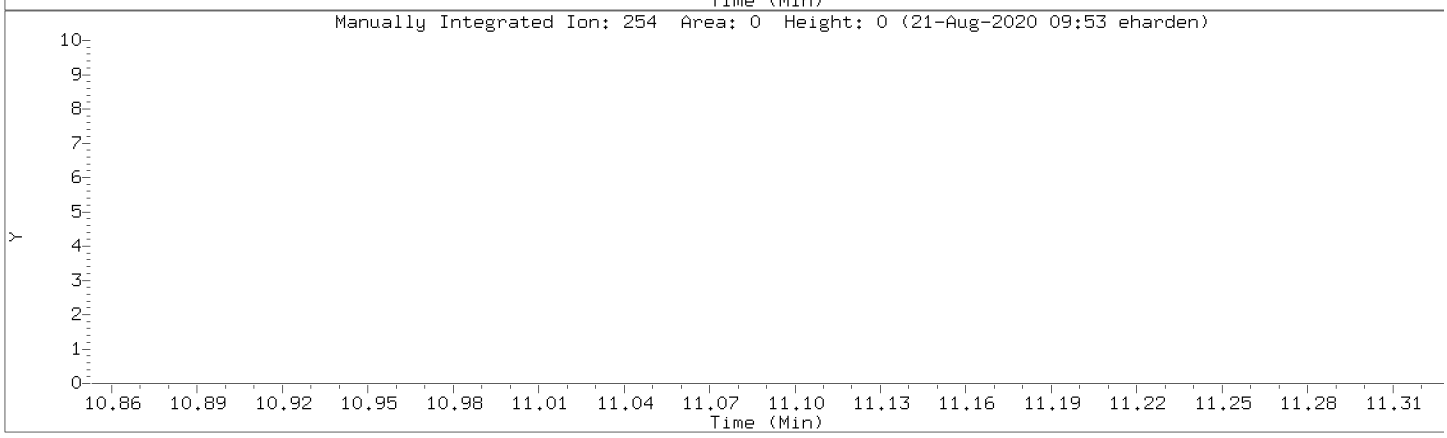
Instrument: 52mv02.i
Lab Sample ID: CAL2





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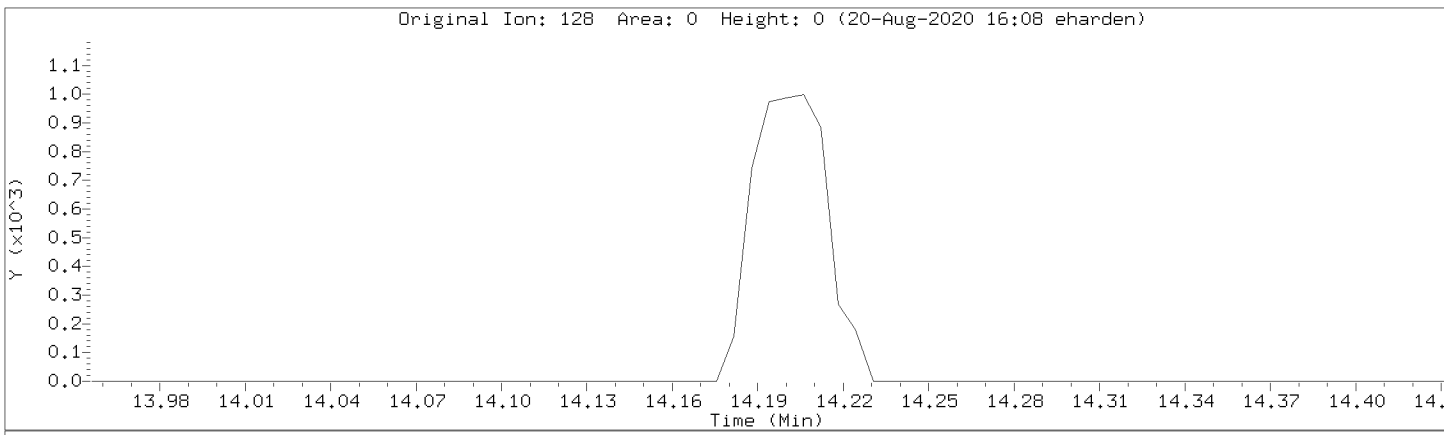
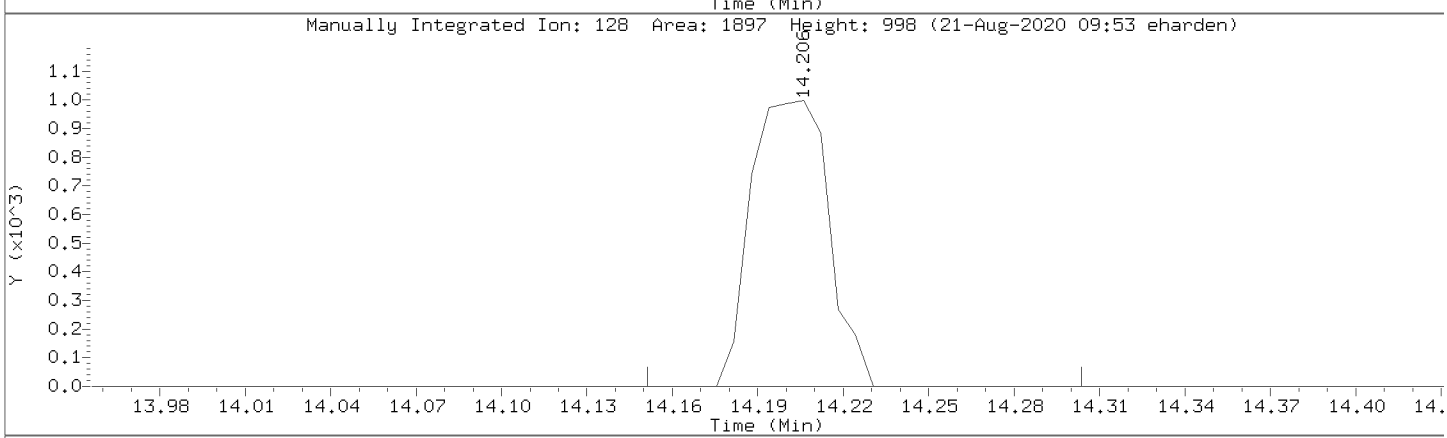
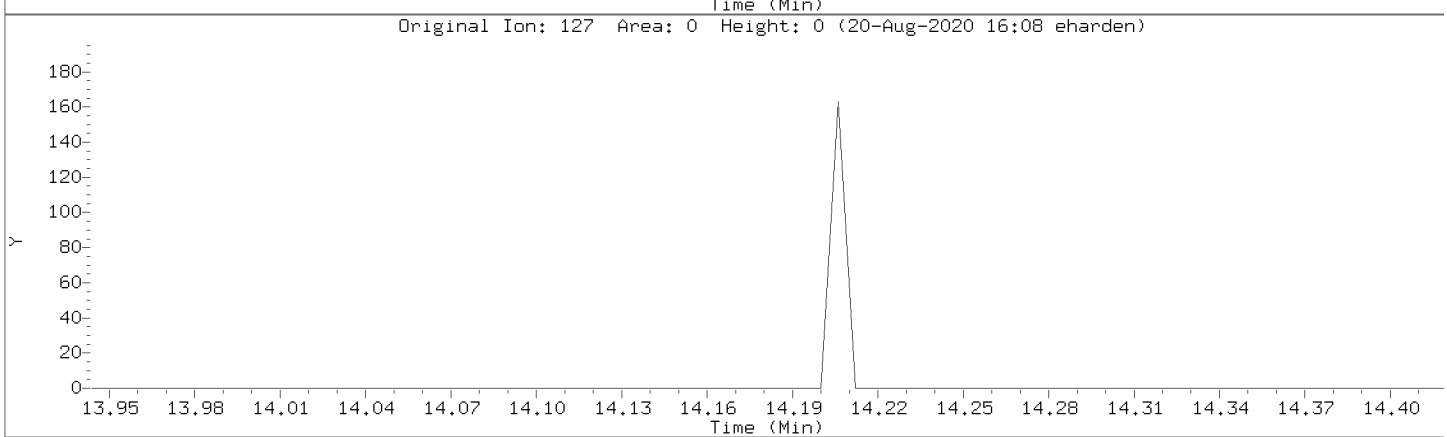
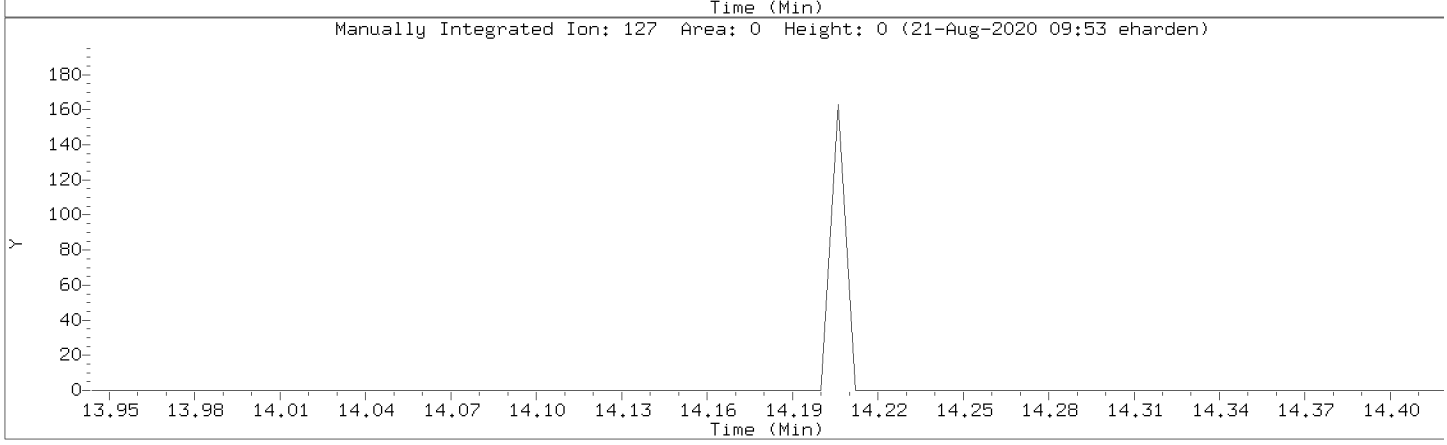
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Naphthalene Review Code: NI
CAS Number: 91-20-3









Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_05.D
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 20-AUG-2020 11:40
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal3,27239:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 11:40 Cal File: 082020_05.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.226	(0.409)	2789	1.00000	1.10(M)	LT
2 Chloromethane	50	3.537	3.543	(0.450)	5128	1.00000	0.923	
3 Vinyl chloride	62	3.696	3.702	(0.470)	2738	1.00000	1.09	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	2410	1.00000	1.08	
5 Bromomethane	94	4.195	4.195	(0.534)	6425	1.00000	0.381	
6 Chloroethane	64	4.360	4.360	(0.555)	891	1.00000	0.409(H)	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	2057	1.00000	1.29	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	810	1.00000	0.924	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	2503	1.00000	0.884	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	1938	1.00000	1.04	
11 Carbon disulfide	76	5.293	5.293	(0.673)	6625	1.00000	1.06	
12 Iodomethane	142	5.433	5.439	(0.691)	1071	1.00000	5.29(M)	NI
13 Acrolein	56	5.671	5.659	(0.722)	662	2.00000	2.27	
14 Allyl chloride	76	5.780	5.787	(0.736)	1021	1.00000	1.17	
15 Methylene Chloride	49	5.908	5.902	(0.752)	4045	1.00000	1.20(M)	NI
16 Acetone	43	5.982	5.976	(0.761)	5308	2.00000	1.50	
17 Methyl acetate	43	6.073	6.067	(0.773)	4622	2.00000	1.59	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	1993	1.00000	1.04	
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	6.158	6.165	(0.784)	4160	1.00000	0.933(T)	
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	6.640	6.640	(0.845)	2223	1.00000	0.834	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	3668	1.00000	0.987	
	24 Acrylonitrile	53	6.744	6.738	(0.858)	1850	2.00000	2.29	
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	2850	1.00000	1.04	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	3397	1.00000	1.18	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	1299	1.00000	1.08	
	29 Cyclohexane	56	7.335	7.335	(0.882)	1942	1.00000	0.757	
	30 Chloroform	83	7.378	7.372	(0.939)	4835	1.00000	1.15(M)	NI
	31 Ethyl acetate	43	7.439	7.433	(0.946)	4793	2.00000	2.02	
	32 Carbon tetrachloride	117	7.506	7.512	(0.902)	2447	1.00000	0.806	
	33 Tetrahydrofuran	42	7.536	7.536	(0.959)	2431	2.00000	1.81	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	134298	50.0000	55.3	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	3365	1.00000	0.978	
	36 2-Butanone (MEK)	43	7.634	7.628	(0.971)	4274	2.00000	2.36	
	37 1,1-Dichloropropene	75	7.664	7.658	(0.922)	2129	1.00000	0.891(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	210970	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	6671	1.00000	0.865	
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	3260	2.00000	1.78	
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25649	50.0000	58.7	
	44 1,2-Dichloroethane	62	8.042	8.036	(1.023)	3985	1.00000	1.21	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	3749	1.00000	0.954	
	46 Trichloroethene	130	8.317	8.317	(1.000)	2071	1.00000	0.982	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	301510	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	802	1.00000	0.802	
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.670	8.670	(1.043)	1683	1.00000	0.937	
	51 1,2-Dichloropropane	63	8.743	8.737	(1.051)	2197	1.00000	0.998	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	2455	1.00000	0.776	
	53 Methyl methacrylate	69	8.829	8.823	(1.062)	871	1.00000	1.43(TH)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	1689	2.00000	3.22	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	2472	1.00000	0.804	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	322180	50.0000	49.6	
	58 Toluene	91	9.414	9.414	(1.132)	7222	1.00000	0.960	
	59 2-Nitropropane	43	9.609	9.603	(1.155)	1386	1.00000	1.35(MH)	LT
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	2471	1.00000	0.805(M)	NI
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	1805	1.00000	0.983	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	1570	1.00000	0.810(M)	WP
	64 1,1,2-Trichloroethane	83	9.841	9.847	(1.183)	1831	1.00000	0.961	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	2212	1.00000	0.869	
	66 1,3-Dichloropropane	76	10.066	10.060	(1.210)	2595	1.00000	0.893	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	2135	1.00000	0.978	
	68 2-Hexanone	43	10.280	10.280	(1.236)	3979	2.00000	1.56	
	69 Ethylbenzene	91	10.560	10.554	(1.000)	5759	1.00000	0.823	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	267604	50.0000		
	71 Chlorobenzene	112	10.572	10.578	(1.001)	4923	1.00000	0.954	
	72 1,1,1,2-Tetrachloroethane	131	10.603	10.609	(1.004)	2420	1.00000	1.11	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	7396	2.00000	1.41	
	74 o-Xylene	106	10.987	10.993	(1.040)	1785	1.00000	0.729	
	75 Styrene	104	11.036	11.029	(1.045)	2626	1.00000	0.641	
	76 Bromoform	173	11.103	11.103	(1.051)	2312	1.00000	0.956(M)	NI

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.231	11.225	(1.063)	2647	1.00000	0.712	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	104502	50.0000	47.6	
	79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	1137	1.00000	1.29	
	80 n-Propylbenzene	91	11.529	11.523	(1.092)	6737	1.00000	0.785	
	81 Bromobenzene	156	11.584	11.578	(1.097)	2261	1.00000	0.825	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	2955	1.00000	1.03(H)	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	3733	1.00000	0.775	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	1264	1.00000	0.680	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	1146	1.00000	0.628	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	3865	1.00000	0.624	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	2680	1.00000	0.912	
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	456	1.00000	0.662(M)	NI
	89 Cyclohexanone	98	Compound Not Detected.						(D)
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	3605	1.00000	0.760	
	91 1,2,4-Trimethylbenzene	105	11.974	11.968	(0.970)	3078	1.00000	0.634	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	3627	1.00000	0.628	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	3605	1.00000	0.760	
	94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	3270	1.00000	0.850	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	145817	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	4290	1.00000	1.00	
	97 n-Butylbenzene	91	12.486	12.486	(1.012)	4060	1.00000	0.799	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	4197	1.00000	1.00	
	99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	659	1.00000	1.38	
	100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	1405	1.00000	1.08	
	101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	2610	1.00000	0.944	
	102 Naphthalene	128	14.200	14.193	(1.151)	3463	1.00000	0.729	
	103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	2401	1.00000	0.899	

QC Flag Legend

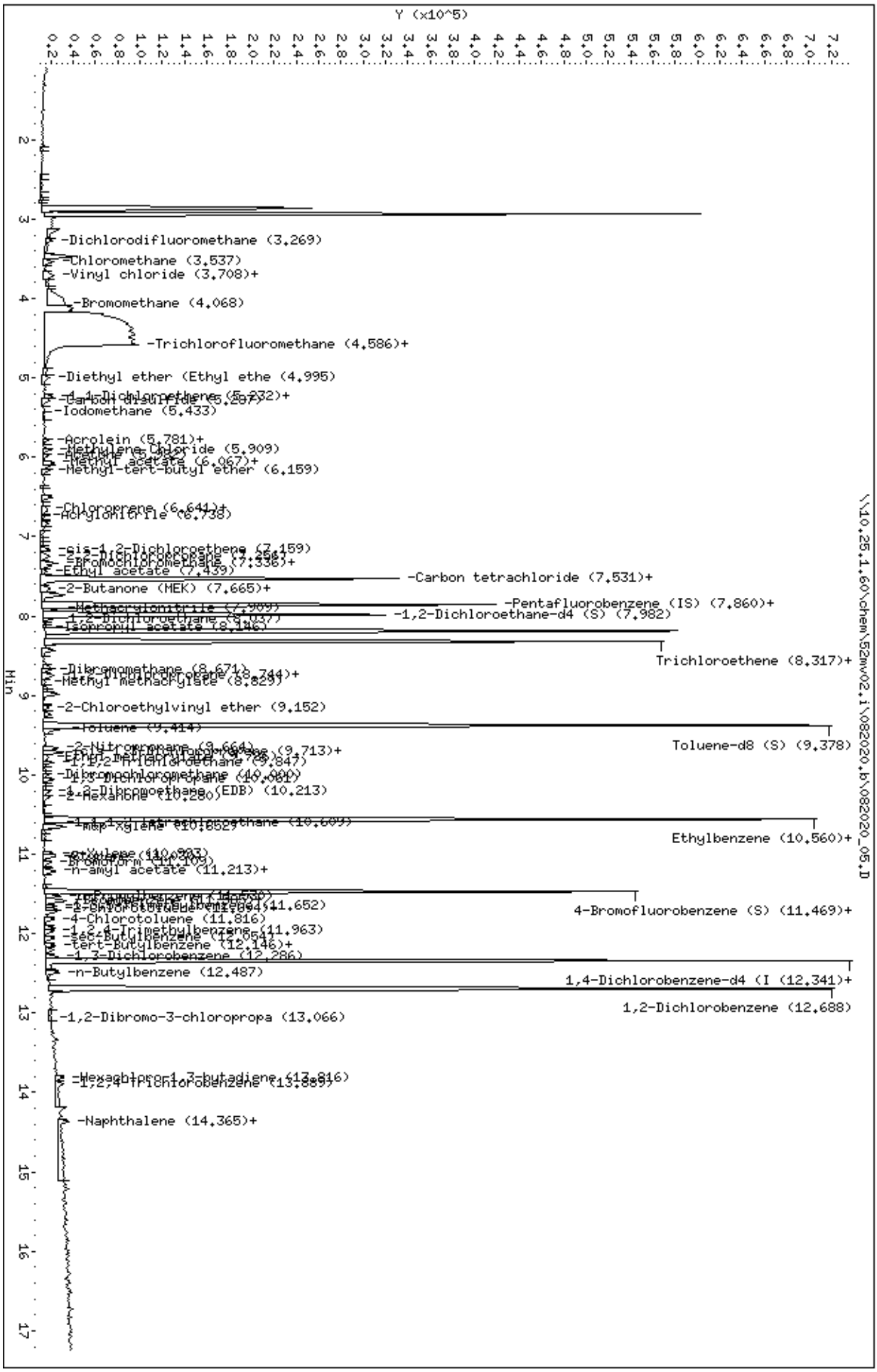
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_05.D
Date : 20-AUG-2020 11:40
Client ID: CAL3
Sample Info: CAL3,27239:1
Purge Volume: 5.0
Column phase: RTX-VMS

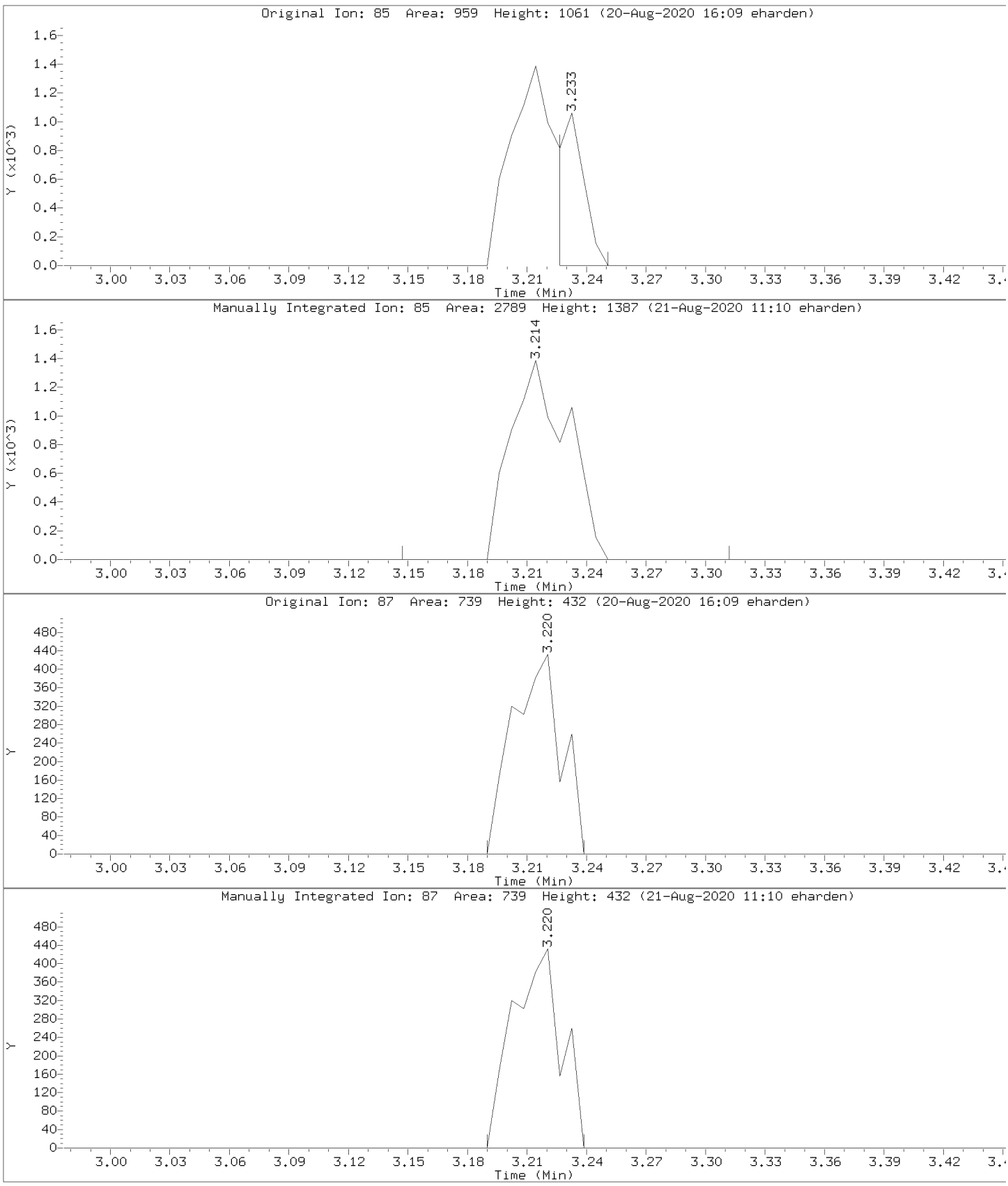
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Page 4

Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_05.D
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



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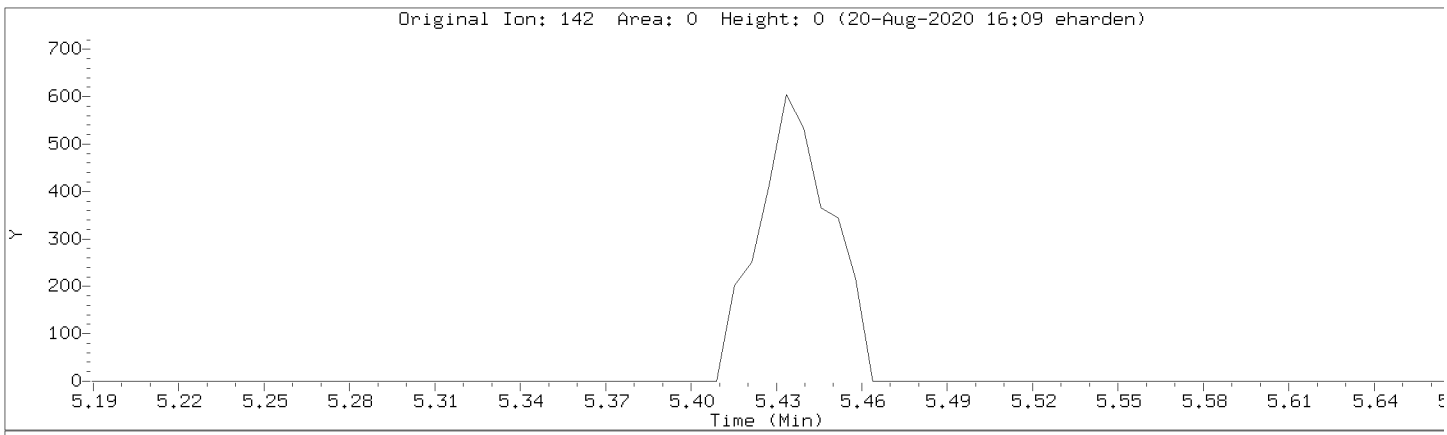
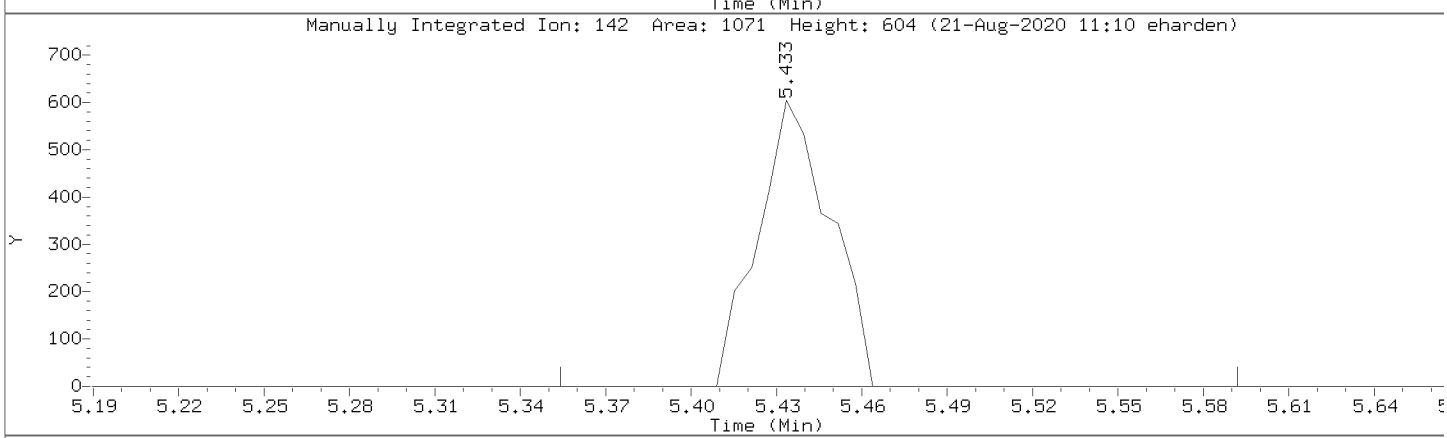
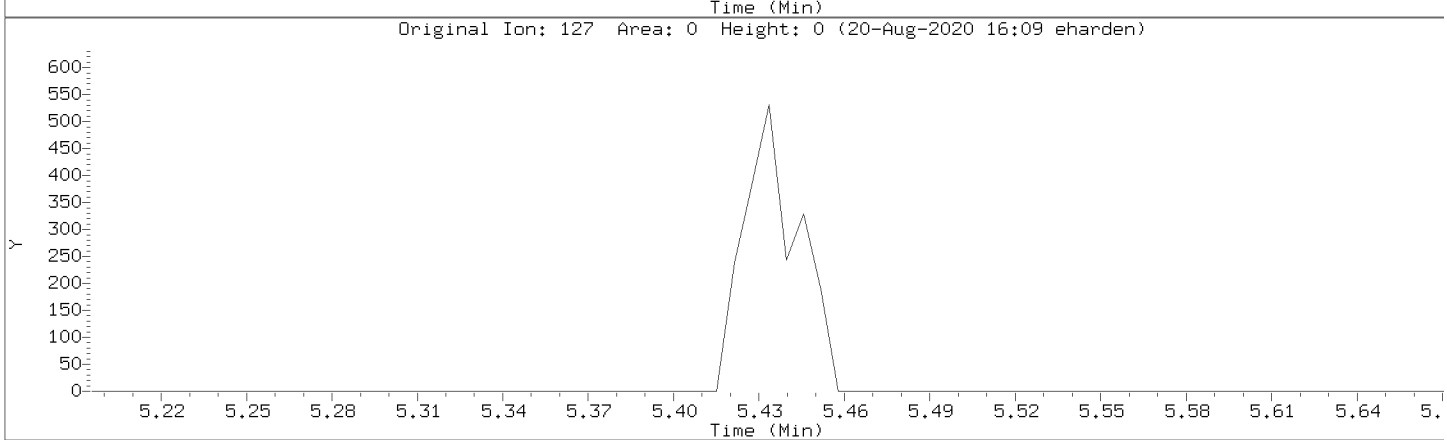
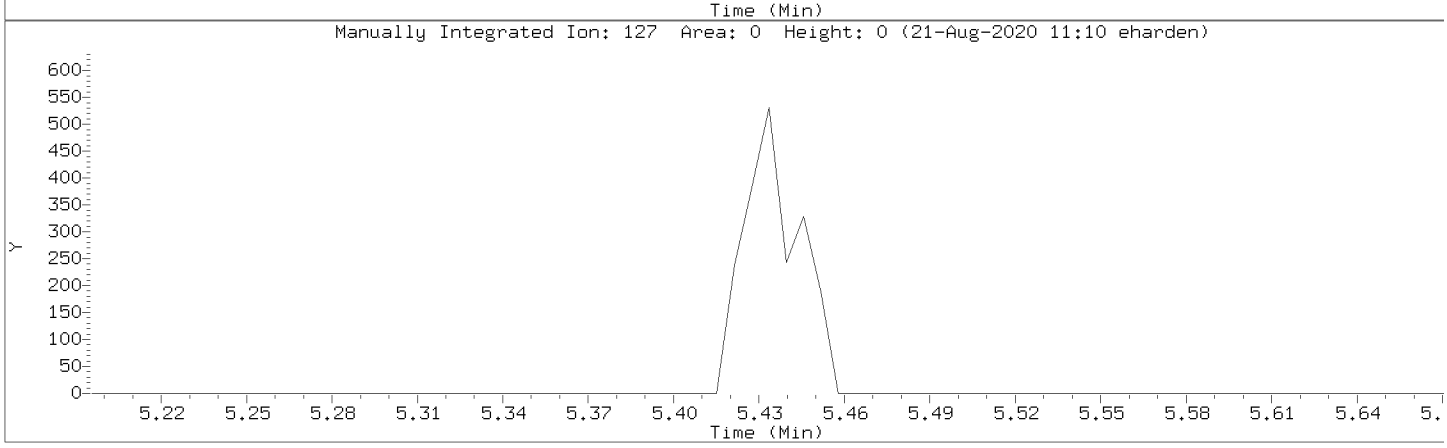
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4









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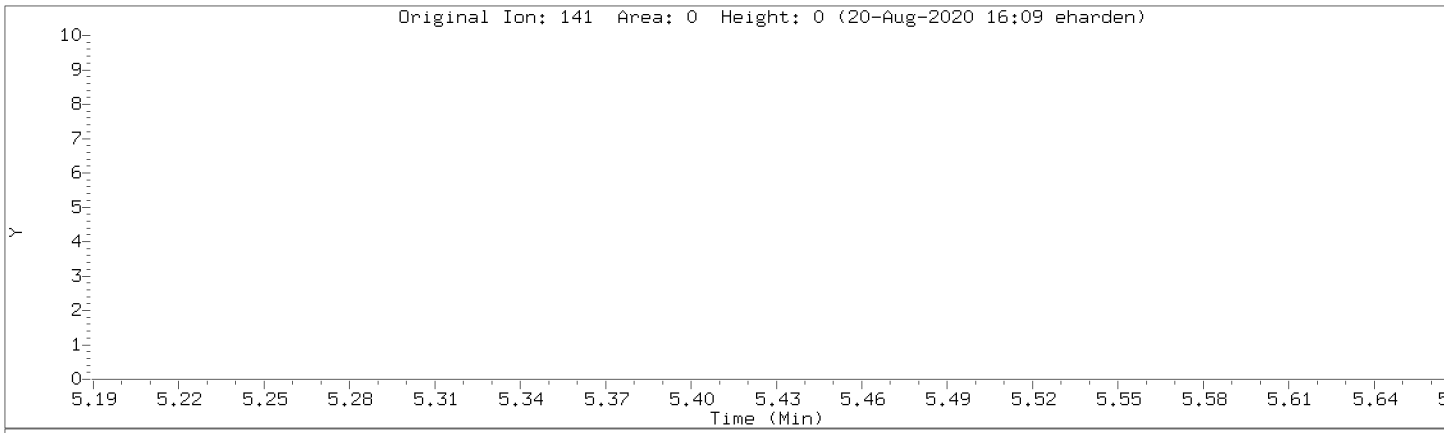
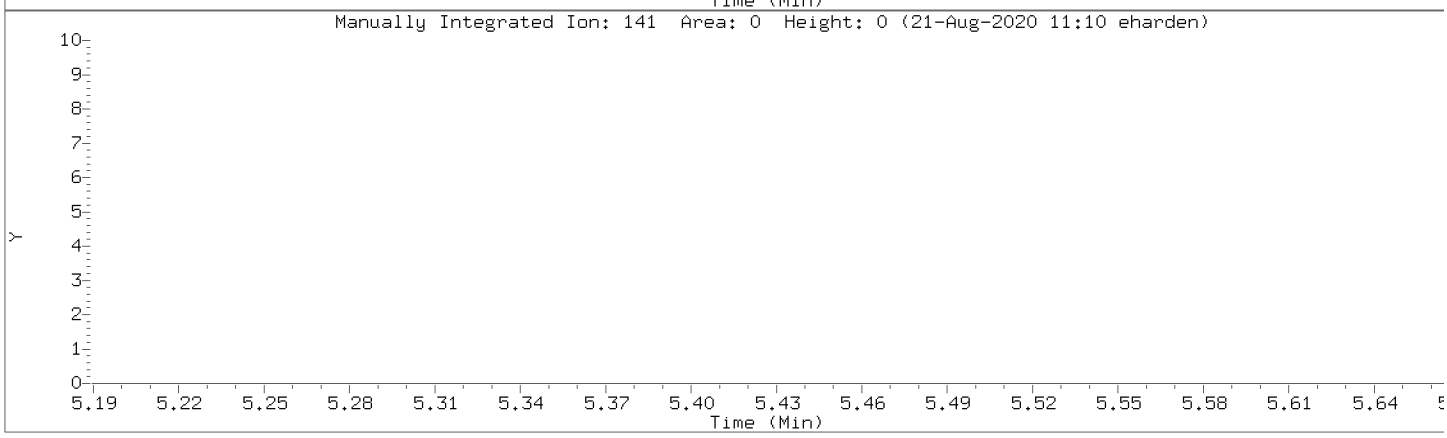
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3





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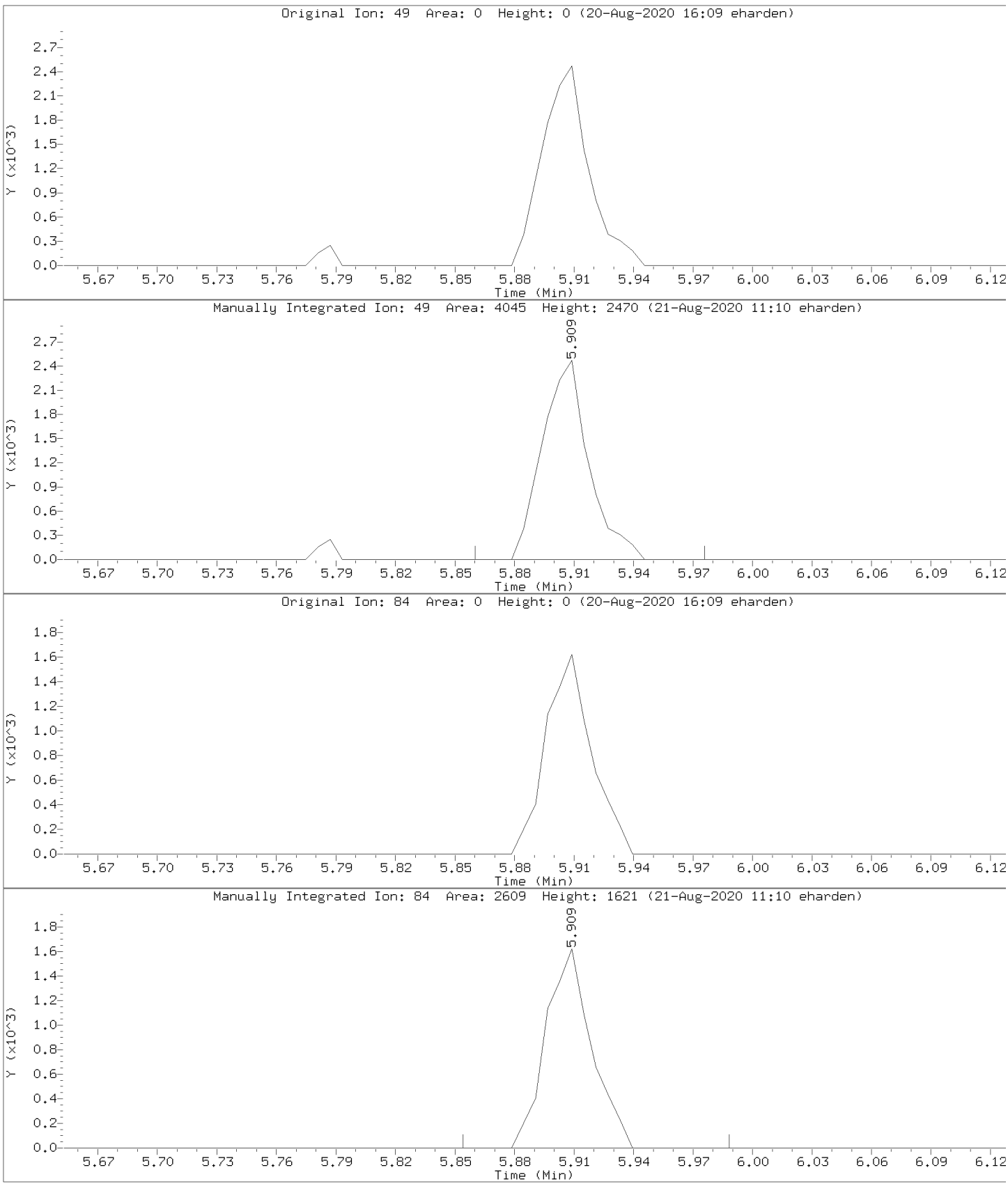
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2



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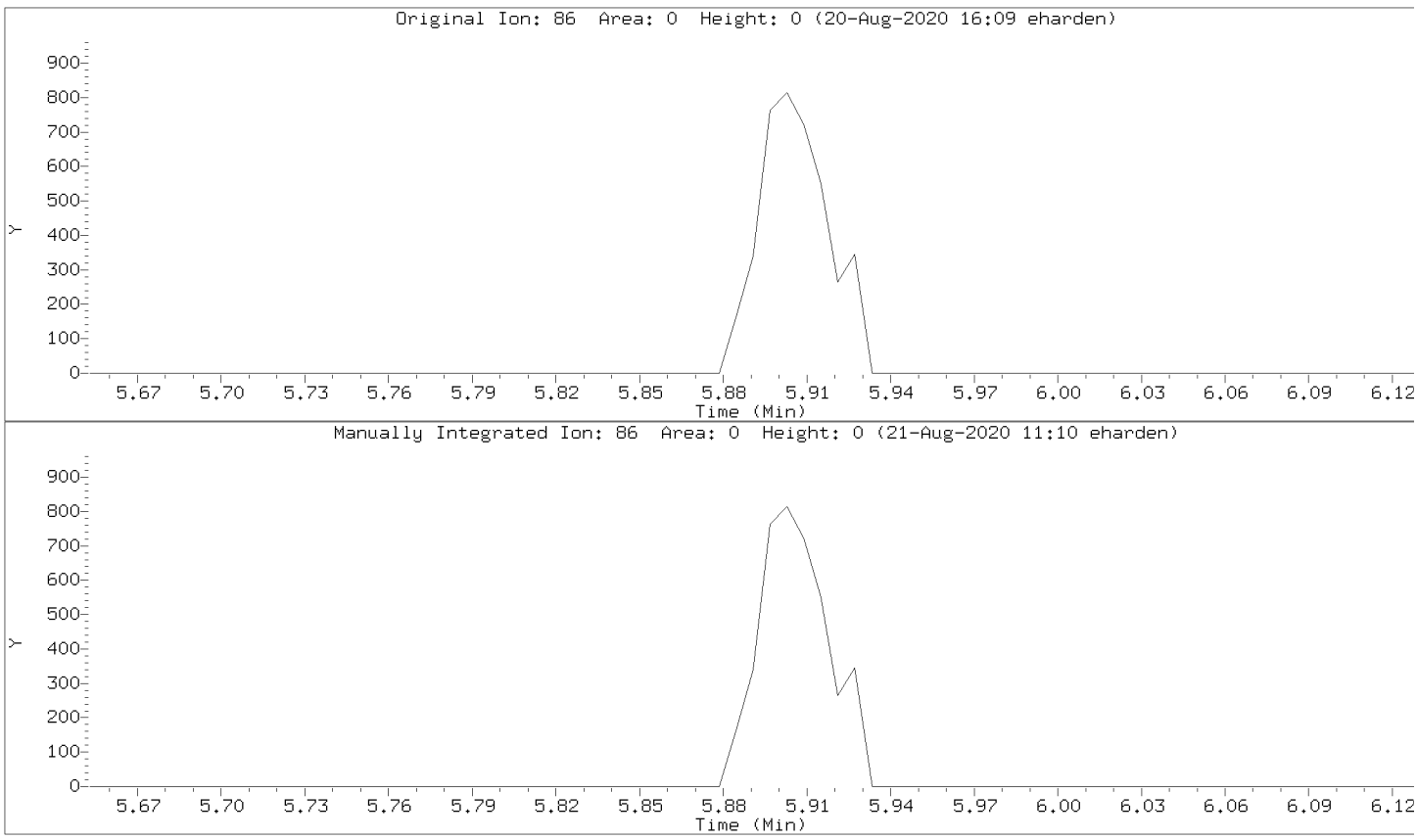
Instrument: 52mv02.i
Lab Sample ID: CAL3



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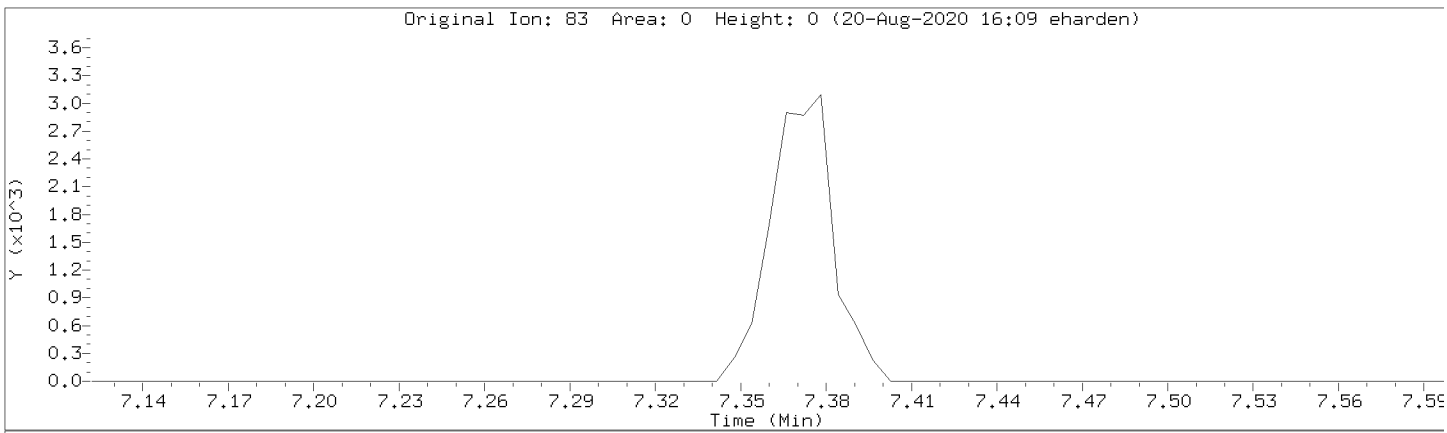
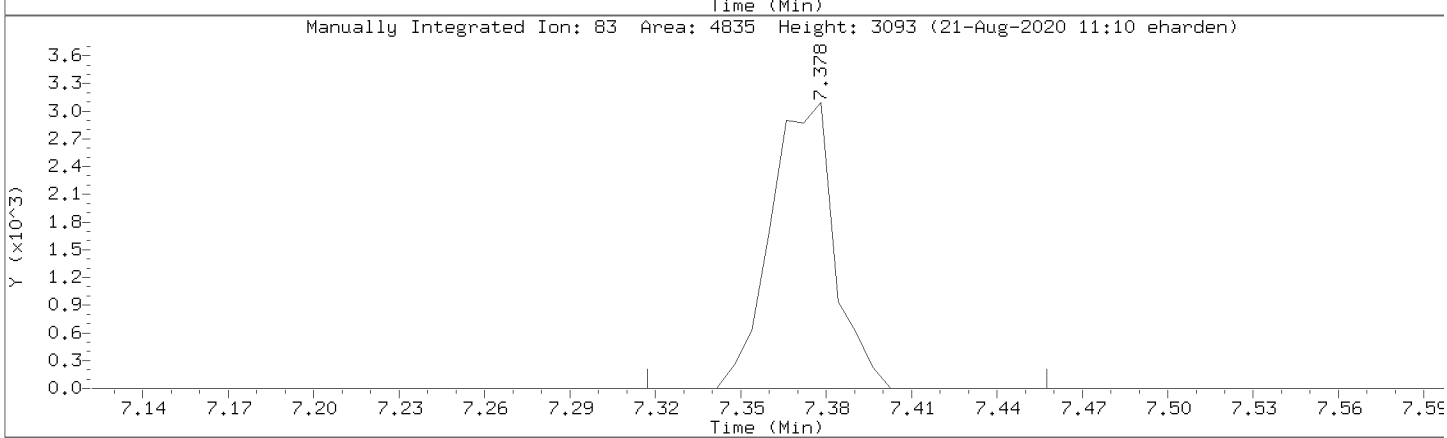
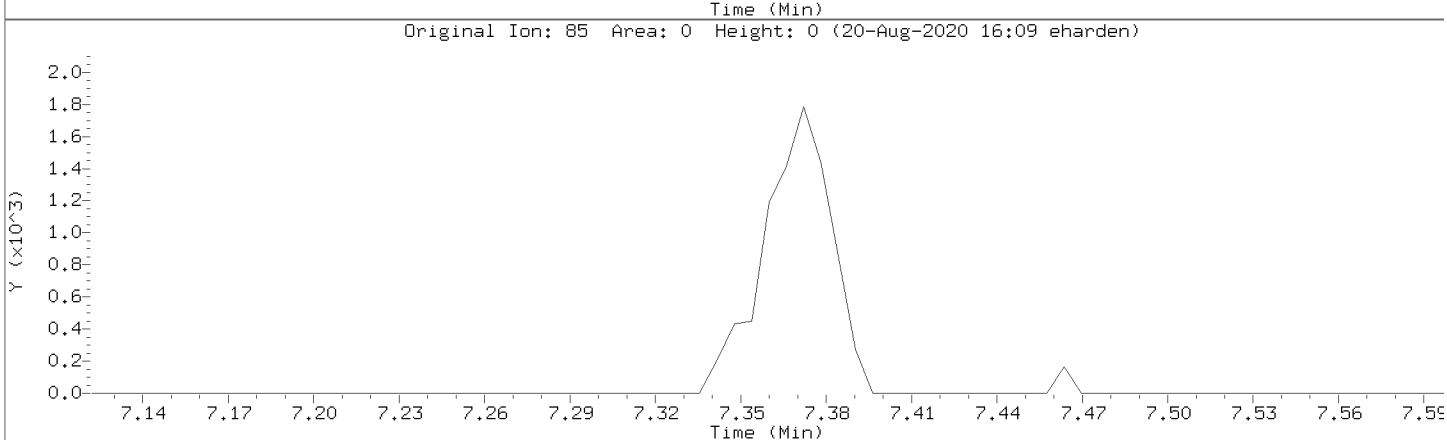
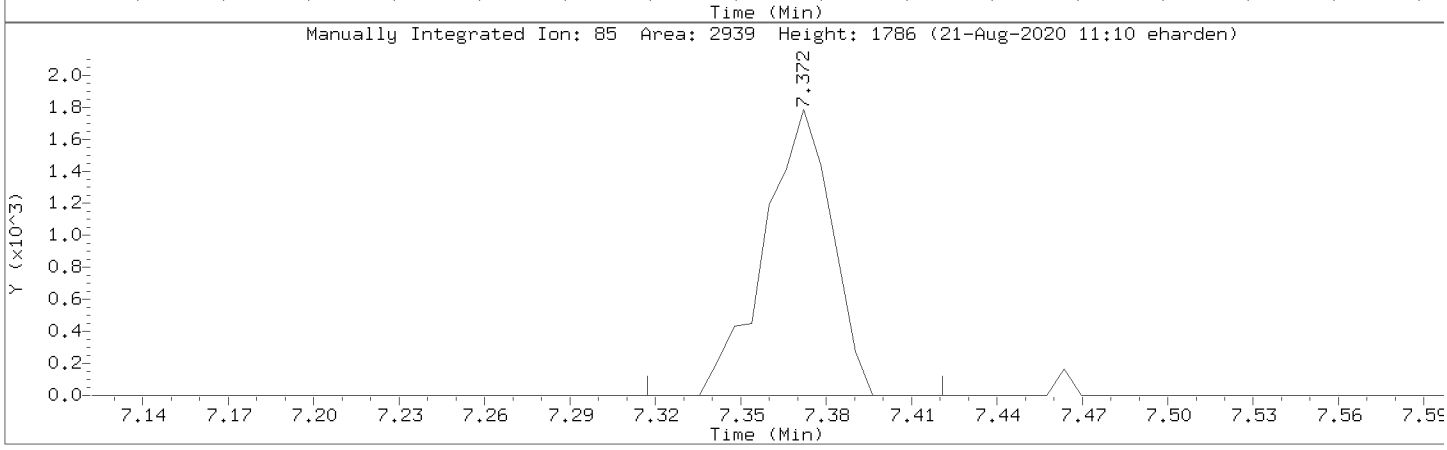
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3









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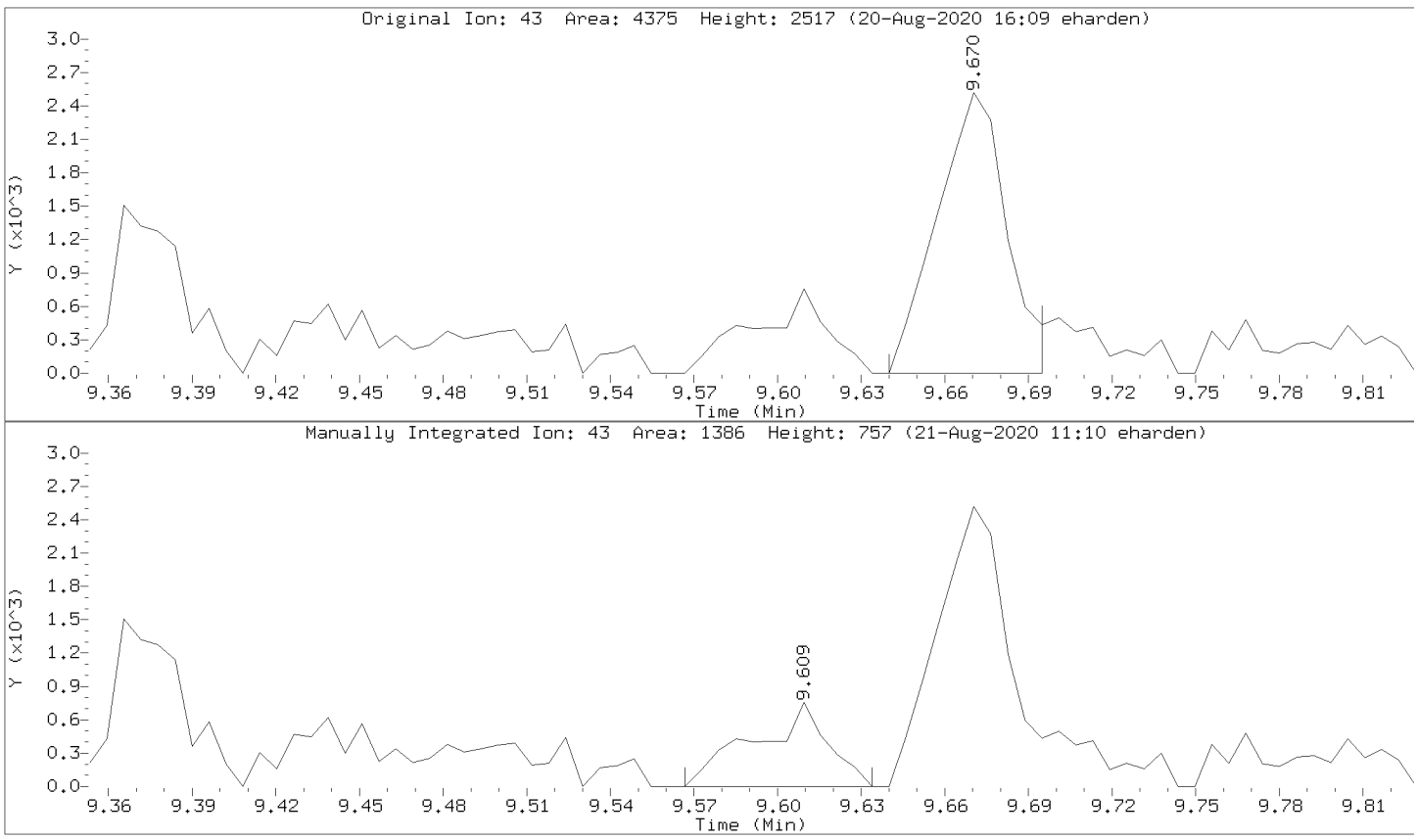
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: 2-Nitropropane Review Code: LT
CAS Number: 79-46-9



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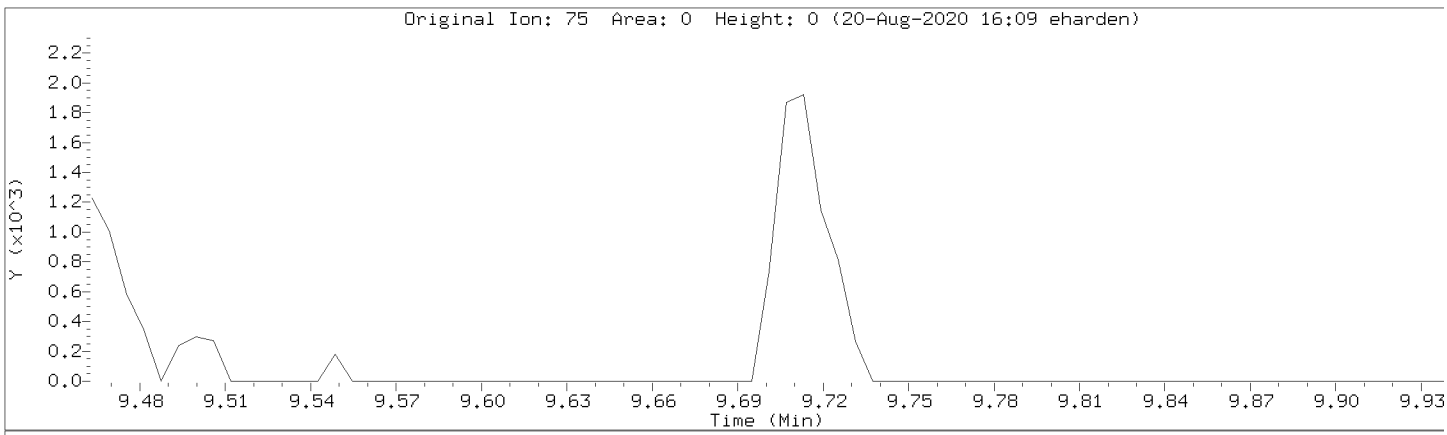
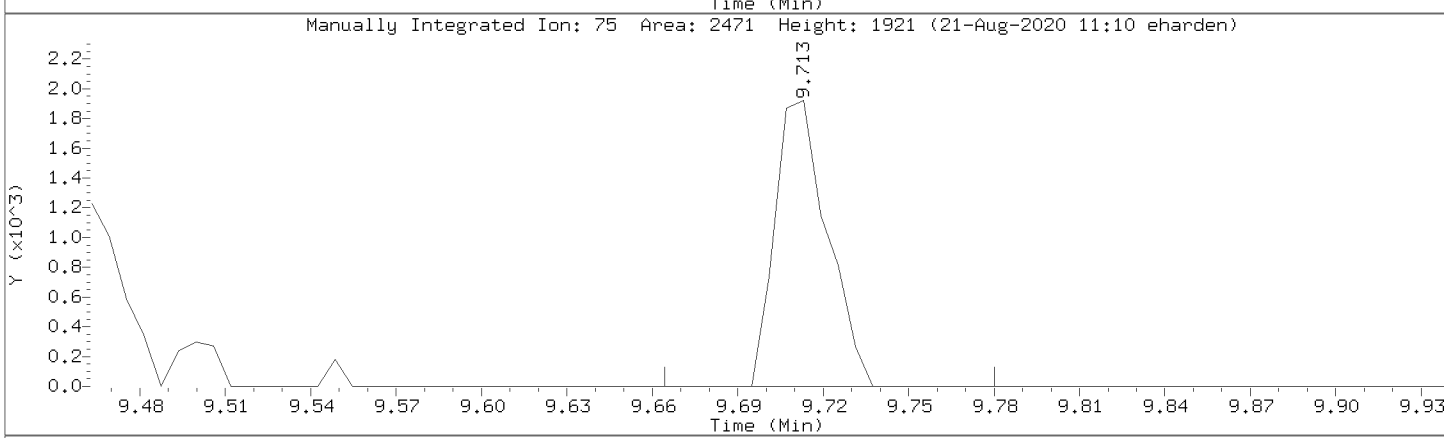
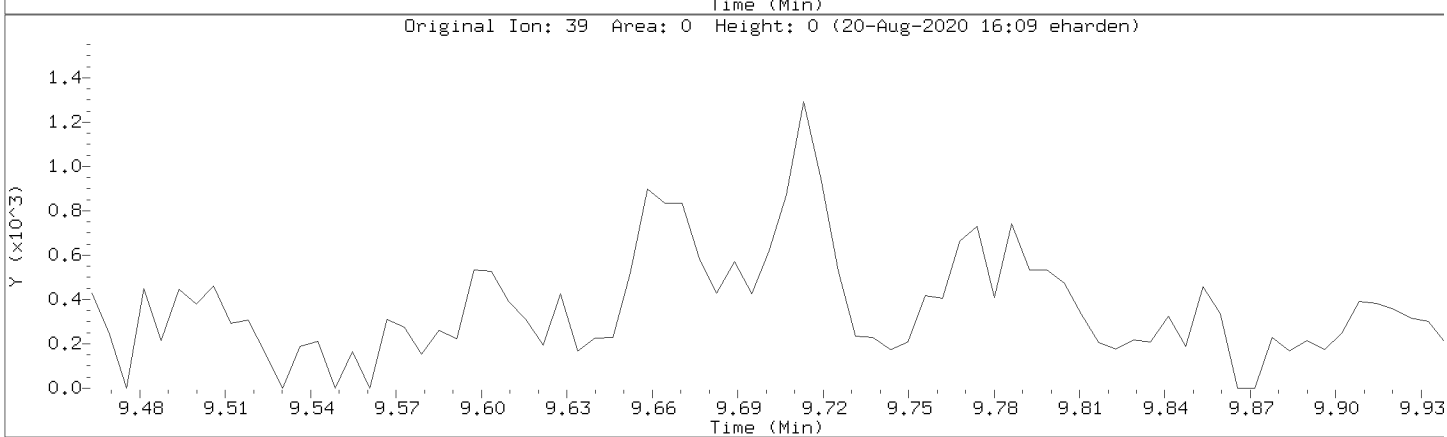
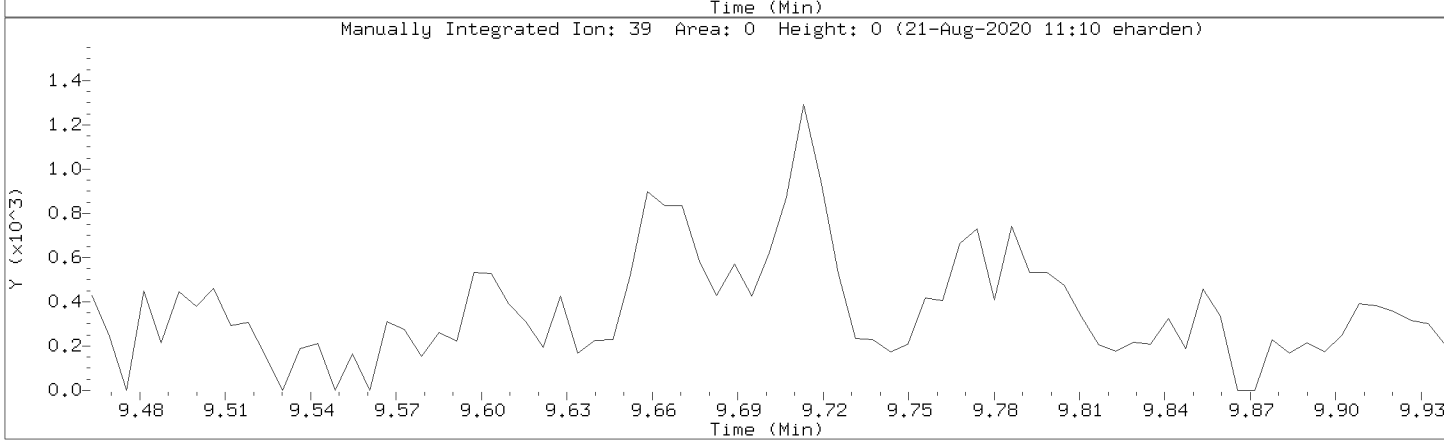
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: trans-1,3-Dichloropropene Review Code: NI
CAS Number: 10061-02-6









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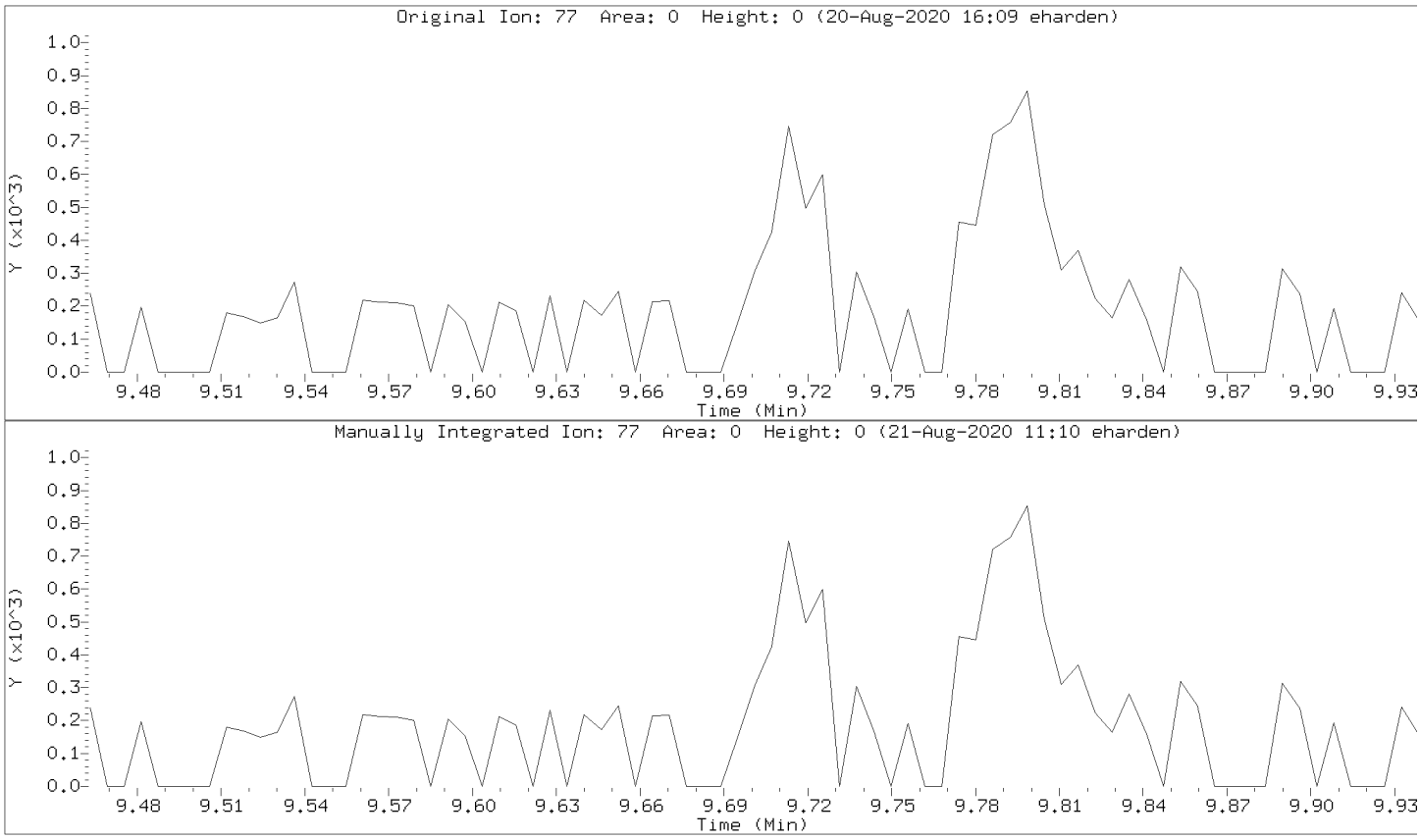
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3



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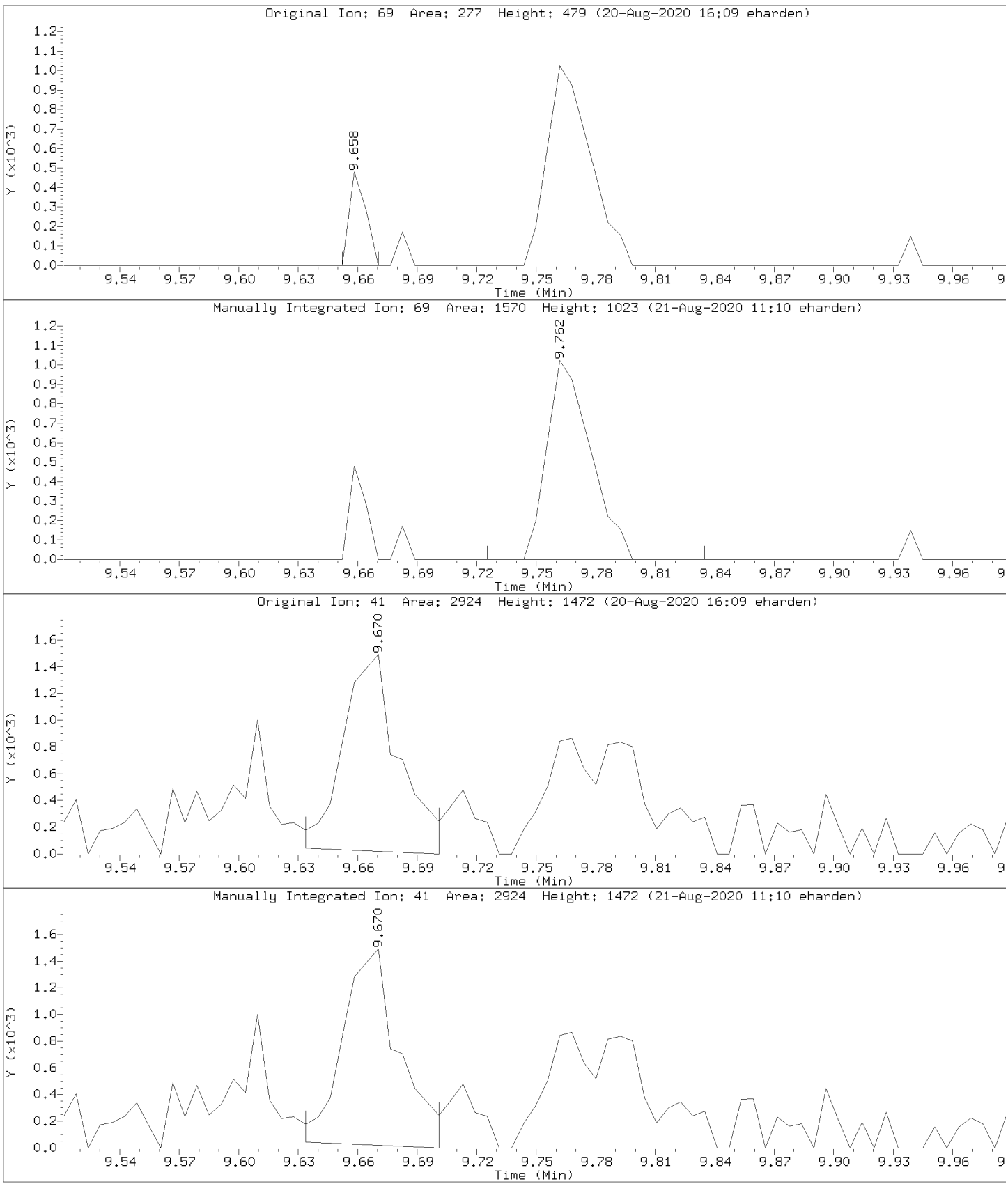
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Ethyl methacrylate Review Code: WP
CAS Number: 97-63-2



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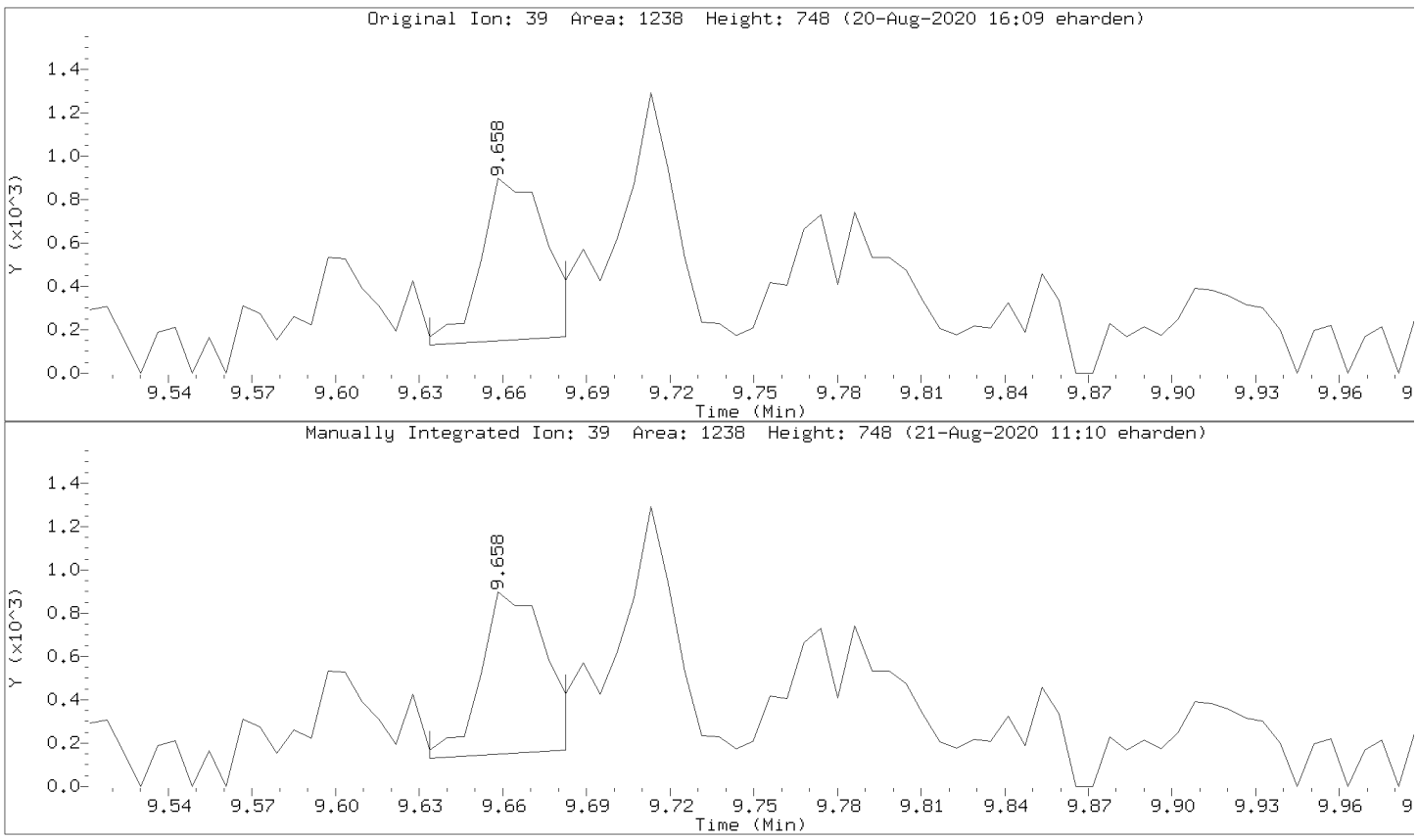

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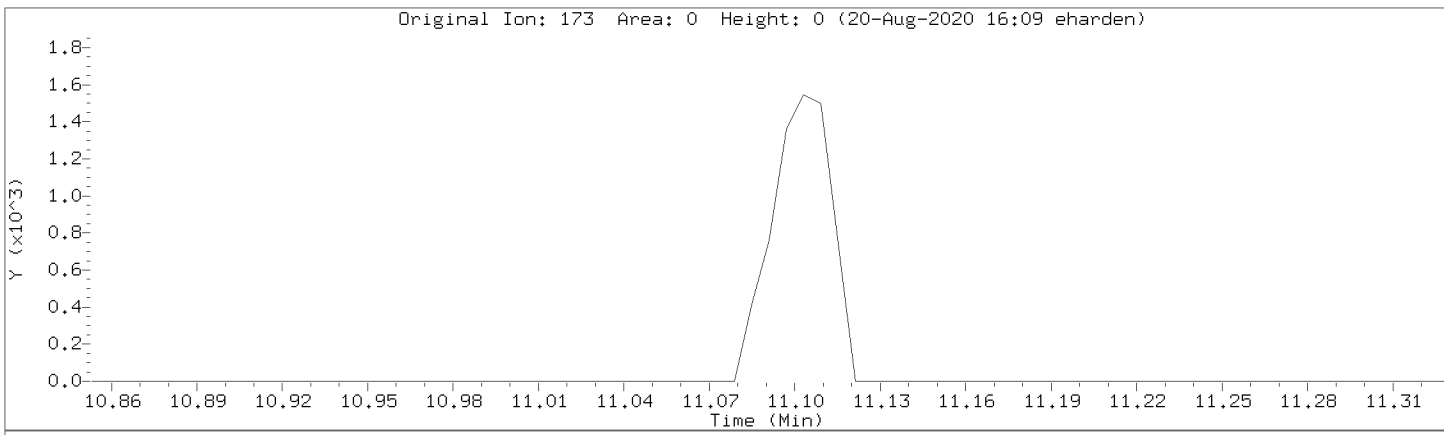
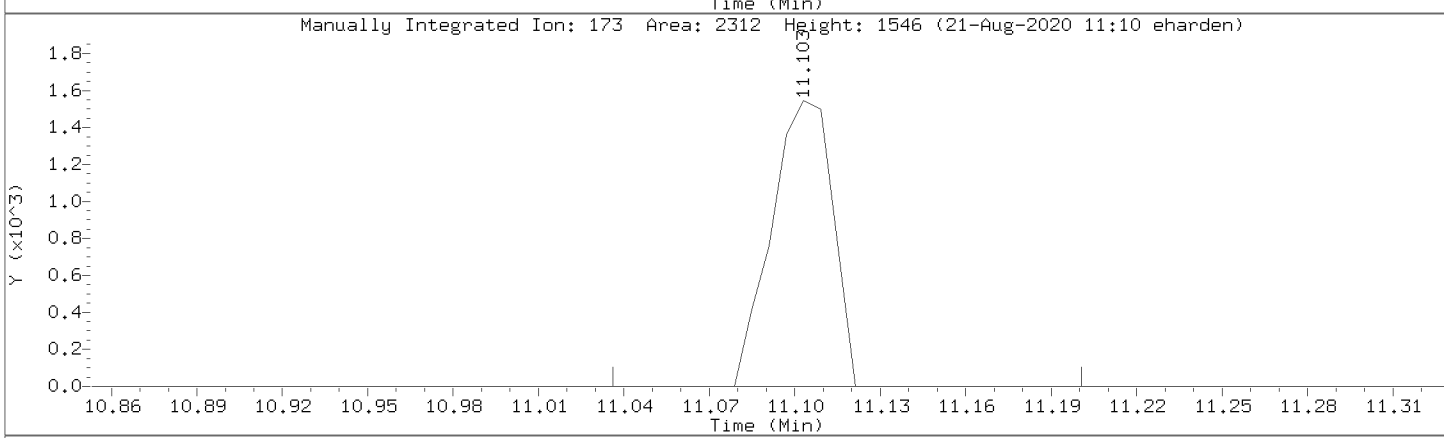
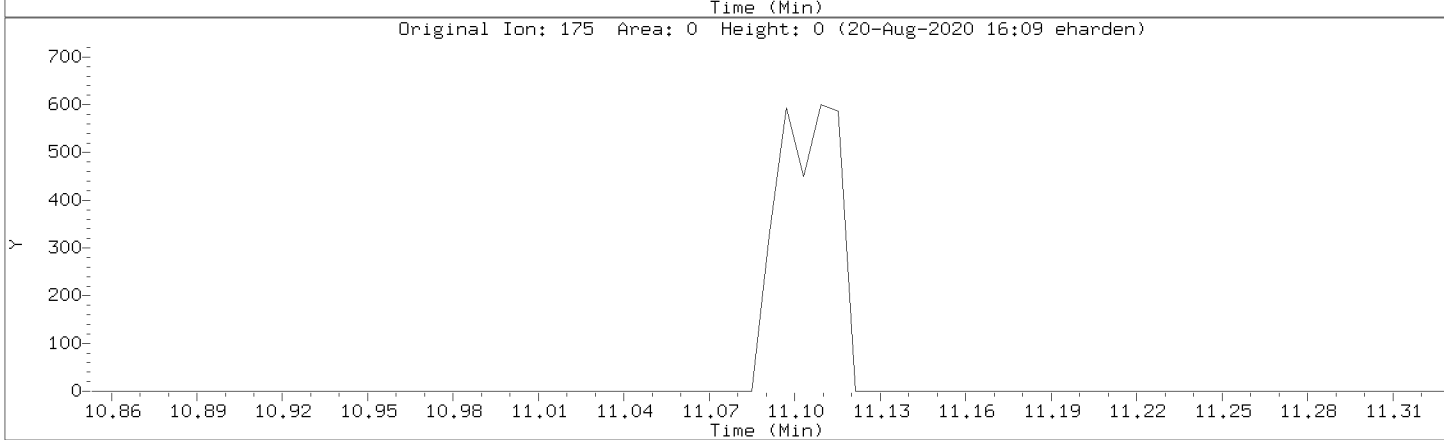
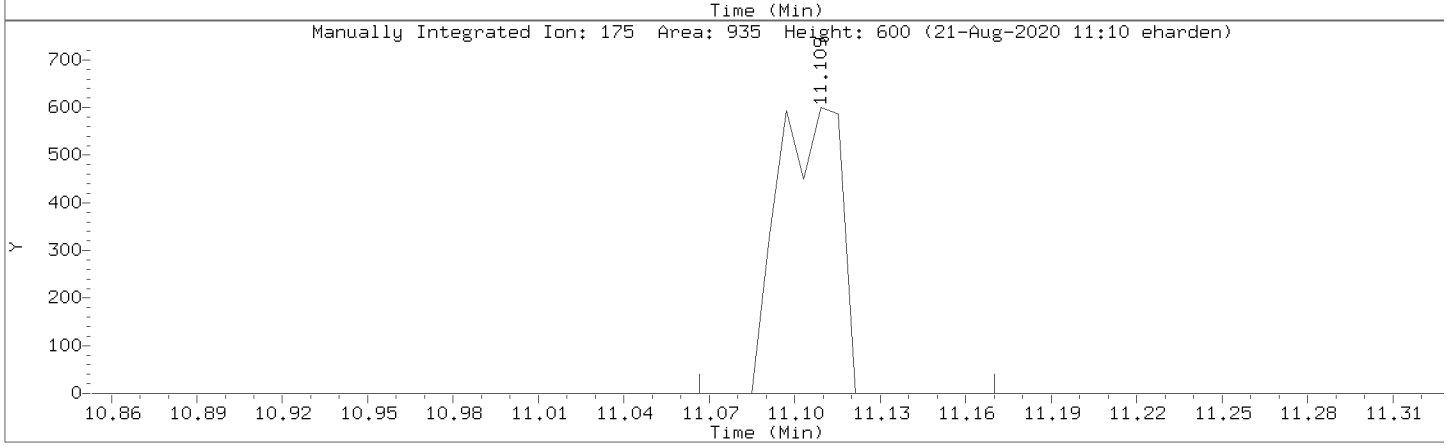
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2









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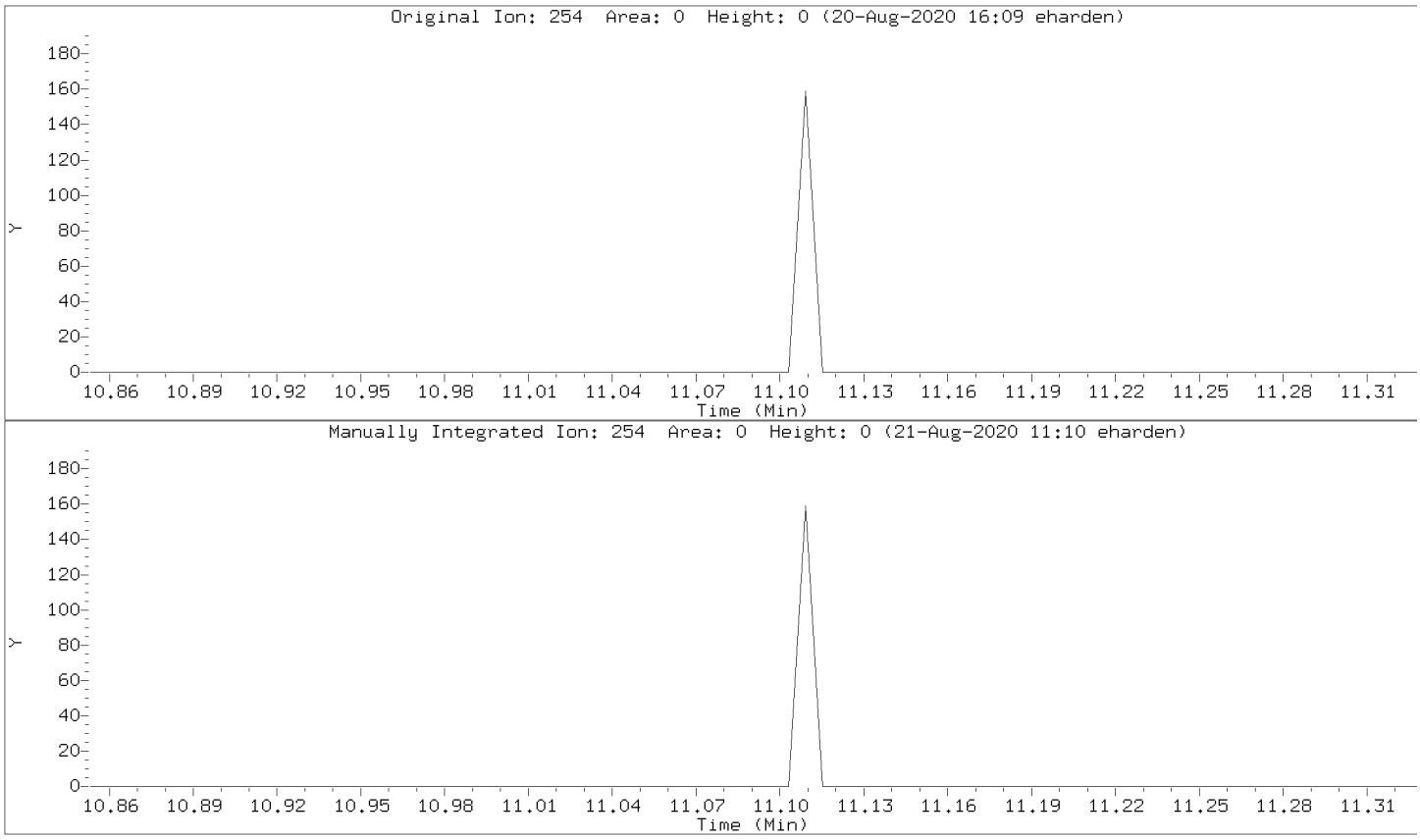

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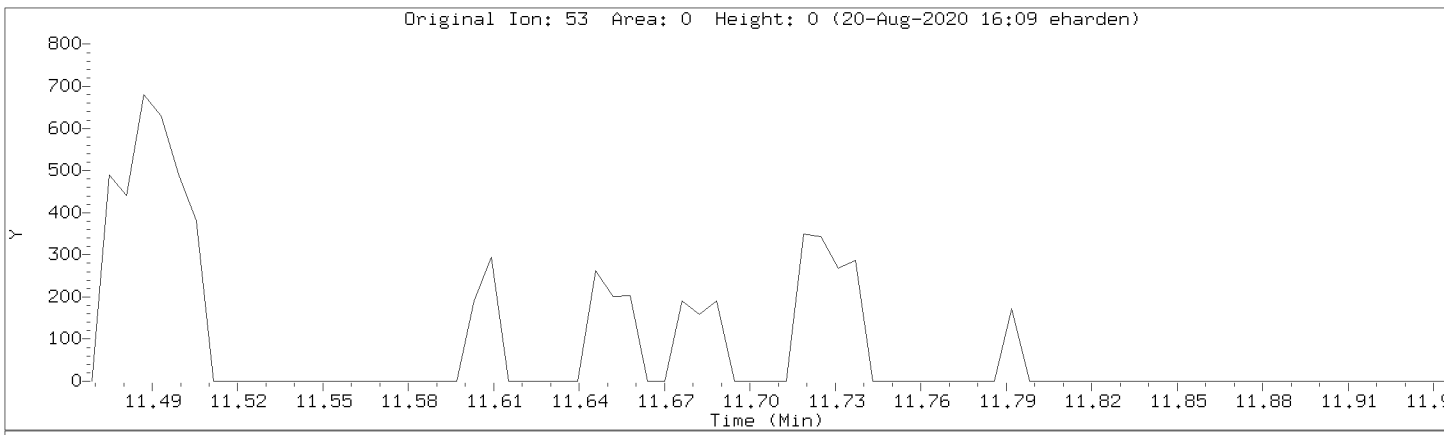
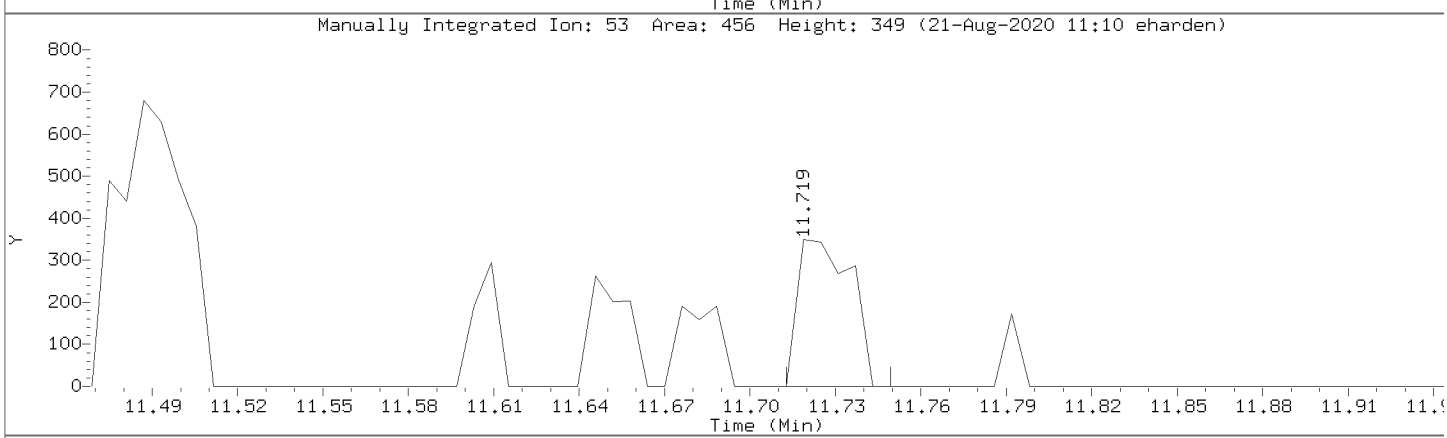
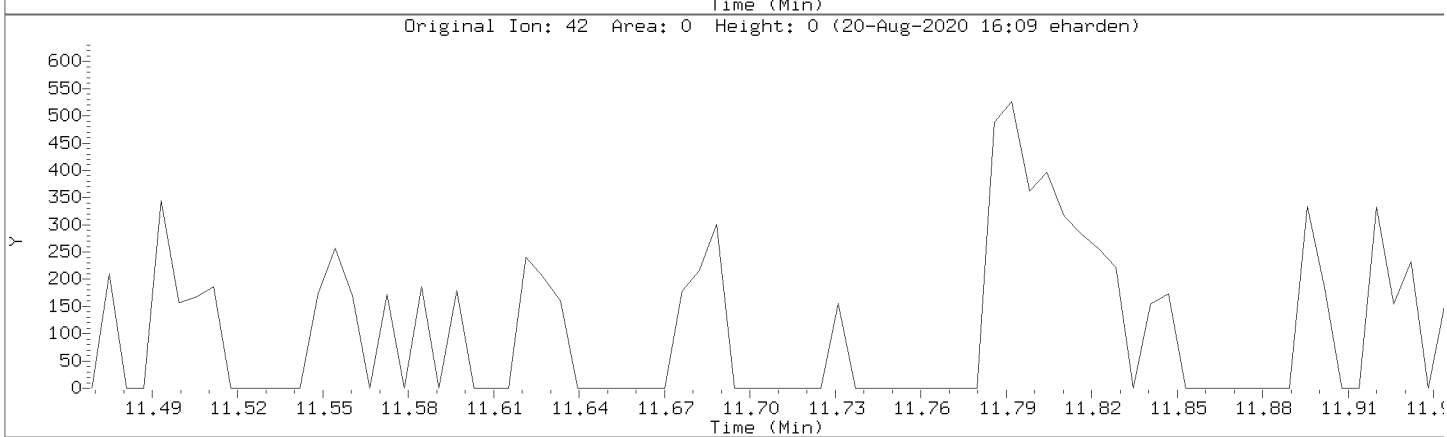
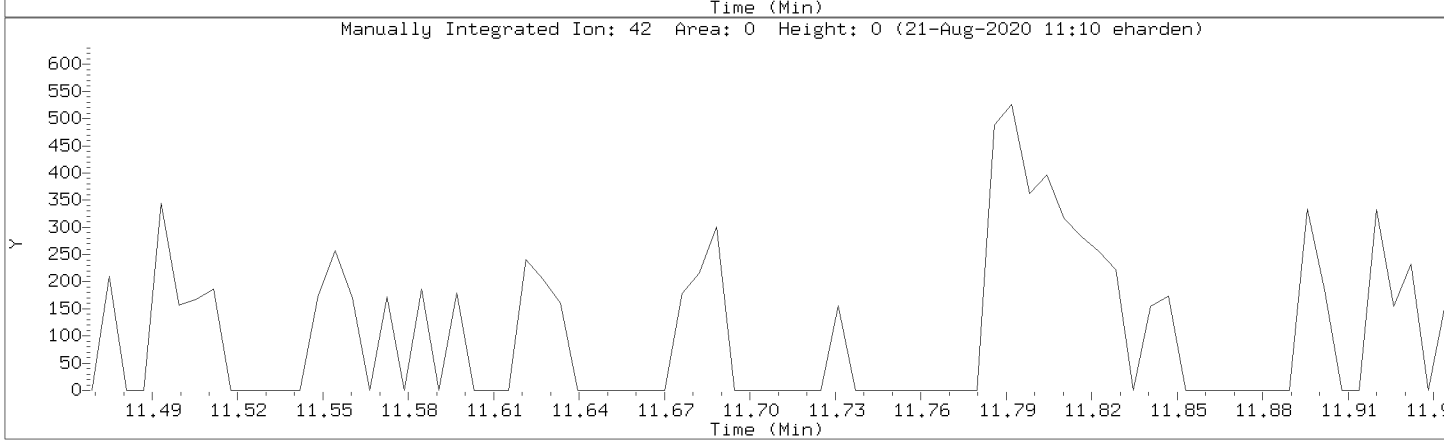
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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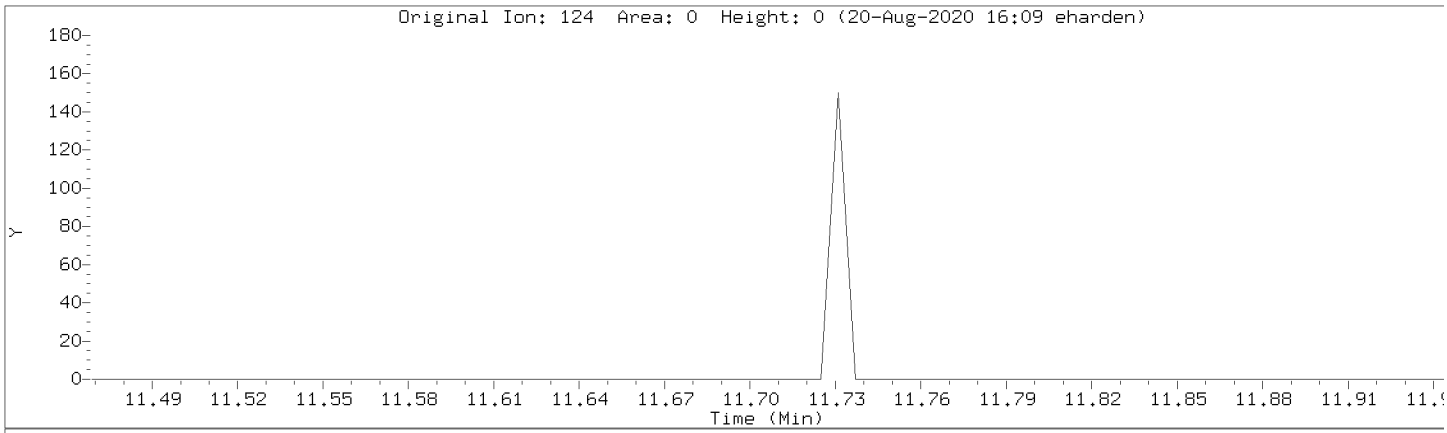
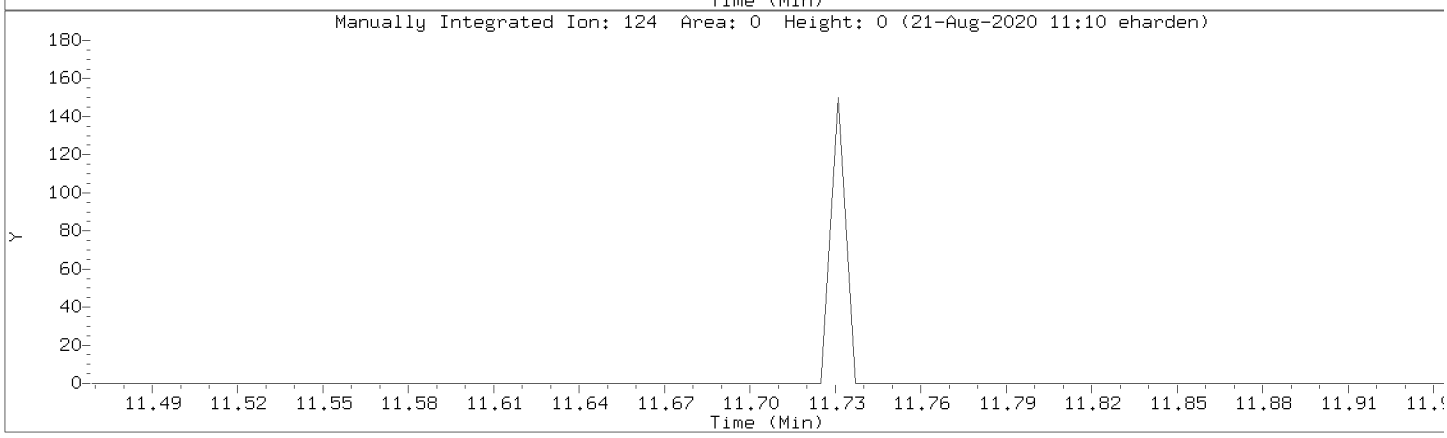




Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_06.D
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 20-AUG-2020 12:05
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal4,27240:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 12:05 Cal File: 082020_06.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.226	(0.408)	5284	2.00000	2.00	
2 Chloromethane	50	3.537	3.543	(0.450)	8846	2.00000	2.07	
3 Vinyl chloride	62	3.690	3.702	(0.469)	5370	2.00000	2.06	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	4686	2.00000	2.01	
5 Bromomethane	94	4.196	4.195	(0.534)	10118	2.00000	2.22	
6 Chloroethane	64	4.360	4.360	(0.555)	2737	2.00000	2.94	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	3591	2.00000	2.17	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	1948	2.00000	2.13	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	6532	2.00000	2.22	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	4079	2.00000	2.10	
11 Carbon disulfide	76	5.293	5.293	(0.673)	15221	2.00000	2.33	
12 Iodomethane	142	5.433	5.439	(0.691)	1612	2.00000	5.60(M)	NI
13 Acrolein	56	5.671	5.659	(0.722)	1479	4.00000	4.86	
14 Allyl chloride	76	5.787	5.787	(0.736)	2084	2.00000	2.30	
15 Methylene Chloride	49	5.902	5.902	(0.751)	8758	2.00000	2.50(M)	NI
16 Acetone	43	5.976	5.976	(0.760)	9840	4.00000	4.07	
17 Methyl acetate	43	6.073	6.067	(0.773)	8873	4.00000	3.62	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	4249	2.00000	2.13	
19 n-Hexane	86	6.128	6.110	(0.780)	343	2.00000	1.63(M)	LT
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	9856	2.00000	2.12	
21 Acetonitrile	41	6.463	6.463	(0.822)	1215	4.00000	6.91(H)	WP
22 Chloroprene	53	6.640	6.640	(0.845)	5232	2.00000	1.85	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	8968	2.00000	2.32	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	3596	4.00000	4.28	
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	6321	2.00000	2.22	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	6905	2.00000	2.35	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	2780	2.00000	2.23	
	29 Cyclohexane	56	7.341	7.335	(0.883)	4834	2.00000	1.88	
	30 Chloroform	83	7.372	7.372	(0.938)	10330	2.00000	2.36(M)	NI
	31 Ethyl acetate	43	7.439	7.433	(0.946)	10734	4.00000	4.35	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	6350	2.00000	2.11	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	4093	4.00000	5.58	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	138125	50.0000	54.6	
	35 1,1,1-Trichloroethane	97	7.573	7.567	(0.911)	7971	2.00000	2.23	
	36 2-Butanone (MEK)	43	7.634	7.628	(0.971)	7051	4.00000	3.74(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	4937	2.00000	1.99(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	219667	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	17998	2.00000	2.25	
	40 Propionitrile	54	7.896	7.902	(1.005)	1674	4.00000	4.47	
	41 Methacrylonitrile	41	7.908	7.902	(1.006)	8204	4.00000	4.31	
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25790	50.0000	56.7	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	8740	2.00000	2.48	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	8630	2.00000	2.06	
	46 Trichloroethene	130	8.323	8.317	(1.001)	4932	2.00000	2.25	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	313187	50.0000		
	48 Methylcyclohexane	98	8.329	8.317	(1.001)	1819	2.00000	1.75	
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.670	8.670	(1.043)	3983	2.00000	2.14	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	4922	2.00000	2.15	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	7260	2.00000	2.21	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	1992	2.00000	1.72(H)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	9.152	9.146	(1.100)	3154	4.00000	3.14	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	5882	2.00000	1.84	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	334441	50.0000	49.6	
	58 Toluene	91	9.414	9.414	(1.132)	16357	2.00000	2.09	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	1870	2.00000	2.21(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	5882	2.00000	1.81	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	3682	2.00000	1.93	
	63 Ethyl methacrylate	69	9.762	9.761	(1.174)	3660	2.00000	1.82(H)	
	64 1,1,2-Trichloroethane	83	9.841	9.847	(1.183)	4739	2.00000	2.39	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	5598	2.00000	2.12	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	6725	2.00000	2.23	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	4938	2.00000	2.18	
	68 2-Hexanone	43	10.280	10.280	(1.236)	8262	4.00000	3.12	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	12871	2.00000	1.77	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	277286	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	12050	2.00000	2.25	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	5405	2.00000	2.39	
	73 m&p-Xylene	91	10.652	10.651	(1.009)	19281	4.00000	3.56	
	74 o-Xylene	106	10.993	10.993	(1.041)	4165	2.00000	1.64	
	75 Styrene	104	11.030	11.029	(1.044)	6689	2.00000	1.58	
	76 Bromoform	173	11.103	11.103	(1.051)	5395	2.00000	2.15(M)	NI

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.225	11.225	(1.063)	7161	2.00000	1.86	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	106130	50.0000	46.6	
79 cis-1,4-Dichloro-2-butene	53	11.493	11.487	(1.088)	2265	2.00000	2.49	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	16464	2.00000	1.85	
81 Bromobenzene	156	11.578	11.578	(1.096)	5521	2.00000	1.94	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	6338	2.00000	2.14	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	8731	2.00000	1.66	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	3046	2.00000	1.58	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	3382	2.00000	1.79	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	9830	2.00000	1.53	
87 1,2,3-Trichloropropane	75	11.725	11.724	(1.110)	6678	2.00000	2.19	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	1815	2.00000	2.54	
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	7956	2.00000	1.54	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	7998	2.00000	1.51	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	10675	2.00000	1.70	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	7956	2.00000	1.54	
94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	8844	2.00000	2.11	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	158950	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	10039	2.00000	2.16	
97 n-Butylbenzene	91	12.487	12.486	(1.012)	9280	2.00000	1.68	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	10161	2.00000	2.22	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	1371	2.00000	2.64	
100 Hexachloro-1,3-butadiene	225	13.816	13.822	(1.120)	2915	2.00000	2.06	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	5591	2.00000	1.85	
102 Naphthalene	128	14.194	14.193	(1.150)	8687	2.00000	1.68	
103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	5329	2.00000	1.83	

QC Flag Legend

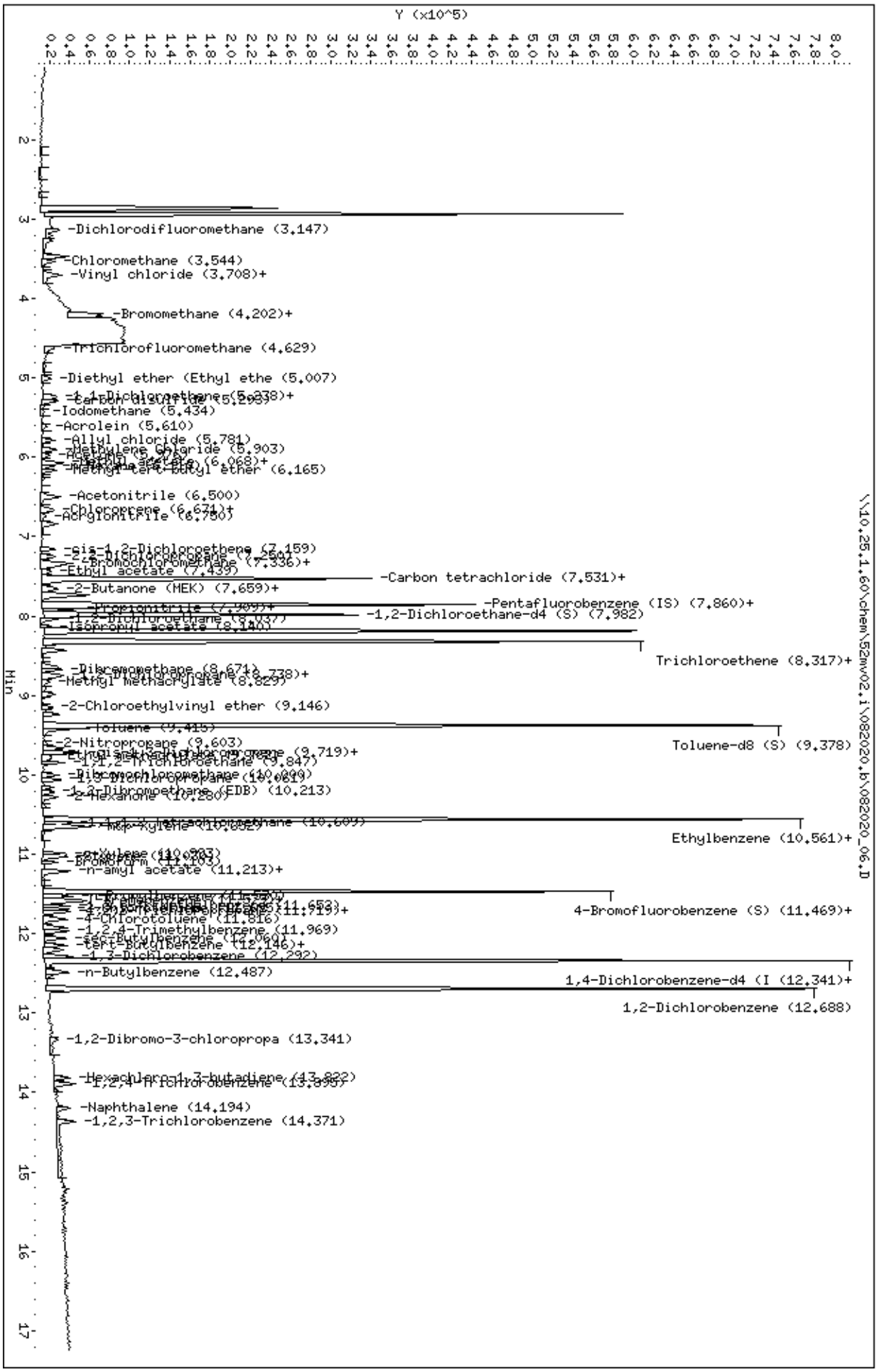
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
NI: Indicates that the peak was not integrated at all by the computer software.
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_06.D
Date : 20-AUG-2020 12:05
Client ID: CAL4
Sample Info: CAL4,27240:1
Purge Volume: 5.0
Column phase: RTX-VMS

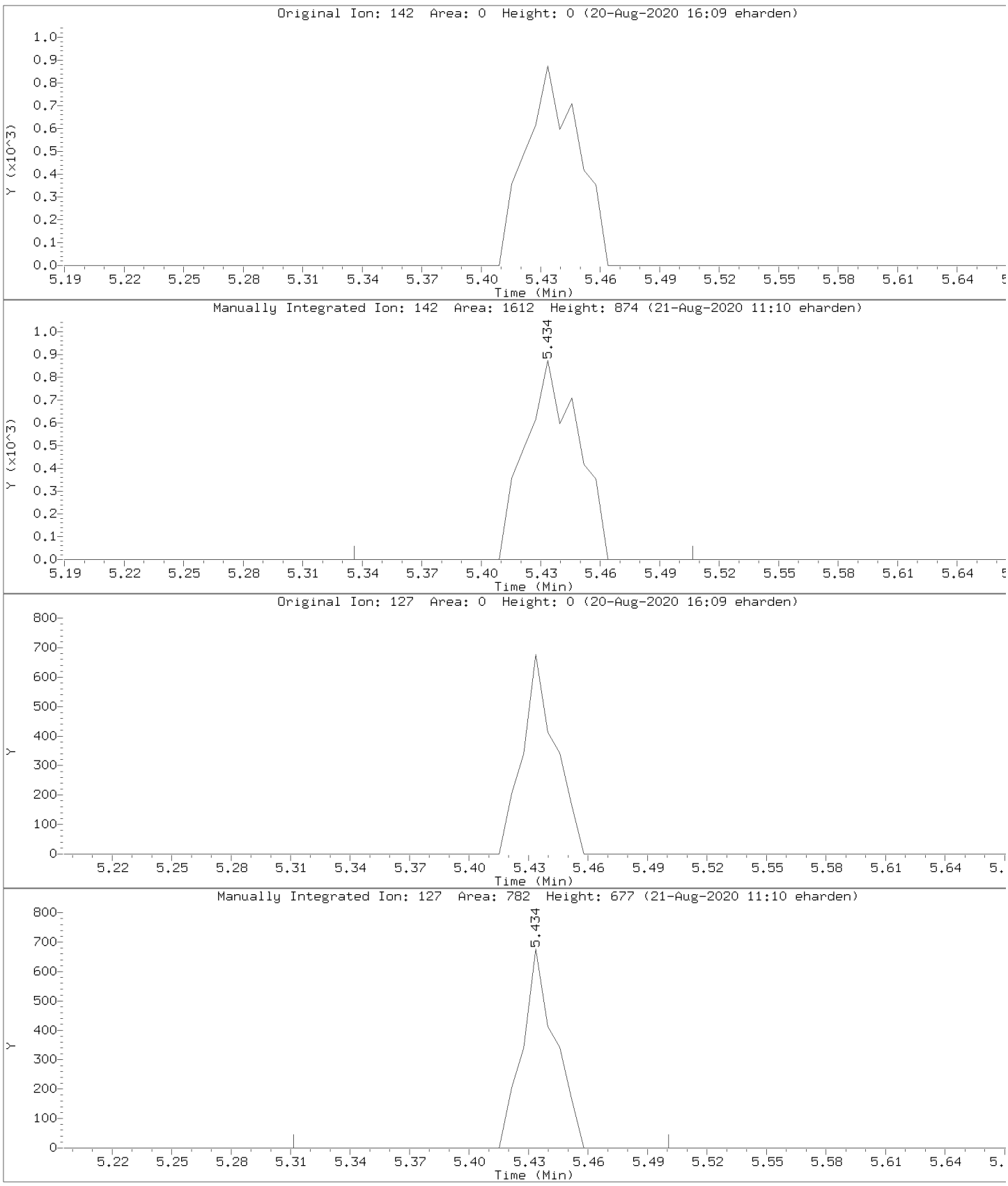
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Page 4

Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_06.D
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4



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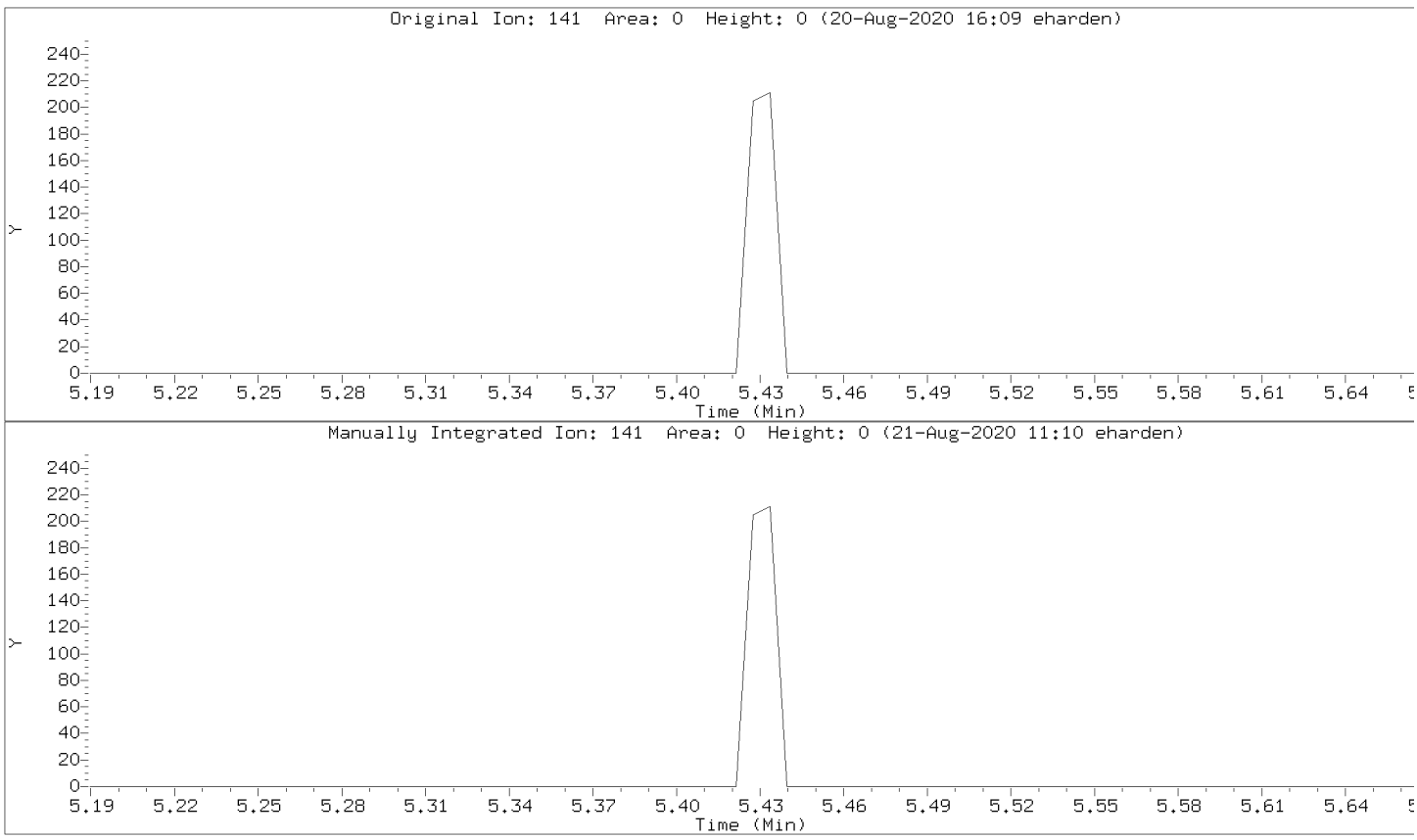
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4



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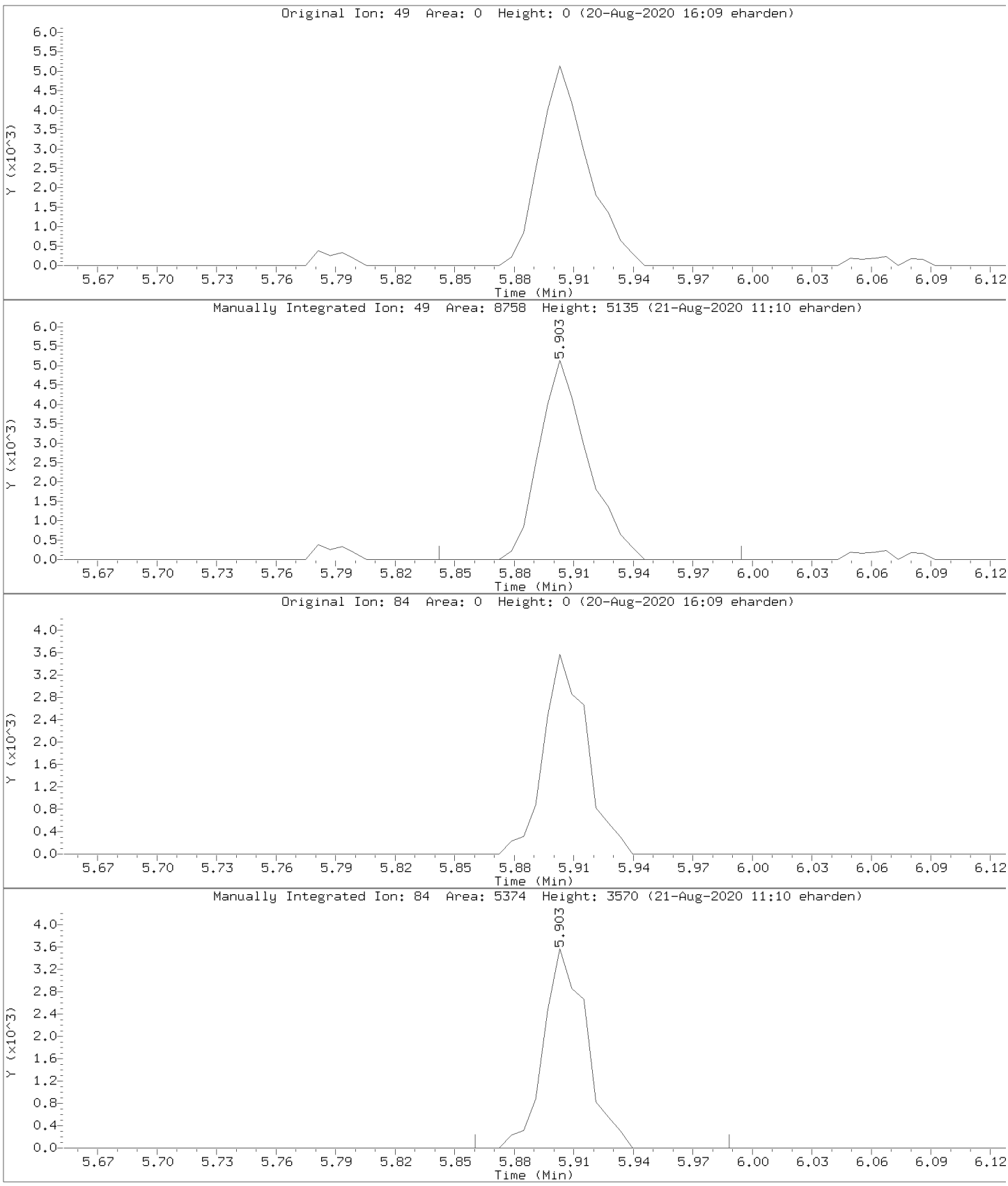
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2



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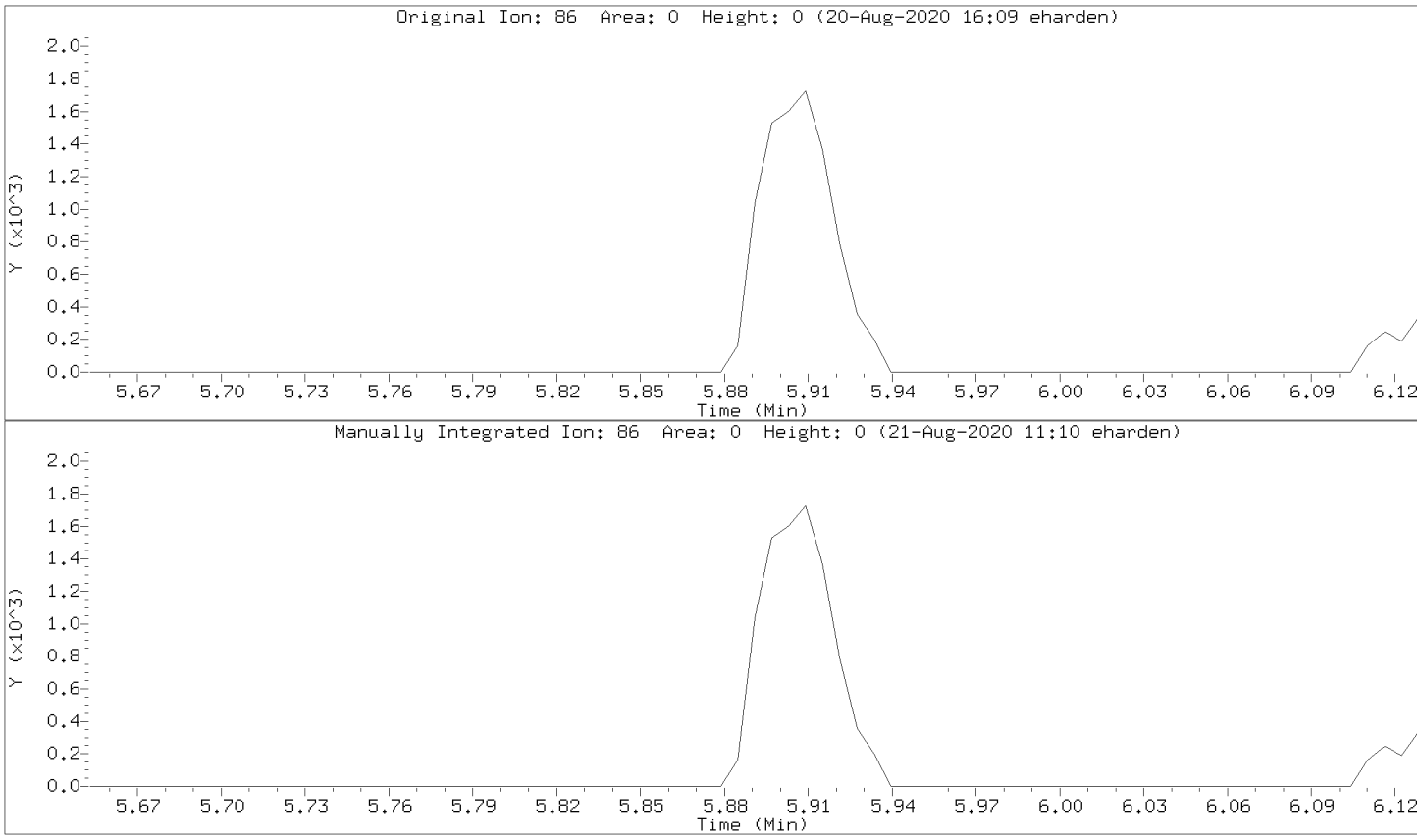
Instrument: 52mv02.i
Lab Sample ID: CAL4



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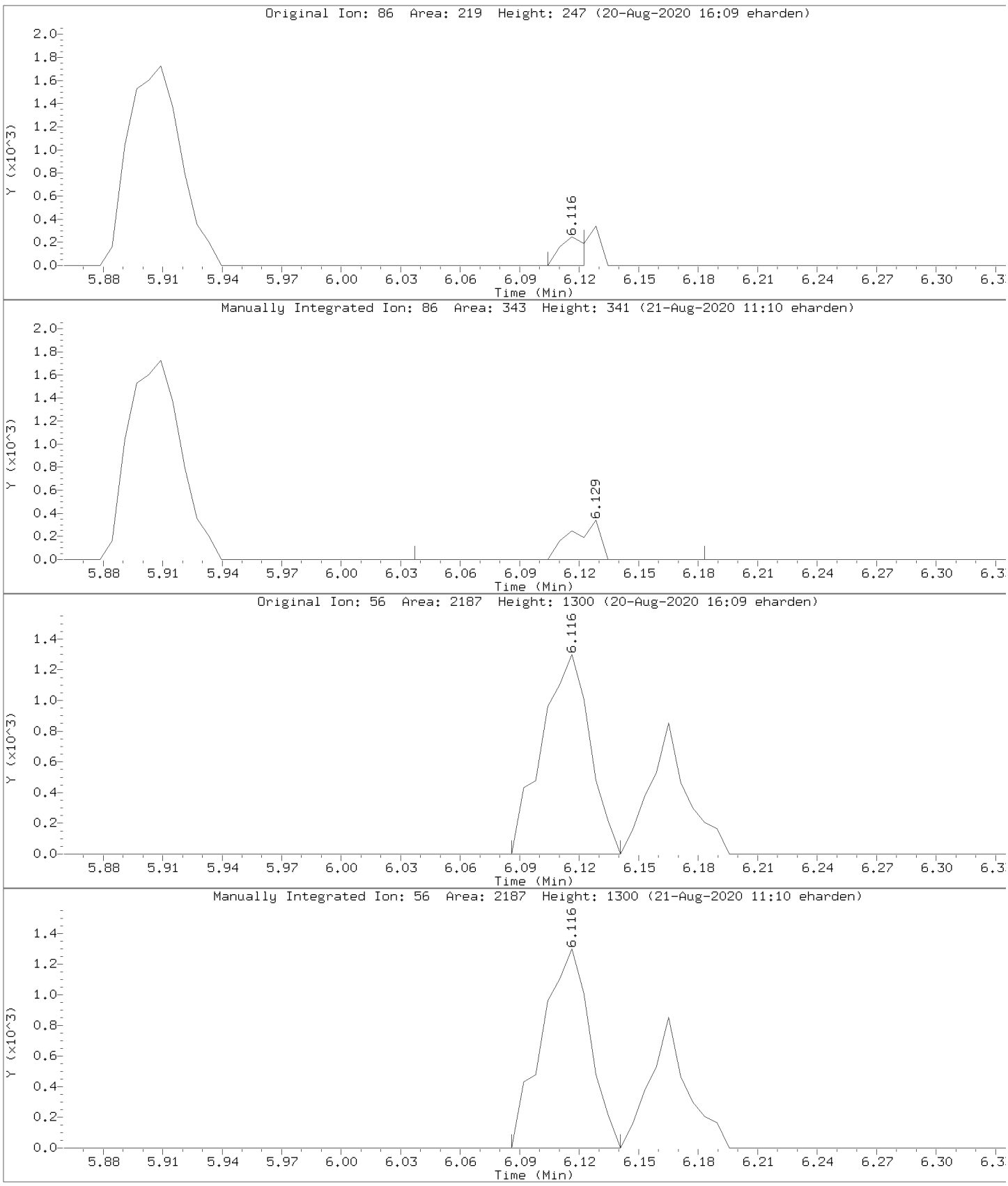
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: n-Hexane Review Code: LT
CAS Number: 110-54-03



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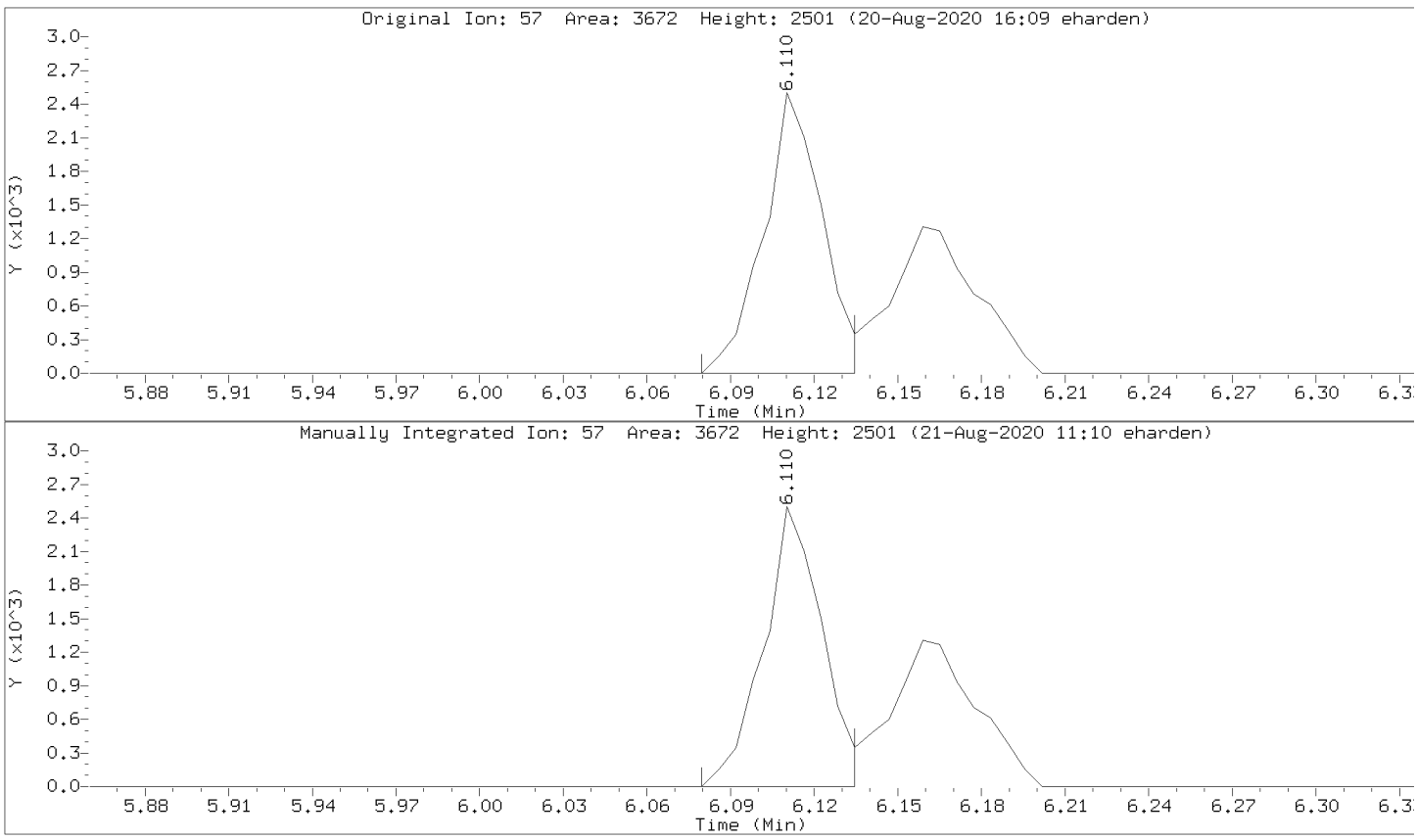
Instrument: 52mv02.i
Lab Sample ID: CAL4



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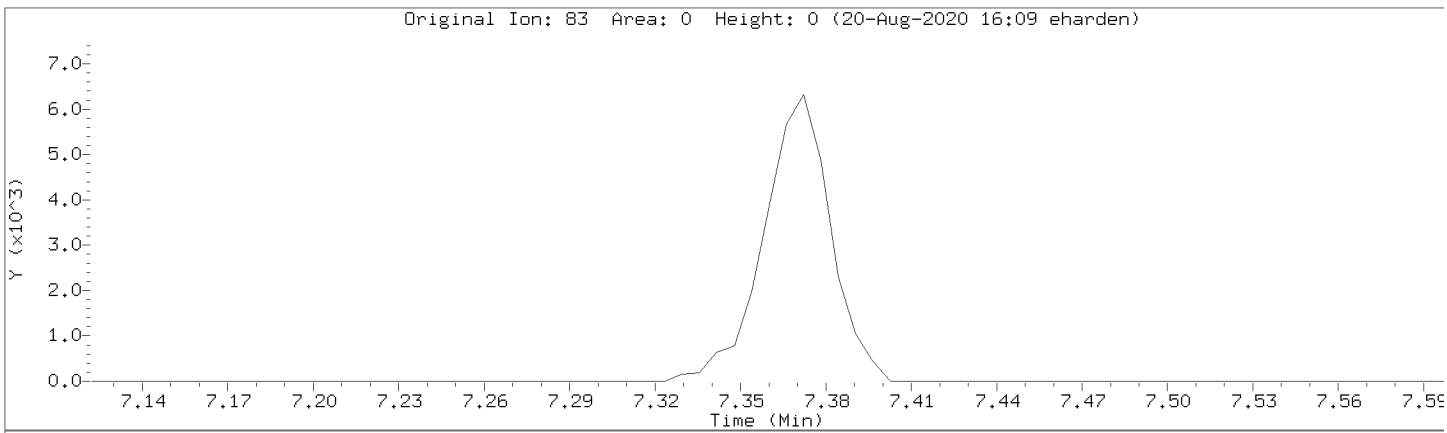
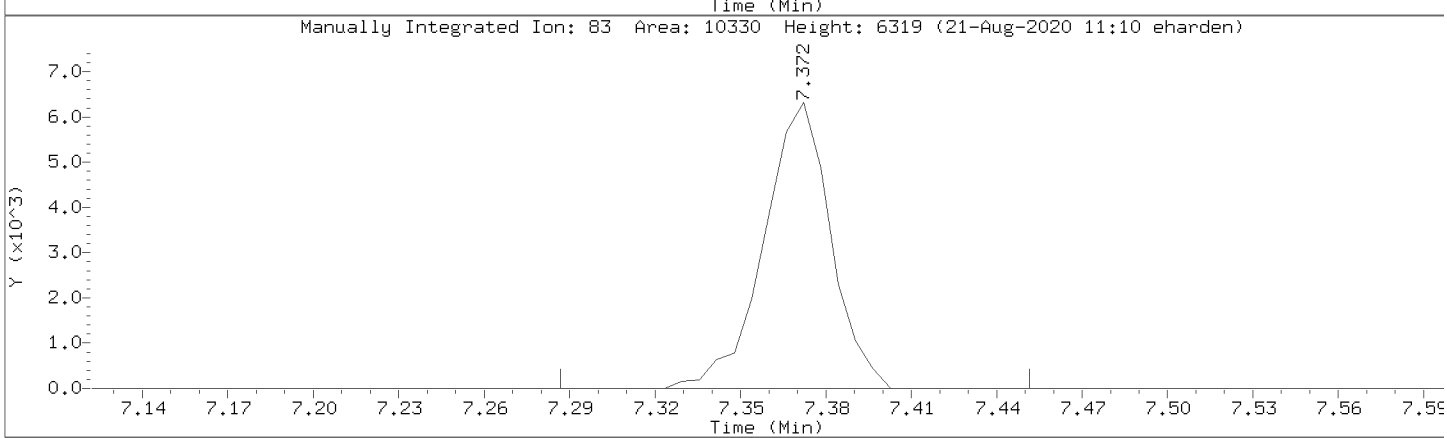
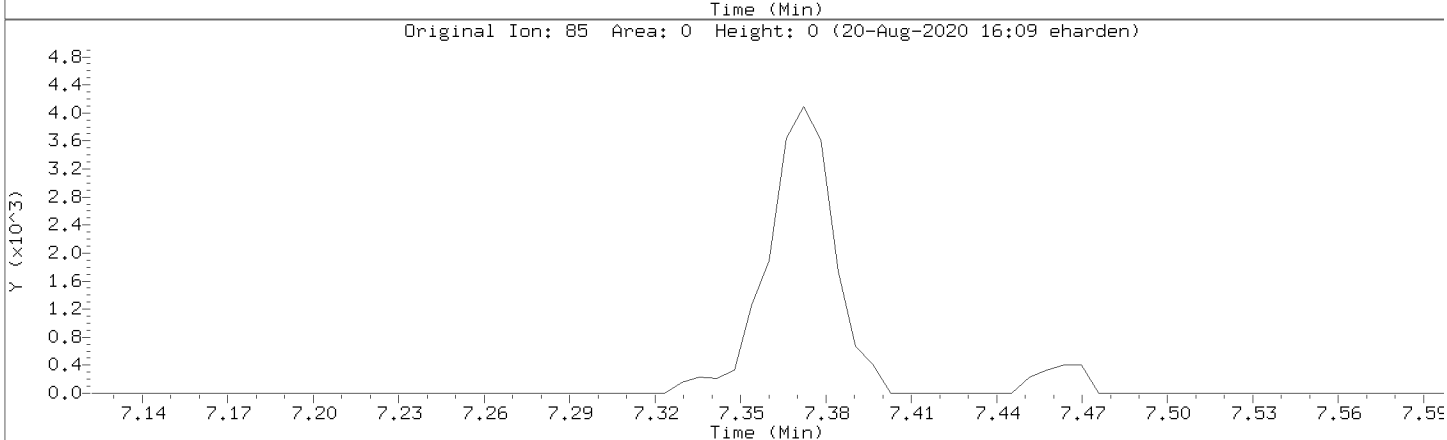
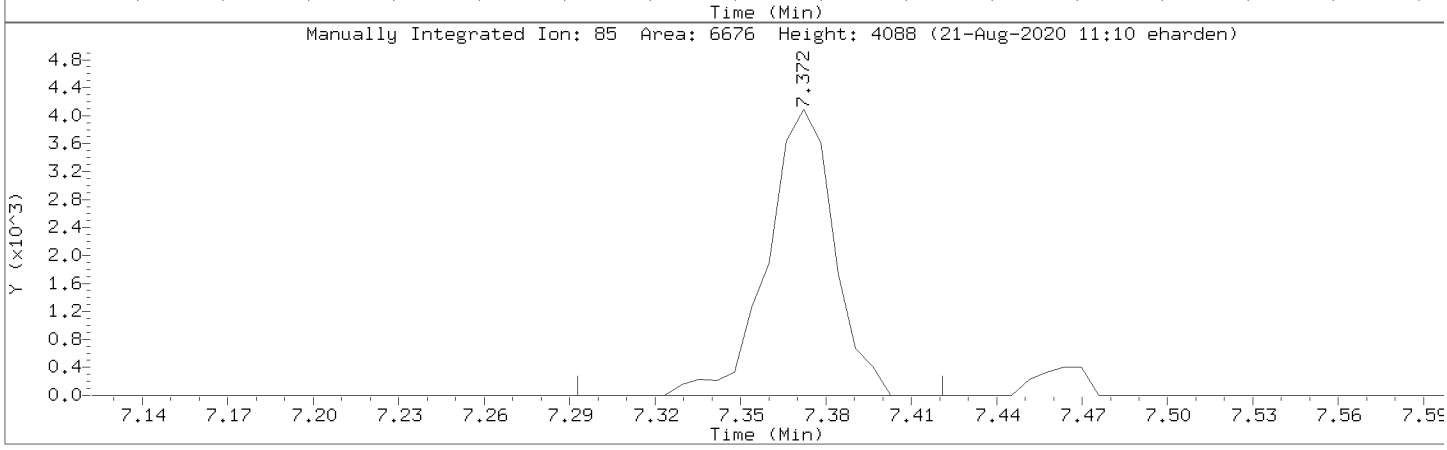
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3









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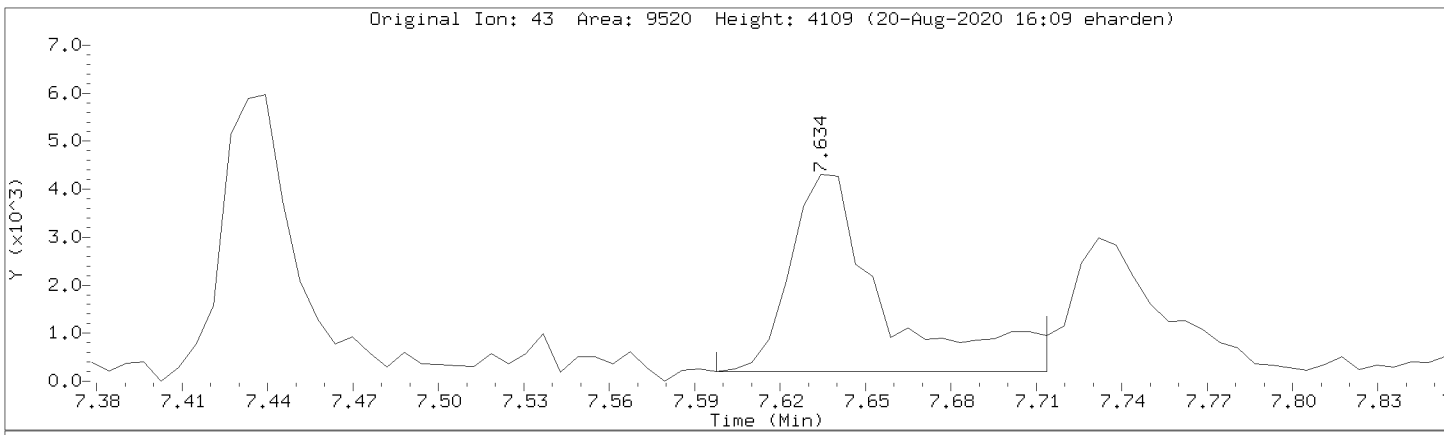
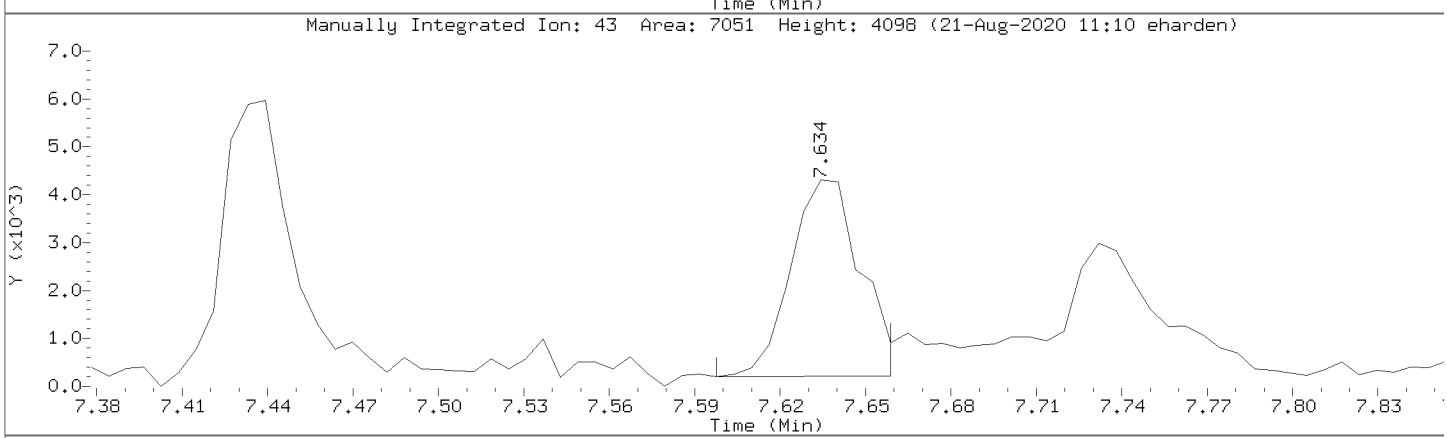
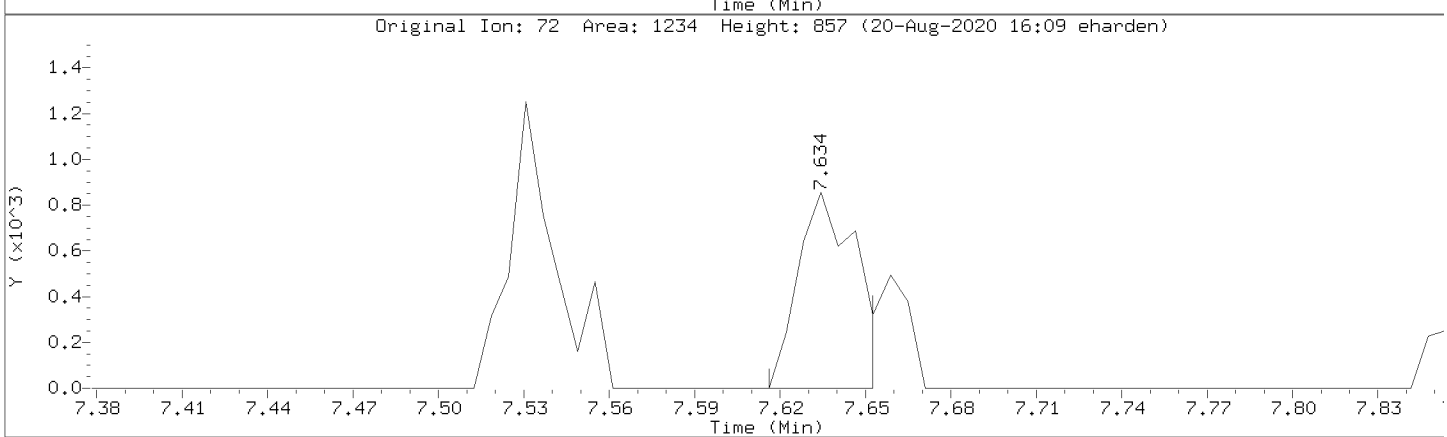
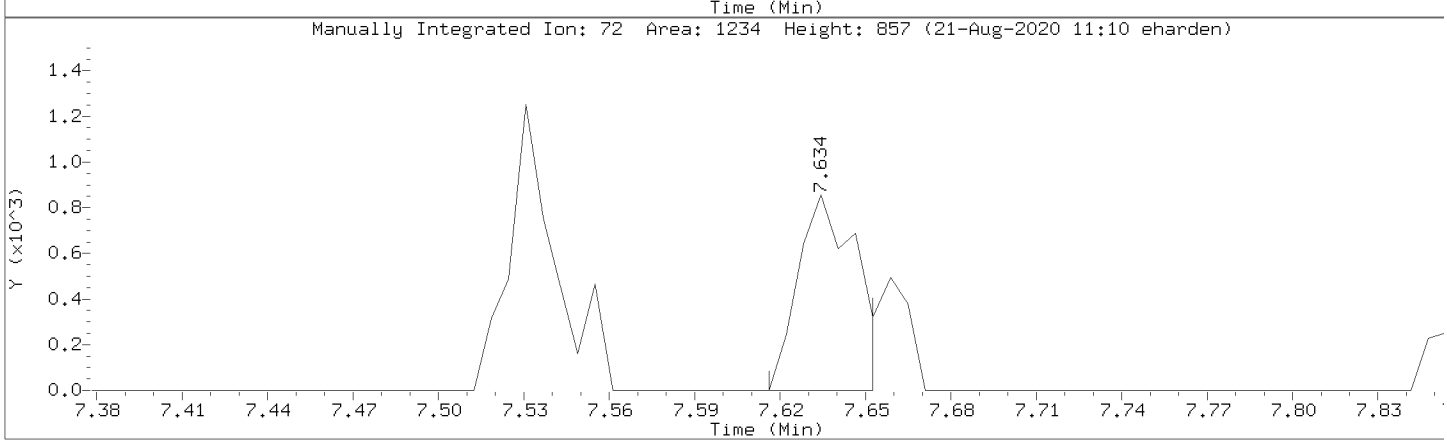
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3









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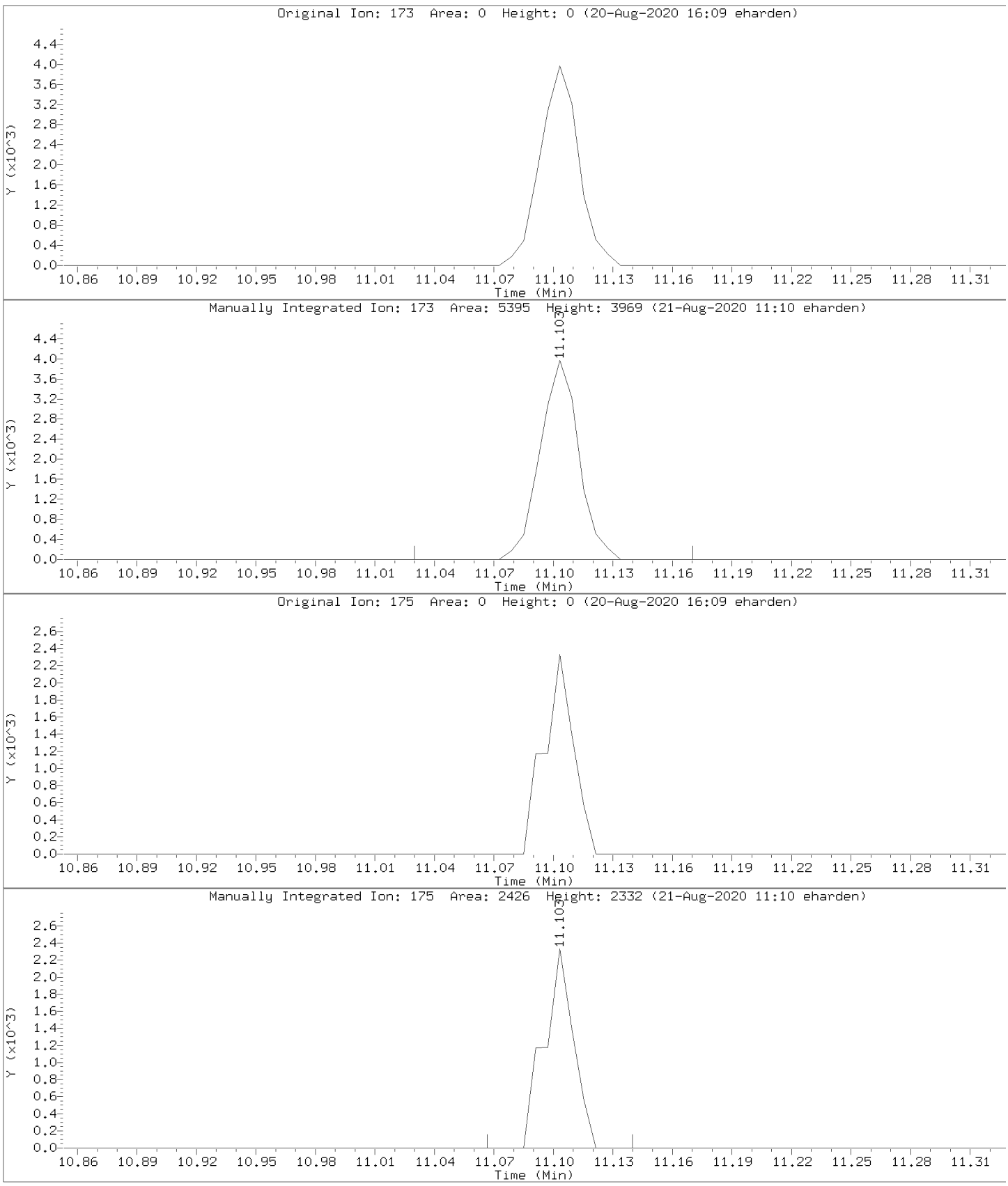
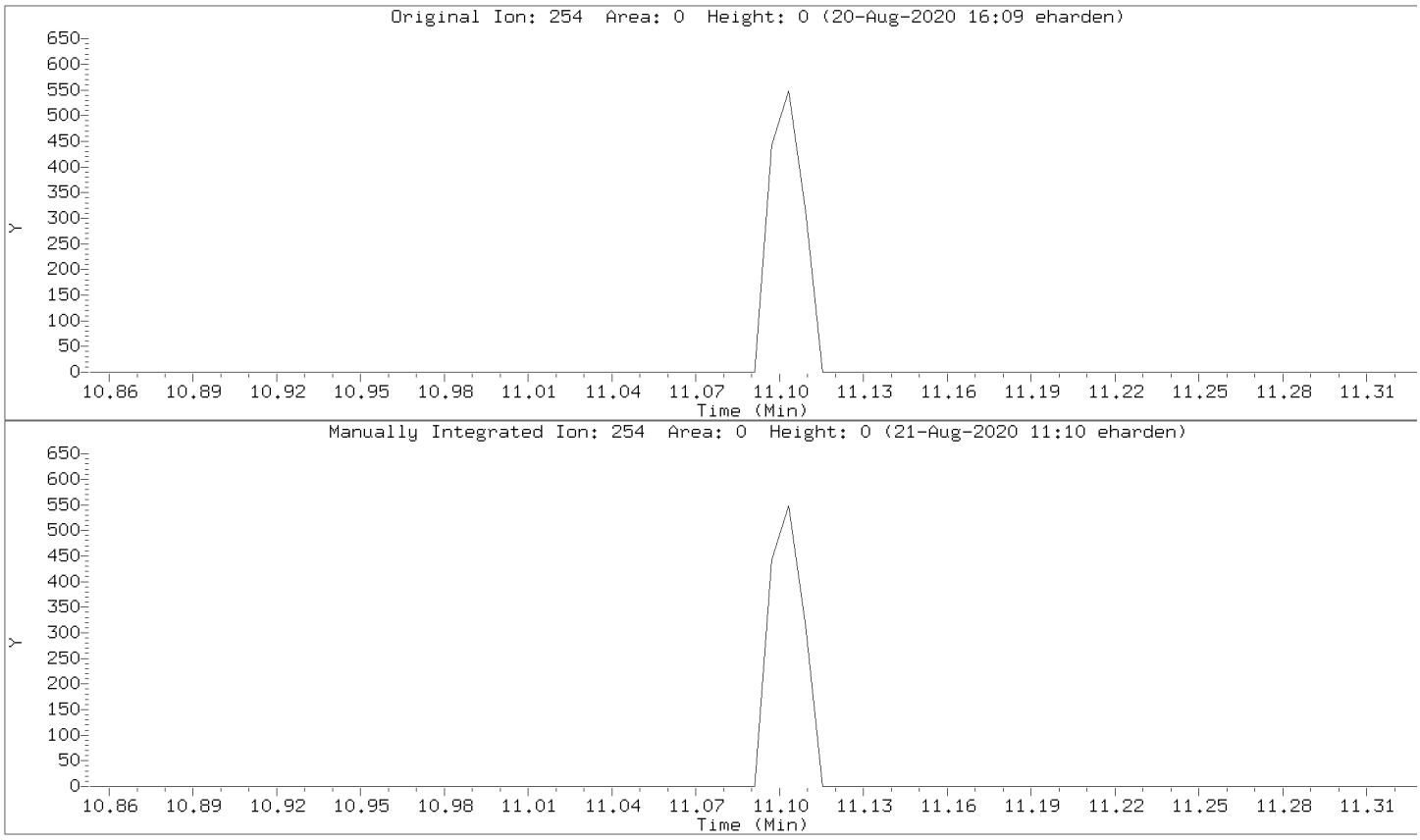
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2



Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_06.D
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_07.D
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 20-AUG-2020 12:30
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal5,27241:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 12:30 Cal File: 082020_07.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.226	(0.408)	14553	5.00000	6.57(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	19435	5.00000	5.07	
3 Vinyl chloride	62	3.702	3.702	(0.471)	14015	5.00000	5.05	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	11700	5.00000	4.71	
5 Bromomethane	94	4.195	4.195	(0.534)	17914	5.00000	5.43	
6 Chloroethane	64	4.366	4.360	(0.556)	4115	5.00000	4.60	
7 Trichlorofluoromethane	101	4.525	4.531	(0.576)	9164	5.00000	5.38	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	5183	5.00000	5.33	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	15697	5.00000	5.00	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	11299	5.00000	5.46	
11 Carbon disulfide	76	5.287	5.293	(0.673)	34632	5.00000	4.99	
12 Iodomethane	142	5.433	5.439	(0.691)	3620	5.00000	2.40(M)	NI
13 Acrolein	56	5.665	5.659	(0.721)	3065	10.0000	9.72	
14 Allyl chloride	76	5.787	5.787	(0.736)	4947	5.00000	5.12	
15 Methylene Chloride	49	5.902	5.902	(0.751)	19166	5.00000	5.00(M)	NI
16 Acetone	43	5.976	5.976	(0.760)	23424	10.0000	11.5	
17 Methyl acetate	43	6.073	6.067	(0.773)	24665	10.0000	9.97	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	9707	5.00000	4.58	
19 n-Hexane	86	6.110	6.110	(0.777)	987	5.00000	4.39	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	22885	5.00000	4.62	
21 Acetonitrile	41	6.457	6.463	(0.822)	1316	10.0000	7.03(H)	
22 Chloroprene	53	6.646	6.640	(0.846)	13100	5.00000	4.35	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	21699	5.00000	5.27	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	9200	10.0000	10.3	
	25 Vinyl acetate	43	6.866	6.860	(0.874)	13650	5.00000	3.35(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	14788	5.00000	4.87	
	27 2,2-Dichloropropane	77	7.256	7.250	(0.923)	16052	5.00000	5.14	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	6858	5.00000	5.17	
	29 Cyclohexane	56	7.335	7.335	(0.882)	11423	5.00000	4.31	
	30 Chloroform	83	7.372	7.372	(0.938)	25117	5.00000	5.39	
	31 Ethyl acetate	43	7.433	7.433	(0.946)	24568	10.0000	9.34	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	16017	5.00000	5.16	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	7403	10.0000	9.47	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	142646	50.0000	53.0	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	18128	5.00000	4.92	
	36 2-Butanone (MEK)	43	7.634	7.628	(0.971)	20760	10.0000	10.3(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	11218	5.00000	4.38(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	233975	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	42206	5.00000	5.11	
	40 Propionitrile	54	7.908	7.902	(1.006)	4081	10.0000	10.2	
	41 Methacrylonitrile	41	7.908	7.902	(1.006)	19063	10.0000	9.40	
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	24458	50.0000	50.5	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	19145	5.00000	5.10	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	20765	5.00000	4.65	
	46 Trichloroethene	130	8.323	8.317	(1.001)	10658	5.00000	4.72	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	323174	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	4857	5.00000	4.53	
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.670	8.670	(1.043)	9900	5.00000	5.14	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	11583	5.00000	4.91	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	16004	5.00000	4.72	
	53 Methyl methacrylate	69	8.829	8.823	(1.062)	4271	5.00000	3.58(H)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	7311	10.0000	7.06	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	14819	5.00000	4.50	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	347863	50.0000	50.0	
	58 Toluene	91	9.414	9.414	(1.132)	39430	5.00000	4.89	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	3643	5.00000	4.18(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	2047	10.0000	8.85(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	14819	5.00000	4.41	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	10094	5.00000	5.08	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	8601	5.00000	4.14(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	9557	5.00000	4.68	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	13805	5.00000	5.01	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	15130	5.00000	4.86	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	11170	5.00000	4.72	
	68 2-Hexanone	43	10.280	10.280	(1.236)	23734	10.0000	8.70	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	32827	5.00000	4.33	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	289782	50.0000		
	71 Chlorobenzene	112	10.572	10.578	(1.001)	26354	5.00000	4.71	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	11764	5.00000	4.98	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	49356	10.0000	8.71	
	74 o-Xylene	106	10.993	10.993	(1.041)	10438	5.00000	3.93	
	75 Styrene	104	11.029	11.029	(1.044)	16739	5.00000	3.77	
	76 Bromoform	173	11.103	11.103	(1.051)	12410	5.00000	4.74(M)	NI

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	15978	5.00000	3.97	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	114113	50.0000	48.0	
79 cis-1,4-Dichloro-2-butene	53	11.493	11.487	(1.088)	4646	5.00000	4.88	
80 n-Propylbenzene	91	11.529	11.523	(1.092)	41636	5.00000	4.48	
81 Bromobenzene	156	11.578	11.578	(1.096)	13586	5.00000	4.58	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	15768	5.00000	5.08	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	23455	5.00000	4.15	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	8976	5.00000	4.46	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	8467	5.00000	4.29	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	24864	5.00000	3.71	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	15868	5.00000	4.99	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	3621	5.00000	4.85(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	19573	5.00000	3.52	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	22168	5.00000	3.89	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	26110	5.00000	3.85	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	19573	5.00000	3.52	
94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	20960	5.00000	4.64	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	171143	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	24168	5.00000	4.83	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	24705	5.00000	4.14	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	22957	5.00000	4.66	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	2892	5.00000	5.17	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	6852	5.00000	4.49	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	15217	5.00000	4.69	
102 Naphthalene	128	14.200	14.193	(1.151)	22100	5.00000	3.96	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	13936	5.00000	4.45	

QC Flag Legend

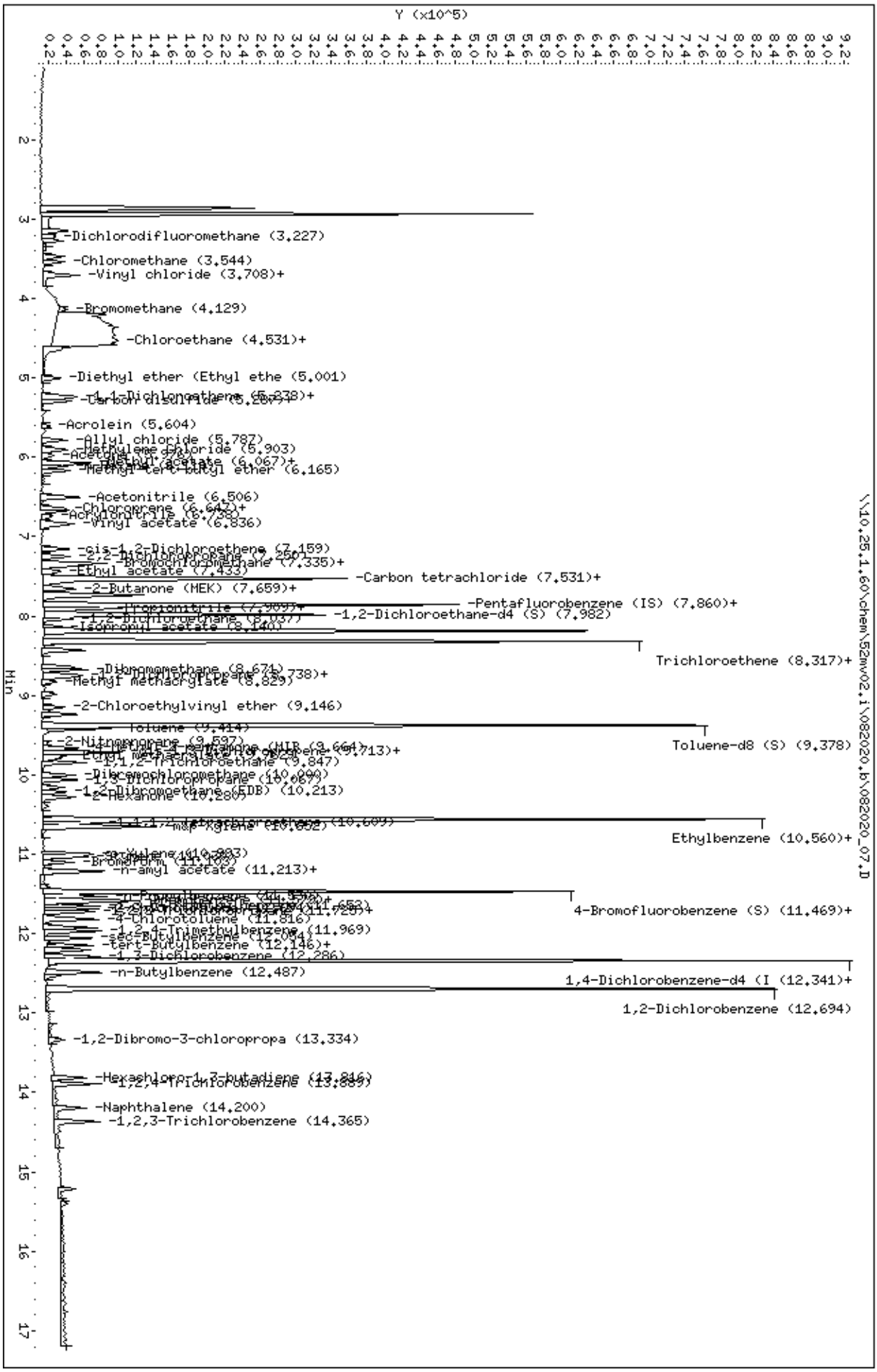
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_07.D
Date : 20-AUG-2020 12:30
Client ID: CAL5
Sample Info: CAL5,27241:1
Purge Volume: 5.0
Column phase: RTX-VMS

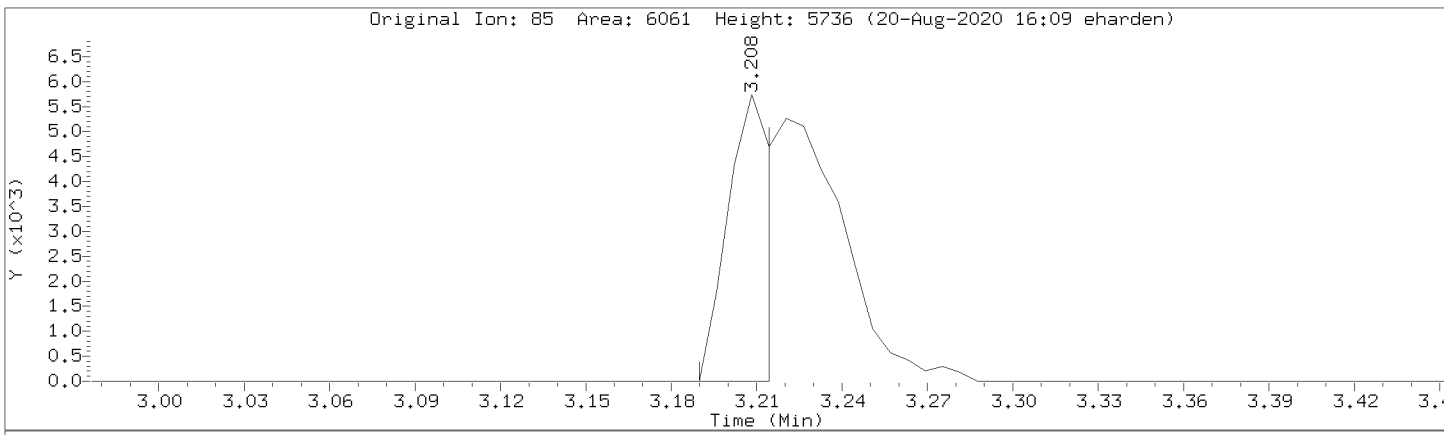
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

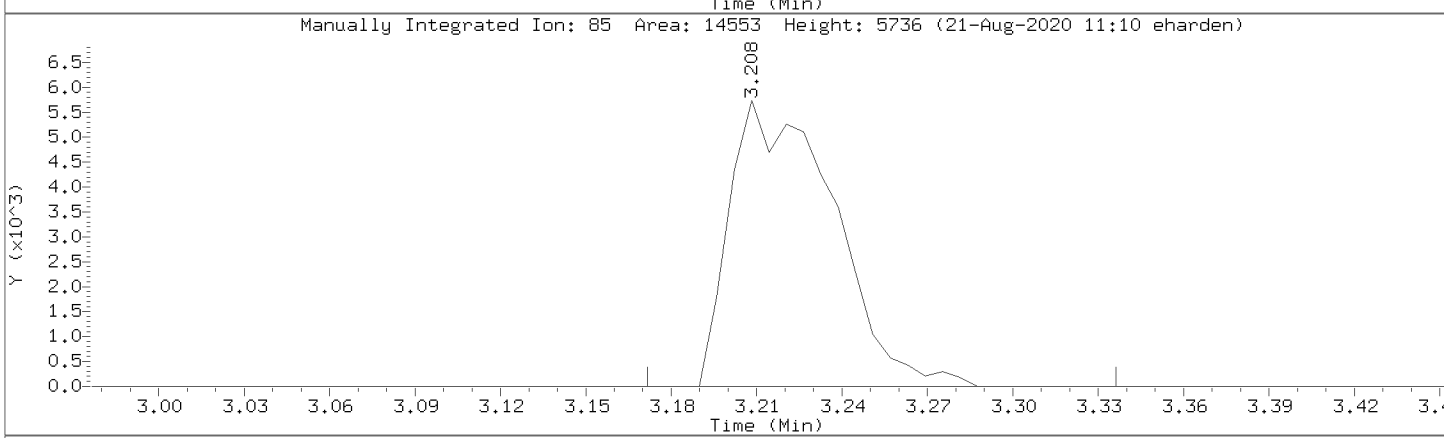


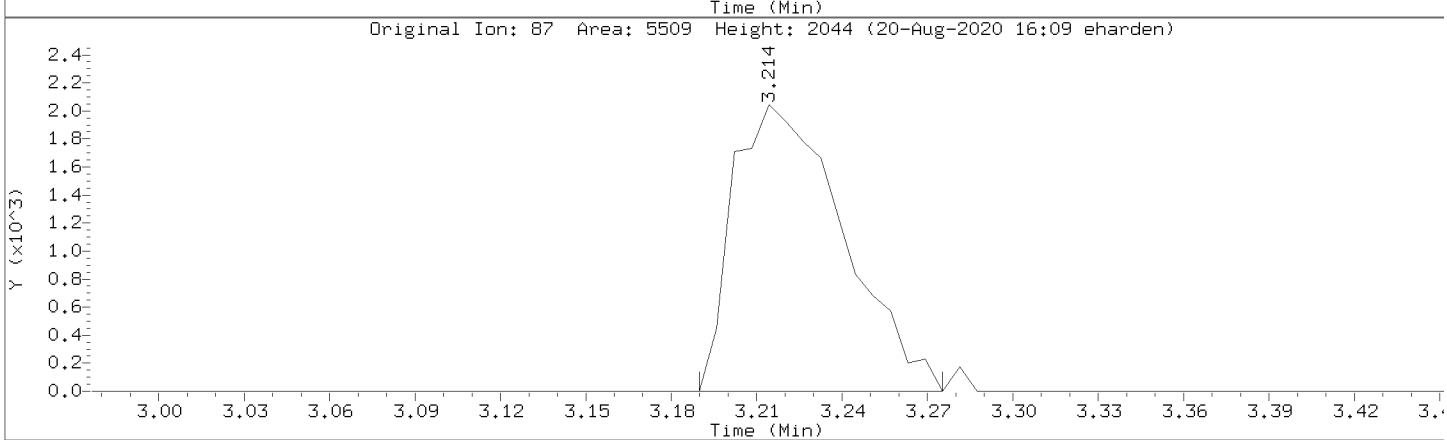
Page 4

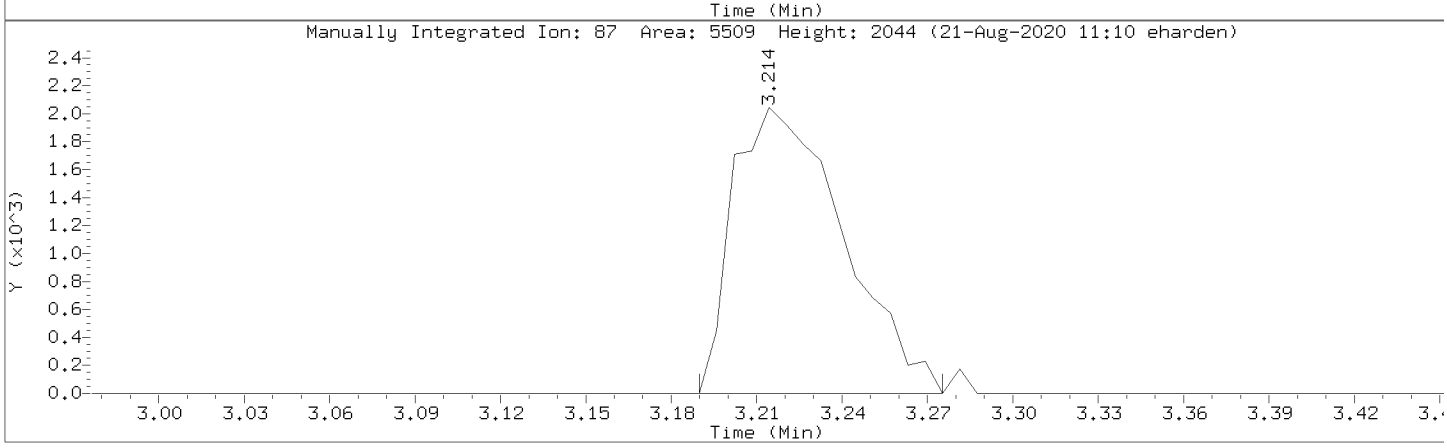
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_07.D
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



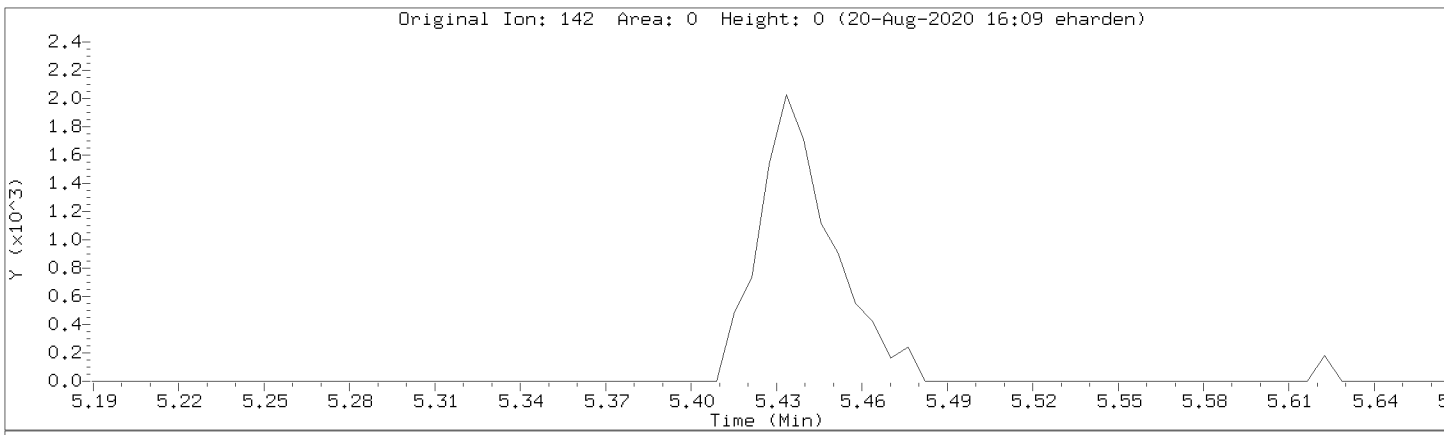


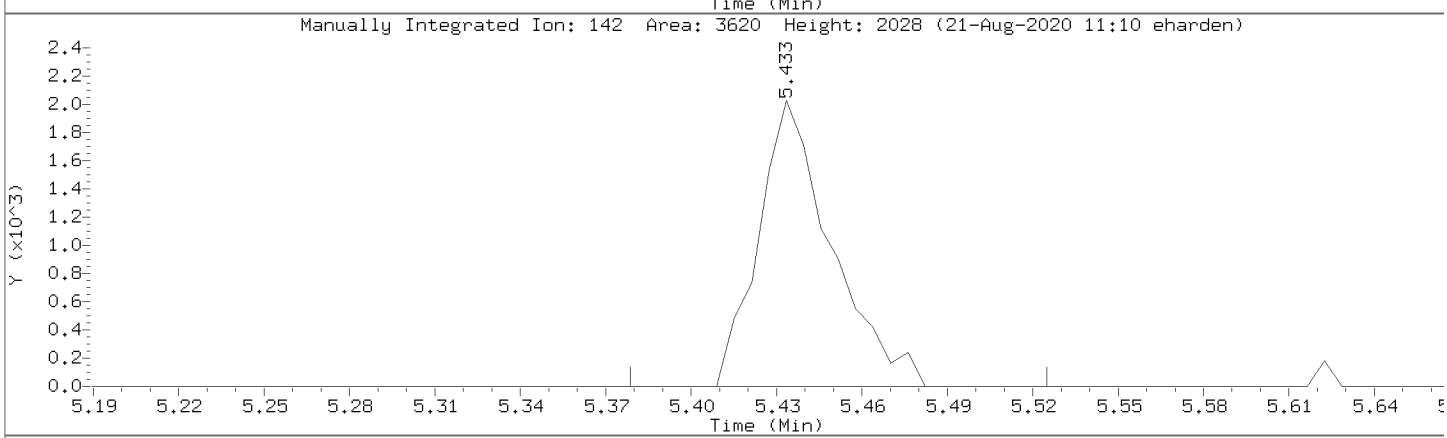


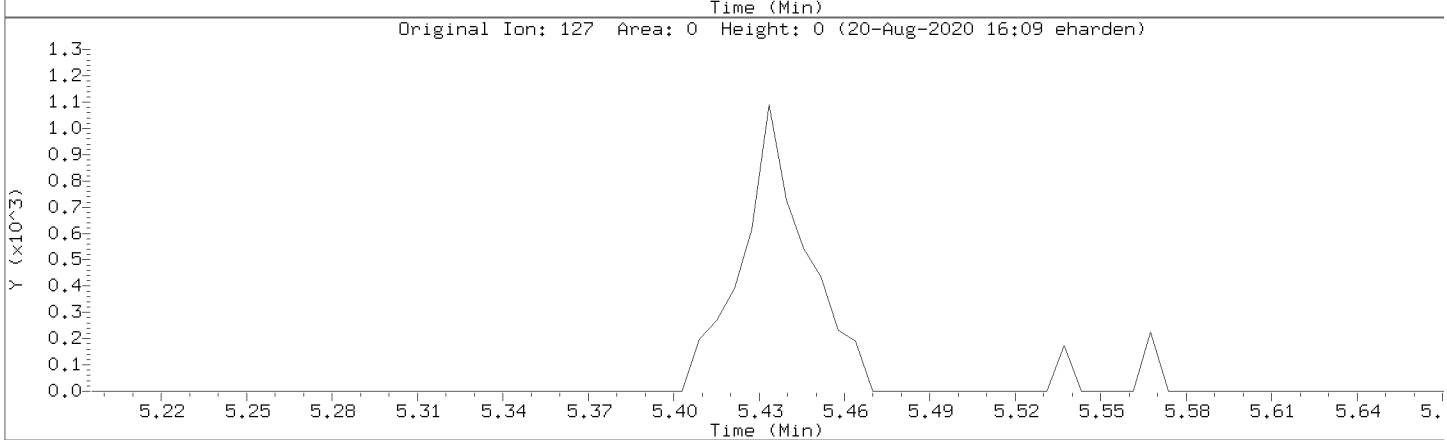


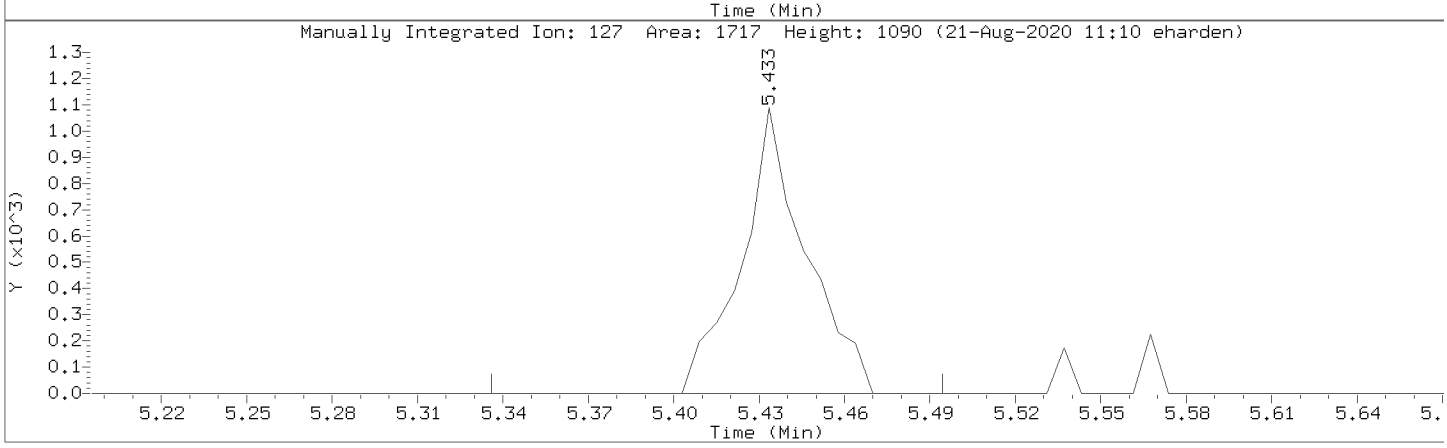
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_07.D
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4









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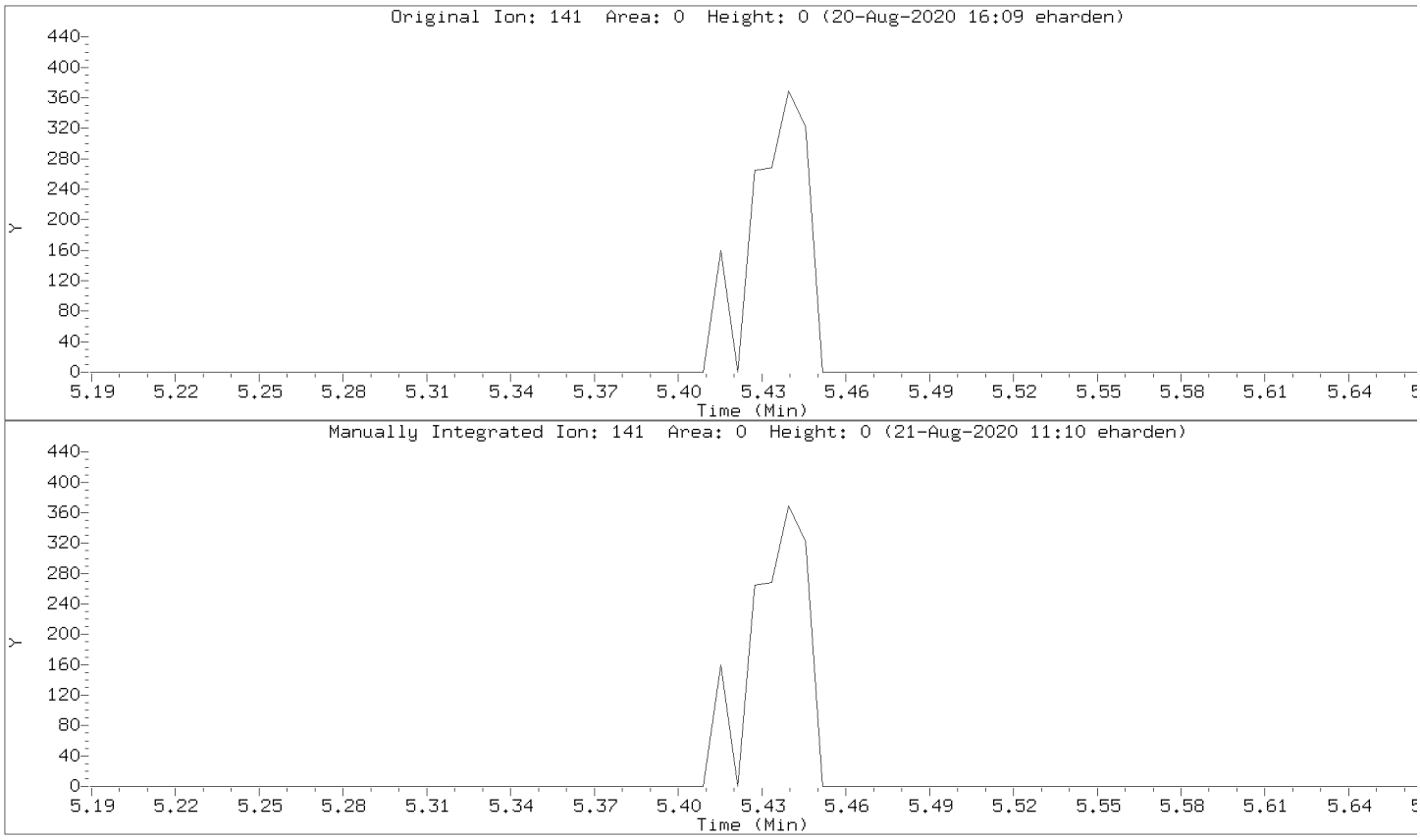
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5



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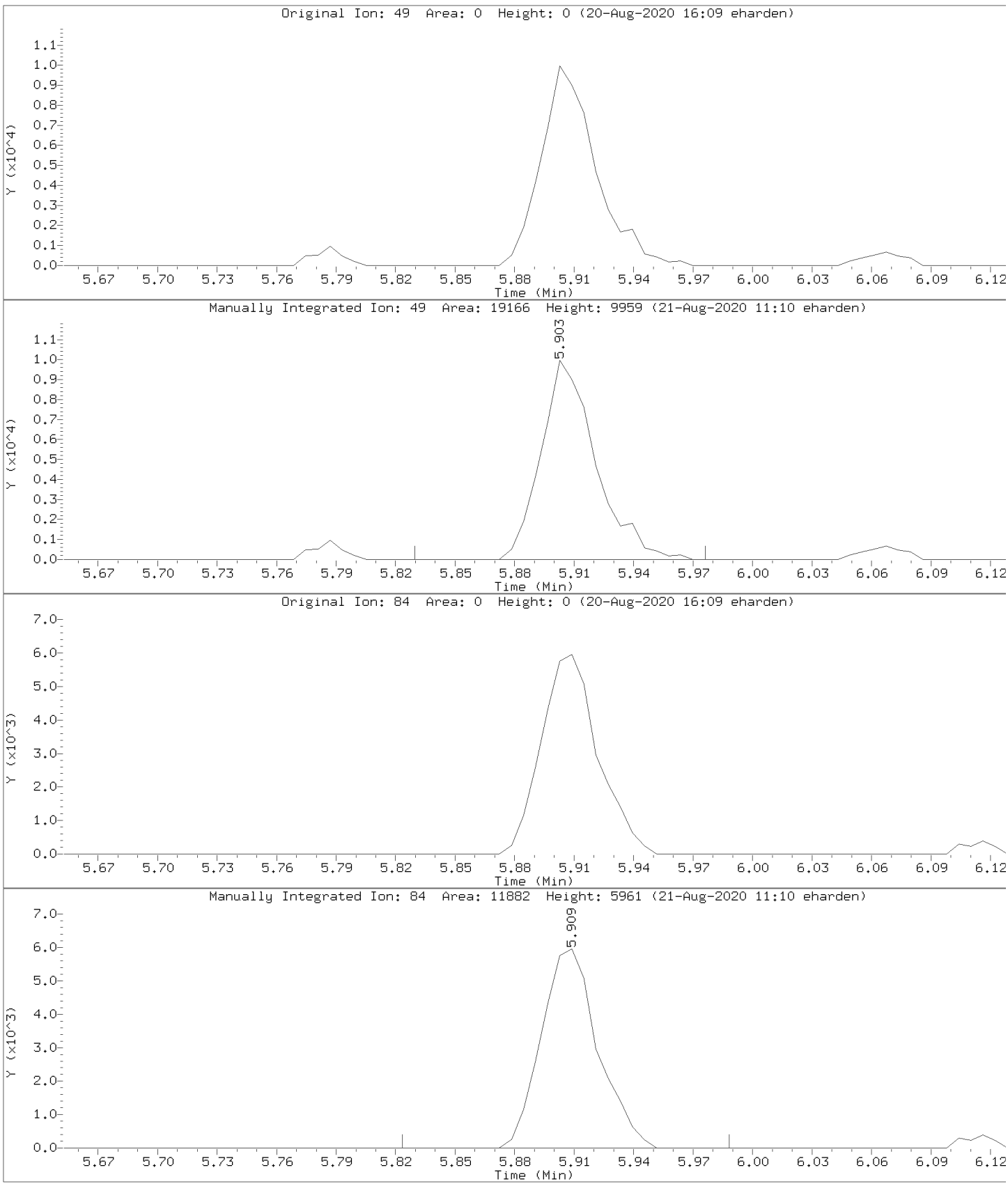
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2



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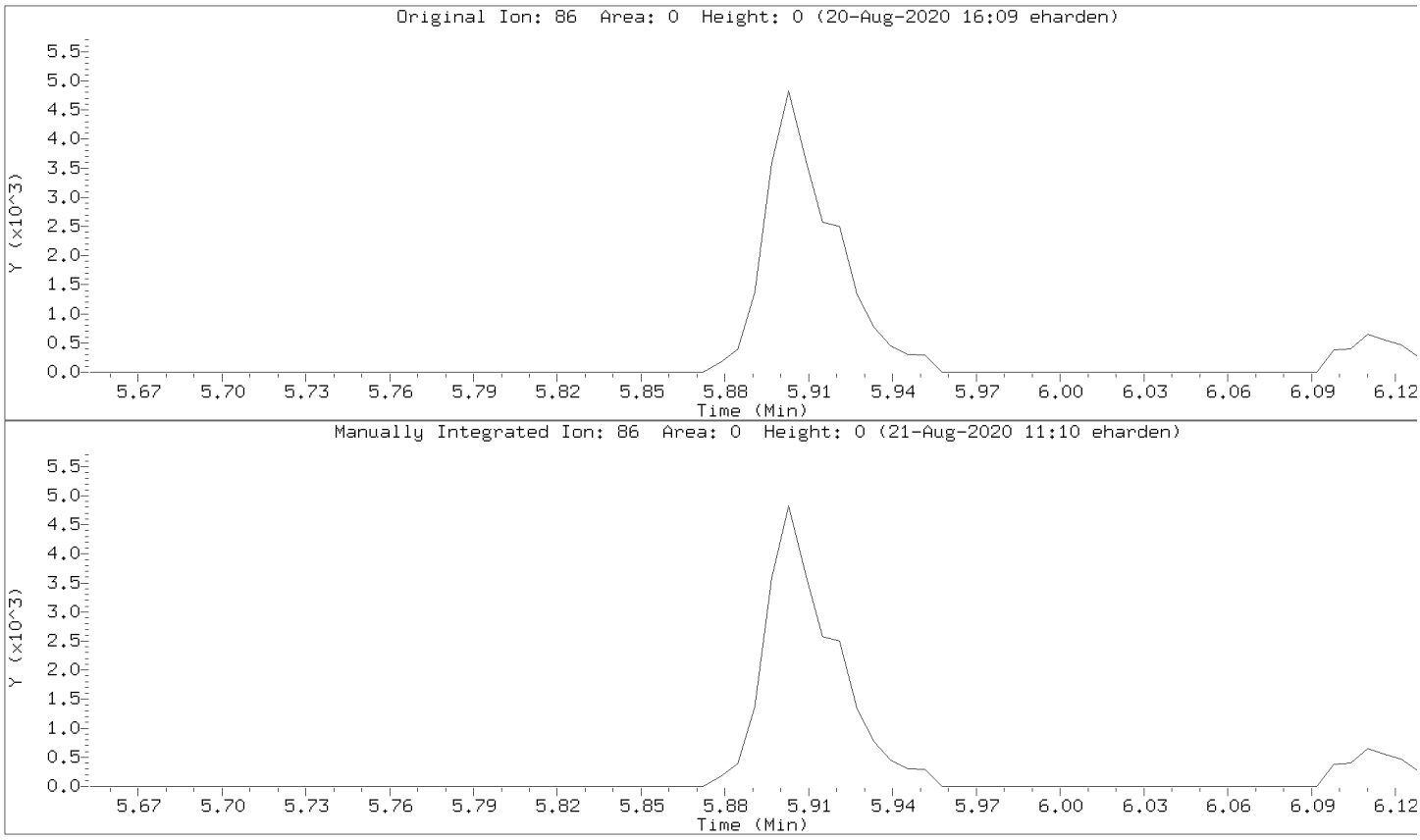
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5



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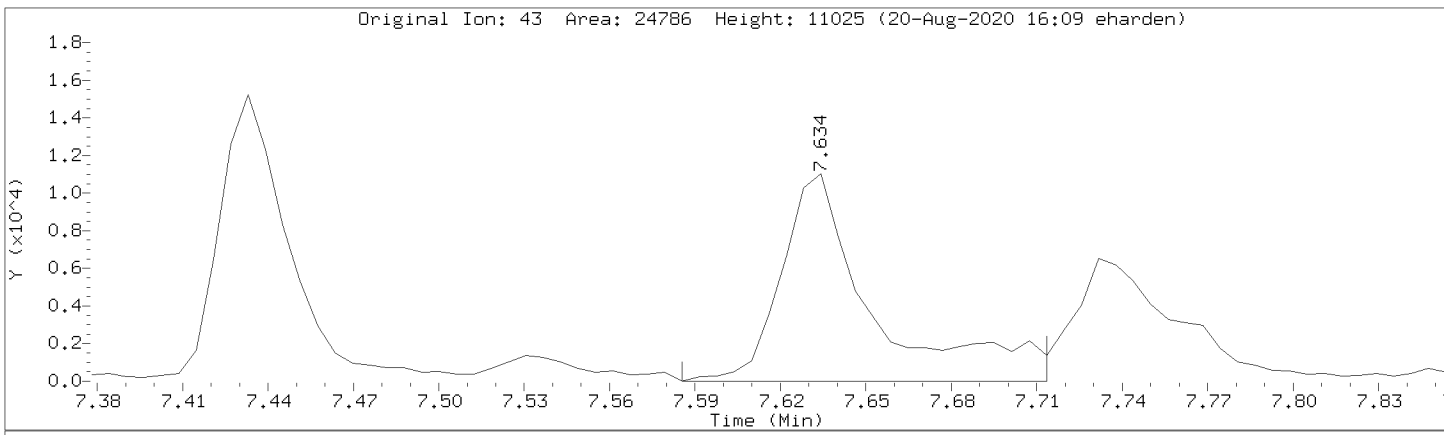
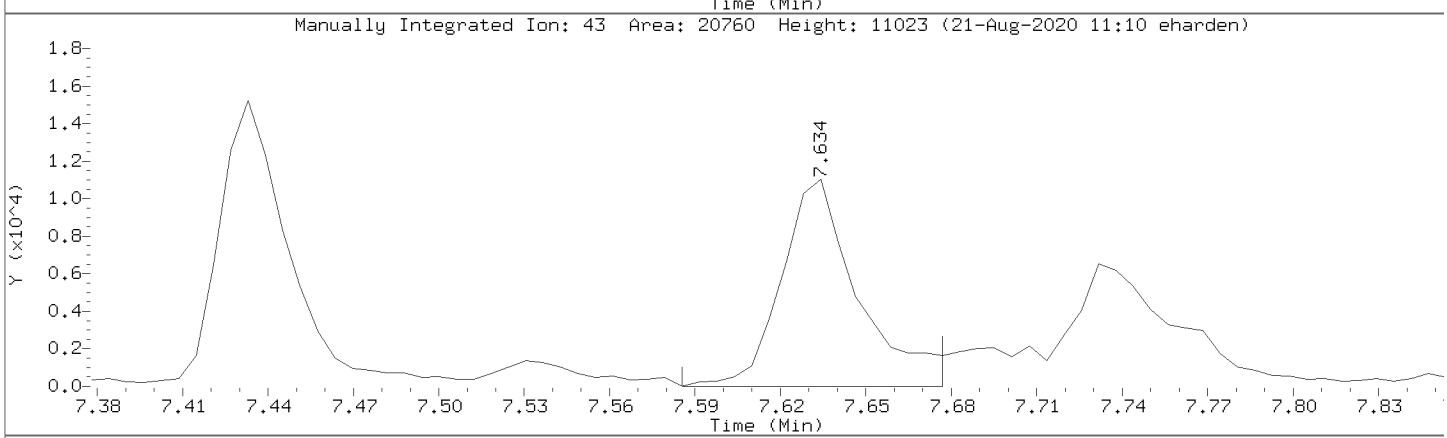
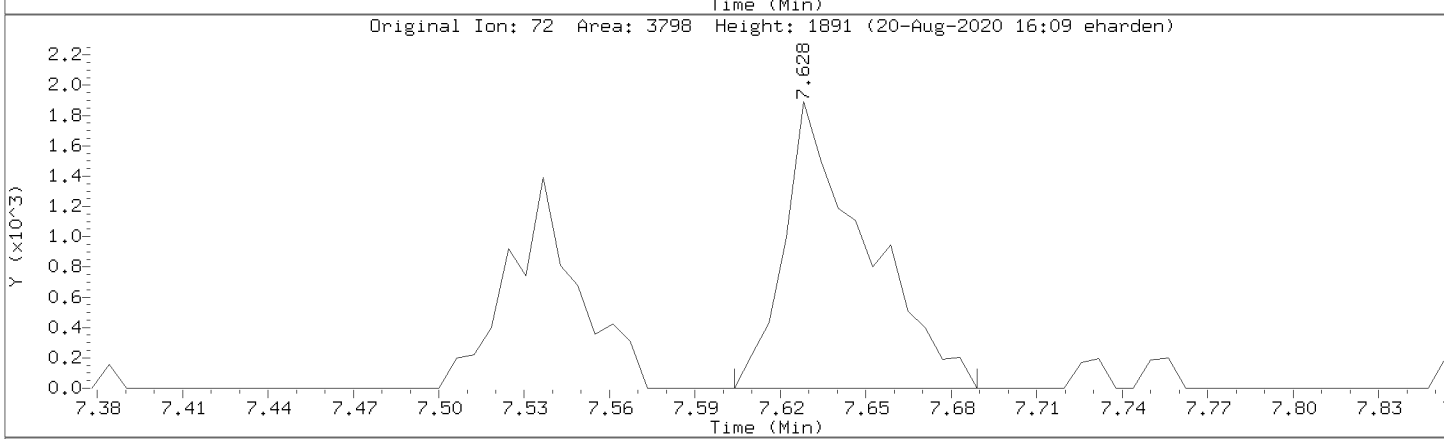
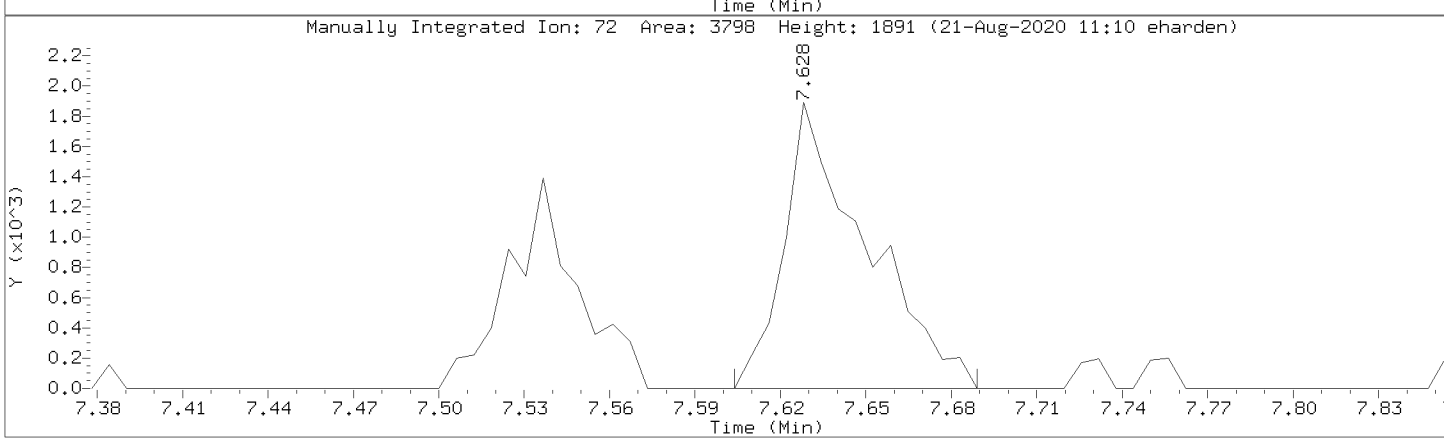
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3



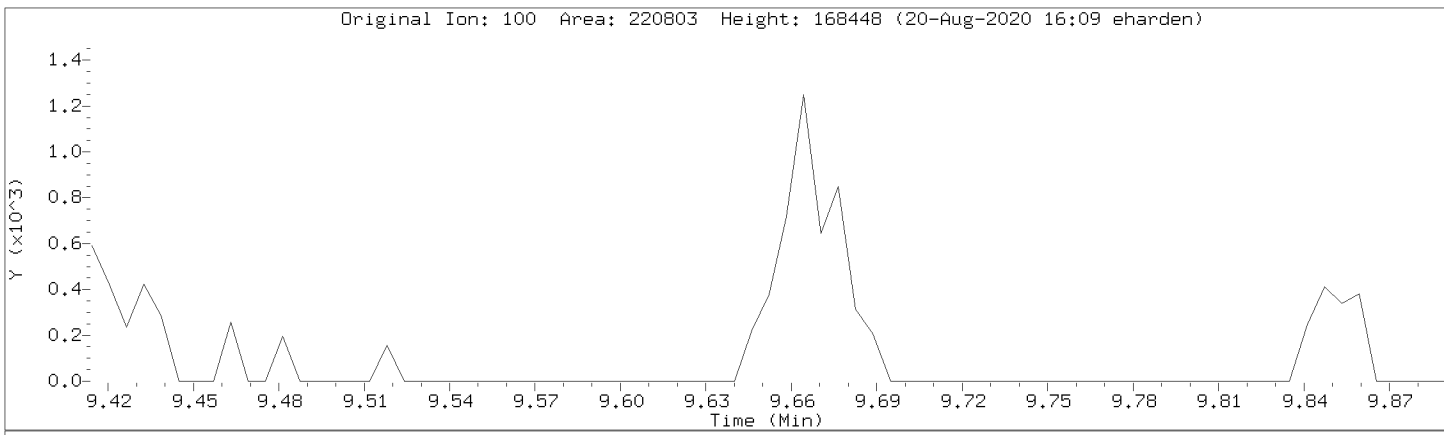


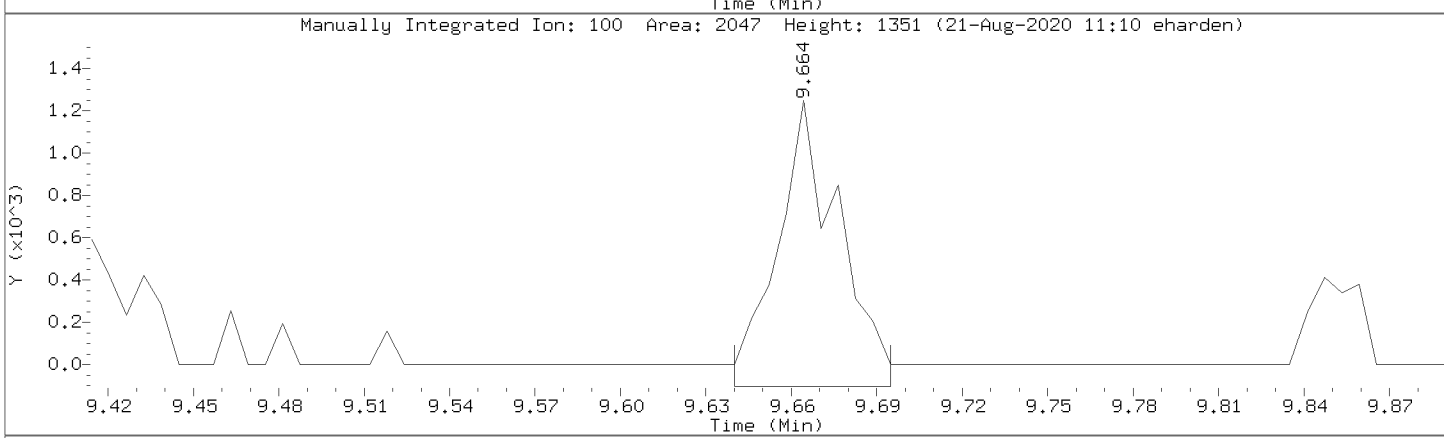


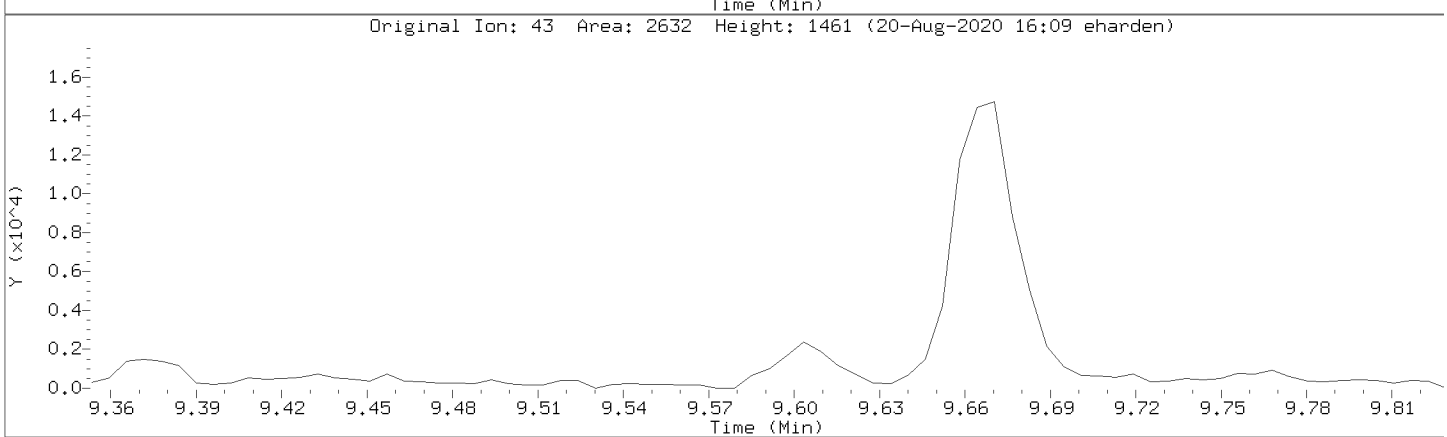


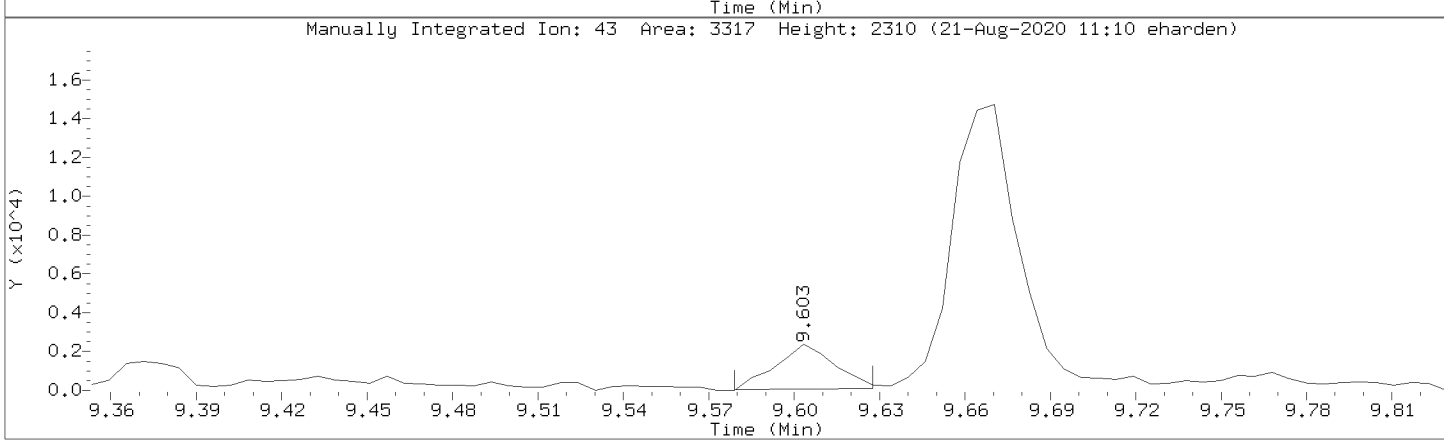
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_07.D
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1

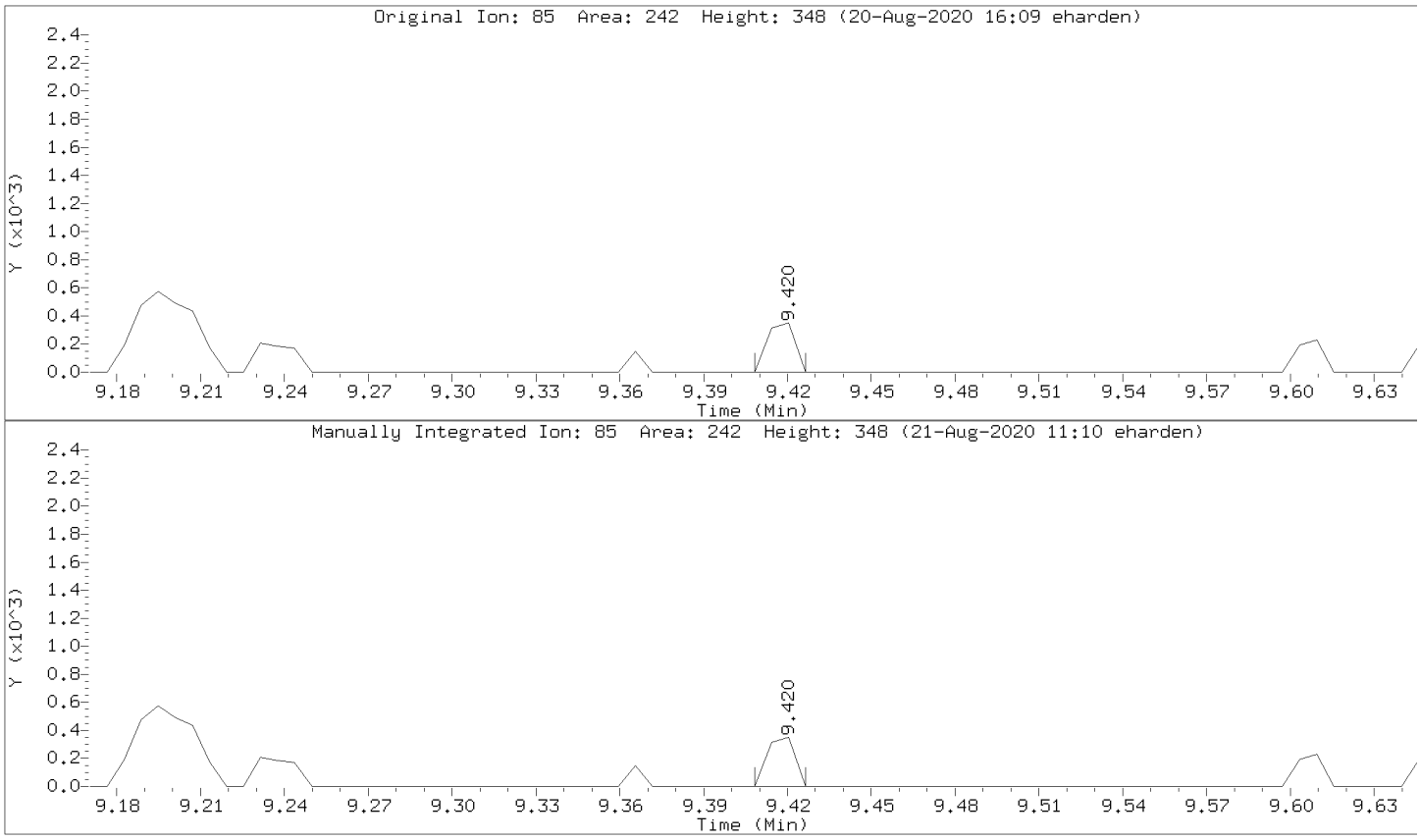








Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_07.D
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5



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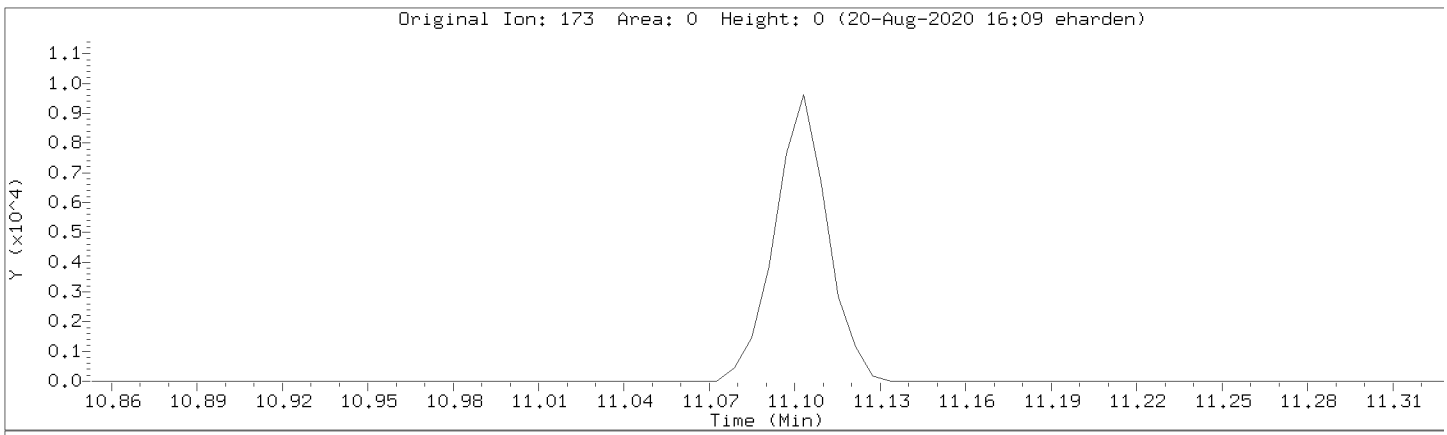
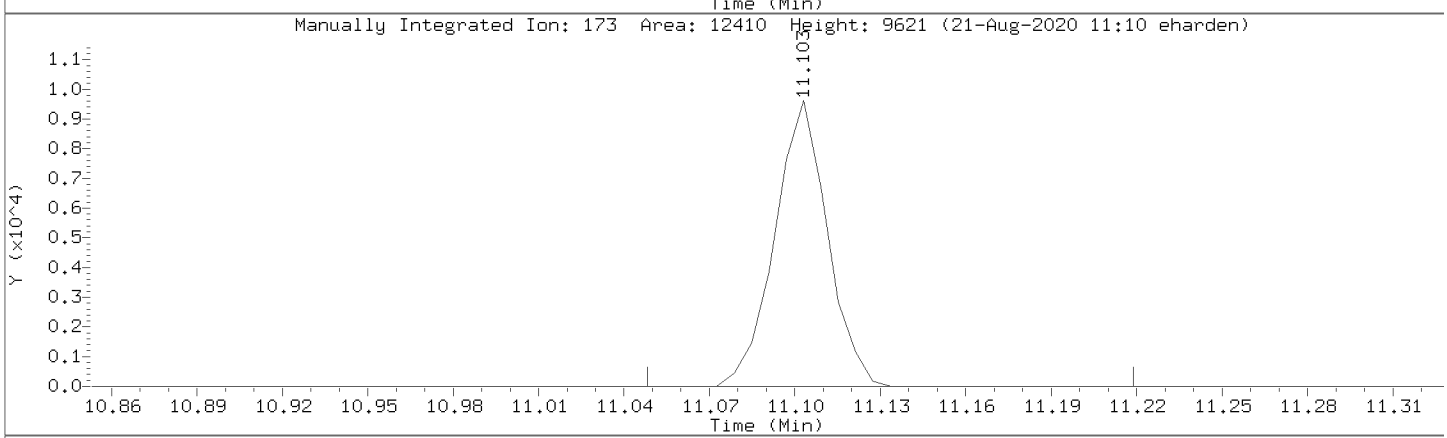
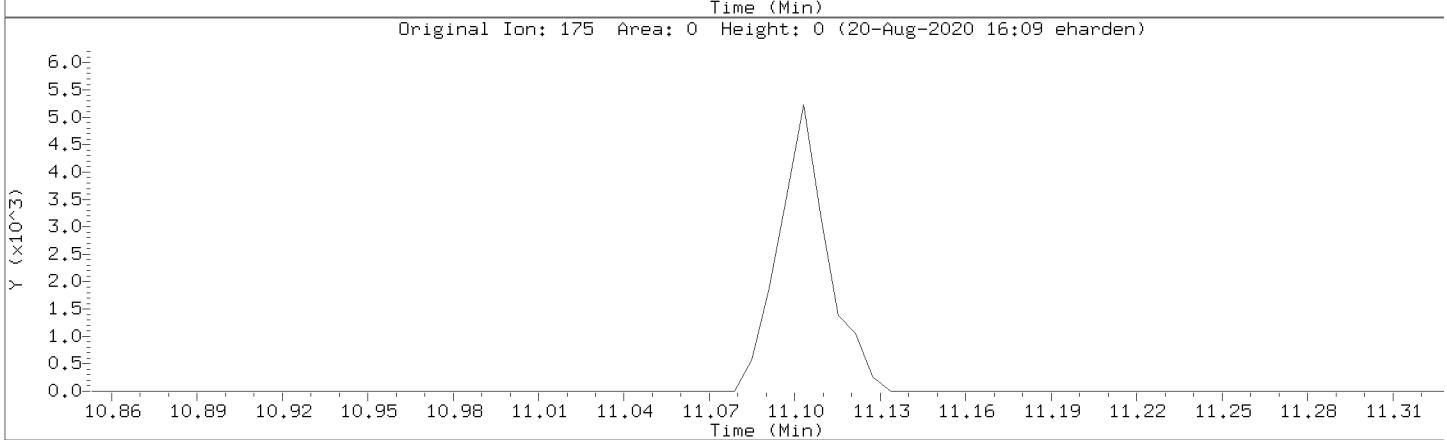
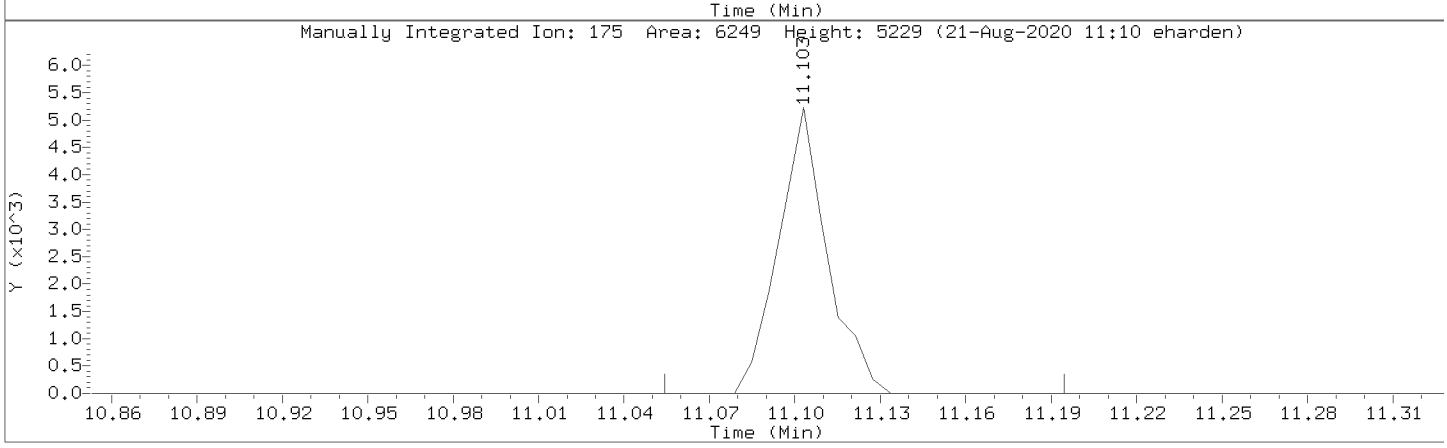
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2









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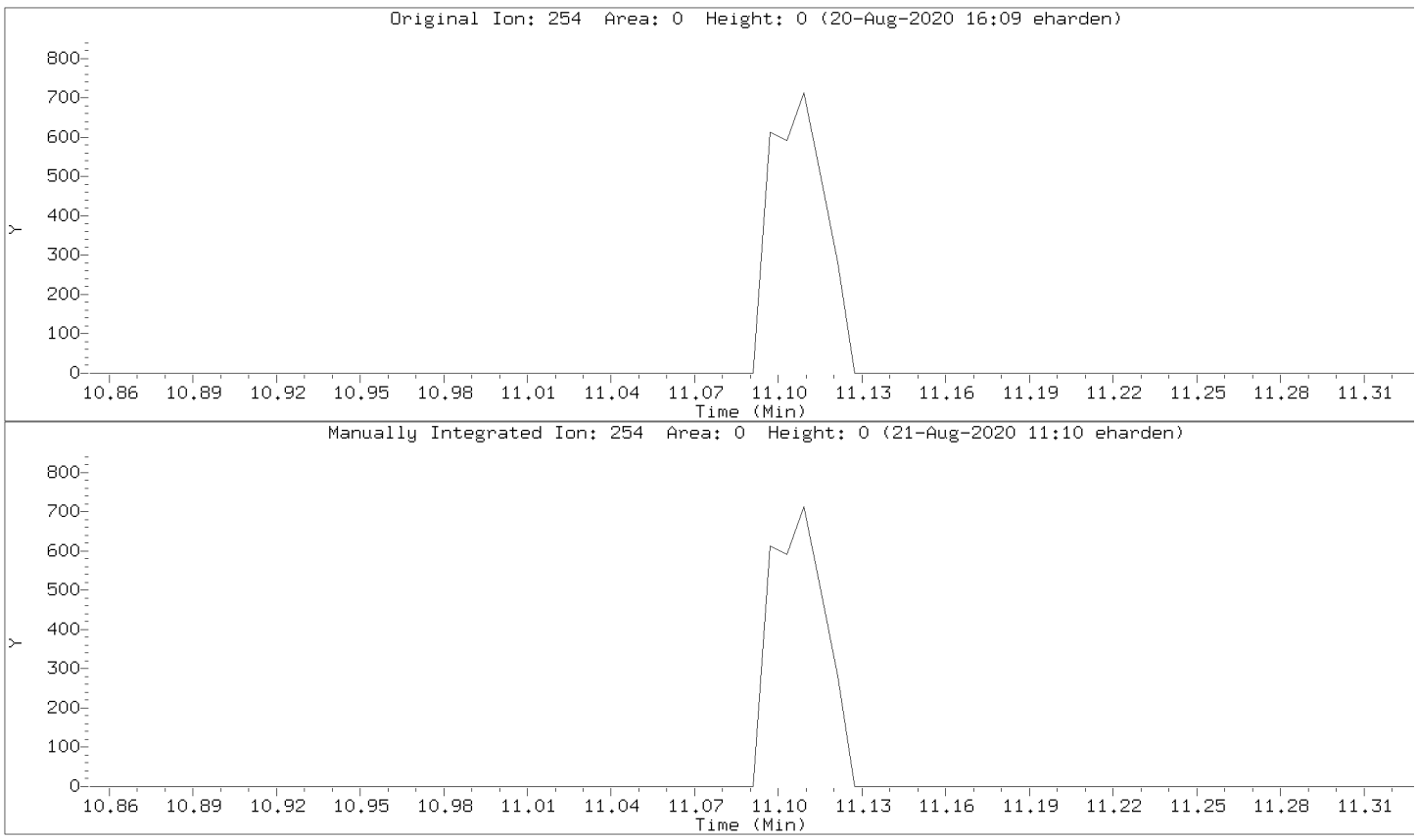
Instrument: 52mv02.i
Lab Sample ID: CAL5



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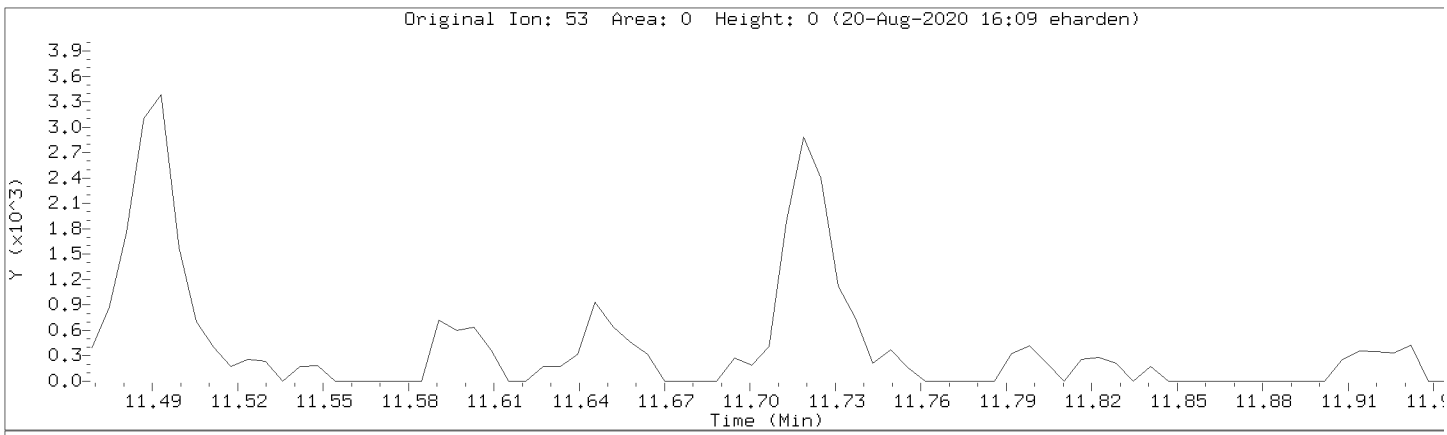
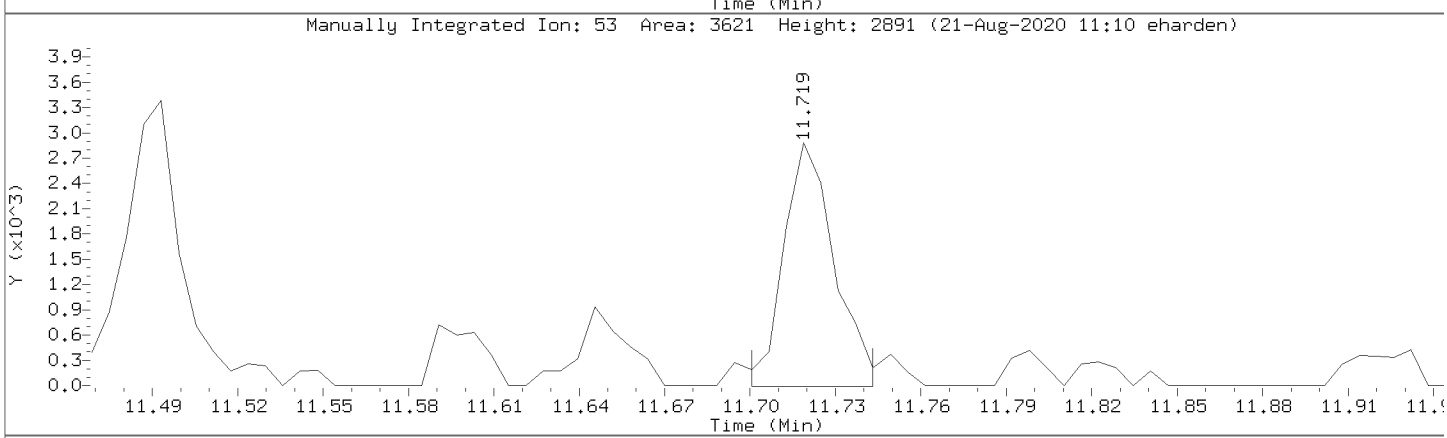
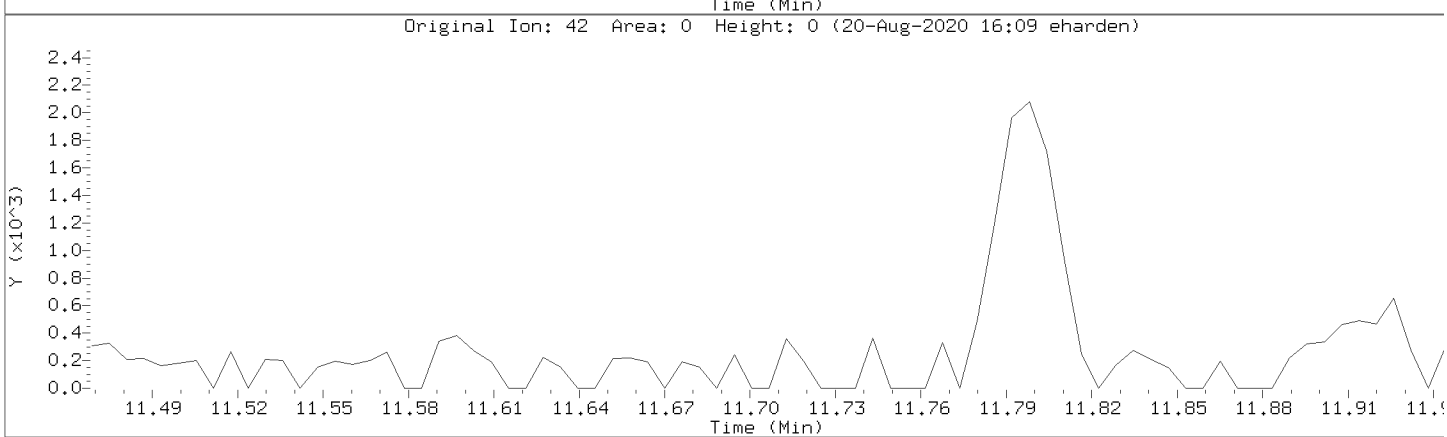
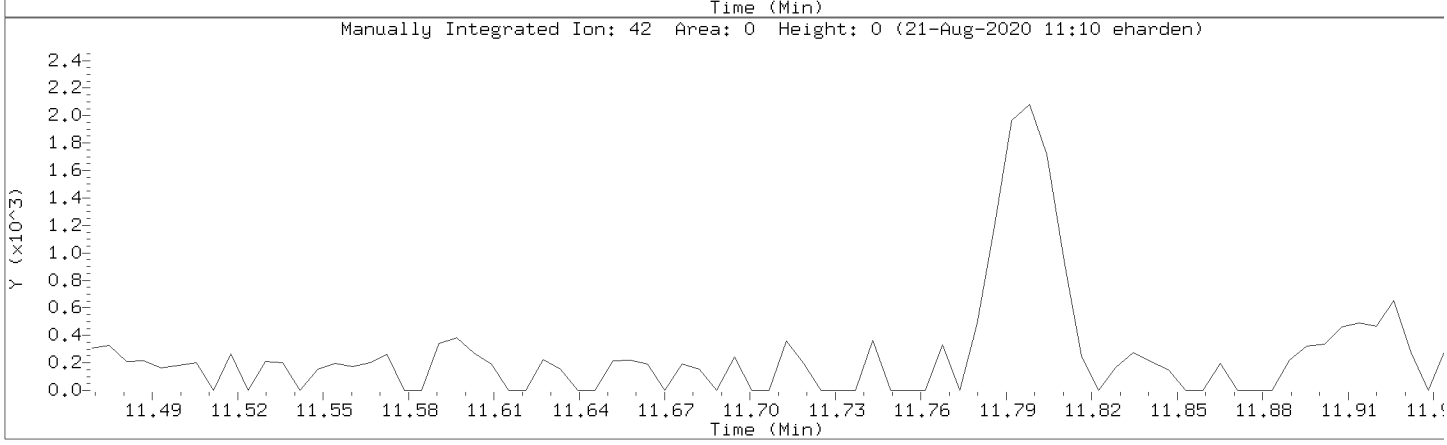
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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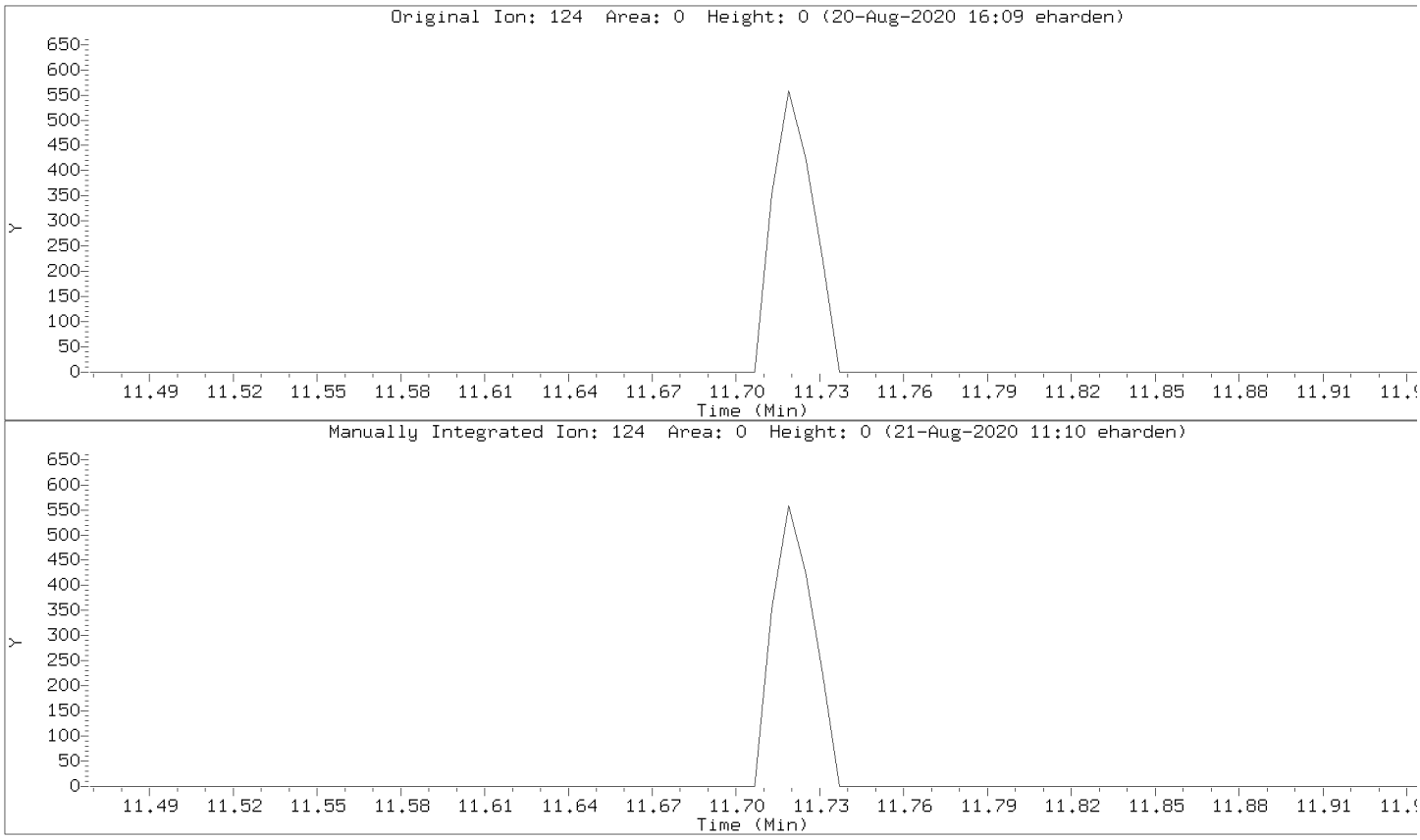
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_08.D
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 20-AUG-2020 12:55
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal6,27242:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 12:55 Cal File: 082020_08.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.226	(0.409)	29295	10.0000	9.84	
2 Chloromethane	50	3.543	3.543	(0.451)	39151	10.0000	10.6	
3 Vinyl chloride	62	3.689	3.702	(0.469)	28051	10.0000	9.58	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	27387	10.0000	10.4	
5 Bromomethane	94	4.195	4.195	(0.534)	32621	10.0000	12.4	
6 Chloroethane	64	4.360	4.360	(0.555)	10189	10.0000	11.8	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	18512	10.0000	9.94	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	11455	10.0000	11.2	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	37044	10.0000	11.2	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	23374	10.0000	10.7	
11 Carbon disulfide	76	5.293	5.293	(0.673)	81296	10.0000	11.1	
12 Iodomethane	142	5.433	5.439	(0.691)	8958	10.0000	9.59(T)	
13 Acrolein	56	5.659	5.659	(0.720)	6578	20.0000	19.2	
14 Allyl chloride	76	5.780	5.787	(0.736)	10499	10.0000	10.3	
15 Methylene Chloride	49	5.902	5.902	(0.751)	42293	10.0000	10.8(T)	
16 Acetone	43	5.969	5.976	(0.760)	44985	20.0000	22.1	
17 Methyl acetate	43	6.073	6.067	(0.773)	48220	20.0000	20.6	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	24253	10.0000	10.8	
19 n-Hexane	86	6.110	6.110	(0.777)	2234	10.0000	9.43	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	51088	10.0000	9.80	
21 Acetonitrile	41	6.457	6.463	(0.822)	3493	20.0000	16.2(H)	
22 Chloroprene	53	6.640	6.640	(0.845)	30445	10.0000	9.77	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	47900	10.0000	11.0	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	17593	20.0000	18.6	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	44750	10.0000	10.4(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	33510	10.0000	10.5	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	36245	10.0000	10.8	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	15015	10.0000	10.7	
	29 Cyclohexane	56	7.335	7.335	(0.882)	26642	10.0000	9.35	
	30 Chloroform	83	7.372	7.372	(0.938)	52677	10.0000	10.7	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	56268	20.0000	20.3	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	36580	10.0000	10.8	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	14388	20.0000	19.0	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	146283	50.0000	51.5	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	41497	10.0000	10.8	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	42963	20.0000	20.3	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	26914	10.0000	10.1(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	246807	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	92640	10.0000	10.8	
	40 Propionitrile	54	7.890	7.902	(1.004)	9386	20.0000	22.3	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	44057	20.0000	20.6	
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25345	50.0000	49.6	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	40332	10.0000	10.4	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	46853	10.0000	10.2	
	46 Trichloroethene	130	8.323	8.317	(1.001)	25650	10.0000	11.0	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	334966	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	10846	10.0000	9.77	
	49 n-Butanol	56	8.518	8.524	(1.024)	718	20.0000	14.0(MH)	LT
	50 Dibromomethane	93	8.670	8.670	(1.043)	22088	10.0000	11.1	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	26011	10.0000	10.6	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	41201	10.0000	11.7	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	11241	10.0000	8.54(H)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						(D)
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	17674	20.0000	15.5	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	34756	10.0000	10.2	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	363232	50.0000	50.4	
	58 Toluene	91	9.414	9.414	(1.132)	87179	10.0000	10.4	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	8683	10.0000	10.0(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.670	9.664	(1.163)	4550	20.0000	19.0(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	34380	10.0000	10.1	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	22100	10.0000	10.4	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	20969	10.0000	8.39(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	22063	10.0000	10.4	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	32178	10.0000	11.0	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	34242	10.0000	10.6	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	27035	10.0000	10.7	
	68 2-Hexanone	43	10.273	10.280	(1.235)	55414	20.0000	19.6	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	77797	10.0000	9.64	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	308495	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	63961	10.0000	10.7	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	26243	10.0000	10.4	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	122019	20.0000	17.6	
	74 o-Xylene	106	10.993	10.993	(1.041)	25872	10.0000	8.21	
	75 Styrene	104	11.029	11.029	(1.044)	44191	10.0000	8.11	
	76 Bromoform	173	11.103	11.103	(1.051)	29236	10.0000	10.5	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.225	11.225	(1.063)	38823	10.0000	8.40	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	123406	50.0000	48.7	
	79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	9323	10.0000	9.20	
	80 n-Propylbenzene	91	11.523	11.523	(1.091)	101972	10.0000	10.3	
	81 Bromobenzene	156	11.578	11.578	(1.096)	33652	10.0000	10.8	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	36166	10.0000	11.0	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	61206	10.0000	9.66	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	22961	10.0000	10.0	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	19627	10.0000	8.56	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	66445	10.0000	8.28	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	34384	10.0000	9.96(M)	CO
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	7978	10.0000	10.0(M)	NI
	89 Cyclohexanone	98	Compound Not Detected.						
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	55461	10.0000	7.95	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	61898	10.0000	8.71	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	70909	10.0000	8.45	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	55461	10.0000	7.95	
	94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	52511	10.0000	10.3	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	191833	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	58586	10.0000	10.2	
	97 n-Butylbenzene	91	12.486	12.486	(1.012)	61276	10.0000	9.17	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	56996	10.0000	10.2	
	99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	5508	10.0000	8.78	
	100 Hexachloro-1,3-butadiene	225	13.815	13.822	(1.120)	17340	10.0000	10.1	
	101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	35572	10.0000	9.42	
	102 Naphthalene	128	14.193	14.193	(1.150)	52461	10.0000	7.46	
	103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	31470	10.0000	8.96	

QC Flag Legend

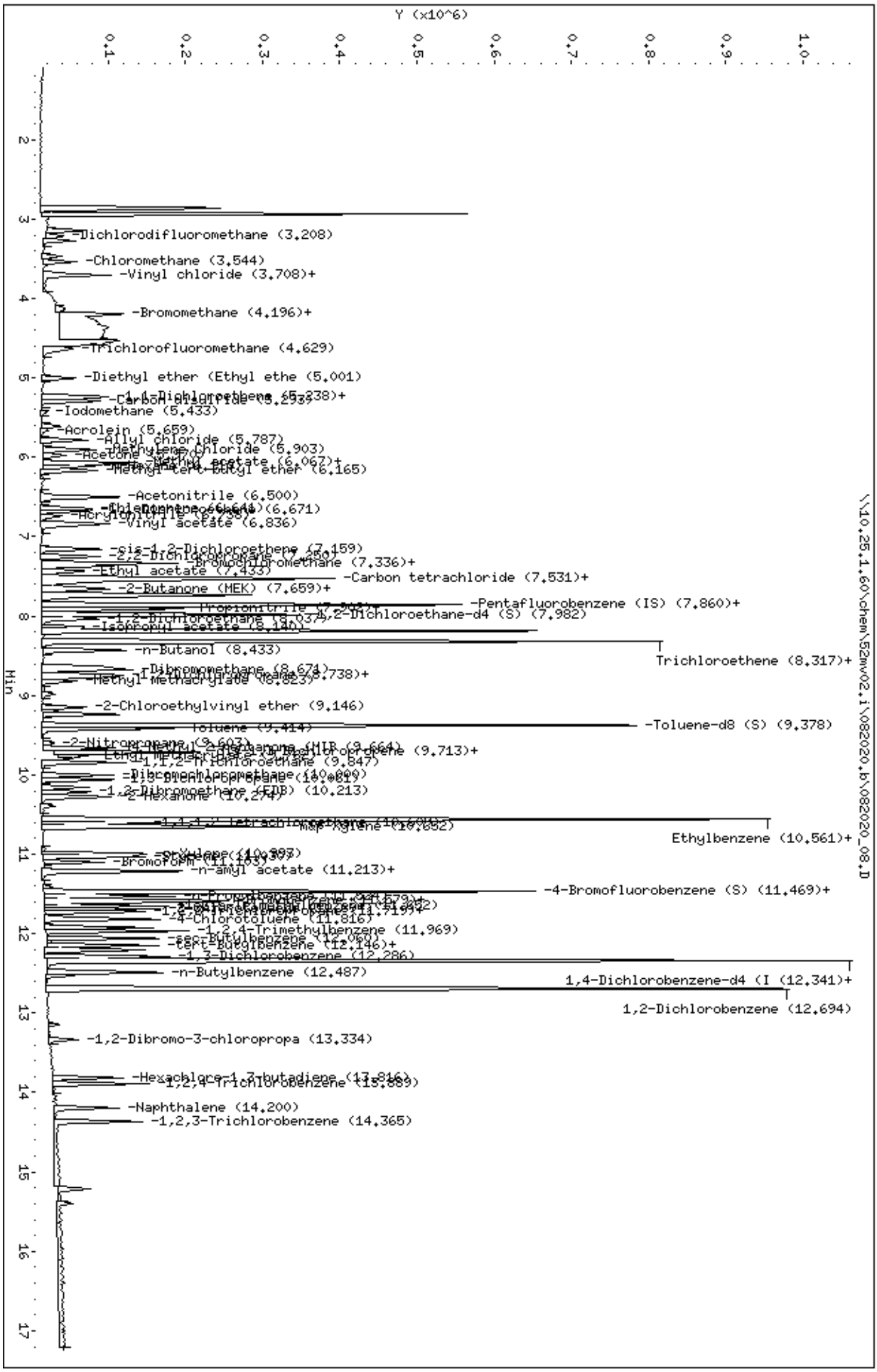
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_08.D
Date : 20-AUG-2020 12:55
Client ID: CAL6
Sample Info: CAL6,27242:1
Purge Volume: 5.0
Column phase: RTX-VMS

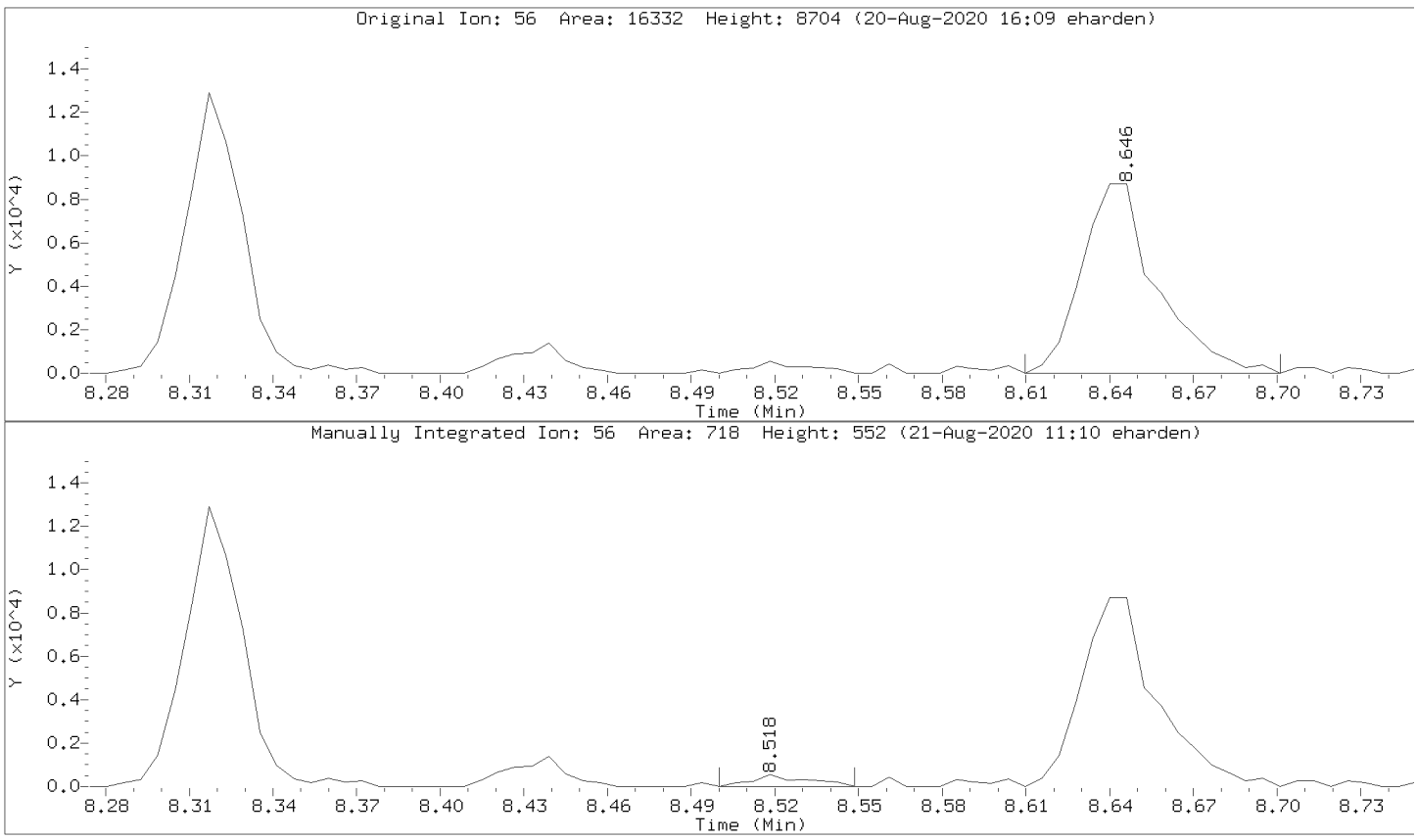
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Page 4

Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_08.D
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: n-Butanol Review Code: LT
CAS Number: 71-36-3



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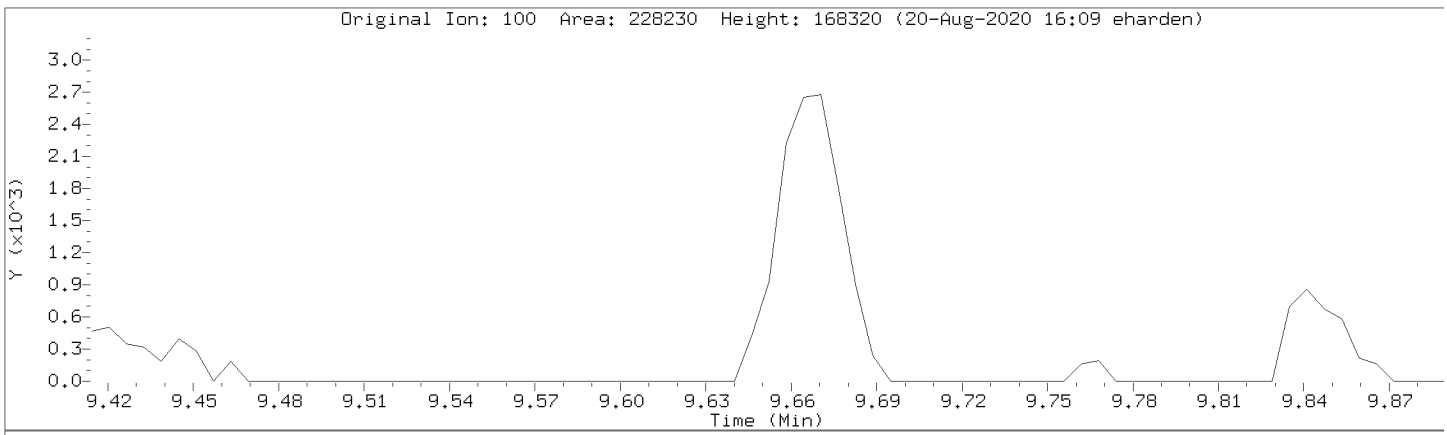
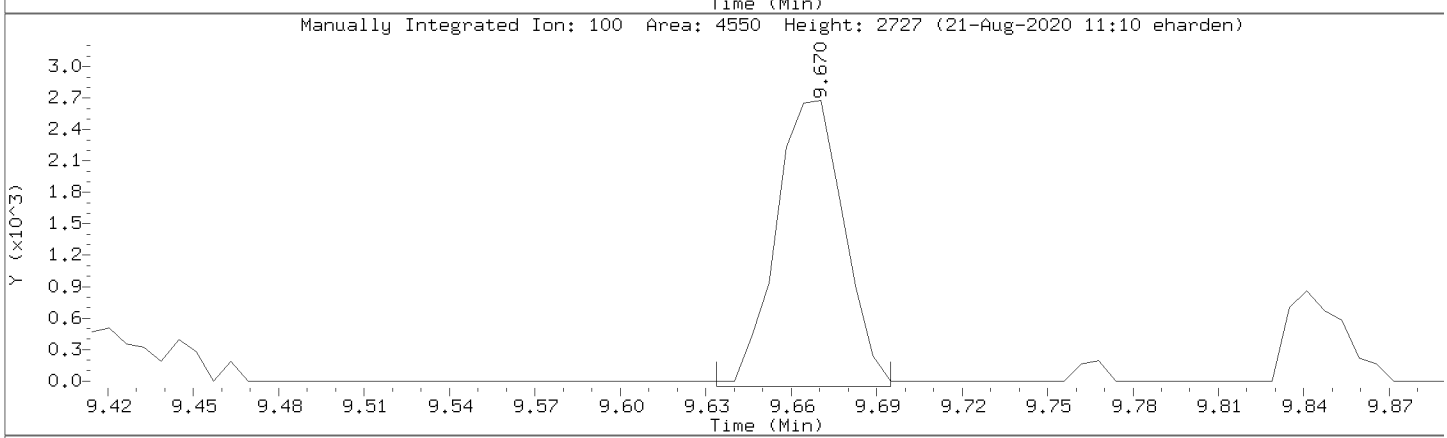
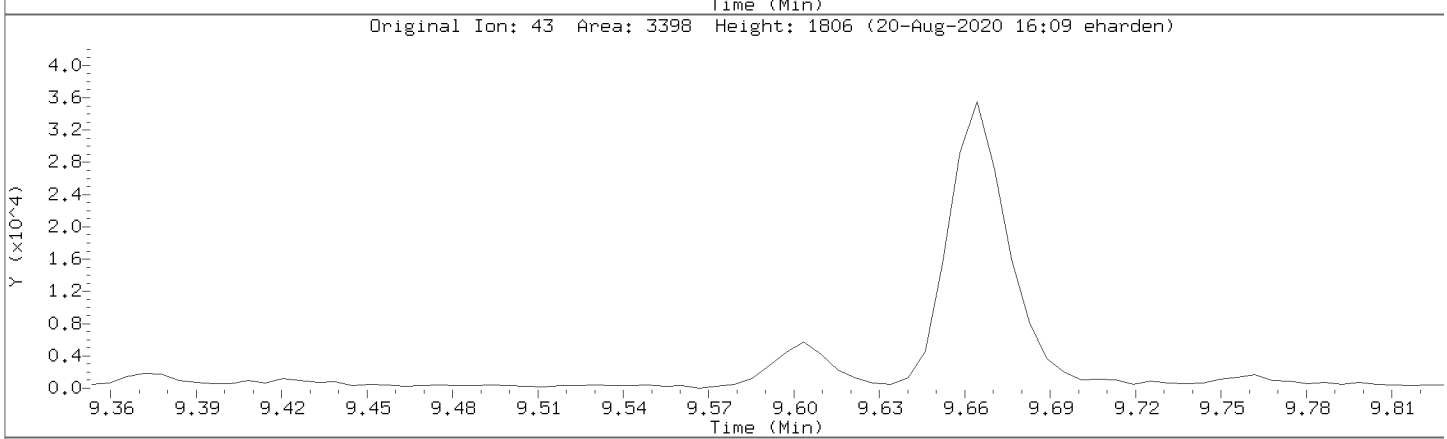
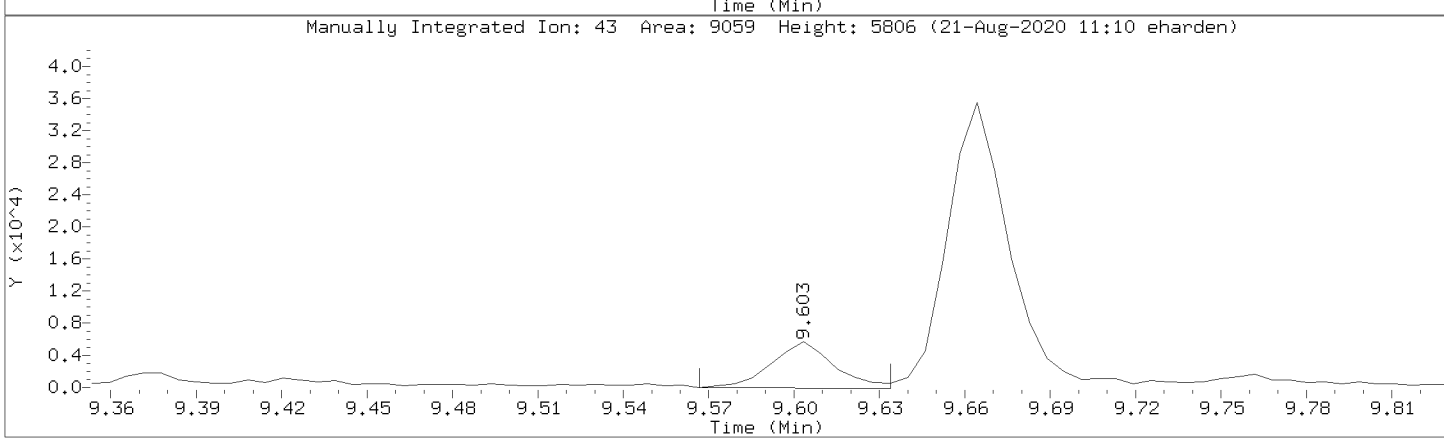
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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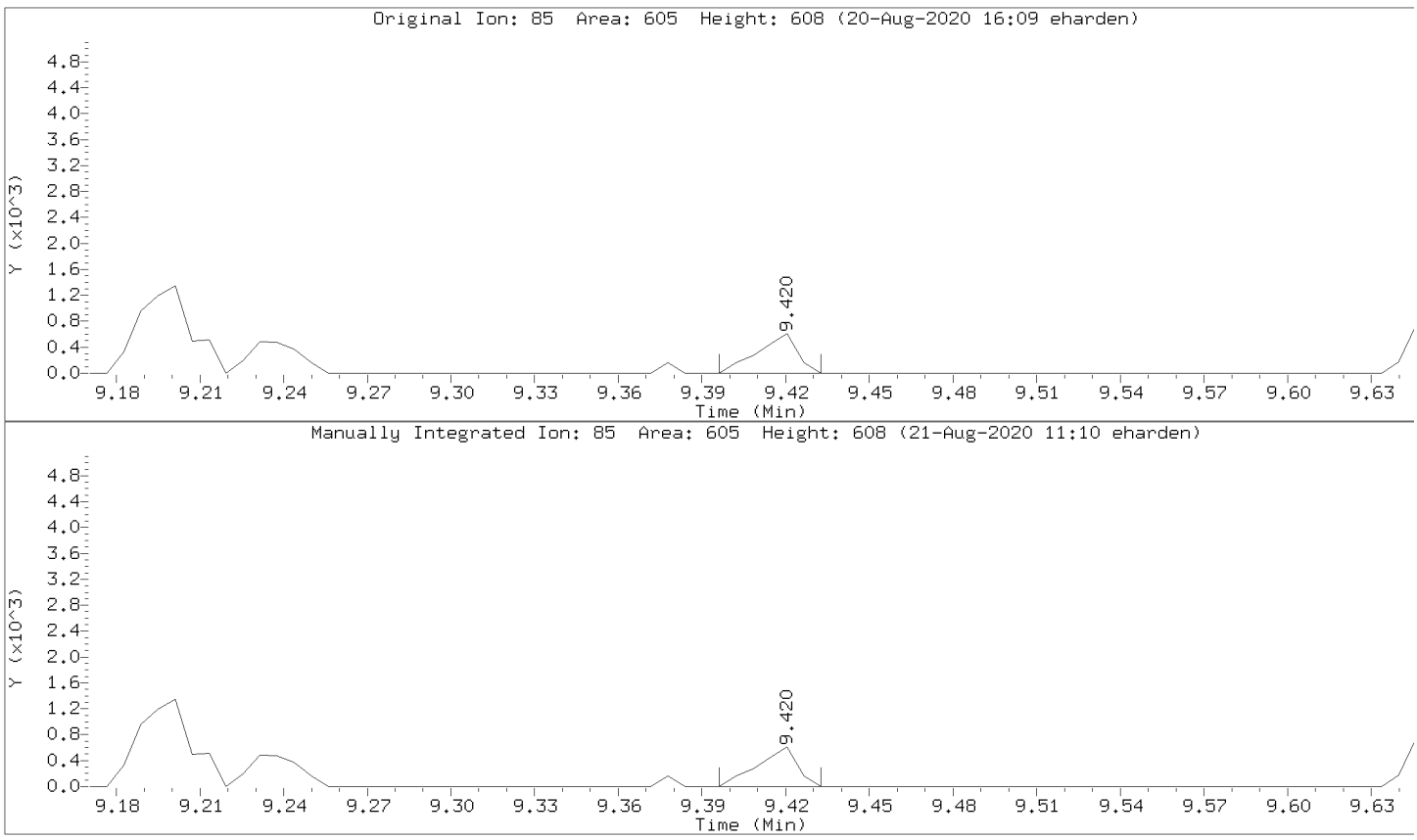
Instrument: 52mv02.i
Lab Sample ID: CAL6



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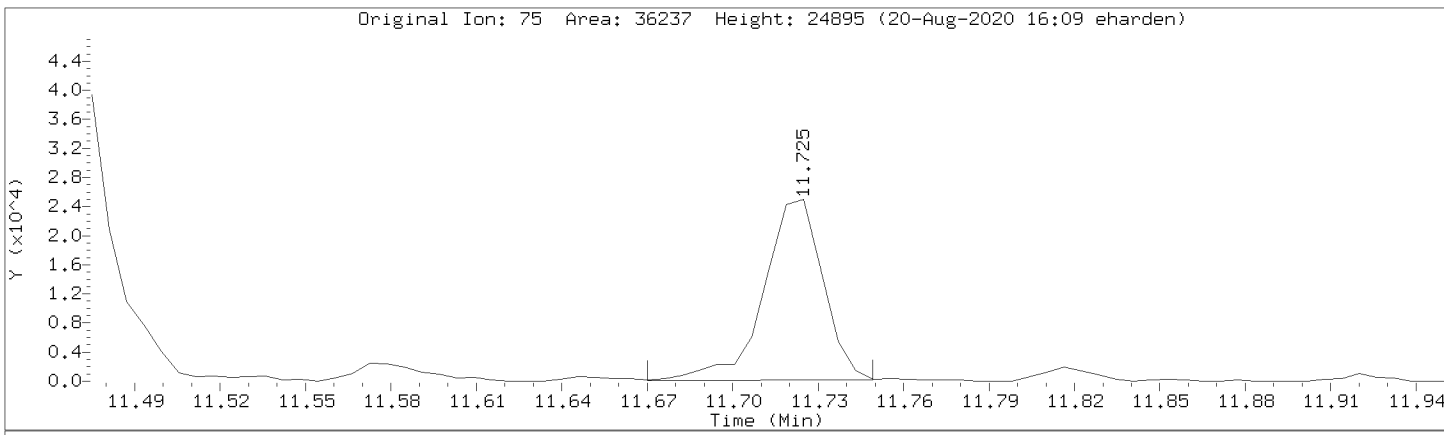
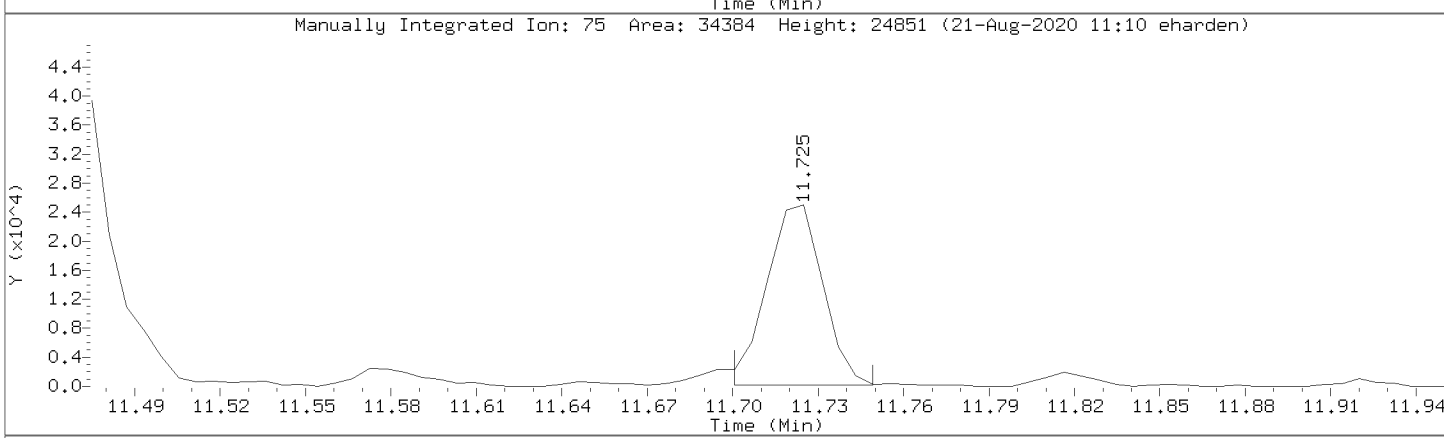
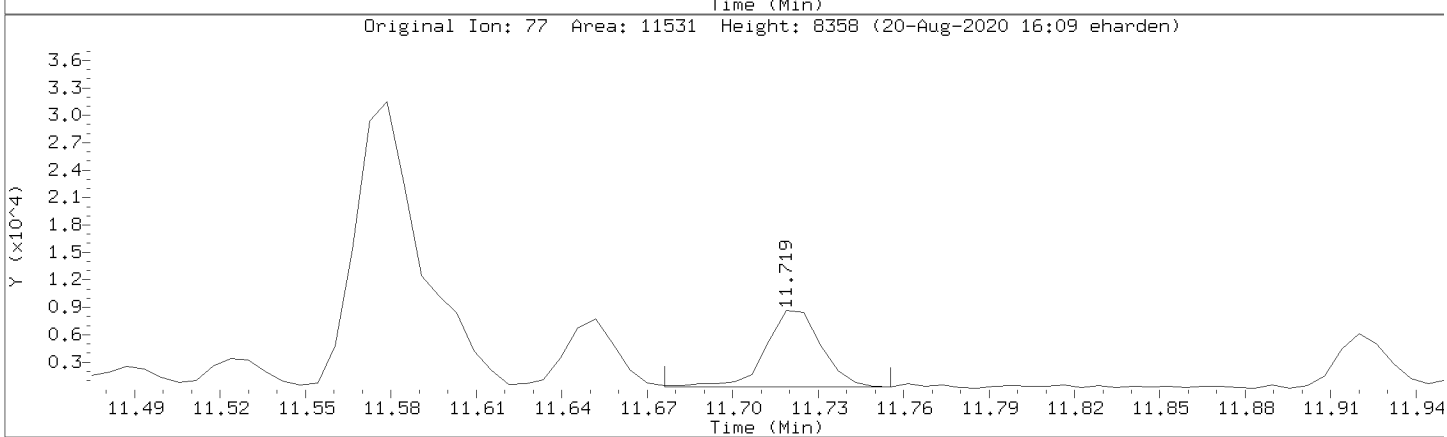
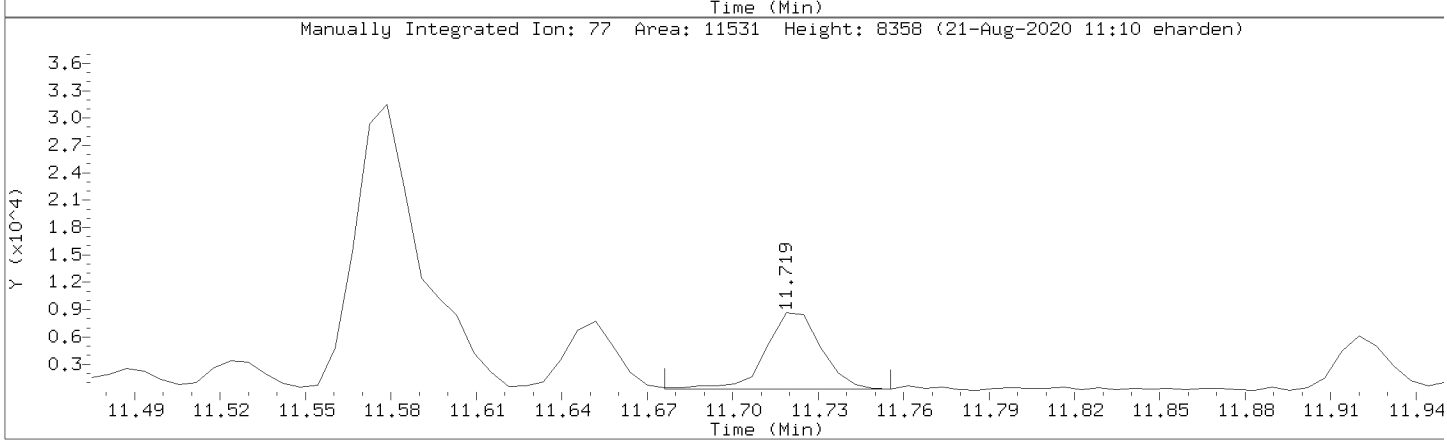
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: 1,2,3-Trichloropropane Review Code: CO
CAS Number: 96-18-4









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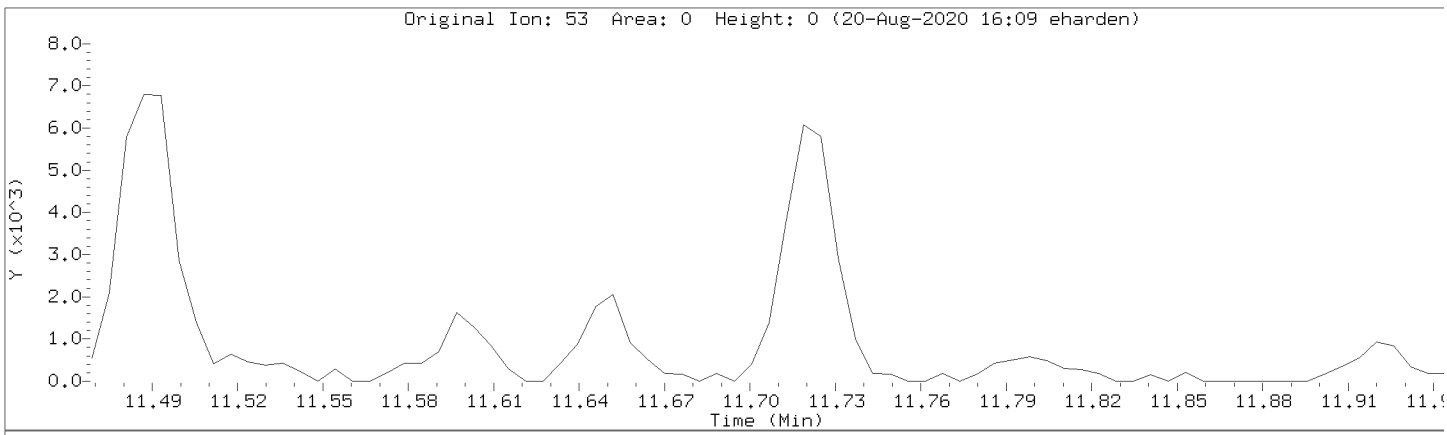
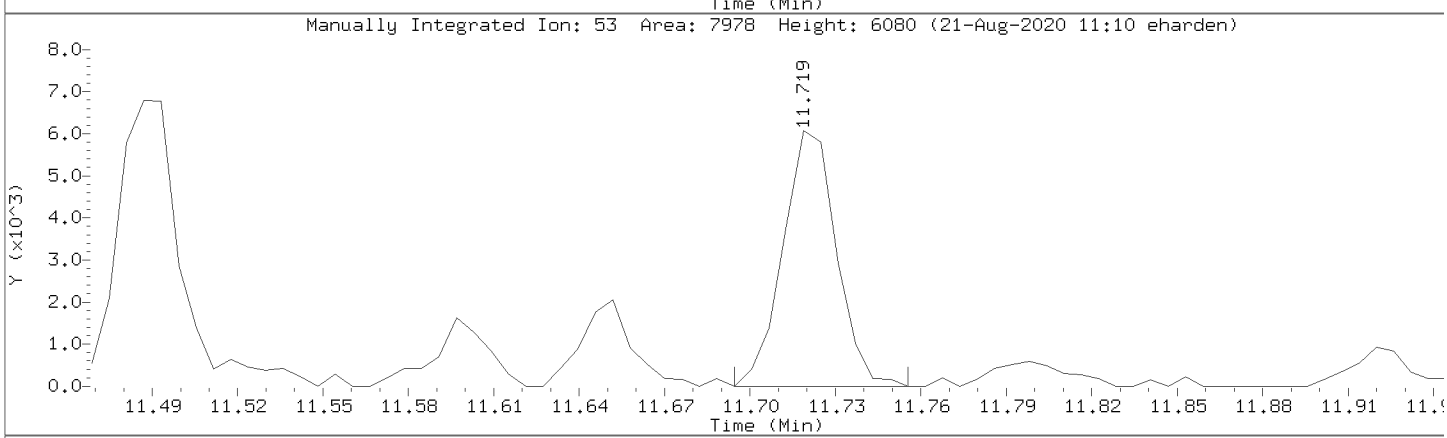
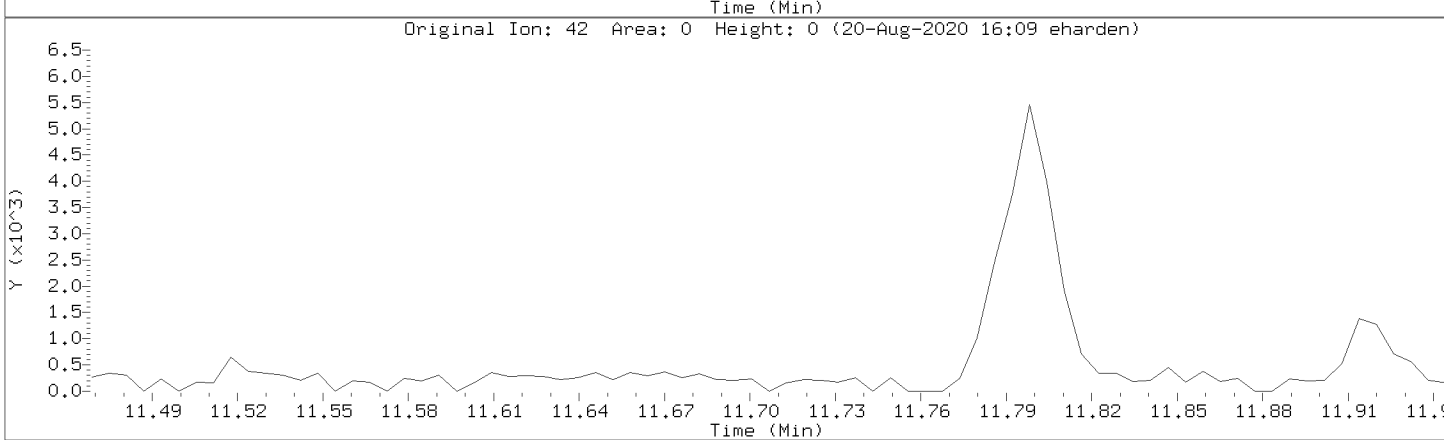
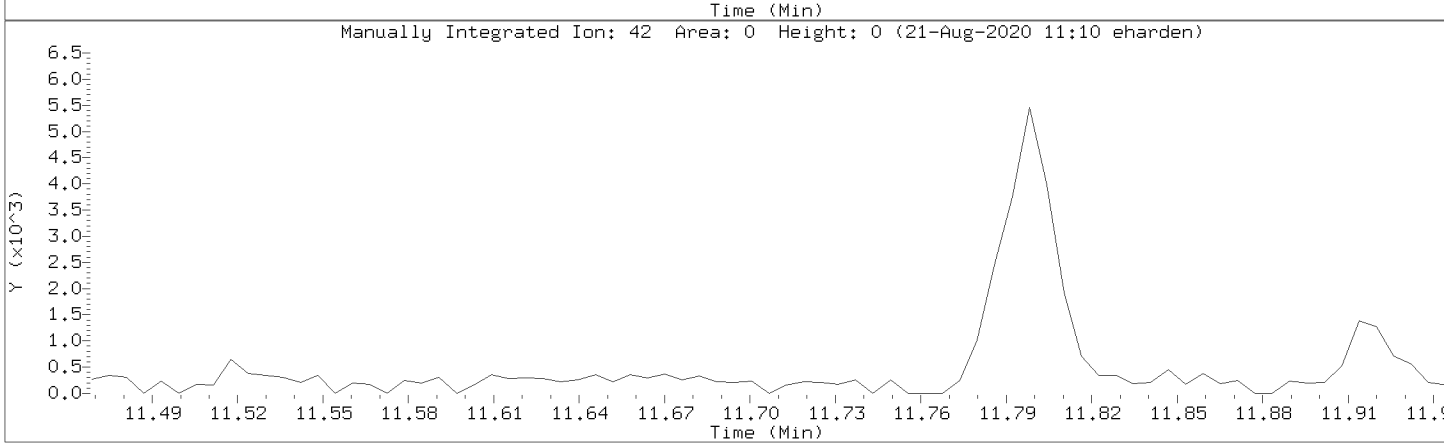
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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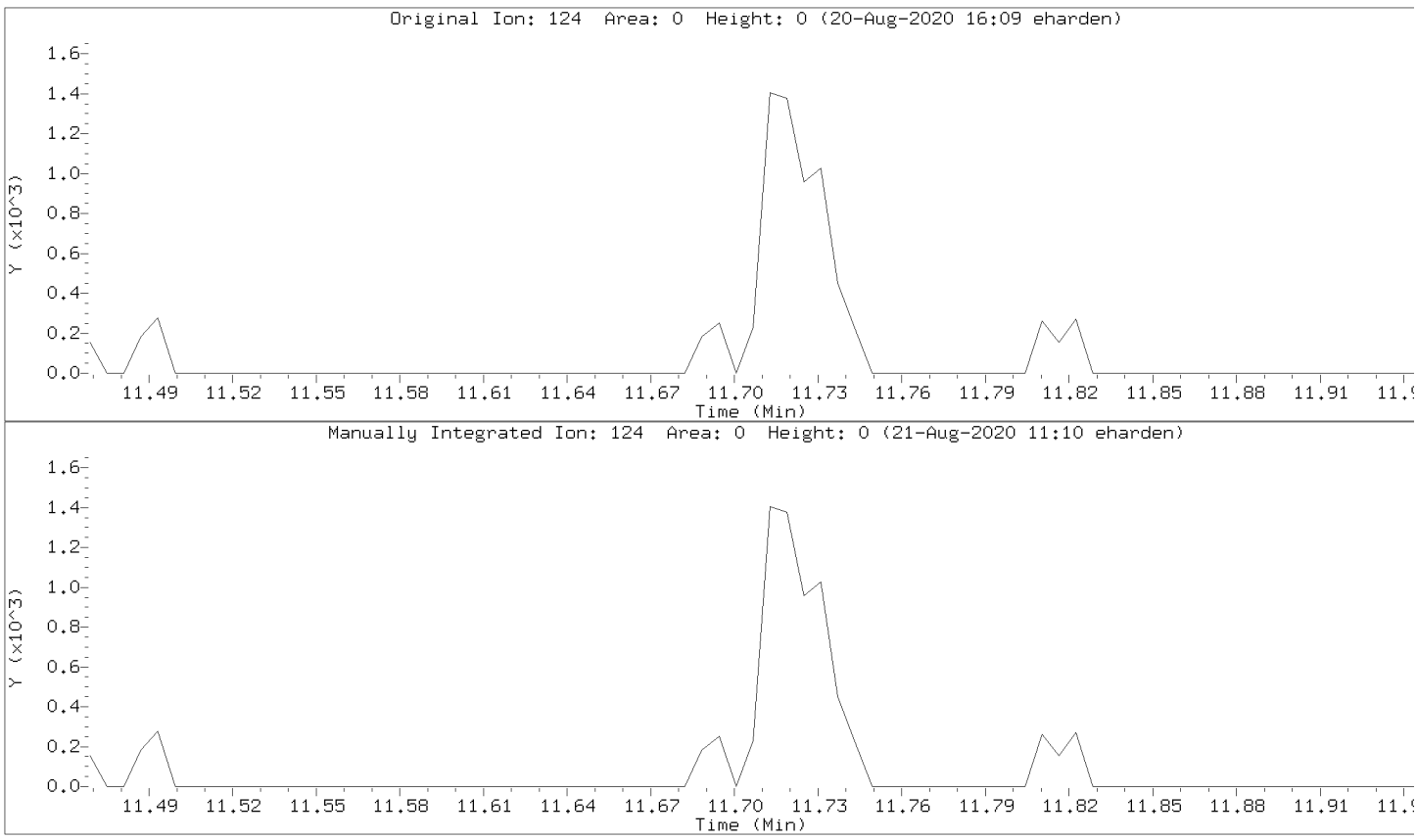
Instrument: 52mv02.i
Lab Sample ID: CAL6



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_09.D
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 20-AUG-2020 13:20
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal7,27243:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 13:20 Cal File: 082020_09.D
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.410)	66551	20.0000	21.2(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	81131	20.0000	21.6	
3 Vinyl chloride	62	3.702	3.702	(0.471)	61034	20.0000	19.8	
4 1,3-Butadiene	39	3.714	3.708	(0.473)	53829	20.0000	19.5	
5 Bromomethane	94	4.201	4.195	(0.535)	59646	20.0000	23.8	
6 Chloroethane	64	4.360	4.360	(0.555)	18003	20.0000	20.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	39067	20.0000	19.9	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	21772	20.0000	20.1	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	72854	20.0000	20.9	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	49223	20.0000	21.4	
11 Carbon disulfide	76	5.293	5.293	(0.673)	161348	20.0000	20.9	
12 Iodomethane	142	5.433	5.439	(0.691)	23205	20.0000	16.7	
13 Acrolein	56	5.659	5.659	(0.720)	14345	40.0000	39.8	
14 Allyl chloride	76	5.787	5.787	(0.736)	19759	20.0000	18.4	
15 Methylene Chloride	49	5.902	5.902	(0.751)	83879	20.0000	20.2	
16 Acetone	43	5.976	5.976	(0.760)	85965	40.0000	41.5	
17 Methyl acetate	43	6.067	6.067	(0.772)	105076	40.0000	43.5	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	47201	20.0000	20.0	
19 n-Hexane	86	6.116	6.110	(0.778)	4689	20.0000	18.8	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	110621	20.0000	20.1	
21 Acetonitrile	41	6.457	6.463	(0.822)	7995	40.0000	36.1(H)	
22 Chloroprene	53	6.646	6.640	(0.846)	66082	20.0000	20.1	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	95363	20.0000	20.8	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	41455	40.0000	41.6	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	94090	20.0000	20.8(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	66700	20.0000	19.8	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	69400	20.0000	19.6	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	31223	20.0000	21.2	
	29 Cyclohexane	56	7.335	7.335	(0.882)	58345	20.0000	19.6	
	30 Chloroform	83	7.372	7.372	(0.938)	106759	20.0000	20.6	
	31 Ethyl acetate	43	7.433	7.433	(0.946)	117599	40.0000	40.2	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	76046	20.0000	21.6	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	31173	40.0000	41.7	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	149580	50.0000	49.9	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	85319	20.0000	21.4	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	94574	40.0000	42.3	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	58568	20.0000	21.1(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	260205	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	184702	20.0000	20.6	
	40 Propionitrile	54	7.896	7.902	(1.005)	18434	40.0000	41.6	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	92418	40.0000	41.0	
	42 Isobutanol	43	7.993	7.987	(1.017)	3297	40.0000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	27279	50.0000	50.6	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	81970	20.0000	20.2	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	100475	20.0000	20.7	
	46 Trichloroethene	130	8.317	8.317	(1.000)	52418	20.0000	21.4	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	349844	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	23561	20.0000	20.3	
	49 n-Butanol	56	8.512	8.524	(1.023)	2226	40.0000	41.6(H)	
	50 Dibromomethane	93	8.670	8.670	(1.043)	43883	20.0000	21.0	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	54314	20.0000	21.3	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	81003	20.0000	22.1	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	25633	20.0000	17.7	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	1026	40.0000	(M)	LT
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	40736	40.0000	32.0	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	73456	20.0000	20.6	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	379010	50.0000	50.3	
	58 Toluene	91	9.414	9.414	(1.132)	176320	20.0000	20.2	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	16319	20.0000	18.5(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	8556	40.0000	34.2(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	73456	20.0000	20.6	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	46748	20.0000	20.6	
	63 Ethyl methacrylate	69	9.755	9.761	(1.173)	47723	20.0000	17.4(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	46024	20.0000	20.8	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	66111	20.0000	21.0	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	70284	20.0000	20.8	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	55408	20.0000	20.5	
	68 2-Hexanone	43	10.273	10.280	(1.235)	121220	40.0000	41.0	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	164499	20.0000	19.0	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	330753	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	128596	20.0000	20.2	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	54617	20.0000	20.3	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	280615	40.0000	37.3	
	74 o-Xylene	106	10.993	10.993	(1.041)	56802	20.0000	16.3	
	75 Styrene	104	11.029	11.029	(1.044)	103176	20.0000	17.0	
	76 Bromoform	173	11.103	11.103	(1.051)	60029	20.0000	20.1	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	92598	20.0000	17.8	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	136161	50.0000	50.2	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	19403	20.0000	17.9	
80 n-Propylbenzene	91	11.529	11.523	(1.092)	212436	20.0000	20.0	
81 Bromobenzene	156	11.578	11.578	(1.096)	70823	20.0000	21.2	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	73479	20.0000	20.8	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	142512	20.0000	20.4	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	50034	20.0000	20.0	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	45527	20.0000	18.1	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	150389	20.0000	16.8	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	76477	20.0000	20.7	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	16946	20.0000	19.9	
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	132498	20.0000	16.6	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	145095	20.0000	17.9	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	171564	20.0000	17.9	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	132498	20.0000	16.6	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	112298	20.0000	19.9	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	212042	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	118836	20.0000	18.7	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	139939	20.0000	18.9	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	117112	20.0000	19.0	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	12299	20.0000	17.7	
100 Hexachloro-1,3-butadiene	225	13.815	13.822	(1.120)	34339	20.0000	18.2	
101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	73609	20.0000	17.6	
102 Naphthalene	128	14.193	14.193	(1.150)	120284	20.0000	14.9	
103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	74200	20.0000	19.1	

QC Flag Legend

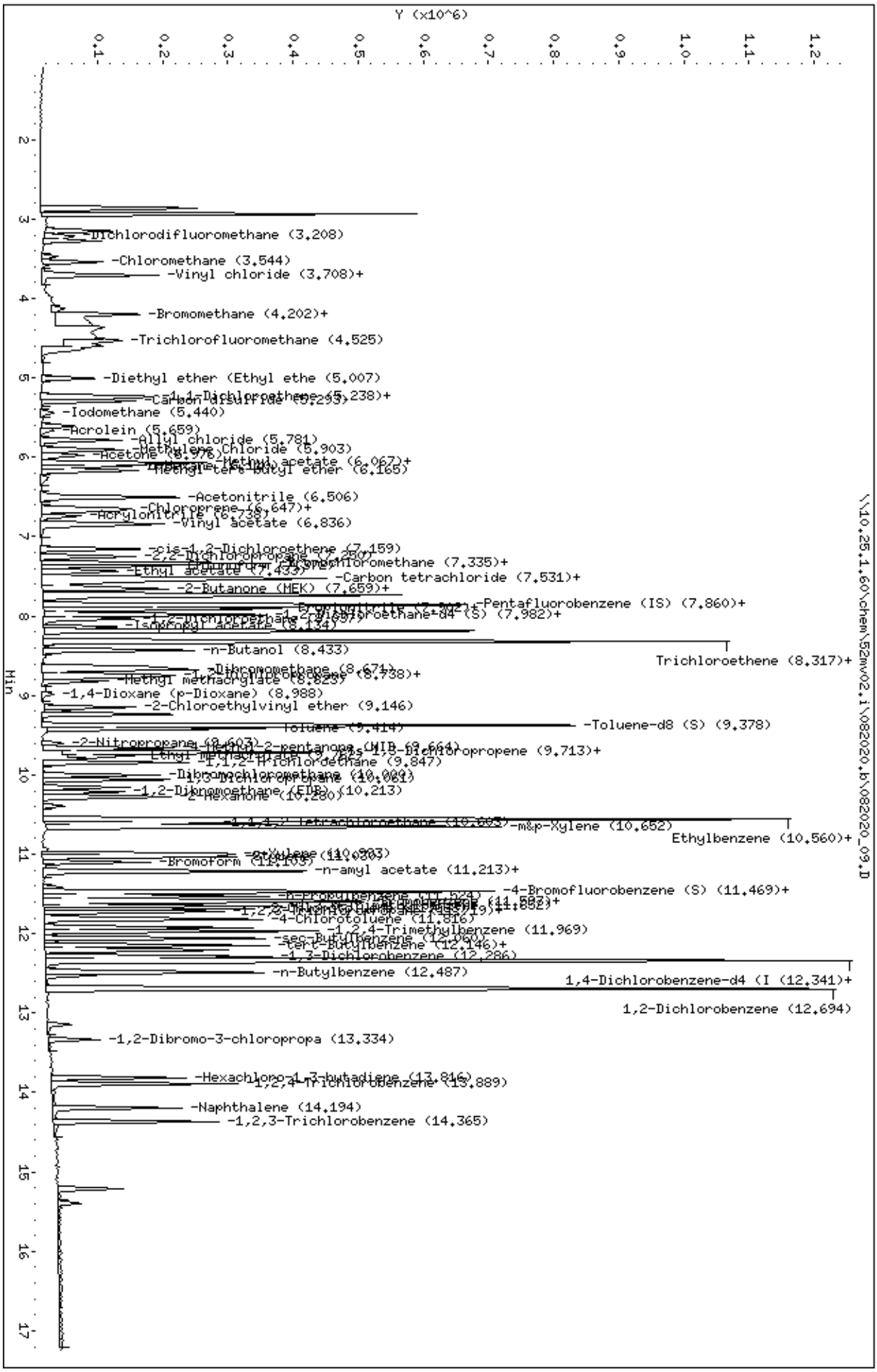
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_09.D
Date : 20-AUG-2020 13:20
Client ID: CAL7
Sample Info: CAL7,27243:1
Purge Volume: 5.0
Column phase: RTX-VMS

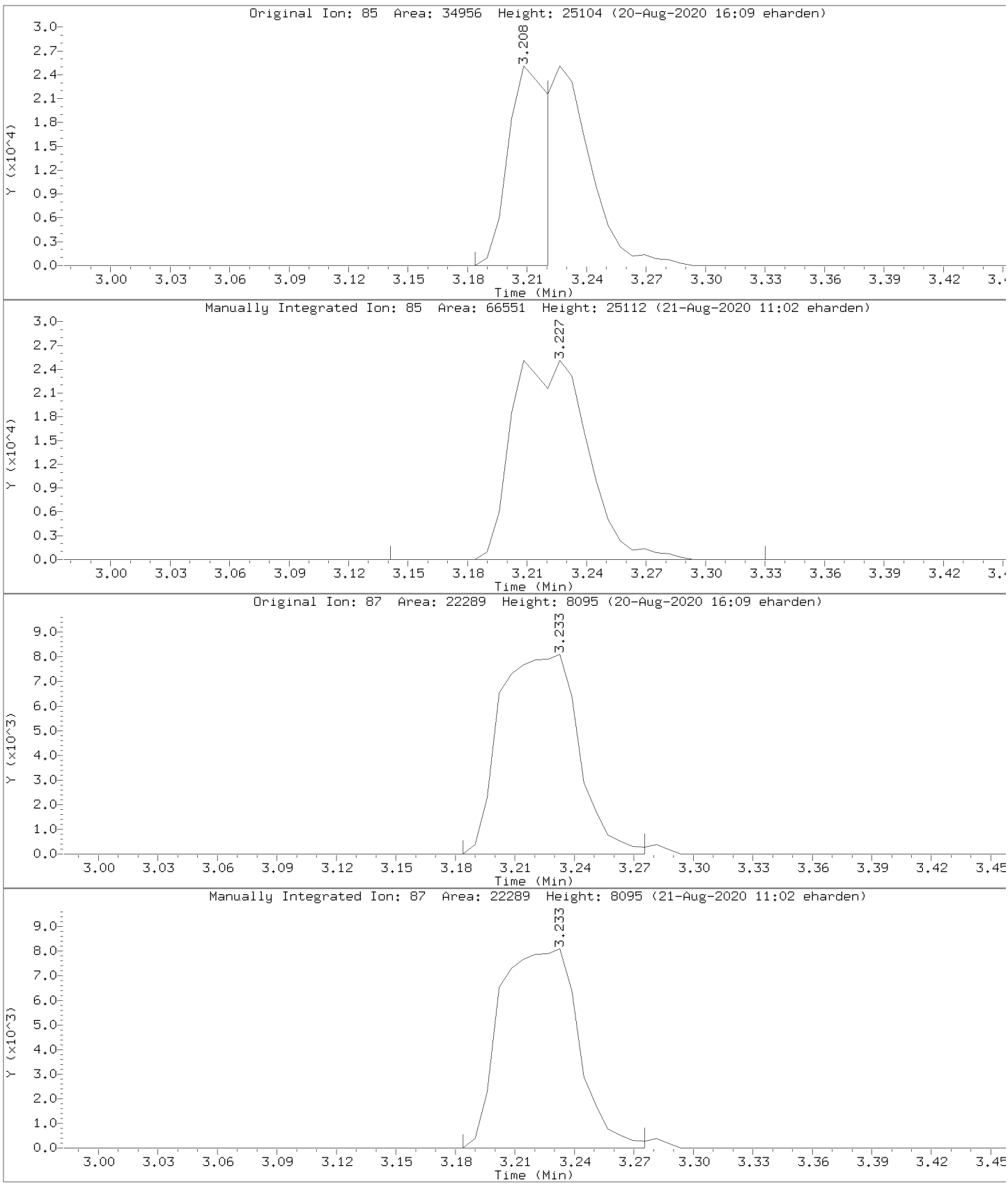
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Page 4

Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_09.D
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



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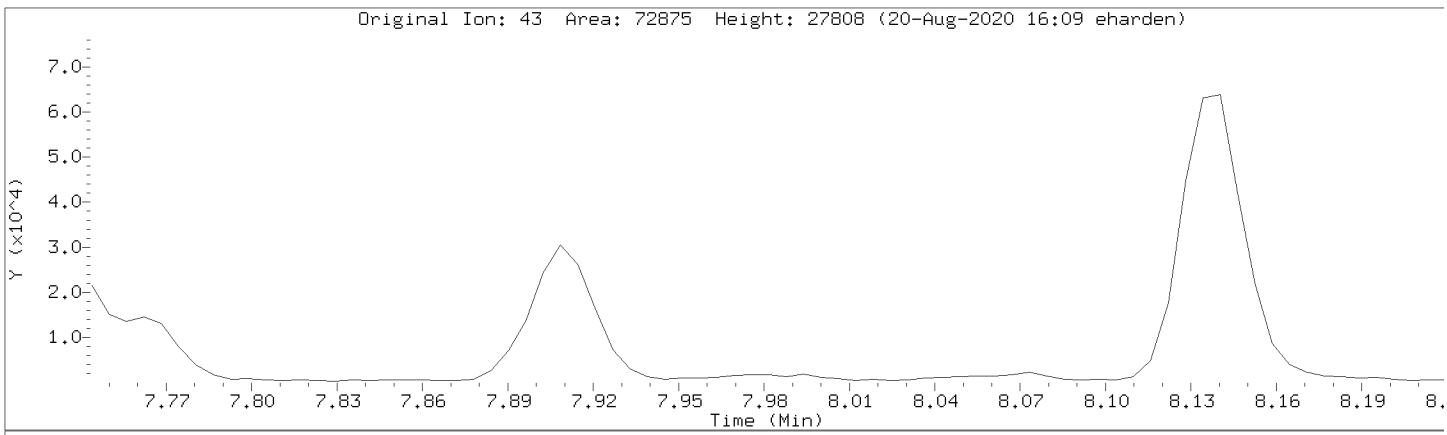
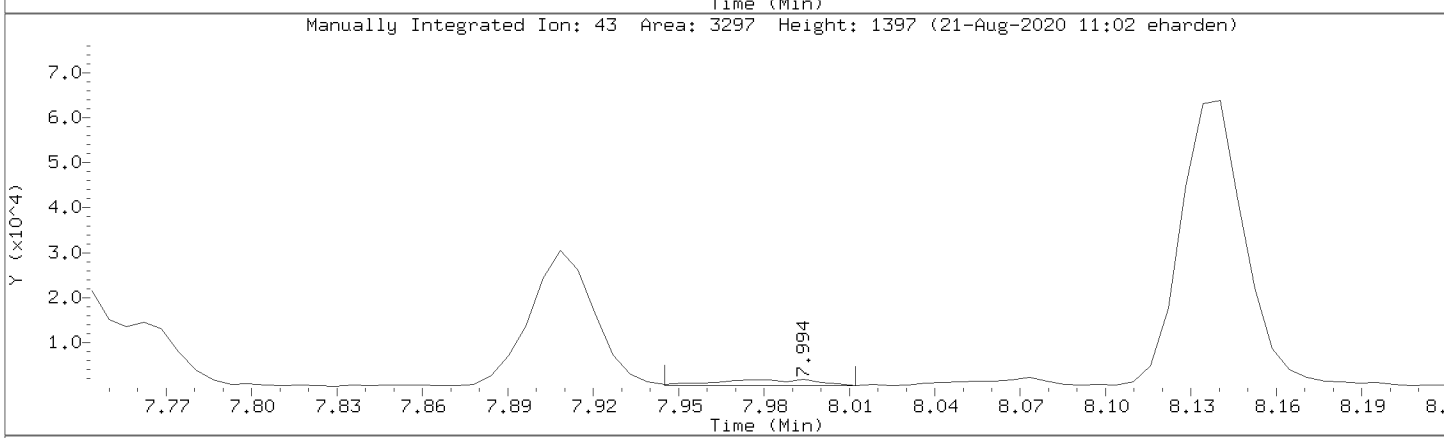
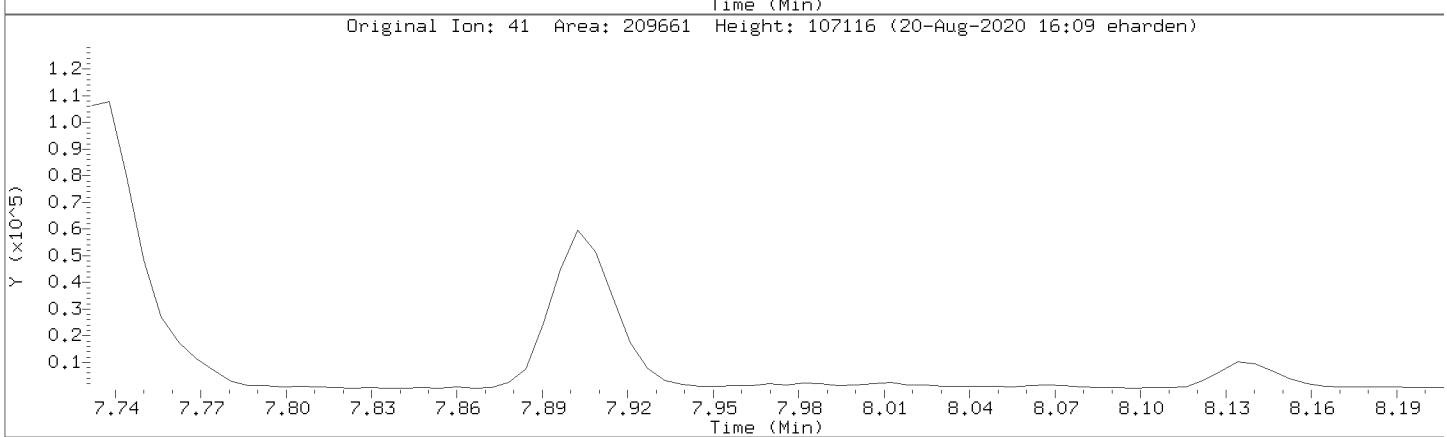
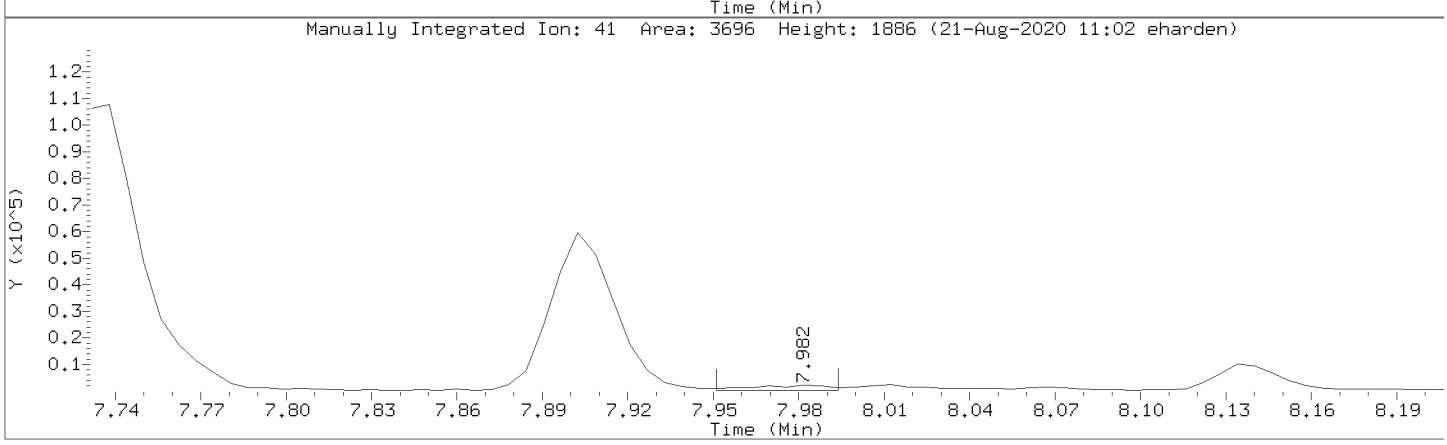
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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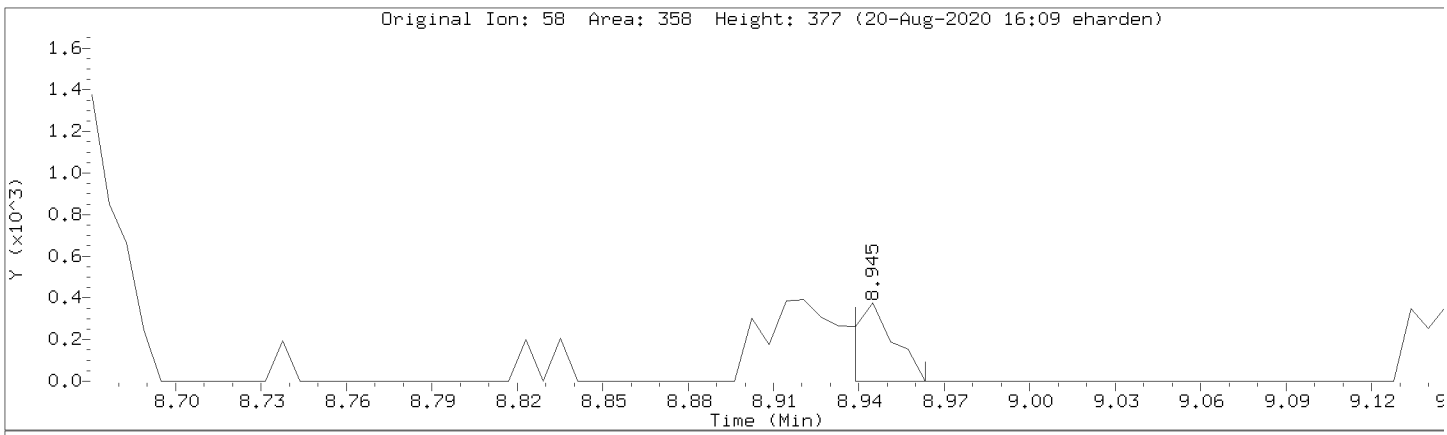
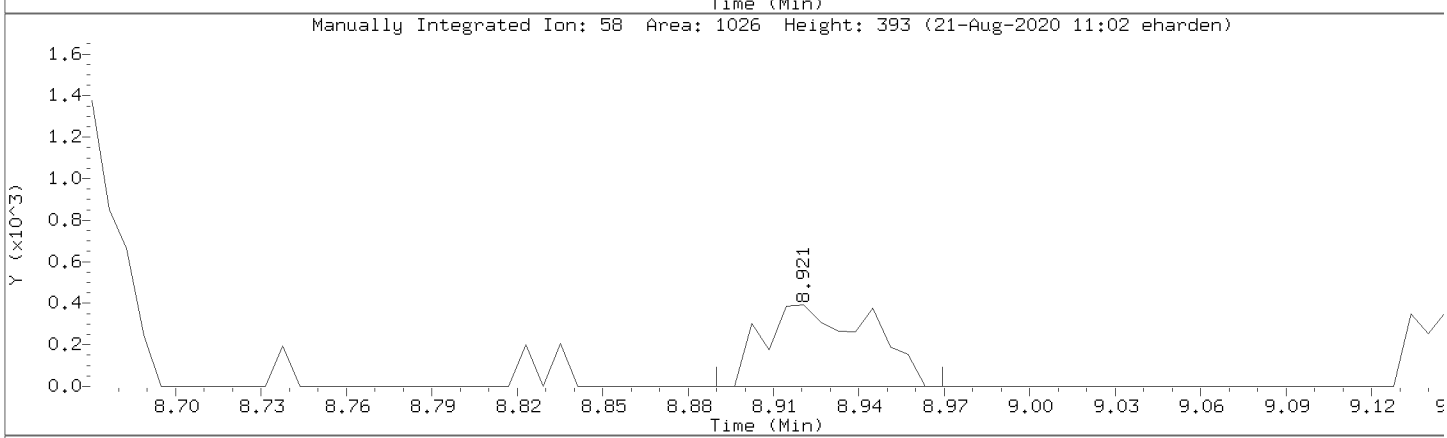
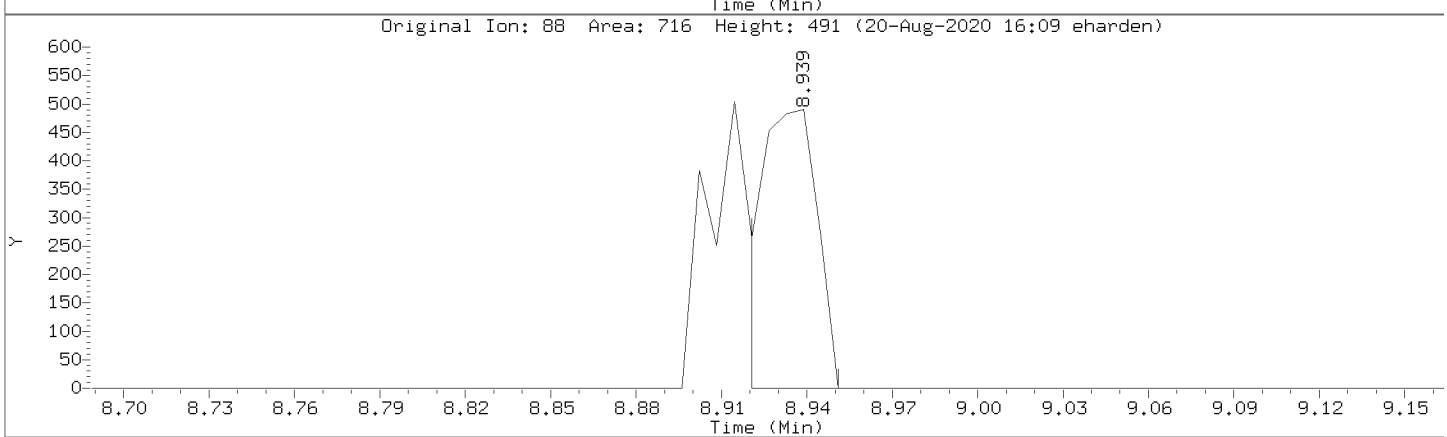
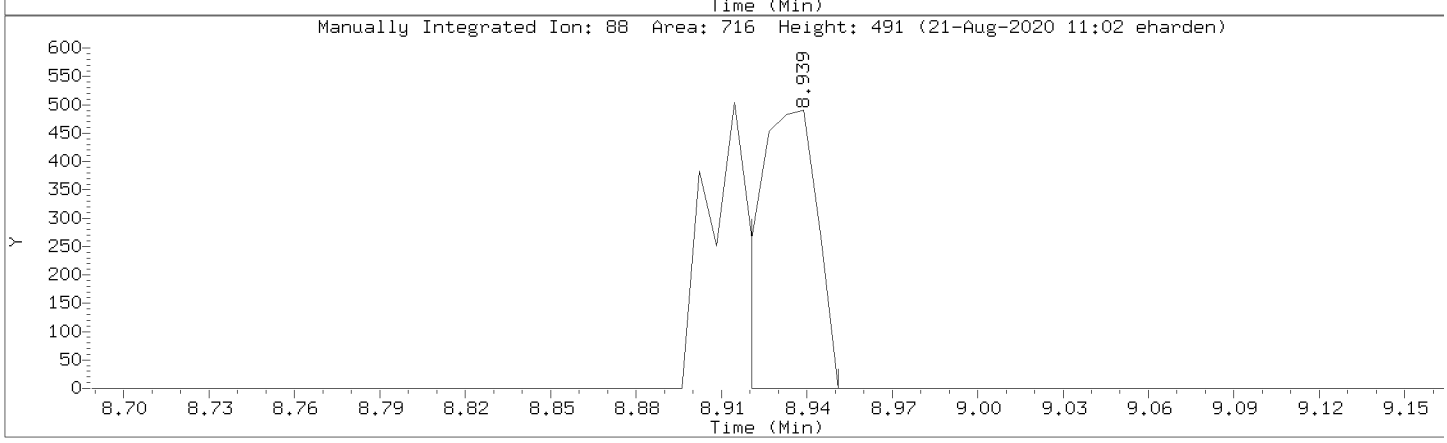
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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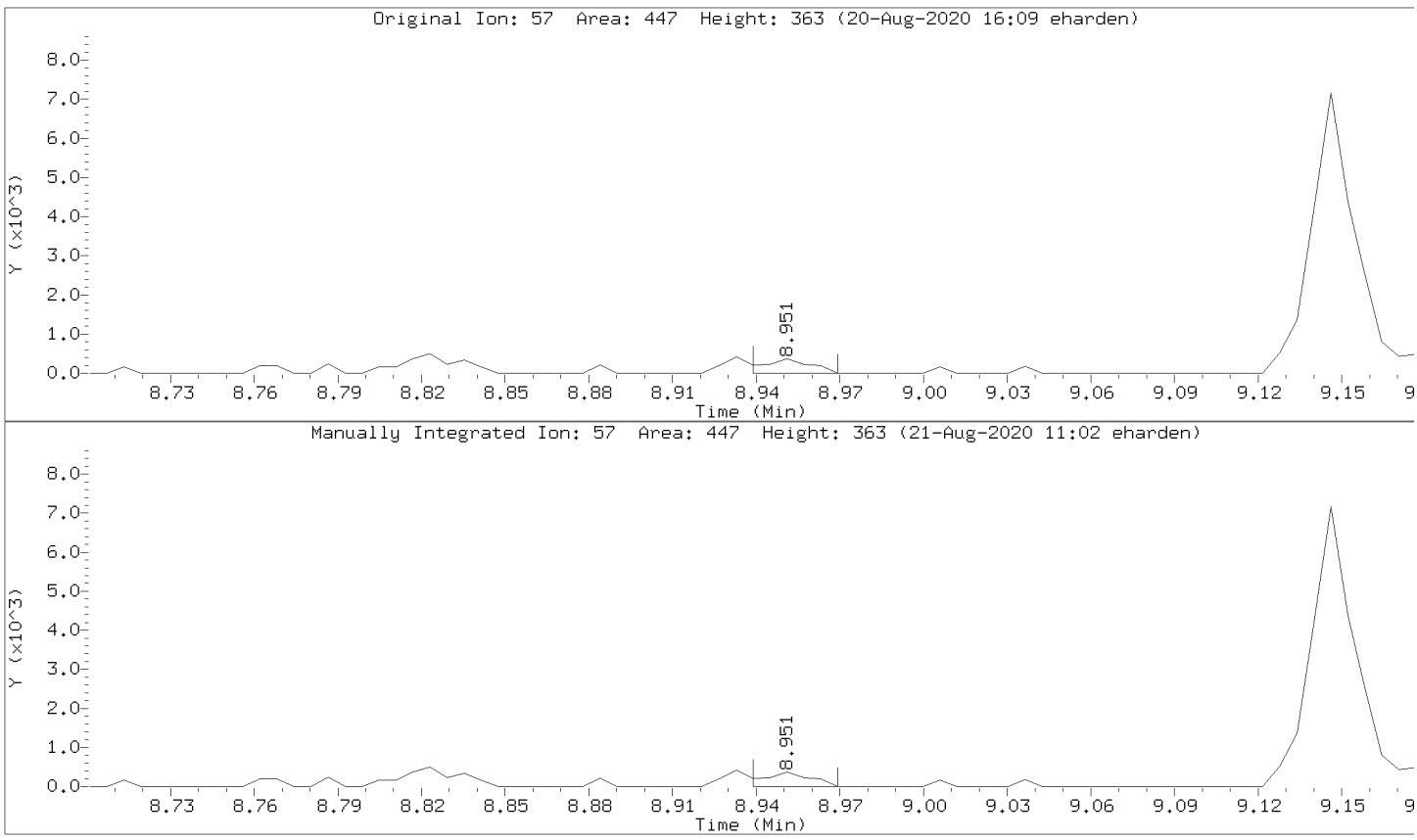
Instrument: 52mv02.i
Lab Sample ID: CAL7



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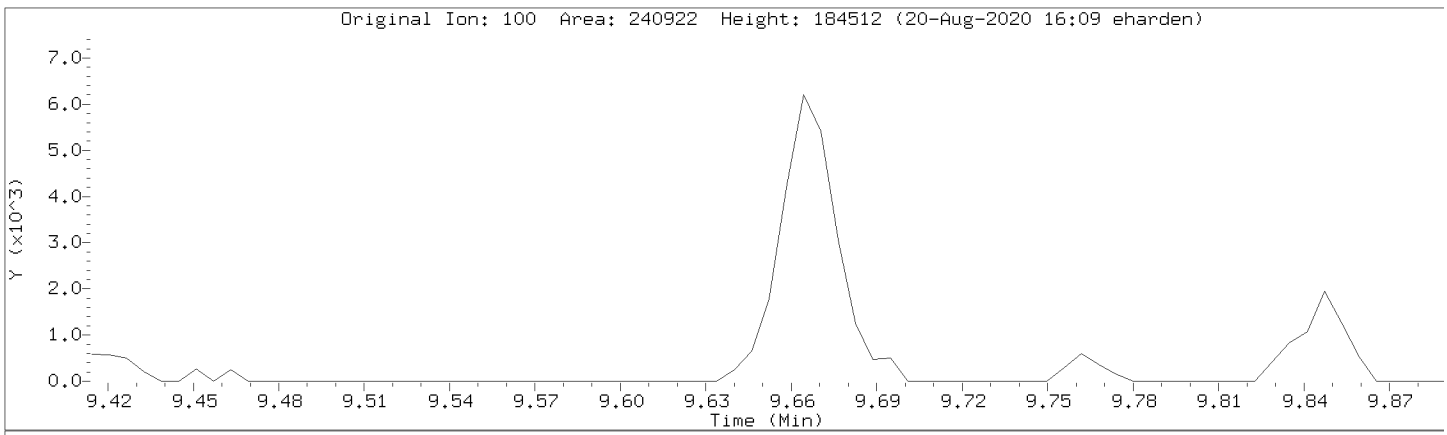
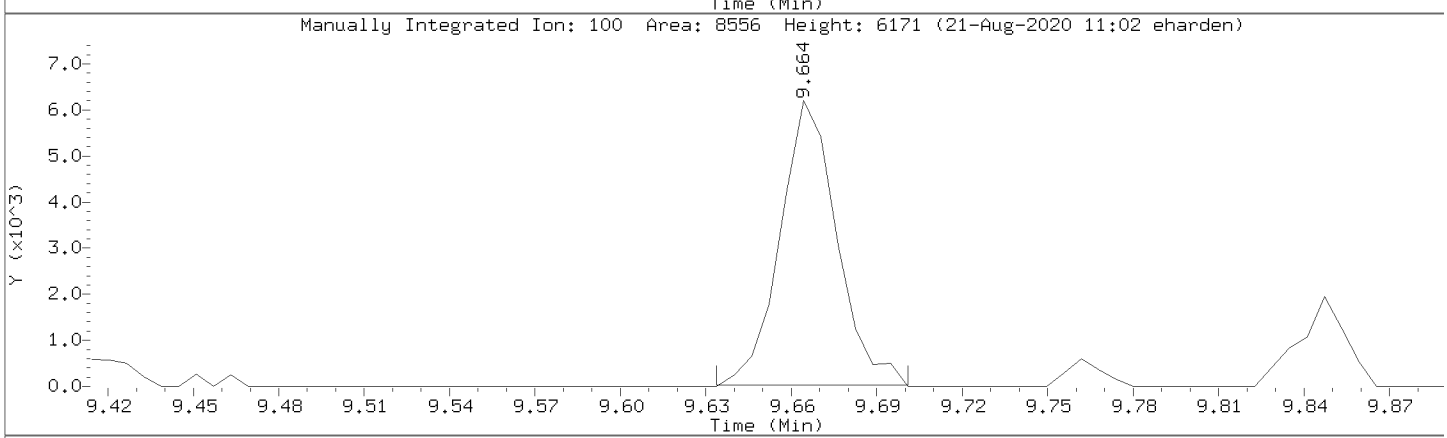
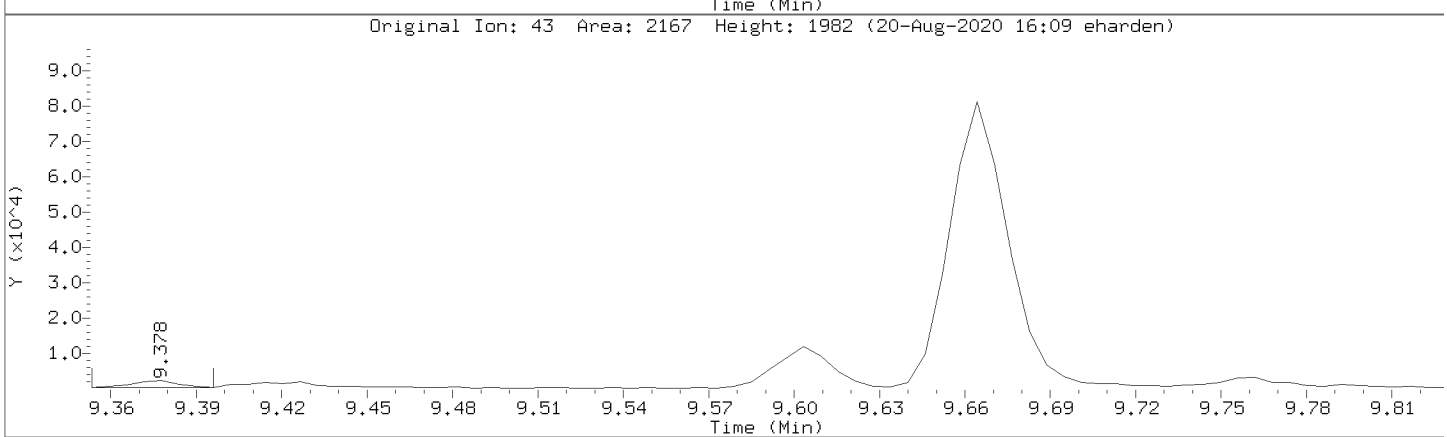
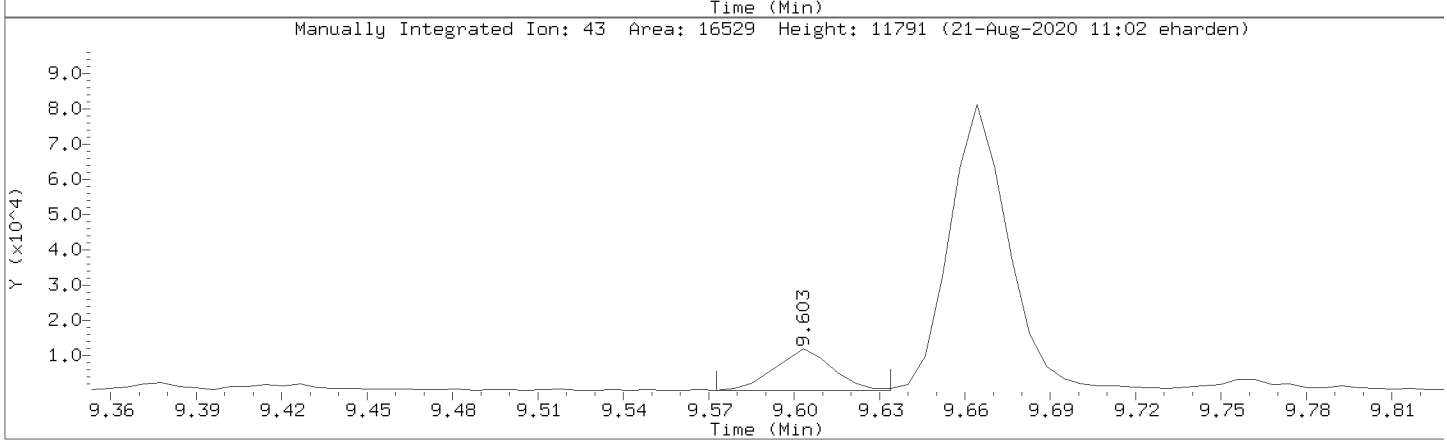
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1

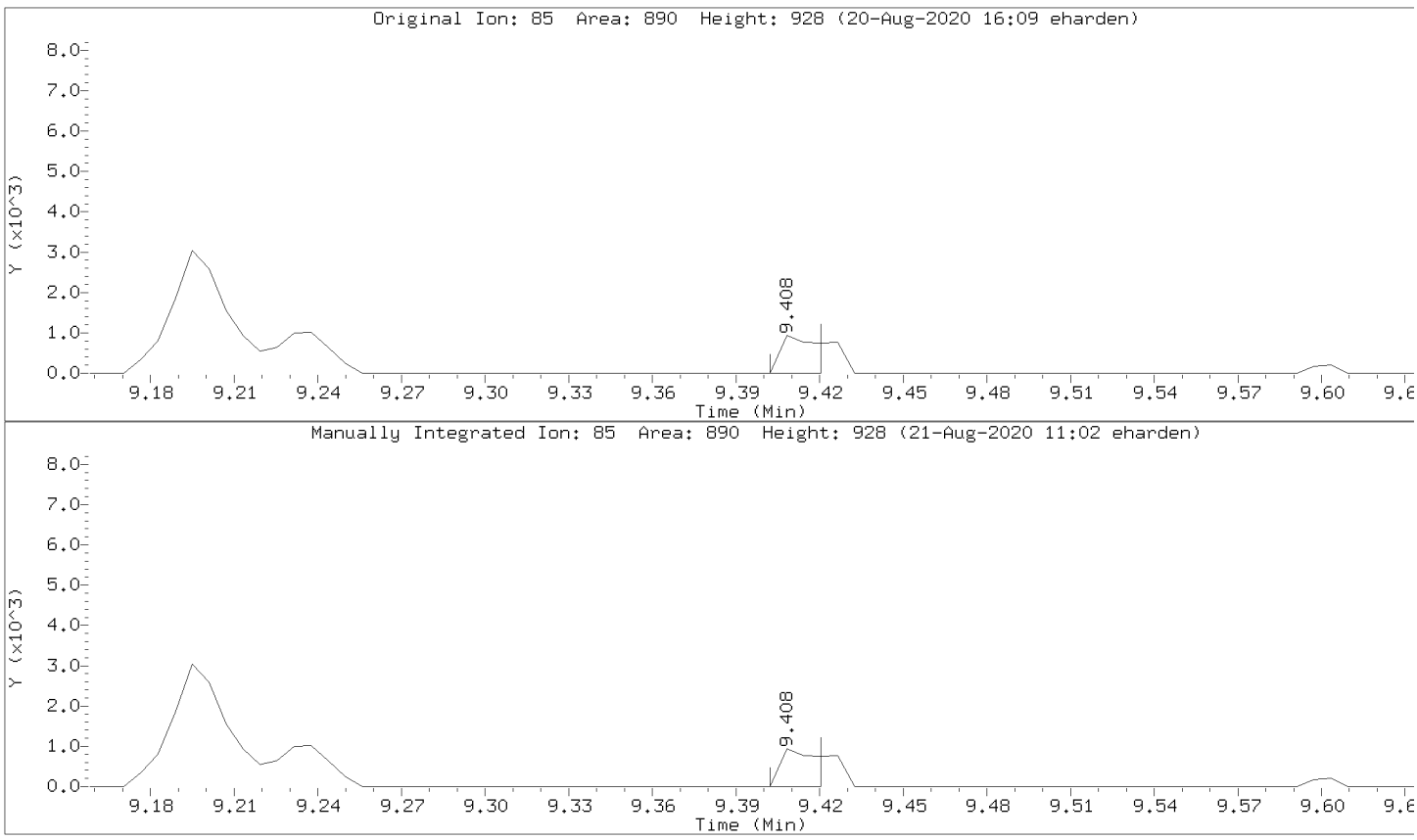








Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_09.D
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_10.D
Lab Smp Id: CAL8 Client Smp ID: CAL8
Inj Date : 20-AUG-2020 13:45
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal8,27244:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 13:45 Cal File: 082020_10.D
Als bottle: 8 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.220	3.226	(0.410)	173079	50.0000	49.6(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	212550	50.0000	52.0	
3 Vinyl chloride	62	3.695	3.702	(0.470)	166119	50.0000	48.4	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	144991	50.0000	47.2	
5 Bromomethane	94	4.201	4.195	(0.535)	130011	50.0000	49.7	
6 Chloroethane	64	4.366	4.360	(0.556)	50765	50.0000	53.1	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	100155	50.0000	45.9	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	58875	50.0000	48.9	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	192156	50.0000	49.5	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	122394	50.0000	47.8	
11 Carbon disulfide	76	5.287	5.293	(0.673)	413695	50.0000	48.1	
12 Iodomethane	142	5.439	5.439	(0.692)	89679	50.0000	44.8	
13 Acrolein	56	5.658	5.659	(0.720)	37965	100.000	94.7	
14 Allyl chloride	76	5.780	5.787	(0.736)	56951	50.0000	47.7	
15 Methylene Chloride	49	5.902	5.902	(0.751)	216337	50.0000	46.9	
16 Acetone	43	5.969	5.976	(0.760)	217508	100.000	96.6	
17 Methyl acetate	43	6.067	6.067	(0.772)	274607	100.000	103	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	124266	50.0000	47.4	
19 n-Hexane	86	6.110	6.110	(0.777)	14689	50.0000	52.8	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	314639	50.0000	51.4	
21 Acetonitrile	41	6.457	6.463	(0.822)	27093	100.000	111(H)	
22 Chloroprene	53	6.640	6.640	(0.845)	195675	50.0000	53.5	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	251927	50.0000	49.4	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	102650	100.000	92.7	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	281798	50.0000	55.9	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	185024	50.0000	49.2	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	182412	50.0000	46.4	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	78756	50.0000	48.0	
	29 Cyclohexane	56	7.335	7.335	(0.882)	177735	50.0000	54.3	
	30 Chloroform	83	7.372	7.372	(0.938)	280462	50.0000	48.6	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	323030	100.000	99.3	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	200727	50.0000	51.8	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	79823	100.000	99.2	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	159185	50.0000	47.8	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	220636	50.0000	50.3	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	237312	100.000	95.5(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	162055	50.0000	53.2(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	289504	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	489899	50.0000	49.8	
	40 Propionitrile	54	7.890	7.902	(1.004)	49807	100.000	101	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	257917	100.000	103	
	42 Isobutanol	43	7.963	7.987	(1.013)	9414	100.000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	27652	50.0000	46.1	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	209549	50.0000	46.3	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	280793	50.0000	52.1	
	46 Trichloroethene	130	8.316	8.317	(1.000)	136449	50.0000	50.7	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	384566	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	63924	50.0000	50.2	
	49 n-Butanol	56	8.518	8.524	(1.024)	6256	100.000	106(M)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	115423	50.0000	50.4	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	141305	50.0000	50.3	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	214260	50.0000	53.1	
	53 Methyl methacrylate	69	8.822	8.823	(1.061)	75413	50.0000	46.2	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	1885	100.000		
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	131862	100.000	90.8	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	204555	50.0000	52.2	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	414998	50.0000	50.1	
	58 Toluene	91	9.414	9.414	(1.132)	484269	50.0000	50.5	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	44089	50.0000	46.2(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	28658	100.000	104(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	204310	50.0000	52.2	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	126445	50.0000	50.1	
	63 Ethyl methacrylate	69	9.755	9.761	(1.173)	146188	50.0000	47.0(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	115505	50.0000	47.5	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	175886	50.0000	50.3	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	193129	50.0000	52.1	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	146153	50.0000	48.8	
	68 2-Hexanone	43	10.280	10.280	(1.236)	360382	100.000	111	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	498717	50.0000	51.9	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	367527	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	344375	50.0000	48.6	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	141151	50.0000	47.1	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	829841	100.000	98.6	
	74 o-Xylene	106	10.993	10.993	(1.041)	177926	50.0000	45.1	
	75 Styrene	104	11.029	11.029	(1.044)	324197	50.0000	47.1	
	76 Bromoform	173	11.103	11.103	(1.051)	159603	50.0000	48.1	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	289017	50.0000	48.8	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	155822	50.0000	51.7	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	54700	50.0000	45.3	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	638613	50.0000	54.2	
81 Bromobenzene	156	11.578	11.578	(1.096)	189432	50.0000	50.9	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	190650	50.0000	48.5	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	416577	50.0000	53.1	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	136445	50.0000	48.6	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	136492	50.0000	48.2	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	469102	50.0000	46.3	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	204905	50.0000	49.8	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	49228	50.0000	52.0(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	419415	50.0000	45.8	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	442492	50.0000	48.1	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	512642	50.0000	46.9	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	419415	50.0000	45.8	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	318067	50.0000	50.3	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	237436	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	327228	50.0000	45.9	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	445646	50.0000	53.9	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	323974	50.0000	46.9	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	35137	50.0000	45.2	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	100028	50.0000	47.2	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	228410	50.0000	48.8	
102 Naphthalene	128	14.199	14.193	(1.151)	399832	50.0000	43.2	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	218926	50.0000	50.4	

QC Flag Legend

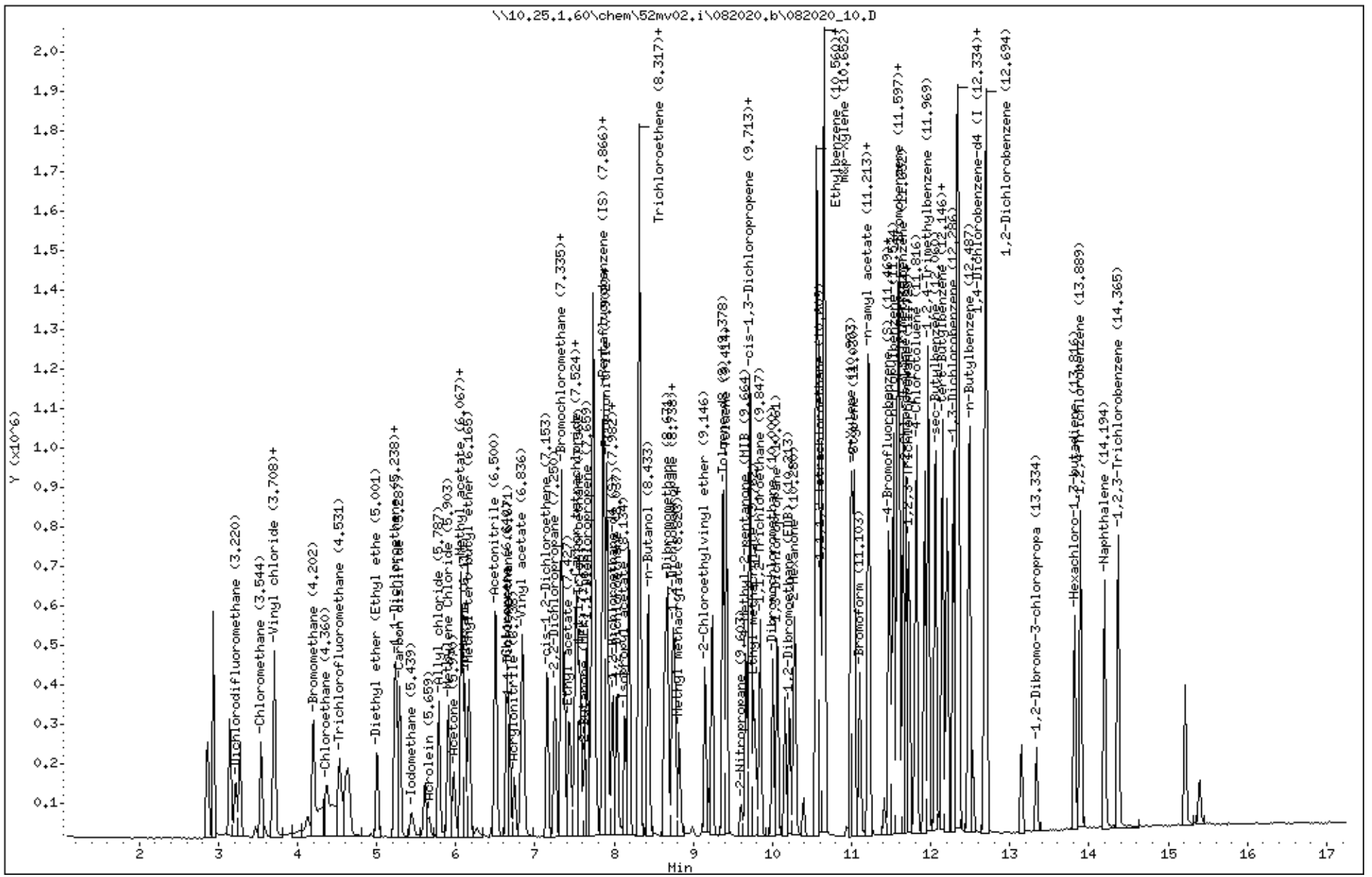
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

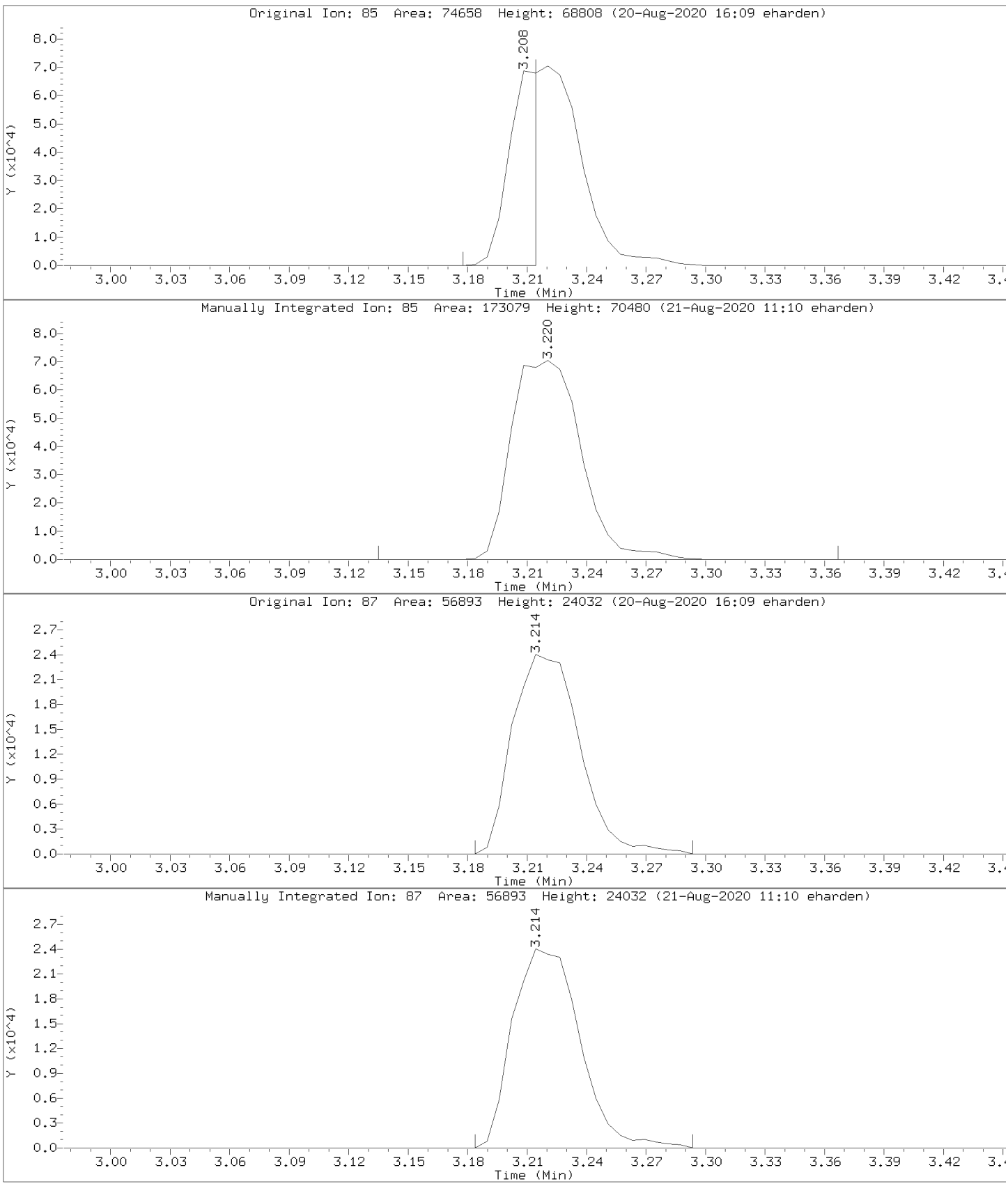
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_10.D
Date : 20-AUG-2020 13:45
Client ID: CAL8
Sample Info: CAL8,27244:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



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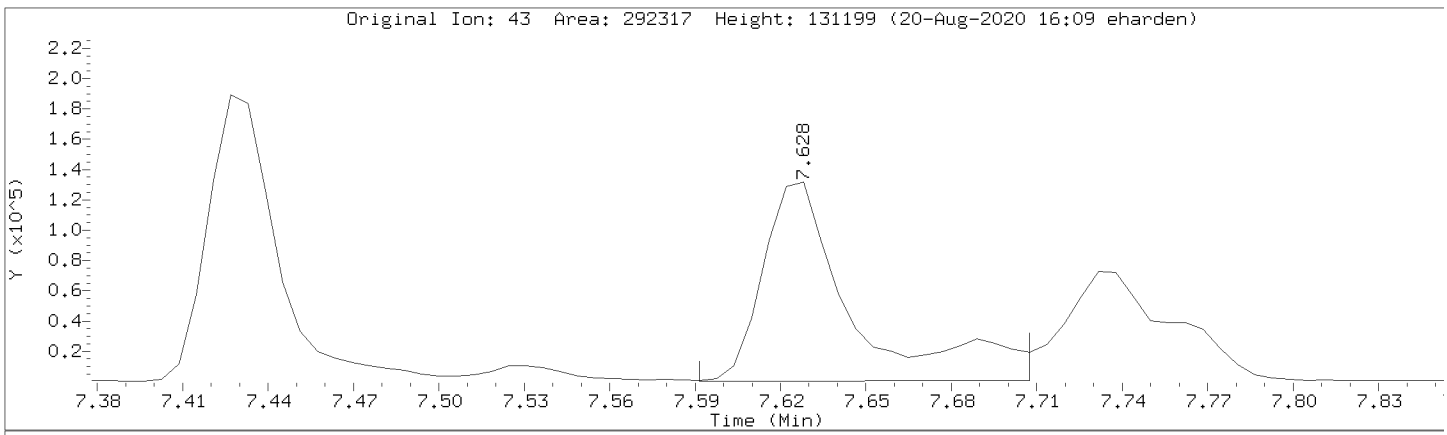
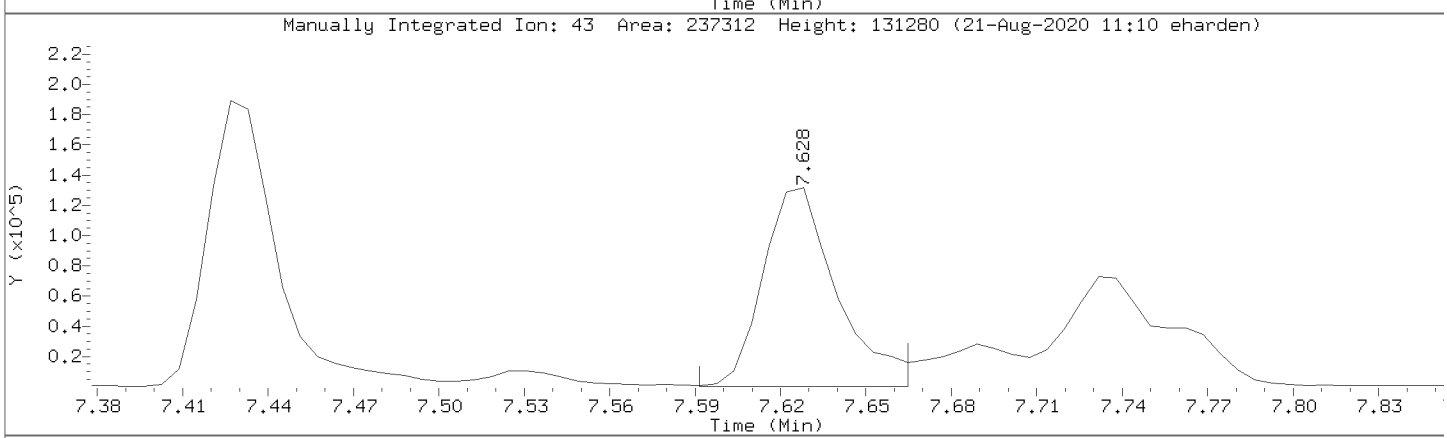
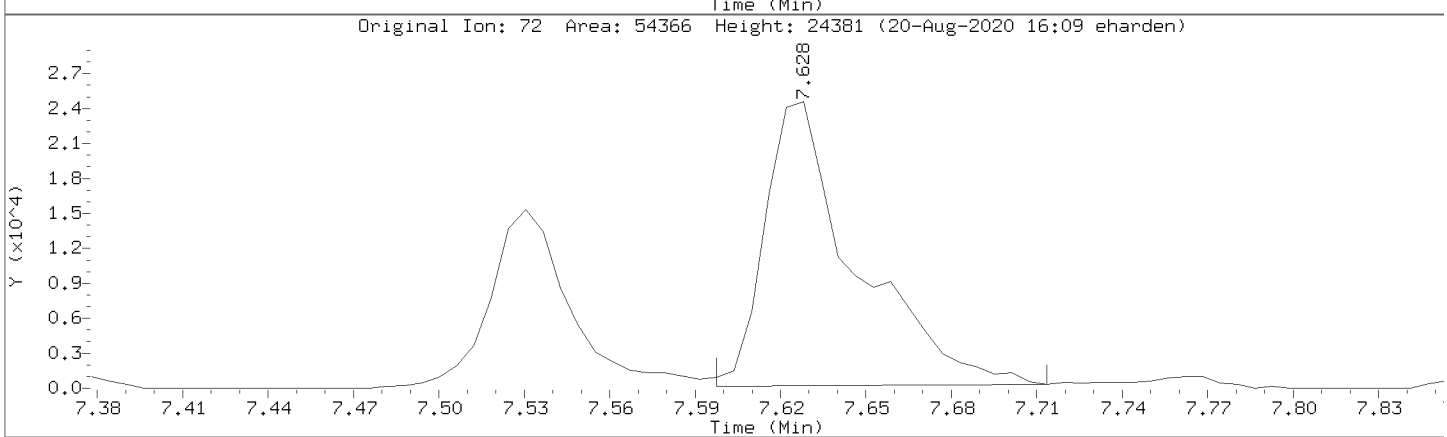
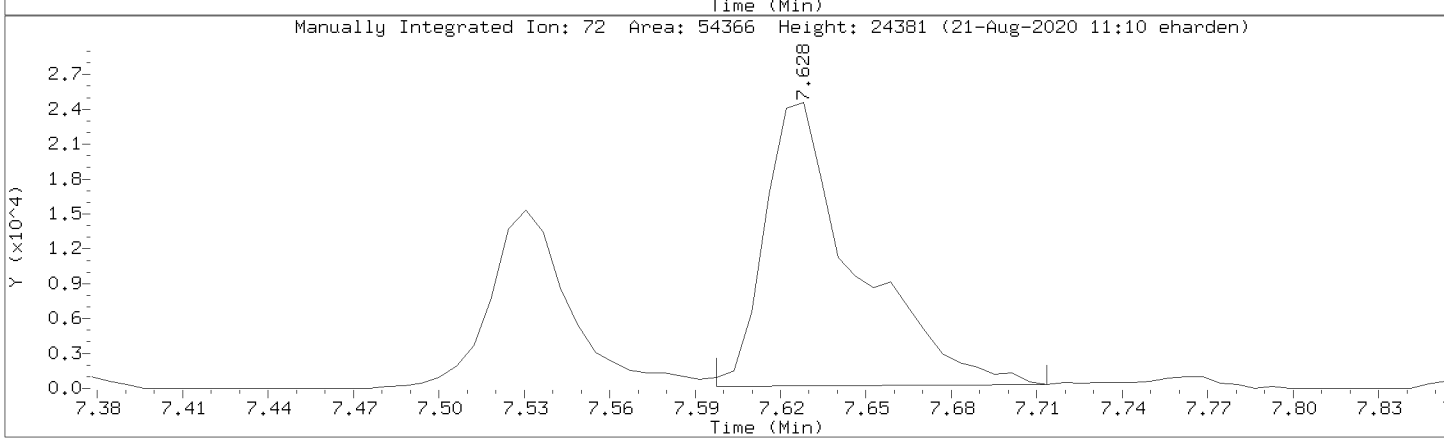
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3









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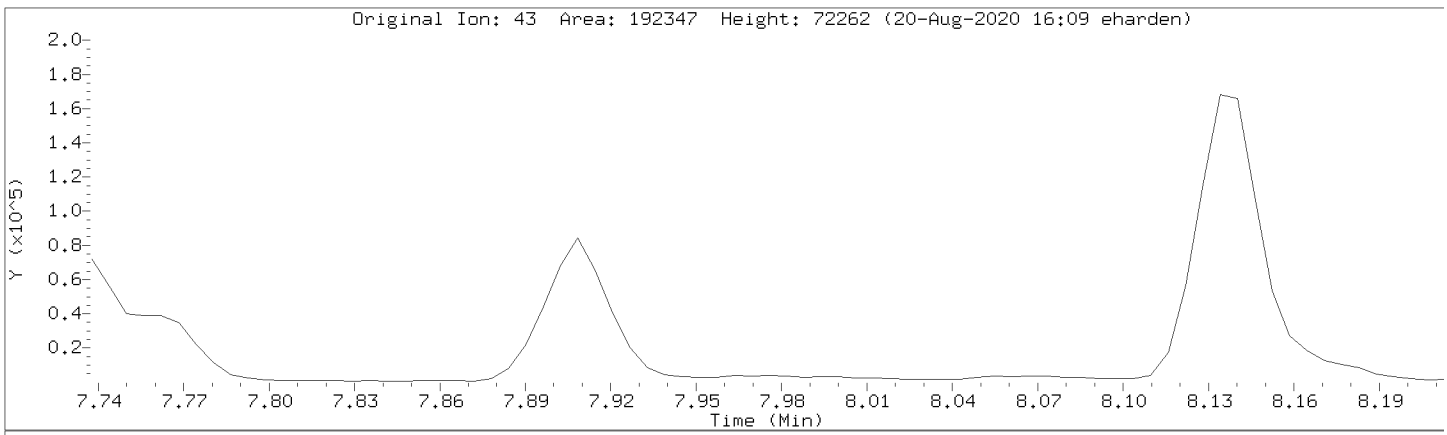
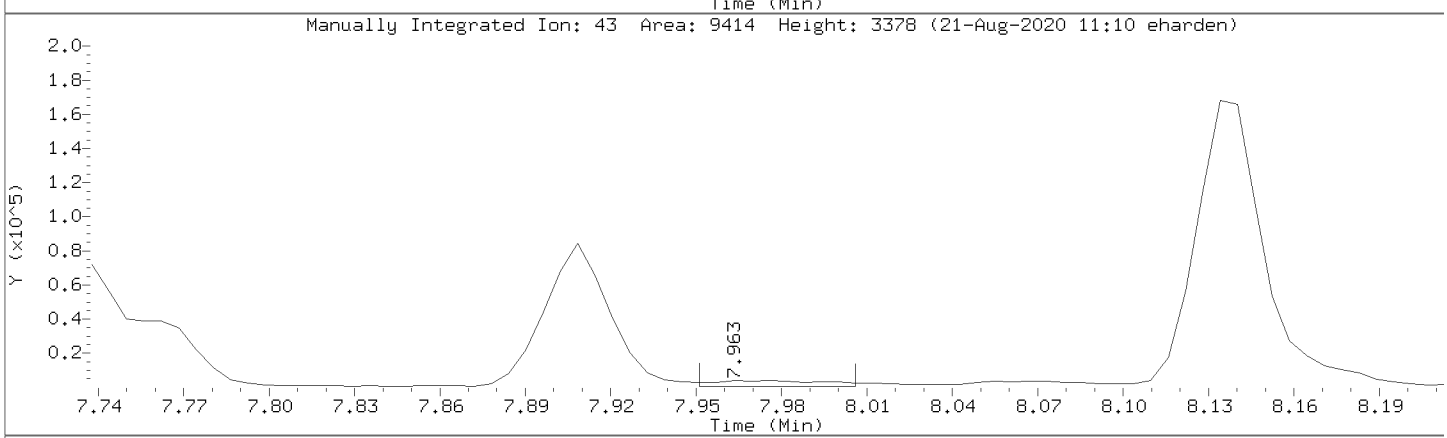
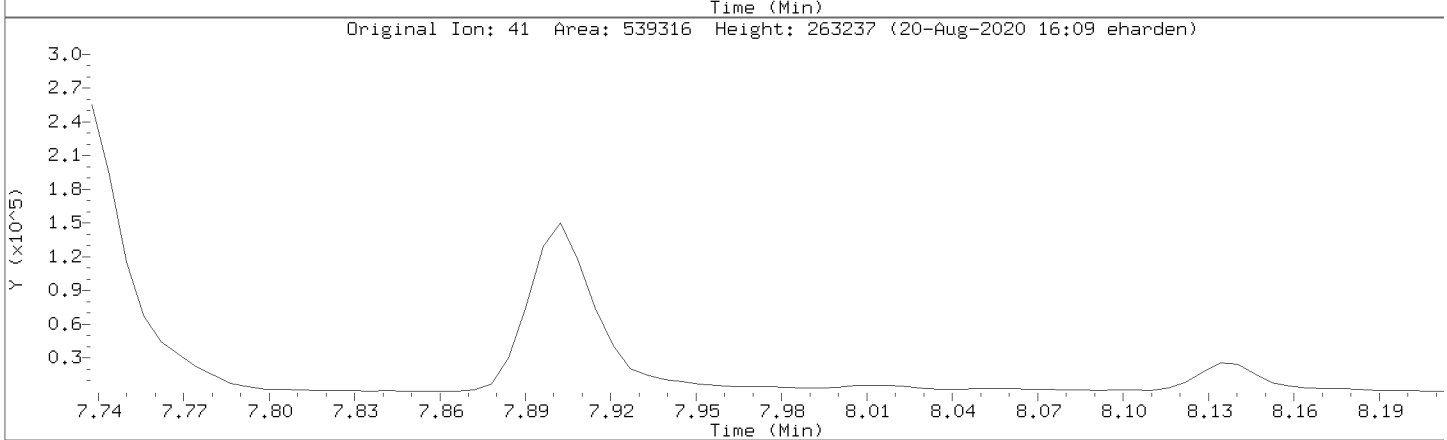
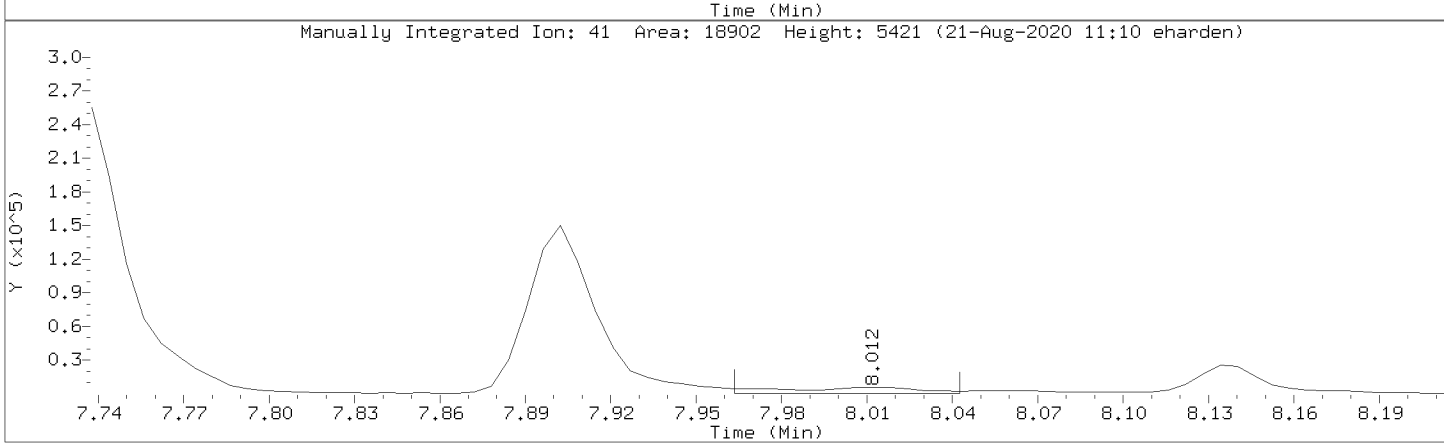
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1



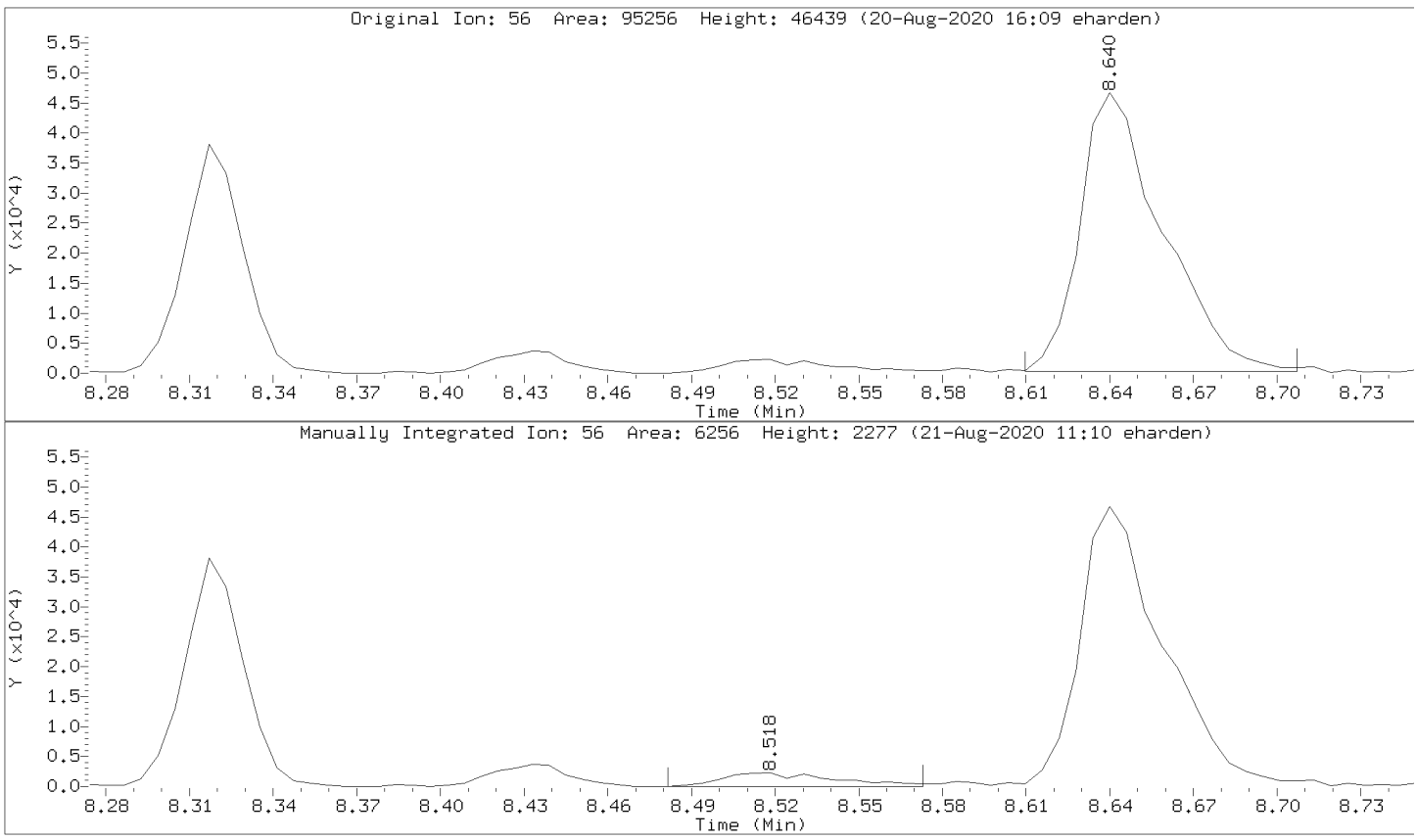






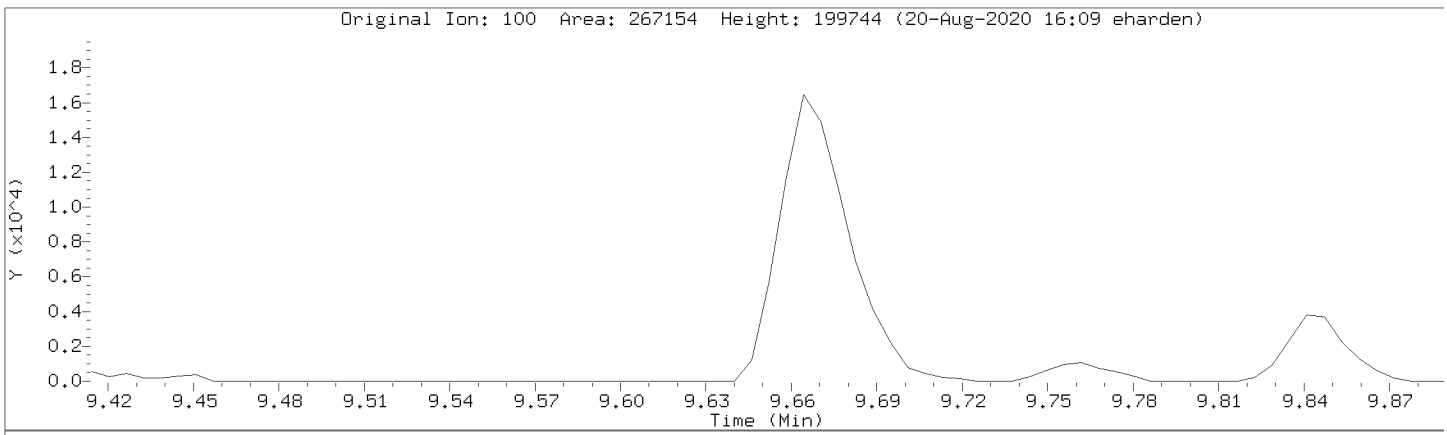
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

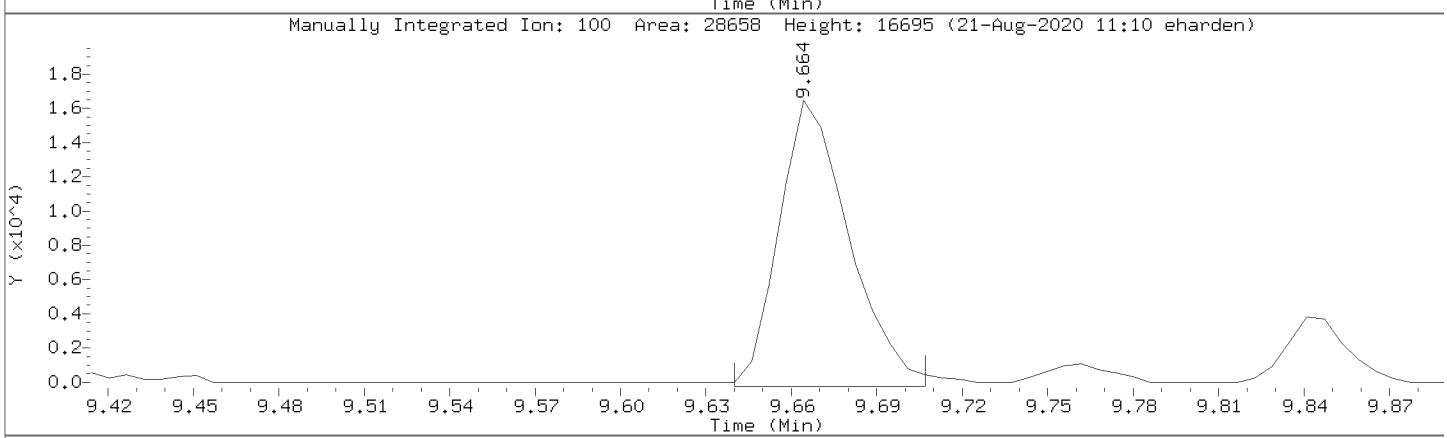
Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3

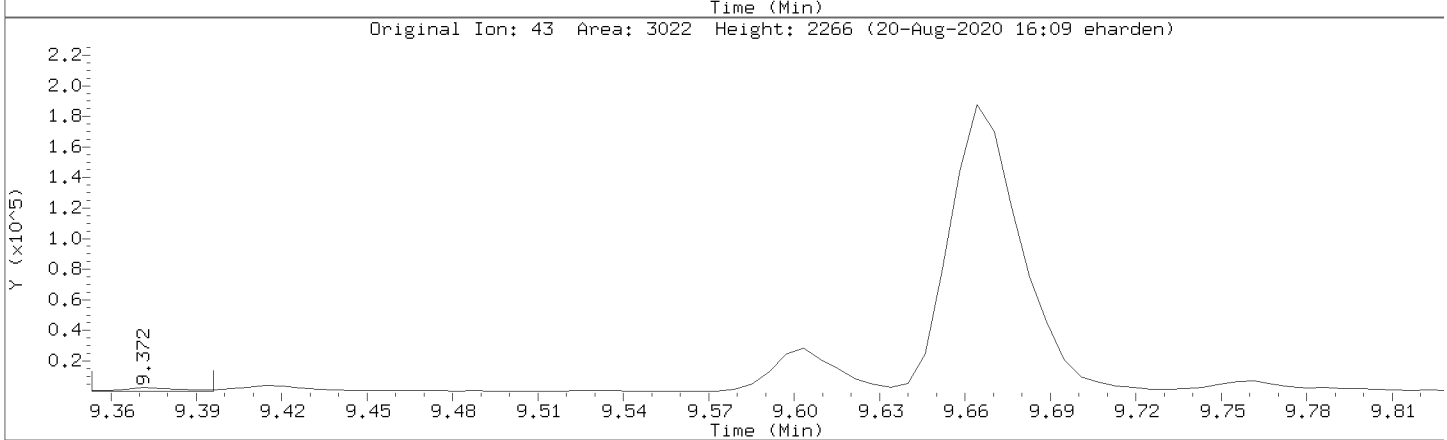


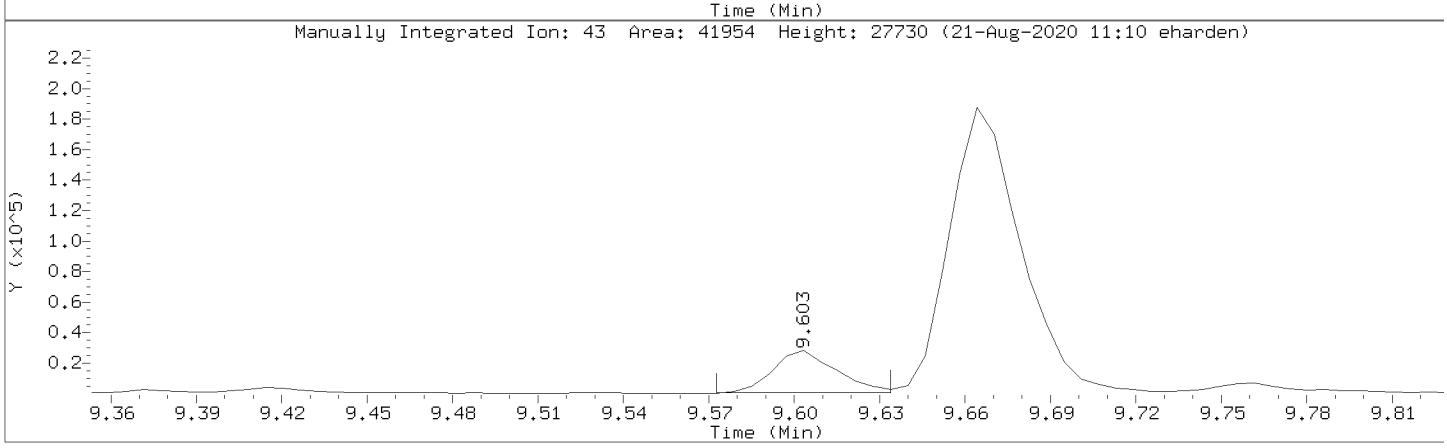
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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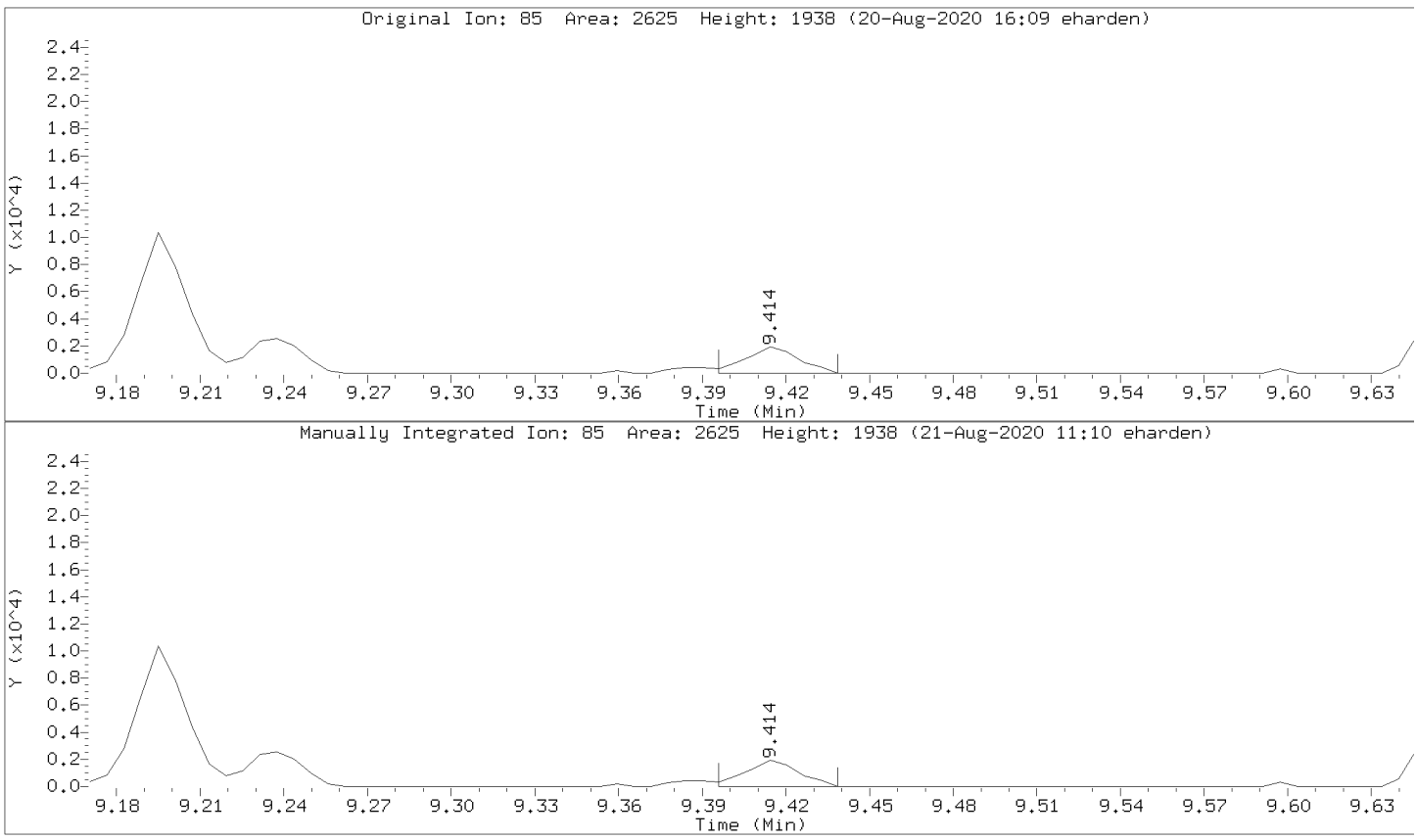
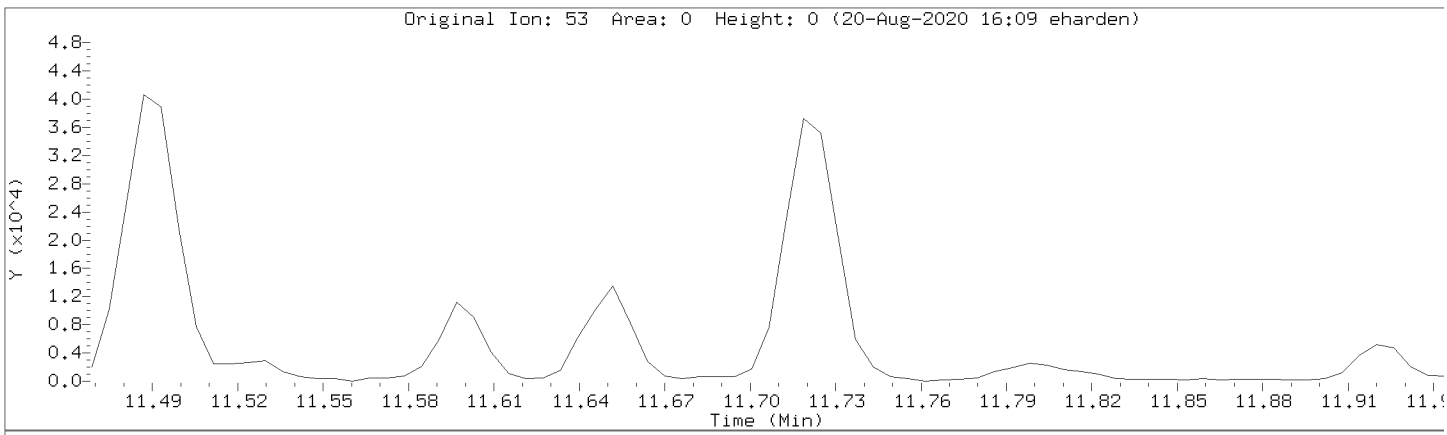
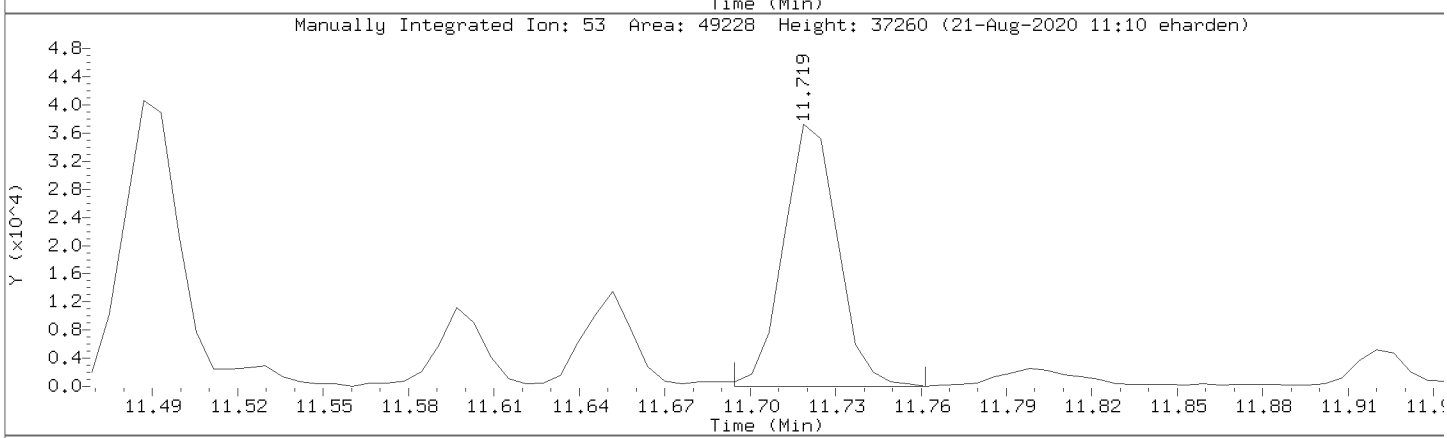
Instrument: 52mv02.i
Lab Sample ID: CAL8

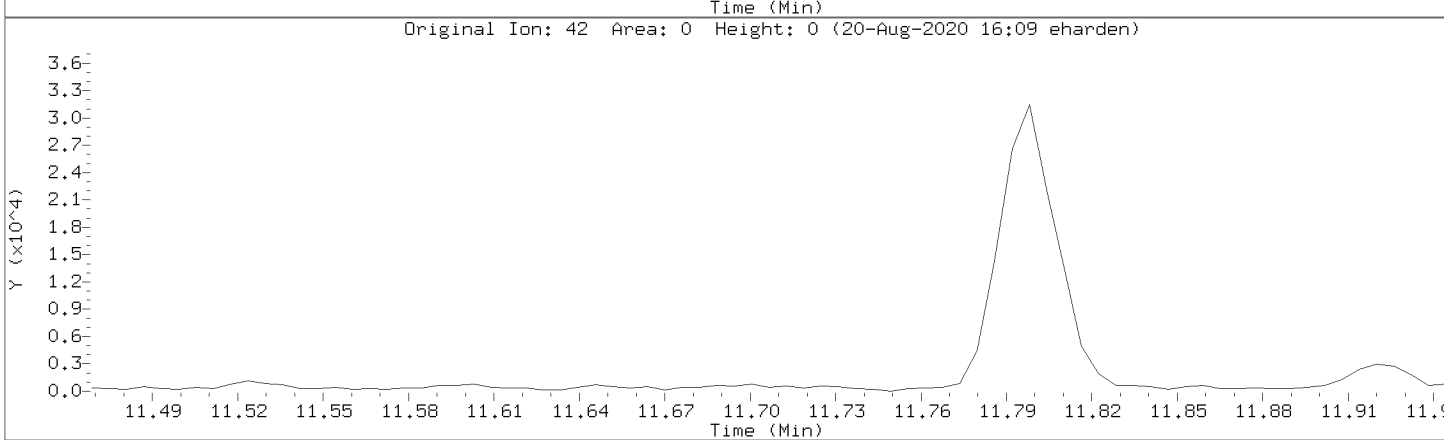


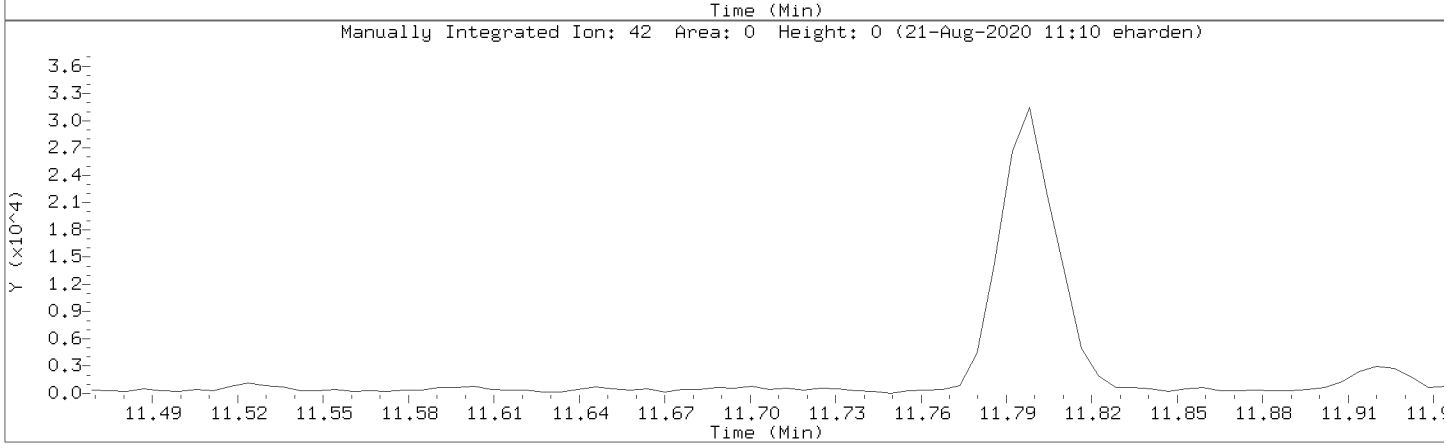
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6

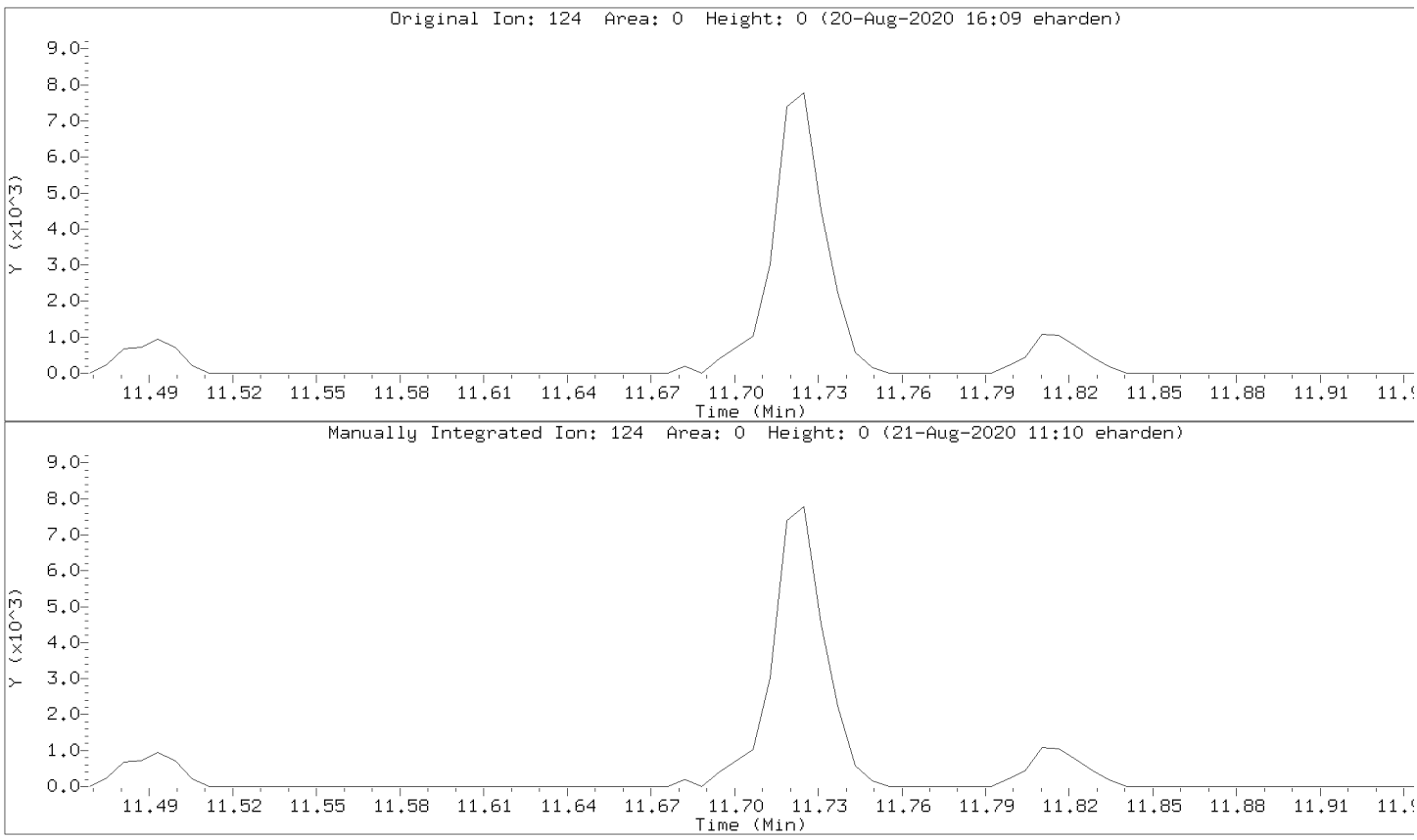








Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_11.D
Lab Smp Id: CAL9 Client Smp ID: CAL9
Inj Date : 20-AUG-2020 14:11
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal9,27245:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 14:11 Cal File: 082020_11.D
Als bottle: 9 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.410)	283760	75.0000	76.1(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	346933	75.0000	79.8	
3 Vinyl chloride	62	3.702	3.702	(0.471)	266129	75.0000	72.5	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	229006	75.0000	69.8	
5 Bromomethane	94	4.201	4.195	(0.535)	197842	75.0000	72.1	
6 Chloroethane	64	4.366	4.360	(0.556)	76609	75.0000	75.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	152397	75.0000	65.3	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	95070	75.0000	73.9	
9 1,1-Dichloroethene	61	5.226	5.226	(0.665)	307254	75.0000	74.0	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	190336	75.0000	69.5	
11 Carbon disulfide	76	5.287	5.293	(0.673)	644187	75.0000	70.1	
12 Iodomethane	142	5.445	5.439	(0.693)	174575	75.0000	74.4	
13 Acrolein	56	5.658	5.659	(0.720)	65220	150.000	152	
14 Allyl chloride	76	5.786	5.787	(0.736)	91135	75.0000	71.4	
15 Methylene Chloride	49	5.902	5.902	(0.751)	342732	75.0000	69.5	
16 Acetone	43	5.969	5.976	(0.760)	359242	150.000	150	
17 Methyl acetate	43	6.067	6.067	(0.772)	445182	150.000	157	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	200360	75.0000	71.5	
19 n-Hexane	86	6.110	6.110	(0.777)	24817	75.0000	83.6	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	507129	75.0000	77.6	
21 Acetonitrile	41	6.457	6.463	(0.822)	43661	150.000	168(H)	
22 Chloroprene	53	6.640	6.640	(0.845)	329381	75.0000	84.3	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	394304	75.0000	72.4	
24 Acrylonitrile	53	6.731	6.738	(0.857)	183534	150.000	155	
25 Vinyl acetate	43	6.859	6.860	(0.873)	438519	75.0000	81.4	
26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	296515	75.0000	73.9	
27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	277755	75.0000	66.1	
28 Bromochloromethane	128	7.335	7.335	(0.933)	121740	75.0000	69.4	
29 Cyclohexane	56	7.335	7.335	(0.882)	289677	75.0000	82.8	
30 Chloroform	83	7.372	7.372	(0.938)	435835	75.0000	70.8	
31 Ethyl acetate	43	7.426	7.433	(0.945)	516261	150.000	148	
32 Carbon tetrachloride	117	7.506	7.512	(0.902)	317911	75.0000	76.8	
33 Tetrahydrofuran	42	7.530	7.536	(0.958)	139651	150.000	164	
$ 34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	168498	50.0000	47.3	
35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	346786	75.0000	73.9	
36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	407706	150.000	154	
37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	260917	75.0000	80.1(H)	
* 38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	309362	50.0000		
39 Benzene	78	7.871	7.872	(0.946)	777686	75.0000	73.9	
40 Propionitrile	54	7.896	7.902	(1.005)	76528	150.000	145	
41 Methacrylonitrile	41	7.902	7.902	(1.005)	401655	150.000	150	
42 Isobutanol	43	7.975	7.987	(1.015)	20414	150.000	(MH)	WP
$ 43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	29467	50.0000	46.0	
44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	328819	75.0000	68.0	
45 Isopropyl acetate	43	8.134	8.134	(1.035)	448742	75.0000	77.9	
46 Trichloroethene	130	8.316	8.317	(1.000)	215771	75.0000	75.0	
* 47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	411283	50.0000		
48 Methylcyclohexane	98	8.316	8.317	(1.000)	104652	75.0000	76.8	
49 n-Butanol	56	8.512	8.524	(1.023)	10615	150.000	169(H)	
50 Dibromomethane	93	8.670	8.670	(1.043)	178140	75.0000	72.7	
51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	221116	75.0000	73.6	
52 Bromodichloromethane	83	8.768	8.768	(1.054)	335188	75.0000	77.7	
53 Methyl methacrylate	69	8.822	8.823	(1.061)	128004	75.0000	72.9	
54 1,4-Dioxane (p-Dioxane)	58	8.932	8.920	(1.074)	3243	150.000	(MH)	LT
55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	229530	150.000	147	
56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	334526	75.0000	79.8	
$ 57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	447242	50.0000	50.5	
58 Toluene	91	9.414	9.414	(1.132)	781683	75.0000	76.2	
59 2-Nitropropane	43	9.603	9.603	(1.155)	75539	75.0000	74.4(H)	
60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	44292	150.000	150(M)	WP
61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	333917	75.0000	79.8	
62 Tetrachloroethene	164	9.719	9.719	(0.920)	205799	75.0000	76.6	
63 Ethyl methacrylate	69	9.761	9.761	(1.174)	245737	75.0000	73.4(H)	
64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	182207	75.0000	70.1	
65 Dibromochloromethane	129	9.999	9.999	(0.947)	280478	75.0000	75.3	
66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	312981	75.0000	79.0	
67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	231783	75.0000	72.6	
68 2-Hexanone	43	10.273	10.280	(1.235)	571212	150.000	164	
69 Ethylbenzene	91	10.554	10.554	(0.999)	846583	75.0000	82.6	
* 70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	391574	50.0000		
71 Chlorobenzene	112	10.578	10.578	(1.002)	554970	75.0000	73.5	
72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	225655	75.0000	70.7	
73 m&p-Xylene	91	10.651	10.651	(1.009)	1353204	150.000	151	
74 o-Xylene	106	10.993	10.993	(1.041)	299124	75.0000	70.9	
75 Styrene	104	11.029	11.029	(1.044)	546784	75.0000	74.2	
76 Bromoform	173	11.103	11.103	(1.051)	260722	75.0000	73.7	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	479165	75.0000	75.6	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	166582	50.0000	51.8	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	91712	75.0000	71.3	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	1052699	75.0000	83.8	
81 Bromobenzene	156	11.578	11.578	(1.096)	312070	75.0000	78.8	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	302282	75.0000	72.2	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	695519	75.0000	83.9	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	220722	75.0000	73.6	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	228636	75.0000	75.5	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	797567	75.0000	73.6	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	319085	75.0000	72.8	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	78111	75.0000	77.5(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	710565	75.0000	73.0	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	731346	75.0000	74.8	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	858491	75.0000	74.0	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	710565	75.0000	73.0	
94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	523242	75.0000	78.3	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	251122	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	532968	75.0000	70.7	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	748624	75.0000	85.5	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	517606	75.0000	70.9	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	59552	75.0000	72.5	
100 Hexachloro-1,3-butadiene	225	13.815	13.822	(1.120)	164678	75.0000	73.6	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	399731	75.0000	80.8	
102 Naphthalene	128	14.193	14.193	(1.150)	711974	75.0000	72.4	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	369768	75.0000	80.4	

QC Flag Legend

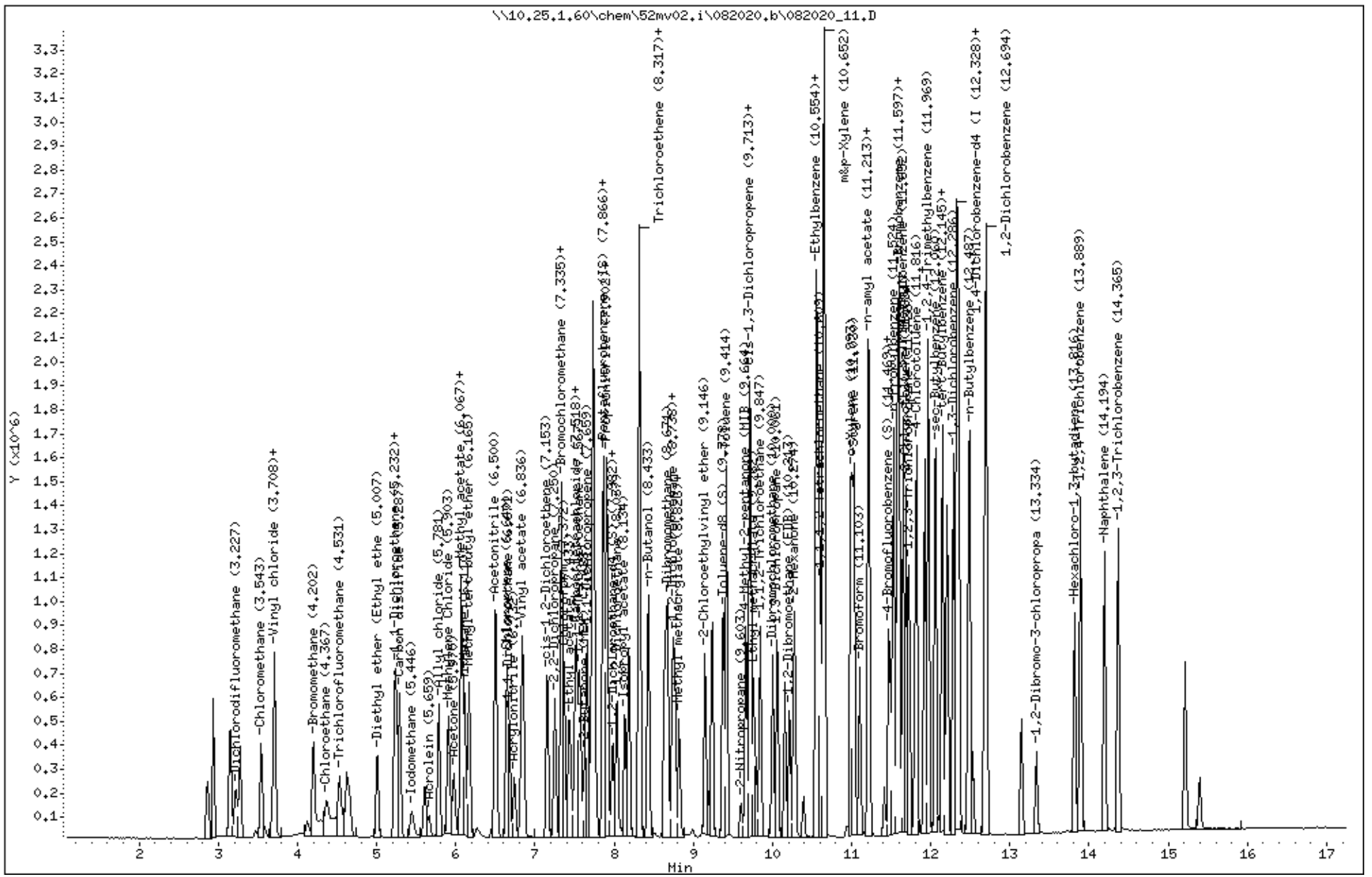
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

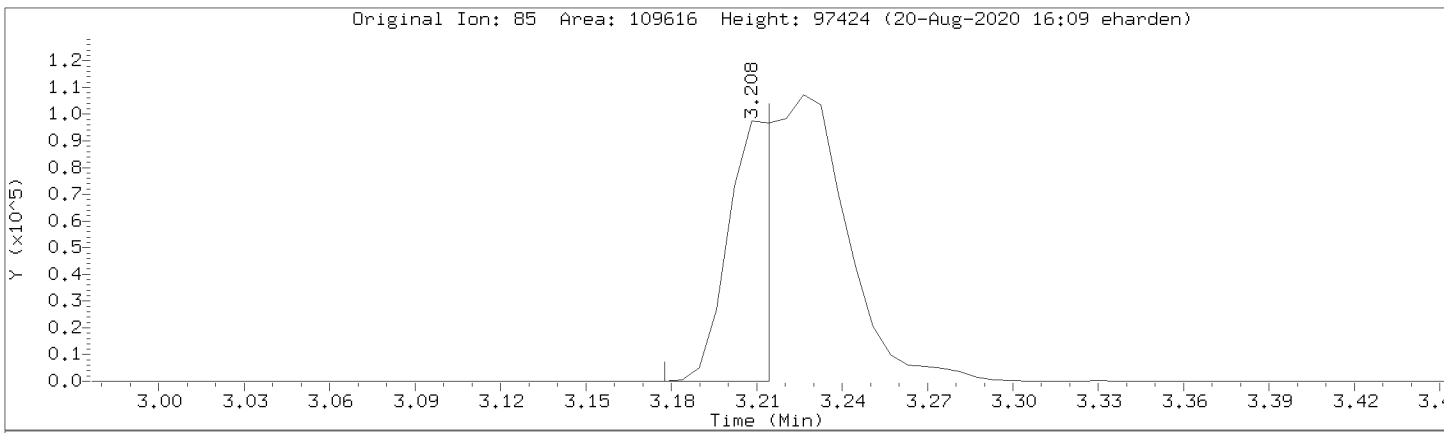
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_11.D
Date : 20-AUG-2020 14:11
Client ID: CAL9
Sample Info: CAL9,27245:1
Purge Volume: 5.0
Column phase: RTX-VMS

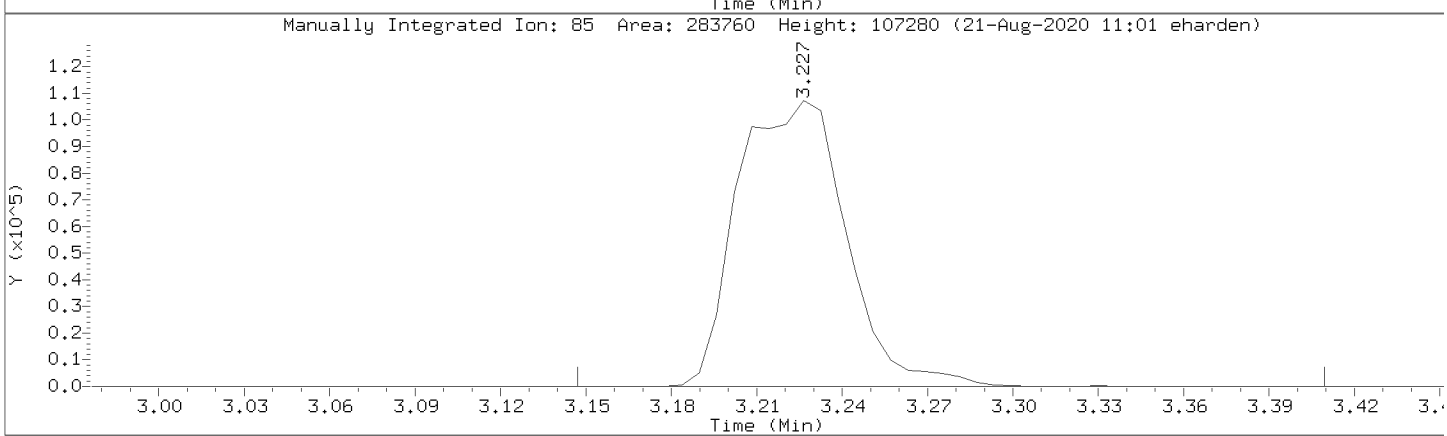
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

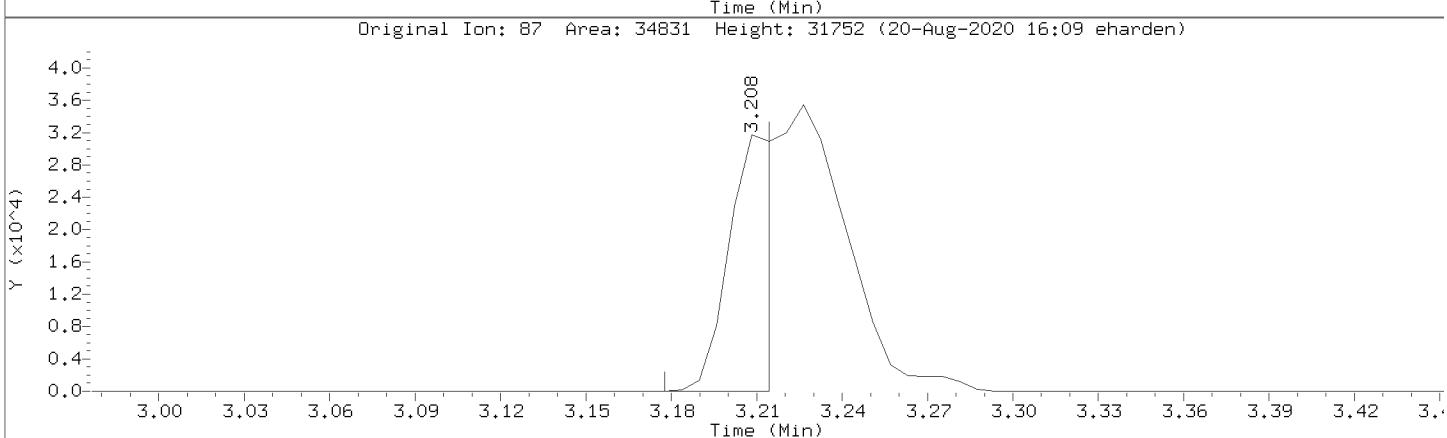


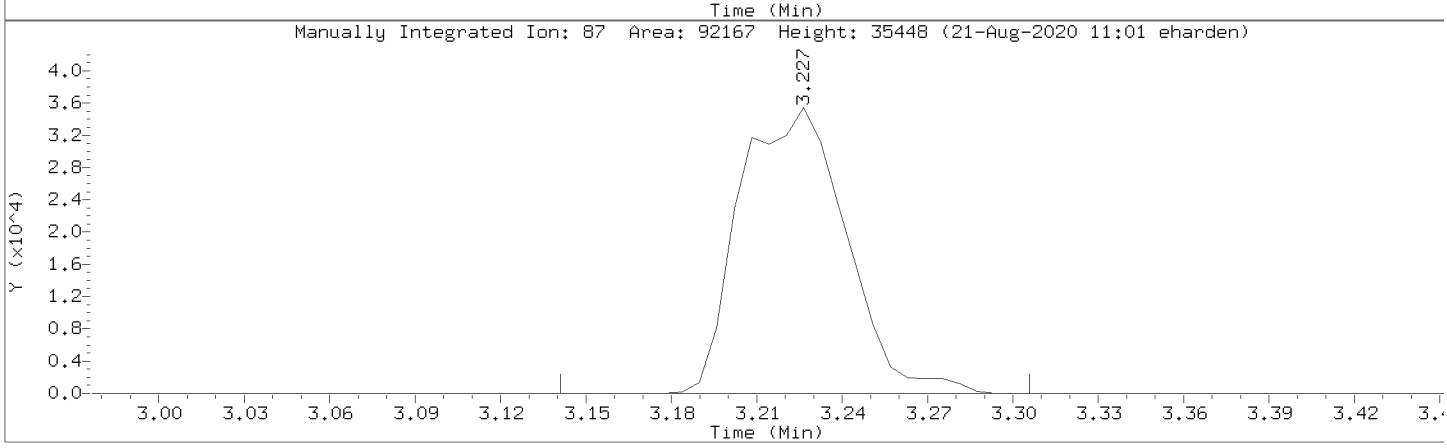
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_11.D
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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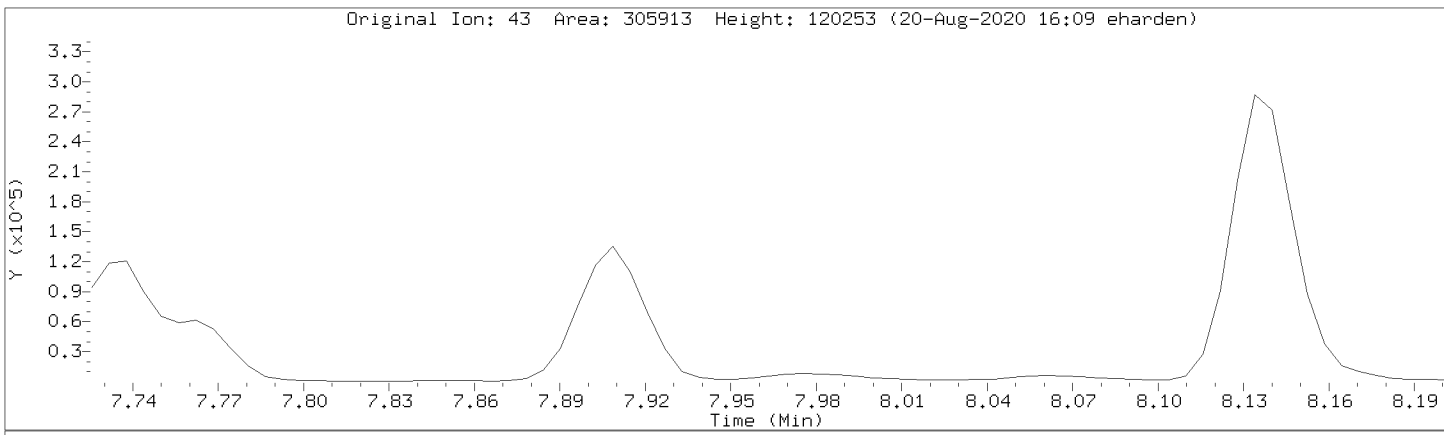
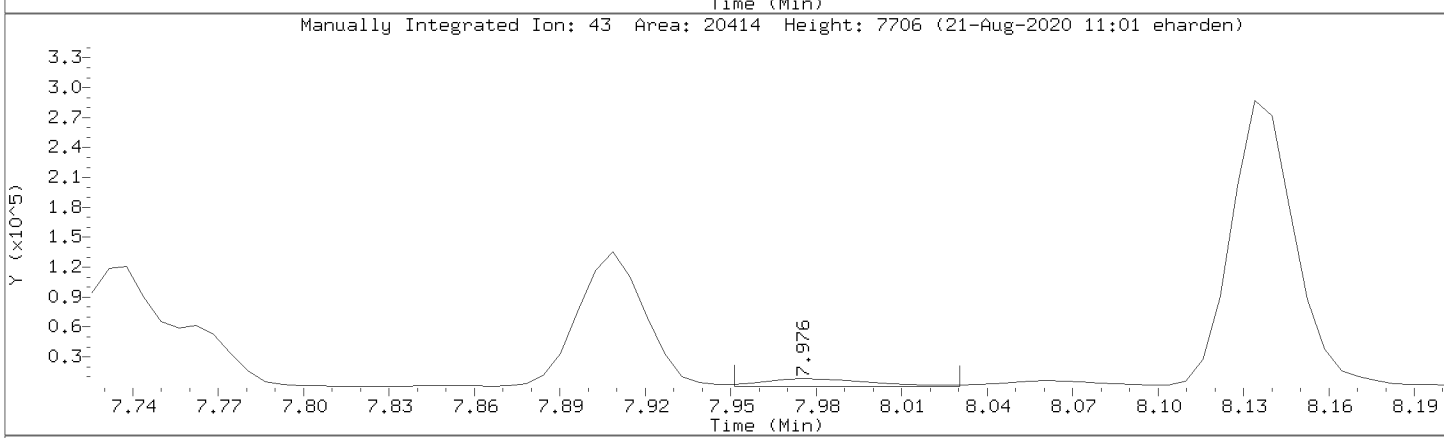
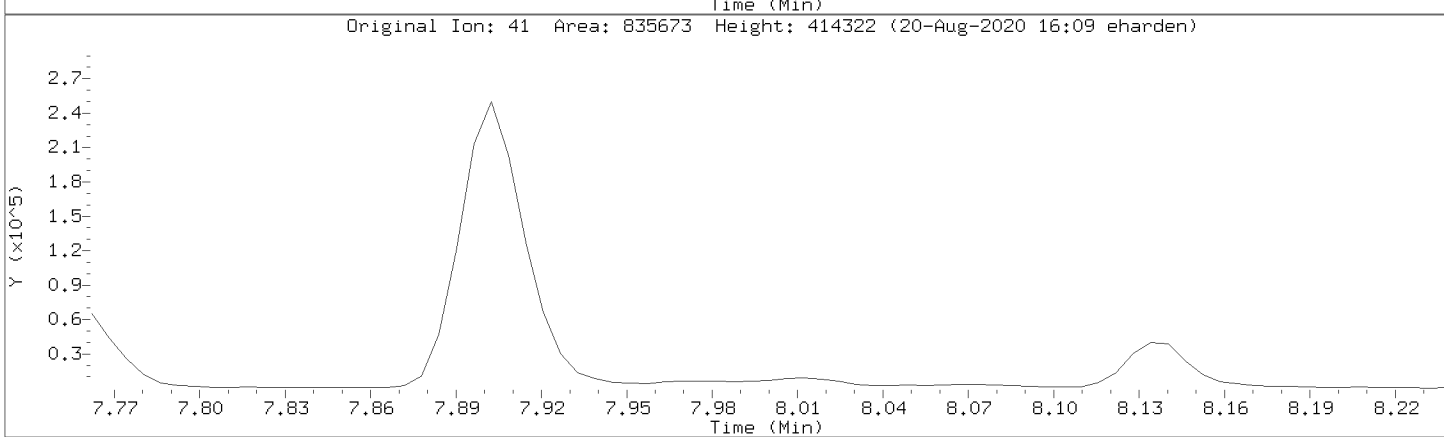
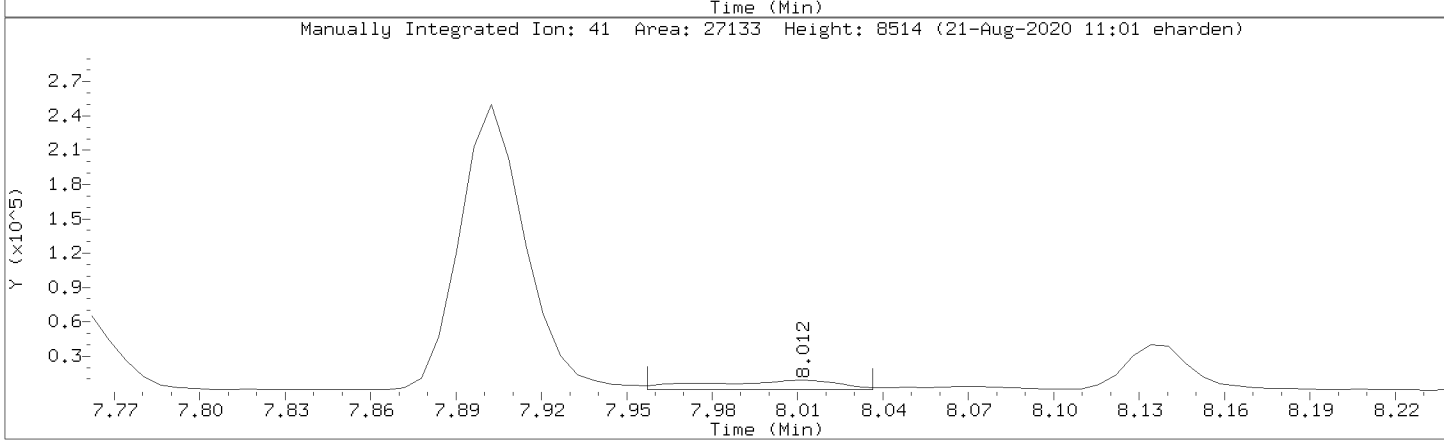
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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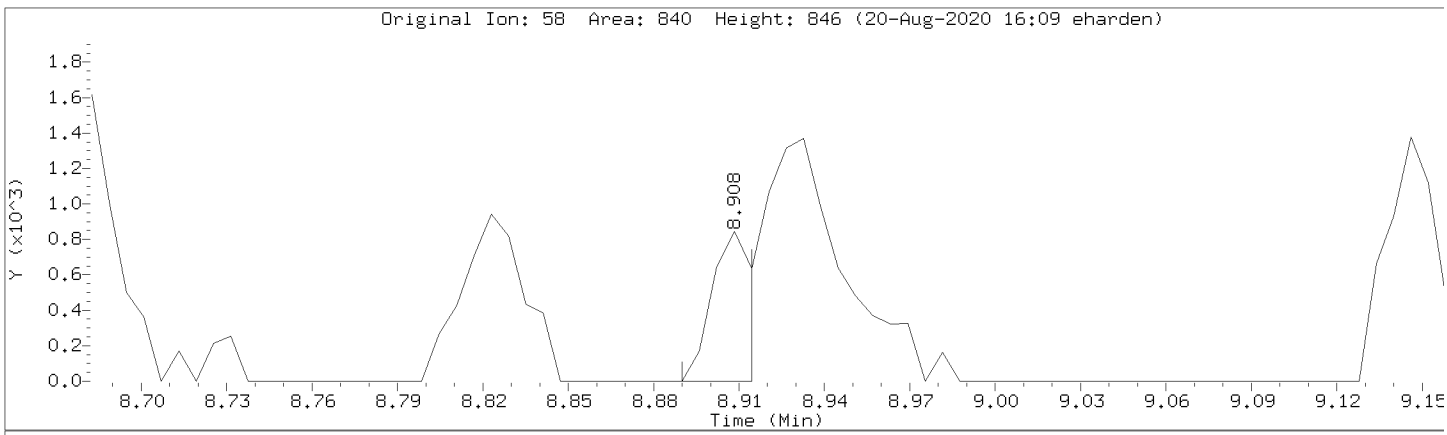
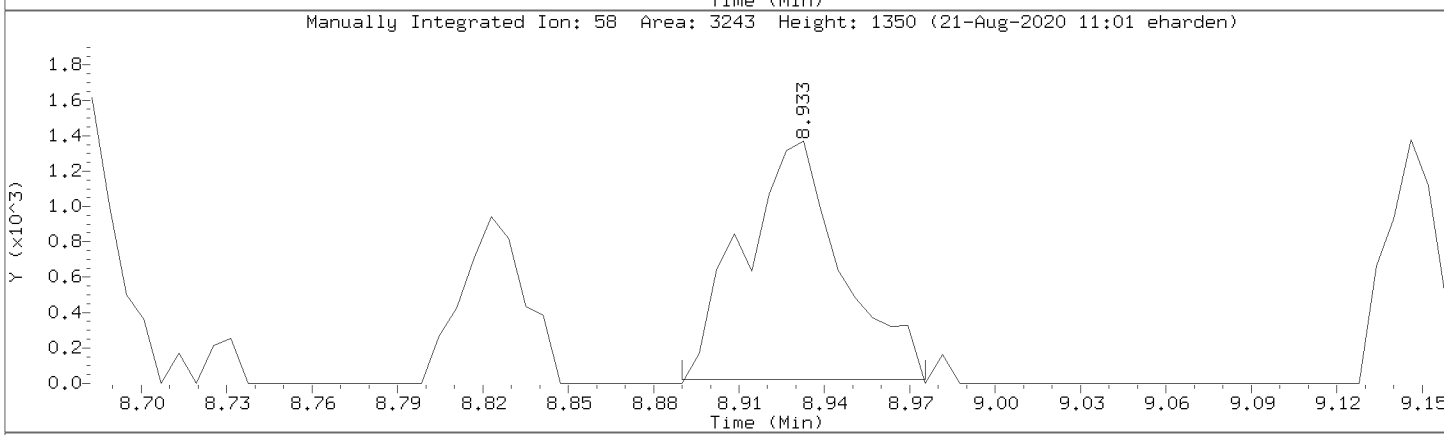
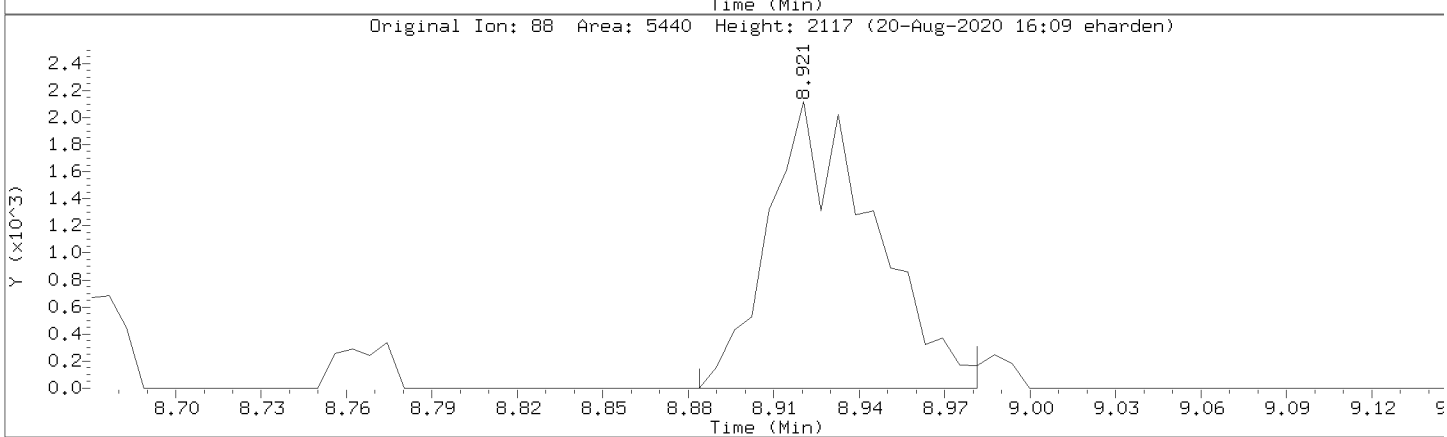
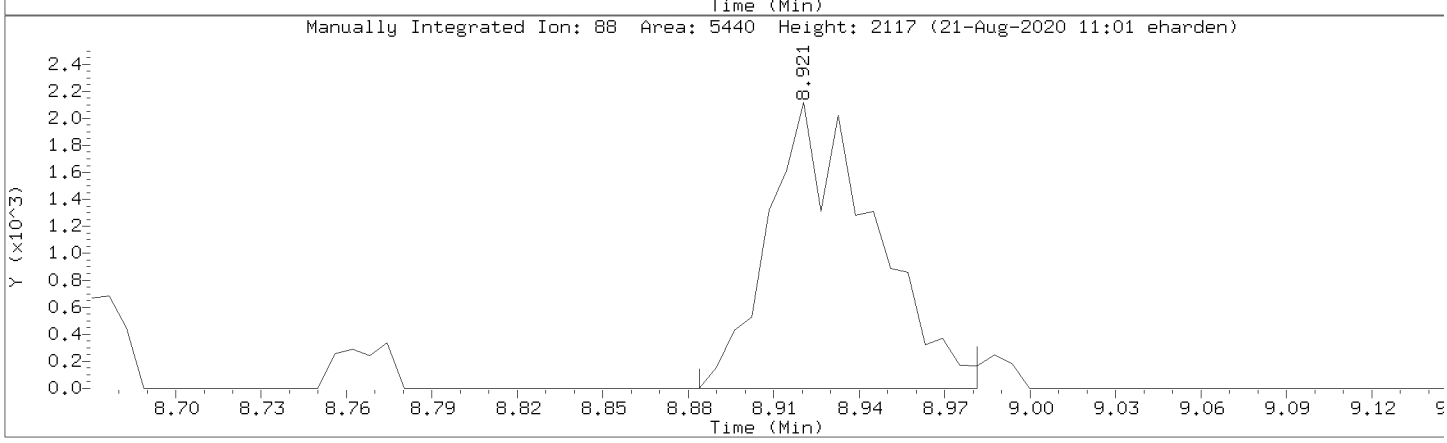
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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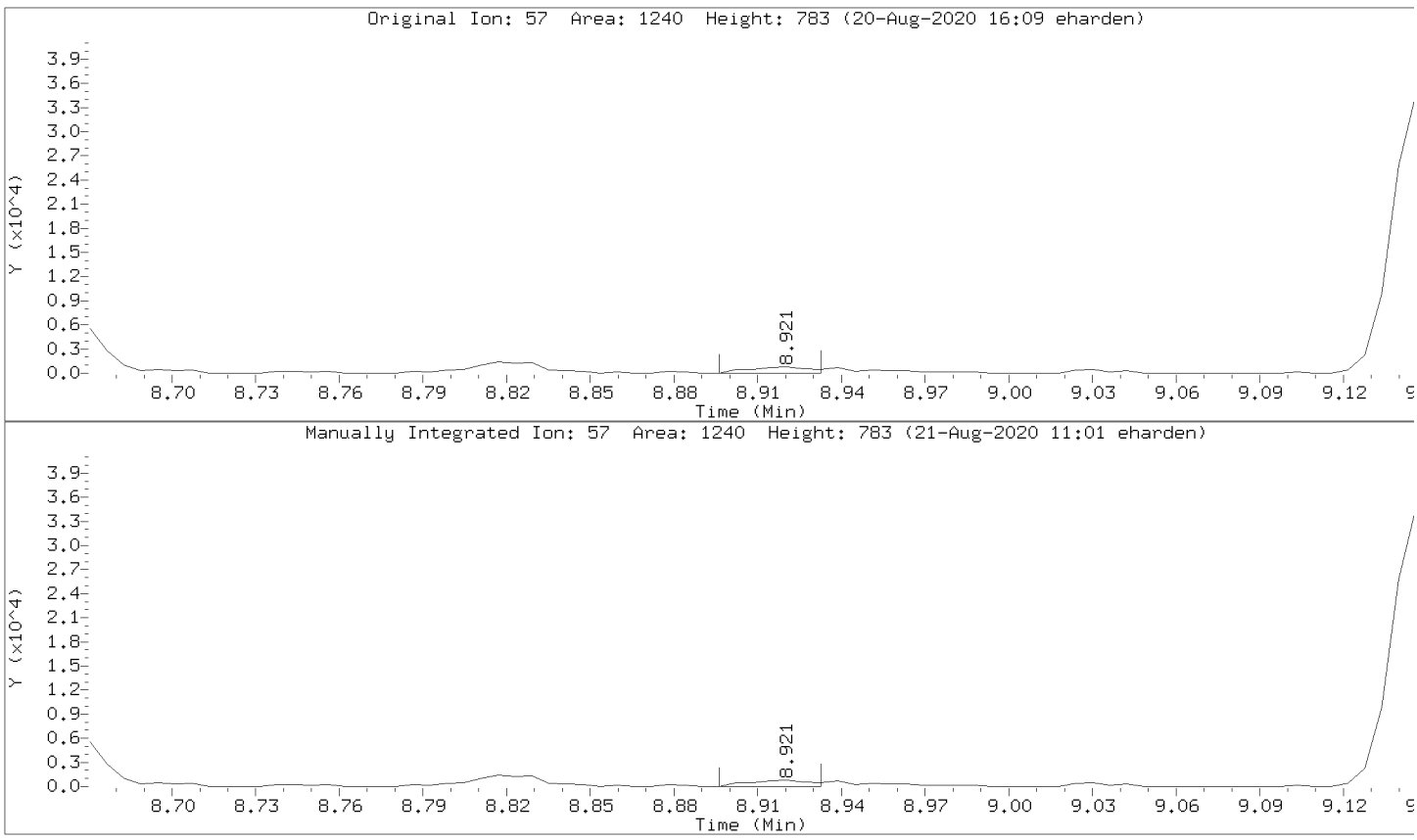
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9



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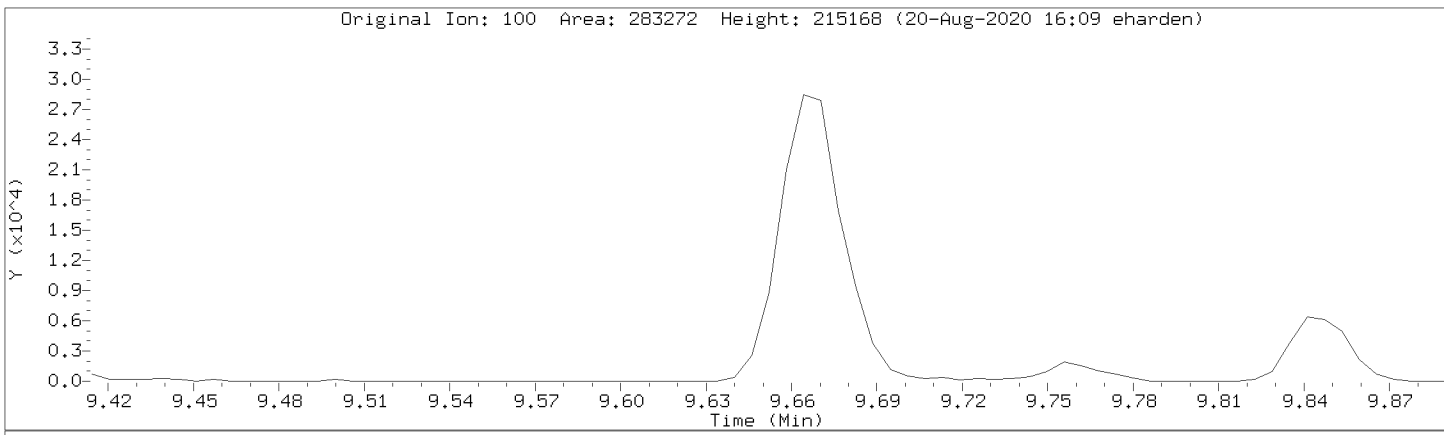
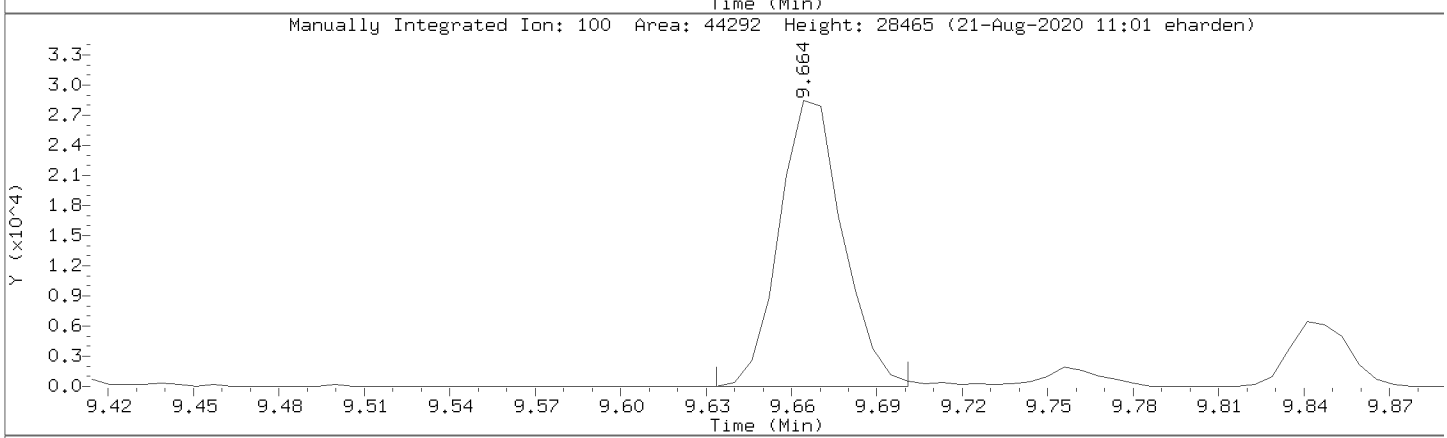
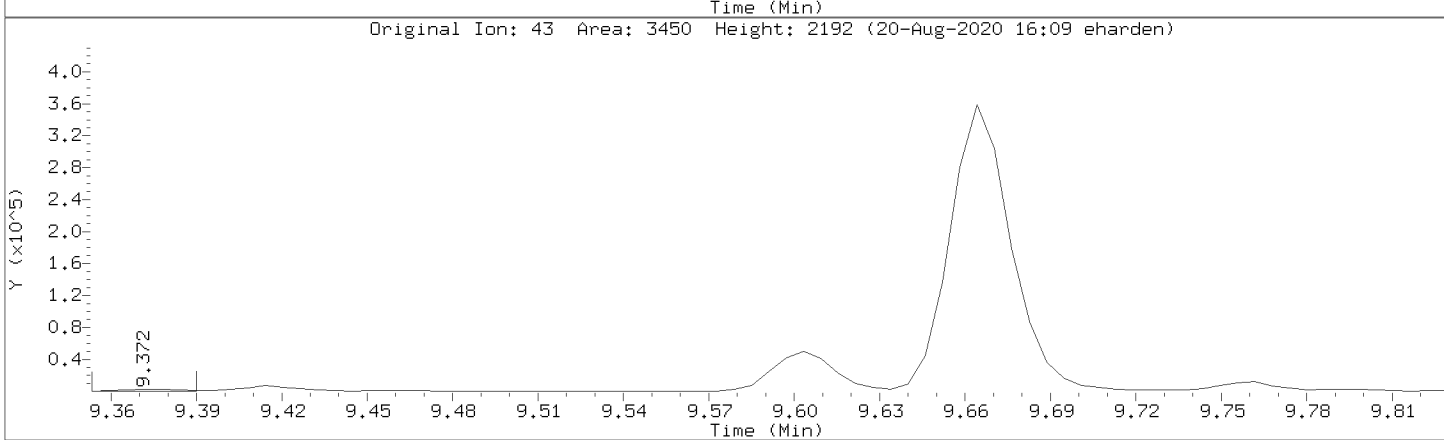
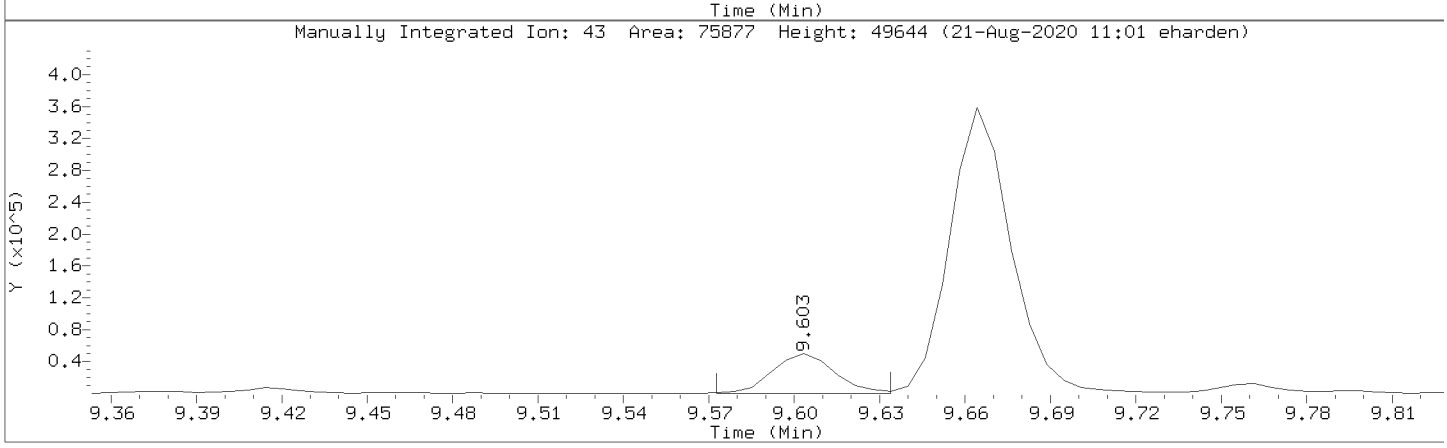
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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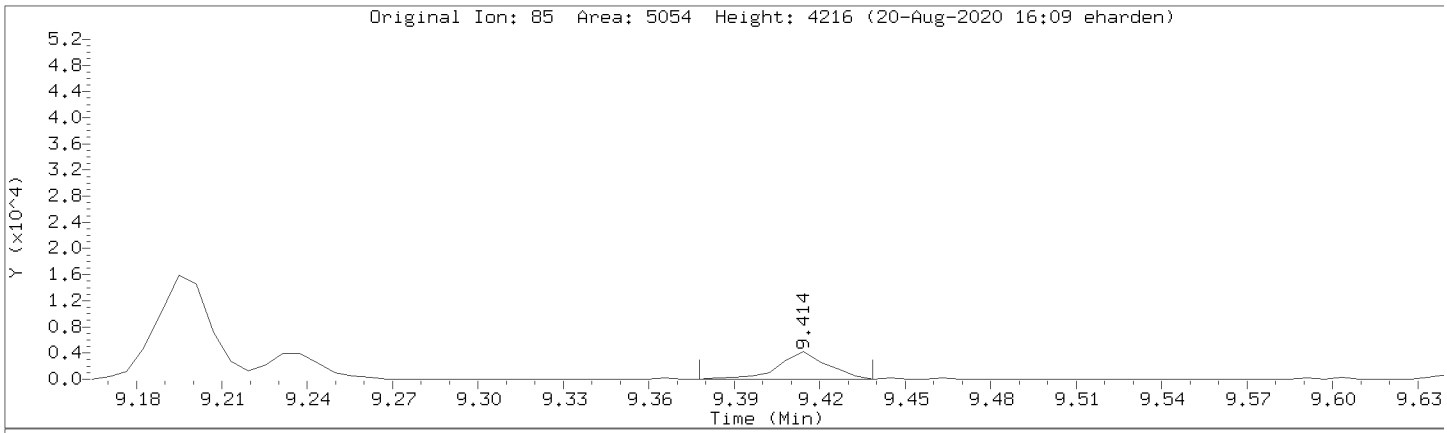
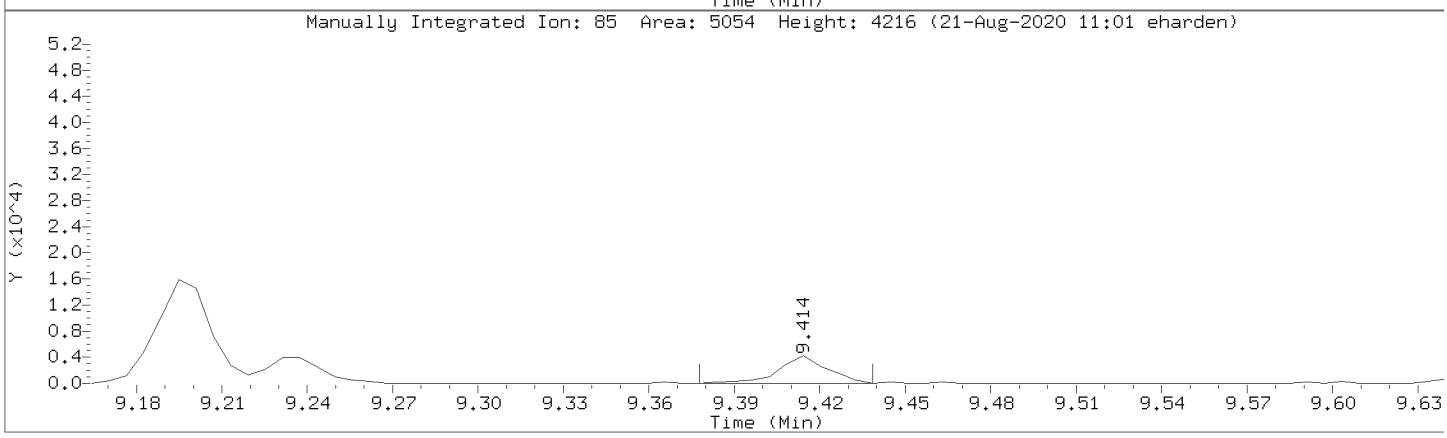
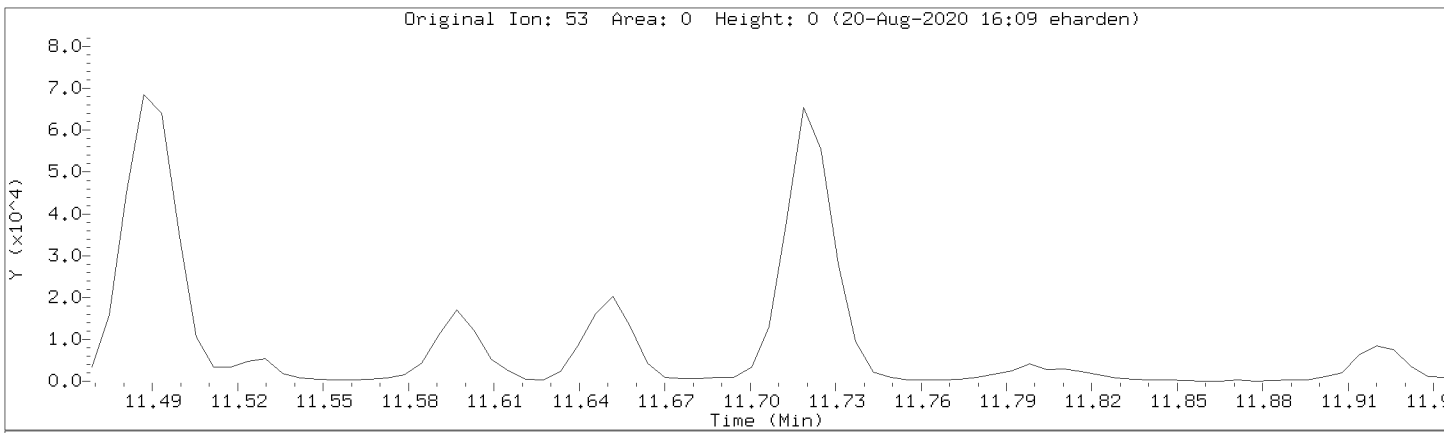
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

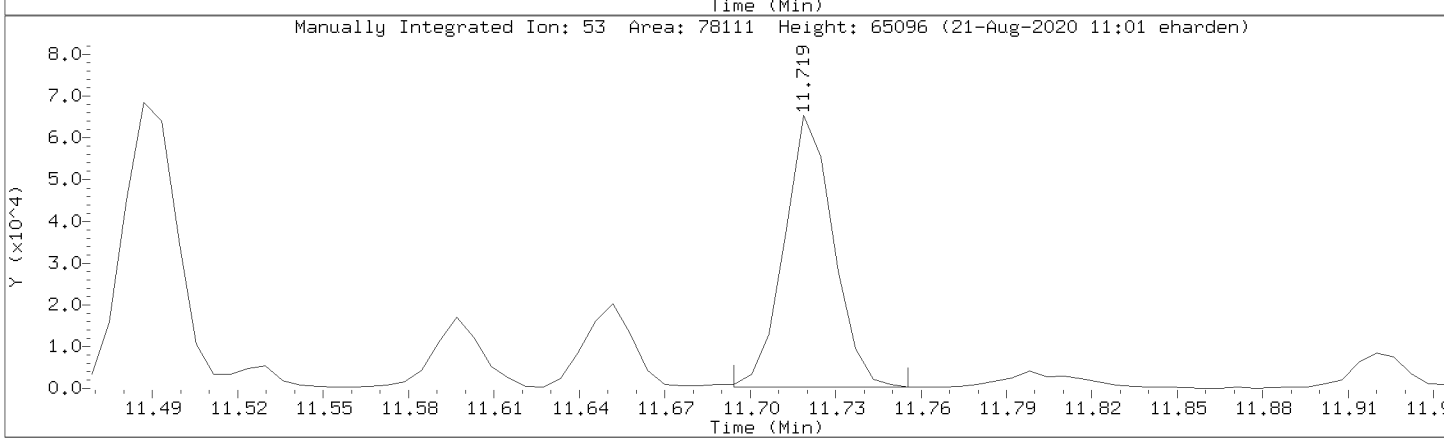


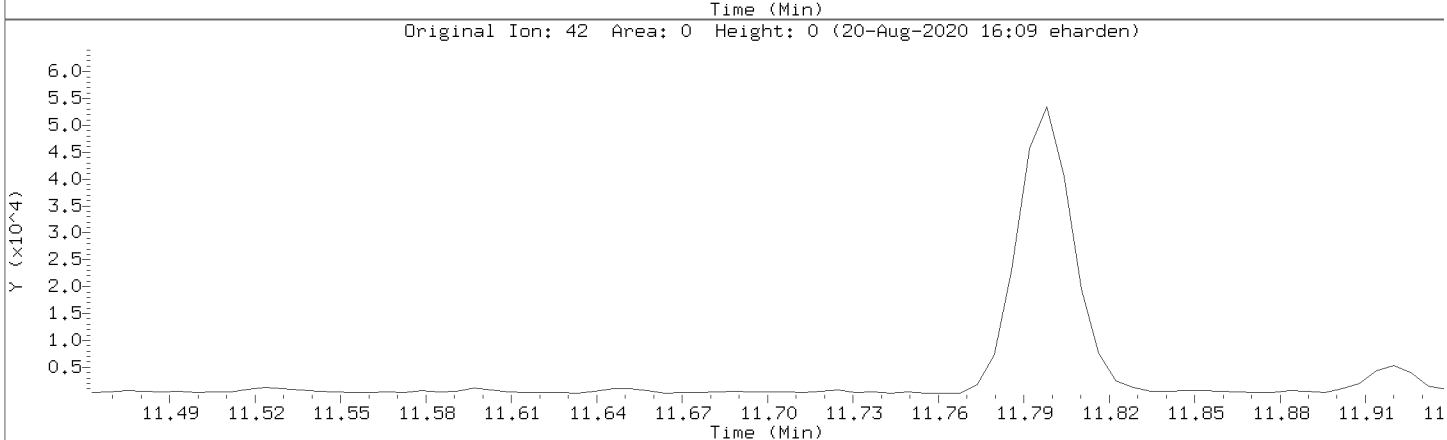


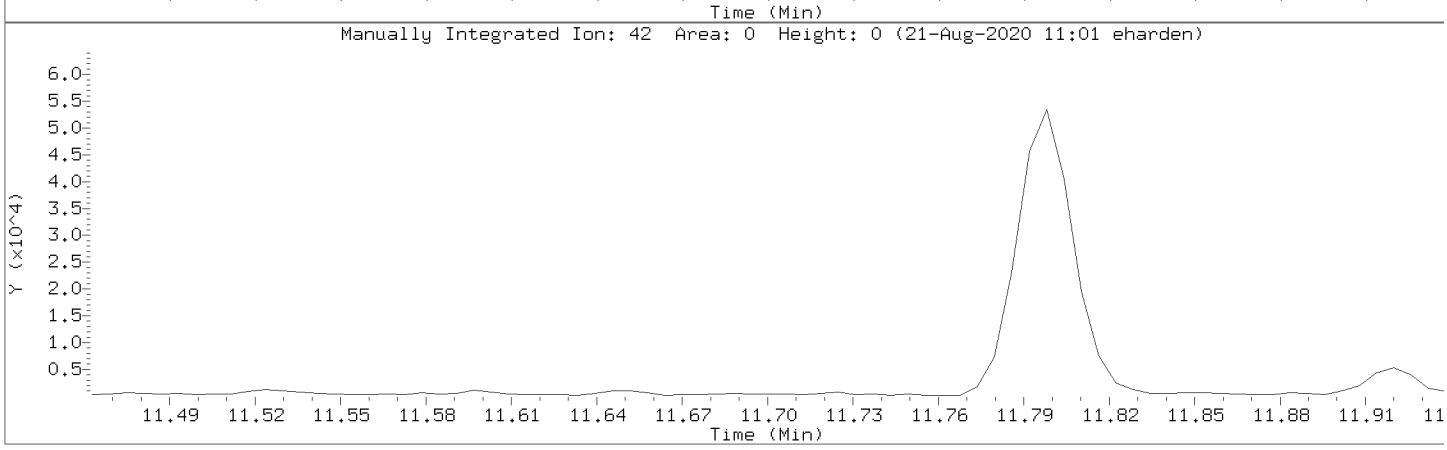
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_11.D
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6

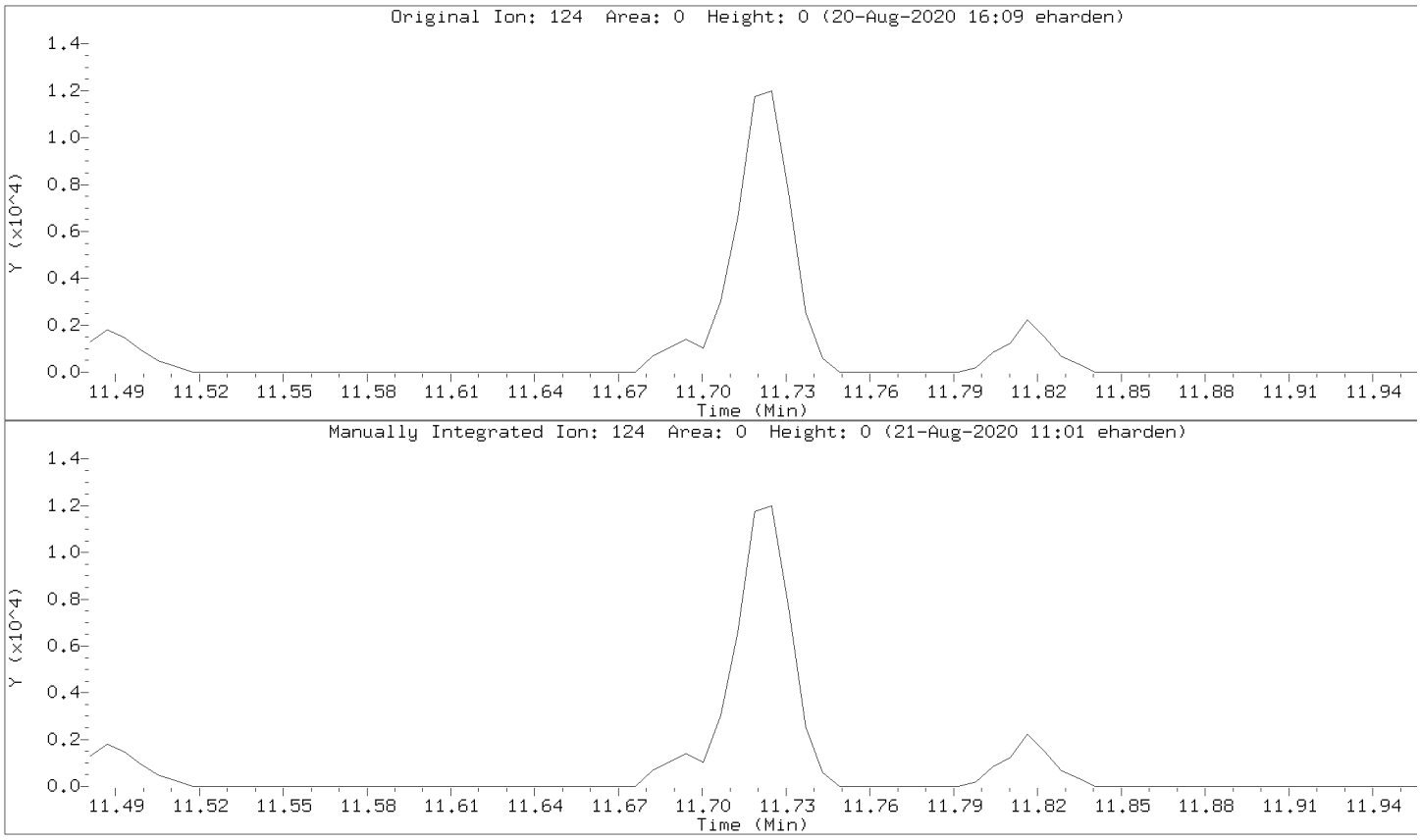








Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_11.D
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_12.D
Lab Smp Id: CAL10 Client Smp ID: CAL10
Inj Date : 20-AUG-2020 14:36
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal10,27246:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 14:36 Cal File: 082020_12.D
Als bottle: 10 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.232	3.226	(0.411)	408577	100.000	102(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	484636	100.000	105	
3 Vinyl chloride	62	3.702	3.702	(0.471)	387049	100.000	98.7	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	337639	100.000	96.3	
5 Bromomethane	94	4.201	4.195	(0.535)	280008	100.000	96.6	
6 Chloroethane	64	4.366	4.360	(0.556)	102291	100.000	94.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	201296	100.000	80.8	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	132497	100.000	96.5	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	447052	100.000	101	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	271477	100.000	92.9	
11 Carbon disulfide	76	5.287	5.293	(0.673)	903417	100.000	92.1	
12 Iodomethane	142	5.445	5.439	(0.693)	281734	100.000	105	
13 Acrolein	56	5.659	5.659	(0.720)	92978	200.000	203	
14 Allyl chloride	76	5.787	5.787	(0.736)	131327	100.000	96.3	
15 Methylene Chloride	49	5.902	5.902	(0.751)	464439	100.000	88.2	
16 Acetone	43	5.969	5.976	(0.760)	504949	200.000	198	
17 Methyl acetate	43	6.067	6.067	(0.772)	615823	200.000	204(A)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	281562	100.000	94.1	
19 n-Hexane	86	6.110	6.110	(0.777)	34191	100.000	108	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	722402	100.000	103	
21 Acetonitrile	41	6.463	6.463	(0.822)	59347	200.000	214(AH)	
22 Chloroprene	53	6.640	6.640	(0.845)	465931	100.000	112	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	538565	100.000	92.6	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	257393	200.000	204(A)	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	592348	100.000	103	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	420353	100.000	98.0	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	400045	100.000	89.2	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	170642	100.000	91.1	
	29 Cyclohexane	56	7.335	7.335	(0.882)	419057	100.000	113	
	30 Chloroform	83	7.372	7.372	(0.938)	604780	100.000	92.0	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	715243	200.000	193	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	438244	100.000	99.7	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	196080	200.000	216(A)	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	173193	50.0000	45.5	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	483513	100.000	97.1	
	36 2-Butanone (MEK)	43	7.622	7.628	(0.970)	582167	200.000	205	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	369324	100.000	107(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	330367	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	1069569	100.000	95.8	
	40 Propionitrile	54	7.896	7.902	(1.005)	106137	200.000	188	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	553697	200.000	193	
	42 Isobutanol	43	7.981	7.987	(1.016)	27725	200.000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	30521	50.0000	44.6	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	462341	100.000	89.5	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	647452	100.000	105	
	46 Trichloroethene	130	8.317	8.317	(1.000)	309121	100.000	101	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	436570	50.0000		
	48 Methylcyclohexane	98	8.317	8.317	(1.000)	158128	100.000	109	
	49 n-Butanol	56	8.512	8.524	(1.023)	14392	200.000	216(AH)	
	50 Dibromomethane	93	8.670	8.670	(1.043)	246347	100.000	94.7	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	303772	100.000	95.3	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	472990	100.000	103	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	186585	100.000	99.8	
	54 1,4-Dioxane (p-Dioxane)	58	8.932	8.920	(1.074)	5966	200.000		
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	331081	200.000	199	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	477231	100.000	107	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	469795	50.0000	50.0	
	58 Toluene	91	9.414	9.414	(1.132)	1103221	100.000	101	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	107110	100.000	99.6(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	67349	200.000	216(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	476057	100.000	107	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	293850	100.000	102	
	63 Ethyl methacrylate	69	9.755	9.761	(1.173)	357290	100.000	100(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	256256	100.000	92.9	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	402726	100.000	100	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	445948	100.000	106	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	331903	100.000	96.5	
	68 2-Hexanone	43	10.273	10.280	(1.235)	835017	200.000	226	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	1239031	100.000	112	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	421679	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	778798	100.000	95.7	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	313159	100.000	91.1	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	1926275	200.000	199	
	74 o-Xylene	106	10.993	10.993	(1.041)	447143	100.000	98.2	
	75 Styrene	104	11.029	11.029	(1.044)	787917	100.000	99.1	
	76 Bromoform	173	11.103	11.103	(1.051)	373847	100.000	98.1	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	674839	100.000	98.7	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	181905	50.0000	52.6	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	126903	100.000	91.6	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	1515194	100.000	112	
81 Bromobenzene	156	11.578	11.578	(1.096)	444066	100.000	104	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	420224	100.000	93.1	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	994488	100.000	112	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	318275	100.000	98.4	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	325711	100.000	99.8	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	1159541	100.000	99.1	
87 1,2,3-Trichloropropane	75	11.718	11.724	(1.110)	452394	100.000	95.9	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	107903	100.000	99.4(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	1046010	100.000	100	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	1050761	100.000	100	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	1234948	100.000	99.0	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	1046010	100.000	100	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	748097	100.000	104	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	269551	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	761377	100.000	94.0	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	1072153	100.000	114	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	743908	100.000	94.9	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	85330	100.000	96.8	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	240583	100.000	100	
101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	573550	100.000	108	
102 Naphthalene	128	14.193	14.193	(1.150)	1058070	100.000	100	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	534252	100.000	108	

QC Flag Legend

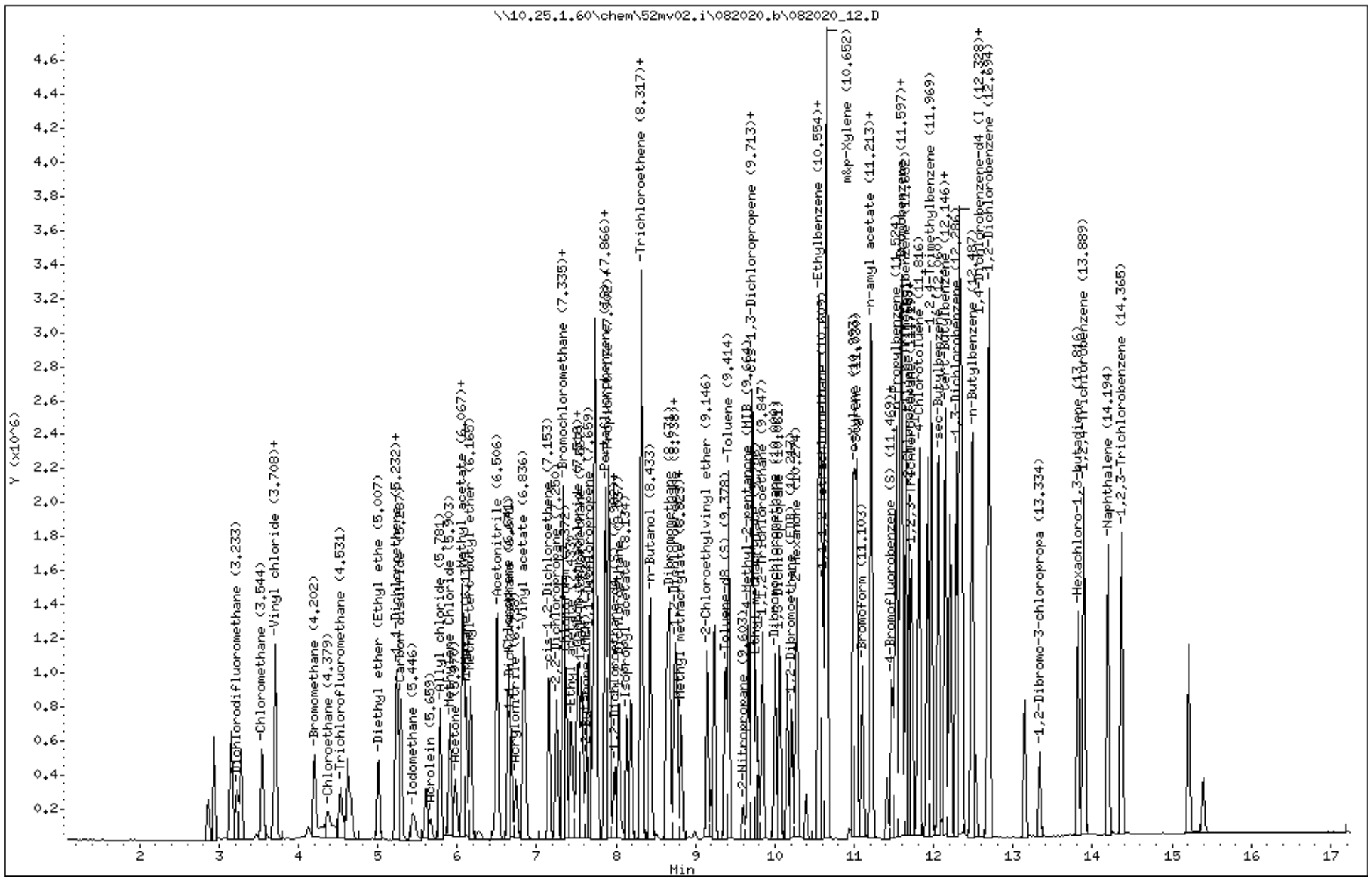
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_12.D
Date : 20-AUG-2020 14:36
Client ID: CAL10
Sample Info: CAL10,27246:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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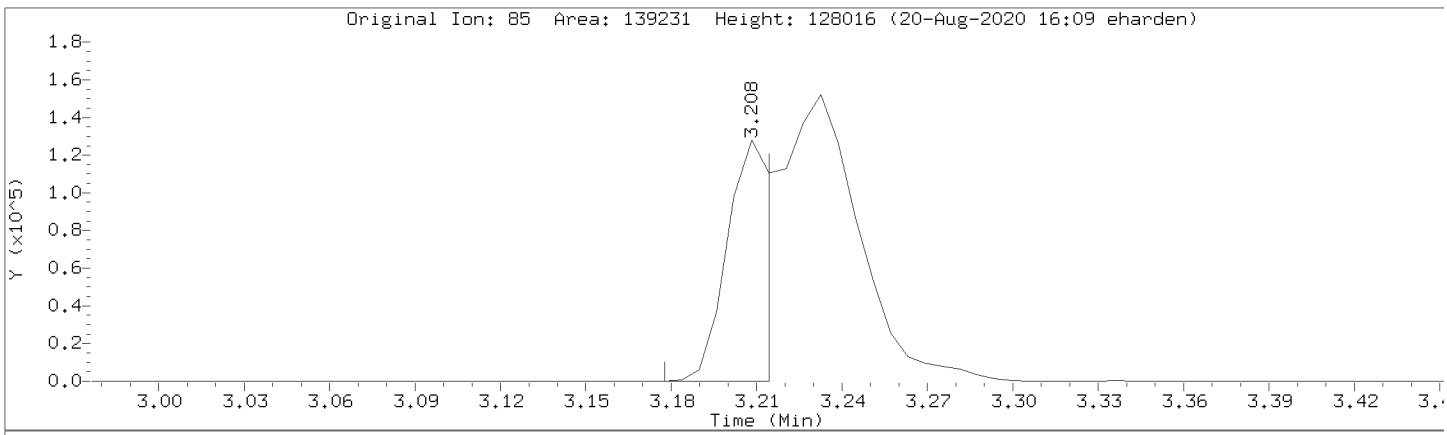
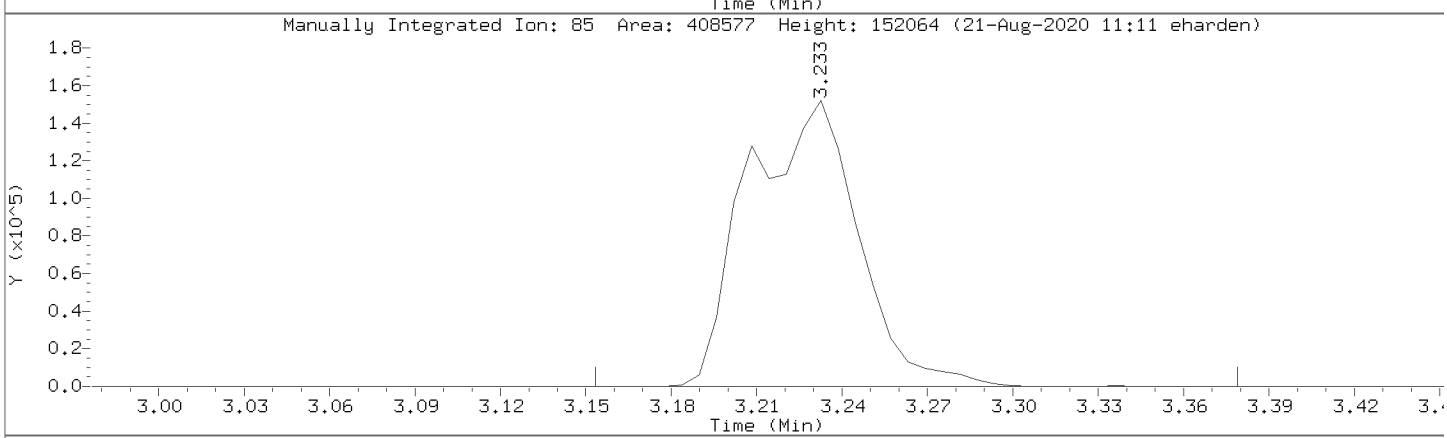
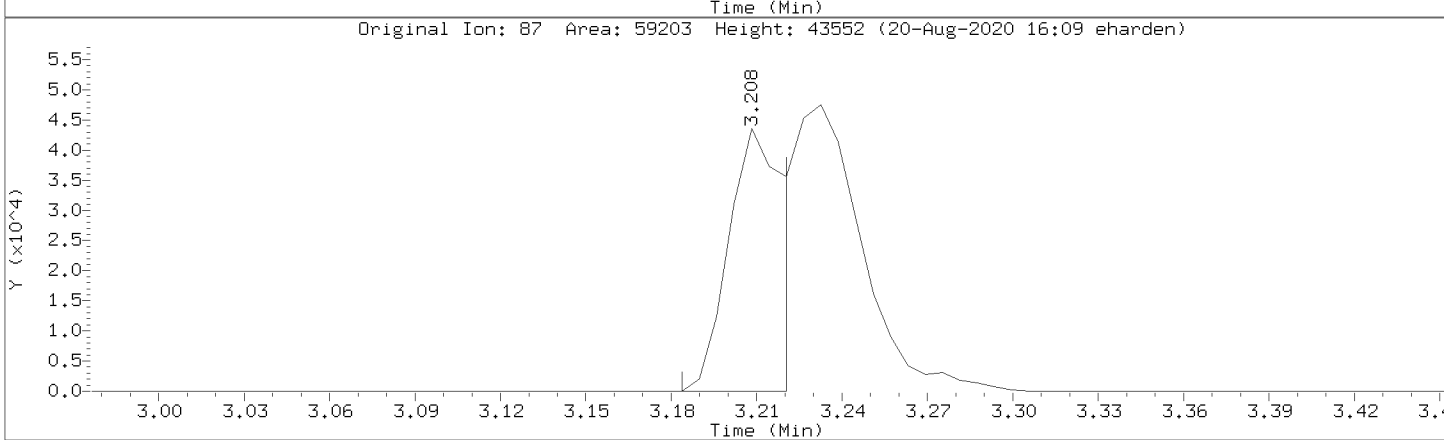
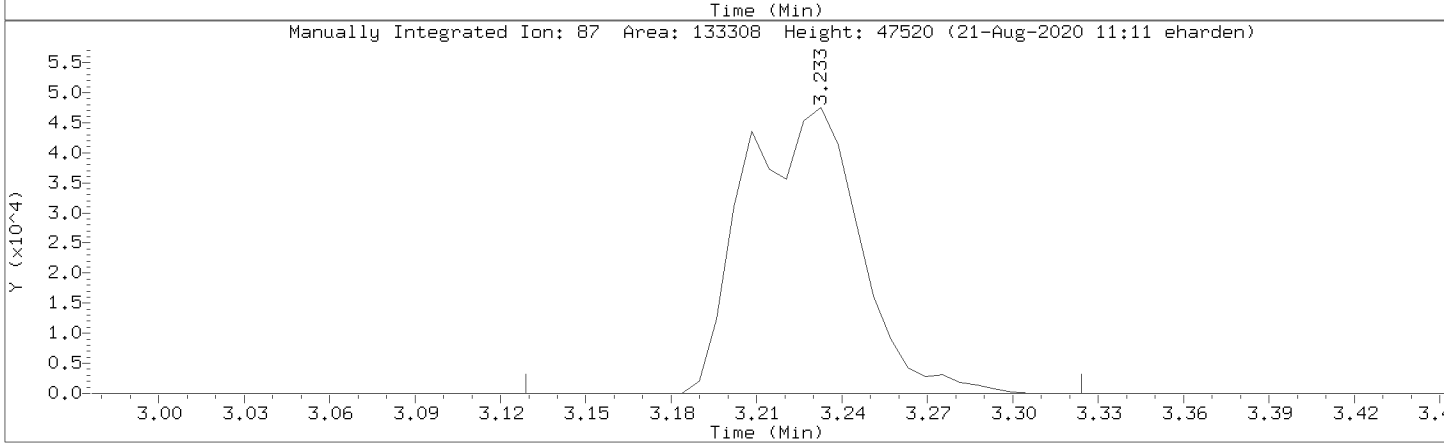
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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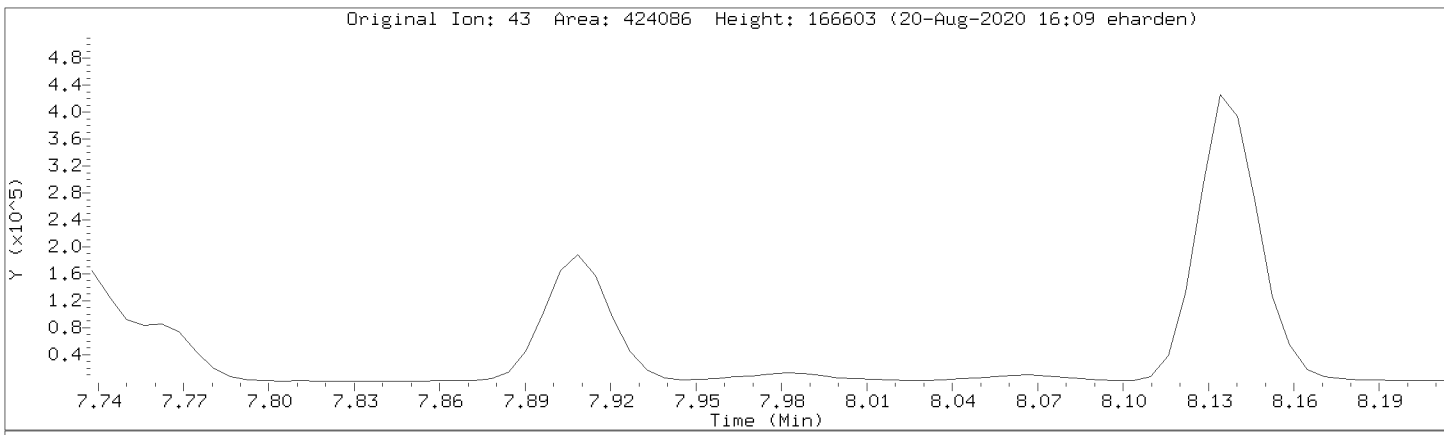
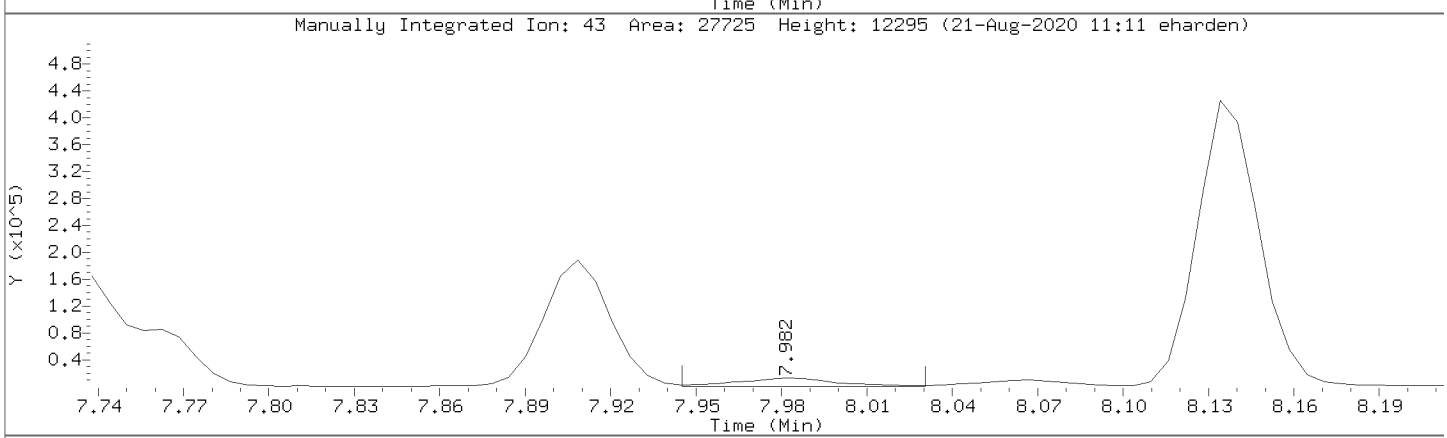
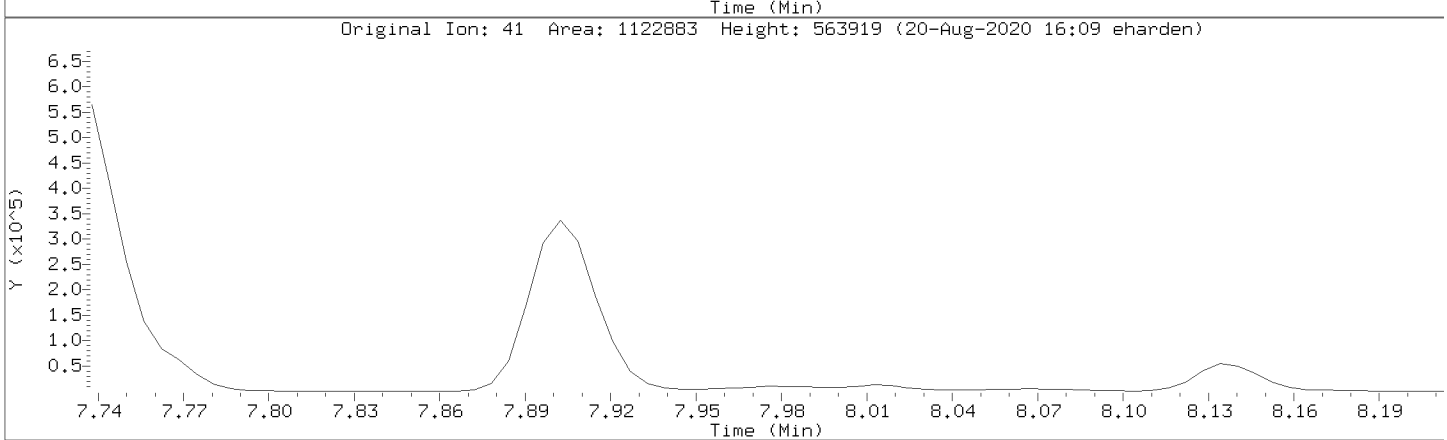
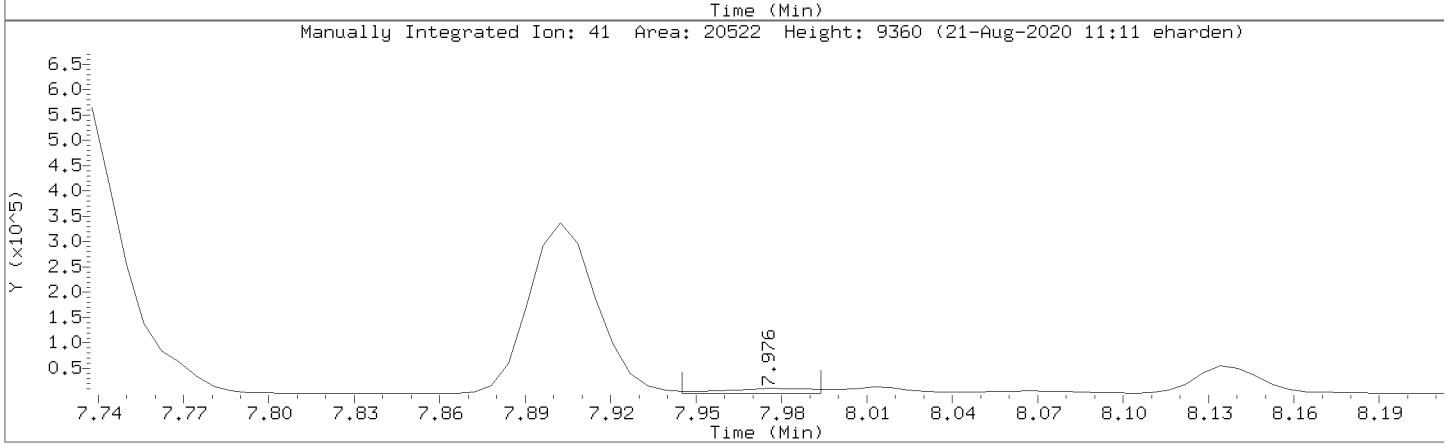
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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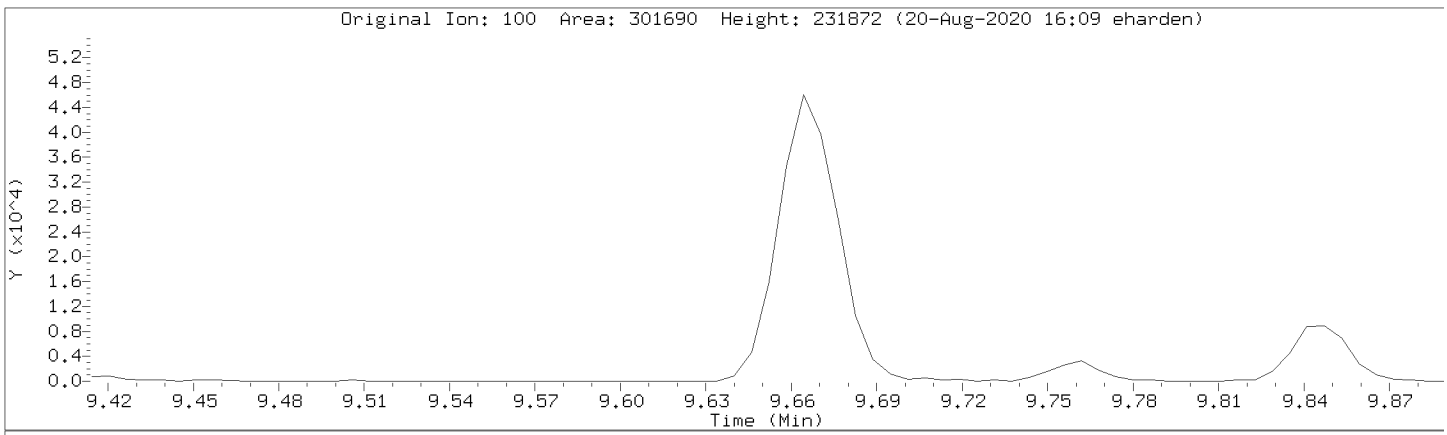
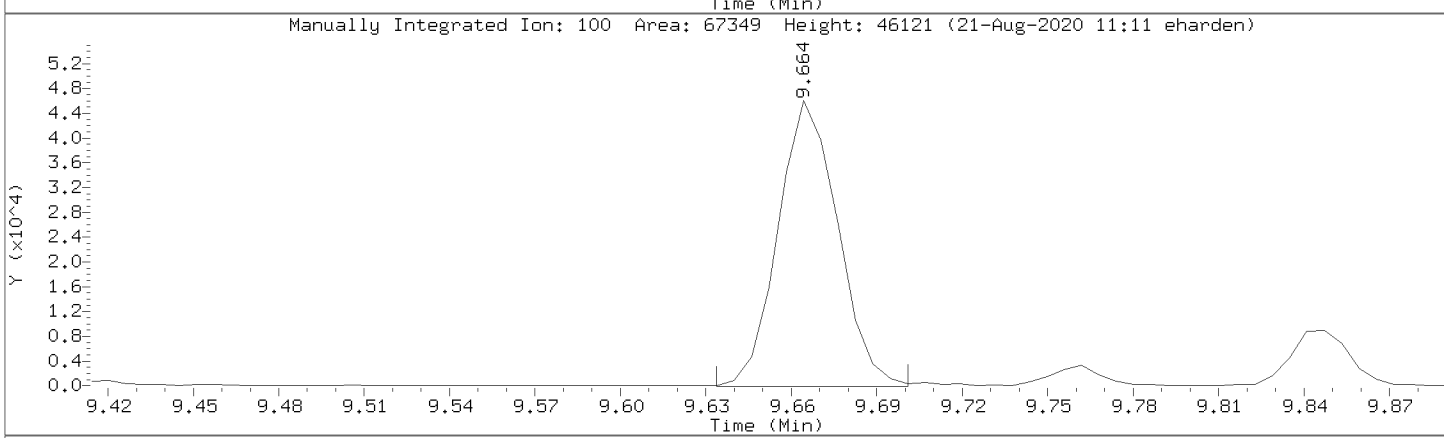
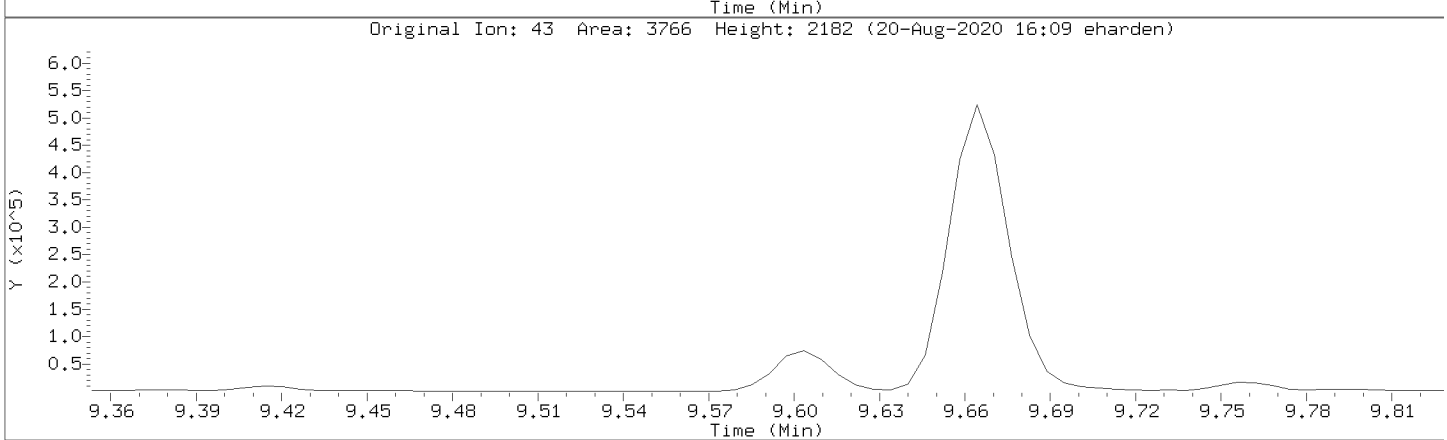
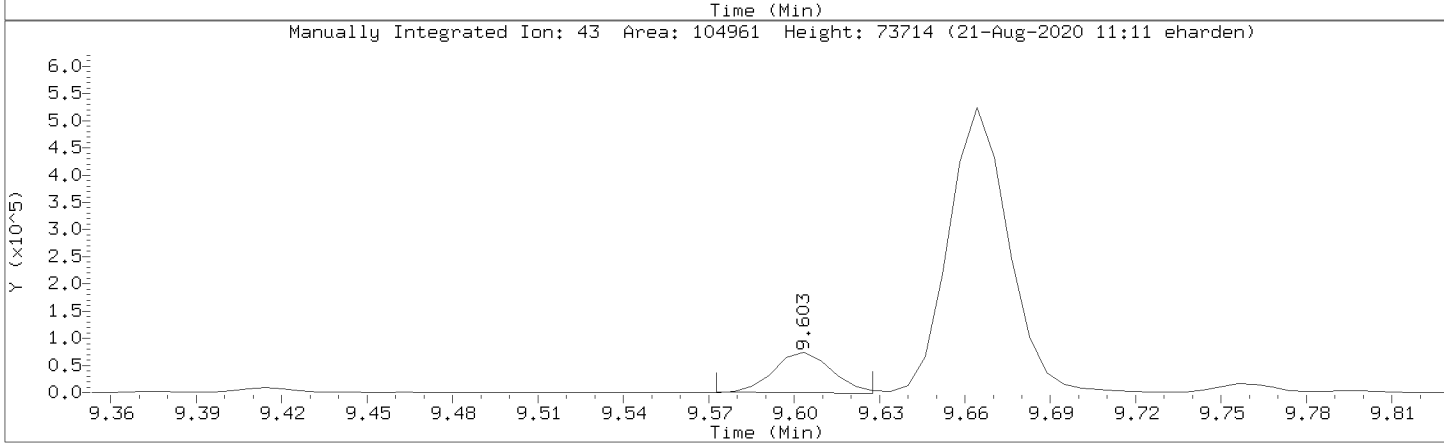
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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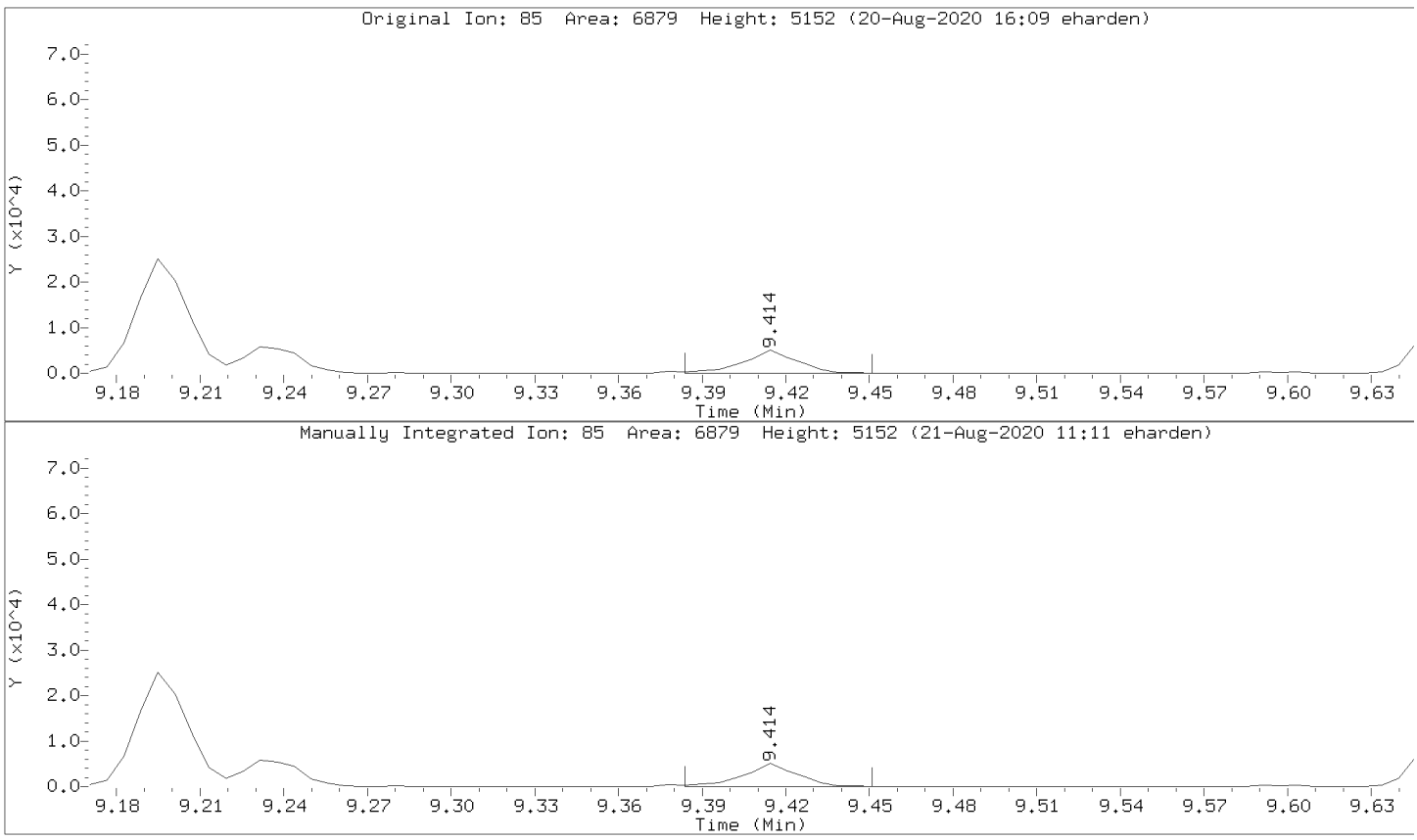
Instrument: 52mv02.i
Lab Sample ID: CAL10



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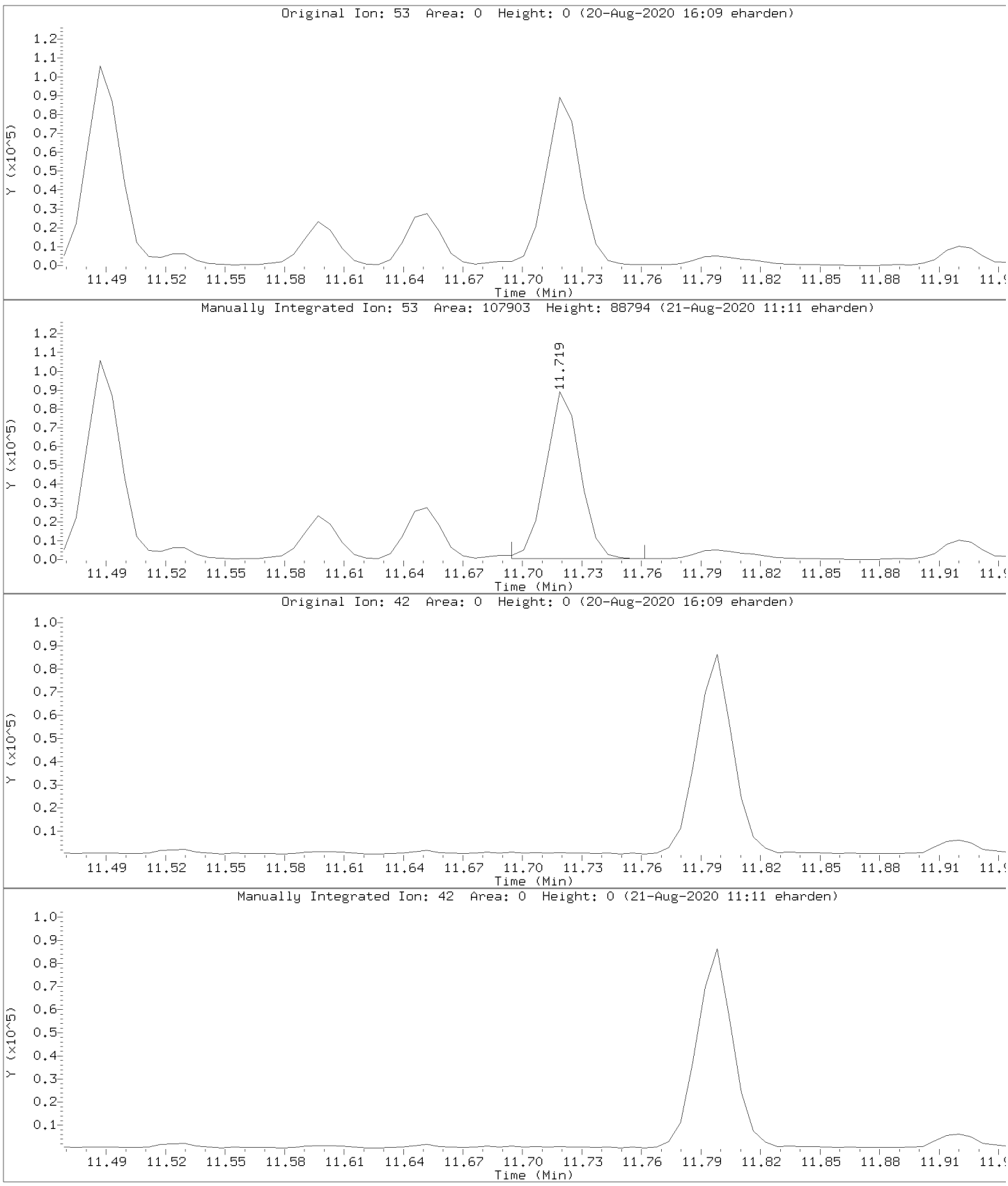
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6



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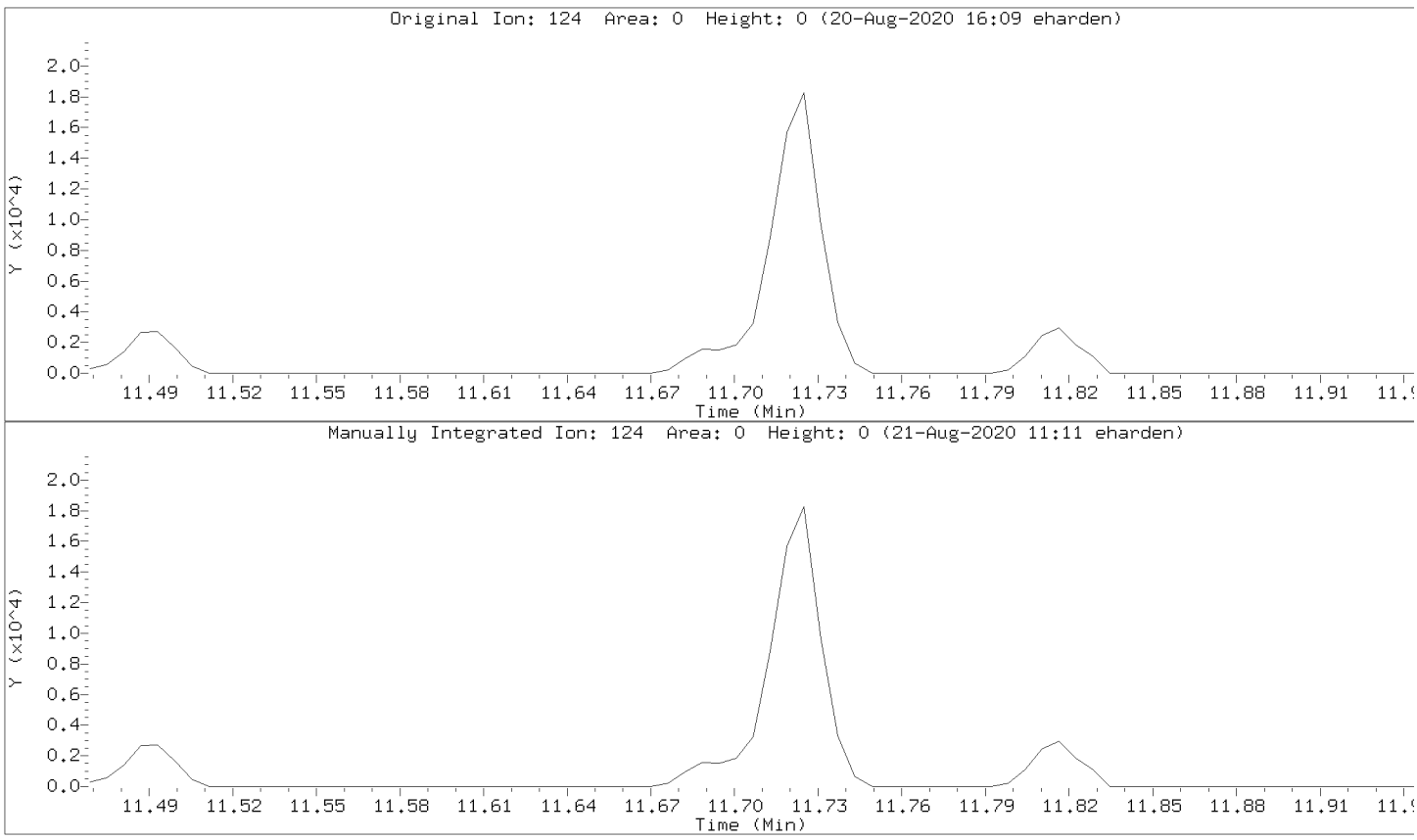
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_13.D
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Inj Date : 20-AUG-2020 15:01
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal11,27247:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 11 Calibration Sample, Level: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.411)	596195	150.000	136	
2 Chloromethane	50	3.543	3.543	(0.451)	739356	150.000	145	
3 Vinyl chloride	62	3.696	3.702	(0.470)	576689	150.000	133	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	505231	150.000	131	
5 Bromomethane	94	4.202	4.195	(0.535)	405786	150.000	128	
6 Chloroethane	64	4.372	4.360	(0.556)	160377	150.000	135	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	281645	150.000	102	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	213435	150.000	141	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	700428	150.000	143	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	416914	150.000	129	
11 Carbon disulfide	76	5.293	5.293	(0.673)	1405135	150.000	130	
12 Iodomethane	142	5.445	5.439	(0.693)	477239	150.000	149	
13 Acrolein	56	5.653	5.659	(0.719)	138935	300.000	275	
14 Allyl chloride	76	5.781	5.787	(0.736)	206328	150.000	137	
15 Methylene Chloride	49	5.903	5.902	(0.751)	727096	150.000	125	
16 Acetone	43	5.970	5.976	(0.760)	656255	300.000	234	
17 Methyl acetate	43	6.067	6.067	(0.772)	970273	300.000	292(A)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	446654	150.000	135	
19 n-Hexane	86	6.110	6.110	(0.777)	56907	150.000	163	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	1130159	150.000	147	
21 Acetonitrile	41	6.457	6.463	(0.822)	86780	300.000	285(AH)	
22 Chloroprene	53	6.640	6.640	(0.845)	759997	150.000	165	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	841882	150.000	131	
24 Acrylonitrile	53	6.732	6.738	(0.857)	345438	300.000	248(A)	
25 Vinyl acetate	43	6.860	6.860	(0.873)	953920	150.000	150	
26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	675979	150.000	143	
27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	639550	150.000	129	
28 Bromochloromethane	128	7.335	7.335	(0.933)	262219	150.000	127	
29 Cyclohexane	56	7.335	7.335	(0.882)	673959	150.000	169	
30 Chloroform	83	7.372	7.372	(0.938)	938653	150.000	129	
31 Ethyl acetate	43	7.427	7.433	(0.945)	1167339	300.000	285(A)	
32 Carbon tetrachloride	117	7.512	7.512	(0.903)	693313	150.000	147	
33 Tetrahydrofuran	42	7.530	7.536	(0.958)	267882	300.000	269(A)	
$ 34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	173692	50.0000	41.4	
35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	769482	150.000	144	
36 2-Butanone (MEK)	43	7.622	7.628	(0.970)	813342	300.000	260	
37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	593514	150.000	160(H)	
* 38 Pentafluorobenzene (IS)	168	7.860	7.859	(1.000)	364284	50.0000		
39 Benzene	78	7.872	7.872	(0.946)	1687076	150.000	140	
40 Propionitrile	54	7.896	7.902	(1.005)	166664	300.000	268(A)	
41 Methacrylonitrile	41	7.902	7.902	(1.005)	899644	300.000	285(A)	
42 Isobutanol	43	7.939	7.987	(1.010)	51350	300.000	326(MH)	WP
$ 43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	31193	50.0000	41.3	
44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	727644	150.000	128	
45 Isopropyl acetate	43	8.134	8.134	(1.035)	1065124	150.000	157	
46 Trichloroethene	130	8.317	8.317	(1.000)	502843	150.000	153	
* 47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	469326	50.0000		
48 Methylcyclohexane	98	8.317	8.317	(1.000)	251607	150.000	162	
49 n-Butanol	56	8.506	8.524	(1.023)	20257	300.000	282(AM)	WP
50 Dibromomethane	93	8.670	8.670	(1.043)	389827	150.000	139	
51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	498266	150.000	145	
52 Bromodichloromethane	83	8.762	8.768	(1.054)	761518	150.000	155	
53 Methyl methacrylate	69	8.823	8.823	(1.061)	310093	150.000	154	
54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	8913	300.000	(M)	LT
55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	556411	300.000	310(A)	
56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	771157	150.000	161	
$ 57 Toluene-d8 (S)	98	9.378	9.377	(1.128)	506560	50.0000	50.1	
58 Toluene	91	9.414	9.414	(1.132)	1804467	150.000	154	
59 2-Nitropropane	43	9.603	9.603	(1.155)	173571	150.000	150(H)	
60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	110057	300.000	328(M)	WP
61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	770276	150.000	161	
62 Tetrachloroethene	164	9.719	9.719	(0.920)	474671	150.000	157	
63 Ethyl methacrylate	69	9.762	9.761	(1.174)	589423	150.000	153(H)	
64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	411208	150.000	139	
65 Dibromochloromethane	129	9.999	9.999	(0.947)	661080	150.000	158	
66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	718701	150.000	159	
67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	540700	150.000	151	
68 2-Hexanone	43	10.280	10.280	(1.236)	1321811	300.000	334	
69 Ethylbenzene	91	10.554	10.554	(0.999)	2030868	150.000	176	
* 70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	440117	50.0000		
71 Chlorobenzene	112	10.578	10.578	(1.002)	1246902	150.000	147	
72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	502389	150.000	140	
73 m&p-Xylene	91	10.652	10.651	(1.009)	3087209	300.000	306	
74 o-Xylene	106	10.993	10.993	(1.041)	749110	150.000	157	
75 Styrene	104	11.030	11.029	(1.044)	1284674	150.000	154	
76 Bromoform	173	11.103	11.103	(1.051)	620516	150.000	156	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.225	11.225	(1.063)	1097042	150.000	153	
$ 78 4-Bromofluorobenzene (S)	95	11.469	11.468	(1.086)	197928	50.0000	54.8	
79 cis-1,4-Dichloro-2-butene	53	11.493	11.487	(1.088)	206357	150.000	143	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	2449319	150.000	173	
81 Bromobenzene	156	11.578	11.578	(1.096)	711831	150.000	160	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	670344	150.000	142	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	1583363	150.000	167	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	512053	150.000	151	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	520832	150.000	153	
86 Isopropylbenzene (Cumene)	105	11.213	11.212	(1.062)	1881332	150.000	154	
87 1,2,3-Trichloropropane	75	11.725	11.724	(1.110)	714757	150.000	145	
88 trans-1,4-Dichloro-2-butene	53	11.725	11.718	(1.110)	175075	150.000	154(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	1701781	150.000	153	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	1675381	150.000	150	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	2013841	150.000	152	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	1701781	150.000	153	
94 1,3-Dichlorobenzene	146	12.292	12.291	(0.996)	1189514	150.000	156	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	286487	50.0000		
96 1,4-Dichlorobenzene	146	12.353	12.352	(1.001)	1209618	150.000	140	
97 n-Butylbenzene	91	12.487	12.486	(1.012)	1702056	150.000	170	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	1195470	150.000	143	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	140776	150.000	150	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	396371	150.000	155	
101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	959966	150.000	170	
102 Naphthalene	128	14.194	14.193	(1.150)	1728714	150.000	153	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	908509	150.000	173	

QC Flag Legend

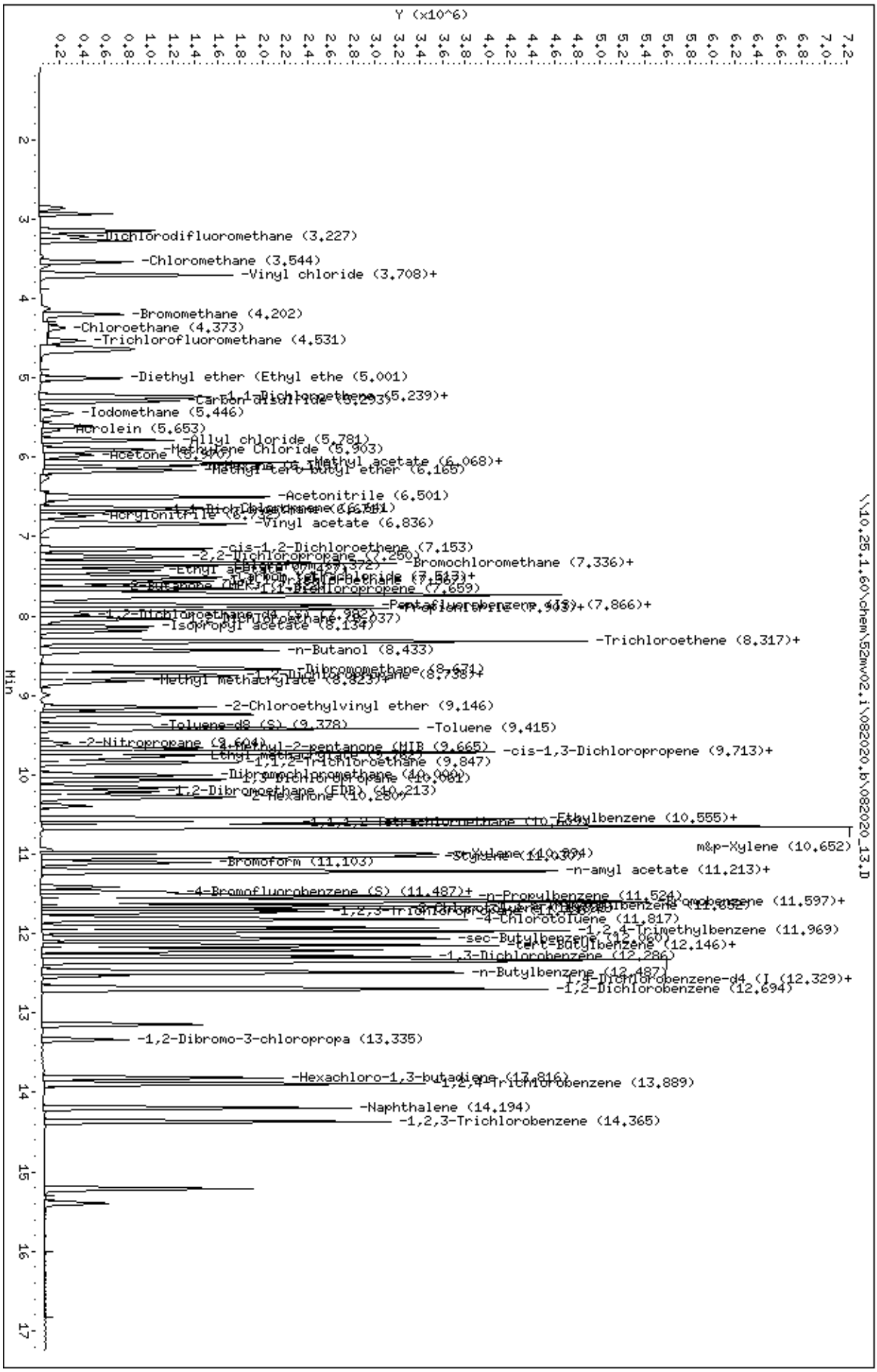
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_13.D
Date : 20-AUG-2020 15:01
Client ID: CAL11
Sample Info: CAL11,27247:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Page 4

Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_13.D
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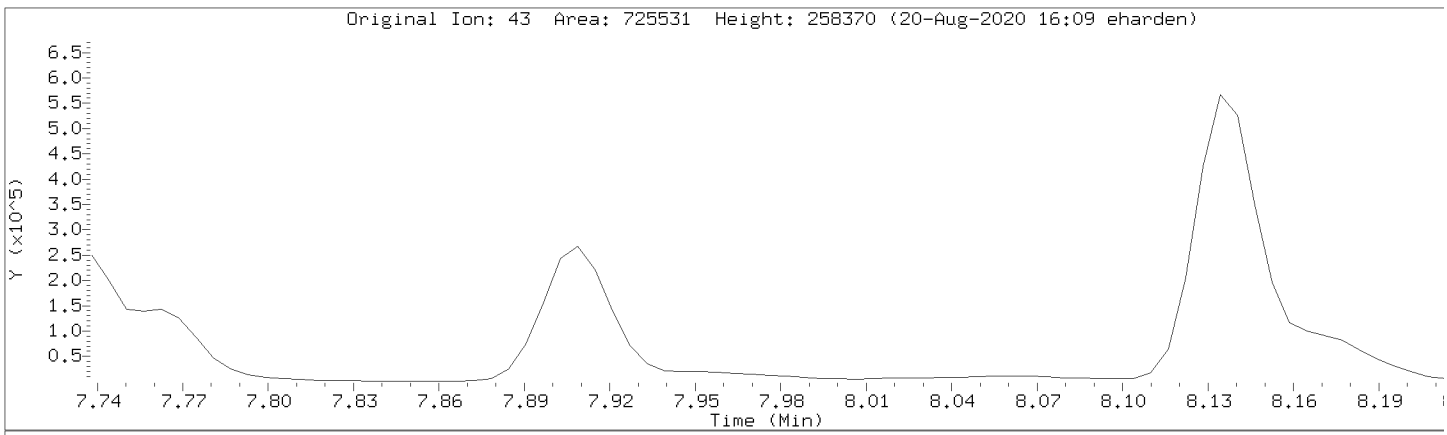
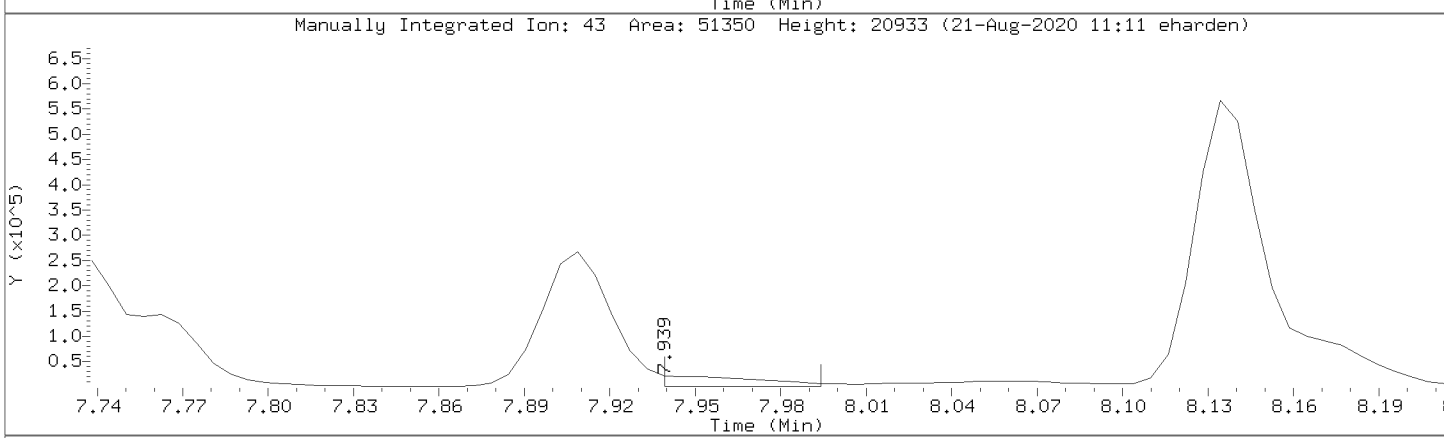
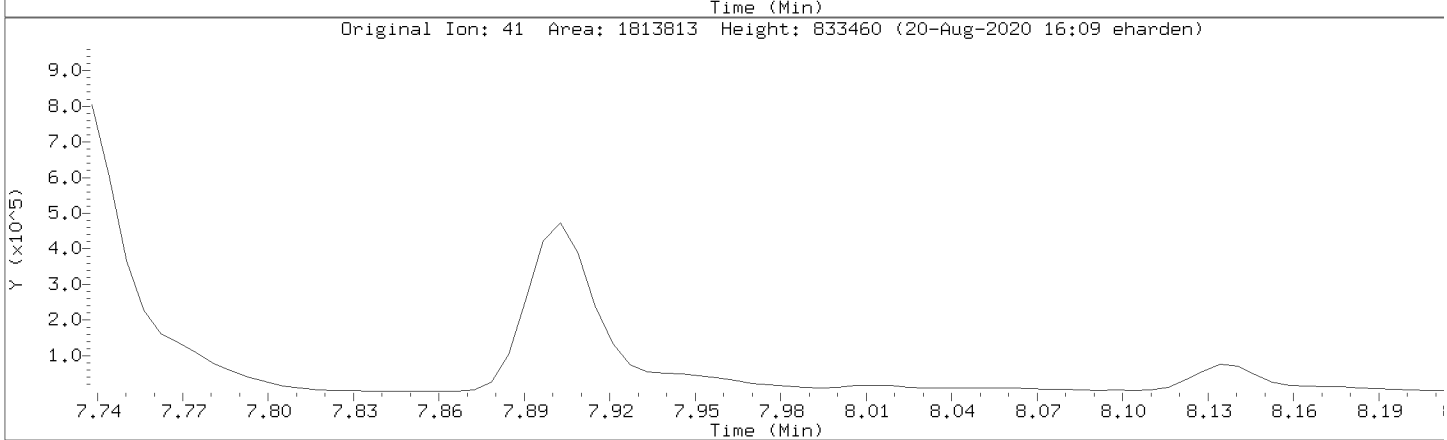
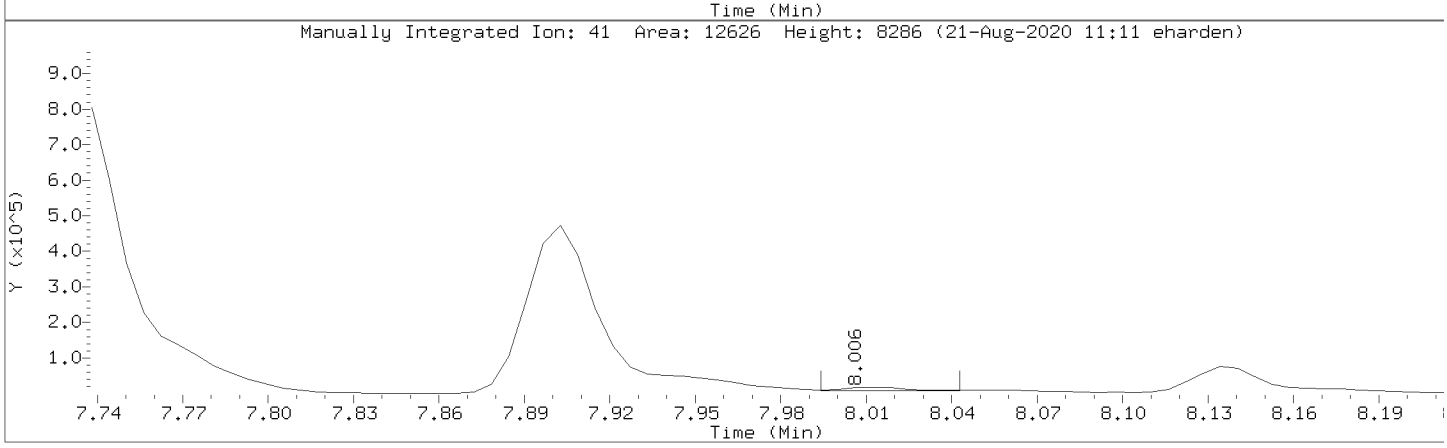
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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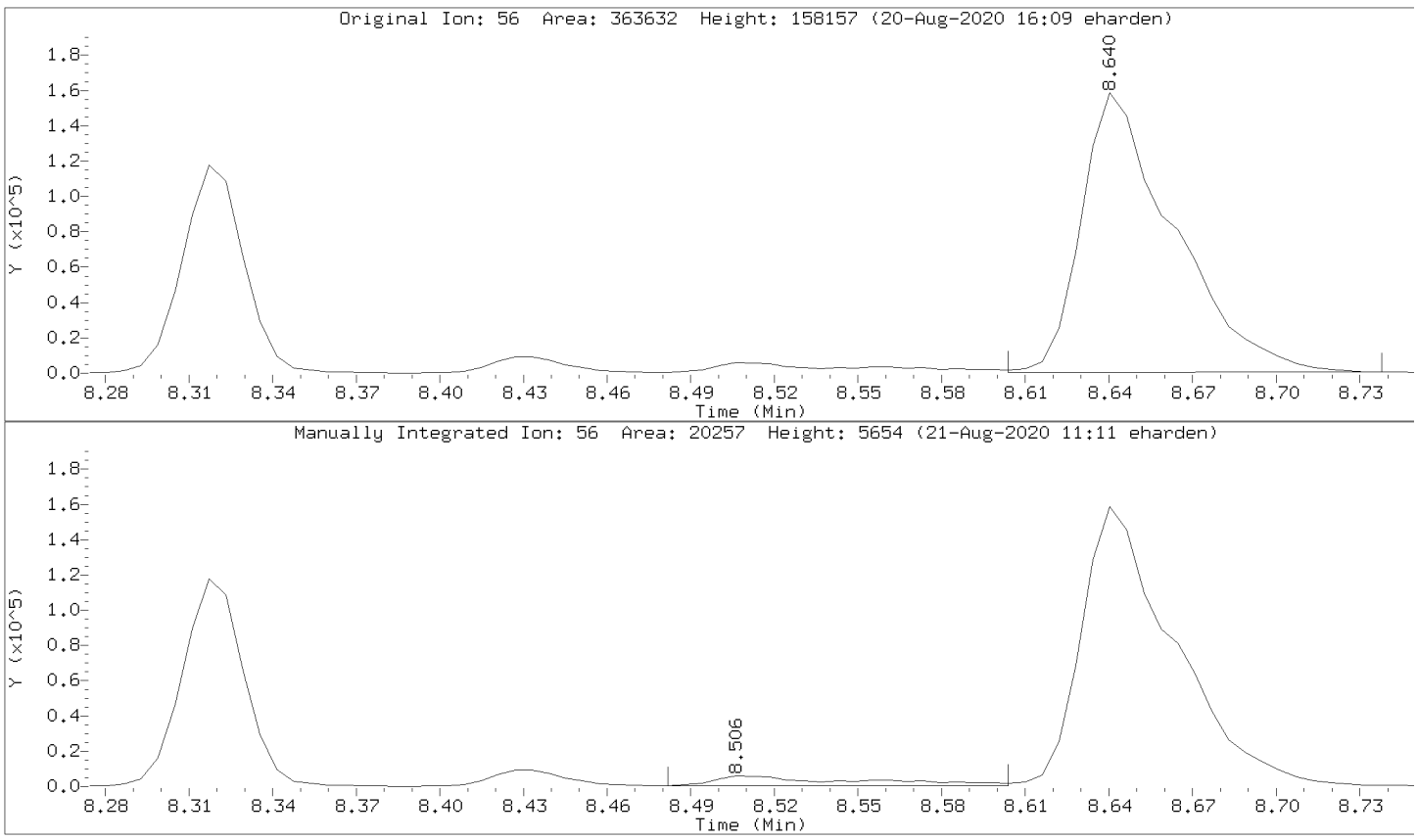
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3



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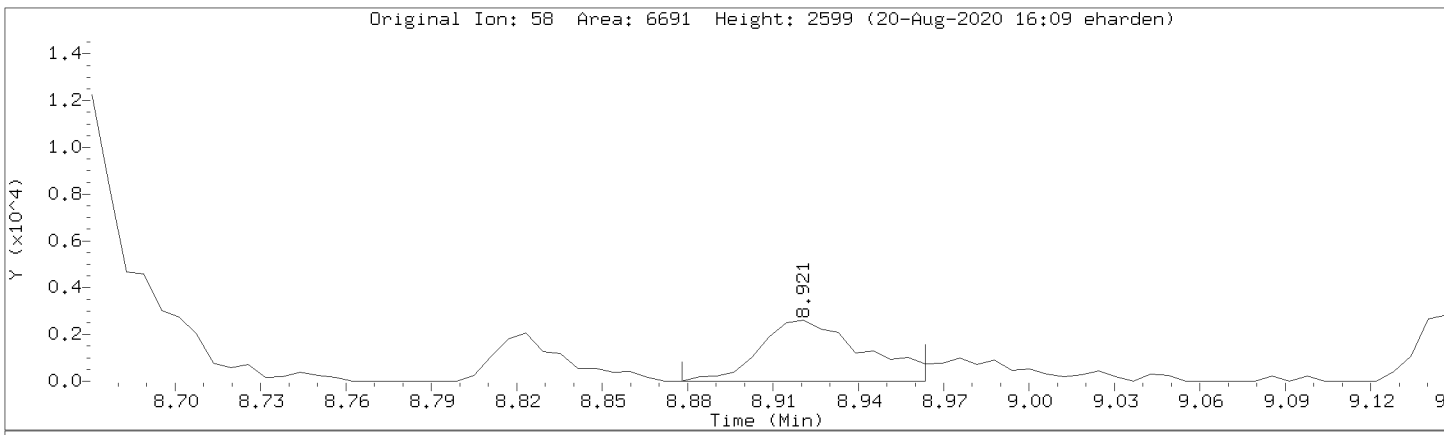
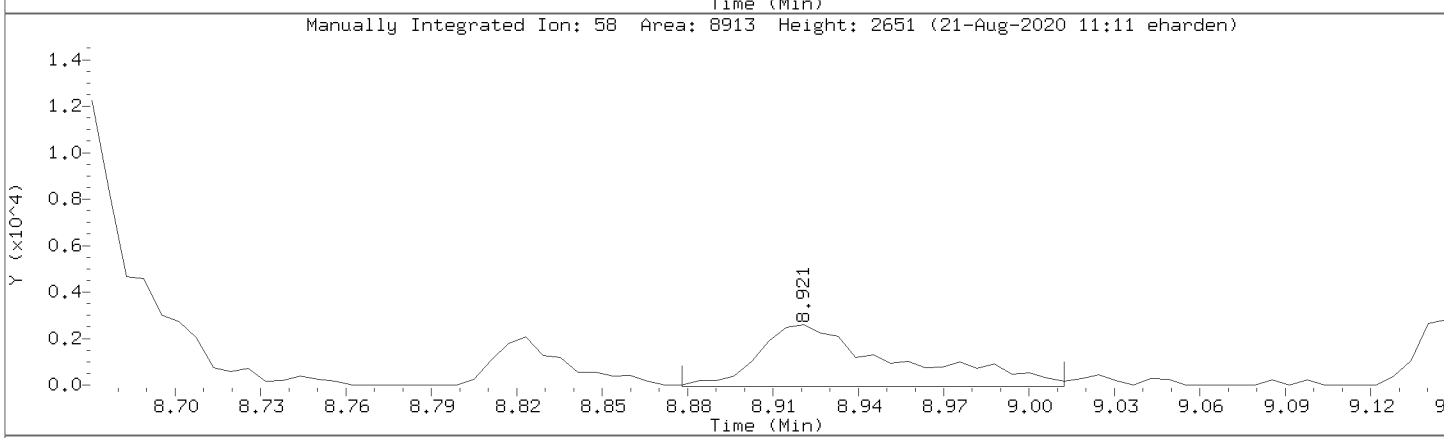
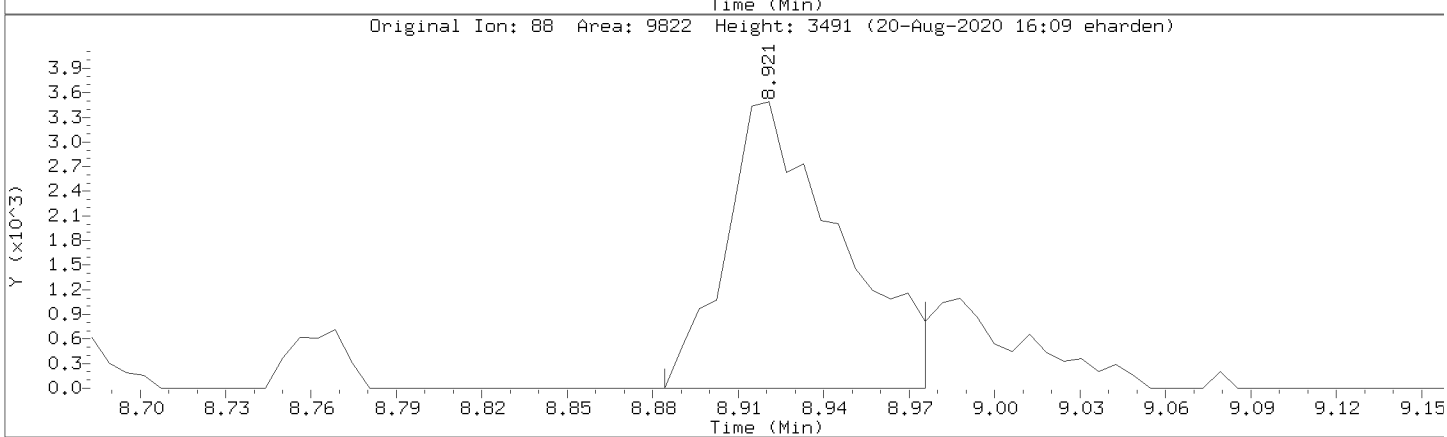
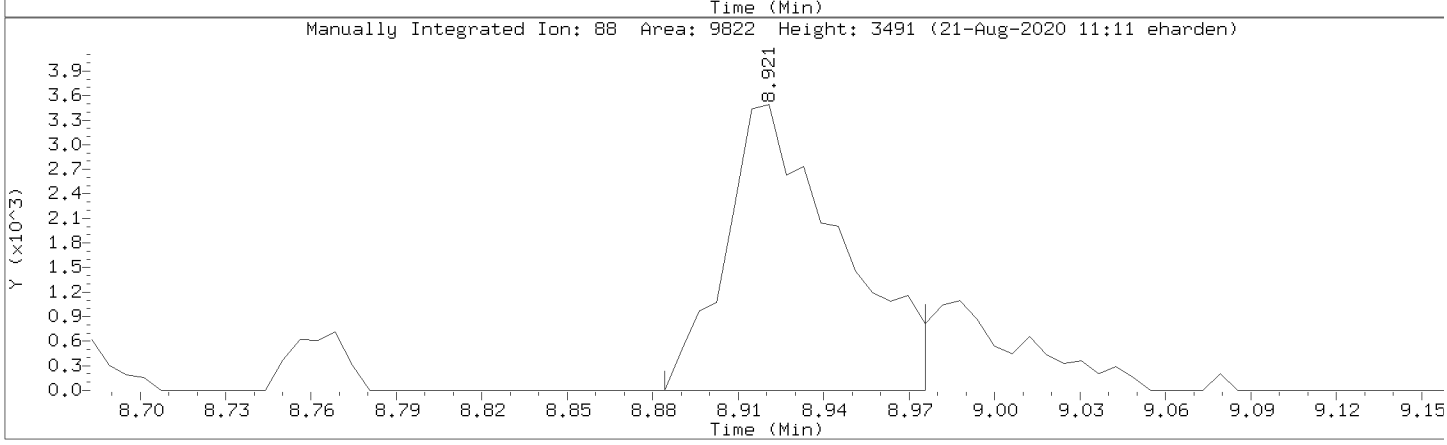
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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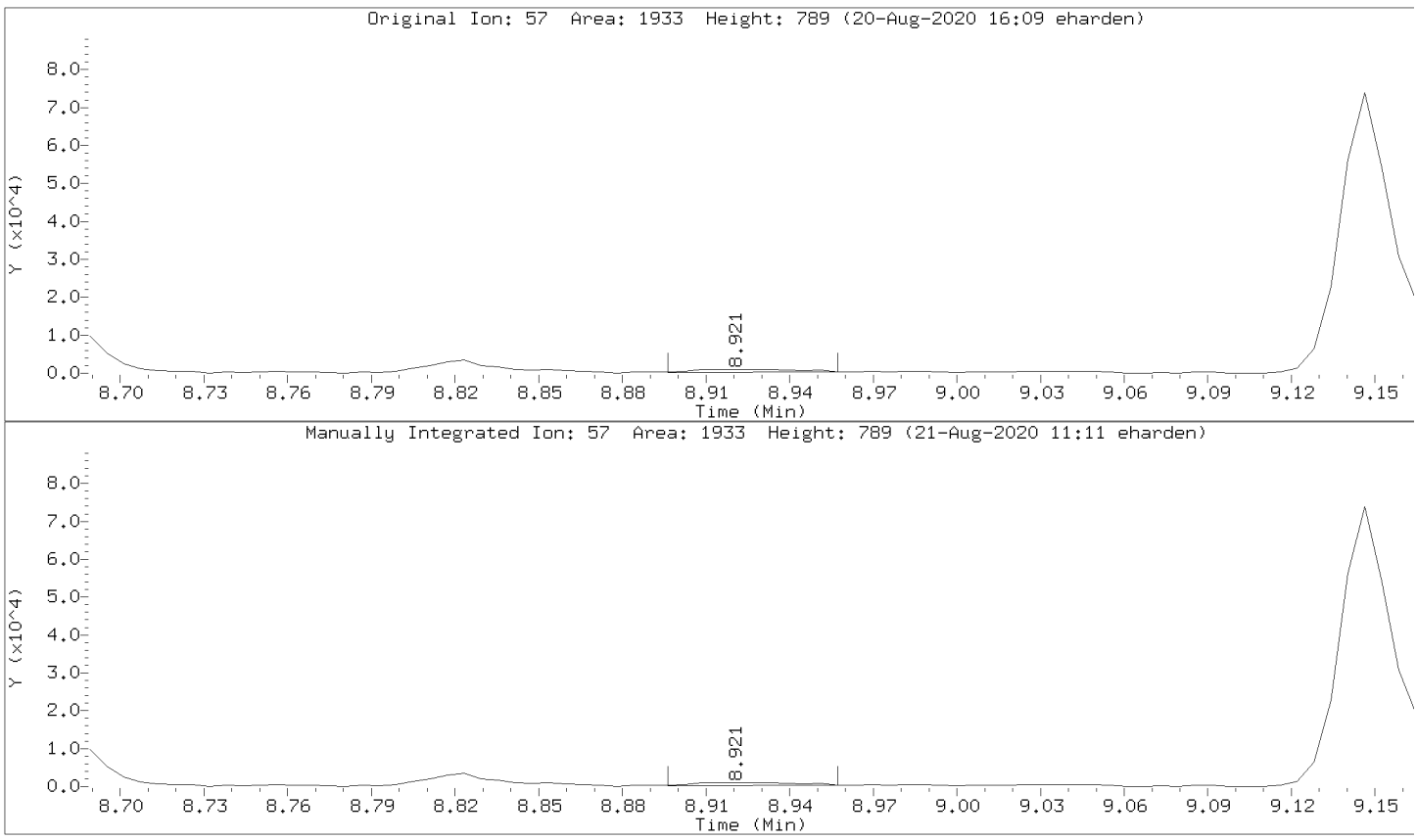
Instrument: 52mv02.i
Lab Sample ID: CAL11



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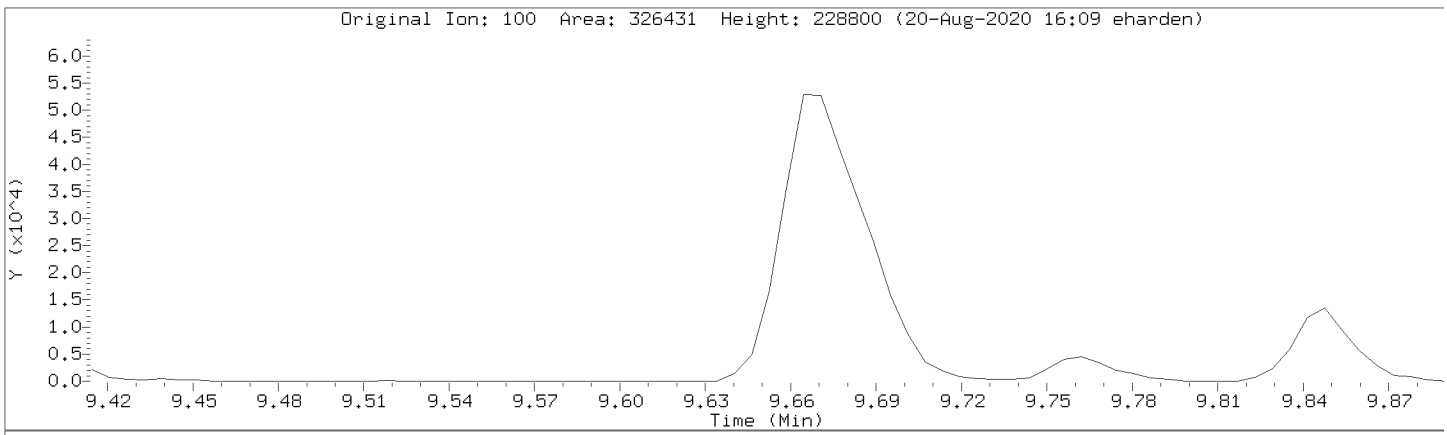
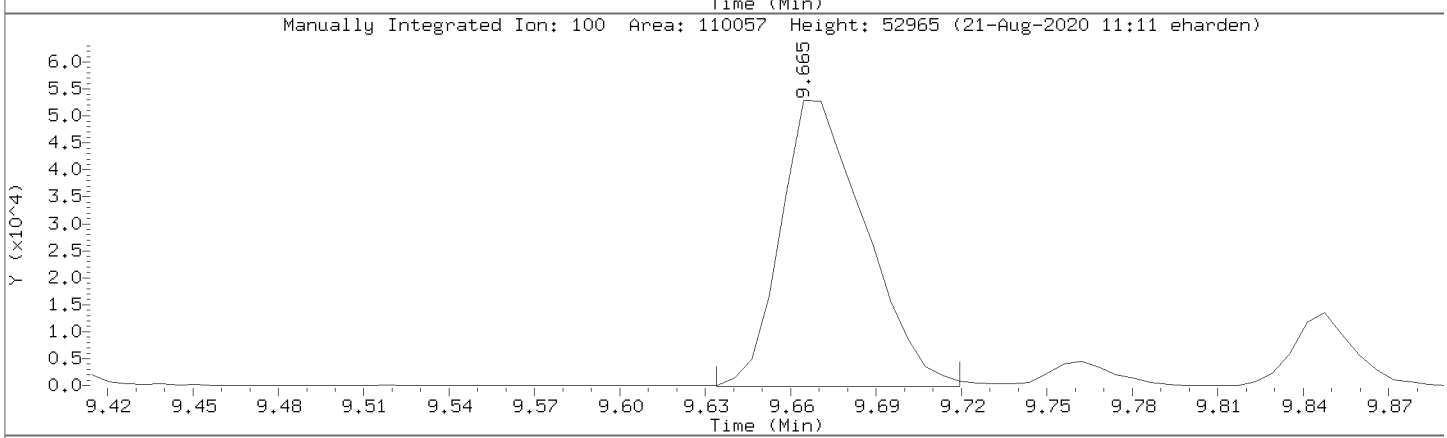
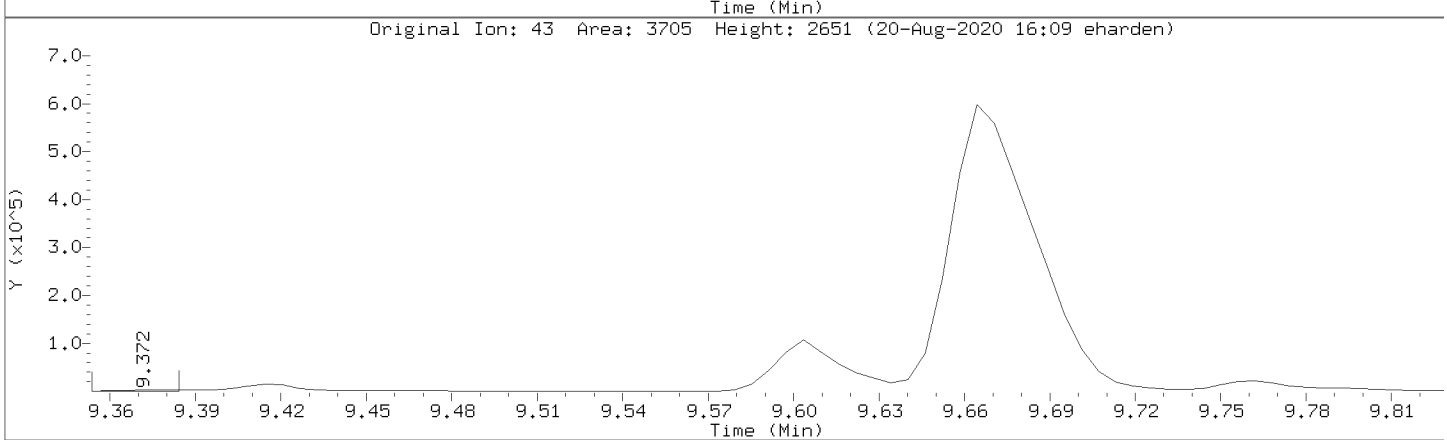
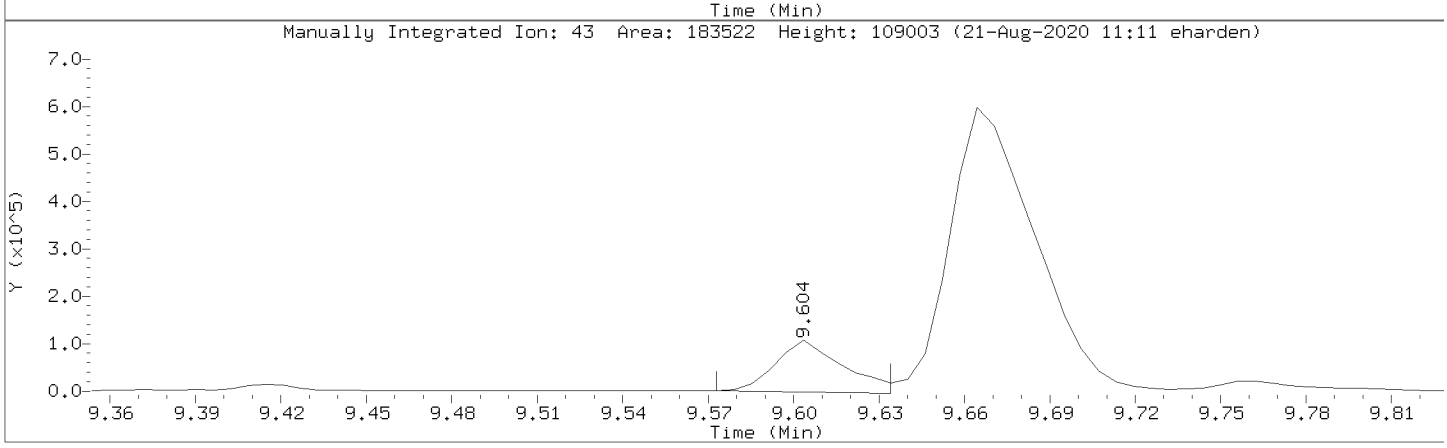
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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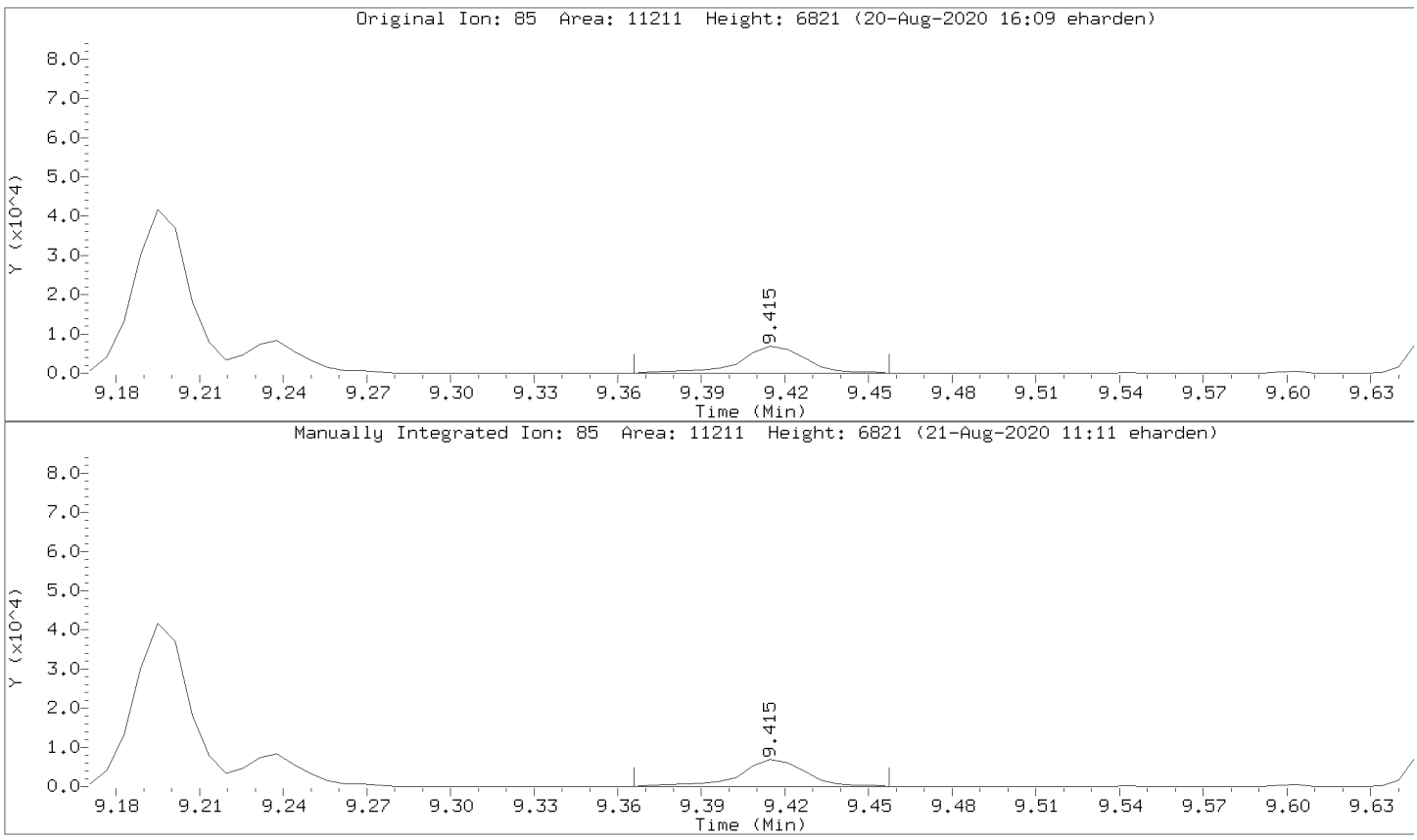
Lab Sample ID: CAL11



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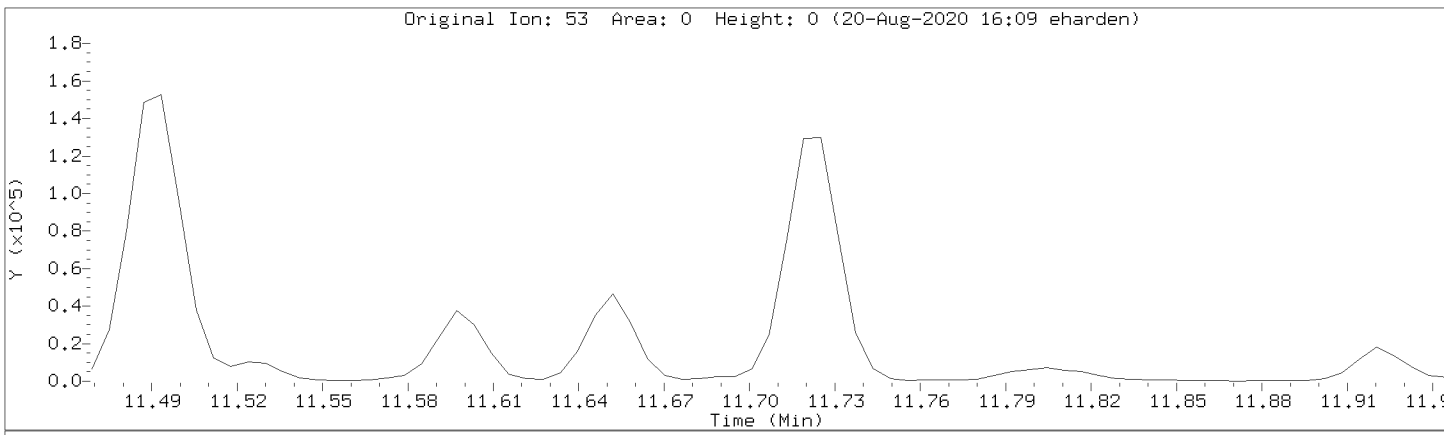
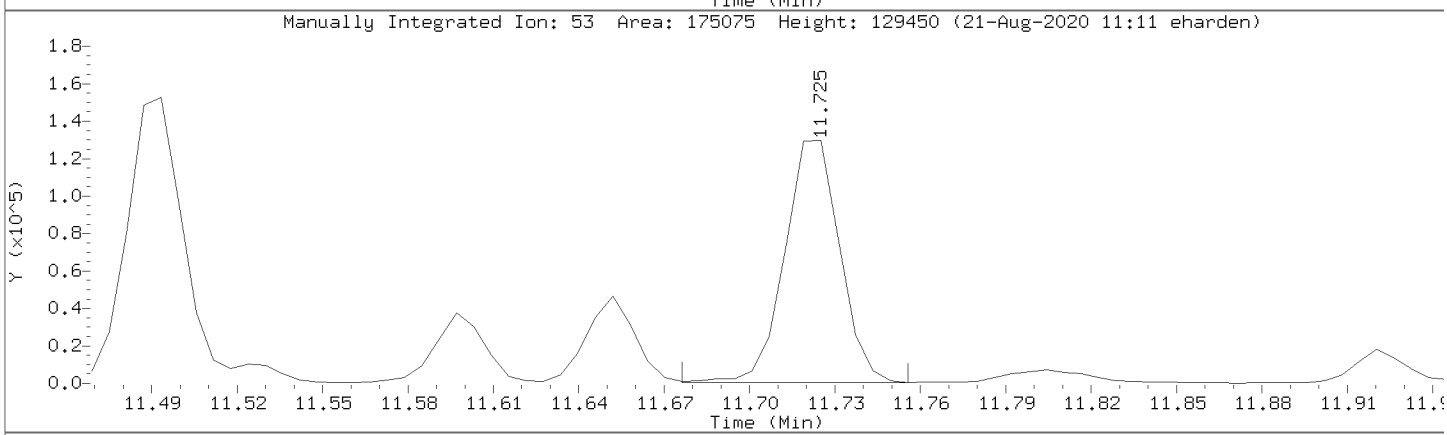
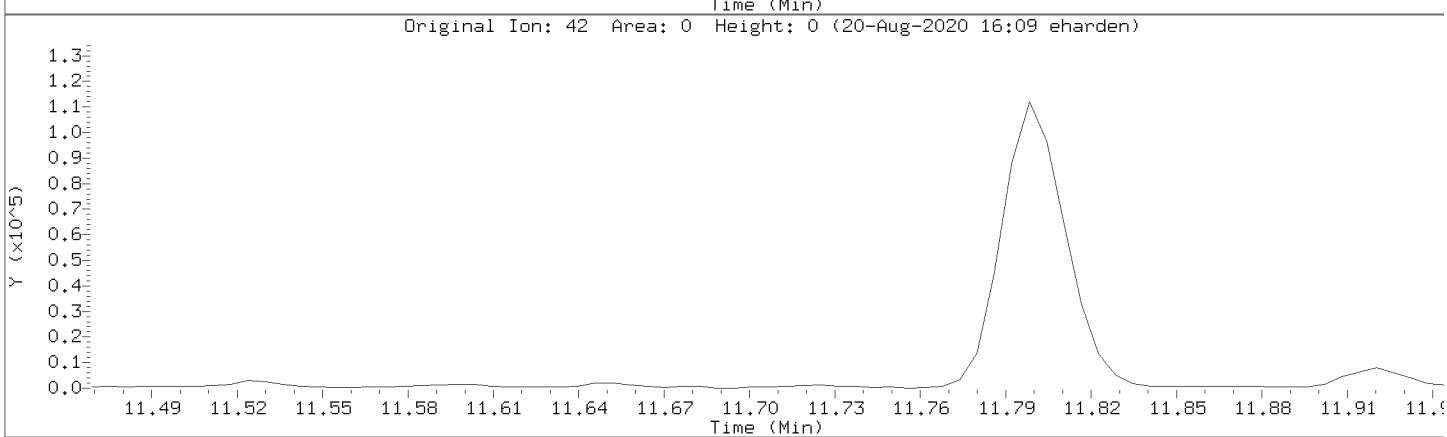
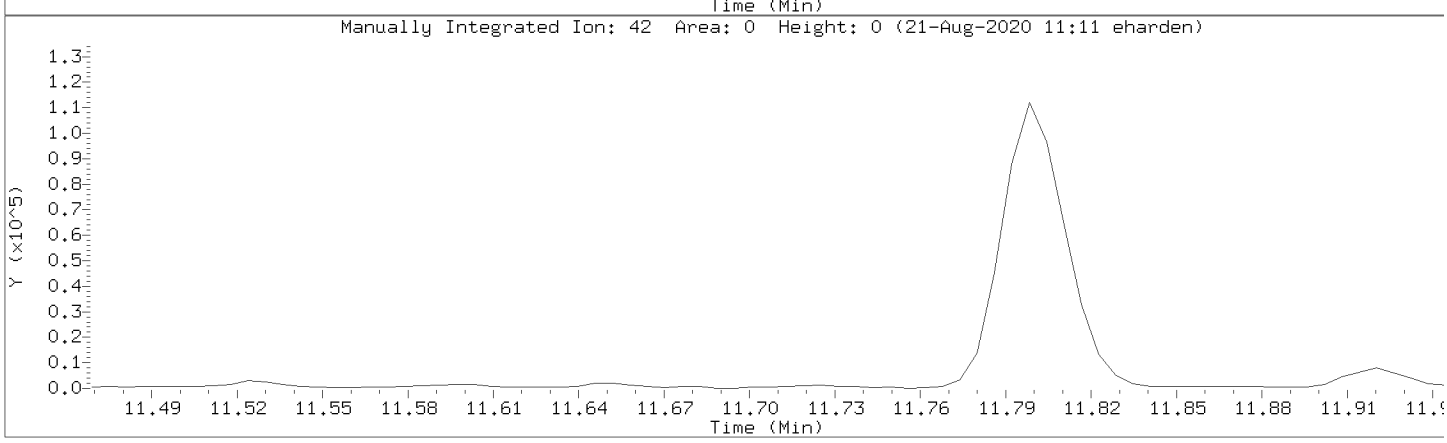
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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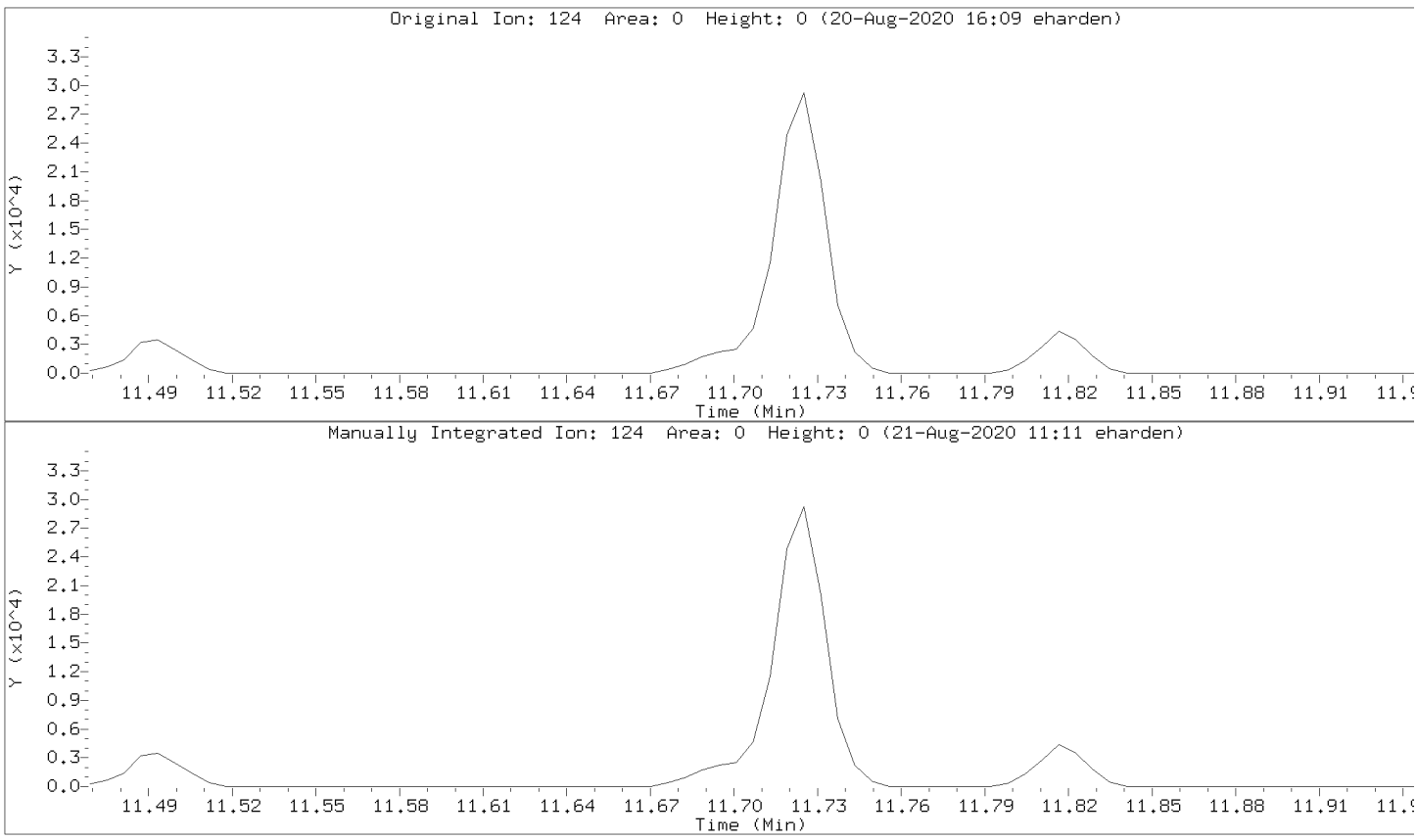
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_14.D
Lab Smp Id: CAL12 Client Smp ID: CAL12
Inj Date : 20-AUG-2020 15:26
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal12,27248:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 15:26 Cal File: 082020_14.D
Als bottle: 12 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.410)	843624	200.000	180	
2 Chloromethane	50	3.543	3.543	(0.451)	1035862	200.000	191	
3 Vinyl chloride	62	3.702	3.702	(0.471)	829656	200.000	180	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	724882	200.000	176	
5 Bromomethane	94	4.201	4.195	(0.535)	575423	200.000	171	
6 Chloroethane	64	4.372	4.360	(0.556)	201667	200.000	159	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	390171	200.000	133	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	307440	200.000	190	
9 1,1-Dichloroethene	61	5.226	5.226	(0.665)	1011414	200.000	194	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	600631	200.000	175	
11 Carbon disulfide	76	5.287	5.293	(0.673)	2019084	200.000	175	
12 Iodomethane	142	5.451	5.439	(0.694)	734096	200.000	200	
13 Acrolein	56	5.658	5.659	(0.720)	211690	400.000	394	
14 Allyl chloride	76	5.786	5.787	(0.736)	294574	200.000	184	
15 Methylene Chloride	49	5.908	5.902	(0.752)	1050051	200.000	170	
16 Acetone	43	5.969	5.976	(0.760)	1032420	400.000	346	
17 Methyl acetate	43	6.067	6.067	(0.772)	1381491	400.000	390(A)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	650447	200.000	185	
19 n-Hexane	86	6.110	6.110	(0.777)	81559	200.000	219(A)	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	1688062	200.000	206(A)	
21 Acetonitrile	41	6.457	6.463	(0.822)	123656	400.000	381(AH)	
22 Chloroprene	53	6.640	6.640	(0.845)	1112304	200.000	227(A)	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	1205231	200.000	176	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	581161	400.000	391(A)	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	1375005	200.000	203(A)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	992534	200.000	197	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	903801	200.000	171	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	387279	200.000	176	
	29 Cyclohexane	56	7.335	7.335	(0.882)	980896	200.000	229(A)	
	30 Chloroform	83	7.372	7.372	(0.938)	1342881	200.000	174	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	1641965	400.000	376(A)	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	1014164	200.000	200(A)	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	425365	400.000	401(A)	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	196115	50.0000	43.8	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	1082414	200.000	189	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	1209413	400.000	363(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	852371	200.000	214(AH)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	388427	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	2390433	200.000	186	
	40 Propionitrile	54	7.896	7.902	(1.005)	235361	400.000	356(A)	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	1267856	400.000	376(A)	
	42 Isobutanol	43	8.006	7.987	(1.019)	63350	400.000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	34530	50.0000	42.9	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	1018325	200.000	168	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	1505636	200.000	208(A)	
	46 Trichloroethene	130	8.316	8.317	(1.000)	711450	200.000	202(A)	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	502471	50.0000		
	48 Methylcyclohexane	98	8.316	8.317	(1.000)	366667	200.000	220(A)	
	49 n-Butanol	56	8.524	8.524	(1.025)	32202	400.000	419(AH)	
	50 Dibromomethane	93	8.670	8.670	(1.043)	548606	200.000	183	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	697290	200.000	190	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	1076005	200.000	204(A)	
	53 Methyl methacrylate	69	8.822	8.823	(1.061)	445324	200.000	206(A)	
	54 1,4-Dioxane (p-Dioxane)	58	8.926	8.920	(1.073)	12627	400.000		
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	804281	400.000	417(A)	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	1101907	200.000	215(A)	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	535532	50.0000	49.5	
	58 Toluene	91	9.414	9.414	(1.132)	2545722	200.000	203(A)	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	254950	200.000	206(AH)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.670	9.664	(1.163)	157776	400.000	439(AM)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	1100485	200.000	215(A)	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	675307	200.000	207(A)	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	846262	200.000	206(AH)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	576866	200.000	182	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	932240	200.000	206(A)	
	66 1,3-Dichloropropane	76	10.066	10.060	(1.210)	1015605	200.000	210(A)	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	770644	200.000	199	
	68 2-Hexanone	43	10.280	10.280	(1.236)	1882914	400.000	444(A)	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	2928963	200.000	236(A)	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	475366	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	1776013	200.000	194	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	724011	200.000	187	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	4406208	400.000	404(A)	
	74 o-Xylene	106	10.993	10.993	(1.041)	1080392	200.000	210(A)	
	75 Styrene	104	11.029	11.029	(1.044)	1852119	200.000	206(A)	
	76 Bromoform	173	11.103	11.103	(1.051)	891644	200.000	208(A)	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	1568685	200.000	203(A)	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	213757	50.0000	54.8	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	295248	200.000	189	
80 n-Propylbenzene	91	11.529	11.523	(1.092)	3505994	200.000	230(A)	
81 Bromobenzene	156	11.578	11.578	(1.096)	1028329	200.000	214(A)	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	952451	200.000	187	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	2283486	200.000	233(AH)	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	743796	200.000	204(A)	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	747393	200.000	203(A)	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	2752818	200.000	208(A)	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	984420	200.000	185	
88 trans-1,4-Dichloro-2-butene	53	11.724	11.718	(1.110)	245006	200.000	200(AM)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	2429584	200.000	210(A)	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	2397637	200.000	207(A)	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	2866460	200.000	208(A)	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	2429584	200.000	210(A)	
94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	1695278	200.000	214(A)	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	296897	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	1711879	200.000	192	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	2431584	200.000	235(A)	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	1704224	200.000	197	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	202261	200.000	208(A)	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	587132	200.000	222(A)	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	1407142	200.000	241(A)	
102 Naphthalene	128	14.193	14.193	(1.150)	2506120	200.000	214(A)	
103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	1299349	200.000	239(A)	

QC Flag Legend

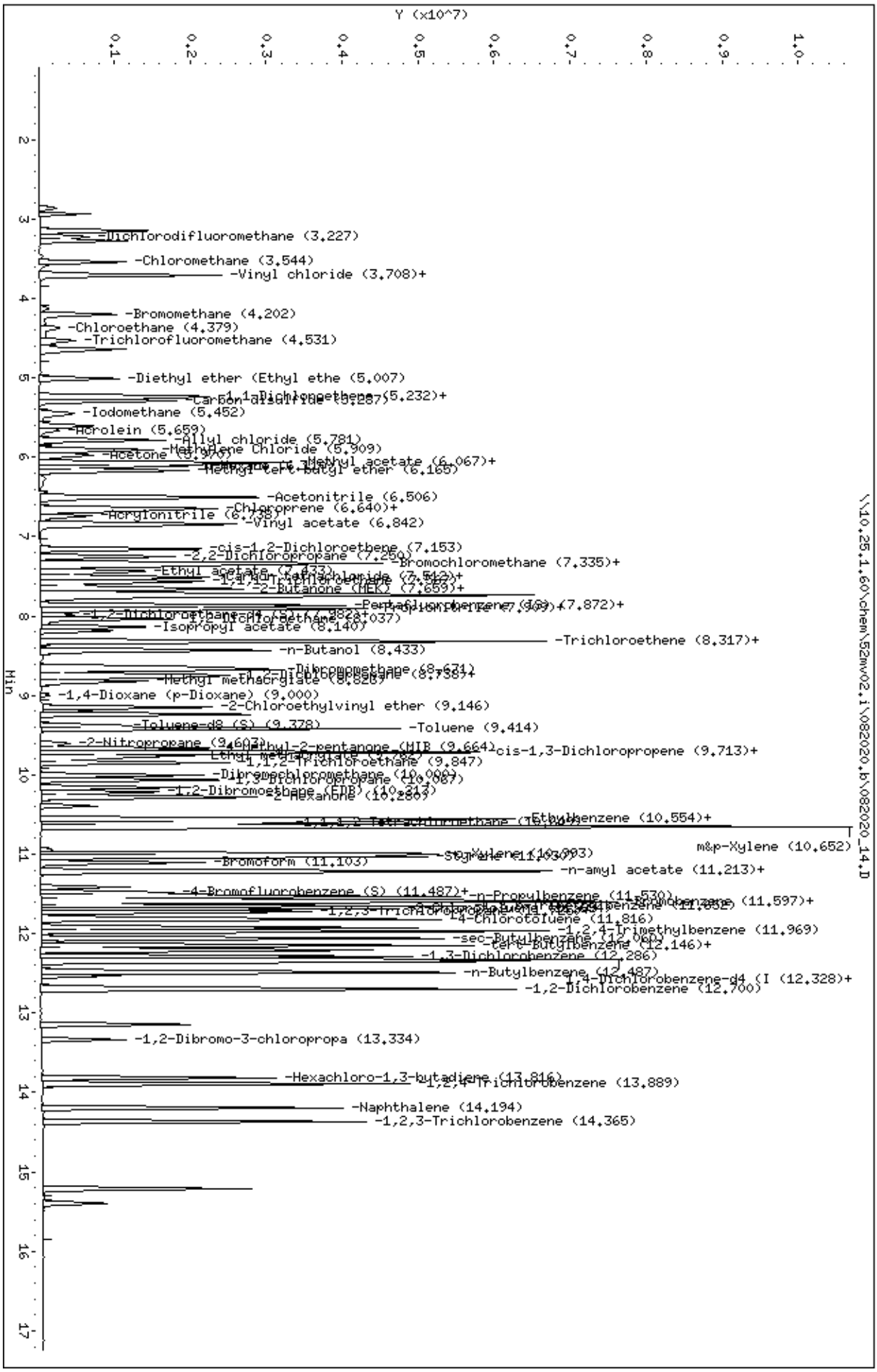
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_14.D
Date : 20-AUG-2020 15:26
Client ID: CAL12
Sample Info: CAL12,27248:1
Purge Volume: 5.0
Column phase: RTX-VMS

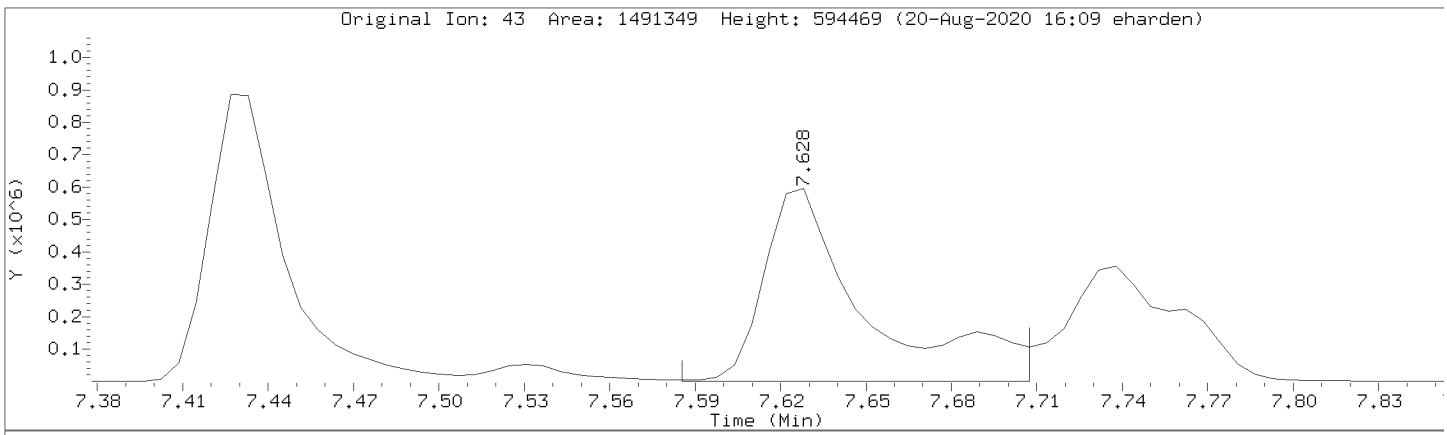
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

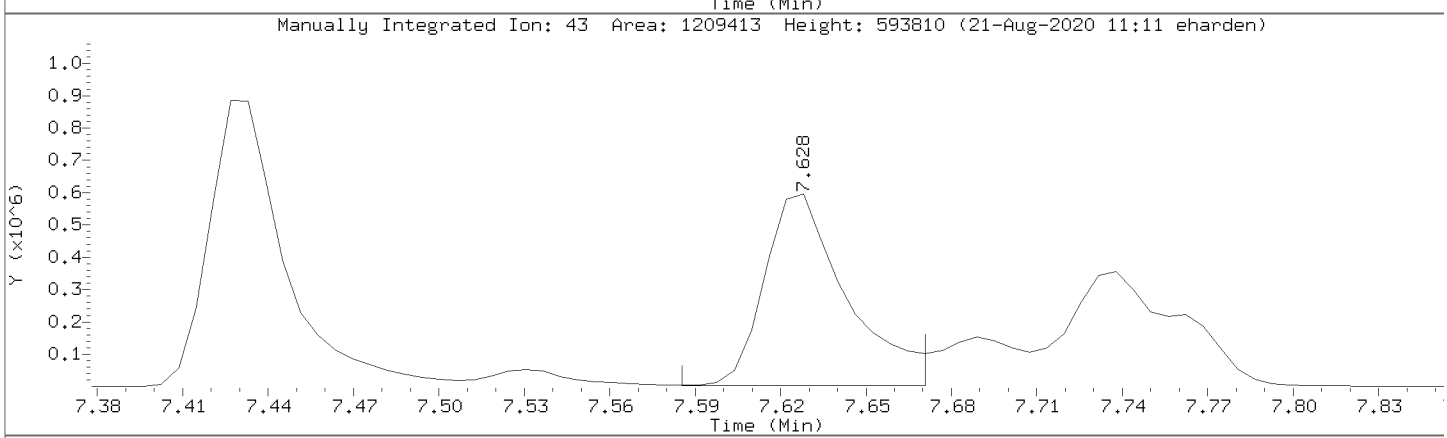


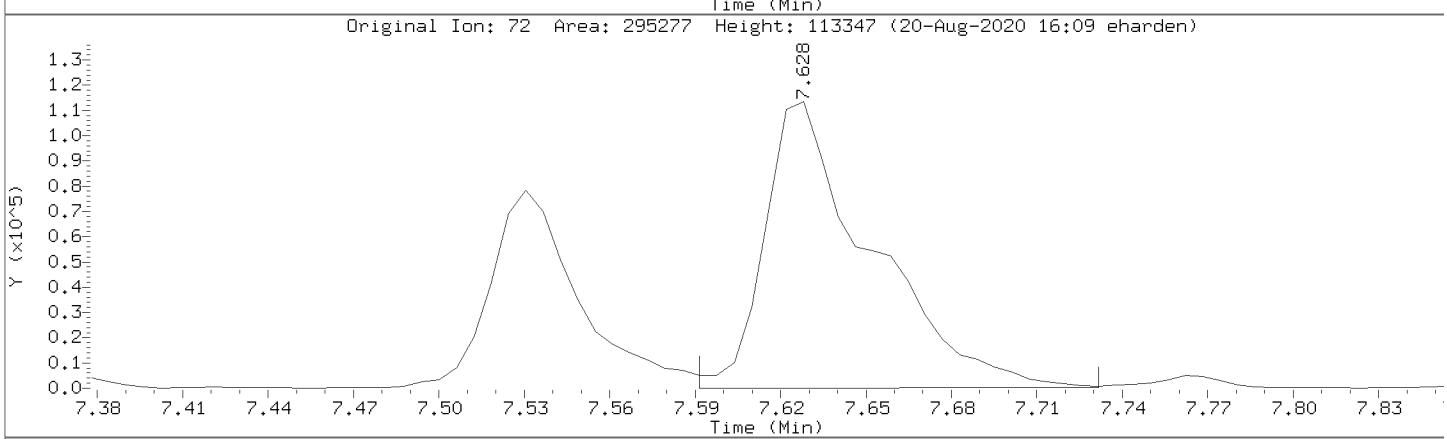
Page 4

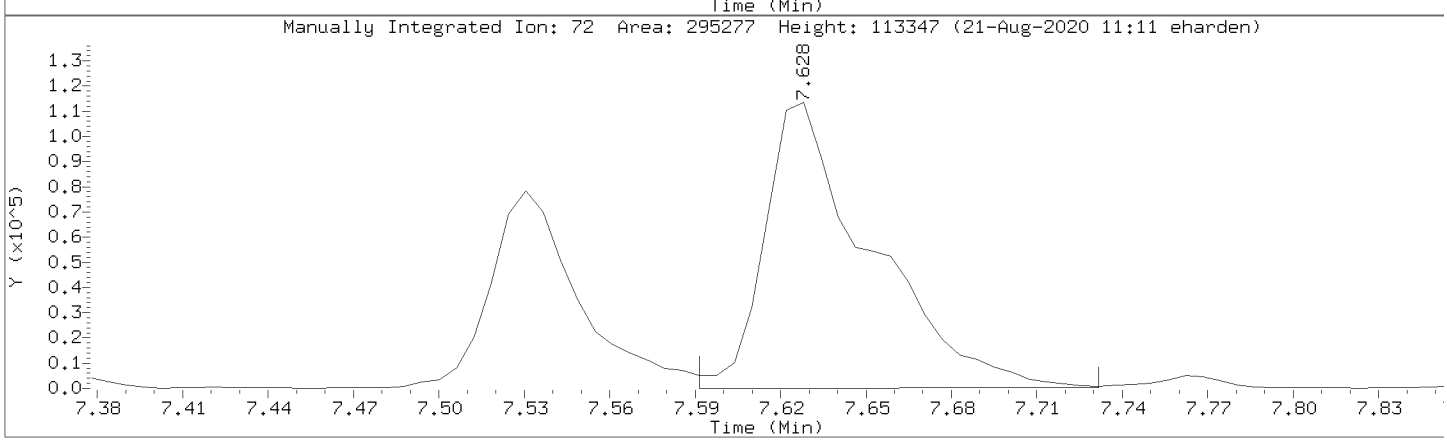
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_14.D
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3









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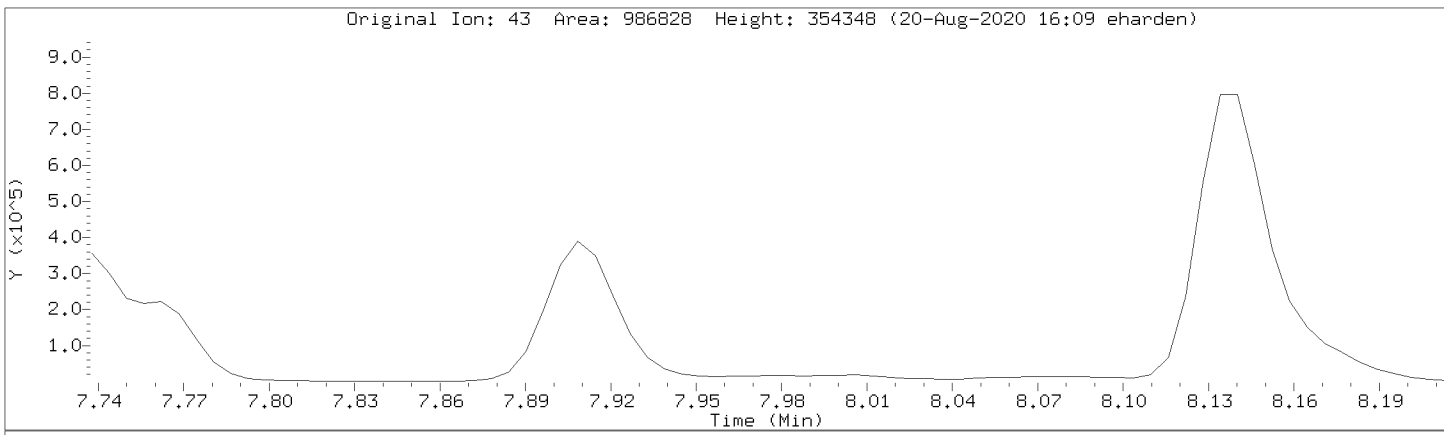
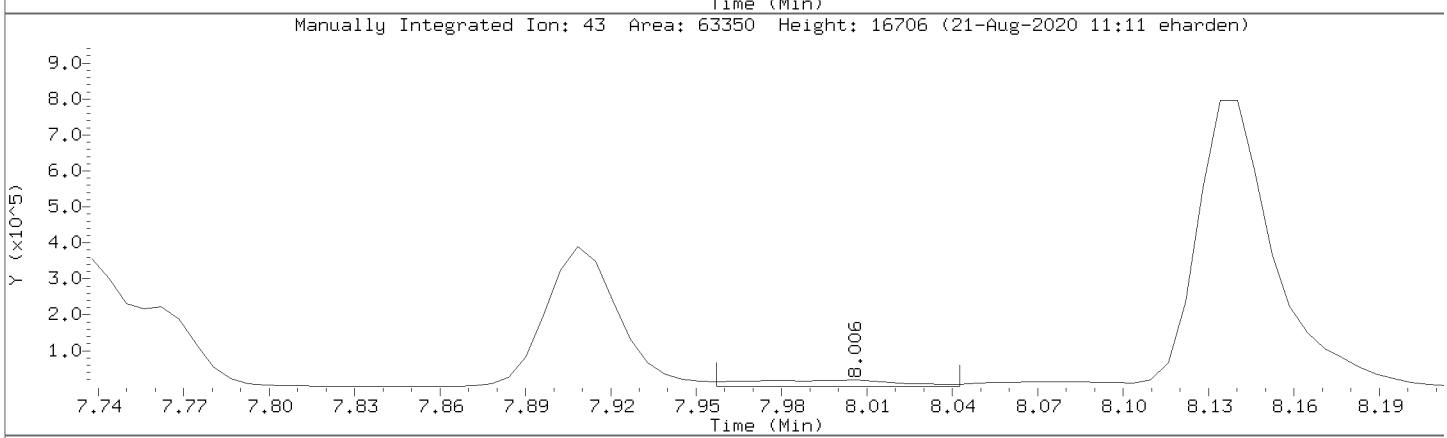
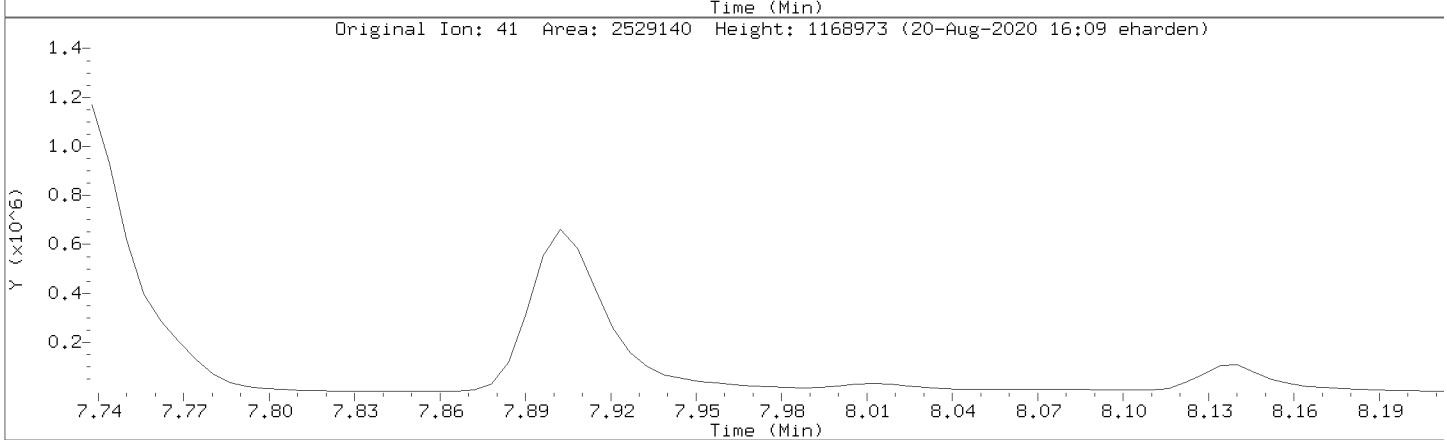
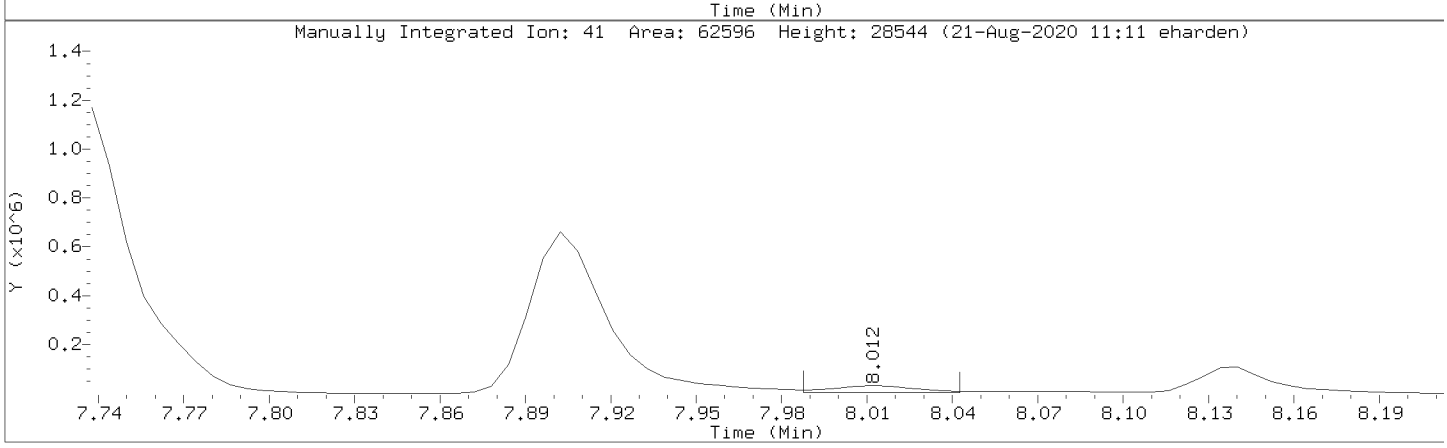
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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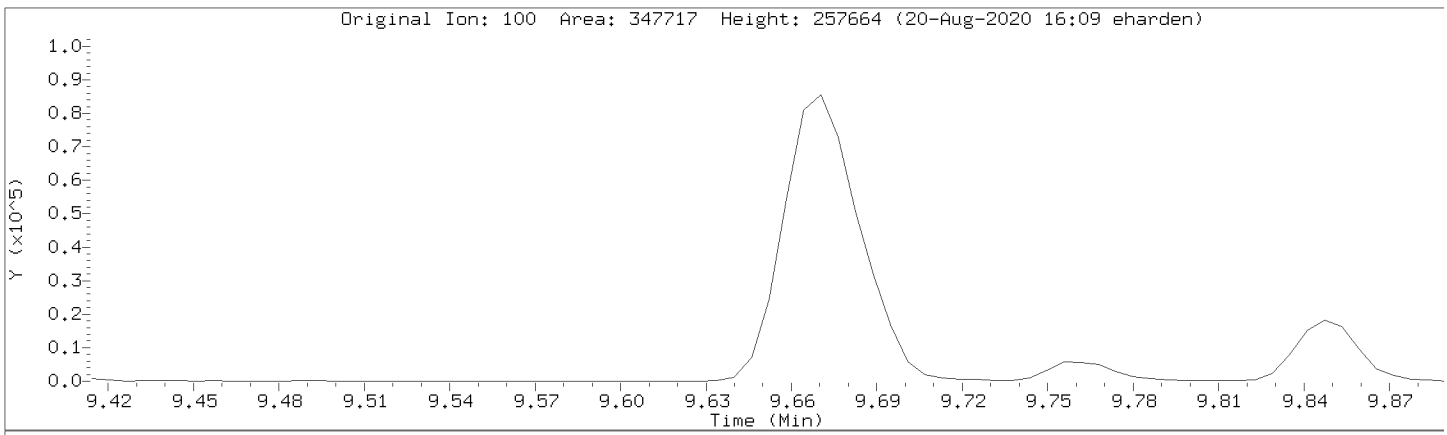
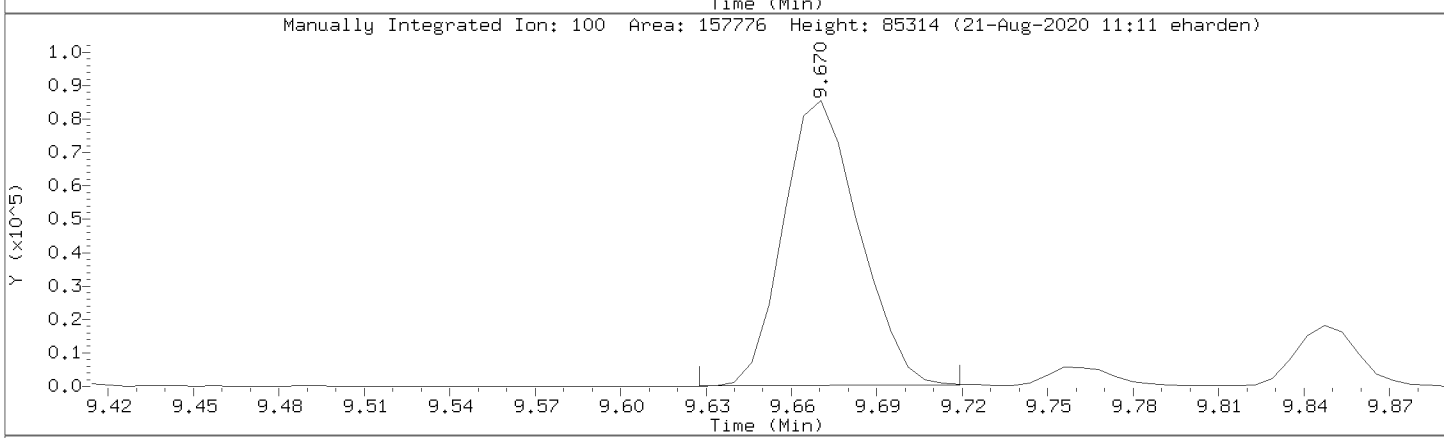
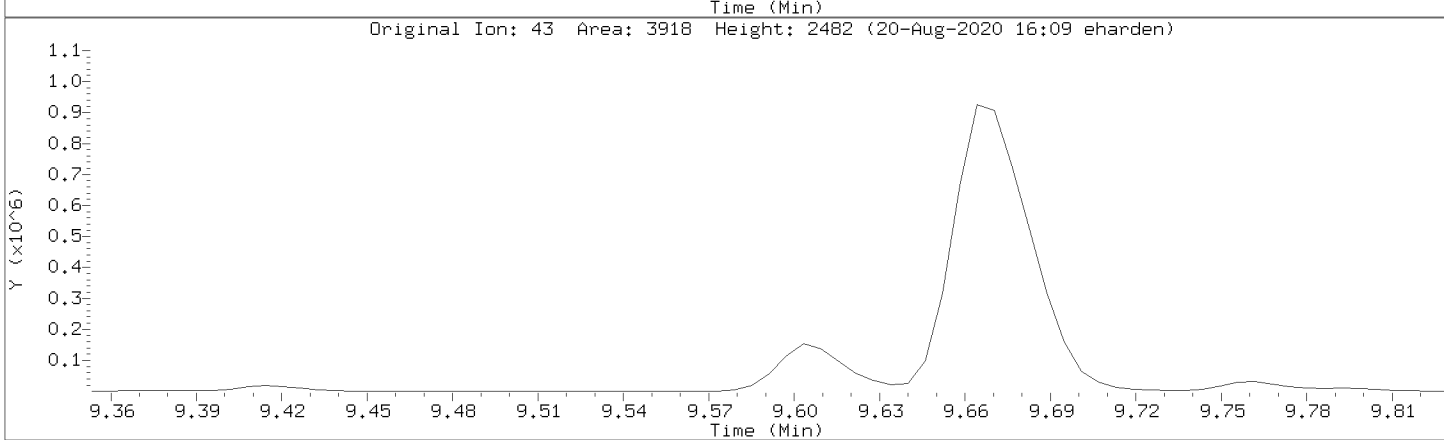
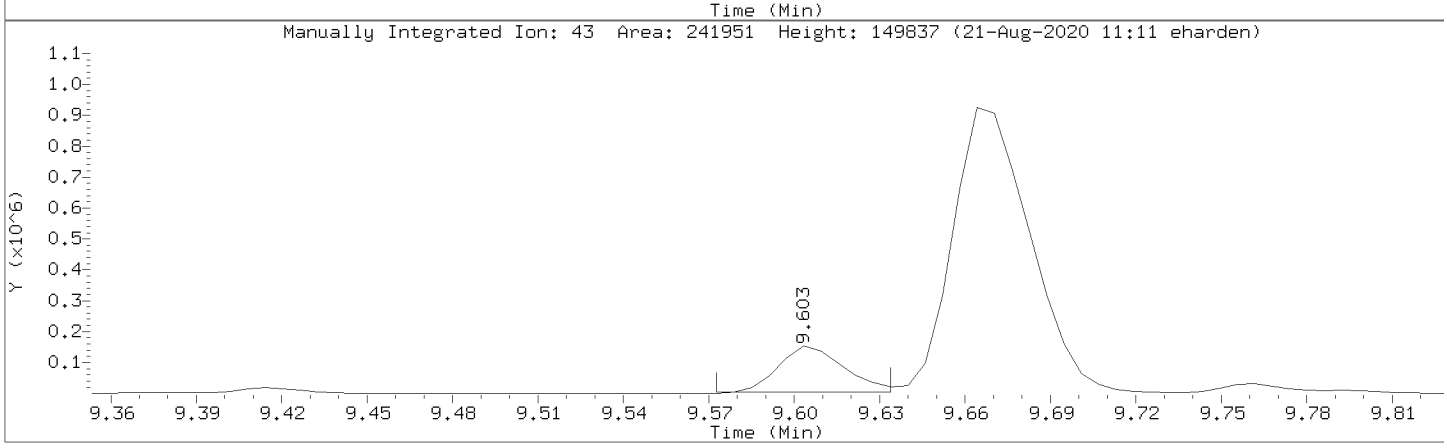
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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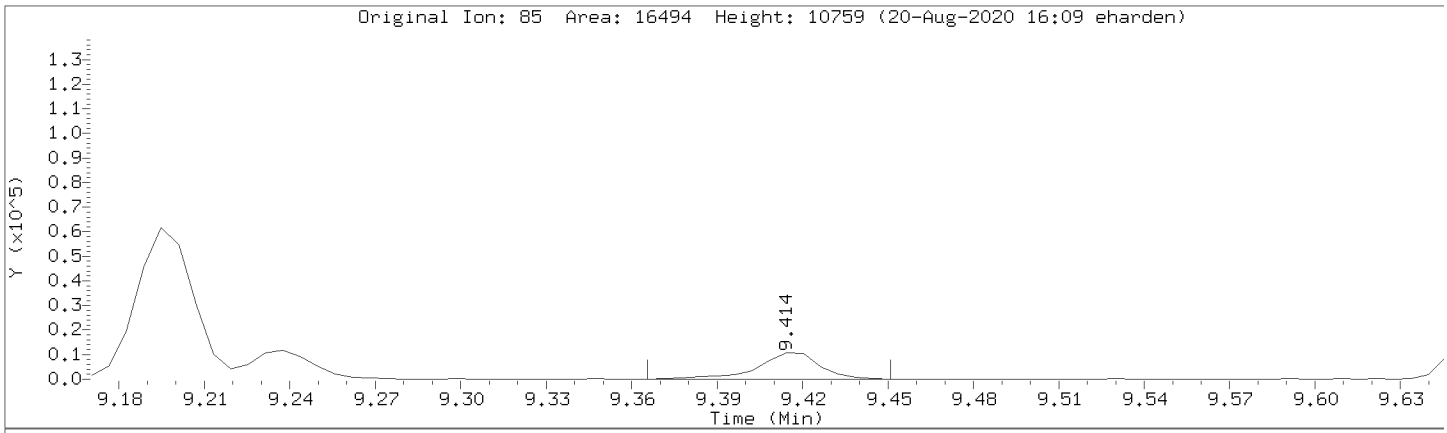
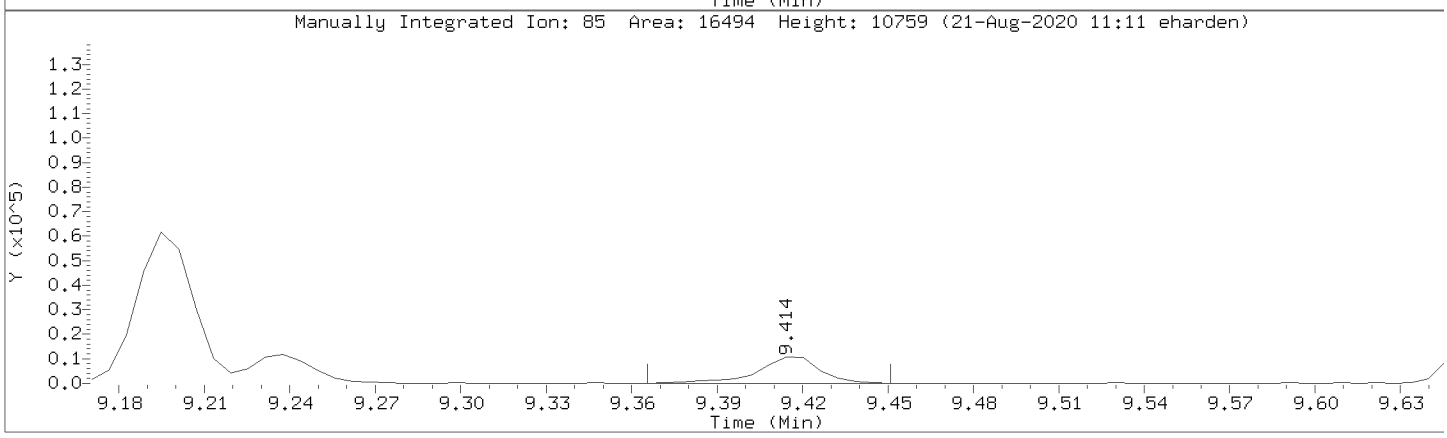
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12





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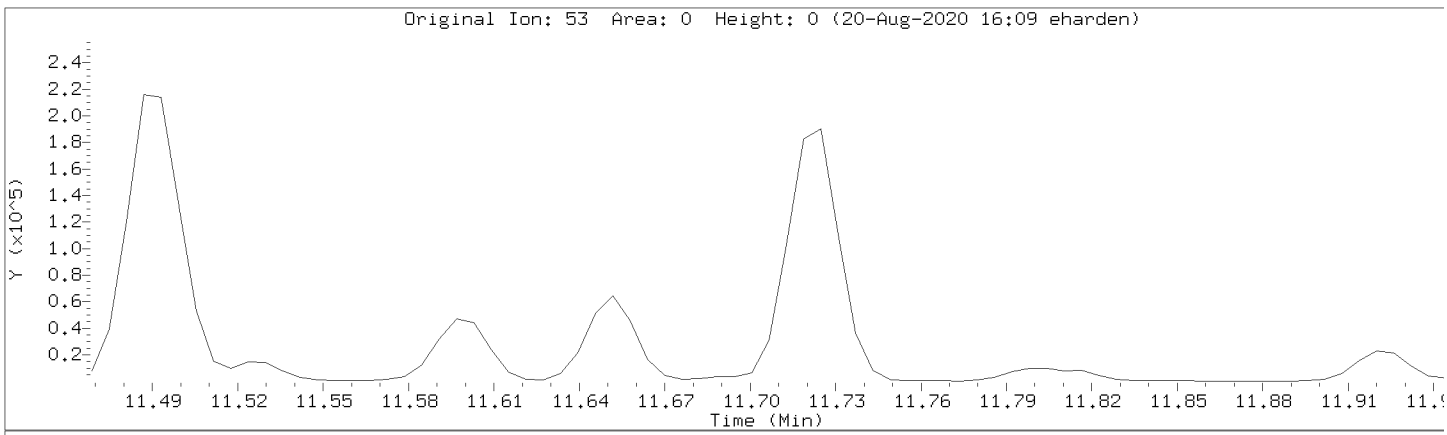
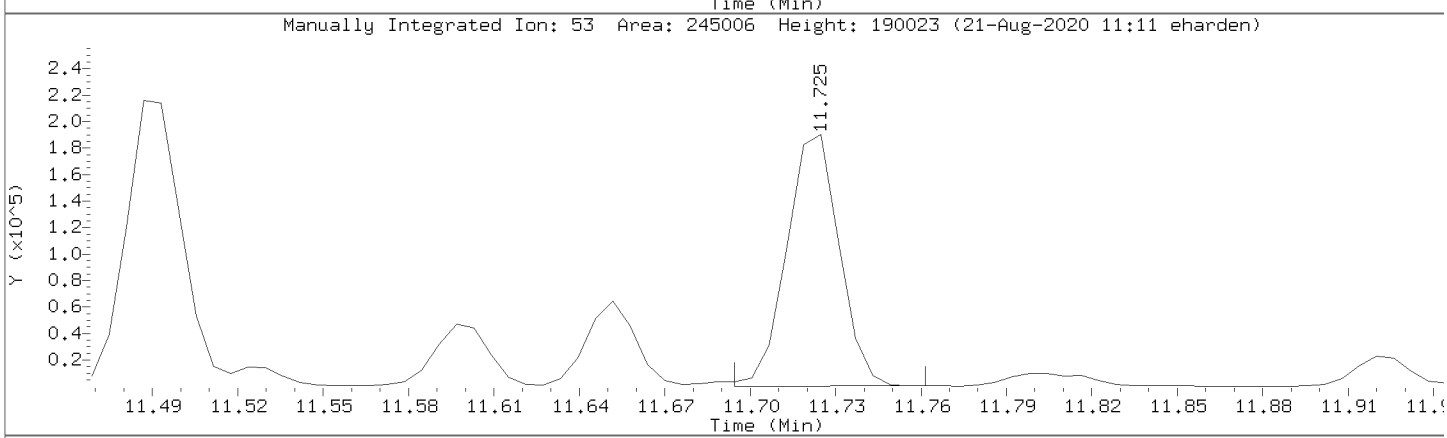
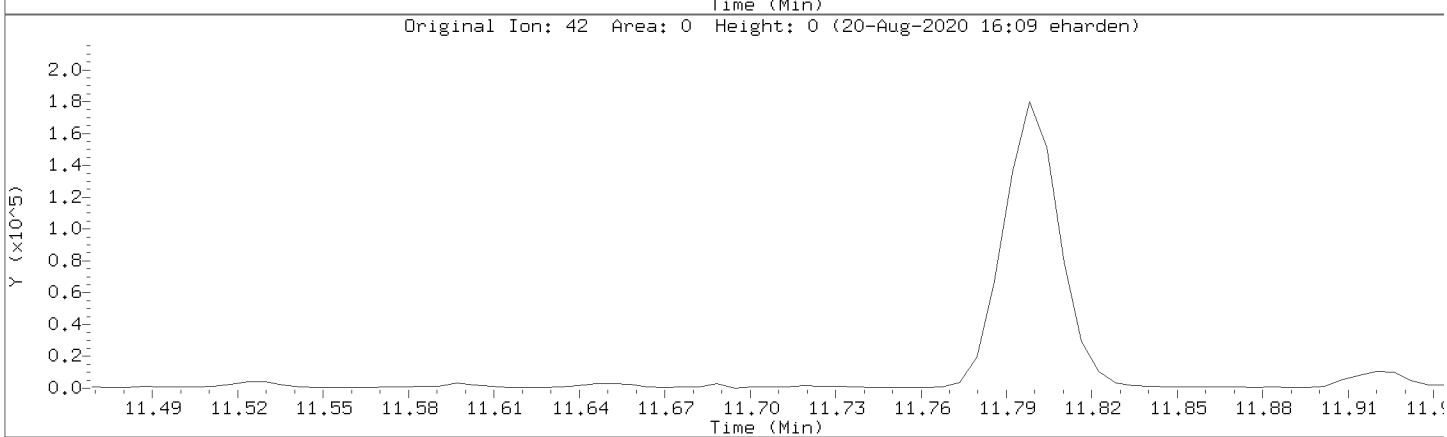
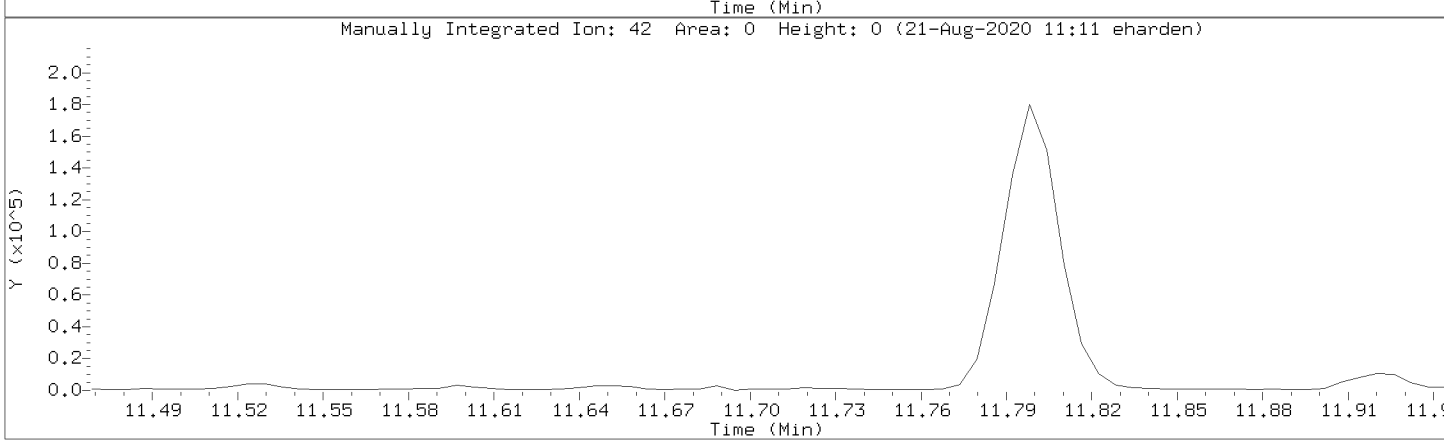
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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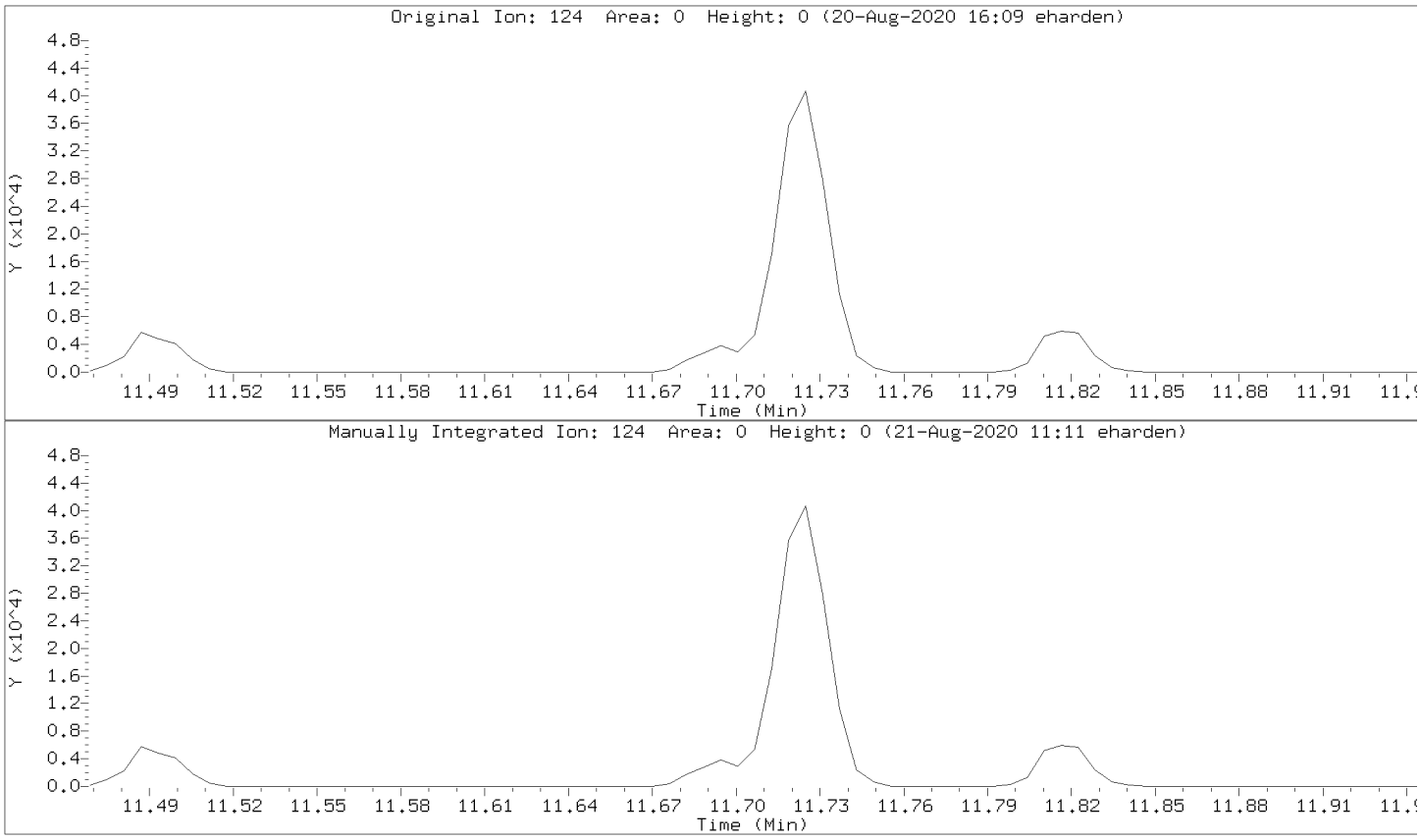
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12



SAMPLE NO.

1419858ICV

MSV - FORM VII VOA-1
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/20/2020 Time: 17:06

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082020.B\082020_18.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249417

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Wt Linear	40	24.82310	0.0100	-37.9422	20.0000
Acetonitrile	Wt Linear	40	45.08252	0.0100	12.7063	20.0000
Acrolein	Averaged	0.06923	0.04113	0.0100	-40.5887	20.0000
Acrylonitrile	Averaged	0.19127	0.17352	0.0100	-9.2796	20.0000
Benzene	Averaged	1.27880	1.23471	0.0100	-3.4482	20.0000
Bromobenzene	Averaged	0.50590	0.52741	0.0100	4.2522	20.0000
Bromochloromethane	Averaged	0.28358	0.25650	0.0100	-9.5467	20.0000
Bromodichloromethane	Averaged	0.52427	0.53160	0.0100	1.3963	20.0000
Bromoform	Averaged	0.45179	0.43515	0.1000	-3.6837	20.0000
Bromomethane	Wt Linear	20	23.62960	0.0100	18.1480	20.0000
2-Butanone (MEK)	Averaged	0.42919	0.26923	0.0100	-37.2693	20.0000
n-Butylbenzene	Averaged	1.74233	1.59435	0.0100	-8.4931	20.0000
sec-Butylbenzene	Wt Linear	20	17.56000	0.0100	-12.2000	20.0000
tert-Butylbenzene	Wt Linear	20	16.89826	0.0100	-15.5087	20.0000
Carbon disulfide	Averaged	1.48423	1.27936	0.0100	-13.8029	20.0000
Carbon tetrachloride	Averaged	0.50339	0.50026	0.0100	-0.6221	20.0000
Chlorobenzene	Averaged	0.96465	0.93844	0.3000	-2.7167	20.0000
Chloroethane	Wt Linear	20	12.67107	0.0100	-36.6446	20.0000
Chloroform	Averaged	0.99545	0.88461	0.0100	-11.1349	20.0000
Chloromethane	Wt Linear	20	18.23379	0.1000	-8.8310	20.0000
2-Chlorotoluene	Wt Linear	20	19.57548	0.0100	-2.1226	20.0000
4-Chlorotoluene	Wt Linear	20	18.13182	0.0100	-9.3409	20.0000
1,2-Dibromo-3-chloropropane	Averaged	0.16352	0.13836	0.0100	-15.3871	20.0000
Dibromochloromethane	Averaged	0.47553	0.47473	0.0100	-0.1686	20.0000
1,2-Dibromoethane (EDB)	Averaged	0.40786	0.40623	0.0100	-0.3978	20.0000
Dibromomethane	Averaged	0.29781	0.28268	0.0100	-5.0799	20.0000
1,2-Dichlorobenzene	Averaged	1.45432	1.36425	0.0100	-6.1934	20.0000
1,3-Dichlorobenzene	Averaged	1.33091	1.33610	0.0100	0.3903	20.0000
1,4-Dichlorobenzene	Averaged	1.50164	1.35286	0.0100	-9.9078	20.0000
Dichlorodifluoromethane	Averaged	0.60278	0.50357	0.0100	-16.4588	20.0000
1,1-Dichloroethane	Averaged	0.88035	0.79945	0.1000	-9.1896	20.0000
1,2-Dichloroethane	Averaged	0.78154	0.68274	0.0100	-12.6415	20.0000
1,1-Dichloroethene	Averaged	0.67064	0.59964	0.0100	-10.5866	20.0000
cis-1,2-Dichloroethene	Averaged	0.64880	0.60018	0.0100	-7.4943	20.0000
trans-1,2-Dichloroethene	Averaged	0.45304	0.38891	0.0100	-14.1553	20.0000
1,2-Dichloropropane	Averaged	0.36511	0.36208	0.0100	-0.8301	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 12:04

SAMPLE NO.

1419858ICV

MSV - FORM VII VOA-2
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/20/2020 Time: 17:06

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082020.B\082020_18.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249417

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,3-Dichloropropane	Averaged	0.48194	0.48242	0.0100	0.0987	20.0000
2,2-Dichloropropane	Averaged	0.67907	0.53477	0.0100	-21.2485	20.0000
1,1-Dichloropropene	Averaged	0.39618	0.37313	0.0100	-5.8167	20.0000
cis-1,3-Dichloropropene	Averaged	0.50984	0.49638	0.0100	-2.6405	20.0000
trans-1,3-Dichloropropene	Averaged	0.50883	0.49514	0.0100	-2.6903	20.0000
Ethyl acetate	Averaged	0.56197	0.49122	0.0100	-12.5887	20.0000
Ethylbenzene	Averaged	1.30807	1.28682	0.0100	-1.6246	20.0000
2-Hexanone	Averaged	0.42211	0.28352	0.0100	-32.8334	20.0000
Isopropylbenzene (Cumene)	Wt Linear	20	17.85189	0.0100	-10.7405	20.0000
p-Isopropyltoluene	Wt Linear	20	16.89826	0.0100	-15.5087	20.0000
Methylene Chloride	Averaged	0.79672	0.68891	0.0100	-13.5314	20.0000
4-Methyl-2-pentanone (MIBK)	Averaged	0.03578	0.03144	0.0100	-12.1476	20.0000
Methyl-tert-butyl ether	Averaged	1.05644	1.01790	0.0100	-3.6480	20.0000
Naphthalene	Wt Linear	20	16.32090	0.0100	-18.3955	20.0000
n-Propylbenzene	Averaged	1.60388	1.60259	0.0100	-0.0803	20.0000
Styrene	Wt Linear	20	17.64204	0.0100	-11.7898	20.0000
1,1,1,2-Tetrachloroethane	Averaged	0.40743	0.38534	0.3000	-5.4218	20.0000
1,1,2,2-Tetrachloroethane	Averaged	0.53495	0.49291	0.3000	-7.8595	20.0000
Tetrachloroethene	Averaged	0.34315	0.35395	0.0100	3.1459	20.0000
Toluene	Averaged	1.24680	1.24992	0.0100	0.2497	20.0000
1,2,3-Trichlorobenzene	Averaged	0.91538	0.87148	0.0100	-4.7954	20.0000
1,2,4-Trichlorobenzene	Averaged	0.98474	0.93125	0.0100	-5.4317	20.0000
1,1,1-Trichloroethane	Averaged	0.57038	0.54382	0.0100	-4.6553	20.0000
1,1,2-Trichloroethane	Averaged	0.31598	0.29895	0.0100	-5.3888	20.0000
Trichloroethene	Averaged	0.34963	0.35653	0.0100	1.9739	20.0000
Trichlorofluoromethane	Averaged	0.37716	0.28883	0.0100	-23.4190	20.0000
1,2,3-Trichloropropane	Averaged	0.55922	0.53202	0.0100	-4.8654	20.0000
1,2,4-Trimethylbenzene	Wt Linear	20	17.70907	0.0100	-11.4546	20.0000
1,3,5-Trimethylbenzene	Averaged	1.65100	1.59405	0.0100	-3.4490	20.0000
Vinyl acetate	Averaged	0.87084	0.47990	0.0100	-44.8924	20.0000
Vinyl chloride	Averaged	0.59325	0.47996	0.0100	-19.0961	20.0000
m&p-Xylene	Wt Linear	40	36.62116	0.0100	-8.4471	20.0000
o-Xylene	Wt Linear	20	17.08013	0.0100	-14.5993	20.0000
4-Bromofluorobenzene (S)	Averaged	0.41034	0.41596	0.0100	1.3689	20.0000
Dibromofluoromethane (S)	Averaged	0.57568	0.52418	0.0100	-8.9462	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.10356	0.09167	0.0100	-11.4833	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 12:04

SAMPLE NO.

1419858ICV

MSV - FORM VII VOA-3
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton

Calibration Date: 08/20/2020 Time: 17:06

Instrument ID: 52MV02 GC Column: Col 1

Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082020.B\082020_18.D

Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249417

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Toluene-d8 (S)	Averaged	1.07633	1.07582	0.0100	-0.0475	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 12:04

SAMPLE NO.

1432859CCV

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/26/2020 Time: 11:25

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082620.B\082620_03.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249417

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Wt Linear	40	42.41404	0.0100	6.0351	20.0000
Acetonitrile	Wt Linear	40	33.81256	0.0100	-15.4686	20.0000
Acrolein	Averaged	0.06923	0.05951	0.0100	-14.0414	20.0000
Acrylonitrile	Averaged	0.19127	0.19210	0.0100	0.4360	20.0000
Benzene	Averaged	1.27880	1.38722	0.0100	8.4781	20.0000
Bromobenzene	Averaged	0.50590	0.54981	0.0100	8.6805	20.0000
Bromochloromethane	Averaged	0.28358	0.29346	0.0100	3.4835	20.0000
Bromodichloromethane	Averaged	0.52427	0.61053	0.0100	16.4530	20.0000
Bromoform	Averaged	0.45179	0.46476	0.1000	2.8700	20.0000
Bromomethane	Wt Linear	20	25.05311	0.0100	25.2656	20.0000
2-Butanone (MEK)	Averaged	0.42919	0.42980	0.0100	0.1418	20.0000
n-Butylbenzene	Averaged	1.74233	1.71436	0.0100	-1.6053	20.0000
sec-Butylbenzene	Wt Linear	20	17.32600	0.0100	-13.3700	20.0000
tert-Butylbenzene	Wt Linear	20	16.85766	0.0100	-15.7117	20.0000
Carbon disulfide	Averaged	1.48423	1.52647	0.0100	2.8462	20.0000
Carbon tetrachloride	Averaged	0.50339	0.58409	0.0100	16.0298	20.0000
Chlorobenzene	Averaged	0.96465	1.02565	0.3000	6.3231	20.0000
Chloroethane	Wt Linear	20	23.96244	0.0100	19.8122	20.0000
Chloroform	Averaged	0.99545	1.06526	0.0100	7.0129	20.0000
Chloromethane	Wt Linear	20	21.50642	0.1000	7.5321	20.0000
2-Chlorotoluene	Wt Linear	20	20.06412	0.0100	0.3206	20.0000
4-Chlorotoluene	Wt Linear	20	19.73615	0.0100	-1.3192	20.0000
1,2-Dibromo-3-chloropropane	Averaged	0.16352	0.14564	0.0100	-10.9299	20.0000
Dibromochloromethane	Averaged	0.47553	0.51002	0.0100	7.2533	20.0000
1,2-Dibromoethane (EDB)	Averaged	0.40786	0.42116	0.0100	3.2624	20.0000
Dibromomethane	Averaged	0.29781	0.32839	0.0100	10.2664	20.0000
1,2-Dichlorobenzene	Averaged	1.45432	1.36768	0.0100	-5.9574	20.0000
1,3-Dichlorobenzene	Averaged	1.33091	1.33549	0.0100	0.3446	20.0000
1,4-Dichlorobenzene	Averaged	1.50164	1.51354	0.0100	0.7922	20.0000
Dichlorodifluoromethane	Averaged	0.60278	0.47407	0.0100	-21.3529	20.0000
1,1-Dichloroethane	Averaged	0.88035	0.94227	0.1000	7.0335	20.0000
1,2-Dichloroethane	Averaged	0.78154	0.81181	0.0100	3.8736	20.0000
1,1-Dichloroethene	Averaged	0.67064	0.70462	0.0100	5.0664	20.0000
cis-1,2-Dichloroethene	Averaged	0.64880	0.62013	0.0100	-4.4190	20.0000
trans-1,2-Dichloroethene	Averaged	0.45304	0.44659	0.0100	-1.4242	20.0000
1,2-Dichloropropane	Averaged	0.36511	0.37675	0.0100	3.1897	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 12:04

SAMPLE NO.

1432859CCV

MSV - FORM VII VOA-2
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/26/2020 Time: 11:25

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082620.B\082620_03.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249417

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,3-Dichloropropane	Averaged	0.48194	0.50697	0.0100	5.1930	20.0000
2,2-Dichloropropane	Averaged	0.67907	0.73196	0.0100	7.7895	20.0000
1,1-Dichloropropene	Averaged	0.39618	0.42365	0.0100	6.9344	20.0000
cis-1,3-Dichloropropene	Averaged	0.50984	0.55789	0.0100	9.4241	20.0000
trans-1,3-Dichloropropene	Averaged	0.50883	0.55789	0.0100	9.6409	20.0000
Ethyl acetate	Averaged	0.56197	0.51799	0.0100	-7.8256	20.0000
Ethylbenzene	Averaged	1.30807	1.32285	0.0100	1.1301	20.0000
2-Hexanone	Averaged	0.42211	0.45509	0.0100	7.8134	20.0000
Isopropylbenzene (Cumene)	Wt Linear	20	17.64587	0.0100	-11.7706	20.0000
p-Isopropyltoluene	Wt Linear	20	16.85766	0.0100	-15.7117	20.0000
Methylene Chloride	Averaged	0.79672	0.76765	0.0100	-3.6481	20.0000
4-Methyl-2-pentanone (MIBK)	Averaged	0.03578	0.03553	0.0100	-0.7137	20.0000
Methyl-tert-butyl ether	Averaged	1.05644	1.03058	0.0100	-2.4480	20.0000
Naphthalene	Wt Linear	20	14.19326	0.0100	-29.0337	20.0000
n-Propylbenzene	Averaged	1.60388	1.71030	0.0100	6.6351	20.0000
Styrene	Wt Linear	20	17.90694	0.0100	-10.4653	20.0000
1,1,1,2-Tetrachloroethane	Averaged	0.40743	0.43989	0.3000	7.9662	20.0000
1,1,2,2-Tetrachloroethane	Averaged	0.53495	0.56162	0.3000	4.9846	20.0000
Tetrachloroethene	Averaged	0.34315	0.38377	0.0100	11.8355	20.0000
Toluene	Averaged	1.24680	1.30556	0.0100	4.7124	20.0000
1,2,3-Trichlorobenzene	Averaged	0.91538	0.84208	0.0100	-8.0074	20.0000
1,2,4-Trichlorobenzene	Averaged	0.98474	0.89270	0.0100	-9.3458	20.0000
1,1,1-Trichloroethane	Averaged	0.57038	0.63405	0.0100	11.1636	20.0000
1,1,2-Trichloroethane	Averaged	0.31598	0.32076	0.0100	1.5137	20.0000
Trichloroethene	Averaged	0.34963	0.38861	0.0100	11.1476	20.0000
Trichlorofluoromethane	Averaged	0.37716	0.45883	0.0100	21.6549	20.0000
1,2,3-Trichloropropane	Averaged	0.55922	0.57333	0.0100	2.5220	20.0000
1,2,4-Trimethylbenzene	Wt Linear	20	18.22867	0.0100	-8.8566	20.0000
1,3,5-Trimethylbenzene	Averaged	1.65100	1.67755	0.0100	1.6080	20.0000
Vinyl acetate	Averaged	0.87084	0.79175	0.0100	-9.0822	20.0000
Vinyl chloride	Averaged	0.59325	0.54079	0.0100	-8.8422	20.0000
m&p-Xylene	Wt Linear	40	39.16540	0.0100	-2.0865	20.0000
o-Xylene	Wt Linear	20	16.73401	0.0100	-16.3299	20.0000
4-Bromofluorobenzene (S)	Averaged	0.41034	0.39803	0.0100	-3.0000	20.0000
Dibromofluoromethane (S)	Averaged	0.57568	0.55271	0.0100	-3.9901	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.10356	0.09634	0.0100	-6.9766	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 12:04

SAMPLE NO.

1432859CCV

MSV - FORM VII VOA-3
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Dayton

Calibration Date: 08/26/2020 Time: 11:25

Instrument ID: 52MV02 GC Column: Col 1

Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082620.B\082620_03.D

Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249417

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Toluene-d8 (S)	Averaged	1.07633	1.06754	0.0100	-0.8165	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/02/2020 12:04

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_18.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 20-AUG-2020 17:06
Operator : EAH Inst ID: 52mv02.i
Smp Info : icv, 27249:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 11:40 Cal File: 082020_05.D
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.411)	62218	20.0000	16.7(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	81833	20.0000	18.2	
3 Vinyl chloride	62	3.702	3.702	(0.471)	59301	20.0000	16.2	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	43356	20.0000	13.2	
5 Bromomethane	94	4.195	4.195	(0.534)	70375	20.0000	23.6	
6 Chloroethane	64	4.360	4.360	(0.555)	13606	20.0000	12.7	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	35686	20.0000	15.3	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	23334	20.0000	18.2	
9 1,1-Dichloroethene	61	5.226	5.226	(0.665)	74088	20.0000	17.9	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	46759	20.0000	17.1	
11 Carbon disulfide	76	5.293	5.293	(0.673)	158069	20.0000	17.2	
12 Iodomethane	142	5.439	5.439	(0.692)	24702	20.0000	15.5	
13 Acrolein	56	5.659	5.659	(0.720)	10164	40.0000	23.8	
14 Allyl chloride	76	5.787	5.787	(0.736)	22210	20.0000	17.4	
15 Methylene Chloride	49	5.902	5.902	(0.751)	85117	20.0000	17.3	
16 Acetone	43	5.976	5.976	(0.760)	62754	40.0000	24.8	
17 Methyl acetate	43	6.067	6.067	(0.772)	104303	40.0000	36.3	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	48051	20.0000	17.2	
19 n-Hexane	86	6.110	6.110	(0.777)	5754	20.0000	19.4	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	125765	20.0000	19.3	
21 Acetonitrile	41	6.463	6.463	(0.822)	11809	40.0000	45.1	
22 Chloroprene	53	6.640	6.640	(0.845)	65755	20.0000	16.8	
23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	98775	20.0000	18.2	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	24 Acrylonitrile	53	6.738	6.738	(0.857)	42878	40.0000	36.3	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	59293	20.0000	11.0(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	74154	20.0000	18.5	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	66073	20.0000	15.8	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	31692	20.0000	18.1	
	29 Cyclohexane	56	7.335	7.335	(0.882)	61163	20.0000	18.4	
	30 Chloroform	83	7.372	7.372	(0.938)	109296	20.0000	17.8	
	31 Ethyl acetate	43	7.433	7.433	(0.946)	121384	40.0000	35.0	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	78185	20.0000	19.9	
	33 Tetrahydrofuran	42	7.536	7.536	(0.959)	32607	40.0000	36.5	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	161909	50.0000	45.5	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	84993	20.0000	19.1	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	66529	40.0000	25.1	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	58316	20.0000	18.8	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	308883	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	192970	20.0000	19.3	
	40 Propionitrile	54	7.902	7.902	(1.005)	18605	40.0000	35.3	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	97332	40.0000	36.3	
	42 Isobutanol	43	7.987	7.987	(1.016)	3741	40.0000	47.8(M)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	28315	50.0000	44.2	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	84355	20.0000	17.5	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	100534	20.0000	17.5	
	46 Trichloroethene	130	8.317	8.317	(1.000)	55722	20.0000	20.4	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	390720	50.0000		
	48 Methylcyclohexane	98	8.317	8.317	(1.000)	25333	20.0000	19.6	
	49 n-Butanol	56	8.524	8.524	(1.025)	2306	40.0000	38.6	
	50 Dibromomethane	93	8.670	8.670	(1.043)	44180	20.0000	19.0	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	56588	20.0000	19.8	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	83082	20.0000	20.3	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	27754	20.0000	17.2	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	950	40.0000	39.5	
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	45831	40.0000	32.2	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	77578	20.0000	19.5	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	420345	50.0000	50.0	
	58 Toluene	91	9.414	9.414	(1.132)	195347	20.0000	20.0	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	16542	20.0000	16.7	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	9826	40.0000	35.1(MH)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	77385	20.0000	19.5	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	52492	20.0000	20.6	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	52298	20.0000	17.0	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	46722	20.0000	18.9	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	70404	20.0000	20.0	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	75396	20.0000	20.0	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	60246	20.0000	19.9	
	68 2-Hexanone	43	10.280	10.280	(1.236)	88620	40.0000	26.9	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	190840	20.0000	19.7	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	370760	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	139175	20.0000	19.4	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	57148	20.0000	18.9	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	308621	40.0000	36.6	
	74 o-Xylene	106	10.993	10.993	(1.041)	66780	20.0000	17.1	
	75 Styrene	104	11.029	11.029	(1.044)	120102	20.0000	17.6	
	76 Bromoform	173	11.103	11.103	(1.051)	64534	20.0000	19.3	
	77 n-amyl acetate	43	11.225	11.225	(1.063)	96056	20.0000	16.6	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	154222	50.0000	50.7	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	22484	20.0000	18.5	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	237671	20.0000	20.0	
81 Bromobenzene	156	11.578	11.578	(1.096)	78217	20.0000	20.8	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	73100	20.0000	18.4	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	152266	20.0000	19.3	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	54826	20.0000	19.6	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	51146	20.0000	18.1	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	178840	20.0000	17.8	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	78900	20.0000	19.0	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	19932	20.0000	20.9(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	152436	20.0000	16.9	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	161183	20.0000	17.7	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	189442	20.0000	17.6	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	152436	20.0000	16.9	
94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	127626	20.0000	20.1	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	238803	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	129227	20.0000	18.0	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	152294	20.0000	18.3	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	130315	20.0000	18.8	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	13216	20.0000	16.9	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	39516	20.0000	18.6	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	88954	20.0000	18.9	
102 Naphthalene	128	14.193	14.193	(1.150)	148785	20.0000	16.3	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	83245	20.0000	19.0	

QC Flag Legend

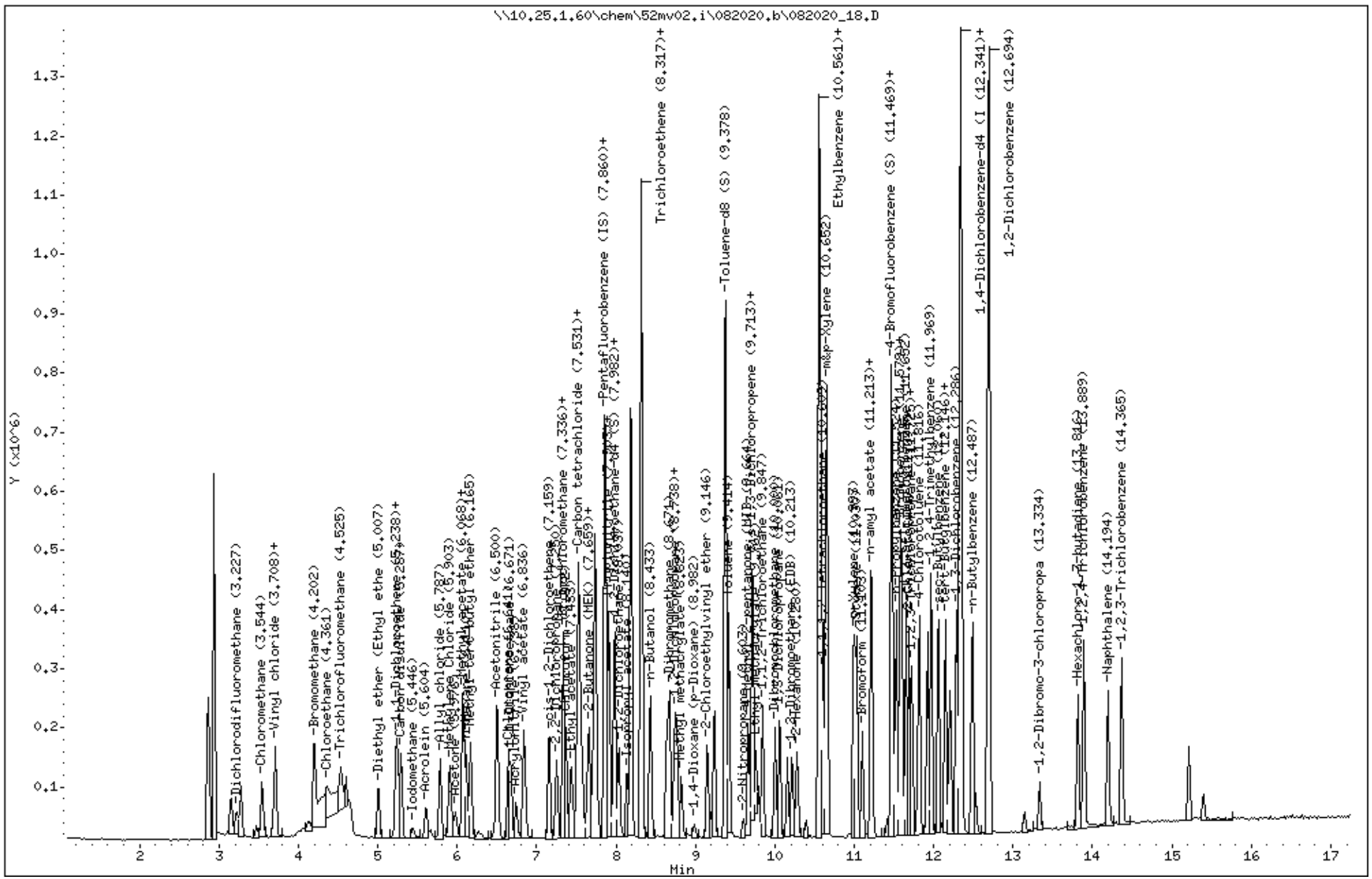
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

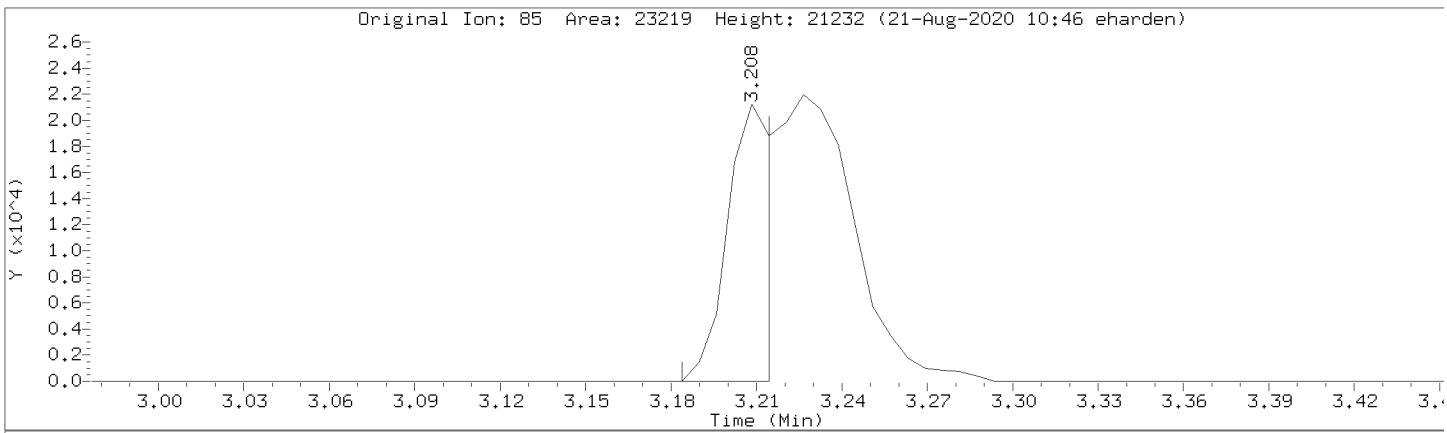
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_18.D
Date : 20-AUG-2020 17:06
Client ID: ICV
Sample Info: ICV, 27249:1
Purge Volume: 5.0
Column phase: RTX-VMS

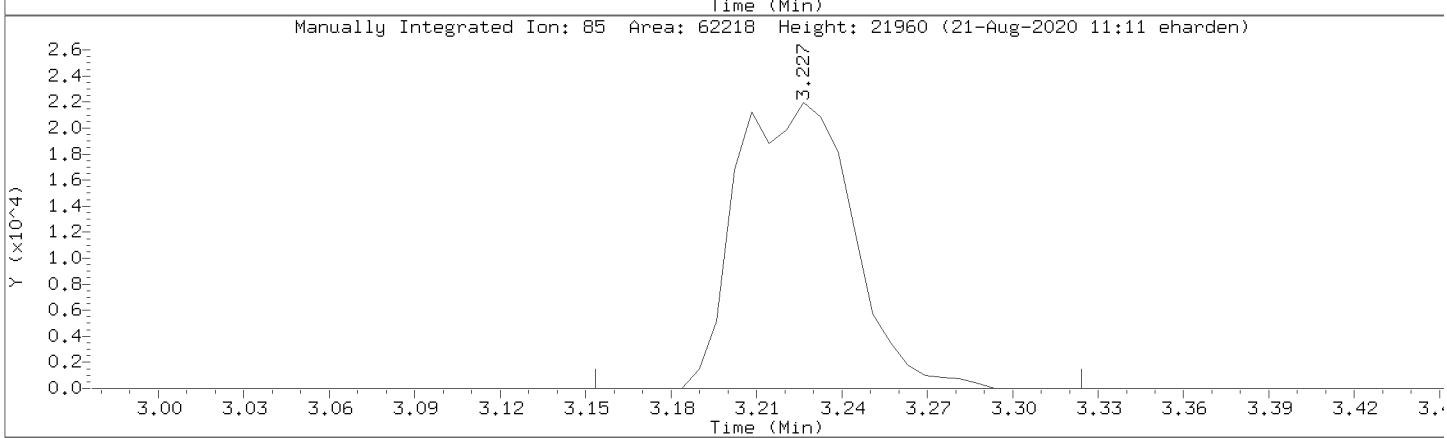
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

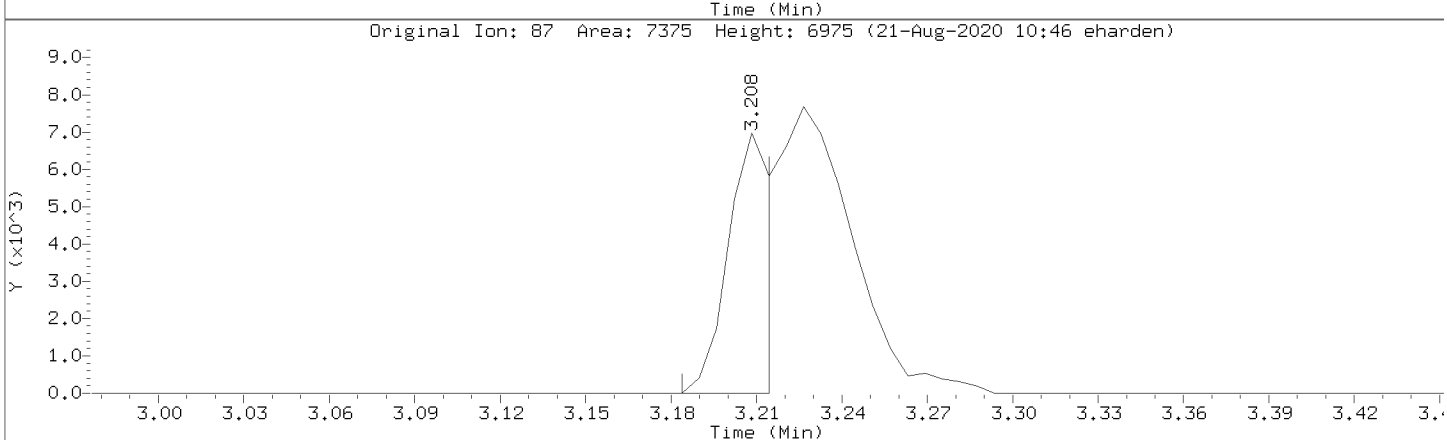


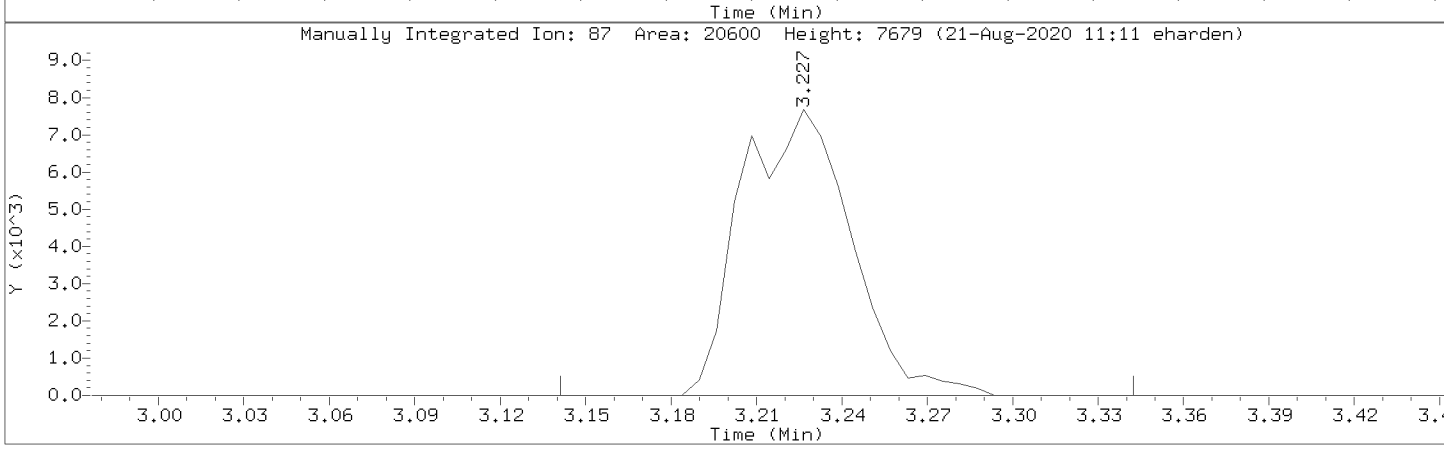
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_18.D
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



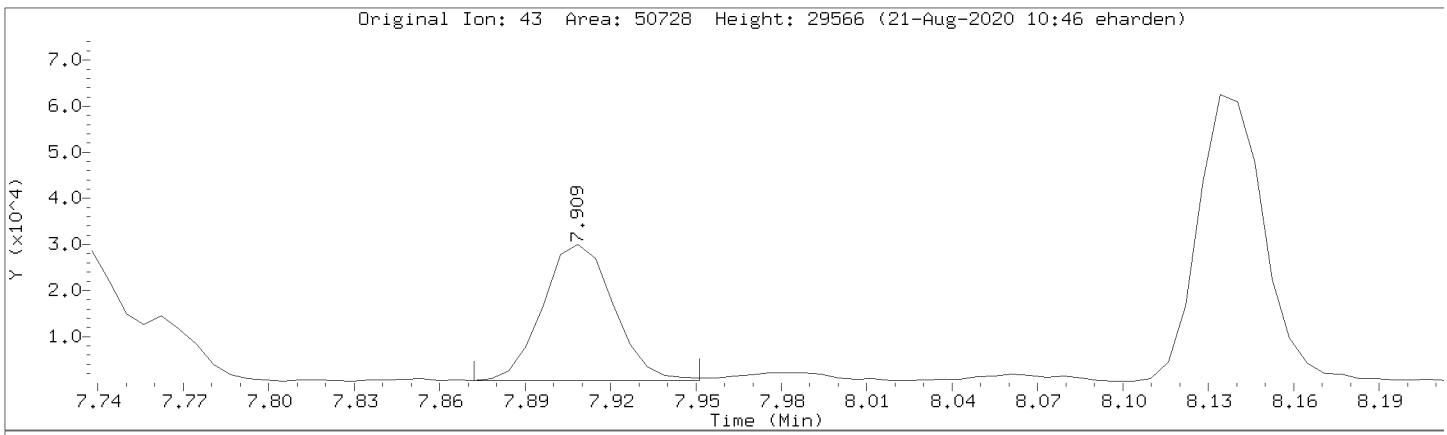


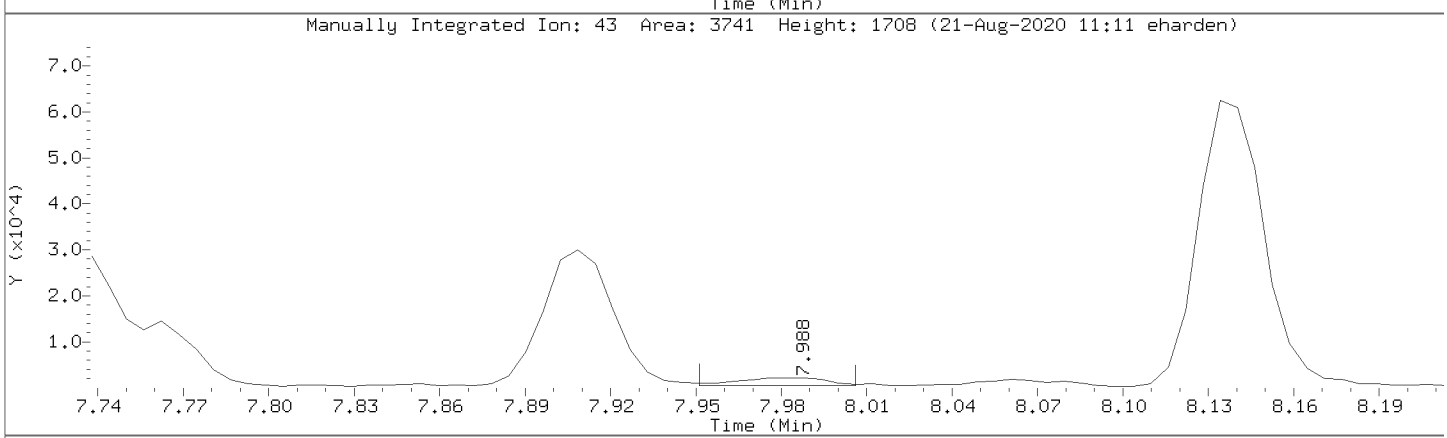


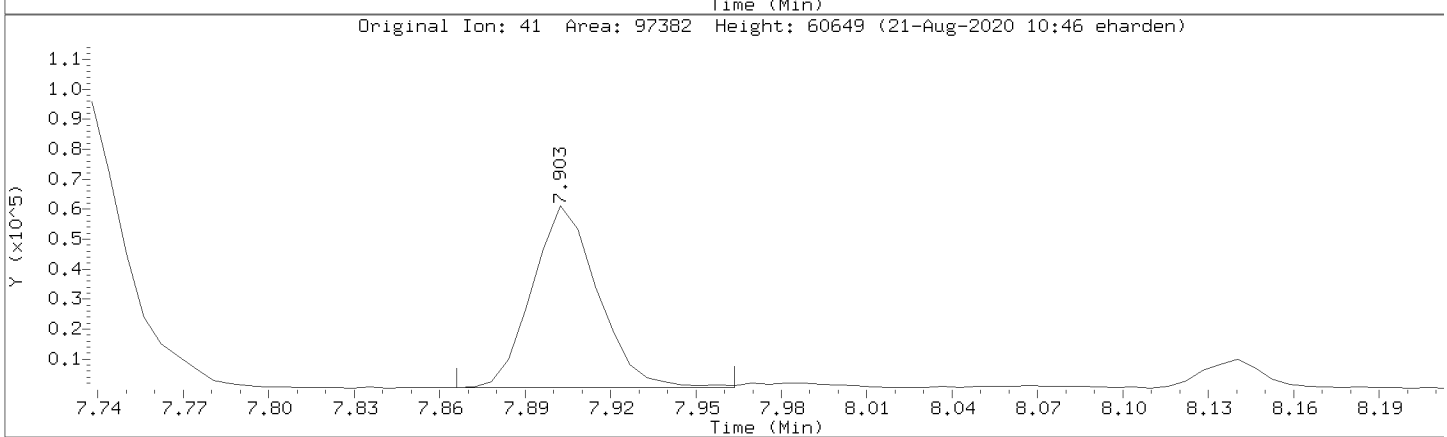


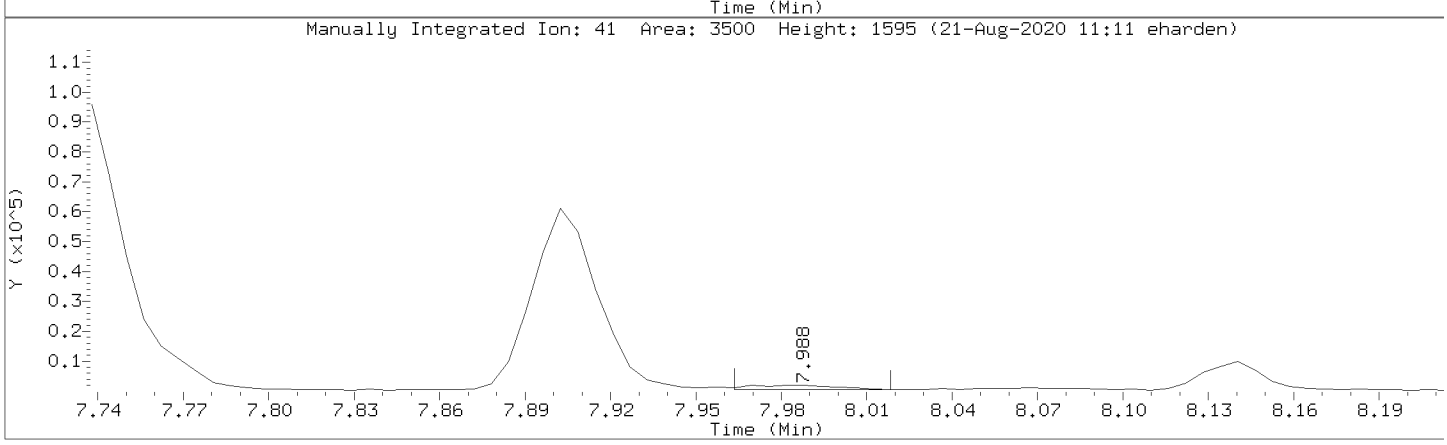
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_18.D
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1



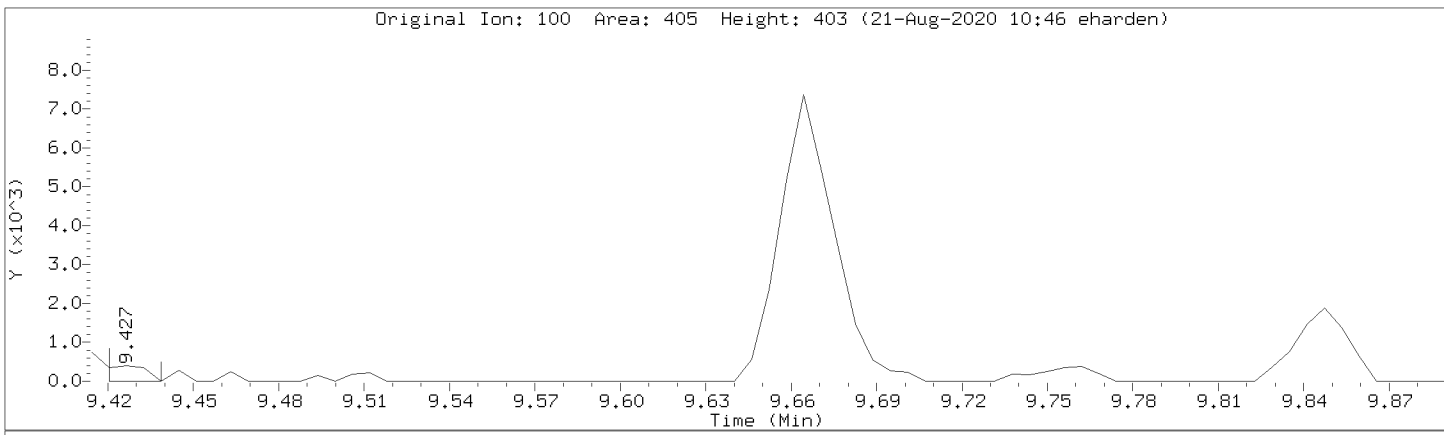


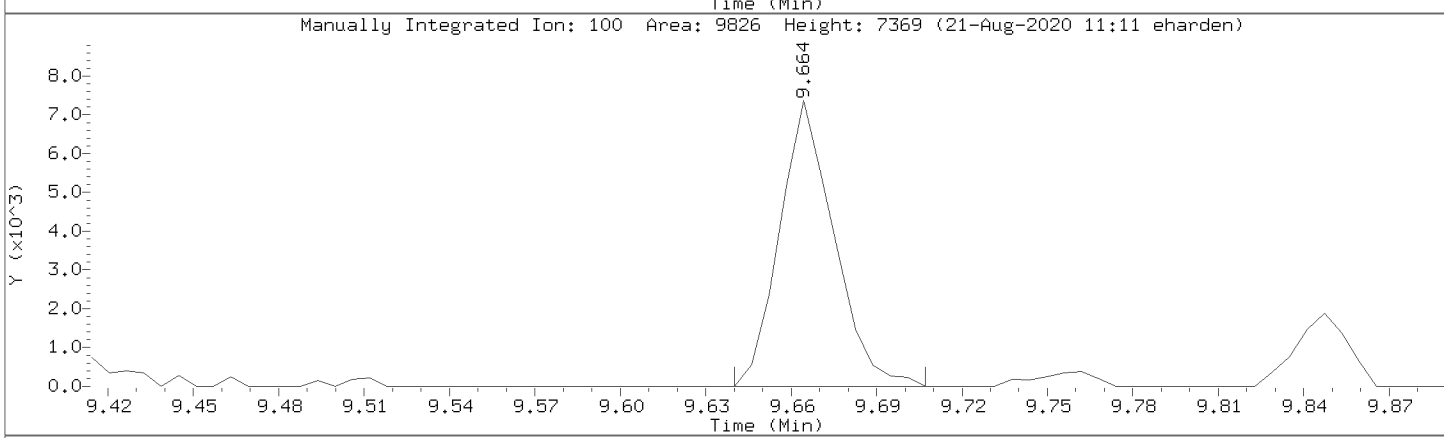


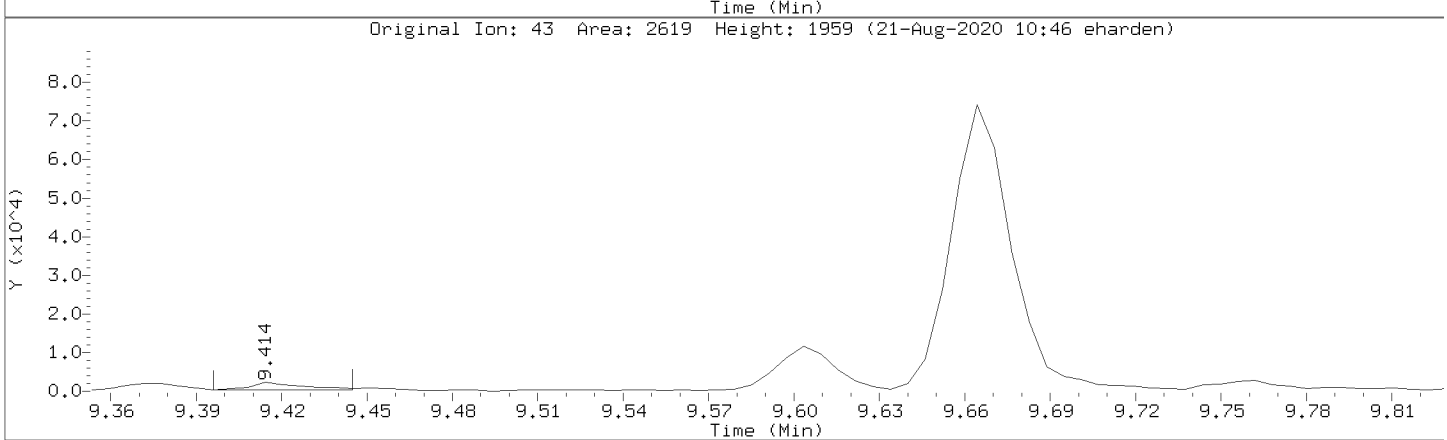


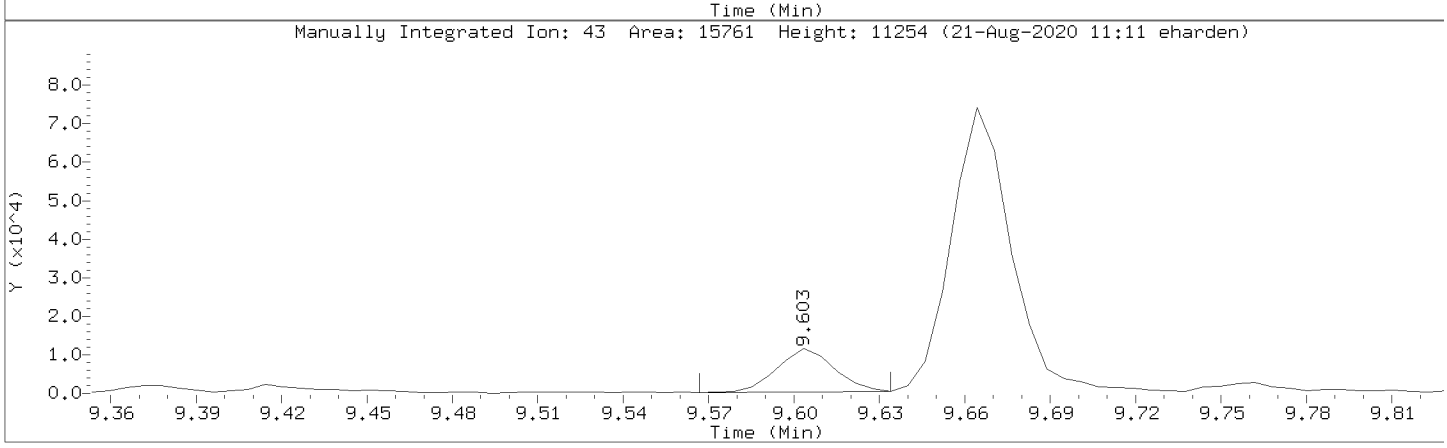
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_18.D
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1

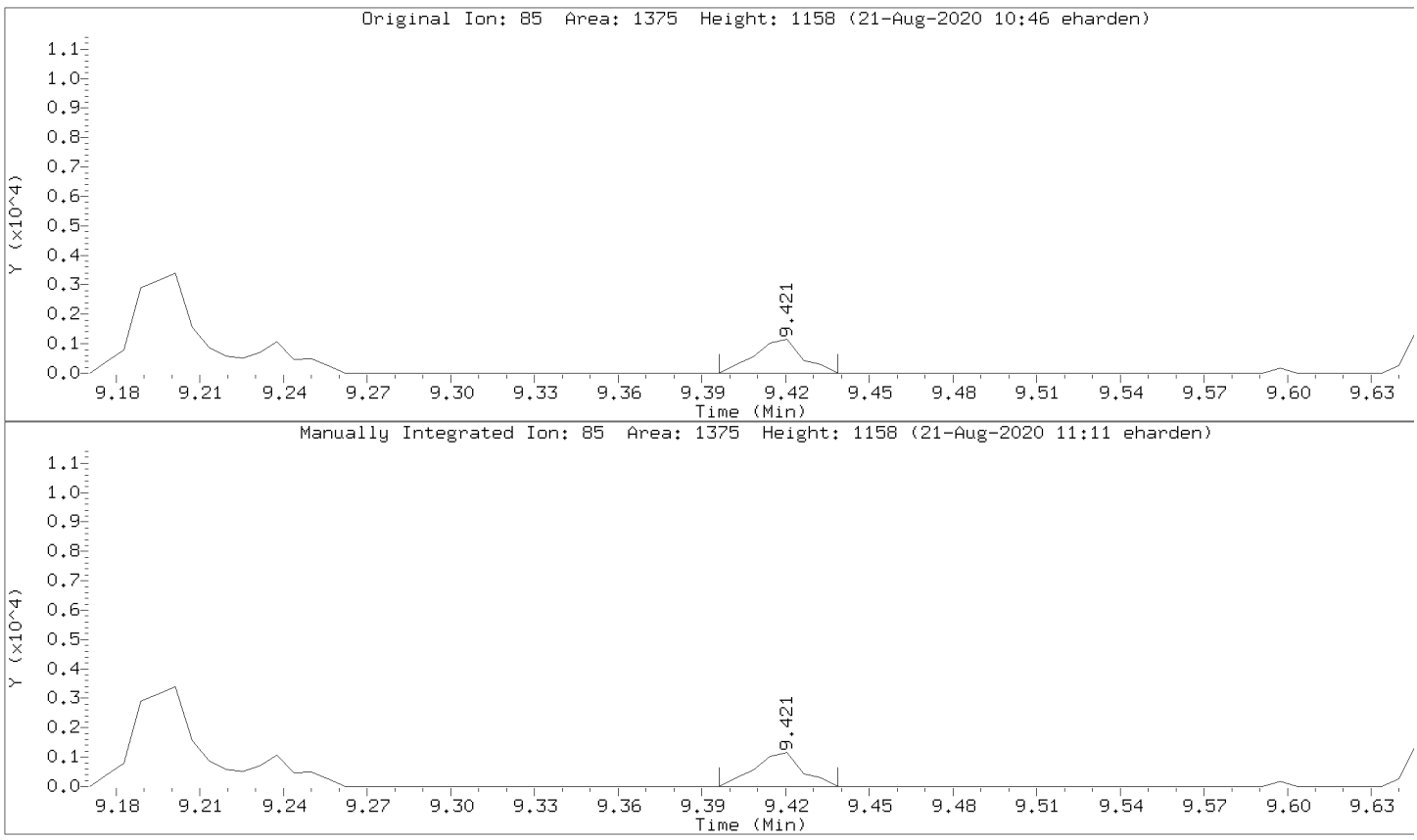






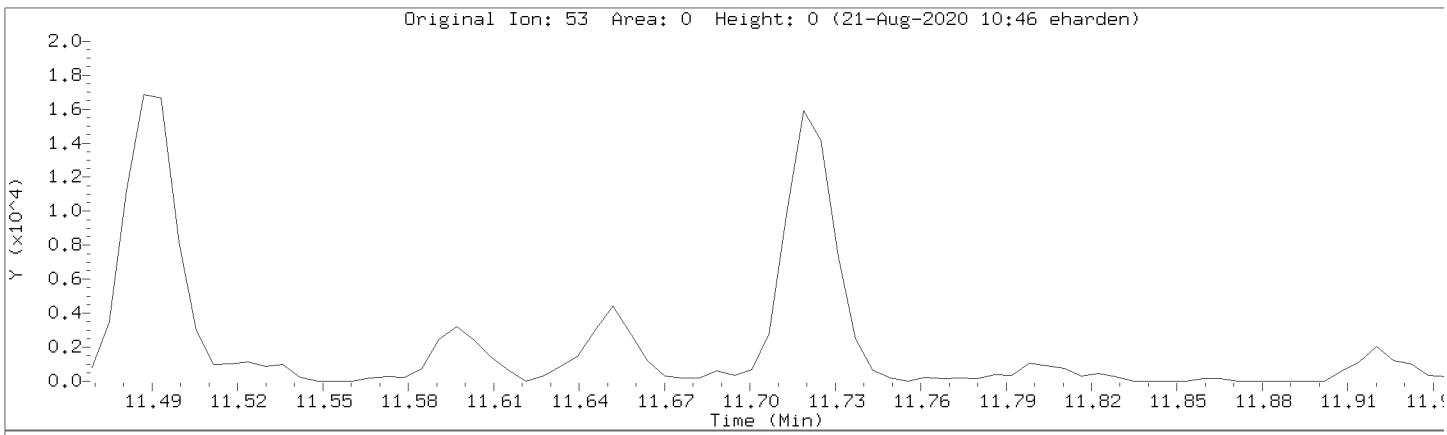


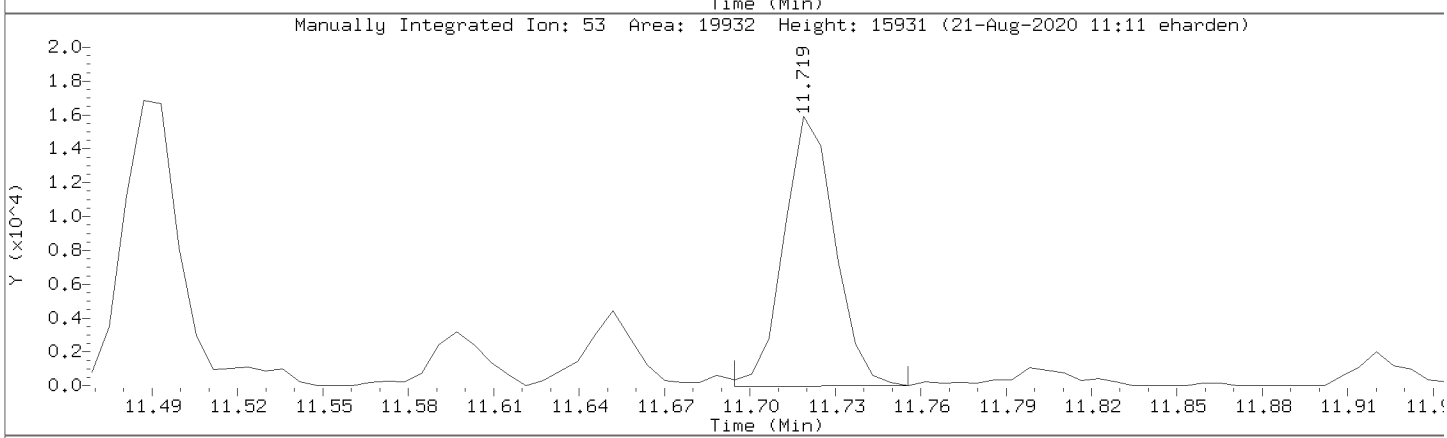
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_18.D
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

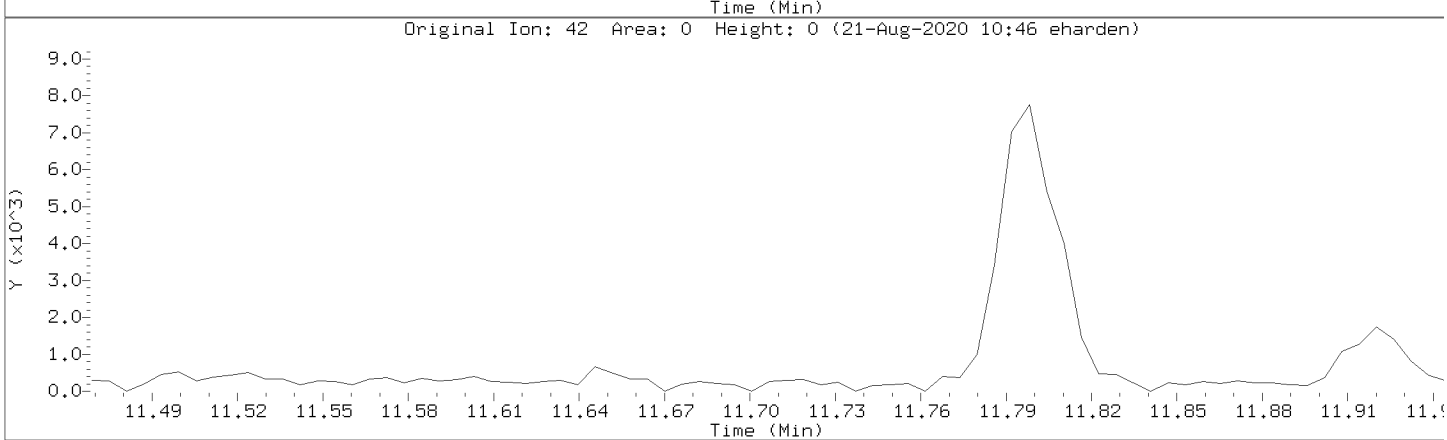


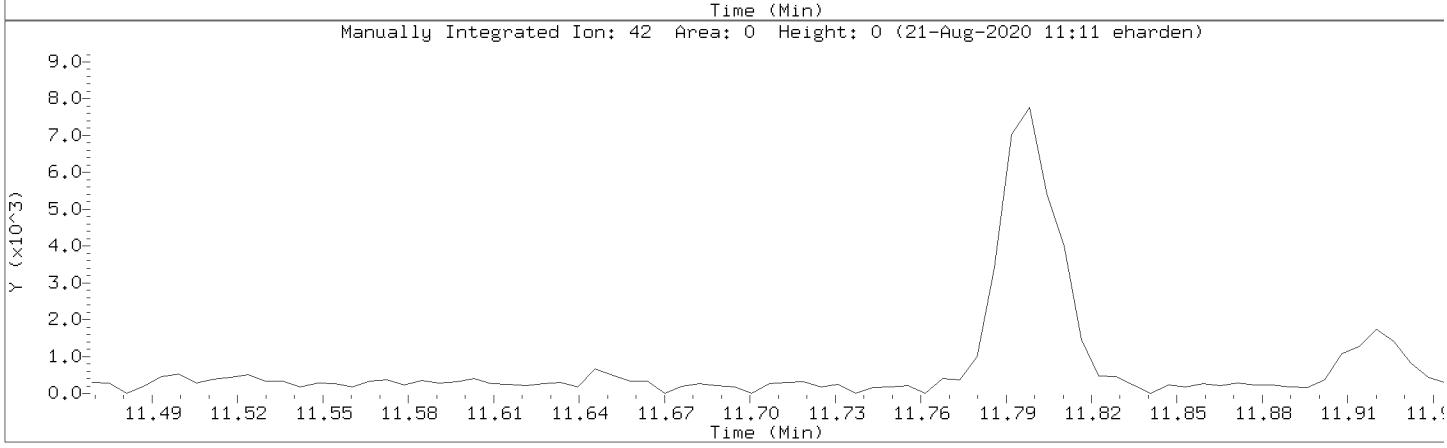
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_18.D
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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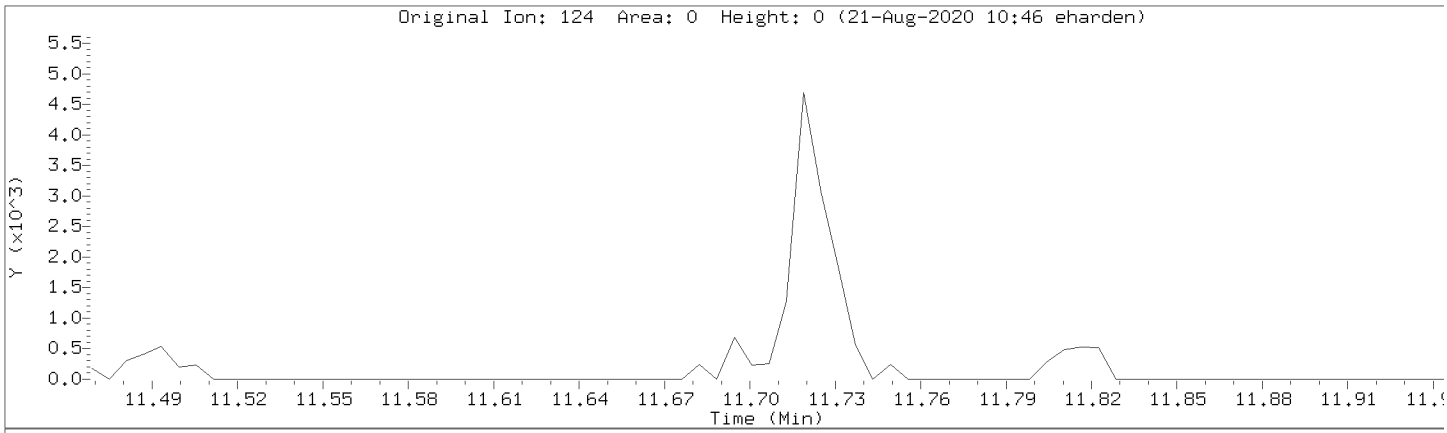
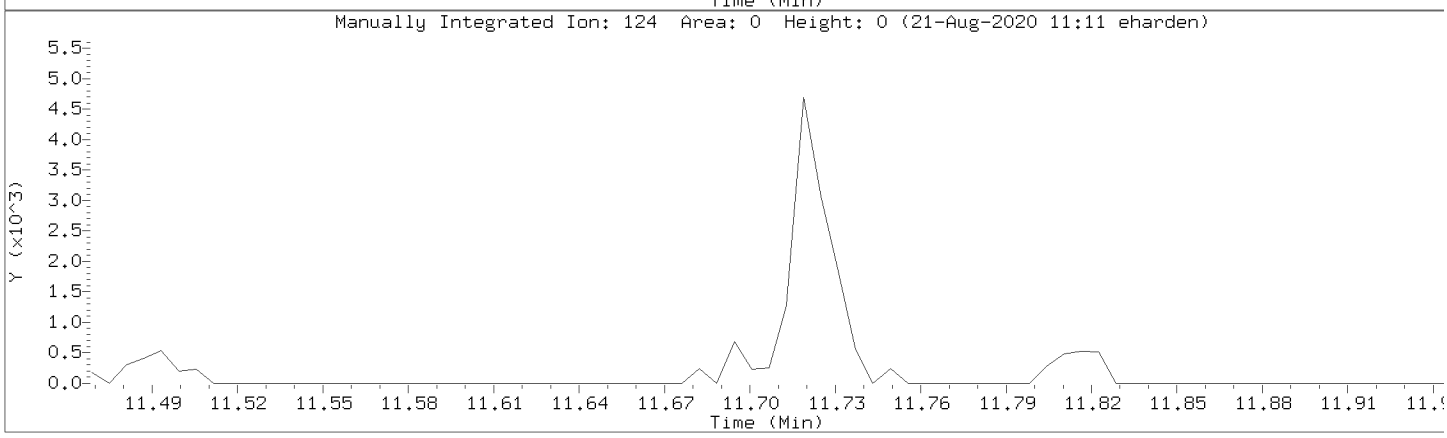
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_03.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 26-AUG-2020 11:25
Operator : EAH Inst ID: 52mv02.i
Smp Info : ccv,27136:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.214	(0.409)	42240	20.0000	15.7	
2 Chloromethane	50	3.537	3.537	(0.450)	69147	20.0000	21.5	
3 Vinyl chloride	62	3.689	3.689	(0.469)	48185	20.0000	18.2	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	43243	20.0000	18.3	
5 Bromomethane	94	4.195	4.195	(0.534)	53443	20.0000	25.0	
6 Chloroethane	64	4.360	4.360	(0.555)	17981	20.0000	24.0	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	40882	20.0000	24.3	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	18600	20.0000	20.1	
9 1,1-Dichloroethene	61	5.232	5.232	(0.666)	62782	20.0000	21.0	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.250	(0.668)	41418	20.0000	21.0	
11 Carbon disulfide	76	5.293	5.293	(0.673)	136009	20.0000	20.6	
12 Iodomethane	142	5.439	5.439	(0.692)	16175	20.0000	14.5	
13 Acrolein	56	5.659	5.659	(0.720)	10605	40.0000	34.4	
14 Allyl chloride	76	5.780	5.780	(0.736)	17068	20.0000	18.6	
15 Methylene Chloride	49	5.902	5.902	(0.751)	68398	20.0000	19.3	
16 Acetone	43	5.969	5.969	(0.760)	75155	40.0000	42.4	
17 Methyl acetate	43	6.067	6.067	(0.772)	79476	40.0000	38.4	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	39791	20.0000	19.7	
19 n-Hexane	86	6.110	6.110	(0.777)	4293	20.0000	20.1	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	91825	20.0000	19.5	
21 Acetonitrile	41	6.451	6.451	(0.821)	6421	40.0000	33.8	
22 Chloroprene	53	6.640	6.640	(0.845)	56086	20.0000	19.9	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	83957	20.0000	21.4	
	24 Acrylonitrile	53	6.732	6.732	(0.857)	34233	40.0000	40.2	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	70545	20.0000	18.2(TM)	CO
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	55254	20.0000	19.1	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	65218	20.0000	21.6	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	26147	20.0000	20.7	
	29 Cyclohexane	56	7.335	7.335	(0.882)	47239	20.0000	19.0	
	30 Chloroform	83	7.372	7.372	(0.938)	94915	20.0000	21.4	
	31 Ethyl acetate	43	7.427	7.427	(0.945)	92306	40.0000	36.9	
	32 Carbon tetrachloride	117	7.506	7.506	(0.902)	68377	20.0000	23.2	
	33 Tetrahydrofuran	42	7.530	7.530	(0.958)	23406	40.0000	36.3	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	123116	50.0000	48.0	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	74226	20.0000	22.2	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	76590	40.0000	40.0	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	49595	20.0000	21.4	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	222751	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	162397	20.0000	21.7	
	40 Propionitrile	54	7.896	7.896	(1.005)	13826	40.0000	36.4	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	74952	40.0000	38.8	
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21459	50.0000	46.5	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	72333	20.0000	20.8	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	75691	20.0000	18.2	
	46 Trichloroethene	130	8.317	8.317	(1.000)	45493	20.0000	22.2	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	292666	50.0000		
	48 Methylcyclohexane	98	8.323	8.323	(1.001)	19880	20.0000	20.5	
	49 n-Butanol	56	8.530	8.530	(1.026)	1770	40.0000	39.6(M)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	38443	20.0000	22.0	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	44105	20.0000	20.6	
	52 Bromodichloromethane	83	8.762	8.762	(1.054)	71473	20.0000	23.3	
	53 Methyl methacrylate	69	8.816	8.816	(1.060)	19819	20.0000	16.4	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						(D)
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	32805	40.0000	30.9	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	65310	20.0000	21.9	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	312434	50.0000	49.6	
	58 Toluene	91	9.414	9.414	(1.132)	152837	20.0000	20.9	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	11985	20.0000	16.2	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	8318	40.0000	39.7	
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	65310	20.0000	21.9	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	41780	20.0000	22.4	
	63 Ethyl methacrylate	69	9.755	9.755	(1.173)	38745	20.0000	16.9	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	37550	20.0000	20.3	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	55525	20.0000	21.4	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	59349	20.0000	21.0	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	45851	20.0000	20.6	
	68 2-Hexanone	43	10.274	10.274	(1.235)	106551	40.0000	43.1	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	144016	20.0000	20.2	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	272170	50.0000		
	71 Chlorobenzene	112	10.572	10.572	(1.001)	111660	20.0000	21.3	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	47890	20.0000	21.6	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	242469	40.0000	39.2	
	74 o-Xylene	106	10.993	10.993	(1.041)	48000	20.0000	16.7	
	75 Styrene	104	11.029	11.029	(1.044)	89532	20.0000	17.9	
	76 Bromoform	173	11.103	11.103	(1.051)	50597	20.0000	20.6	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.225	11.225	(1.063)	77090	20.0000	18.0	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	108333	50.0000	48.5	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	18292	20.0000	20.5	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	186197	20.0000	21.3	
81 Bromobenzene	156	11.578	11.578	(1.096)	59857	20.0000	21.7	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	61142	20.0000	21.0	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	120951	20.0000	20.3	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	41271	20.0000	20.1	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	40937	20.0000	19.7	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	129720	20.0000	17.6	
87 1,2,3-Trichloropropane	75	11.718	11.718	(1.110)	62417	20.0000	20.5	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	14143	20.0000	20.2(M)	WP
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	114774	20.0000	16.8	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	125329	20.0000	18.2	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	141030	20.0000	17.3	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	114774	20.0000	16.8	
94 1,3-Dichlorobenzene	146	12.285	12.285	(0.996)	96289	20.0000	20.1	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	180250	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	109126	20.0000	20.2	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	123605	20.0000	19.7	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	98610	20.0000	18.8	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.334	(1.081)	10501	20.0000	17.8	
100 Hexachloro-1,3-butadiene	225	13.816	13.816	(1.120)	31005	20.0000	19.3	
101 1,2,4-Trichlorobenzene	180	13.889	13.889	(1.125)	64364	20.0000	18.1	
102 Naphthalene	128	14.193	14.193	(1.150)	97168	20.0000	14.2	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	60714	20.0000	18.4	

QC Flag Legend

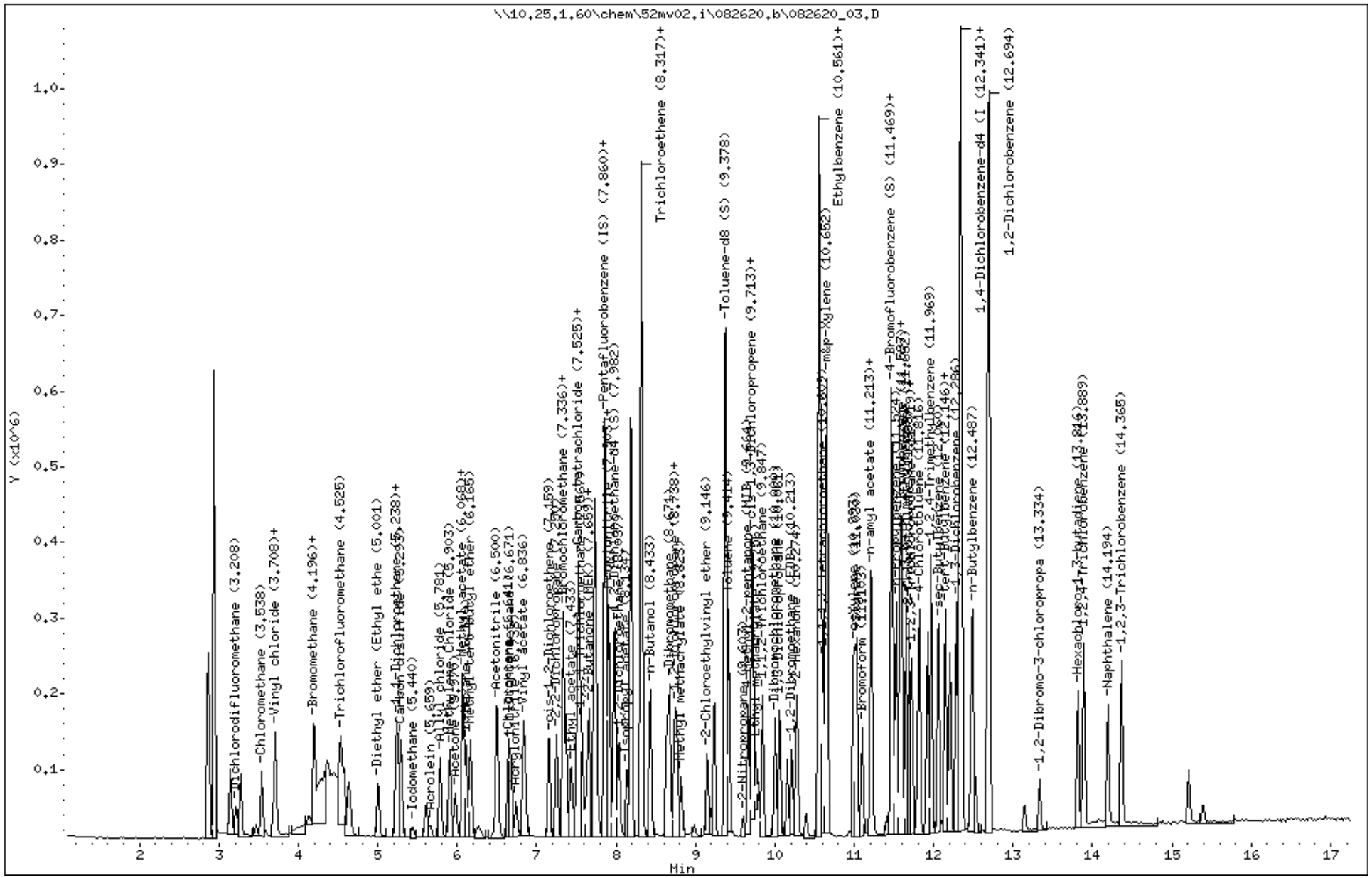
T - Target compound detected outside RT window.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

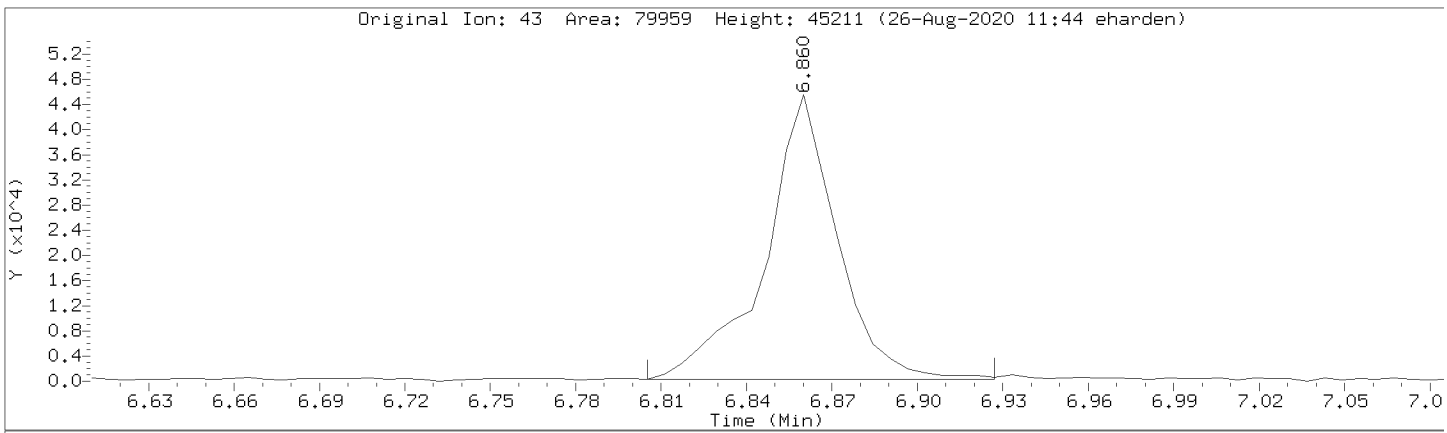
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_03.D
Date : 26-AUG-2020 11:25
Client ID: CCV
Sample Info: CCV,27136:1
Purge Volume: 5.0
Column phase: RTX-VMS

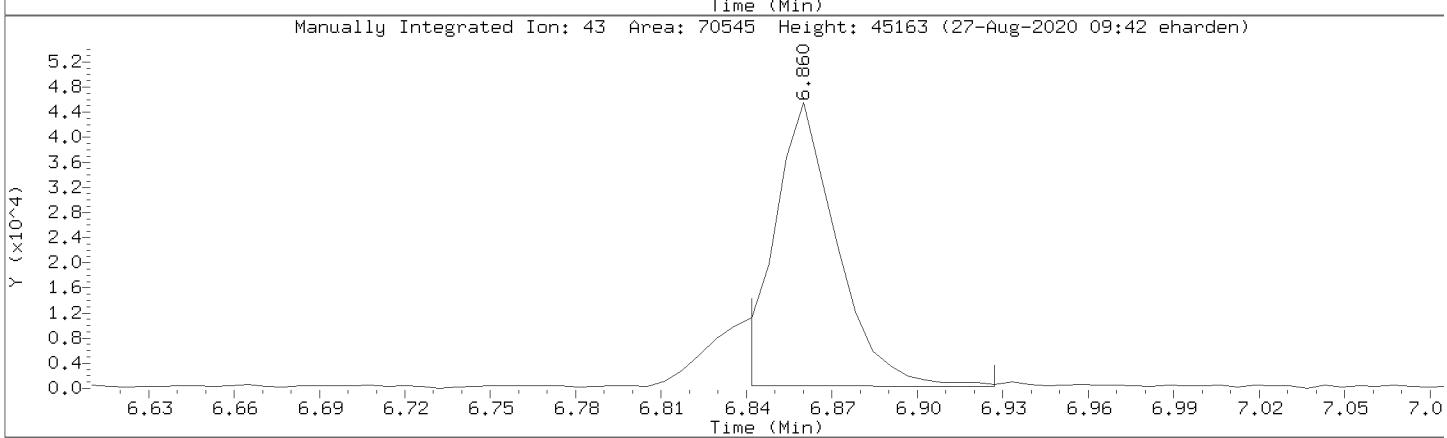
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

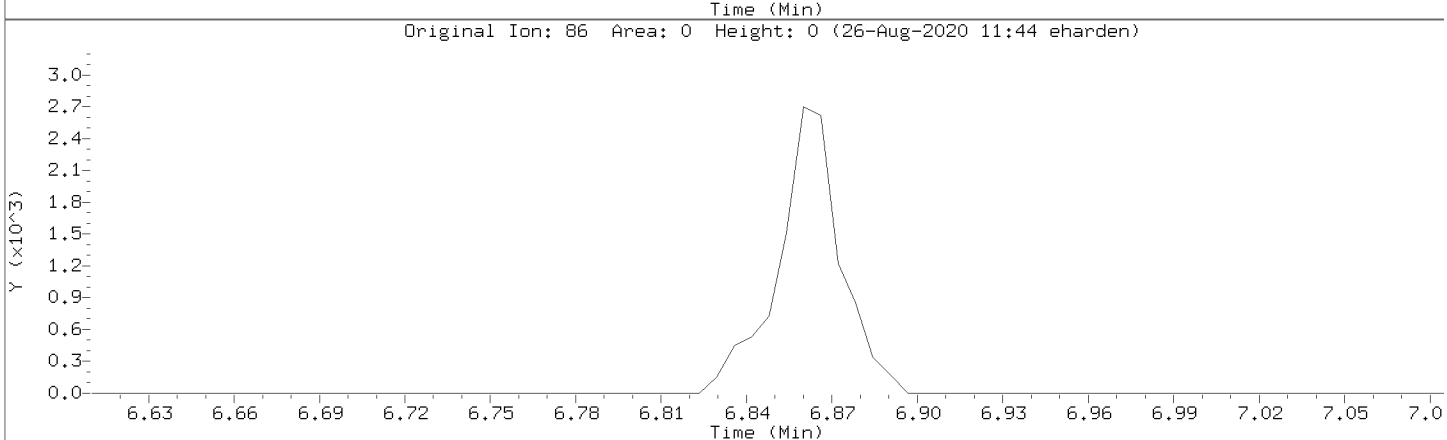


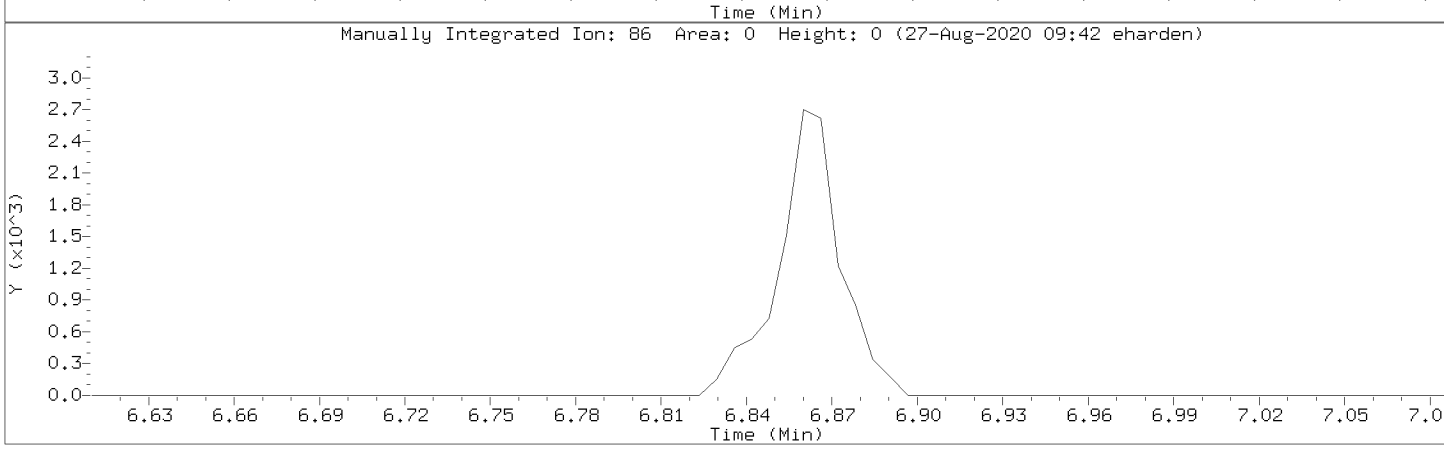
Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_03.D
Injection Date: 26-AUG-2020 11:25
Instrument: 52mv02.i
Lab Sample ID: CCV

Compound: Vinyl acetate Review Code: CO
CAS Number: 108-05-4



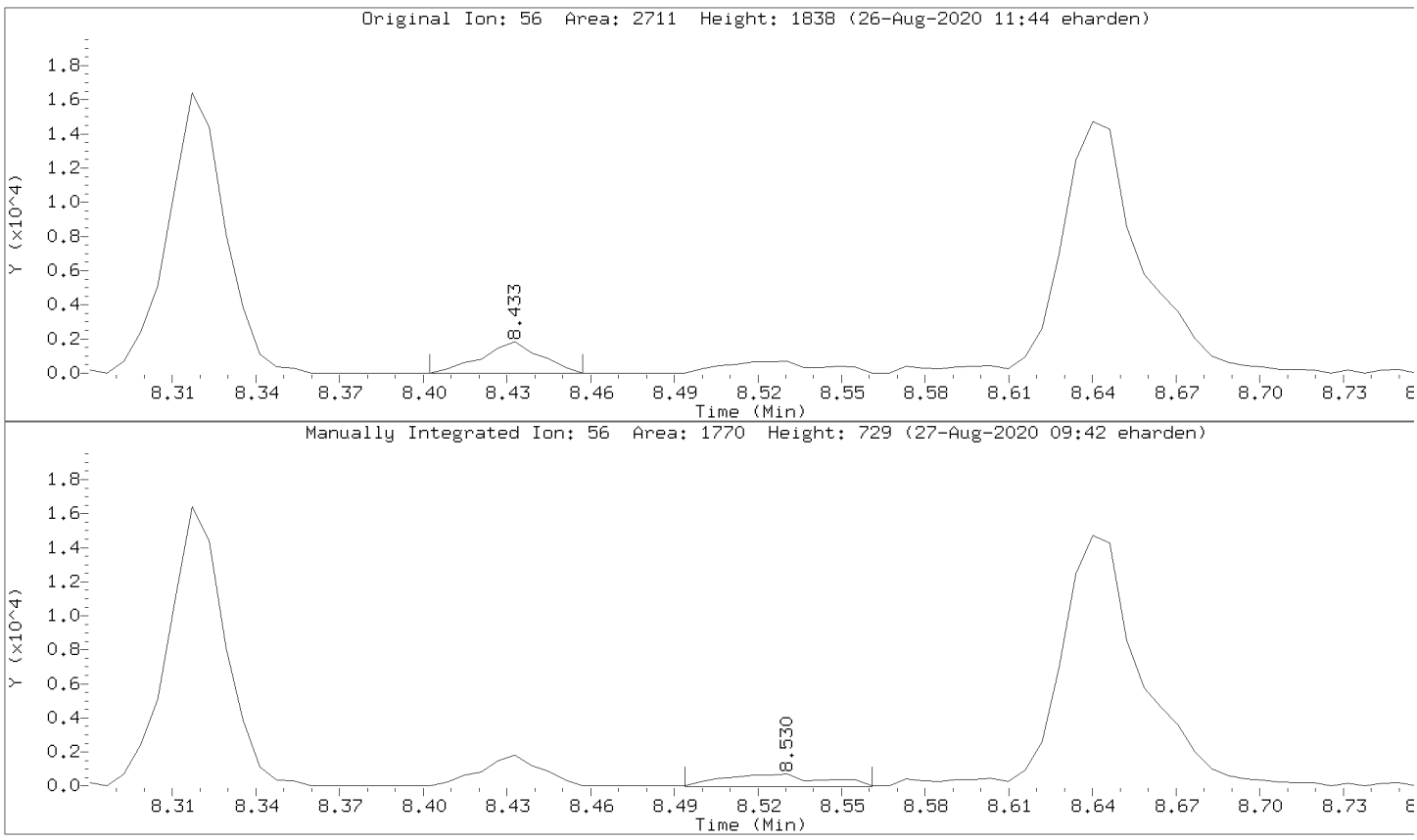






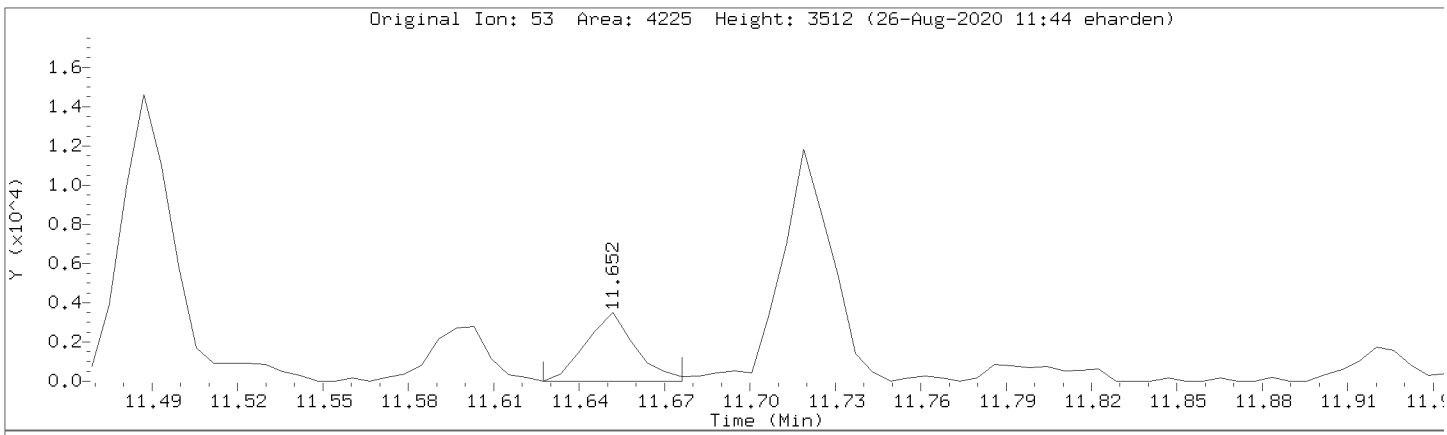
Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_03.D
Injection Date: 26-AUG-2020 11:25
Instrument: 52mv02.i
Lab Sample ID: CCV

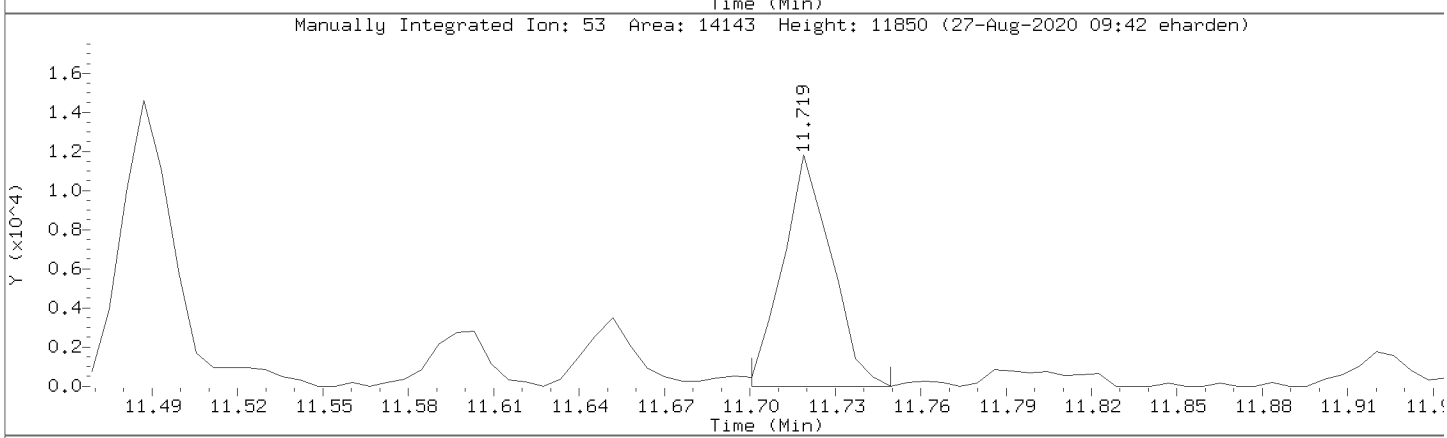
Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3

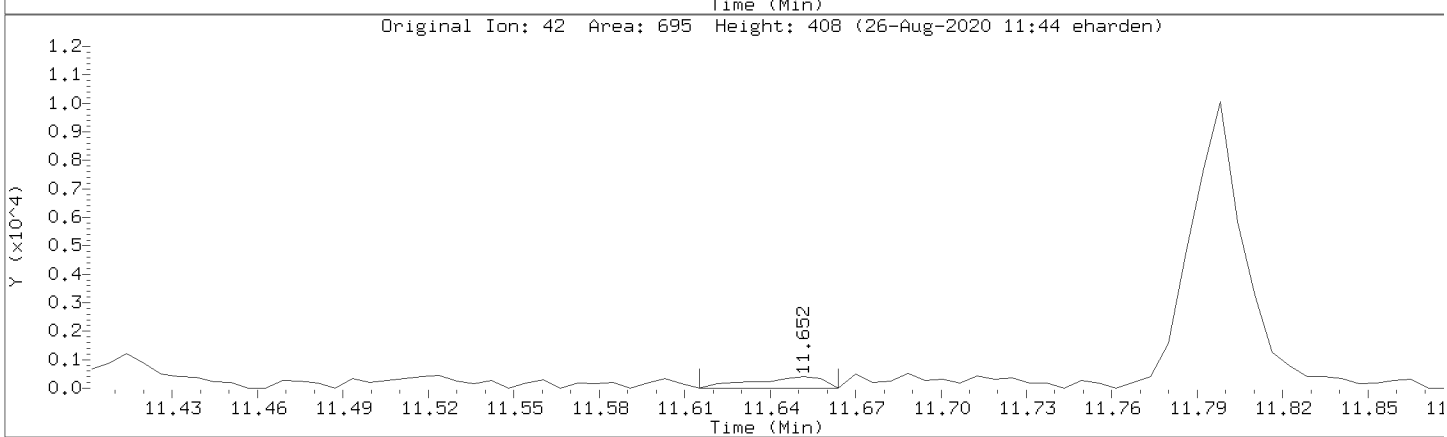


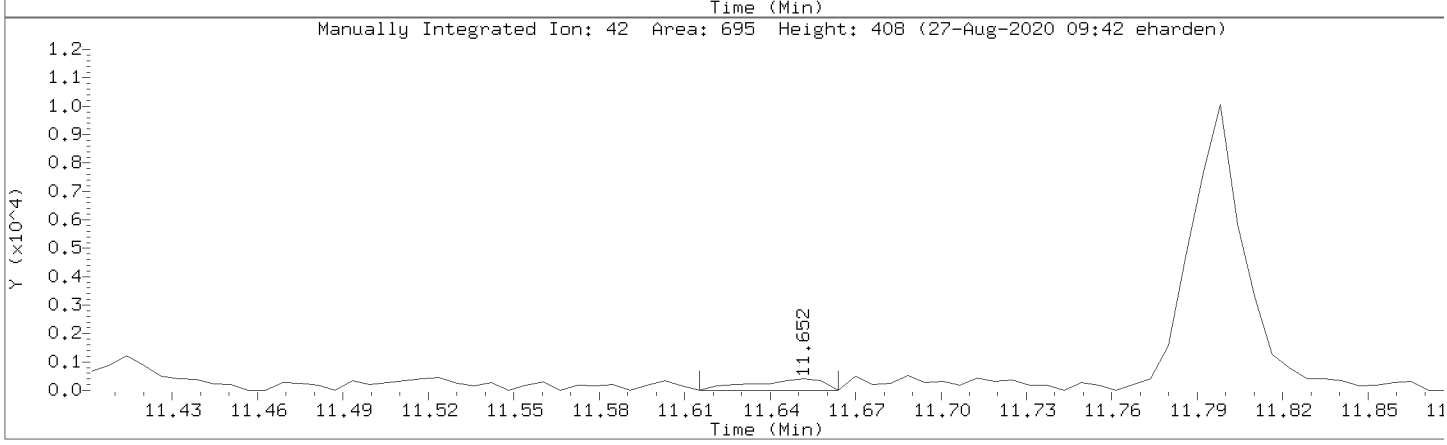
Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_03.D
Injection Date: 26-AUG-2020 11:25
Instrument: 52mv02.i
Lab Sample ID: CCV

Compound: trans-1,4-Dichloro-2-butene Review Code: WP
CAS Number: 110-57-6

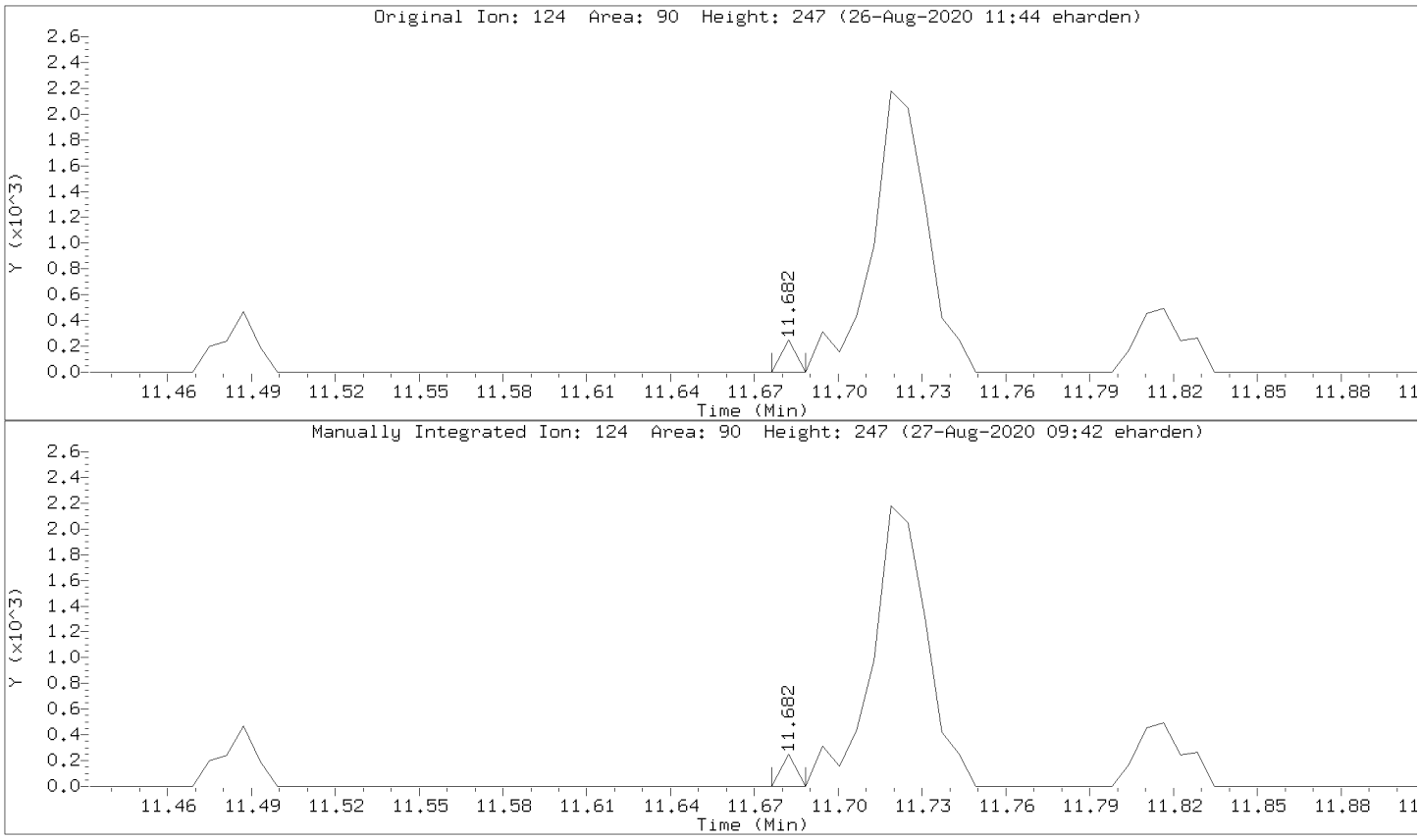








Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_03.D
Injection Date: 26-AUG-2020 11:25
Instrument: 52mv02.i
Lab Sample ID: CCV



Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_01.D

Date : 20-AUG-2020 09:57

Client ID: BFB

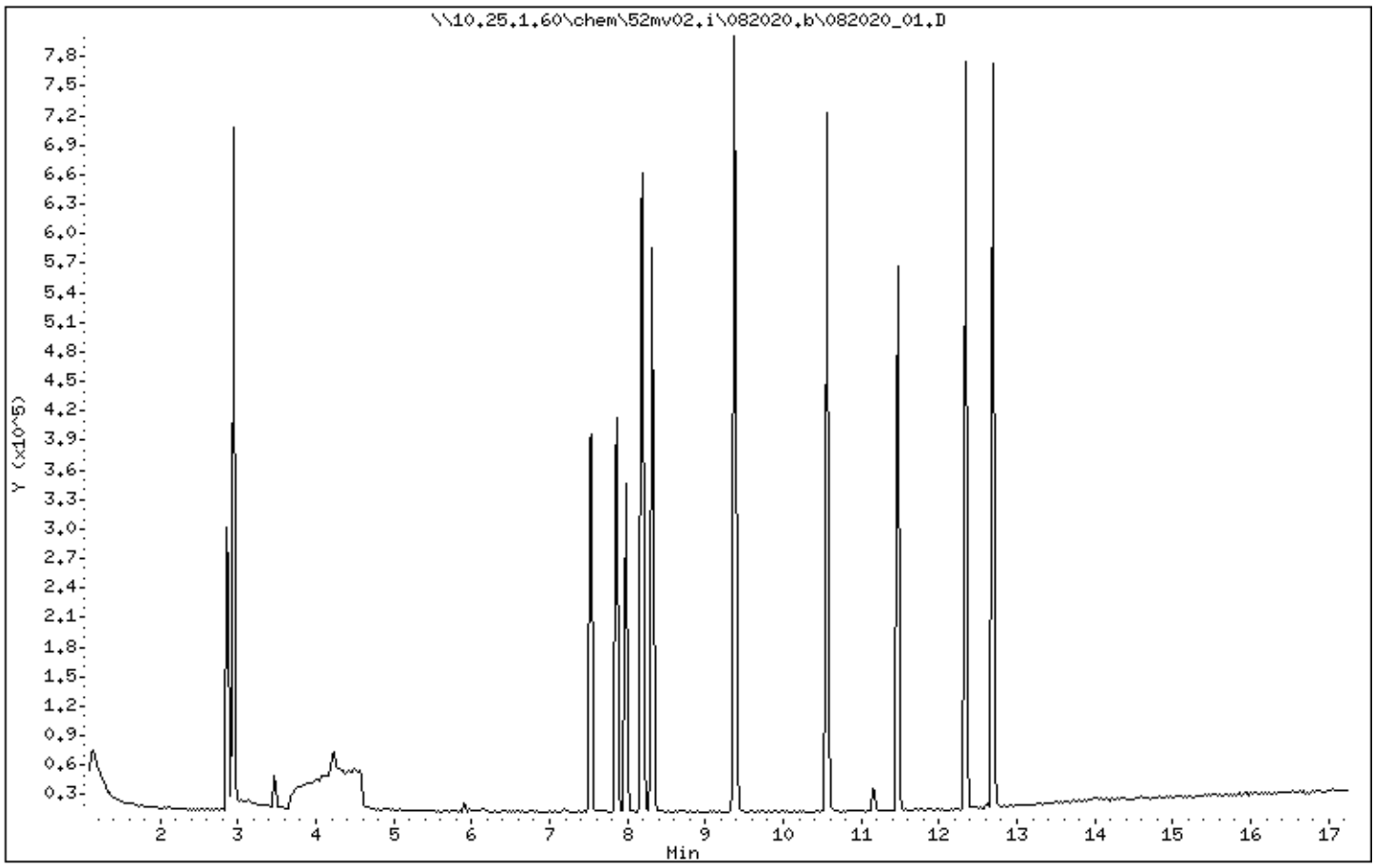
Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_01.D

Date : 20-AUG-2020 09:57

Client ID: BFB

Instrument: 52mv02.i

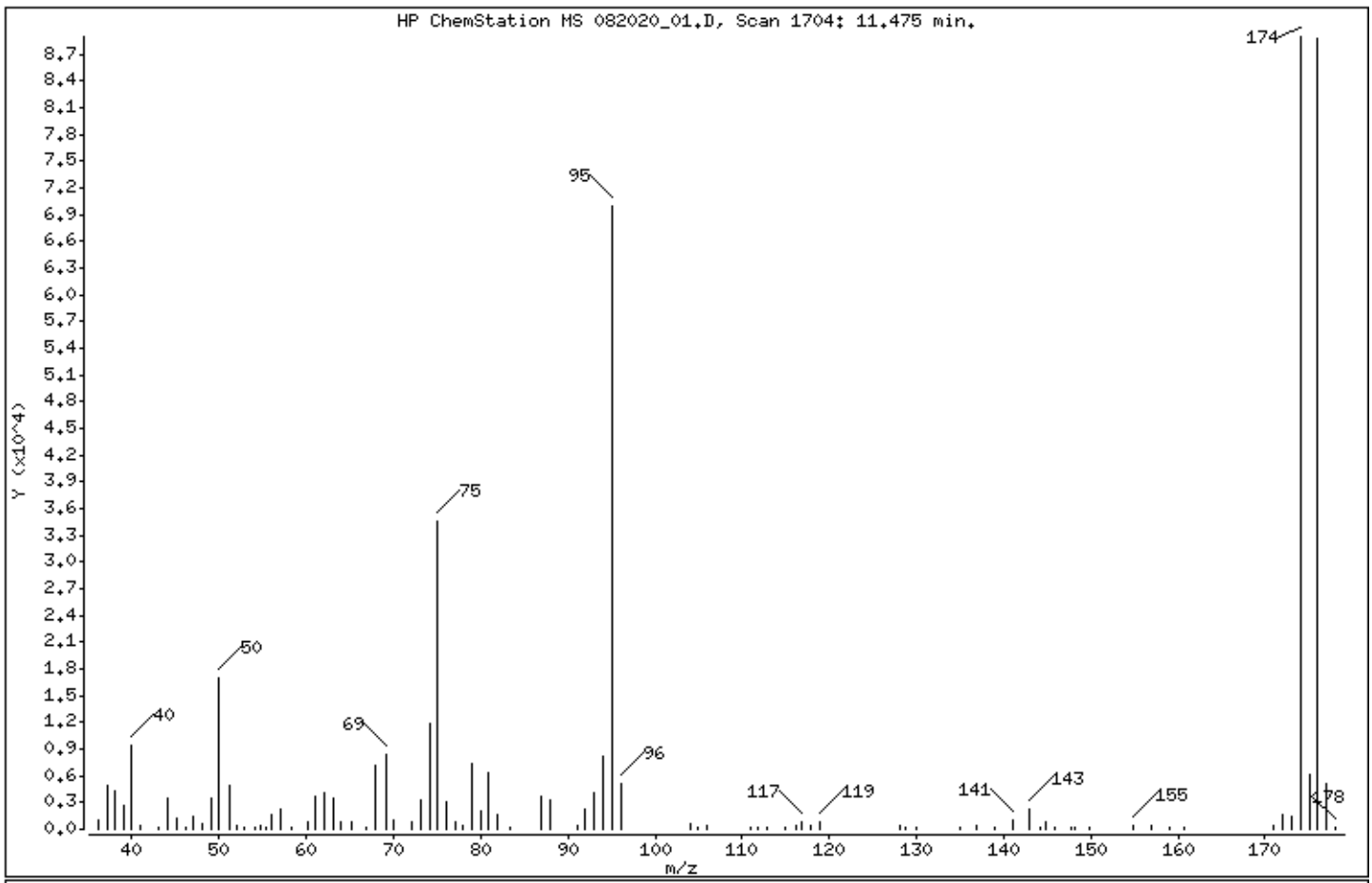
Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	24.30
75	30.00 - 60.00% of mass 95	49.31
96	5.00 - 9.00% of mass 95	7.36
173	Less than 2.00% of mass 174	2.18 (1.71)
174	Greater than 50.00% of mass 95	127.30
175	5.00 - 9.00% of mass 174	8.81 (6.92)
176	95.00 - 101.00% of mass 174	127.12 (99.86)
177	5.00 - 9.00% of mass 176	7.18 (5.65)

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_01.D

Date : 20-AUG-2020 09:57

Client ID: BFB

Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

Data File: 082020_01.D
Spectrum: HP ChemStation MS 082020_01.D, Scan 1704: 11.475 min.
Location of Maximum: 174.00
Number of points: 90

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	1098	60.10	905	87.90	3288	138.90	166
37.10	4897	61.10	3589	91.10	457	141.00	1123
38.10	4243	62.10	4175	92.00	2173	143.00	2215
39.00	2667	63.10	3523	93.00	4038	144.20	186
40.00	9368	63.90	778	94.10	8248	144.90	869
40.90	361	65.10	918	95.10	69920	145.90	188
43.00	292	66.90	193	96.10	5147	147.80	240
44.10	3452	68.00	7096	104.00	555	148.20	197
45.10	1204	69.10	8359	105.00	169	149.80	174
46.10	287	70.10	938	105.90	381	154.80	333
47.00	1467	72.00	732	110.90	175	156.90	307
48.00	627	73.10	3315	111.90	187	159.00	184
49.10	3548	74.10	11905	112.90	178	160.80	185
50.00	16992	75.10	34480	115.00	269	171.00	332
51.10	4943	76.00	3077	116.10	308	172.00	1687
52.00	318	77.10	845	116.90	765	173.00	1525
52.90	284	77.90	421	117.90	509	174.00	89008
54.10	194	78.90	7291	118.90	747	175.10	6163
54.80	315	80.00	1995	128.10	499	176.00	88880
55.30	249	80.90	6439	128.80	229	177.00	5023
56.10	1661	82.00	1621	130.00	283	178.10	199
57.10	2297	83.30	177	134.90	164		
58.20	201	87.00	3615	136.90	329		

Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_03TUNE.D

Date : 26-AUG-2020 11:25

Client ID: BFB

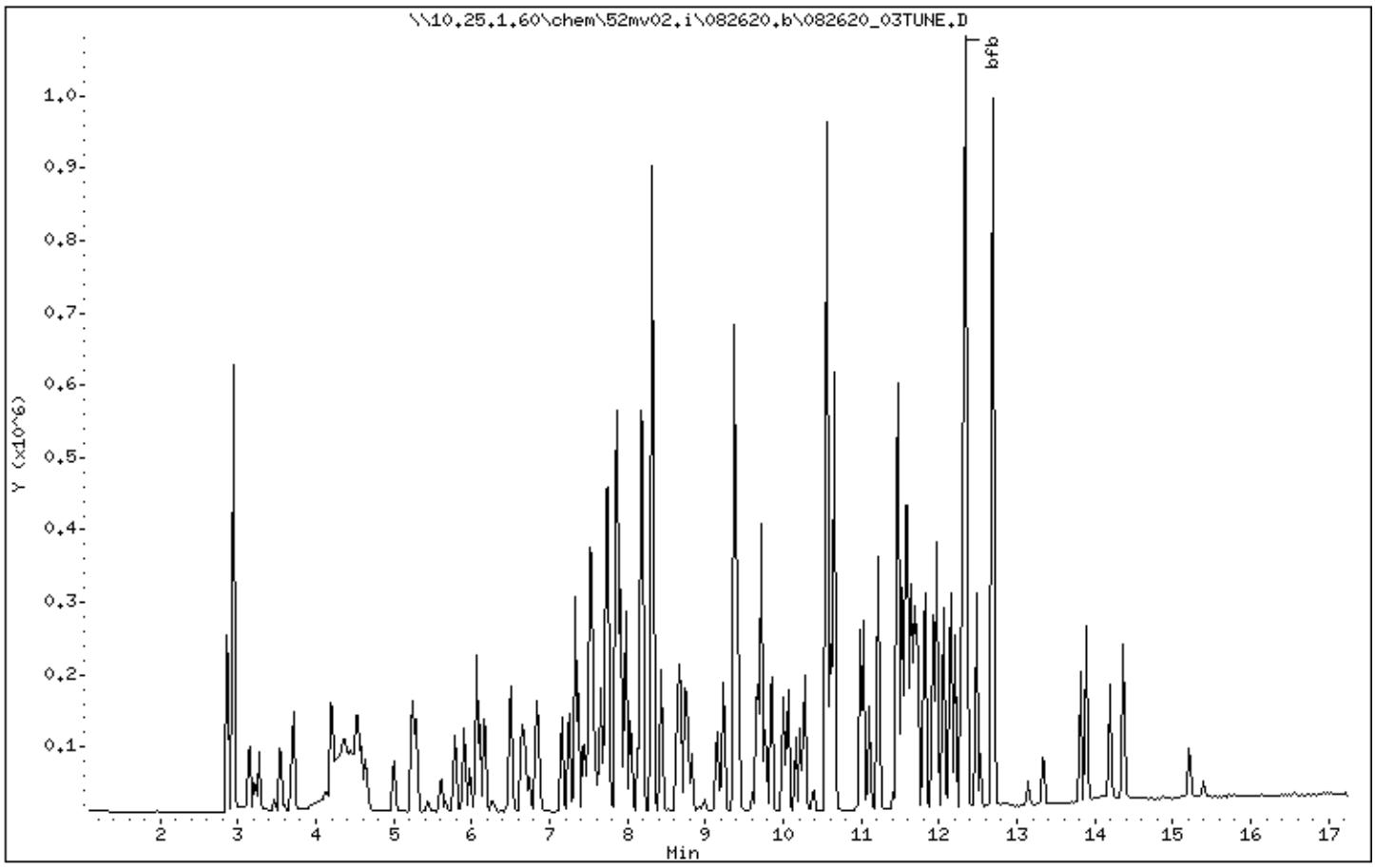
Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_03TUNE.D

Date : 26-AUG-2020 11:25

Client ID: BFB

Instrument: 52mv02.i

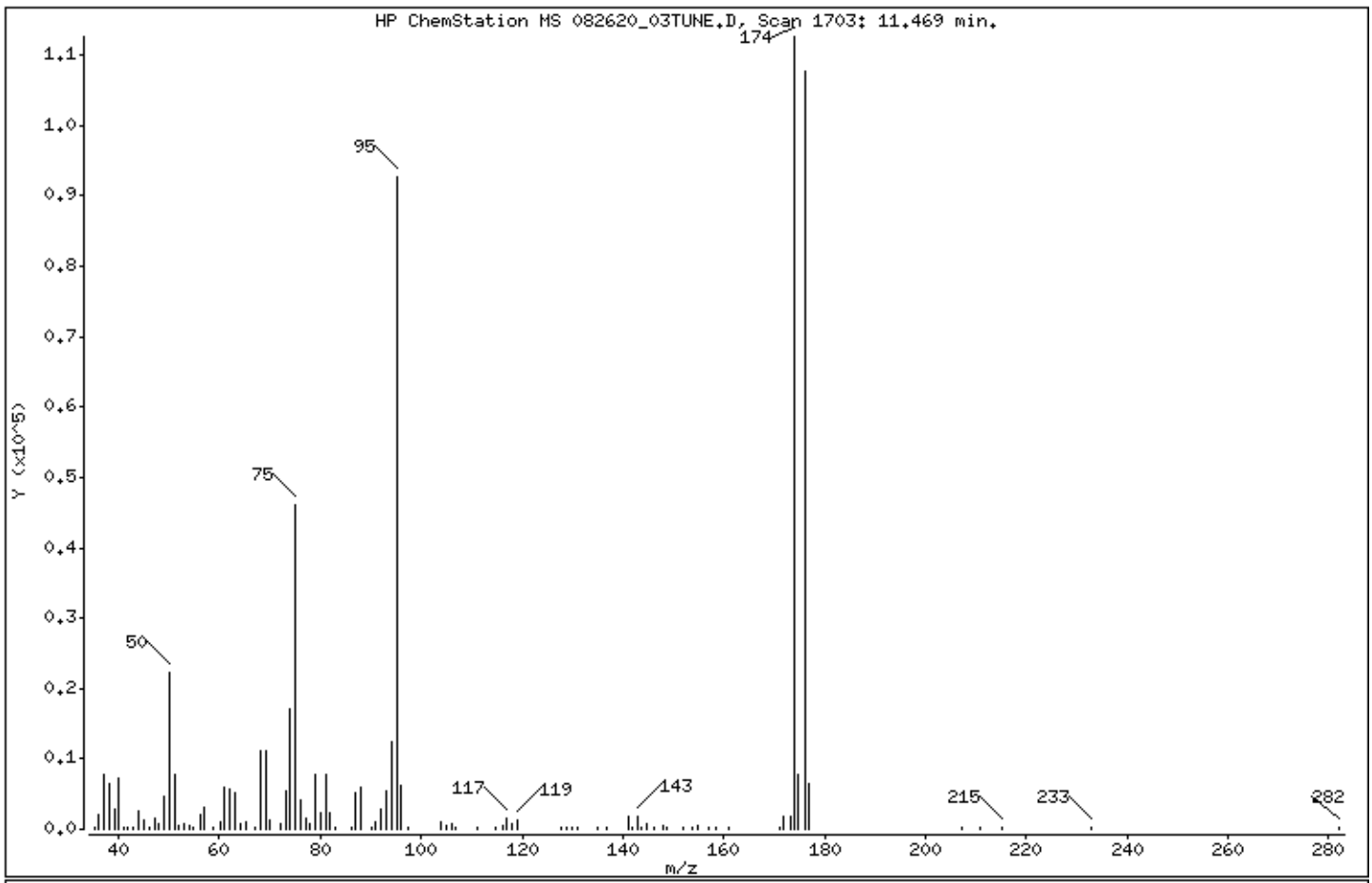
Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	24.05
75	30.00 - 60.00% of mass 95	49.82
96	5.00 - 9.00% of mass 95	6.80
173	Less than 2.00% of mass 174	2.07 (1.70)
174	Greater than 50.00% of mass 95	121.50
175	5.00 - 9.00% of mass 174	8.51 (7.00)
176	95.00 - 101.00% of mass 174	116.10 (95.55)
177	5.00 - 9.00% of mass 176	6.92 (5.96)

Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_03TUNE.D

Date : 26-AUG-2020 11:25

Client ID: BFB

Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

Data File: 082620_03TUNE.D
Spectrum: HP ChemStation MS 082620_03TUNE.D, Scan 1703: 11.469 min.
Location of Maximum: 174.00
Number of points: 100

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.20	174	62.10	5700	92.00	2725	144.90	744
36.10	2001	63.00	5065	93.10	5497	146.10	162
37.10	7707	64.10	856	94.10	12305	148.10	554
38.10	6345	65.10	981	95.10	92712	148.80	160
39.10	2932	66.90	179	96.10	6307	152.00	156
40.00	7201	67.20	223	97.30	177	153.70	180
41.10	317	68.10	11177	104.00	1017	154.90	475
41.80	260	69.10	11066	105.10	402	157.00	360
43.00	316	70.10	1289	106.10	879	158.60	274
44.00	2647	72.10	667	106.90	216	161.00	219
45.10	1412	73.10	5427	111.10	249	171.00	351
46.20	154	74.10	17200	114.90	260	171.90	1941
47.10	1593	75.10	46192	116.10	600	173.10	1915
48.00	861	76.10	4049	117.00	1435	174.00	112648
49.00	4705	77.10	1530	118.00	764	174.90	7886
50.10	22296	77.90	777	119.10	1206	176.00	107640
51.10	7709	79.00	7714	127.80	383	177.00	6419
52.00	492	80.10	2323	128.80	326	207.20	224
52.90	751	81.00	7682	130.10	341	210.90	201
54.20	389	82.00	2362	130.90	174	215.10	298
54.80	280	82.80	185	135.00	281	232.90	297
56.10	1960	86.20	172	136.90	280	282.10	160
57.10	3138	86.90	5100	141.00	1719		
58.90	241	88.00	5865	141.90	280		
60.10	1125	90.10	272	143.00	1838		
61.10	5933	91.00	978	143.80	187		

SAMPLE NO.

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MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249417
Date Extracted: 08/26/2020 10:00
Lab Sample ID: 204601
Date Analyzed: 08/26/2020 12:40
Lab File ID: 082620.B\082620_06.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

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MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249417
Date Extracted: 08/26/2020 10:00
Lab Sample ID: 204601
Date Analyzed: 08/26/2020 12:40
Lab File ID: 082620.B\082620_06.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_06.D
Lab Smp Id: 204601 Client Smp ID: MB
Inj Date : 26-AUG-2020 12:40
Operator : EAH Inst ID: 52mv02.i
Smp Info : 204601,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	117229	55.0090	55.0	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	185094	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	20726	54.0625	54.1	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	259612	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	267631	47.8889	47.9	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	228025	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	87632	46.8275	46.8	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
80	n-Propylbenzene	91	Compound Not Detected.						
81	Bromobenzene	156	Compound Not Detected.						
82	1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83	1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84	2-Chlorotoluene	126	Compound Not Detected.						
85	4-Chlorotoluene	126	Compound Not Detected.						
86	Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87	1,2,3-Trichloropropane	75	Compound Not Detected.						
88	trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89	Cyclohexanone	98	Compound Not Detected.						
90	tert-Butylbenzene	119	Compound Not Detected.						(D)
91	1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92	sec-Butylbenzene	105	Compound Not Detected.						
93	p-Isopropyltoluene	119	Compound Not Detected.						(D)
94	1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95	1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	126112	50.0000		
96	1,4-Dichlorobenzene	146	Compound Not Detected.						
97	n-Butylbenzene	91	Compound Not Detected.						
98	1,2-Dichlorobenzene	146	Compound Not Detected.						
99	1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100	Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101	1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102	Naphthalene	128	Compound Not Detected.						
103	1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

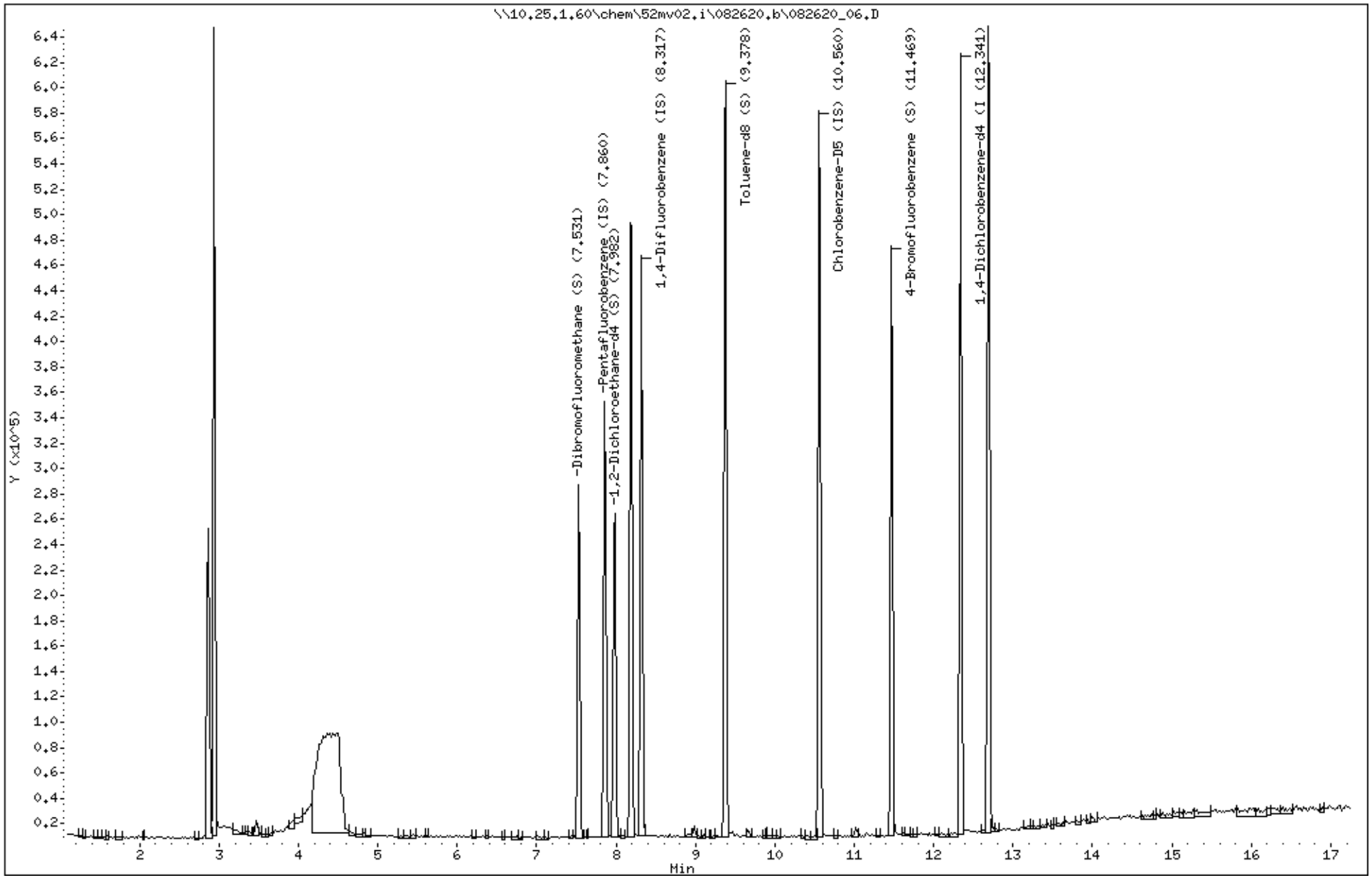
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_06.D
Date : 26-AUG-2020 12:40
Client ID: MB
Sample Info: 204601,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_06.D
Injection Date: 26-AUG-2020 12:40
Instrument: 52mv02.i
Lab Sample ID: 204601
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LCS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249417
Date Extracted: 08/26/2020 10:00
Lab Sample ID: 204602
Date Analyzed: 08/26/2020 11:25
Lab File ID: 082620.B\082620_03B2983.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	1060	
75-05-8	Acetonitrile	845	
107-02-8	Acrolein	860	
107-13-1	Acrylonitrile	1000	
71-43-2	Benzene	542	
108-86-1	Bromobenzene	543	
74-97-5	Bromochloromethane	517	
75-27-4	Bromodichloromethane	582	
75-25-2	Bromoform	514	
74-83-9	Bromomethane	626	
78-93-3	2-Butanone (MEK)	1000	
104-51-8	n-Butylbenzene	492	
135-98-8	sec-Butylbenzene	433	
98-06-6	tert-Butylbenzene	421	
75-15-0	Carbon disulfide	514	
56-23-5	Carbon tetrachloride	580	
108-90-7	Chlorobenzene	532	
75-00-3	Chloroethane	599	
67-66-3	Chloroform	535	
74-87-3	Chloromethane	538	
95-49-8	2-Chlorotoluene	502	
106-43-4	4-Chlorotoluene	493	
96-12-8	1,2-Dibromo-3-chloropropane	445	
124-48-1	Dibromochloromethane	536	
106-93-4	1,2-Dibromoethane (EDB)	516	
74-95-3	Dibromomethane	551	
95-50-1	1,2-Dichlorobenzene	470	
541-73-1	1,3-Dichlorobenzene	502	
106-46-7	1,4-Dichlorobenzene	504	
75-71-8	Dichlorodifluoromethane	393	
75-34-3	1,1-Dichloroethane	535	
107-06-2	1,2-Dichloroethane	519	
75-35-4	1,1-Dichloroethene	525	
156-59-2	cis-1,2-Dichloroethene	478	
156-60-5	trans-1,2-Dichloroethene	493	
78-87-5	1,2-Dichloropropane	516	
142-28-9	1,3-Dichloropropane	526	

SAMPLE NO.

LCS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249417
Date Extracted: 08/26/2020 10:00
Lab Sample ID: 204602
Date Analyzed: 08/26/2020 11:25
Lab File ID: 082620.B\082620_03B2983.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	539	
563-58-6	1,1-Dichloropropene	535	
10061-01-5	cis-1,3-Dichloropropene	547	
10061-02-6	trans-1,3-Dichloropropene	548	
141-78-6	Ethyl acetate	922	
100-41-4	Ethylbenzene	506	
591-78-6	2-Hexanone	1080	
98-82-8	Isopropylbenzene (Cumene)	441	
99-87-6	p-Isopropyltoluene	421	
75-09-2	Methylene Chloride	482	
108-10-1	4-Methyl-2-pentanone (MIBK)	993	
1634-04-4	Methyl-tert-butyl ether	488	
91-20-3	Naphthalene	355	
103-65-1	n-Propylbenzene	533	
100-42-5	Styrene	448	
630-20-6	1,1,1,2-Tetrachloroethane	540	
79-34-5	1,1,2,2-Tetrachloroethane	525	
127-18-4	Tetrachloroethene	559	
108-88-3	Toluene	524	
87-61-6	1,2,3-Trichlorobenzene	460	
120-82-1	1,2,4-Trichlorobenzene	453	
71-55-6	1,1,1-Trichloroethane	556	
79-00-5	1,1,2-Trichloroethane	508	
79-01-6	Trichloroethene	556	
75-69-4	Trichlorofluoromethane	608	
96-18-4	1,2,3-Trichloropropane	513	
95-63-6	1,2,4-Trimethylbenzene	456	
108-67-8	1,3,5-Trimethylbenzene	508	
108-05-4	Vinyl acetate	455	
75-01-4	Vinyl chloride	456	
1330-20-7	Xylene (Total)	1400	

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082620.b\082620_03B2983.D
Lab Smp Id: 204602 Client Smp ID: MBLCS
Inj Date : 26-AUG-2020 11:25
Operator : EAH Inst ID: 52mv02.i
Smp Info : 204602,
Misc Info : 2983,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082620.b\8260BSM_082020.m
Meth Date : 26-Aug-2020 11:44 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.214	(0.409)	42240	15.7294	15.7	
2 Chloromethane	50	3.537	3.537	(0.450)	69147	21.5064	21.5	
3 Vinyl chloride	62	3.689	3.689	(0.469)	48185	18.2316	18.2	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	43243	18.2982	18.3	
5 Bromomethane	94	4.195	4.195	(0.534)	53443	25.0531	25.0	
6 Chloroethane	64	4.360	4.360	(0.555)	17981	23.9624	24.0	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	40882	24.3310	24.3	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	18600	20.0881	20.1	
9 1,1-Dichloroethene	61	5.232	5.232	(0.666)	62782	21.0133	21.0	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.250	(0.668)	41418	21.0138	21.0	
11 Carbon disulfide	76	5.293	5.293	(0.673)	136009	20.5692	20.6	
12 Iodomethane	142	5.439	5.439	(0.692)	16175	14.5076	14.5	
13 Acrolein	56	5.659	5.659	(0.720)	10605	34.3834	34.4	
14 Allyl chloride	76	5.780	5.780	(0.736)	17068	18.5674	18.6	
15 Methylene Chloride	49	5.902	5.902	(0.751)	68398	19.2704	19.3	
16 Acetone	43	5.969	5.969	(0.760)	75155	42.4140	42.4	
17 Methyl acetate	43	6.067	6.067	(0.772)	79476	38.3663	38.4	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	39791	19.7152	19.7	
19 n-Hexane	86	6.110	6.110	(0.777)	4293	20.0729	20.1	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	91825	19.5104	19.5	
21 Acetonitrile	41	6.451	6.451	(0.821)	6421	33.8126	33.8	
22 Chloroprene	53	6.640	6.640	(0.845)	56086	19.9344	19.9	
23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	83957	21.4067	21.4	
24 Acrylonitrile	53	6.732	6.732	(0.857)	34233	40.1744	40.2	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
25 Vinyl acetate	43	6.860	6.860	(0.873)	70545	18.1836	18.2(TM)	CO
26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	55254	19.1162	19.1	
27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	65218	21.5579	21.6	
28 Bromochloromethane	128	7.335	7.335	(0.933)	26147	20.6967	20.7	
29 Cyclohexane	56	7.335	7.335	(0.882)	47239	18.9698	19.0	
30 Chloroform	83	7.372	7.372	(0.938)	94915	21.4026	21.4	
31 Ethyl acetate	43	7.427	7.427	(0.945)	92306	36.8698	36.9	
32 Carbon tetrachloride	117	7.506	7.506	(0.902)	68377	23.2060	23.2	
33 Tetrahydrofuran	42	7.530	7.530	(0.958)	23406	36.3076	36.3	
$ 34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	123116	48.0050	48.0(R)	
35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	74226	22.2327	22.2	
36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	76590	40.0567	40.0	
37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	49595	21.3869	21.4	
* 38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	222751	50.0000		
39 Benzene	78	7.872	7.872	(0.946)	162397	21.6956	21.7	
40 Propionitrile	54	7.896	7.896	(1.005)	13826	36.4215	36.4	
41 Methacrylonitrile	41	7.902	7.902	(1.005)	74952	38.8121	38.8	
42 Isobutanol	43	Compound Not Detected.						(D)
$ 43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21459	46.5117	46.5(R)	
44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	72333	20.7747	20.8	
45 Isopropyl acetate	43	8.134	8.134	(1.035)	75691	18.2519	18.2	
46 Trichloroethene	130	8.317	8.317	(1.000)	45493	22.2295	22.2	
* 47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	292666	50.0000		
48 Methylcyclohexane	98	8.323	8.323	(1.001)	19880	20.4958	20.5	
49 n-Butanol	56	8.530	8.530	(1.026)	1770	39.5688	39.6(M)	WP
50 Dibromomethane	93	8.670	8.670	(1.043)	38443	22.0533	22.0	
51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	44105	20.6379	20.6	
52 Bromodichloromethane	83	8.762	8.762	(1.054)	71473	23.2906	23.3	
53 Methyl methacrylate	69	8.816	8.816	(1.060)	19819	16.4588	16.4	
54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						(D)
55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	32805	30.8758	30.9	
56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	65310	21.8848	21.9	
$ 57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	312434	49.5918	49.6(R)	
58 Toluene	91	9.414	9.414	(1.132)	152837	20.9425	20.9	
59 2-Nitropropane	43	9.603	9.603	(1.155)	11985	16.1836	16.2	
60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	8318	39.7145	39.7	
61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	65310	21.9282	21.9	
62 Tetrachloroethene	164	9.719	9.719	(0.920)	41780	22.3671	22.4	
63 Ethyl methacrylate	69	9.755	9.755	(1.173)	38745	16.8748	16.9	
64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	37550	20.3027	20.3	
65 Dibromochloromethane	129	9.999	9.999	(0.947)	55525	21.4507	21.4	
66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	59349	21.0386	21.0	
67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	45851	20.6525	20.6	
68 2-Hexanone	43	10.274	10.274	(1.235)	106551	43.1253	43.1	
69 Ethylbenzene	91	10.554	10.554	(0.999)	144016	20.2260	20.2	
* 70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	272170	50.0000		
71 Chlorobenzene	112	10.572	10.572	(1.001)	111660	21.2646	21.3	
72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	47890	21.5932	21.6	
73 m&p-Xylene	91	10.651	10.651	(1.009)	242469	39.1654	39.2	
74 o-Xylene	106	10.993	10.993	(1.041)	48000	16.7340	16.7	
75 Styrene	104	11.029	11.029	(1.044)	89532	17.9069	17.9	
76 Bromoform	173	11.103	11.103	(1.051)	50597	20.5740	20.6	
77 n-amyl acetate	43	11.225	11.225	(1.063)	77090	18.0384	18.0	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	108333	48.5000	48.5(R)	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	18292	20.4683	20.5	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	186197	21.3270	21.3	
81 Bromobenzene	156	11.578	11.578	(1.096)	59857	21.7361	21.7	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	61142	20.9969	21.0	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	120951	20.3216	20.3	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	41271	20.0641	20.1	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	40937	19.7362	19.7	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	129720	17.6459	17.6	
87 1,2,3-Trichloropropane	75	11.718	11.718	(1.110)	62417	20.5044	20.5	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	14143	20.1800	20.2(M)	WP
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	114774	16.8577	16.8	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	125329	18.2287	18.2	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	141030	17.3260	17.3	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	114774	16.8577	16.8	
94 1,3-Dichlorobenzene	146	12.285	12.285	(0.996)	96289	20.0689	20.1	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	180250	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	109126	20.1584	20.2	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	123605	19.6789	19.7	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	98610	18.8085	18.8	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.334	(1.081)	10501	17.8140	17.8	
100 Hexachloro-1,3-butadiene	225	13.816	13.816	(1.120)	31005	19.2936	19.3	
101 1,2,4-Trichlorobenzene	180	13.889	13.889	(1.125)	64364	18.1308	18.1	
102 Naphthalene	128	14.193	14.193	(1.150)	97168	14.1933	14.2	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	60714	18.3985	18.4	

QC Flag Legend

T - Target compound detected outside RT window.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

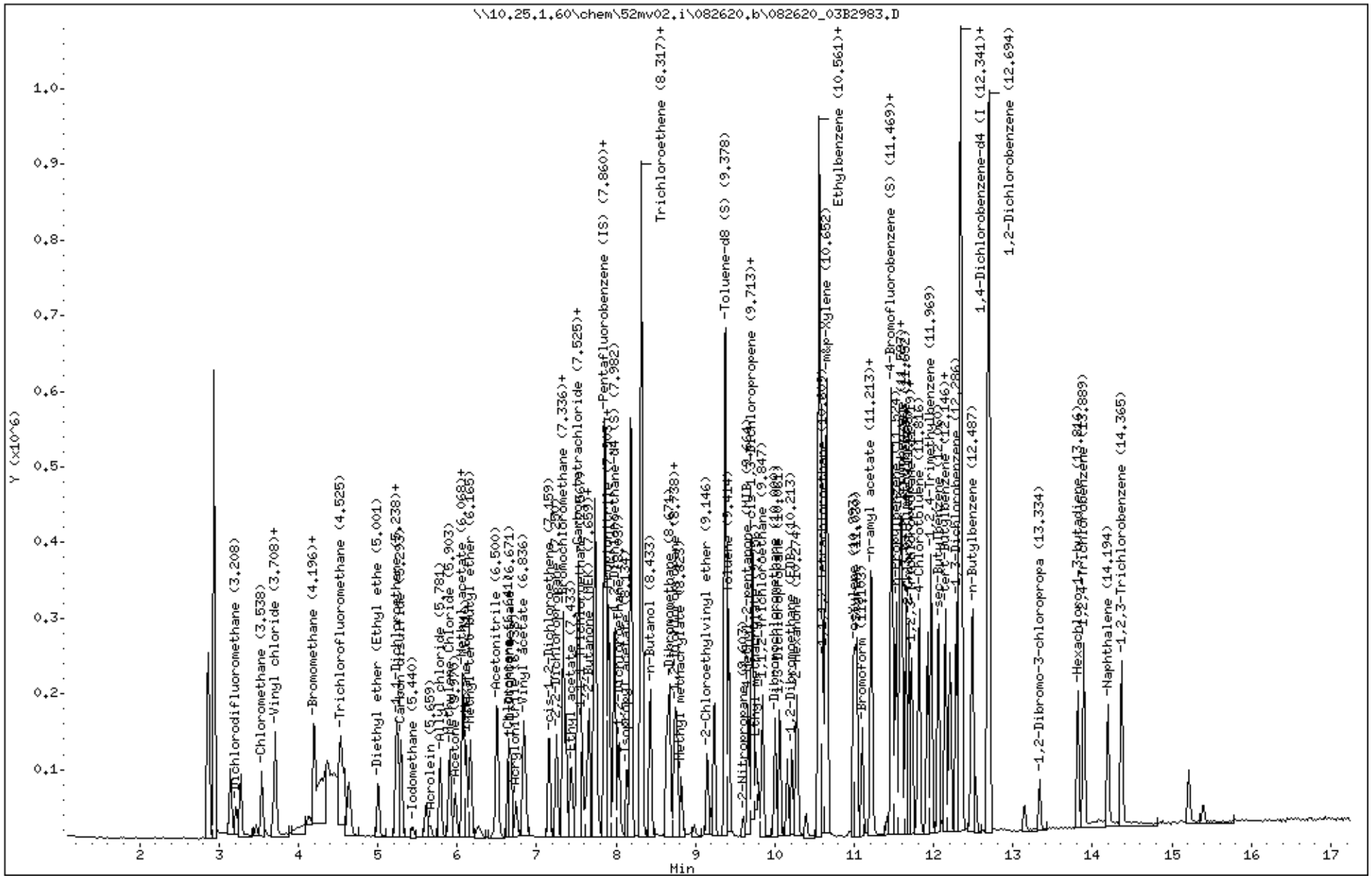
Data File: \\10.25.1.60\chem\52mv02.i\082620.b\082620_03B2983.D
Date : 26-AUG-2020 11:25
Client ID: MBLCS
Sample Info: 204602,

Instrument: 52mv02.i

Operator: EAH

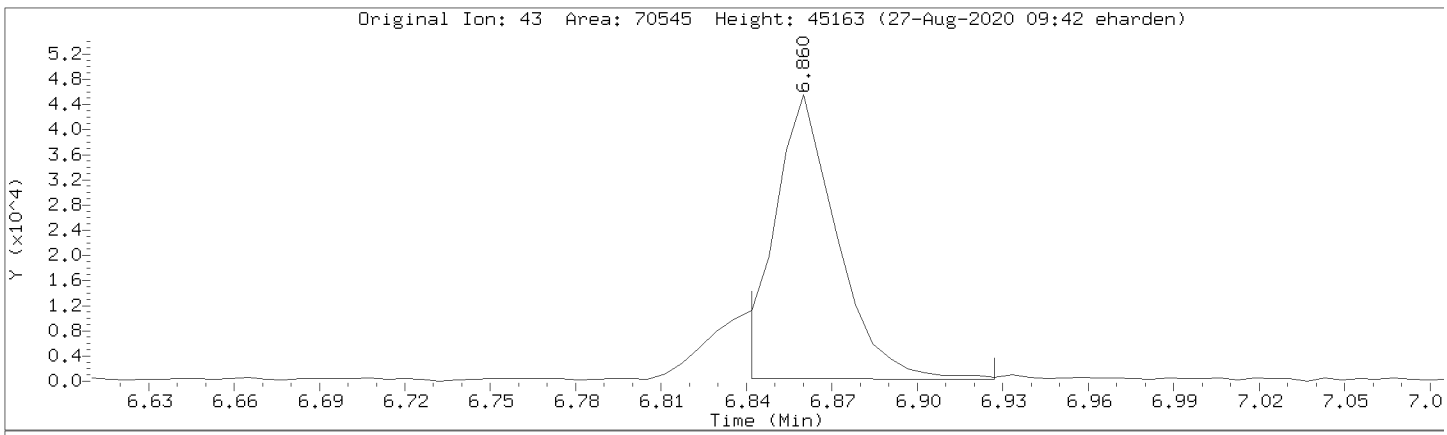
Column phase: RTX-VMS

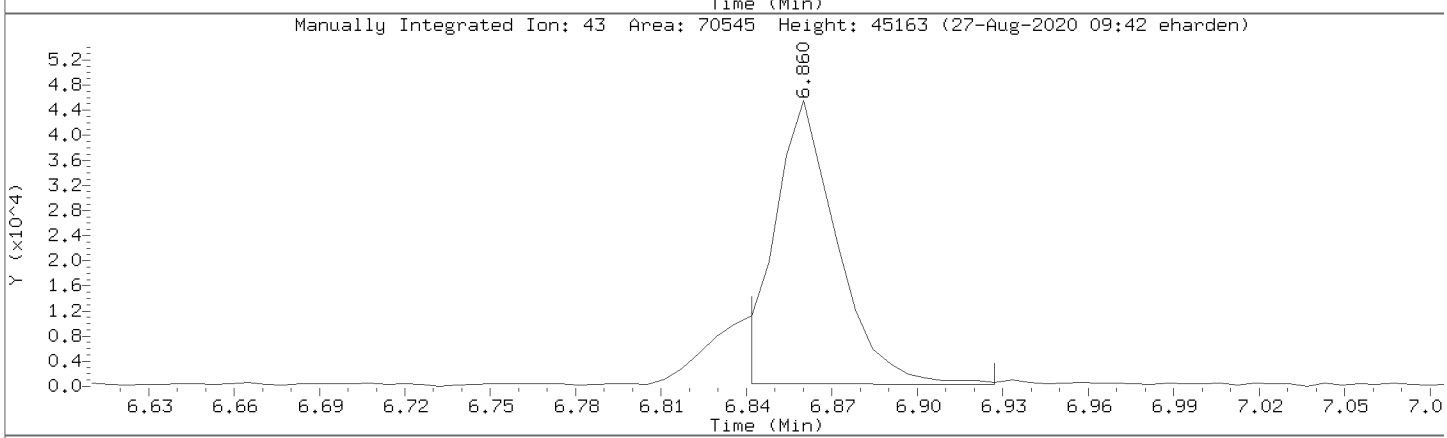
Column diameter: 0.18

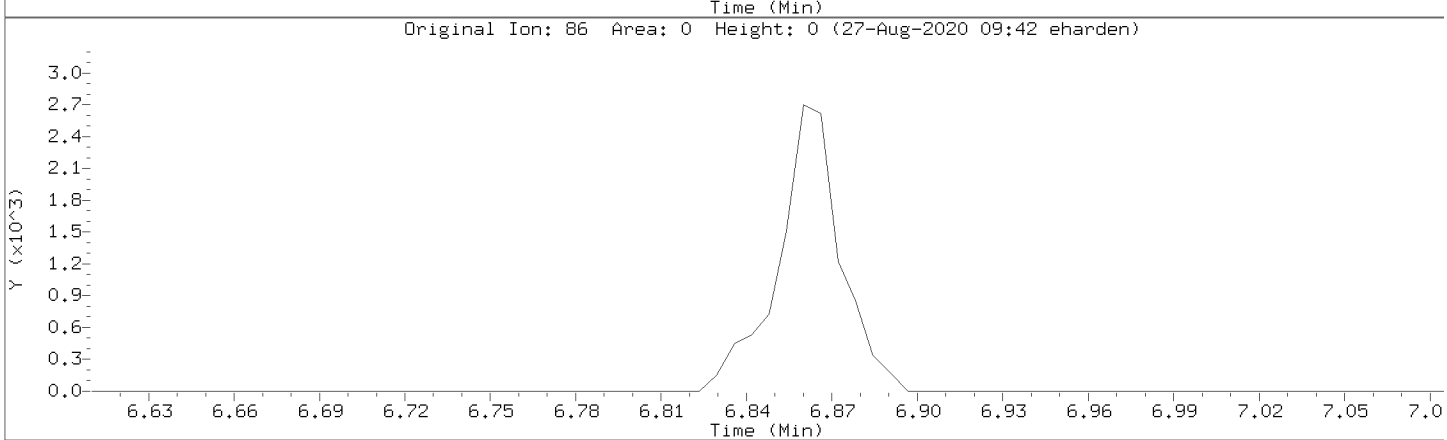


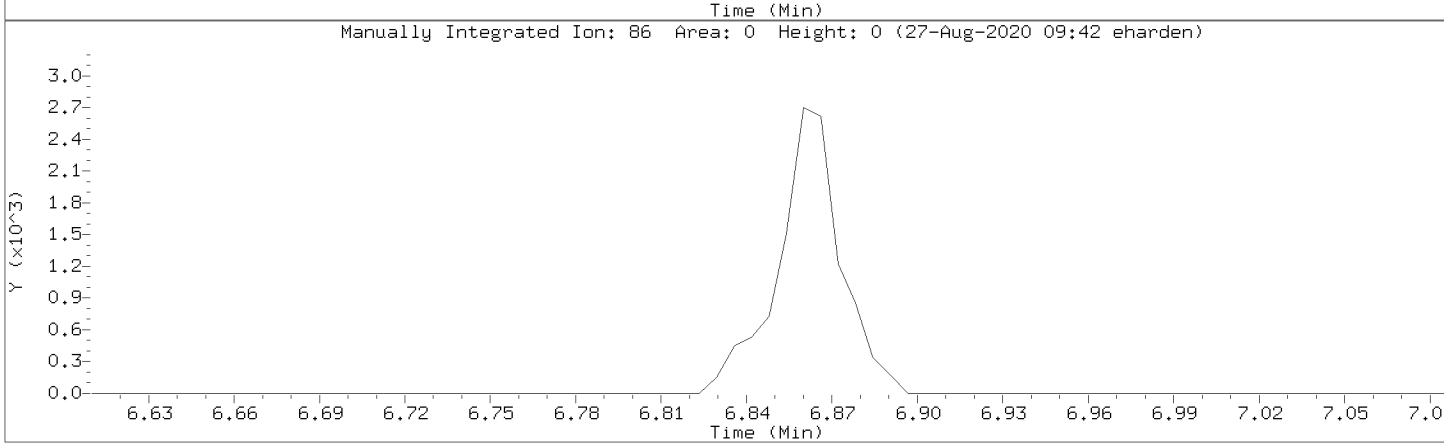
Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_03B2983.D
Injection Date: 26-AUG-2020 11:25
Instrument: 52mv02.i
Lab Sample ID: 204602

Compound: Vinyl acetate Review Code: CO
CAS Number: 108-05-4



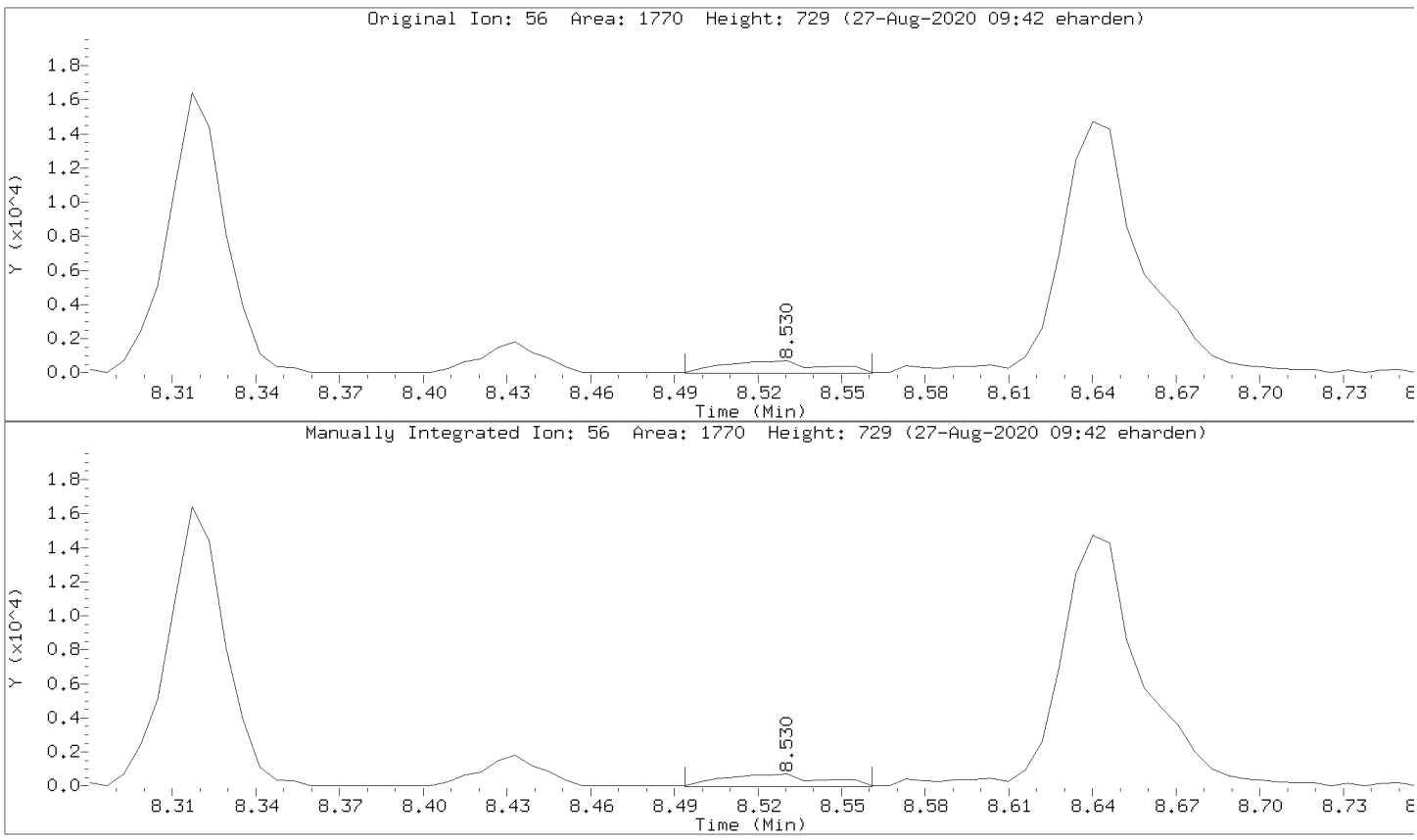






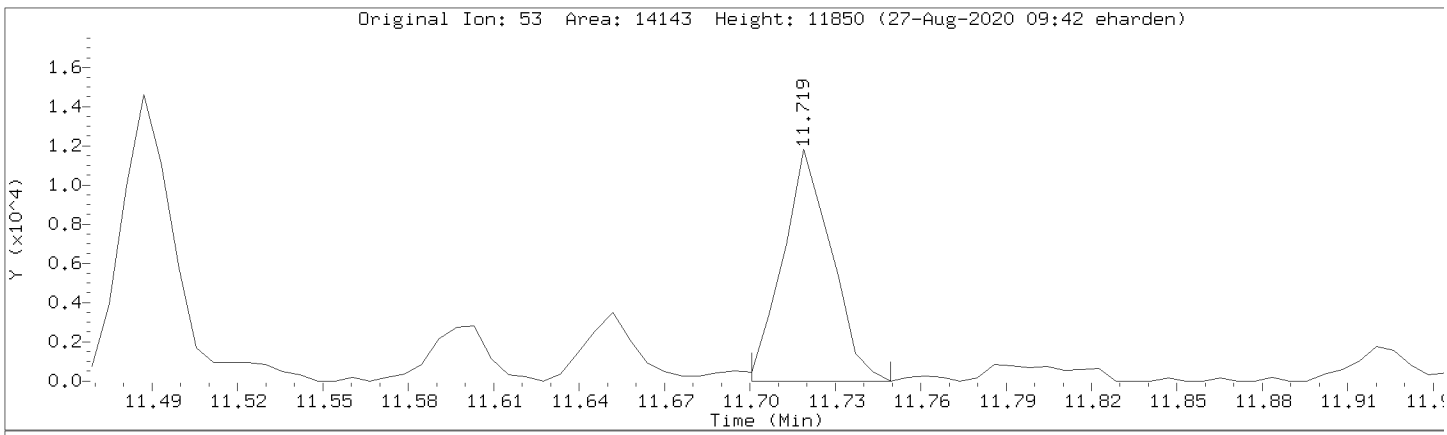
Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_03B2983.D
Injection Date: 26-AUG-2020 11:25
Instrument: 52mv02.i
Lab Sample ID: 204602

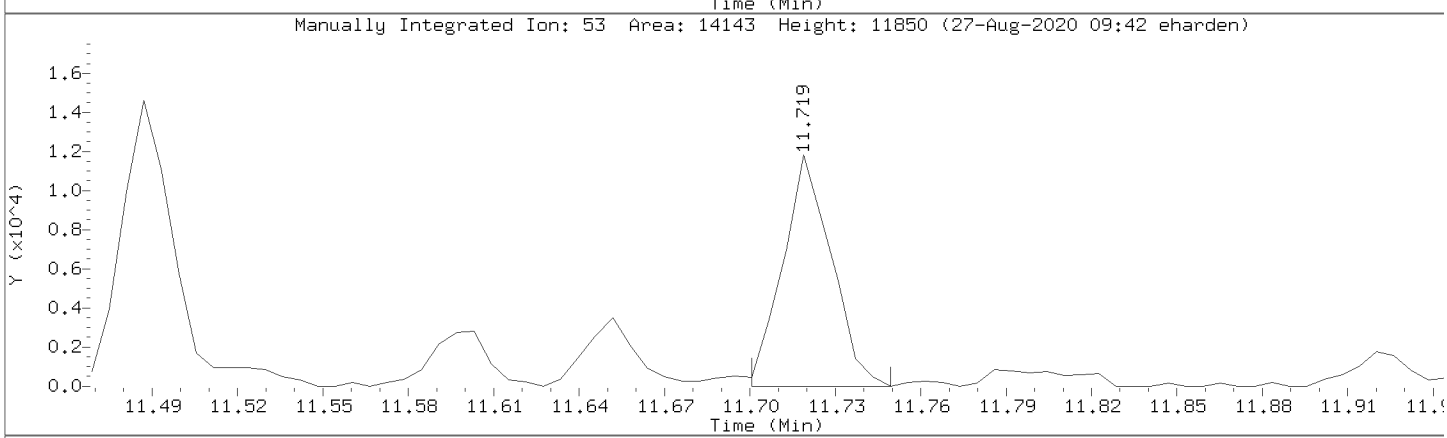
Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3

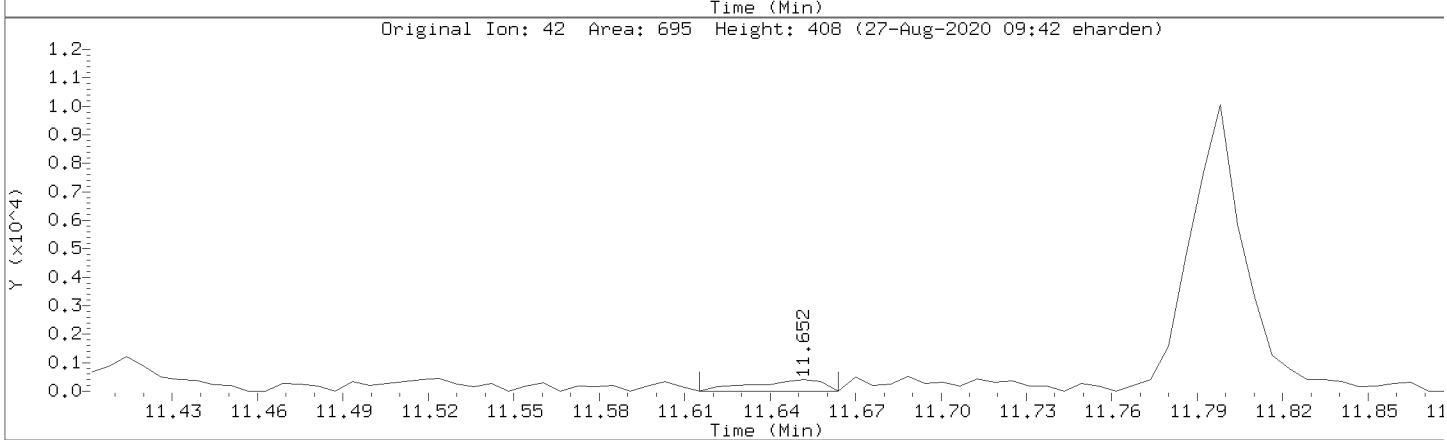


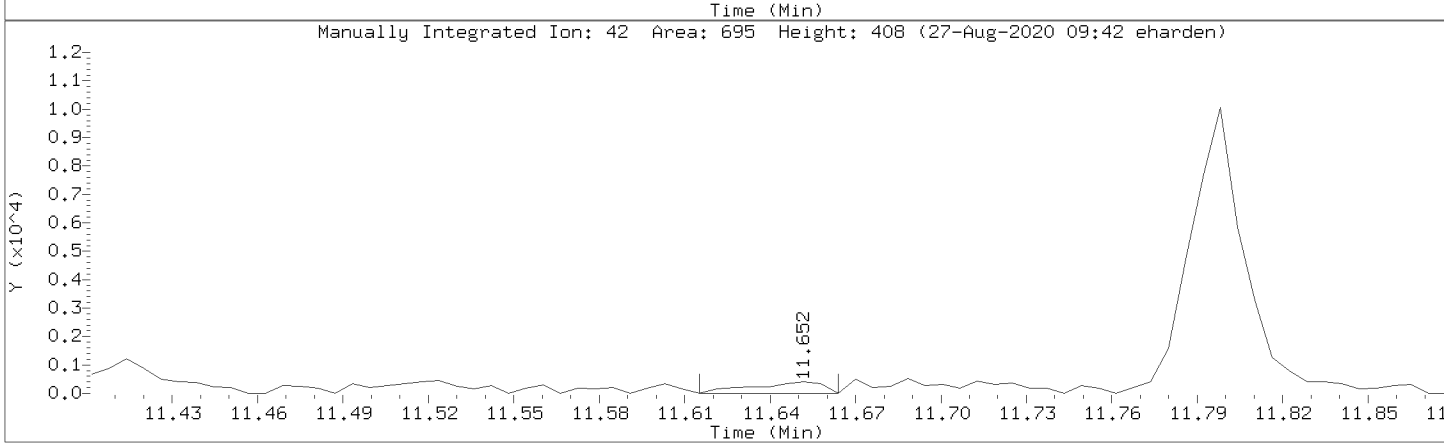
Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_03B2983.D
Injection Date: 26-AUG-2020 11:25
Instrument: 52mv02.i
Lab Sample ID: 204602

Compound: trans-1,4-Dichloro-2-butene Review Code: WP
CAS Number: 110-57-6

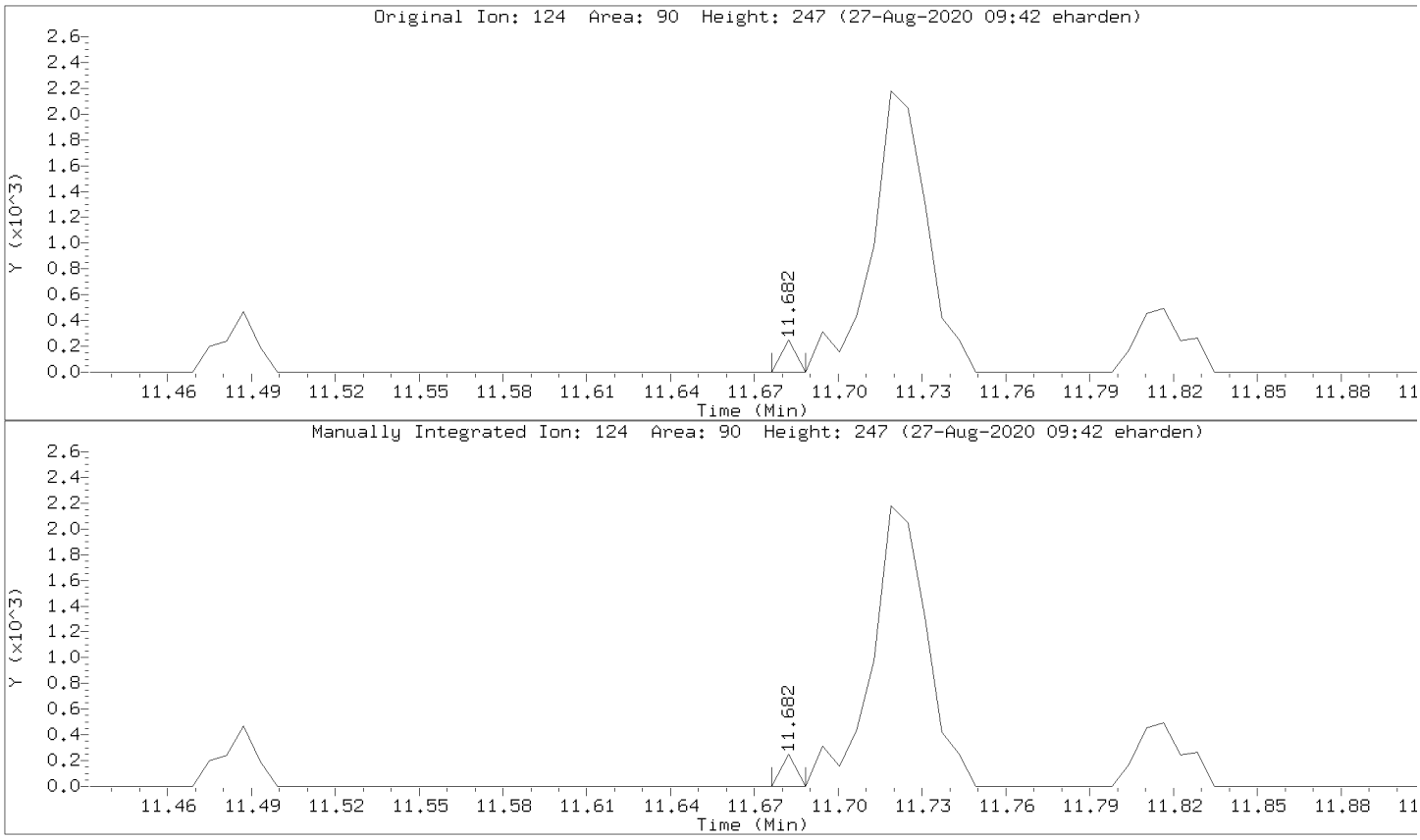








Data File: \\10.25.1.60\chem\52mv02.i\082620.b/082620_03B2983.D
Injection Date: 26-AUG-2020 11:25
Instrument: 52mv02.i
Lab Sample ID: 204602



Prep Log Report

Batch Information: MSV 8260B SM_P 48668

Template Version: EF-DAYT-O-001-Rev.00 (02Nov2018)

Prep Method	EPA 5035A	Analysis Method	EPA 8260B	Prepared By	EAH	Extracted Date/Time	08/26/2020 10:00:19:237
Instrument	52BL11	Ottawa Sand	8940	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Tare Weight (g)	Total Weight (g)	Initial Weight (g)	Final Volume (mL)	Preservation	Sample Notes
8260B SM_P	BLANK	**204601**	0	5	5.0000	5		
8260B SM_P	LCS	**204602**	0	5	5.0000	5		

Prep Log Report

Batch Information: MSV 8260B SM_P 48668 B **Template Version: EF-DAYT-O-001-Rev.00 (02Nov2018)**

Prep Method	EPA 5035A	Analysis Method	EPA 8260B	Prepared By	EAH	Extracted Date/Time	08/26/2020 11:06:53:290
Instrument	52BL11	Ottawa Sand	8940	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Tare Weight (g)	Total Weight (g)	Initial Weight (g)	Final Volume (mL)	Preservation	Sample Notes
8260B SM_P	MS	**204603**	0	5.23	5.2300	5		
8260B SM_P	MSD	**204604**	0	5.03	5.0300	5		
8260B SM_P	PS	**5249328001**	0	5.35	5.3500	5		
8260B SM_P	PS	**5249328002**	0	5.11	5.1100	5		
8260B SM_P	PS	**5249328003**	0	5.08	5.0800	5		
8260B SM_P	PS	**5249328004**	0	5.27	5.2700	5		
8260B SM_P	PS	**5249328005**	0	5.23	5.2300	5		
8260B SM_P	PS	**5249328006**	0	5.23	5.2300	5		
8260B SM_P	PS	**5249328007**	0	5.26	5.2600	5		
8260B SM_P	PS	**5249328008**	0	5.35	5.3500	5		

Prep Log Report

Batch Information: MSV 8260B SM_P 48668 C **Template Version: EF-DAYT-O-001-Rev.00 (02Nov2018)**

Prep Method	EPA 5035A	Analysis Method	EPA 8260B	Prepared By	EAH	Extracted Date/Time	08/26/2020 15:12:01:930
Instrument	52BL11	Ottawa Sand	8940	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Tare Weight (g)	Total Weight (g)	Initial Weight (g)	Final Volume (mL)	Preservation	Sample Notes
8260B SM_P	PS	**5249417001**	0	5.23	5.2300	5		
8260B SM_P	PS	**5249417002**	0	5.24	5.2400	5		
8260B SM_P	PS	**5249417003**	0	5.2	5.2000	5		
8260B SM_P	PS	**5249417004**	0	5.15	5.1500	5		
8260B SM_P	PS	**5249417005**	0	5.08	5.0800	5		
8260B SM_P	PS	**5249417006**	0	5.32	5.3200	5		

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
ISTD lot:
Lot:
Tune std: _____

Method: EPA 524.2
Surr. lot: 26400:1
Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/081920_02.D	TUNE,26558:1,	L/~~2919~~ 2933	BFB	1	7	BFB/all	8/19/20	09:34	EAH	
1/081920_03.D	CCV,27136:1	L/2860	CCALIB_7	1	7	8260BW_071720/	8/19/20	09:59	EAH	
1/081920_03TUNE.D	TUNE	L/2860	BFB	1	7	BFB/all	8/19/20	09:59	EAH	
1/081920_04.D	CCV,27137:1	L/2933	CCALIB_5	1	7	5242W_080720/a	8/19/20	10:24	EAH	
1/081920_04B2955.D	202255,	L/2955	LCS	1	7	5242W_080720/a	8/19/20	10:24	EAH	
1/081920_05.D	0.50 RLC	L/	RLC	1	<2	5242W_080720/a	8/19/20	10:49	EAH	
1/081920_06.D	0.40 RLC	L/	RLC	1	<2	5242W_080720/M	8/19/20	11:14	EAH	
1/081920_07.D	202254,	L/2955	BLANK	1	7	5242W_080720/a	8/19/20	11:39	EAH	
1/081920_08.D	5248591001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	12:06	EAH	
1/081920_09.D	5248591002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	12:32	EAH	
1/081920_10.D	5248591003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	12:57	EAH	
1/081920_11.D	5248591004,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	13:22	EAH	
1/081920_12.D	5248591005,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	13:47	EAH	
1/081920_13.D	5248713001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	14:12	EAH	
1/081920_14.D	5248713002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	14:37	EAH	
1/081920_15.D	5248713003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	15:02	EAH	
1/081920_16.D	5248588001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	15:27	EAH	
1/081920_17.D	5248588002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	15:52	EAH	
1/081920_18.D	5248588003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	16:17	EAH	
1/081920_19.D	5248590001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	16:42	EAH	
1/081920_20.D	5248590002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	17:07	EAH	
1/081920_21.D	5248590003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	17:32	EAH	
1/081920_22.D	5248650001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	17:57	EAH	
1/081920_23.D	5248650002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	18:22	EAH	
1/081920_24.D	5248792001,	L/~~2595~~ 2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	18:48	EAH	
1/081920_25.D	5248792002,	L/~~2595~~ 2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	19:13	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\081920.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 14:51 08/20/2020

Reviewed By/Date: _____ Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
ISTD lot:
Lot:
Tune std: _____

Method: SW846 8260
Surr. lot: 26400:5
Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/082020_01.D	TUNE,26400:1,	L/2957	BFB	1	7	BFB/all	8/20/20	09:57	EAH	
1/082020_02.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	10:23	EAH	
1/082020_03.D	CAL1,27237:1	L/2957	CALIB_1	1	<2	8260BSM_082020	8/20/20	10:50	EAH	
1/082020_04.D	CAL2,27238:1	L/2957	CALIB_2	1	<2	8260BSM_082020	8/20/20	11:15	EAH	
1/082020_05.D	CAL3,27239:1	L/2957	CALIB_3	1	<2	8260BSM_082020	8/20/20	11:40	EAH	
1/082020_06.D	CAL4,27240:1	L/2957	CALIB_4	1	<2	8260BSM_082020	8/20/20	12:05	EAH	
1/082020_07.D	CAL5,27241:1	L/2957	CALIB_5	1	<2	8260BSM_082020	8/20/20	12:30	EAH	
1/082020_08.D	CAL6,27242:1	L/2957	CALIB_6	1	<2	8260BSM_082020	8/20/20	12:55	EAH	
1/082020_09.D	CAL7,27243:1	L/2957	CALIB_7	1	<2	8260BSM_082020	8/20/20	13:20	EAH	
1/082020_10.D	CAL8,27244:1	L/2957	CALIB_8	1	<2	8260BSM_082020	8/20/20	13:45	EAH	
1/082020_11.D	CAL9,27245:1	L/2957	CALIB_9	1	<2	8260BSM_082020	8/20/20	14:11	EAH	
1/082020_12.D	CAL10,27246:1	L/2957	CALIB_10	1	<2	8260BSM_082020	8/20/20	14:36	EAH	
1/082020_13.D	CAL11,27247:1	L/2957	CALIB_11	1	<2	8260BSM_082020	8/20/20	15:01	EAH	
1/082020_14.D	CAL12,27248:1	L/2957	CALIB_12	1	<2	8260BSM_082020	8/20/20	15:26	EAH	
1/082020_15.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	15:51	EAH	
1/082020_16.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	16:16	EAH	
1/082020_17.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	16:41	EAH	
1/082020_18.D	ICV, 27249:1	L/2957	CCALIB_7	1	7	8260BSM_082020	8/20/20	17:06	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\082020.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 11:12 08/21/2020

Reviewed By/Date: _____ Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot:
Lot:
Tune std: _____

Method: SW846 8260

Surr. lot: 26400:5

Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/082520_01.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/25/20	10:18	EAH	
1/082520_02.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/25/20	10:43	EAH	
1/082520_03.D	CCV,27136:1	L/2957	CCALIB_7	1	7	8260BSM_082020	8/25/20	11:08	EAH	
1/082520_03B2977.D	204025,	S/2977	LCS	1		8260BSM_082020	8/25/20	11:08	EAH	
1/082520_03TUNE.D	TUNE,26400:1,	L/2957	BFB	1	7	BFB/all	8/25/20	11:08	EAH	
1/082520_04.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/25/20	11:33	EAH	
1/082520_05.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/25/20	11:58	EAH	
1/082520_06.D	204024,	S/2977	BLANK	1		8260BSM_082020	8/25/20	12:23	EAH	
1/082520_07.D	5249083001,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	12:48	EAH	
1/082520_08.D	5249083002,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	13:14	EAH	
1/082520_09.D	5249083003,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	13:39	EAH	
1/082520_10.D	5249083004,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	14:04	EAH	
1/082520_11.D	5249083005,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	14:29	EAH	
1/082520_12.D	5249198001,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	14:54	EAH	
1/082520_13.D	5249198002,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	15:19	EAH	
1/082520_14.D	5249198003,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	15:44	EAH	
1/082520_15.D	5249198004,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	16:09	EAH	
1/082520_16.D	5249198005,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	16:34	EAH	
1/082520_17.D	5249083006,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	16:59	EAH	
1/082520_18.D	5249083007,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	17:24	EAH	
1/082520_19.D	5249083008,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	17:49	EAH	
1/082520_20.D	5249083009,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	18:14	EAH	
1/082520_21.D	5249083010,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	18:40	EAH	
1/082520_22.D	5249083011,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	19:05	EAH	
1/082520_23.D	5249083012,	S/2977	SAMPLE	1		8260BSM_082020	8/25/20	19:30	EAH	
1/082520_24.D	204026,	S/2977	MS	1		8260BSM_082020	8/25/20	19:55	EAH	
1/082520_25.D	204027,	S/2977	MSD	1		8260BSM_082020	8/25/20	20:20	EAH	
1/082520_26.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/25/20	20:45	EAH	
1/082520_27.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/25/20	21:10	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\082520.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 14:53 08/27/2020

Reviewed By/Date: _____ Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium — Method: SW846 8260
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: — Surr. lot: 26400:5
Lot:
Tune std: _____ — Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/082620_01.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/26/20	10:35	EAH	
1/082620_02.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/26/20	11:00	EAH	
1/082620_03.D	CCV,27136:1	L/2957	CCALIB_7	1	7	8260BSM_082020	8/26/20	11:25	EAH	
1/082620_03B2983.D	204602,	S/2983	LCS	1		8260BSM_082020	8/26/20	11:25	EAH	
1/082620_03TUNE.D	TUNE,26400:1,	L/2957	BFB	1	7	BFB/all	8/26/20	11:25	EAH	
1/082620_04.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/26/20	11:50	EAH	
1/082620_05.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/26/20	12:15	EAH	
1/082620_06.D	204601,	S/2983	BLANK	1		8260BSM_082020	8/26/20	12:40	EAH	
1/082620_07.D	5249328001,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	13:05	EAH	
1/082620_08.D	204603,	S/2983	MS	1		8260BSM_082020	8/26/20	13:30	EAH	
1/082620_09.D	204604,	S/2983	MSD	1		8260BSM_082020	8/26/20	13:55	EAH	
1/082620_10.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/26/20	14:20	EAH	
1/082620_11.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/26/20	14:45	EAH	
1/082620_12.D	5249328002,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	15:11	EAH	
1/082620_13.D	5249328003,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	15:36	EAH	
1/082620_14.D	5249328004,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	16:01	EAH	
1/082620_15.D	5249328005,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	16:26	EAH	
1/082620_16.D	5249328006,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	16:51	EAH	
1/082620_17.D	5249328007,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	17:16	EAH	
1/082620_18.D	5249328008,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	17:41	EAH	
1/082620_19.D	5249417001,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	18:06	EAH	
1/082620_20.D	5249417002,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	18:31	EAH	
1/082620_21.D	5249417003,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	18:56	EAH	
1/082620_22.D	5249417004,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	19:21	EAH	
1/082620_23.D	5249417005,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	19:46	EAH	
1/082620_24.D	5249417006,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	20:11	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced, _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\082620.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:04 08/27/2020

Reviewed By/Date: _____ Page: 1 of 1

Standard Log Report

Standards Log Information for Standard #27466

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/26/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/01/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CCV

Notes:

MSV 8260 CCV

Compound Name and Concentration for Standard #27466

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	20 ug/L	1,1,1-Trichloroethane	20 ug/L
1,1,2,2-Tetrachloroethane	20 ug/L	1,1,2-Trichloroethane	20 ug/L
1,1,2-	20 ug/L	1,1-Dichloroethane	20 ug/L
1,1-Dichloroethene	20 ug/L	1,1-Dichloropropene	20 ug/L
1,2,3-Trichlorobenzene	20 ug/L	1,2,3-Trichloropropane	20 ug/L
1,2,4-Trichlorobenzene	20 ug/L	1,2,4-Trimethylbenzene	20 ug/L
1,2-Dibromo-3-	20 ug/L	1,2-Dibromoethane (EDB)	20 ug/L
1,2-Dichlorobenzene	20 ug/L	1,2-Dichloroethane	20 ug/L
1,2-Dichloropropane	20 ug/L	1,3,5-Trimethylbenzene	20 ug/L
1,3-Butadiene	20 ug/L	1,3-Dichlorobenzene	20 ug/L
1,3-Dichloropropane	20 ug/L	1,4-Dichlorobenzene	20 ug/L
1,4-Dioxane (p-Dioxane)	40 ug/L	2,2-Dichloropropane	20 ug/L
2-Butanone (MEK)	40 ug/L	2-Chloroethylvinyl ether	40 ug/L
2-Chlorotoluene	20 ug/L	2-Hexanone	40 ug/L
2-Nitropropane	20 ug/L	4-Chlorotoluene	20 ug/L
4-Methyl-2-pentanone	40 ug/L	Acetone	40 ug/L
Acetonitrile	40 ug/L	Acrolein	40 ug/L
Acrylonitrile	40 ug/L	Allyl chloride	20 ug/L
Benzene	20 ug/L	Bromobenzene	20 ug/L
Bromochloromethane	20 ug/L	Bromodichloromethane	20 ug/L
Bromoform	20 ug/L	Bromomethane	20 ug/L
Carbon disulfide	20 ug/L	Carbon tetrachloride	20 ug/L
Chlorobenzene	20 ug/L	Chloroethane	20 ug/L
Chloroform	20 ug/L	Chloromethane	20 ug/L
Chloroprene	20 ug/L	Cyclohexane	20 ug/L
DI Water	ug/L	Dibromochloromethane	20 ug/L
Dibromomethane	20 ug/L	Dichlorodifluoromethane	20 ug/L
Diethyl ether (Ethyl ether)	20 ug/L	Ethyl acetate	40 ug/L
Ethyl methacrylate	20 ug/L	Ethylbenzene	20 ug/L
Hexachloro-1,3-butadiene	20 ug/L	Iodomethane	20 ug/L
Isobutanol	40 ug/L	Isopropyl acetate	20 ug/L
Isopropylbenzene	20 ug/L	Methacrylonitrile	40 ug/L
Methanol	ug/L	Methyl acetate	40 ug/L
Methyl acrylate	20 ug/L	Methyl methacrylate	20 ug/L
Methyl-tert-butyl ether	20 ug/L	Methylcyclohexane	20 ug/L
Methylene Chloride	20 ug/L	Naphthalene	20 ug/L
Propionitrile	40 ug/L	Styrene	20 ug/L
TOTAL BTEX	120 ug/L	Tetrachloroethene	20 ug/L
Tetrahydrofuran	40 ug/L	Toluene	20 ug/L
Total Trihalomethanes	80 ug/L	Trichloroethene	20 ug/L
Trichlorofluoromethane	20 ug/L	Vinyl acetate	20 ug/L
Vinyl chloride	20 ug/L	Xylene (Total)	60 ug/L
cis-1,2-Dichloroethene	20 ug/L	cis-1,3-Dichloropropene	20 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
cis-1,4-Dichloro-2-butene	20 ug/L	m&p-Xylene	40 ug/L
n-Butanol	40 ug/L	n-Butylbenzene	20 ug/L
n-Hexane	20 ug/L	n-Propylbenzene	20 ug/L
n-amyl acetate	20 ug/L	o-Xylene	20 ug/L
p-Isopropyltoluene	20 ug/L	sec-Butylbenzene	20 ug/L
tert-Butylbenzene	20 ug/L	trans-1,2-Dichloroethene	20 ug/L
trans-1,3-Dichloropropene	20 ug/L	trans-1,4-Dichloro-2-	20 ug/L

Composed of Information for Standard #27466

Composed of Standard Seq	Volume	Units
27432	0.02	mL
26717	0.02	mL
1	49.96	mL

Standard Log Report

Standards Log Information for Standard #27432

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/25/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/01/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260GAS-SPK

Notes:

MSV 8260 Phenova Primary Gas Spike MIX

Compound Name and Concentration for Standard #27432

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	100 ug/mL	Acrolein	100 ug/mL
Acrylonitrile	100 ug/mL	Bromomethane	50 ug/mL
Chloroethane	50 ug/mL	Chloromethane	50 ug/mL
Dichlorodifluoromethane	50 ug/mL	Methanol	ug/mL
Methyl acetate	100 ug/mL	Trichlorofluoromethane	50 ug/mL
Vinyl acetate	50 ug/mL	Vinyl chloride	50 ug/mL

Composed of Information for Standard #27432

Composed of Standard Seq	Volume	Units
27399	0.625	mL
27397	0.25	mL
27388	23.25	mL
27049	0.625	mL
26387	0.25	mL

Standard Log Report

Standards Log Information for Standard #27399

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522735
Create Date:	08/24/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180018
Expire Date:	09/16/2020	**Manufacturer Lot ID:**	CL15665	**Standard ID:**	ACETATEPSTK

Notes:

MSV Phenova Custom Acetate Mix-Primary Source

Compound Name and Concentration for Standard #27399

Compound Name	Concentration	Compound Name	Concentration
Vinyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #27397

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522733
Create Date:	08/24/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180017
Expire Date:	09/18/2020	**Manufacturer Lot ID:**	CL15670	**Standard ID:**	AcrolienPSTK

Notes:

MSV Phenova Acrolein Stock Standard - Primary

Compound Name and Concentration for Standard #27397

Compound Name	Concentration	Compound Name	Concentration
Acrolein	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #27388

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	522732
Create Date:	08/24/2020	**Manufacturer:**	Fisher Scientific	**Part ID:**	A453-500
Expire Date:	02/20/2021	**Manufacturer Lot ID:**	198331	**Standard ID:**	RGNT179

Notes:

MSV P/T Methanol

Compound Name and Concentration for Standard #27388

Compound Name	Concentration	Compound Name	Concentration
Methanol			

Standard Log Report

Standards Log Information for Standard #27249

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-ICV

Notes:

MSV 8260 ICV

Compound Name and Concentration for Standard #27249

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	20 ug/L	1,1,1-Trichloroethane	20 ug/L
1,1,2,2-Tetrachloroethane	20 ug/L	1,1,2-Trichloroethane	20 ug/L
1,1,2-	20 ug/L	1,1-Dichloroethane	20 ug/L
1,1-Dichloroethene	20 ug/L	1,1-Dichloropropene	20 ug/L
1,2,3-Trichlorobenzene	20 ug/L	1,2,3-Trichloropropane	20 ug/L
1,2,4-Trichlorobenzene	20 ug/L	1,2,4-Trimethylbenzene	20 ug/L
1,2-Dibromo-3-	20 ug/L	1,2-Dibromoethane (EDB)	20 ug/L
1,2-Dichlorobenzene	20 ug/L	1,2-Dichloroethane	20 ug/L
1,2-Dichloropropane	20 ug/L	1,3,5-Trimethylbenzene	20 ug/L
1,3-Butadiene	20 ug/L	1,3-Dichlorobenzene	20 ug/L
1,3-Dichloropropane	20 ug/L	1,4-Dichlorobenzene	20 ug/L
1,4-Dioxane (p-Dioxane)	40 ug/L	2,2-Dichloropropane	20 ug/L
2-Butanone (MEK)	40 ug/L	2-Chloroethylvinyl ether	40 ug/L
2-Chlorotoluene	20 ug/L	2-Hexanone	40 ug/L
2-Nitropropane	20 ug/L	4-Chlorotoluene	20 ug/L
4-Methyl-2-pentanone	40 ug/L	Acetone	40 ug/L
Acetonitrile	40 ug/L	Acrolein	40 ug/L
Acrylonitrile	40 ug/L	Allyl chloride	20 ug/L
Benzene	20 ug/L	Bromobenzene	20 ug/L
Bromochloromethane	20 ug/L	Bromodichloromethane	20 ug/L
Bromoform	20 ug/L	Bromomethane	20 ug/L
Carbon disulfide	20 ug/L	Carbon tetrachloride	20 ug/L
Chlorobenzene	20 ug/L	Chloroethane	20 ug/L
Chloroform	20 ug/L	Chloromethane	20 ug/L
Chloroprene	20 ug/L	Cyclohexane	20 ug/L
Dibromochloromethane	20 ug/L	Dibromomethane	20 ug/L
Dichlorodifluoromethane	20 ug/L	Diethyl ether (Ethyl ether)	20 ug/L
Ethyl acetate	40 ug/L	Ethyl methacrylate	20 ug/L
Ethylbenzene	20 ug/L	Hexachloro-1,3-butadiene	20 ug/L
Iodomethane	20 ug/L	Isobutanol	40 ug/L
Isopropyl acetate	20 ug/L	Isopropylbenzene	20 ug/L
Methacrylonitrile	40 ug/L	Methanol	ug/L
Methyl acetate	40 ug/L	Methyl acrylate	20 ug/L
Methyl methacrylate	20 ug/L	Methyl-tert-butyl ether	20 ug/L
Methylcyclohexane	20 ug/L	Methylene Chloride	20 ug/L
Naphthalene	20 ug/L	Propionitrile	40 ug/L
Styrene	20 ug/L	TOTAL BTEX	120 ug/L
Tetrachloroethene	20 ug/L	Tetrahydrofuran	40 ug/L
Toluene	20 ug/L	Total Trihalomethanes	80 ug/L
Trichloroethene	20 ug/L	Trichlorofluoromethane	20 ug/L
Vinyl acetate	20 ug/L	Vinyl chloride	20 ug/L
Xylene (Total)	60 ug/L	cis-1,2-Dichloroethene	20 ug/L
cis-1,3-Dichloropropene	20 ug/L	cis-1,4-Dichloro-2-butene	20 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	40 ug/L	n-Butanol	40 ug/L
n-Butylbenzene	20 ug/L	n-Hexane	20 ug/L
n-Propylbenzene	20 ug/L	n-amyl acetate	20 ug/L
o-Xylene	20 ug/L	p-Isopropyltoluene	20 ug/L
sec-Butylbenzene	20 ug/L	tert-Butylbenzene	20 ug/L
trans-1,2-Dichloroethene	20 ug/L	trans-1,3-Dichloropropene	20 ug/L
trans-1,4-Dichloro-2-	20 ug/L		

Composed of Information for Standard #27249

Composed of Standard Seq	Volume	Units
27116	0.02	mL
26718	0.02	mL
1	49.96	mL

Standard Log Report

Standards Log Information for Standard #27248

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL12

Notes:

MSV 8260 200PPB

Compound Name and Concentration for Standard #27248

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	200 ug/L	1,1,1-Trichloroethane	200 ug/L
1,1,2,2-Tetrachloroethane	200 ug/L	1,1,2-Trichloroethane	200 ug/L
1,1,2-	200 ug/L	1,1-Dichloroethane	200 ug/L
1,1-Dichloroethene	200 ug/L	1,1-Dichloropropene	200 ug/L
1,2,3-Trichlorobenzene	200 ug/L	1,2,3-Trichloropropane	200 ug/L
1,2,4-Trichlorobenzene	200 ug/L	1,2,4-Trimethylbenzene	200 ug/L
1,2-Dibromo-3-	200 ug/L	1,2-Dibromoethane (EDB)	200 ug/L
1,2-Dichlorobenzene	200 ug/L	1,2-Dichloroethane	200 ug/L
1,2-Dichloropropane	200 ug/L	1,3,5-Trimethylbenzene	200 ug/L
1,3-Butadiene	200 ug/L	1,3-Dichlorobenzene	200 ug/L
1,3-Dichloropropane	200 ug/L	1,4-Dichlorobenzene	200 ug/L
1,4-Dioxane (p-Dioxane)	400 ug/L	2,2-Dichloropropane	200 ug/L
2-Butanone (MEK)	400 ug/L	2-Chloroethylvinyl ether	400 ug/L
2-Chlorotoluene	200 ug/L	2-Hexanone	400 ug/L
2-Nitropropane	200 ug/L	4-Chlorotoluene	200 ug/L
4-Methyl-2-pentanone	400 ug/L	Acetone	400 ug/L
Acetonitrile	400 ug/L	Acrolein	400 ug/L
Acrylonitrile	400 ug/L	Allyl chloride	200 ug/L
Benzene	200 ug/L	Bromobenzene	200 ug/L
Bromochloromethane	200 ug/L	Bromodichloromethane	200 ug/L
Bromoform	200 ug/L	Bromomethane	200 ug/L
Carbon disulfide	200 ug/L	Carbon tetrachloride	200 ug/L
Chlorobenzene	200 ug/L	Chloroethane	200 ug/L
Chloroform	200 ug/L	Chloromethane	200 ug/L
Chloroprene	200 ug/L	Cyclohexane	200 ug/L
Dibromochloromethane	200 ug/L	Dibromomethane	200 ug/L
Dichlorodifluoromethane	200 ug/L	Diethyl ether (Ethyl ether)	200 ug/L
Ethyl acetate	400 ug/L	Ethyl methacrylate	200 ug/L
Ethylbenzene	200 ug/L	Hexachloro-1,3-butadiene	200 ug/L
Iodomethane	200 ug/L	Isobutanol	400 ug/L
Isopropyl acetate	200 ug/L	Isopropylbenzene	200 ug/L
Methacrylonitrile	400 ug/L	Methanol	ug/L
Methyl acetate	400 ug/L	Methyl acrylate	200 ug/L
Methyl methacrylate	200 ug/L	Methyl-tert-butyl ether	200 ug/L
Methylcyclohexane	200 ug/L	Methylene Chloride	200 ug/L
Naphthalene	200 ug/L	Propionitrile	400 ug/L
Styrene	200 ug/L	TOTAL BTEX	1200 ug/L
Tetrachloroethene	200 ug/L	Tetrahydrofuran	400 ug/L
Toluene	200 ug/L	Total Trihalomethanes	800 ug/L
Trichloroethene	200 ug/L	Trichlorofluoromethane	200 ug/L
Vinyl acetate	200 ug/L	Vinyl chloride	200 ug/L
Xylene (Total)	600 ug/L	cis-1,2-Dichloroethene	200 ug/L
cis-1,3-Dichloropropene	200 ug/L	cis-1,4-Dichloro-2-butene	200 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	400 ug/L	n-Butanol	400 ug/L
n-Butylbenzene	200 ug/L	n-Hexane	200 ug/L
n-Propylbenzene	200 ug/L	n-amyl acetate	200 ug/L
o-Xylene	200 ug/L	p-Isopropyltoluene	200 ug/L
sec-Butylbenzene	200 ug/L	tert-Butylbenzene	200 ug/L
trans-1,2-Dichloroethene	200 ug/L	trans-1,3-Dichloropropene	200 ug/L
trans-1,4-Dichloro-2-	200 ug/L		

Composed of Information for Standard #27248

Composed of Standard Seq	Volume	Units
27114	0.2	mL
26717	0.2	mL
1	49.3	mL

Standard Log Report

Standards Log Information for Standard #27247

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL11

Notes:

MSV 8260 150PPB

Compound Name and Concentration for Standard #27247

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	150 ug/L	1,1,1-Trichloroethane	150 ug/L
1,1,2,2-Tetrachloroethane	150 ug/L	1,1,2-Trichloroethane	150 ug/L
1,1,2-	150 ug/L	1,1-Dichloroethane	150 ug/L
1,1-Dichloroethene	150 ug/L	1,1-Dichloropropene	150 ug/L
1,2,3-Trichlorobenzene	150 ug/L	1,2,3-Trichloropropane	150 ug/L
1,2,4-Trichlorobenzene	150 ug/L	1,2,4-Trimethylbenzene	150 ug/L
1,2-Dibromo-3-	150 ug/L	1,2-Dibromoethane (EDB)	150 ug/L
1,2-Dichlorobenzene	150 ug/L	1,2-Dichloroethane	150 ug/L
1,2-Dichloropropane	150 ug/L	1,3,5-Trimethylbenzene	150 ug/L
1,3-Butadiene	150 ug/L	1,3-Dichlorobenzene	150 ug/L
1,3-Dichloropropane	150 ug/L	1,4-Dichlorobenzene	150 ug/L
1,4-Dioxane (p-Dioxane)	300 ug/L	2,2-Dichloropropane	150 ug/L
2-Butanone (MEK)	300 ug/L	2-Chloroethylvinyl ether	300 ug/L
2-Chlorotoluene	150 ug/L	2-Hexanone	300 ug/L
2-Nitropropane	150 ug/L	4-Chlorotoluene	150 ug/L
4-Methyl-2-pentanone	300 ug/L	Acetone	300 ug/L
Acetonitrile	300 ug/L	Acrolein	300 ug/L
Acrylonitrile	300 ug/L	Allyl chloride	150 ug/L
Benzene	150 ug/L	Bromobenzene	150 ug/L
Bromochloromethane	150 ug/L	Bromodichloromethane	150 ug/L
Bromoform	150 ug/L	Bromomethane	150 ug/L
Carbon disulfide	150 ug/L	Carbon tetrachloride	150 ug/L
Chlorobenzene	150 ug/L	Chloroethane	150 ug/L
Chloroform	150 ug/L	Chloromethane	150 ug/L
Chloroprene	150 ug/L	Cyclohexane	150 ug/L
Dibromochloromethane	150 ug/L	Dibromomethane	150 ug/L
Dichlorodifluoromethane	150 ug/L	Diethyl ether (Ethyl ether)	150 ug/L
Ethyl acetate	300 ug/L	Ethyl methacrylate	150 ug/L
Ethylbenzene	150 ug/L	Hexachloro-1,3-butadiene	150 ug/L
Iodomethane	150 ug/L	Isobutanol	300 ug/L
Isopropyl acetate	150 ug/L	Isopropylbenzene	150 ug/L
Methacrylonitrile	300 ug/L	Methanol	ug/L
Methyl acetate	300 ug/L	Methyl acrylate	150 ug/L
Methyl methacrylate	150 ug/L	Methyl-tert-butyl ether	150 ug/L
Methylcyclohexane	150 ug/L	Methylene Chloride	150 ug/L
Naphthalene	150 ug/L	Propionitrile	300 ug/L
Styrene	150 ug/L	TOTAL BTEX	900 ug/L
Tetrachloroethene	150 ug/L	Tetrahydrofuran	300 ug/L
Toluene	150 ug/L	Total Trihalomethanes	600 ug/L
Trichloroethene	150 ug/L	Trichlorofluoromethane	150 ug/L
Vinyl acetate	150 ug/L	Vinyl chloride	150 ug/L
Xylene (Total)	450 ug/L	cis-1,2-Dichloroethene	150 ug/L
cis-1,3-Dichloropropene	150 ug/L	cis-1,4-Dichloro-2-butene	150 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	300 ug/L	n-Butanol	300 ug/L
n-Butylbenzene	150 ug/L	n-Hexane	150 ug/L
n-Propylbenzene	150 ug/L	n-amyl acetate	150 ug/L
o-Xylene	150 ug/L	p-Isopropyltoluene	150 ug/L
sec-Butylbenzene	150 ug/L	tert-Butylbenzene	150 ug/L
trans-1,2-Dichloroethene	150 ug/L	trans-1,3-Dichloropropene	150 ug/L
trans-1,4-Dichloro-2-	150 ug/L		

Composed of Information for Standard #27247

Composed of Standard Seq	Volume	Units
27114	0.15	mL
26717	0.15	mL
1	49.7	mL

Standard Log Report

Standards Log Information for Standard #27246

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL10

Notes:

MSV 8260 100PPB

Compound Name and Concentration for Standard #27246

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	100 ug/L	1,1,1-Trichloroethane	100 ug/L
1,1,2,2-Tetrachloroethane	100 ug/L	1,1,2-Trichloroethane	100 ug/L
1,1,2-	100 ug/L	1,1-Dichloroethane	100 ug/L
1,1-Dichloroethene	100 ug/L	1,1-Dichloropropene	100 ug/L
1,2,3-Trichlorobenzene	100 ug/L	1,2,3-Trichloropropane	100 ug/L
1,2,4-Trichlorobenzene	100 ug/L	1,2,4-Trimethylbenzene	100 ug/L
1,2-Dibromo-3-	100 ug/L	1,2-Dibromoethane (EDB)	100 ug/L
1,2-Dichlorobenzene	100 ug/L	1,2-Dichloroethane	100 ug/L
1,2-Dichloropropane	100 ug/L	1,3,5-Trimethylbenzene	100 ug/L
1,3-Butadiene	100 ug/L	1,3-Dichlorobenzene	100 ug/L
1,3-Dichloropropane	100 ug/L	1,4-Dichlorobenzene	100 ug/L
1,4-Dioxane (p-Dioxane)	200 ug/L	2,2-Dichloropropane	100 ug/L
2-Butanone (MEK)	200 ug/L	2-Chloroethylvinyl ether	200 ug/L
2-Chlorotoluene	100 ug/L	2-Hexanone	200 ug/L
2-Nitropropane	100 ug/L	4-Chlorotoluene	100 ug/L
4-Methyl-2-pentanone	200 ug/L	Acetone	200 ug/L
Acetonitrile	200 ug/L	Acrolein	200 ug/L
Acrylonitrile	200 ug/L	Allyl chloride	100 ug/L
Benzene	100 ug/L	Bromobenzene	100 ug/L
Bromochloromethane	100 ug/L	Bromodichloromethane	100 ug/L
Bromoform	100 ug/L	Bromomethane	100 ug/L
Carbon disulfide	100 ug/L	Carbon tetrachloride	100 ug/L
Chlorobenzene	100 ug/L	Chloroethane	100 ug/L
Chloroform	100 ug/L	Chloromethane	100 ug/L
Chloroprene	100 ug/L	Cyclohexane	100 ug/L
Dibromochloromethane	100 ug/L	Dibromomethane	100 ug/L
Dichlorodifluoromethane	100 ug/L	Diethyl ether (Ethyl ether)	100 ug/L
Ethyl acetate	200 ug/L	Ethyl methacrylate	100 ug/L
Ethylbenzene	100 ug/L	Hexachloro-1,3-butadiene	100 ug/L
Iodomethane	100 ug/L	Isobutanol	200 ug/L
Isopropyl acetate	100 ug/L	Isopropylbenzene	100 ug/L
Methacrylonitrile	200 ug/L	Methanol	ug/L
Methyl acetate	200 ug/L	Methyl acrylate	100 ug/L
Methyl methacrylate	100 ug/L	Methyl-tert-butyl ether	100 ug/L
Methylcyclohexane	100 ug/L	Methylene Chloride	100 ug/L
Naphthalene	100 ug/L	Propionitrile	200 ug/L
Styrene	100 ug/L	TOTAL BTEX	600 ug/L
Tetrachloroethene	100 ug/L	Tetrahydrofuran	200 ug/L
Toluene	100 ug/L	Total Trihalomethanes	400 ug/L
Trichloroethene	100 ug/L	Trichlorofluoromethane	100 ug/L
Vinyl acetate	100 ug/L	Vinyl chloride	100 ug/L
Xylene (Total)	300 ug/L	cis-1,2-Dichloroethene	100 ug/L
cis-1,3-Dichloropropene	100 ug/L	cis-1,4-Dichloro-2-butene	100 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	200 ug/L	n-Butanol	200 ug/L
n-Butylbenzene	100 ug/L	n-Hexane	100 ug/L
n-Propylbenzene	100 ug/L	n-amyl acetate	100 ug/L
o-Xylene	100 ug/L	p-Isopropyltoluene	100 ug/L
sec-Butylbenzene	100 ug/L	tert-Butylbenzene	100 ug/L
trans-1,2-Dichloroethene	100 ug/L	trans-1,3-Dichloropropene	100 ug/L
trans-1,4-Dichloro-2-	100 ug/L		

Composed of Information for Standard #27246

Composed of Standard Seq	Volume	Units
27114	0.1	mL
26717	0.1	mL
1	49.8	mL

Standard Log Report

Standards Log Information for Standard #27245

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL9

Notes:

MSV 8260 75PPB

Compound Name and Concentration for Standard #27245

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	75 ug/L	1,1,1-Trichloroethane	75 ug/L
1,1,2,2-Tetrachloroethane	75 ug/L	1,1,2-Trichloroethane	75 ug/L
1,1,2-	75 ug/L	1,1-Dichloroethane	75 ug/L
1,1-Dichloroethene	75 ug/L	1,1-Dichloropropene	75 ug/L
1,2,3-Trichlorobenzene	75 ug/L	1,2,3-Trichloropropane	75 ug/L
1,2,4-Trichlorobenzene	75 ug/L	1,2,4-Trimethylbenzene	75 ug/L
1,2-Dibromo-3-	75 ug/L	1,2-Dibromoethane (EDB)	75 ug/L
1,2-Dichlorobenzene	75 ug/L	1,2-Dichloroethane	75 ug/L
1,2-Dichloropropane	75 ug/L	1,3,5-Trimethylbenzene	75 ug/L
1,3-Butadiene	75 ug/L	1,3-Dichlorobenzene	75 ug/L
1,3-Dichloropropane	75 ug/L	1,4-Dichlorobenzene	75 ug/L
1,4-Dioxane (p-Dioxane)	150 ug/L	2,2-Dichloropropane	75 ug/L
2-Butanone (MEK)	150 ug/L	2-Chloroethylvinyl ether	150 ug/L
2-Chlorotoluene	75 ug/L	2-Hexanone	150 ug/L
2-Nitropropane	75 ug/L	4-Chlorotoluene	75 ug/L
4-Methyl-2-pentanone	150 ug/L	Acetone	150 ug/L
Acetonitrile	150 ug/L	Acrolein	150 ug/L
Acrylonitrile	150 ug/L	Allyl chloride	75 ug/L
Benzene	75 ug/L	Bromobenzene	75 ug/L
Bromochloromethane	75 ug/L	Bromodichloromethane	75 ug/L
Bromoform	75 ug/L	Bromomethane	75 ug/L
Carbon disulfide	75 ug/L	Carbon tetrachloride	75 ug/L
Chlorobenzene	75 ug/L	Chloroethane	75 ug/L
Chloroform	75 ug/L	Chloromethane	75 ug/L
Chloroprene	75 ug/L	Cyclohexane	75 ug/L
Dibromochloromethane	75 ug/L	Dibromomethane	75 ug/L
Dichlorodifluoromethane	75 ug/L	Diethyl ether (Ethyl ether)	75 ug/L
Ethyl acetate	150 ug/L	Ethyl methacrylate	75 ug/L
Ethylbenzene	75 ug/L	Hexachloro-1,3-butadiene	75 ug/L
Iodomethane	75 ug/L	Isobutanol	150 ug/L
Isopropyl acetate	75 ug/L	Isopropylbenzene	75 ug/L
Methacrylonitrile	150 ug/L	Methanol	ug/L
Methyl acetate	150 ug/L	Methyl acrylate	75 ug/L
Methyl methacrylate	75 ug/L	Methyl-tert-butyl ether	75 ug/L
Methylcyclohexane	75 ug/L	Methylene Chloride	75 ug/L
Naphthalene	75 ug/L	Propionitrile	150 ug/L
Styrene	75 ug/L	TOTAL BTEX	450 ug/L
Tetrachloroethene	75 ug/L	Tetrahydrofuran	150 ug/L
Toluene	75 ug/L	Total Trihalomethanes	300 ug/L
Trichloroethene	75 ug/L	Trichlorofluoromethane	75 ug/L
Vinyl acetate	75 ug/L	Vinyl chloride	75 ug/L
Xylene (Total)	225 ug/L	cis-1,2-Dichloroethene	75 ug/L
cis-1,3-Dichloropropene	75 ug/L	cis-1,4-Dichloro-2-butene	75 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	150 ug/L	n-Butanol	150 ug/L
n-Butylbenzene	75 ug/L	n-Hexane	75 ug/L
n-Propylbenzene	75 ug/L	n-amyl acetate	75 ug/L
o-Xylene	75 ug/L	p-Isopropyltoluene	75 ug/L
sec-Butylbenzene	75 ug/L	tert-Butylbenzene	75 ug/L
trans-1,2-Dichloroethene	75 ug/L	trans-1,3-Dichloropropene	75 ug/L
trans-1,4-Dichloro-2-	75 ug/L		

Composed of Information for Standard #27245

Composed of Standard Seq	Volume	Units
27114	0.075	mL
26717	0.075	mL
1	49.85	mL

Standard Log Report

Standards Log Information for Standard #27244

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL8

Notes:

MSV 8260 50PPB

Compound Name and Concentration for Standard #27244

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	50 ug/L	1,1,1-Trichloroethane	50 ug/L
1,1,2,2-Tetrachloroethane	50 ug/L	1,1,2-Trichloroethane	50 ug/L
1,1,2-	50 ug/L	1,1-Dichloroethane	50 ug/L
1,1-Dichloroethene	50 ug/L	1,1-Dichloropropene	50 ug/L
1,2,3-Trichlorobenzene	50 ug/L	1,2,3-Trichloropropane	50 ug/L
1,2,4-Trichlorobenzene	50 ug/L	1,2,4-Trimethylbenzene	50 ug/L
1,2-Dibromo-3-	50 ug/L	1,2-Dibromoethane (EDB)	50 ug/L
1,2-Dichlorobenzene	50 ug/L	1,2-Dichloroethane	50 ug/L
1,2-Dichloropropane	50 ug/L	1,3,5-Trimethylbenzene	50 ug/L
1,3-Butadiene	50 ug/L	1,3-Dichlorobenzene	50 ug/L
1,3-Dichloropropane	50 ug/L	1,4-Dichlorobenzene	50 ug/L
1,4-Dioxane (p-Dioxane)	100 ug/L	2,2-Dichloropropane	50 ug/L
2-Butanone (MEK)	100 ug/L	2-Chloroethylvinyl ether	100 ug/L
2-Chlorotoluene	50 ug/L	2-Hexanone	100 ug/L
2-Nitropropane	50 ug/L	4-Chlorotoluene	50 ug/L
4-Methyl-2-pentanone	100 ug/L	Acetone	100 ug/L
Acetonitrile	100 ug/L	Acrolein	100 ug/L
Acrylonitrile	100 ug/L	Allyl chloride	50 ug/L
Benzene	50 ug/L	Bromobenzene	50 ug/L
Bromochloromethane	50 ug/L	Bromodichloromethane	50 ug/L
Bromoform	50 ug/L	Bromomethane	50 ug/L
Carbon disulfide	50 ug/L	Carbon tetrachloride	50 ug/L
Chlorobenzene	50 ug/L	Chloroethane	50 ug/L
Chloroform	50 ug/L	Chloromethane	50 ug/L
Chloroprene	50 ug/L	Cyclohexane	50 ug/L
Dibromochloromethane	50 ug/L	Dibromomethane	50 ug/L
Dichlorodifluoromethane	50 ug/L	Diethyl ether (Ethyl ether)	50 ug/L
Ethyl acetate	100 ug/L	Ethyl methacrylate	50 ug/L
Ethylbenzene	50 ug/L	Hexachloro-1,3-butadiene	50 ug/L
Iodomethane	50 ug/L	Isobutanol	100 ug/L
Isopropyl acetate	50 ug/L	Isopropylbenzene	50 ug/L
Methacrylonitrile	100 ug/L	Methanol	ug/L
Methyl acetate	100 ug/L	Methyl acrylate	50 ug/L
Methyl methacrylate	50 ug/L	Methyl-tert-butyl ether	50 ug/L
Methylcyclohexane	50 ug/L	Methylene Chloride	50 ug/L
Naphthalene	50 ug/L	Propionitrile	100 ug/L
Styrene	50 ug/L	TOTAL BTEX	300 ug/L
Tetrachloroethene	50 ug/L	Tetrahydrofuran	100 ug/L
Toluene	50 ug/L	Total Trihalomethanes	200 ug/L
Trichloroethene	50 ug/L	Trichlorofluoromethane	50 ug/L
Vinyl acetate	50 ug/L	Vinyl chloride	50 ug/L
Xylene (Total)	150 ug/L	cis-1,2-Dichloroethene	50 ug/L
cis-1,3-Dichloropropene	50 ug/L	cis-1,4-Dichloro-2-butene	50 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	100 ug/L	n-Butanol	100 ug/L
n-Butylbenzene	50 ug/L	n-Hexane	50 ug/L
n-Propylbenzene	50 ug/L	n-amyl acetate	50 ug/L
o-Xylene	50 ug/L	p-Isopropyltoluene	50 ug/L
sec-Butylbenzene	50 ug/L	tert-Butylbenzene	50 ug/L
trans-1,2-Dichloroethene	50 ug/L	trans-1,3-Dichloropropene	50 ug/L
trans-1,4-Dichloro-2-	50 ug/L		

Composed of Information for Standard #27244

Composed of Standard Seq	Volume	Units
27114	0.05	mL
26717	0.05	mL
1	49.9	mL

Standard Log Report

Standards Log Information for Standard #27243

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL7

Notes:

MSV 8260 20PPB

Compound Name and Concentration for Standard #27243

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	20 ug/L	1,1,1-Trichloroethane	20 ug/L
1,1,2,2-Tetrachloroethane	20 ug/L	1,1,2-Trichloroethane	20 ug/L
1,1,2-	20 ug/L	1,1-Dichloroethane	20 ug/L
1,1-Dichloroethene	20 ug/L	1,1-Dichloropropene	20 ug/L
1,2,3-Trichlorobenzene	20 ug/L	1,2,3-Trichloropropane	20 ug/L
1,2,4-Trichlorobenzene	20 ug/L	1,2,4-Trimethylbenzene	20 ug/L
1,2-Dibromo-3-	20 ug/L	1,2-Dibromoethane (EDB)	20 ug/L
1,2-Dichlorobenzene	20 ug/L	1,2-Dichloroethane	20 ug/L
1,2-Dichloropropane	20 ug/L	1,3,5-Trimethylbenzene	20 ug/L
1,3-Butadiene	20 ug/L	1,3-Dichlorobenzene	20 ug/L
1,3-Dichloropropane	20 ug/L	1,4-Dichlorobenzene	20 ug/L
1,4-Dioxane (p-Dioxane)	40 ug/L	2,2-Dichloropropane	20 ug/L
2-Butanone (MEK)	40 ug/L	2-Chloroethylvinyl ether	40 ug/L
2-Chlorotoluene	20 ug/L	2-Hexanone	40 ug/L
2-Nitropropane	20 ug/L	4-Chlorotoluene	20 ug/L
4-Methyl-2-pentanone	40 ug/L	Acetone	40 ug/L
Acetonitrile	40 ug/L	Acrolein	40 ug/L
Acrylonitrile	40 ug/L	Allyl chloride	20 ug/L
Benzene	20 ug/L	Bromobenzene	20 ug/L
Bromochloromethane	20 ug/L	Bromodichloromethane	20 ug/L
Bromoform	20 ug/L	Bromomethane	20 ug/L
Carbon disulfide	20 ug/L	Carbon tetrachloride	20 ug/L
Chlorobenzene	20 ug/L	Chloroethane	20 ug/L
Chloroform	20 ug/L	Chloromethane	20 ug/L
Chloroprene	20 ug/L	Cyclohexane	20 ug/L
Dibromochloromethane	20 ug/L	Dibromomethane	20 ug/L
Dichlorodifluoromethane	20 ug/L	Diethyl ether (Ethyl ether)	20 ug/L
Ethyl acetate	40 ug/L	Ethyl methacrylate	20 ug/L
Ethylbenzene	20 ug/L	Hexachloro-1,3-butadiene	20 ug/L
Iodomethane	20 ug/L	Isobutanol	40 ug/L
Isopropyl acetate	20 ug/L	Isopropylbenzene	20 ug/L
Methacrylonitrile	40 ug/L	Methanol	ug/L
Methyl acetate	40 ug/L	Methyl acrylate	20 ug/L
Methyl methacrylate	20 ug/L	Methyl-tert-butyl ether	20 ug/L
Methylcyclohexane	20 ug/L	Methylene Chloride	20 ug/L
Naphthalene	20 ug/L	Propionitrile	40 ug/L
Styrene	20 ug/L	TOTAL BTEX	120 ug/L
Tetrachloroethene	20 ug/L	Tetrahydrofuran	40 ug/L
Toluene	20 ug/L	Total Trihalomethanes	80 ug/L
Trichloroethene	20 ug/L	Trichlorofluoromethane	20 ug/L
Vinyl acetate	20 ug/L	Vinyl chloride	20 ug/L
Xylene (Total)	60 ug/L	cis-1,2-Dichloroethene	20 ug/L
cis-1,3-Dichloropropene	20 ug/L	cis-1,4-Dichloro-2-butene	20 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	40 ug/L	n-Butanol	40 ug/L
n-Butylbenzene	20 ug/L	n-Hexane	20 ug/L
n-Propylbenzene	20 ug/L	n-amyl acetate	20 ug/L
o-Xylene	20 ug/L	p-Isopropyltoluene	20 ug/L
sec-Butylbenzene	20 ug/L	tert-Butylbenzene	20 ug/L
trans-1,2-Dichloroethene	20 ug/L	trans-1,3-Dichloropropene	20 ug/L
trans-1,4-Dichloro-2-	20 ug/L		

Composed of Information for Standard #27243

Composed of Standard Seq	Volume	Units
27114	0.02	mL
26717	0.02	mL
1	49.96	mL

Standard Log Report

Standards Log Information for Standard #27242

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL6

Notes:

MSV 8260 10PPB

Compound Name and Concentration for Standard #27242

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	10 ug/L	1,1,1-Trichloroethane	10 ug/L
1,1,2,2-Tetrachloroethane	10 ug/L	1,1,2-Trichloroethane	10 ug/L
1,1,2-	10 ug/L	1,1-Dichloroethane	10 ug/L
1,1-Dichloroethene	10 ug/L	1,1-Dichloropropene	10 ug/L
1,2,3-Trichlorobenzene	10 ug/L	1,2,3-Trichloropropane	10 ug/L
1,2,4-Trichlorobenzene	10 ug/L	1,2,4-Trimethylbenzene	10 ug/L
1,2-Dibromo-3-	10 ug/L	1,2-Dibromoethane (EDB)	10 ug/L
1,2-Dichlorobenzene	10 ug/L	1,2-Dichloroethane	10 ug/L
1,2-Dichloropropane	10 ug/L	1,3,5-Trimethylbenzene	10 ug/L
1,3-Butadiene	10 ug/L	1,3-Dichlorobenzene	10 ug/L
1,3-Dichloropropane	10 ug/L	1,4-Dichlorobenzene	10 ug/L
1,4-Dioxane (p-Dioxane)	20 ug/L	2,2-Dichloropropane	10 ug/L
2-Butanone (MEK)	20 ug/L	2-Chloroethylvinyl ether	20 ug/L
2-Chlorotoluene	10 ug/L	2-Hexanone	20 ug/L
2-Nitropropane	10 ug/L	4-Chlorotoluene	10 ug/L
4-Methyl-2-pentanone	20 ug/L	Acetone	20 ug/L
Acetonitrile	20 ug/L	Acrolein	20 ug/L
Acrylonitrile	20 ug/L	Allyl chloride	10 ug/L
Benzene	10 ug/L	Bromobenzene	10 ug/L
Bromochloromethane	10 ug/L	Bromodichloromethane	10 ug/L
Bromoform	10 ug/L	Bromomethane	10 ug/L
Carbon disulfide	10 ug/L	Carbon tetrachloride	10 ug/L
Chlorobenzene	10 ug/L	Chloroethane	10 ug/L
Chloroform	10 ug/L	Chloromethane	10 ug/L
Chloroprene	10 ug/L	Cyclohexane	10 ug/L
Dibromochloromethane	10 ug/L	Dibromomethane	10 ug/L
Dichlorodifluoromethane	10 ug/L	Diethyl ether (Ethyl ether)	10 ug/L
Ethyl acetate	20 ug/L	Ethyl methacrylate	10 ug/L
Ethylbenzene	10 ug/L	Hexachloro-1,3-butadiene	10 ug/L
Iodomethane	10 ug/L	Isobutanol	20 ug/L
Isopropyl acetate	10 ug/L	Isopropylbenzene	10 ug/L
Methacrylonitrile	20 ug/L	Methanol	ug/L
Methyl acetate	20 ug/L	Methyl acrylate	10 ug/L
Methyl methacrylate	10 ug/L	Methyl-tert-butyl ether	10 ug/L
Methylcyclohexane	10 ug/L	Methylene Chloride	10 ug/L
Naphthalene	10 ug/L	Propionitrile	20 ug/L
Styrene	10 ug/L	TOTAL BTEX	60 ug/L
Tetrachloroethene	10 ug/L	Tetrahydrofuran	20 ug/L
Toluene	10 ug/L	Total Trihalomethanes	40 ug/L
Trichloroethene	10 ug/L	Trichlorofluoromethane	10 ug/L
Vinyl acetate	10 ug/L	Vinyl chloride	10 ug/L
Xylene (Total)	30 ug/L	cis-1,2-Dichloroethene	10 ug/L
cis-1,3-Dichloropropene	10 ug/L	cis-1,4-Dichloro-2-butene	10 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	20 ug/L	n-Butanol	20 ug/L
n-Butylbenzene	10 ug/L	n-Hexane	10 ug/L
n-Propylbenzene	10 ug/L	n-amyl acetate	10 ug/L
o-Xylene	10 ug/L	p-Isopropyltoluene	10 ug/L
sec-Butylbenzene	10 ug/L	tert-Butylbenzene	10 ug/L
trans-1,2-Dichloroethene	10 ug/L	trans-1,3-Dichloropropene	10 ug/L
trans-1,4-Dichloro-2-	10 ug/L		

Composed of Information for Standard #27242

Composed of Standard Seq	Volume	Units
27114	0.01	mL
26717	0.01	mL
1	49.98	mL

Standard Log Report

Standards Log Information for Standard #27241

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL5

Notes:

MSV 8260 5PPB

Compound Name and Concentration for Standard #27241

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	5 ug/L	1,1,1-Trichloroethane	5 ug/L
1,1,2,2-Tetrachloroethane	5 ug/L	1,1,2-Trichloroethane	5 ug/L
1,1,2-	5 ug/L	1,1-Dichloroethane	5 ug/L
1,1-Dichloroethene	5 ug/L	1,1-Dichloropropene	5 ug/L
1,2,3-Trichlorobenzene	5 ug/L	1,2,3-Trichloropropane	5 ug/L
1,2,4-Trichlorobenzene	5 ug/L	1,2,4-Trimethylbenzene	5 ug/L
1,2-Dibromo-3-	5 ug/L	1,2-Dibromoethane (EDB)	5 ug/L
1,2-Dichlorobenzene	5 ug/L	1,2-Dichloroethane	5 ug/L
1,2-Dichloropropane	5 ug/L	1,3,5-Trimethylbenzene	5 ug/L
1,3-Butadiene	5 ug/L	1,3-Dichlorobenzene	5 ug/L
1,3-Dichloropropane	5 ug/L	1,4-Dichlorobenzene	5 ug/L
1,4-Dioxane (p-Dioxane)	10 ug/L	2,2-Dichloropropane	5 ug/L
2-Butanone (MEK)	10 ug/L	2-Chloroethylvinyl ether	10 ug/L
2-Chlorotoluene	5 ug/L	2-Hexanone	10 ug/L
2-Nitropropane	5 ug/L	4-Chlorotoluene	5 ug/L
4-Methyl-2-pentanone	10 ug/L	Acetone	10 ug/L
Acetonitrile	10 ug/L	Acrolein	10 ug/L
Acrylonitrile	10 ug/L	Allyl chloride	5 ug/L
Benzene	5 ug/L	Bromobenzene	5 ug/L
Bromochloromethane	5 ug/L	Bromodichloromethane	5 ug/L
Bromoform	5 ug/L	Bromomethane	5 ug/L
Carbon disulfide	5 ug/L	Carbon tetrachloride	5 ug/L
Chlorobenzene	5 ug/L	Chloroethane	5 ug/L
Chloroform	5 ug/L	Chloromethane	5 ug/L
Chloroprene	5 ug/L	Cyclohexane	5 ug/L
Dibromochloromethane	5 ug/L	Dibromomethane	5 ug/L
Dichlorodifluoromethane	5 ug/L	Diethyl ether (Ethyl ether)	5 ug/L
Ethyl acetate	10 ug/L	Ethyl methacrylate	5 ug/L
Ethylbenzene	5 ug/L	Hexachloro-1,3-butadiene	5 ug/L
Iodomethane	5 ug/L	Isobutanol	10 ug/L
Isopropyl acetate	5 ug/L	Isopropylbenzene	5 ug/L
Methacrylonitrile	10 ug/L	Methanol	ug/L
Methyl acetate	10 ug/L	Methyl acrylate	5 ug/L
Methyl methacrylate	5 ug/L	Methyl-tert-butyl ether	5 ug/L
Methylcyclohexane	5 ug/L	Methylene Chloride	5 ug/L
Naphthalene	5 ug/L	Propionitrile	10 ug/L
Styrene	5 ug/L	TOTAL BTEX	30 ug/L
Tetrachloroethene	5 ug/L	Tetrahydrofuran	10 ug/L
Toluene	5 ug/L	Total Trihalomethanes	20 ug/L
Trichloroethene	5 ug/L	Trichlorofluoromethane	5 ug/L
Vinyl acetate	5 ug/L	Vinyl chloride	5 ug/L
Xylene (Total)	15 ug/L	cis-1,2-Dichloroethene	5 ug/L
cis-1,3-Dichloropropene	5 ug/L	cis-1,4-Dichloro-2-butene	5 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	10 ug/L	n-Butanol	10 ug/L
n-Butylbenzene	5 ug/L	n-Hexane	5 ug/L
n-Propylbenzene	5 ug/L	n-amyl acetate	5 ug/L
o-Xylene	5 ug/L	p-Isopropyltoluene	5 ug/L
sec-Butylbenzene	5 ug/L	tert-Butylbenzene	5 ug/L
trans-1,2-Dichloroethene	5 ug/L	trans-1,3-Dichloropropene	5 ug/L
trans-1,4-Dichloro-2-	5 ug/L		

Composed of Information for Standard #27241

Composed of Standard Seq	Volume	Units
27114	0.005	mL
26717	0.005	mL
1	49.99	mL

Standard Log Report

Standards Log Information for Standard #27240

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL4

Notes:

MSV 8260 2PPB

Compound Name and Concentration for Standard #27240

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	2 ug/L	1,1,1-Trichloroethane	2 ug/L
1,1,2,2-Tetrachloroethane	2 ug/L	1,1,2-Trichloroethane	2 ug/L
1,1,2-	2 ug/L	1,1-Dichloroethane	2 ug/L
1,1-Dichloroethene	2 ug/L	1,1-Dichloropropene	2 ug/L
1,2,3-Trichlorobenzene	2 ug/L	1,2,3-Trichloropropane	2 ug/L
1,2,4-Trichlorobenzene	2 ug/L	1,2,4-Trimethylbenzene	2 ug/L
1,2-Dibromo-3-	2 ug/L	1,2-Dibromoethane (EDB)	2 ug/L
1,2-Dichlorobenzene	2 ug/L	1,2-Dichloroethane	2 ug/L
1,2-Dichloropropane	2 ug/L	1,3,5-Trimethylbenzene	2 ug/L
1,3-Butadiene	2 ug/L	1,3-Dichlorobenzene	2 ug/L
1,3-Dichloropropane	2 ug/L	1,4-Dichlorobenzene	2 ug/L
1,4-Dioxane (p-Dioxane)	4 ug/L	2,2-Dichloropropane	2 ug/L
2-Butanone (MEK)	4 ug/L	2-Chloroethylvinyl ether	4 ug/L
2-Chlorotoluene	2 ug/L	2-Hexanone	4 ug/L
2-Nitropropane	2 ug/L	4-Chlorotoluene	2 ug/L
4-Methyl-2-pentanone	4 ug/L	Acetone	4 ug/L
Acetonitrile	4 ug/L	Acrolein	4 ug/L
Acrylonitrile	4 ug/L	Allyl chloride	2 ug/L
Benzene	2 ug/L	Bromobenzene	2 ug/L
Bromochloromethane	2 ug/L	Bromodichloromethane	2 ug/L
Bromoform	2 ug/L	Bromomethane	2 ug/L
Carbon disulfide	2 ug/L	Carbon tetrachloride	2 ug/L
Chlorobenzene	2 ug/L	Chloroethane	2 ug/L
Chloroform	2 ug/L	Chloromethane	2 ug/L
Chloroprene	2 ug/L	Cyclohexane	2 ug/L
Dibromochloromethane	2 ug/L	Dibromomethane	2 ug/L
Dichlorodifluoromethane	2 ug/L	Diethyl ether (Ethyl ether)	2 ug/L
Ethyl acetate	4 ug/L	Ethyl methacrylate	2 ug/L
Ethylbenzene	2 ug/L	Hexachloro-1,3-butadiene	2 ug/L
Iodomethane	2 ug/L	Isobutanol	4 ug/L
Isopropyl acetate	2 ug/L	Isopropylbenzene	2 ug/L
Methacrylonitrile	4 ug/L	Methanol	ug/L
Methyl acetate	4 ug/L	Methyl acrylate	2 ug/L
Methyl methacrylate	2 ug/L	Methyl-tert-butyl ether	2 ug/L
Methylcyclohexane	2 ug/L	Methylene Chloride	2 ug/L
Naphthalene	2 ug/L	Propionitrile	4 ug/L
Styrene	2 ug/L	TOTAL BTEX	12 ug/L
Tetrachloroethene	2 ug/L	Tetrahydrofuran	4 ug/L
Toluene	2 ug/L	Total Trihalomethanes	8 ug/L
Trichloroethene	2 ug/L	Trichlorofluoromethane	2 ug/L
Vinyl acetate	2 ug/L	Vinyl chloride	2 ug/L
Xylene (Total)	6 ug/L	cis-1,2-Dichloroethene	2 ug/L
cis-1,3-Dichloropropene	2 ug/L	cis-1,4-Dichloro-2-butene	2 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	4 ug/L	n-Butanol	4 ug/L
n-Butylbenzene	2 ug/L	n-Hexane	2 ug/L
n-Propylbenzene	2 ug/L	n-amyl acetate	2 ug/L
o-Xylene	2 ug/L	p-Isopropyltoluene	2 ug/L
sec-Butylbenzene	2 ug/L	tert-Butylbenzene	2 ug/L
trans-1,2-Dichloroethene	2 ug/L	trans-1,3-Dichloropropene	2 ug/L
trans-1,4-Dichloro-2-	2 ug/L		

Composed of Information for Standard #27240

Composed of Standard Seq	Volume	Units
27114	0.002	mL
26717	0.002	mL
1	49.996	mL

Standard Log Report

Standards Log Information for Standard #27239

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL3

Notes:

MSV 8260 1PPB

Compound Name and Concentration for Standard #27239

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	1 ug/L	1,1,1-Trichloroethane	1 ug/L
1,1,2,2-Tetrachloroethane	1 ug/L	1,1,2-Trichloroethane	1 ug/L
1,1,2-	1 ug/L	1,1-Dichloroethane	1 ug/L
1,1-Dichloroethene	1 ug/L	1,1-Dichloropropene	1 ug/L
1,2,3-Trichlorobenzene	1 ug/L	1,2,3-Trichloropropane	1 ug/L
1,2,4-Trichlorobenzene	1 ug/L	1,2,4-Trimethylbenzene	1 ug/L
1,2-Dibromo-3-	1 ug/L	1,2-Dibromoethane (EDB)	1 ug/L
1,2-Dichlorobenzene	1 ug/L	1,2-Dichloroethane	1 ug/L
1,2-Dichloropropane	1 ug/L	1,3,5-Trimethylbenzene	1 ug/L
1,3-Butadiene	1 ug/L	1,3-Dichlorobenzene	1 ug/L
1,3-Dichloropropane	1 ug/L	1,4-Dichlorobenzene	1 ug/L
1,4-Dioxane (p-Dioxane)	2 ug/L	2,2-Dichloropropane	1 ug/L
2-Butanone (MEK)	2 ug/L	2-Chloroethylvinyl ether	2 ug/L
2-Chlorotoluene	1 ug/L	2-Hexanone	2 ug/L
2-Nitropropane	1 ug/L	4-Chlorotoluene	1 ug/L
4-Methyl-2-pentanone	2 ug/L	Acetone	2 ug/L
Acetonitrile	2 ug/L	Acrolein	2 ug/L
Acrylonitrile	2 ug/L	Allyl chloride	1 ug/L
Benzene	1 ug/L	Bromobenzene	1 ug/L
Bromochloromethane	1 ug/L	Bromodichloromethane	1 ug/L
Bromoform	1 ug/L	Bromomethane	1 ug/L
Carbon disulfide	1 ug/L	Carbon tetrachloride	1 ug/L
Chlorobenzene	1 ug/L	Chloroethane	1 ug/L
Chloroform	1 ug/L	Chloromethane	1 ug/L
Chloroprene	1 ug/L	Cyclohexane	1 ug/L
Dibromochloromethane	1 ug/L	Dibromomethane	1 ug/L
Dichlorodifluoromethane	1 ug/L	Diethyl ether (Ethyl ether)	1 ug/L
Ethyl acetate	2 ug/L	Ethyl methacrylate	1 ug/L
Ethylbenzene	1 ug/L	Hexachloro-1,3-butadiene	1 ug/L
Iodomethane	1 ug/L	Isobutanol	2 ug/L
Isopropyl acetate	1 ug/L	Isopropylbenzene	1 ug/L
Methacrylonitrile	2 ug/L	Methanol	ug/L
Methyl acetate	2 ug/L	Methyl acrylate	1 ug/L
Methyl methacrylate	1 ug/L	Methyl-tert-butyl ether	1 ug/L
Methylcyclohexane	1 ug/L	Methylene Chloride	1 ug/L
Naphthalene	1 ug/L	Propionitrile	2 ug/L
Styrene	1 ug/L	TOTAL BTEX	6 ug/L
Tetrachloroethene	1 ug/L	Tetrahydrofuran	2 ug/L
Toluene	1 ug/L	Total Trihalomethanes	4 ug/L
Trichloroethene	1 ug/L	Trichlorofluoromethane	1 ug/L
Vinyl acetate	1 ug/L	Vinyl chloride	1 ug/L
Xylene (Total)	3 ug/L	cis-1,2-Dichloroethene	1 ug/L
cis-1,3-Dichloropropene	1 ug/L	cis-1,4-Dichloro-2-butene	1 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	2 ug/L	n-Butanol	2 ug/L
n-Butylbenzene	1 ug/L	n-Hexane	1 ug/L
n-Propylbenzene	1 ug/L	n-amyl acetate	1 ug/L
o-Xylene	1 ug/L	p-Isopropyltoluene	1 ug/L
sec-Butylbenzene	1 ug/L	tert-Butylbenzene	1 ug/L
trans-1,2-Dichloroethene	1 ug/L	trans-1,3-Dichloropropene	1 ug/L
trans-1,4-Dichloro-2-	1 ug/L		

Composed of Information for Standard #27239

Composed of Standard Seq	Volume	Units
27114	0.001	mL
26717	0.001	mL
1	49.998	mL

Standard Log Report

Standards Log Information for Standard #27238

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	100 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL2

Notes:

MSV 8260 0.5PPB

Compound Name and Concentration for Standard #27238

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	.5 ug/L	1,1,1-Trichloroethane	.5 ug/L
1,1,2,2-Tetrachloroethane	.5 ug/L	1,1,2-Trichloroethane	.5 ug/L
1,1,2-	.5 ug/L	1,1-Dichloroethane	.5 ug/L
1,1-Dichloroethene	.5 ug/L	1,1-Dichloropropene	.5 ug/L
1,2,3-Trichlorobenzene	.5 ug/L	1,2,3-Trichloropropane	.5 ug/L
1,2,4-Trichlorobenzene	.5 ug/L	1,2,4-Trimethylbenzene	.5 ug/L
1,2-Dibromo-3-	.5 ug/L	1,2-Dibromoethane (EDB)	.5 ug/L
1,2-Dichlorobenzene	.5 ug/L	1,2-Dichloroethane	.5 ug/L
1,2-Dichloropropane	.5 ug/L	1,3,5-Trimethylbenzene	.5 ug/L
1,3-Butadiene	.5 ug/L	1,3-Dichlorobenzene	.5 ug/L
1,3-Dichloropropane	.5 ug/L	1,4-Dichlorobenzene	.5 ug/L
1,4-Dioxane (p-Dioxane)	1 ug/L	2,2-Dichloropropane	.5 ug/L
2-Butanone (MEK)	1 ug/L	2-Chloroethylvinyl ether	1 ug/L
2-Chlorotoluene	.5 ug/L	2-Hexanone	1 ug/L
2-Nitropropane	.5 ug/L	4-Chlorotoluene	.5 ug/L
4-Methyl-2-pentanone	1 ug/L	Acetone	1 ug/L
Acetonitrile	1 ug/L	Acrolein	1 ug/L
Acrylonitrile	1 ug/L	Allyl chloride	.5 ug/L
Benzene	.5 ug/L	Bromobenzene	.5 ug/L
Bromochloromethane	.5 ug/L	Bromodichloromethane	.5 ug/L
Bromoform	.5 ug/L	Bromomethane	.5 ug/L
Carbon disulfide	.5 ug/L	Carbon tetrachloride	.5 ug/L
Chlorobenzene	.5 ug/L	Chloroethane	.5 ug/L
Chloroform	.5 ug/L	Chloromethane	.5 ug/L
Chloroprene	.5 ug/L	Cyclohexane	.5 ug/L
Dibromochloromethane	.5 ug/L	Dibromomethane	.5 ug/L
Dichlorodifluoromethane	.5 ug/L	Diethyl ether (Ethyl ether)	.5 ug/L
Ethyl acetate	1 ug/L	Ethyl methacrylate	.5 ug/L
Ethylbenzene	.5 ug/L	Hexachloro-1,3-butadiene	.5 ug/L
Iodomethane	.5 ug/L	Isobutanol	1 ug/L
Isopropyl acetate	.5 ug/L	Isopropylbenzene	.5 ug/L
Methacrylonitrile	1 ug/L	Methanol	ug/L
Methyl acetate	1 ug/L	Methyl acrylate	.5 ug/L
Methyl methacrylate	.5 ug/L	Methyl-tert-butyl ether	.5 ug/L
Methylcyclohexane	.5 ug/L	Methylene Chloride	.5 ug/L
Naphthalene	.5 ug/L	Propionitrile	1 ug/L
Styrene	.5 ug/L	TOTAL BTEX	3 ug/L
Tetrachloroethene	.5 ug/L	Tetrahydrofuran	1 ug/L
Toluene	.5 ug/L	Total Trihalomethanes	2 ug/L
Trichloroethene	.5 ug/L	Trichlorofluoromethane	.5 ug/L
Vinyl acetate	.5 ug/L	Vinyl chloride	.5 ug/L
Xylene (Total)	1.5 ug/L	cis-1,2-Dichloroethene	.5 ug/L
cis-1,3-Dichloropropene	.5 ug/L	cis-1,4-Dichloro-2-butene	.5 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	1 ug/L	n-Butanol	1 ug/L
n-Butylbenzene	.5 ug/L	n-Hexane	.5 ug/L
n-Propylbenzene	.5 ug/L	n-amyl acetate	.5 ug/L
o-Xylene	.5 ug/L	p-Isopropyltoluene	.5 ug/L
sec-Butylbenzene	.5 ug/L	tert-Butylbenzene	.5 ug/L
trans-1,2-Dichloroethene	.5 ug/L	trans-1,3-Dichloropropene	.5 ug/L
trans-1,4-Dichloro-2-	.5 ug/L		

Composed of Information for Standard #27238

Composed of Standard Seq	Volume	Units
27114	0.001	mL
26717	0.001	mL
1	99.998	mL

Standard Log Report

Standards Log Information for Standard #27237

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	100 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL1

Notes:

MSV 8260 0.2 PPB

Compound Name and Concentration for Standard #27237

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	.2 ug/L	1,1,1-Trichloroethane	.2 ug/L
1,1,2,2-Tetrachloroethane	.2 ug/L	1,1,2-Trichloroethane	.2 ug/L
1,1,2-	.2 ug/L	1,1-Dichloroethane	.2 ug/L
1,1-Dichloroethene	.2 ug/L	1,1-Dichloropropene	.2 ug/L
1,2,3-Trichlorobenzene	.2 ug/L	1,2,3-Trichloropropane	.2 ug/L
1,2,4-Trichlorobenzene	.2 ug/L	1,2,4-Trimethylbenzene	.2 ug/L
1,2-Dibromo-3-	.2 ug/L	1,2-Dibromoethane (EDB)	.2 ug/L
1,2-Dichlorobenzene	.2 ug/L	1,2-Dichloroethane	.2 ug/L
1,2-Dichloropropane	.2 ug/L	1,3,5-Trimethylbenzene	.2 ug/L
1,3-Butadiene	.2 ug/L	1,3-Dichlorobenzene	.2 ug/L
1,3-Dichloropropane	.2 ug/L	1,4-Dichlorobenzene	.2 ug/L
1,4-Dioxane (p-Dioxane)	.4 ug/L	2,2-Dichloropropane	.2 ug/L
2-Butanone (MEK)	.4 ug/L	2-Chloroethylvinyl ether	.4 ug/L
2-Chlorotoluene	.2 ug/L	2-Hexanone	.4 ug/L
2-Nitropropane	.2 ug/L	4-Chlorotoluene	.2 ug/L
4-Methyl-2-pentanone	.4 ug/L	Acetone	.4 ug/L
Acetonitrile	.4 ug/L	Acrolein	.4 ug/L
Acrylonitrile	.4 ug/L	Allyl chloride	.2 ug/L
Benzene	.2 ug/L	Bromobenzene	.2 ug/L
Bromochloromethane	.2 ug/L	Bromodichloromethane	.2 ug/L
Bromoform	.2 ug/L	Bromomethane	.2 ug/L
Carbon disulfide	.2 ug/L	Carbon tetrachloride	.2 ug/L
Chlorobenzene	.2 ug/L	Chloroethane	.2 ug/L
Chloroform	.2 ug/L	Chloromethane	.2 ug/L
Chloroprene	.2 ug/L	Cyclohexane	.2 ug/L
Dibromochloromethane	.2 ug/L	Dibromomethane	.2 ug/L
Dichlorodifluoromethane	.2 ug/L	Diethyl ether (Ethyl ether)	.2 ug/L
Ethyl acetate	.4 ug/L	Ethyl methacrylate	.2 ug/L
Ethylbenzene	.2 ug/L	Hexachloro-1,3-butadiene	.2 ug/L
Iodomethane	.2 ug/L	Isobutanol	.4 ug/L
Isopropyl acetate	.2 ug/L	Isopropylbenzene	.2 ug/L
Methacrylonitrile	.4 ug/L	Methanol	ug/L
Methyl acetate	.4 ug/L	Methyl acrylate	.2 ug/L
Methyl methacrylate	.2 ug/L	Methyl-tert-butyl ether	.2 ug/L
Methylcyclohexane	.2 ug/L	Methylene Chloride	.2 ug/L
Naphthalene	.2 ug/L	Propionitrile	.4 ug/L
Styrene	.2 ug/L	TOTAL BTEX	1.2 ug/L
Tetrachloroethene	.2 ug/L	Tetrahydrofuran	.4 ug/L
Toluene	.2 ug/L	Total Trihalomethanes	.8 ug/L
Trichloroethene	.2 ug/L	Trichlorofluoromethane	.2 ug/L
Vinyl acetate	.2 ug/L	Vinyl chloride	.2 ug/L
Xylene (Total)	.6 ug/L	cis-1,2-Dichloroethene	.2 ug/L
cis-1,3-Dichloropropene	.2 ug/L	cis-1,4-Dichloro-2-butene	.2 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	.4 ug/L	n-Butanol	.4 ug/L
n-Butylbenzene	.2 ug/L	n-Hexane	.2 ug/L
n-Propylbenzene	.2 ug/L	n-amyl acetate	.2 ug/L
o-Xylene	.2 ug/L	p-Isopropyltoluene	.2 ug/L
sec-Butylbenzene	.2 ug/L	tert-Butylbenzene	.2 ug/L
trans-1,2-Dichloroethene	.2 ug/L	trans-1,3-Dichloropropene	.2 ug/L
trans-1,4-Dichloro-2-	.2 ug/L		

Composed of Information for Standard #27237

Composed of Standard Seq	Volume	Units
27114	0.0004	mL
26717	0.0004	mL
1	99.9992	mL

Standard Log Report

Standards Log Information for Standard #27116

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/18/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260GAS-SPK

Notes:

MSV 8260 Agilent Secondary Gas Spike MIX

Compound Name and Concentration for Standard #27116

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	100 ug/mL	Acrolein	100 ug/mL
Acrylonitrile	100 ug/mL	Bromomethane	50 ug/mL
Chloroethane	50 ug/mL	Chloromethane	50 ug/mL
Dichlorodifluoromethane	50 ug/mL	Methanol	ug/mL
Methyl acetate	100 ug/mL	Trichlorofluoromethane	50 ug/mL
Vinyl acetate	50 ug/mL	Vinyl chloride	50 ug/mL

Composed of Information for Standard #27116

Composed of Standard Seq	Volume	Units
26774	23.5	mL
26712	0.625	mL
26711	0.25	mL
26710	0.625	mL

Standard Log Report

Standards Log Information for Standard #27114

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/18/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260GAS-SPK

Notes:

MSV 8260 Phenova Primary Gas Spike MIX

Compound Name and Concentration for Standard #27114

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	100 ug/mL	Acrolein	100 ug/mL
Acrylonitrile	100 ug/mL	Bromomethane	50 ug/mL
Chloroethane	50 ug/mL	Chloromethane	50 ug/mL
Dichlorodifluoromethane	50 ug/mL	Methanol	ug/mL
Methyl acetate	100 ug/mL	Trichlorofluoromethane	50 ug/mL
Vinyl acetate	50 ug/mL	Vinyl chloride	50 ug/mL

Composed of Information for Standard #27114

Composed of Standard Seq	Volume	Units
26774	23.25	mL
26387	0.25	mL
26386	0.625	mL
26385	0.25	mL
24913	0.625	mL

Standard Log Report

Standards Log Information for Standard #27049

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522700
Create Date:	08/17/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180002
Expire Date:	07/31/2025	**Manufacturer Lot ID:**	CL15196	**Standard ID:**	MSV-GAS-PS

Notes:

MSV 502.2 Cal Mix#1-Primary Source

Compound Name and Concentration for Standard #27049

Compound Name	Concentration	Compound Name	Concentration
Bromomethane	2000 ug/mL	Chloroethane	2000 ug/mL
Chloromethane	2000 ug/mL	Dichlorodifluoromethane	2000 ug/mL
Trichlorofluoromethane	2000 ug/mL	Vinyl chloride	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #26774

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	522674
Create Date:	08/07/2020	**Manufacturer:**	Fisher Scientific	**Part ID:**	A453-500
Expire Date:	02/03/2021	**Manufacturer Lot ID:**	198331	**Standard ID:**	RGNT179

Notes:

MSV P/T Methanol

Compound Name and Concentration for Standard #26774

Compound Name	Concentration	Compound Name	Concentration
Methanol			

Standard Log Report

Standards Log Information for Standard #26718

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/06/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/05/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-SPK

Notes:

MSV 8260 Agilent Secondary Mega Mix Spike

Compound Name and Concentration for Standard #26718

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	50 ug/mL	1,1,1-Trichloroethane	50 ug/mL
1,1,2,2-Tetrachloroethane	50 ug/mL	1,1,2-Trichloroethane	50 ug/mL
1,1,2-	50 ug/mL	1,1-Dichloroethane	50 ug/mL
1,1-Dichloroethene	50 ug/mL	1,1-Dichloropropene	50 ug/mL
1,2,3-Trichlorobenzene	50 ug/mL	1,2,3-Trichloropropane	50 ug/mL
1,2,4-Trichlorobenzene	50 ug/mL	1,2,4-Trimethylbenzene	50 ug/mL
1,2-Dibromo-3-	50 ug/mL	1,2-Dibromoethane (EDB)	50 ug/mL
1,2-Dichlorobenzene	50 ug/mL	1,2-Dichloroethane	50 ug/mL
1,2-Dichloropropane	50 ug/mL	1,3,5-Trimethylbenzene	50 ug/mL
1,3-Butadiene	50 ug/mL	1,3-Dichlorobenzene	50 ug/mL
1,3-Dichloropropane	50 ug/mL	1,4-Dichlorobenzene	50 ug/mL
1,4-Dioxane (p-Dioxane)	100 ug/mL	2,2-Dichloropropane	50 ug/mL
2-Butanone (MEK)	100 ug/mL	2-Chlorotoluene	50 ug/mL
2-Hexanone	100 ug/mL	2-Nitropropane	50 ug/mL
4-Chlorotoluene	50 ug/mL	4-Methyl-2-pentanone	100 ug/mL
Acetone	100 ug/mL	Acetonitrile	100 ug/mL
Allyl chloride	50 ug/mL	Benzene	50 ug/mL
Bromobenzene	50 ug/mL	Bromochloromethane	50 ug/mL
Bromodichloromethane	50 ug/mL	Bromoform	50 ug/mL
Carbon disulfide	50 ug/mL	Carbon tetrachloride	50 ug/mL
Chlorobenzene	50 ug/mL	Chloroform	50 ug/mL
Chloroprene	50 ug/mL	Cyclohexane	50 ug/mL
Dibromochloromethane	50 ug/mL	Dibromomethane	50 ug/mL
Diethyl ether (Ethyl ether)	50 ug/mL	Ethyl acetate	100 ug/mL
Ethyl methacrylate	50 ug/mL	Ethylbenzene	50 ug/mL
Hexachloro-1,3-butadiene	50 ug/mL	Iodomethane	50 ug/mL
Isobutanol	100 ug/mL	Isopropyl acetate	50 ug/mL
Isopropylbenzene	50 ug/mL	Methacrylonitrile	100 ug/mL
Methanol	ug/mL	Methyl acrylate	50 ug/mL
Methyl methacrylate	50 ug/mL	Methyl-tert-butyl ether	50 ug/mL
Methylcyclohexane	50 ug/mL	Methylene Chloride	50 ug/mL
Naphthalene	50 ug/mL	Propionitrile	100 ug/mL
Styrene	50 ug/mL	TOTAL BTEX	300 ug/mL
Tetrachloroethene	50 ug/mL	Tetrahydrofuran	100 ug/mL
Toluene	50 ug/mL	Total Trihalomethanes	200 ug/mL
Trichloroethene	50 ug/mL	Xylene (Total)	150 ug/mL
cis-1,2-Dichloroethene	50 ug/mL	cis-1,3-Dichloropropene	50 ug/mL
cis-1,4-Dichloro-2-butene	50 ug/mL	m&p-Xylene	100 ug/mL
n-Butanol	100 ug/mL	n-Butylbenzene	50 ug/mL
n-Hexane	50 ug/mL	n-Propylbenzene	50 ug/mL
n-amyl acetate	50 ug/mL	o-Xylene	50 ug/mL
p-Isopropyltoluene	50 ug/mL	sec-Butylbenzene	50 ug/mL
tert-Butylbenzene	50 ug/mL	trans-1,2-Dichloroethene	50 ug/mL

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
trans-1,3-Dichloropropene	50 ug/mL	trans-1,4-Dichloro-2-	50 ug/mL

Composed of Information for Standard #26718

Composed of Standard Seq	Volume	Units
26117	21.375	mL
25570	0.25	mL
25569	0.25	mL
25568	0.625	mL
25566	0.625	mL
25565	0.625	mL
25564	0.625	mL

Standard Log Report

Standards Log Information for Standard #26717

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/06/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/05/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-SPK

Notes:

MSV 8260 Phenova Primary Mega Mix Spike

Compound Name and Concentration for Standard #26717

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	50 ug/mL	1,1,1-Trichloroethane	50 ug/mL
1,1,2,2-Tetrachloroethane	50 ug/mL	1,1,2-Trichloroethane	50 ug/mL
1,1,2-	50 ug/mL	1,1-Dichloroethane	50 ug/mL
1,1-Dichloroethene	50 ug/mL	1,1-Dichloropropene	50 ug/mL
1,2,3-Trichlorobenzene	50 ug/mL	1,2,3-Trichloropropane	50 ug/mL
1,2,4-Trichlorobenzene	50 ug/mL	1,2,4-Trimethylbenzene	50 ug/mL
1,2-Dibromo-3-	50 ug/mL	1,2-Dibromoethane (EDB)	50 ug/mL
1,2-Dichlorobenzene	50 ug/mL	1,2-Dichloroethane	50 ug/mL
1,2-Dichloropropane	50 ug/mL	1,3,5-Trimethylbenzene	50 ug/mL
1,3-Butadiene	50 ug/mL	1,3-Dichlorobenzene	50 ug/mL
1,3-Dichloropropane	50 ug/mL	1,4-Dichlorobenzene	50 ug/mL
1,4-Dioxane (p-Dioxane)	100 ug/mL	2,2-Dichloropropane	50 ug/mL
2-Butanone (MEK)	100 ug/mL	2-Chlorotoluene	50 ug/mL
2-Hexanone	100 ug/mL	2-Nitropropane	50 ug/mL
4-Chlorotoluene	50 ug/mL	4-Methyl-2-pentanone	100 ug/mL
Acetone	100 ug/mL	Acetonitrile	100 ug/mL
Allyl chloride	50 ug/mL	Benzene	50 ug/mL
Bromobenzene	50 ug/mL	Bromochloromethane	50 ug/mL
Bromodichloromethane	50 ug/mL	Bromoform	50 ug/mL
Carbon disulfide	50 ug/mL	Carbon tetrachloride	50 ug/mL
Chlorobenzene	50 ug/mL	Chloroform	50 ug/mL
Chloroprene	50 ug/mL	Cyclohexane	50 ug/mL
Dibromochloromethane	50 ug/mL	Dibromomethane	50 ug/mL
Diethyl ether (Ethyl ether)	50 ug/mL	Ethyl acetate	100 ug/mL
Ethyl methacrylate	50 ug/mL	Ethylbenzene	50 ug/mL
Hexachloro-1,3-butadiene	50 ug/mL	Iodomethane	50 ug/mL
Isobutanol	100 ug/mL	Isopropyl acetate	50 ug/mL
Isopropylbenzene	50 ug/mL	Methacrylonitrile	100 ug/mL
Methanol	ug/mL	Methyl acrylate	50 ug/mL
Methyl methacrylate	50 ug/mL	Methyl-tert-butyl ether	50 ug/mL
Methylcyclohexane	50 ug/mL	Methylene Chloride	50 ug/mL
Naphthalene	50 ug/mL	Propionitrile	100 ug/mL
Styrene	50 ug/mL	TOTAL BTEX	300 ug/mL
Tetrachloroethene	50 ug/mL	Tetrahydrofuran	100 ug/mL
Toluene	50 ug/mL	Total Trihalomethanes	200 ug/mL
Trichloroethene	50 ug/mL	Xylene (Total)	150 ug/mL
cis-1,2-Dichloroethene	50 ug/mL	cis-1,3-Dichloropropene	50 ug/mL
cis-1,4-Dichloro-2-butene	50 ug/mL	m&p-Xylene	100 ug/mL
n-Butanol	100 ug/mL	n-Butylbenzene	50 ug/mL
n-Hexane	50 ug/mL	n-Propylbenzene	50 ug/mL
n-amyl acetate	50 ug/mL	o-Xylene	50 ug/mL
p-Isopropyltoluene	50 ug/mL	sec-Butylbenzene	50 ug/mL
tert-Butylbenzene	50 ug/mL	trans-1,2-Dichloroethene	50 ug/mL

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
trans-1,3-Dichloropropene	50 ug/mL	trans-1,4-Dichloro-2-	50 ug/mL

Composed of Information for Standard #26717

Composed of Standard Seq	Volume	Units
26117	22.625	mL
23770	0.625	mL
23769	0.625	mL
23768	0.625	mL
23767	0.25	mL
23766	0.25	mL

Standard Log Report

Standards Log Information for Standard #26712

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522672
Create Date:	08/06/2020	**Manufacturer:**	Agilent	**Part ID:**	3095185
Expire Date:	11/30/2020	**Manufacturer Lot ID:**	0006547794	**Standard ID:**	ACETATESTK

Notes:

MSV Custom Acetate Mix-Secondary Source

Compound Name and Concentration for Standard #26712

Compound Name	Concentration	Compound Name	Concentration
Vinyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26711

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522671
Create Date:	08/06/2020	**Manufacturer:**	Agilent	**Part ID:**	3059401
Expire Date:	11/30/2020	**Manufacturer Lot ID:**	0006547796	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #26711

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	10000 ug/mL	Acrolein	10000 ug/mL
Acrylonitrile	10000 ug/mL	Methyl acetate	10000 ug/mL

Standard Log Report

Standards Log Information for Standard #26710

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522670
Create Date:	08/06/2020	**Manufacturer:**	Agilent	**Part ID:**	3059400
Expire Date:	08/31/2022	**Manufacturer Lot ID:**	0006547006	**Standard ID:**	MSV-GAS-SS

Notes:

MSV 502.2 Cal Mix#1-Secondary Source

Compound Name and Concentration for Standard #26710

Compound Name	Concentration	Compound Name	Concentration
Bromomethane	2000 ug/mL	Chloroethane	2000 ug/mL
Chloromethane	2000 ug/mL	Dichlorodifluoromethane	2000 ug/mL
Trichlorofluoromethane	2000 ug/mL	Vinyl chloride	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #26400

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	10 mL	**Lot ID:**	PACE
Create Date:	07/30/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/29/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-ISSS

Notes:

MSV Working MV02 524/8260 IS/Surrogate

Compound Name and Concentration for Standard #26400

Compound Name	Concentration	Compound Name	Concentration
1,2-Dichlorobenzene-d4 (S)	50 mg/L	1,2-Dichloroethane-d4 (S)	50 mg/L
1,4-Dichlorobenzene-d4	50 mg/L	1,4-Difluorobenzene (IS)	50 mg/L
4-Bromofluorobenzene (S)	50 mg/L	Chlorobenzene-D5 (IS)	50 mg/L
Dibromofluoromethane (S)	50 mg/L	Fluorobenzene (IS)	50 mg/L
Methanol	mg/L	Pentafluorobenzene (IS)	50 mg/L
Toluene-d8 (S)	50 mg/L		

Composed of Information for Standard #26400

Composed of Standard Seq	Volume	Units
26117	9.1	mL
24910	0.25	mL
24909	0.25	mL
24908	0.2	mL
24907	0.2	mL

Standard Log Report

Standards Log Information for Standard #26387

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522645
Create Date:	07/29/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180007
Expire Date:	10/31/2020	**Manufacturer Lot ID:**	CL15234	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Reactives Std-Primary Source

Compound Name and Concentration for Standard #26387

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	10000 ug/mL	Acrylonitrile	10000 ug/mL
Methyl acetate	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26386

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522644
Create Date:	07/29/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180018
Expire Date:	08/27/2020	**Manufacturer Lot ID:**	CL15596	**Standard ID:**	ACETATEPSTK

Notes:

MSV Phenova Custom Acetate Mix-Primary Source

Compound Name and Concentration for Standard #26386

Compound Name	Concentration	Compound Name	Concentration
Vinyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26385

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522643
Create Date:	07/29/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180017
Expire Date:	08/27/2020	**Manufacturer Lot ID:**	CL15595	**Standard ID:**	AcrolienPSTK

Notes:

MSV Phenova Acrolein Stock Standard - Primary

Compound Name and Concentration for Standard #26385

Compound Name	Concentration	Compound Name	Concentration
Acrolein	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26117

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	522617
Create Date:	07/22/2020	**Manufacturer:**	Fisher Scientific	**Part ID:**	A453-500
Expire Date:	01/18/2021	**Manufacturer Lot ID:**	198331	**Standard ID:**	RGNT179

Notes:

MSV P/T Methanol

Compound Name and Concentration for Standard #26117

Compound Name	Concentration	Compound Name	Concentration
Methanol			

Standard Log Report

Standards Log Information for Standard #25570

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522580
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059390
Expire Date:	04/30/2021	**Manufacturer Lot ID:**	0006527178	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #25570

Compound Name	Concentration	Compound Name	Concentration
n-Butanol	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25569

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522579
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059399
Expire Date:	07/31/2022	**Manufacturer Lot ID:**	00006542413	**Standard ID:**	VOACALMX1

Notes:

MSV VOA Calibration Mix#1-Secondary Source

Compound Name and Concentration for Standard #25569

Compound Name	Concentration	Compound Name	Concentration
1,4-Dioxane (p-Dioxane)	10000 ug/mL	2-Butanone (MEK)	10000 ug/mL
2-Hexanone	10000 ug/mL	4-Methyl-2-pentanone	10000 ug/mL
Acetone	10000 ug/mL	Acetonitrile	10000 ug/mL
Ethyl acetate	10000 ug/mL	Isobutanol	10000 ug/mL
Methacrylonitrile	10000 ug/mL	Propionitrile	10000 ug/mL
Tetrahydrofuran	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25568

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522578
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059396
Expire Date:	04/30/2022	**Manufacturer Lot ID:**	0006527210	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #25568

Compound Name	Concentration	Compound Name	Concentration
Chloroprene	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25566

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522576
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3154935
Expire Date:	09/30/2020	**Manufacturer Lot ID:**	0006537291	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #25566

Compound Name	Concentration	Compound Name	Concentration
Isopropyl acetate	2000 ug/mL	Methyl acrylate	2000 ug/mL
n-amyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25565

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522575
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3083487
Expire Date:	04/30/2021	**Manufacturer Lot ID:**	0006527215	**Standard ID:**	ButadieneSTK

Notes:

MSV 1,3-Butadiene Stock-Secondary Source

Compound Name and Concentration for Standard #25565

Compound Name	Concentration	Compound Name	Concentration
1,3-Butadiene	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25564

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522574
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059393
Expire Date:	07/31/2022	**Manufacturer Lot ID:**	0006542412	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Mix-Agilent Secondary Source

Compound Name and Concentration for Standard #25564

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	2000 ug/mL	1,1,1-Trichloroethane	2000 ug/mL
1,1,2,2-Tetrachloroethane	2000 ug/mL	1,1,2-Trichloroethane	2000 ug/mL
1,1,2-	2000 ug/mL	1,1-Dichloroethane	2000 ug/mL
1,1-Dichloroethene	2000 ug/mL	1,1-Dichloropropene	2000 ug/mL
1,2,3-Trichlorobenzene	2000 ug/mL	1,2,3-Trichloropropane	2000 ug/mL
1,2,4-Trichlorobenzene	2000 ug/mL	1,2,4-Trimethylbenzene	2000 ug/mL
1,2-Dibromo-3-	2000 ug/mL	1,2-Dibromoethane (EDB)	2000 ug/mL
1,2-Dichlorobenzene	2000 ug/mL	1,2-Dichloroethane	2000 ug/mL
1,2-Dichloropropane	2000 ug/mL	1,3,5-Trimethylbenzene	2000 ug/mL
1,3-Dichlorobenzene	2000 ug/mL	1,3-Dichloropropane	2000 ug/mL
1,4-Dichlorobenzene	2000 ug/mL	2,2-Dichloropropane	2000 ug/mL
2-Chlorotoluene	2000 ug/mL	2-Nitropropane	2000 ug/mL
4-Chlorotoluene	2000 ug/mL	Allyl chloride	2000 ug/mL
Benzene	2000 ug/mL	Bromobenzene	2000 ug/mL
Bromochloromethane	2000 ug/mL	Bromodichloromethane	2000 ug/mL
Bromoform	2000 ug/mL	Carbon disulfide	2000 ug/mL
Carbon tetrachloride	2000 ug/mL	Chlorobenzene	2000 ug/mL
Chloroform	2000 ug/mL	Cyclohexane	2000 ug/mL
Dibromochloromethane	2000 ug/mL	Dibromomethane	2000 ug/mL
Diethyl ether (Ethyl ether)	2000 ug/mL	Ethyl methacrylate	2000 ug/mL
Ethylbenzene	2000 ug/mL	Hexachloro-1,3-butadiene	2000 ug/mL
Iodomethane	2000 ug/mL	Isopropylbenzene	2000 ug/mL
Methyl methacrylate	2000 ug/mL	Methyl-tert-butyl ether	2000 ug/mL
Methylcyclohexane	2000 ug/mL	Methylene Chloride	2000 ug/mL
Naphthalene	2000 ug/mL	Styrene	2000 ug/mL
TOTAL BTEX	12000 ug/mL	Tetrachloroethene	2000 ug/mL
Toluene	2000 ug/mL	Total Trihalomethanes	8000 ug/mL
Trichloroethene	2000 ug/mL	Xylene (Total)	6000 ug/mL
cis-1,2-Dichloroethene	2000 ug/mL	cis-1,3-Dichloropropene	2000 ug/mL
cis-1,4-Dichloro-2-butene	2000 ug/mL	m&p-Xylene	4000 ug/mL
n-Butylbenzene	2000 ug/mL	n-Hexane	2000 ug/mL
n-Propylbenzene	2000 ug/mL	o-Xylene	2000 ug/mL
p-Isopropyltoluene	2000 ug/mL	sec-Butylbenzene	2000 ug/mL
tert-Butylbenzene	2000 ug/mL	trans-1,2-Dichloroethene	2000 ug/mL
trans-1,3-Dichloropropene	2000 ug/mL	trans-1,4-Dichloro-2-	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #24913

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522539
Create Date:	06/23/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180002
Expire Date:	08/31/2024	**Manufacturer Lot ID:**	CL14053	**Standard ID:**	MSV-GAS-PS

Notes:

MSV 502.2 Cal Mix#1-Primary Source

Compound Name and Concentration for Standard #24913

Compound Name	Concentration	Compound Name	Concentration
Bromomethane	2000 ug/mL	Chloroethane	2000 ug/mL
Chloromethane	2000 ug/mL	Dichlorodifluoromethane	2000 ug/mL
Trichlorofluoromethane	2000 ug/mL	Vinyl chloride	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #24910

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522538
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30030
Expire Date:	02/28/2025	**Manufacturer Lot ID:**	A0158124	**Standard ID:**	524 IS STK

Notes:

MSV 524.2 Fluorobenzene IS Stock

Compound Name and Concentration for Standard #24910

Compound Name	Concentration	Compound Name	Concentration
Fluorobenzene (IS)	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #24909

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522537
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30049
Expire Date:	08/31/2028	**Manufacturer Lot ID:**	A0160880	**Standard ID:**	524 Surr STK

Notes:

MSV 524 Surrogate 1,2-Dichlorobenzene-d4

Compound Name and Concentration for Standard #24909

Compound Name	Concentration	Compound Name	Concentration
1,2-Dichlorobenzene-d4 (S)	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #24908

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522536
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30240
Expire Date:	01/31/2025	**Manufacturer Lot ID:**	A0156492	**Standard ID:**	8260 SUR STK

Notes:

MSV 8260 Surrogate Stock

Compound Name and Concentration for Standard #24908

Compound Name	Concentration	Compound Name	Concentration
1,2-Dichloroethane-d4 (S)	2500 ug/mL	4-Bromofluorobenzene (S)	2500 ug/mL
Dibromofluoromethane (S)	2500 ug/mL	Toluene-d8 (S)	2500 ug/mL

Standard Log Report

Standards Log Information for Standard #24907

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522535
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30074
Expire Date:	04/30/2025	**Manufacturer Lot ID:**	A0159786	**Standard ID:**	8260 IS

Notes:

MSV 8260 IS Stock

Compound Name and Concentration for Standard #24907

Compound Name	Concentration	Compound Name	Concentration
1,4-Dichlorobenzene-d4	2500 ug/mL	1,4-Difluorobenzene (IS)	2500 ug/mL
Chlorobenzene-D5 (IS)	2500 ug/mL	Pentafluorobenzene (IS)	2500 ug/mL

Standard Log Report

Standards Log Information for Standard #23770

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522451
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180001
Expire Date:	12/31/2021	**Manufacturer Lot ID:**	CL14606	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Mix-Primary Source

Compound Name and Concentration for Standard #23770

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	2000 ug/mL	1,1,1-Trichloroethane	2000 ug/mL
1,1,2,2-Tetrachloroethane	2000 ug/mL	1,1,2-Trichloroethane	2000 ug/mL
1,1,2-	2000 ug/mL	1,1-Dichloroethane	2000 ug/mL
1,1-Dichloroethene	2000 ug/mL	1,1-Dichloropropene	2000 ug/mL
1,2,3-Trichlorobenzene	2000 ug/mL	1,2,3-Trichloropropane	2000 ug/mL
1,2,4-Trichlorobenzene	2000 ug/mL	1,2,4-Trimethylbenzene	2000 ug/mL
1,2-Dibromo-3-	2000 ug/mL	1,2-Dibromoethane (EDB)	2000 ug/mL
1,2-Dichlorobenzene	2000 ug/mL	1,2-Dichloroethane	2000 ug/mL
1,2-Dichloropropane	2000 ug/mL	1,3,5-Trimethylbenzene	2000 ug/mL
1,3-Dichlorobenzene	2000 ug/mL	1,3-Dichloropropane	2000 ug/mL
1,4-Dichlorobenzene	2000 ug/mL	2,2-Dichloropropane	2000 ug/mL
2-Chlorotoluene	2000 ug/mL	2-Nitropropane	2000 ug/mL
4-Chlorotoluene	2000 ug/mL	Allyl chloride	2000 ug/mL
Benzene	2000 ug/mL	Bromobenzene	2000 ug/mL
Bromochloromethane	2000 ug/mL	Bromodichloromethane	2000 ug/mL
Bromoform	2000 ug/mL	Carbon disulfide	2000 ug/mL
Carbon tetrachloride	2000 ug/mL	Chlorobenzene	2000 ug/mL
Chloroform	2000 ug/mL	Chloroprene	2000 ug/mL
Cyclohexane	2000 ug/mL	Dibromochloromethane	2000 ug/mL
Dibromomethane	2000 ug/mL	Diethyl ether (Ethyl ether)	2000 ug/mL
Ethyl methacrylate	2000 ug/mL	Ethylbenzene	2000 ug/mL
Hexachloro-1,3-butadiene	2000 ug/mL	Iodomethane	2000 ug/mL
Isopropylbenzene	2000 ug/mL	Methyl methacrylate	2000 ug/mL
Methyl-tert-butyl ether	2000 ug/mL	Methylcyclohexane	2000 ug/mL
Methylene Chloride	2000 ug/mL	Naphthalene	2000 ug/mL
Styrene	2000 ug/mL	TOTAL BTEX	12000 ug/mL
Tetrachloroethene	2000 ug/mL	Toluene	2000 ug/mL
Total Trihalomethanes	8000 ug/mL	Trichloroethene	2000 ug/mL
Xylene (Total)	6000 ug/mL	cis-1,2-Dichloroethene	2000 ug/mL
cis-1,3-Dichloropropene	2000 ug/mL	cis-1,4-Dichloro-2-butene	2000 ug/mL
m&p-Xylene	4000 ug/mL	n-Butylbenzene	2000 ug/mL
n-Hexane	2000 ug/mL	n-Propylbenzene	2000 ug/mL
o-Xylene	2000 ug/mL	p-Isopropyltoluene	2000 ug/mL
sec-Butylbenzene	2000 ug/mL	tert-Butylbenzene	2000 ug/mL
trans-1,2-Dichloroethene	2000 ug/mL	trans-1,3-Dichloropropene	2000 ug/mL
trans-1,4-Dichloro-2-	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23769

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522450
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180006
Expire Date:	11/30/2020	**Manufacturer Lot ID:**	CL14585	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Supplemental Std-Primary Source

Compound Name and Concentration for Standard #23769

Compound Name	Concentration	Compound Name	Concentration
Isopropyl acetate	2000 ug/mL	Methyl acrylate	2000 ug/mL
n-amyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23768

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522449
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180004
Expire Date:	11/30/2021	**Manufacturer Lot ID:**	CL14652	**Standard ID:**	ButadieneSTK

Notes:

MSV 1,3-Butadiene Stock-Primary Source

Compound Name and Concentration for Standard #23768

Compound Name	Concentration	Compound Name	Concentration
1,3-Butadiene	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23767

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522448
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180003
Expire Date:	11/30/2022	**Manufacturer Lot ID:**	CL14587	**Standard ID:**	VOACALMX1

Notes:

MSV VOA Calibration Mix#1-Primary Source

Compound Name and Concentration for Standard #23767

Compound Name	Concentration	Compound Name	Concentration
1,4-Dioxane (p-Dioxane)	10000 ug/mL	2-Butanone (MEK)	10000 ug/mL
2-Hexanone	10000 ug/mL	4-Methyl-2-pentanone	10000 ug/mL
Acetone	10000 ug/mL	Acetonitrile	10000 ug/mL
Ethyl acetate	10000 ug/mL	Isobutanol	10000 ug/mL
Methacrylonitrile	10000 ug/mL	Propionitrile	10000 ug/mL
Tetrahydrofuran	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23766

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522447
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180005
Expire Date:	12/31/2020	**Manufacturer Lot ID:**	CL14607	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Supplemental Std-Primary Source

Compound Name and Concentration for Standard #23766

Compound Name	Concentration	Compound Name	Concentration
n-Butanol	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #8940

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	521408
Create Date:	05/09/2019	**Manufacturer:**	Fisher Scientific	**Part ID:**	S23-3
Expire Date:	09/01/2022	**Manufacturer Lot ID:**	175767	**Standard ID:**	RGNT210

Notes:

MSV Ottowa Sand

Compound Name and Concentration for Standard #8940

Compound Name	Concentration	Compound Name	Concentration
Ottawa Sand	mg/kg		

Standard Log Report

Standards Log Information for Standard #1

STOCK STANDARD

Created By:	GR1	**Volume of Standard:**	1000 mL	**Lot ID:**	PACE
Create Date:	01/01/2018	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	01/01/2025	**Manufacturer Lot ID:**	PACE	**Standard ID:**	RGNT389

Notes:

DI Water

Compound Name and Concentration for Standard #1

Compound Name	Concentration	Compound Name	Concentration
DI Water			

The standards listed are from Pace's LIMS52.

521408
REC. 04/19/18 BY EF
Exp. 9/1/22 By
Open 1/9/19 By

STD
8940

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

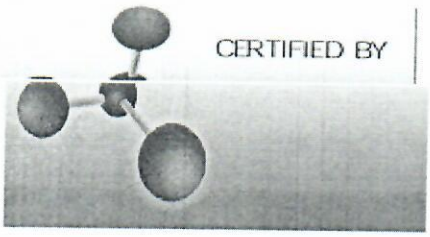
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**S23**	**Quality Test / Release Date**	**9/26/2017**
Lot Number	**175767**		
Description	**SAND, OTTAWA**		
Country of Origin	**United States**	*** Suggested Retest Date**	**Sep-2022**

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless to Yellow-Brown Beads
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
MESH SIZE	PASS/FAIL	= PASS TEST	PASS TEST



Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180005
Description: Additions Mix 1
Storage: Freeze (-18-0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14607
Certification Date: January 22, 2020
Expiration Date: December 31, 2020

Andrea L Gill

522447
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STO# 23766

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
n-Decane	124-18-5	2001	0.230%
n-Dodecane	112-40-3	2000	0.115%
n-Undecane	1120-21-4	1999	0.115%
n-Octane	111-65-9	2000	0.115%
n-Nonane	111-84-2	2001	0.167%
3,3-dimethyl-1-butanol	624-95-3	10002	0.157%
1-Chlorobutane	109-69-3	2000	0.230%
1-Propanol	71-23-8	10000	0.226%
2-Bromo-1-chloropropane	3017-95-6	2000	1.042%
2-Butanol	78-92-2	2000	0.230%
2-Methylpentane	107-83-5	2000	0.115%
4-Methyl-2-pentanol	108-11-2	1999	0.230%
Benzyl chloride	100-44-7	1999	0.140%
Butylcyclohexane	1678-93-9	2001	0.230%
Hexachloroethane	67-72-1	2001	0.230%
2-Chloroethanol	107-07-3	2000	0.230%
Nitrobenzene	98-95-3	2000	0.230%
1-Methylnaphthalene	90-12-0	2000	0.115%
Isooctane	540-84-1	2000	0.115%
1-Butanol	71-36-3	10000	0.226%
n-Heptane	142-82-5	2000	0.204%
Isopropanol (2-Propanol)	67-63-0	10000	0.105%

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Catalog Number: AL0-180003
Description: Elevated VOA Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14587
Certification Date: January 12, 2020
Expiration Date: November 30, 2022

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522448
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STD# 23767

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Acetone	67-64-1	10000	3.527%
Acetonitrile	75-05-8	10000	0.225%
tert-Amyl alcohol	75-85-4	10002	0.104%
tert-Butanol	75-65-0	10000	0.105%
2-Butanone	78-93-3	10000	0.225%
Cyclohexanone	108-94-1	10000	0.225%
1,4-Dioxane	123-91-1	10001	0.225%
Ethanol	64-17-5	10000	0.225%
Ethyl acetate	141-78-6	10000	0.225%
Isobutanol (2-methyl-1-propanol)	78-83-1	10000	0.225%
2-Hexanone	591-78-6	10000	0.105%
Methacrylonitrile	126-98-7	10000	0.105%
4-Methyl-2-pentanone	108-10-1	10000	0.225%
Propionitrile	107-12-0	10000	0.225%
Tetrahydrofuran	109-99-9	10000	0.225%

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Catalog Number: AL0-180004
Description: Custom 8260 Additions Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14652
Certification Date: January 21, 2020
Expiration Date: November 30, 2021

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522449
REC.05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STD#23768

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
1,3-Butadiene	106-99-0	2005	5.367%
Dicyclopentadiene	77-73-6	2000	13.563%
4-Ethyltoluene	622-96-8	2000	13.560%
Propene	115-07-1	1981	8.812%

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Catalog Number: AL0-180006
Description: Additions Mix 2
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14585
Certification Date: January 12, 2020
Expiration Date: November 30, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522450
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STO# 23769

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Methyl acrylate	96-33-3	2000	4.712%
n-Amyl acetate	628-63-7	2000	3.289%
Ethyl acrylate	140-88-5	2000	5.106%
Butyl Acetate	123-86-4	2000	4.627%
tert-Butyl Acetate	540-88-5	2000	5.102%
tert-Butyl Formate	762-75-4	10000	4.021%
Isopropyl acetate	108-21-4	2000	4.640%

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Catalog Number: AL0-180001
Description: Custom VOA Cal Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: > 1 mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14606
Certification Date: March 3, 2020
Expiration Date: December 31, 2021

522451
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STOCK 23770

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Allyl Chloride	107-05-1	2000	0.492%
tert-Amyl Ethyl Ether (TAEE)	919-94-8	2000	0.215%
tert-Amyl Methyl Ether (TAME)	994-05-8	2000	0.632%
Benzene	71-43-2	2000	0.519%
Bromobenzene	108-86-1	2000	0.479%
Bromoform	75-25-2	2000	0.487%
Bromochloromethane	74-97-5	2000	0.545%
Bromodichloromethane	75-27-4	2000	0.481%
n-Butylbenzene	104-51-8	2000	0.480%
sec-Butylbenzene	135-98-8	2000	0.478%
tert-Butylbenzene	98-06-6	2000	0.481%
Ethyl-tert Butyl Ether (ETBE)	637-92-3	2000	0.635%
Carbon disulfide	75-15-0	2000	0.480%
Carbon tetrachloride	56-23-5	2000	0.519%
Chlorobenzene	108-90-7	2000	0.519%
Chloroform	67-66-3	2000	0.519%
Chloroprene	126-99-8	2000	1.518%
2-Chlorotoluene	95-49-8	2000	0.478%
4-Chlorotoluene	106-43-4	2000	0.479%
Cyclohexane	110-82-7	2000	0.507%
Dibromochloromethane	124-48-1	2000	0.480%
1,2-Dibromo-3-Chloropropane	96-12-8	2000	0.479%
Dibromomethane	74-95-3	2000	0.508%
Dibromomethane	106-93-4	2000	0.508%
1,2-Dichlorobenzene	95-50-1	2000	0.478%
1,3-Dichlorobenzene	541-73-1	2000	0.479%

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Catalog Number: AL0-180001
Description: Custom VOA Cal Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: > 1 mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14606
Certification Date: March 3, 2020
Expiration Date: December 31, 2021

OFFICE USE

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
1,4-Dichlorobenzene	106-46-7	2001	0.215%
cis-1,4-Dichloro-2-butene	1476-11-5	2000	0.480%
trans-1,4-Dichloro-2-butene	110-57-6	2000	0.492%
1,1-Dichloroethane	75-34-3	2000	0.546%
1,2-Dichloroethane	107-06-2	2000	0.545%
1,1-Dichloroethene	75-35-4	2000	0.507%
cis-1,2-Dichloroethene	156-59-2	2000	0.545%
trans-1,2-Dichloroethene	156-60-5	2000	0.558%
1,2-Dichloropropane	78-87-5	2000	0.524%
1,3-Dichloropropane	142-28-9	2000	0.478%
2,2-Dichloropropane	594-20-7	2000	0.519%
1,1-Dichloropropene	563-58-6	2000	0.218%
cis-1,3-Dichloropropene	10061-01-5	2001	0.507%
trans-1,3-Dichloropropene	10061-02-6	2000	0.507%
Ethyl Ether	60-29-7	2000	0.624%
Diisopropyl ether (DIPE)	108-20-3	2000	0.622%
Ethylbenzene	100-41-4	2000	0.519%
Ethyl methacrylate	97-63-2	2000	0.500%
Hexachlorobutadiene	87-68-3	2000	0.479%
n-Hexane	110-54-3	2000	0.507%
Iodomethane (methyl iodide)	74-88-4	1999	0.216%
Isopropylbenzene	98-82-8	2000	0.507%
p-isopropyltoluene	99-87-6	2000	0.507%
Methyl-tert-butyl ether (MTBE)	1634-04-4	2000	0.649%
Methylcyclohexane	108-87-2	2000	0.479%
Methyl methacrylate	80-62-6	2000	0.479%

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Catalog Number: AL0-180001
Description: Custom VOA Cal Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: > 1 mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14606
Certification Date: March 3, 2020
Expiration Date: December 31, 2021

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Methylene Chloride	75-09-2	2000	0.479%
2-Methylnaphthalene	91-57-6	2000	0.479%
Naphthalene	91-20-3	2000	0.217%
2-Nitropropane	79-46-9	2000	0.509%
N-Propylbenzene	103-65-1	2000	0.519%
Styrene	100-42-5	2000	0.501%
1,1,1,2-Tetrachloroethane	630-20-6	2000	0.505%
1,1,2,2-Tetrachloroethane	79-34-5	2000	0.480%
Tetrachloroethene	127-18-4	2000	0.519%
Toluene	108-88-3	2000	0.519%
1,2,3-Trichlorobenzene	87-61-6	2000	0.293%
1,2,4-Trichlorobenzene	120-82-1	2000	0.478%
1,1,1-Trichloroethane	71-55-6	2001	1.009%
1,1,2-Trichloroethane	79-00-5	2000	0.479%
Trichloroethene	79-01-6	2000	0.479%
1,2,3-Trichloropropane	96-18-4	2000	0.479%
1,1,2-Trichlorotrifluoroethane	76-13-1	2000	0.644%
1,2,3-Trimethylbenzene	526-73-8	2000	0.215%
1,2,4-Trimethylbenzene	95-63-6	2000	0.507%
1,3,5-Trimethylbenzene	108-67-8	2000	0.507%
m-Xylene	108-38-3	2000	0.478%
o-Xylene	95-47-6	2000	0.479%
p-Xylene	106-42-3	2000	0.478%

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30074 **Lot No.:** A0159786

Description : 8260 Internal Standard Mix

8260 Internal Standard Mix 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Pentafluorobenzene **CAS #** 363-72-4 **Purity** 99%	(Lot MKCH1850)	2,507.0 µg/mL	+/- 14.5759 µg/mL +/- 140.5650 µg/mL +/- 143.8540 µg/mL		Gravimetric Unstressed Stressed
2	1,4-Difluorobenzene **CAS #** 540-36-3 **Purity** 99%	(Lot MKBN8571V)	2,506.6 µg/mL	+/- 14.5736 µg/mL +/- 140.5426 µg/mL +/- 143.8311 µg/mL		Gravimetric Unstressed Stressed
3	Chlorobenzene-d5 **CAS #** 3114-55-4 **Purity** 99%	(Lot PR-29571)	2,504.8 µg/mL	+/- 14.5631 µg/mL +/- 140.4416 µg/mL +/- 143.7278 µg/mL		Gravimetric Unstressed Stressed
4	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 **Purity** 99%	(Lot PR-30447)	2,508.0 µg/mL	+/- 14.5817 µg/mL +/- 140.6211 µg/mL +/- 143.9114 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30240 **Lot No.:** A0156492

Description : 8260A Surrogate Mix

8260A Surrogate Mix 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dibromofluoromethane **CAS #** 1868-53-7 **Purity** 99%	(Lot 0012016)	2,501.9 µg/mL	+/- 14.5463 µg/mL +/- 140.2790 µg/mL +/- 143.5614 µg/mL		Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 **Purity** 99%	(Lot PR-29377)	2,500.9 µg/mL	+/- 14.5404 µg/mL +/- 140.2230 µg/mL +/- 143.5040 µg/mL		Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 **Purity** 99%	(Lot I-21928)	2,500.5 µg/mL	+/- 14.5381 µg/mL +/- 140.2006 µg/mL +/- 143.4811 µg/mL		Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 **Purity** 99%	(Lot 20401KO)	2,501.2 µg/mL	+/- 14.5422 µg/mL +/- 140.2398 µg/mL +/- 143.5212 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30049 **Lot No.:** A0160880

Description : 1,2-Dichlorobenzene-d4 Mix

1, 2-Dichlorobenzene-d4 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,2-Dichlorobenzene-d4		2,000.0 µg/mL	+/-	11.8794	µg/mL	Gravimetric
	CAS # 2199-69-1	(Lot M-2097)		+/-	112.1643	µg/mL	Unstressed
	Purity 99%			+/-	114.7876	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30030 **Lot No.:** A0158124

Description : Fluorobenzene Mixture

Fluorobenzene 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Fluorobenzene	2,006.0 µg/mL	+/- 11.7723 µg/mL	Gravimetric
	CAS # 462-06-6 (Lot BCBZ5549)		+/- 112.4858 µg/mL	Unstressed
	Purity 99%		+/- 115.1173 µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180002
Description: 8260 Gases Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14053
Certification Date: January 12, 2020
Expiration Date: August 31, 2024

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STD# 24913

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Bromomethane	74-83-9	2000	6.589%
Chloroethane	75-00-3	2001	4.979%
Chloromethane	74-87-3	2009	7.022%
Chlorodifluoromethane	75-45-6	2000	0.405%
Dichlorodifluoromethane	75-71-8	2006	8.740%
Dichlorofluoromethane	75-43-4	2007	8.745%
Trichlorofluoromethane	75-69-4	1996	4.584%
Vinyl Chloride	75-01-4	2001	7.920%

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STD# 2556 4

Product Name: Custom Standard

Product Number: CUS-00002034

Lot Issue Date: 17-Jun-2020

Lot Number: 0006542412

Expiration Date: 31-Jul-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,1,1,2-tetrachloroethane	000630-20-6	RM12632	2008 ± 10 µg/mL
1,1,1-trichloroethane	000071-55-6	RM15035	2008 ± 10 µg/mL
1,1,2,2-tetrachloroethane	000079-34-5	NT00390	2006 ± 10 µg/mL
1,1,2-trichlorotrifluoroethane	000076-13-1	RM04848	2000 ± 10 µg/mL
1,1,2-trichloroethane	000079-00-5	RM01175	2007 ± 10 µg/mL
1,1-dichloroethane	000075-34-3	RM15556	2003 ± 10 µg/mL
1,1-dichloroethene	000075-35-4	RM01356	2008 ± 10 µg/mL
1,1-dichloropropene	000563-58-6	RM16247	2008 ± 10 µg/mL
1,2,3-trichlorobenzene	000087-61-6	RM10193	2002 ± 10 µg/mL
1,2,3-trichloropropane	000096-18-4	RM13082	2009 ± 10 µg/mL
1,2,3-trimethylbenzene	000526-73-8	RM13689	2009 ± 10 µg/mL
1,2,4-trichlorobenzene	000120-82-1	RM09454	2007 ± 10 µg/mL
1,2,4-trimethylbenzene	000095-63-6	RM06731	2000 ± 10 µg/mL
1,2-dibromo-3-chloropropane	000096-12-8	RM13666	2003 ± 10 µg/mL
1,2-dichlorobenzene	000095-50-1	RM13636	2008 ± 10 µg/mL
1,2-dichloroethane	000107-06-2	RM04655	2007 ± 10 µg/mL
1,2-dibromoethane	000106-93-4	RM00018	2009 ± 10 µg/mL

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ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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Product Number: CUS-00002034 **Lot Number:** 0006542412

1,2-dichloropropane	000078-87-5	RM12821	2004 ± 10 µg/mL
1,3,5-trimethylbenzene	000108-67-8	NT01632	2001 ± 10 µg/mL
1,3-dichlorobenzene	000541-73-1	NT00356	2005 ± 10 µg/mL
1,3-dichloropropane	000142-28-9	RM09825	2010 ± 10 µg/mL
1,4-dichlorobenzene	000106-46-7	RM12826	2006 ± 10 µg/mL
2,2-dichloropropane	000594-20-7	RM12927	2007 ± 10 µg/mL
2-chlorotoluene	000095-49-8	RM13774	2009 ± 10 µg/mL
allyl chloride	000107-05-1	RM12242	2001 ± 10 µg/mL
4-chlorotoluene	000106-43-4	RM11750	2003 ± 10 µg/mL
4-isopropyltoluene	000099-87-6	RM09747	2009 ± 10 µg/mL
benzene	000071-43-2	RM03830	2009 ± 10 µg/mL
bromobenzene	000108-86-1	RM10227	2009 ± 10 µg/mL
bromoform	000075-25-2	RM07516	2004 ± 10 µg/mL
bromochloromethane	000074-97-5	RM00009	2001 ± 10 µg/mL
carbon disulfide	000075-15-0	RM08158	2010 ± 10 µg/mL
carbon tetrachloride	000056-23-5	RM07576	2005 ± 10 µg/mL
chlorobenzene	000108-90-7	RM01874	2006 ± 10 µg/mL
dibromochloromethane	000124-48-1	RM14843-01	2007 ± 10 µg/mL
chloroform	000067-66-3	RM13988	2005 ± 10 µg/mL
cis-1,2-dichloroethene	000156-59-2	RM15008	2007 ± 10 µg/mL
cis-1,3-dichloropropene	010061-01-5	RM12891	2007 ± 10 µg/mL
cis-1,4-dichloro-2-butene	001476-11-5	RM11674	2005 ± 10 µg/mL

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Product Number: CUS-00002034 **Lot Number:** 0006542412

cyclohexane	000110-82-7	RM11622	2006 ± 10 µg/mL
dibromomethane	000074-95-3	RM12878	2010 ± 10 µg/mL
bromodichloromethane	000075-27-4	RM14215	2004 ± 10 µg/mL
diethyl ether	000060-29-7	RM11151	2007 ± 10 µg/mL
ethyl methacrylate	000097-63-2	RM04592	2008 ± 10 µg/mL
ethylbenzene	000100-41-4	RM00783	2008 ± 10 µg/mL
hexachlorobutadiene	000087-68-3	RM09157	2009 ± 10 µg/mL
n-hexane	000110-54-3	RM10581	2010 ± 10 µg/mL
methyl iodide	000074-88-4	RM14171	2008 ± 10 µg/mL
isopropylbenzene	000098-82-8	RM00835	2009 ± 10 µg/mL
methyl methacrylate	000080-62-6	RM04912	2008 ± 10 µg/mL
tert-butylmethyl ether	001634-04-4	RM06568	2008 ± 10 µg/mL
methylcyclohexane	000108-87-2	RM10295	2008 ± 10 µg/mL
methylene chloride	000075-09-2	RM09575	2008 ± 10 µg/mL
naphthalene	000091-20-3	RM02406	2010 ± 10 µg/mL
n-butylbenzene	000104-51-8	NT01633	2009 ± 10 µg/mL
n-propylbenzene	000103-65-1	RM02470	2007 ± 10 µg/mL
m-xylene	000108-38-3	RM15919	2008 ± 10 µg/mL
o-xylene	000095-47-6	NT00774	1999 ± 10 µg/mL
p-xylene	000106-42-3	RM09445	2007 ± 10 µg/mL
sec-butylbenzene	000135-98-8	NT01548	2009 ± 10 µg/mL
styrene	000100-42-5	RM11083	2001 ± 10 µg/mL

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Product Number: CUS-00002034 **Lot Number:** 0006542412

tert-butylbenzene	000098-06-6	NT01547	2009 ± 10 µg/mL
tetrachloroethene	000127-18-4	RM06491	2002 ± 10 µg/mL
toluene	000108-88-3	RM06650	2000 ± 10 µg/mL
trans-1,2-dichloroethene	000156-60-5	RM07565	2009 ± 10 µg/mL
trans-1,3-dichloropropene	010061-02-6	RM12254	2008 ± 10 µg/mL
trans-1,4-dichloro-2-butene	000110-57-6	RM13971	2005 ± 10 µg/mL
trichloroethene	000079-01-6	RM14232	2008 ± 10 µg/mL
2-methylnaphthalene	000091-57-6	RM01258	2009 ± 10 µg/mL
2-nitropropane	000079-46-9	RM12249	2007 ± 10 µg/mL
isopropyl ether	000108-20-3	RM03712	2004 ± 10 µg/mL
tert-amyl methyl ether	000994-05-8	RM00554	2008 ± 10 µg/mL
tert-butyl ethyl ether	000637-92-3	RM05137	2007 ± 10 µg/mL
tert-amyl ethyl ether	000919-94-8	RM12453	2007 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

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Product Name: Custom Standard

Product Number: CUS-00002374

Lot Issue Date: 23-Mar-2020

Lot Number: 0006527215

Expiration Date: 30-Apr-2021

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,3-butadiene	000106-99-0	RM14006	2000 ± 10 µg/mL
4-ethyltoluene	000622-96-8	RM14957	2010 ± 10 µg/mL
dicyclopentadiene	000077-73-6	RM16067	2008 ± 10 µg/mL
propene	000115-07-1	RM11969	2000 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

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ISO 17034 Cert No. AR-1936

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STD# 25566

Product Name: Custom Standard

Product Number: CUS-00002584

Lot Issue Date: 12-May-2020

Lot Number: 0006537291

Expiration Date: 30-Sep-2020

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
methyl acrylate	000096-33-3	NT00903	2007 ± 10 µg/mL
pentyl acetate	000628-63-7	RM02455	2006 ± 10 µg/mL
ethyl acrylate	000140-88-5	RM04396	2006 ± 10 µg/mL
n-butyl acetate	000123-86-4	RM07291	2008 ± 10 µg/mL
t-butyl acetate	000540-88-5	RM11665	2002 ± 10 µg/mL
tert-butyl formate	000762-75-4	RM10789	10040 ± 50 µg/mL
isopropyl acetate	000108-21-4	RM00997	2007 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

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ISO 17034 Cert No. AR-1936

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Product Name: Custom Standard

Product Number: CUS-00002344

Lot Issue Date: 19-Mar-2020

Lot Number: 0006527210

Expiration Date: 30-Apr-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
chloroprene	000126-99-8	RM15691	2000 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

M Bourgeois

Monica Bourgeois
QMS Representative

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STD# 25569

Product Name: Custom Standard

Product Number: CUS-00002036

Lot Issue Date: 22-Jun-2020

Lot Number: 0006542413

Expiration Date: 31-Jul-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,4-dioxane	000123-91-1	RM00526	10035 ± 50 µg/mL
acetonitrile	000075-05-8	RM14601	10040 ± 50 µg/mL
ethyl alcohol	000064-17-5	RM15111	10040 ± 50 µg/mL
ethyl acetate	000141-78-6	RM12930	10025 ± 50 µg/mL
isobutyl alcohol	000078-83-1	RM13876	10030 ± 50 µg/mL
tert-butanol	000075-65-0	RM01883	10040 ± 50 µg/mL
2-butanone	000078-93-3	RM06696	10039 ± 50 µg/mL
2-hexanone	000591-78-6	RM10228	10030 ± 50 µg/mL
4-methyl-2-pentanone	000108-10-1	RM14374	10028 ± 50 µg/mL
acetone	000067-64-1	RM13477	10040 ± 50 µg/mL
methacrylonitrile	000126-98-7	RM10100	10030 ± 50 µg/mL
propionitrile	000107-12-0	RM15267	10036 ± 50 µg/mL
tert-pentanol	000075-85-4	RM11924	10030 ± 50 µg/mL
tetrahydrofuran	000109-99-9	RM14318	10041 ± 50 µg/mL
cyclohexanone	000108-94-1	RM10703	10030 ± 50 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

522580
REC. 06/26/20 BY EF
Exp. __/__/__ By -
Open __/__/__ By -

STD# 25570

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002032

Lot Issue Date: 23-Mar-2020

Lot Number: 0006527178

Expiration Date: 30-Apr-2021

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
n-decane	000124-18-5	RM16108	2006 ± 10 µg/mL
n-dodecane	000112-40-3	RM15591	2003 ± 10 µg/mL
n-undecane	001120-21-4	RM04270	2009 ± 10 µg/mL
n-octane	000111-65-9	NT01970	2004 ± 10 µg/mL
n-nonane	000111-84-2	RM15036	2009 ± 10 µg/mL
3,3-dimethyl-1-butanol	000624-95-3	RM15245	10024 ± 50 µg/mL
1-chlorobutane	000109-69-3	RM03678	2007 ± 10 µg/mL
1-propanol	000071-23-8	RM11119	10029 ± 50 µg/mL
2-bromo-1-chloropropane	003017-85-6	RM09192	2009 ± 10 µg/mL
sec-butanol	000078-92-2	RM01299	2008 ± 10 µg/mL
2-methylpentane	000107-83-5	RM11010	2009 ± 10 µg/mL
4-methyl-2-pentanol	000108-11-2	RM02348	2009 ± 10 µg/mL
benzyl chloride	000100-44-7	RM12844	2009 ± 10 µg/mL
butylcyclohexane	001678-93-9	RM13072	2008 ± 10 µg/mL
hexachloroethane	000067-72-1	RM06859	2007 ± 10 µg/mL
2-chloroethanol	000107-07-3	NT01518	2008 ± 10 µg/mL
nitrobenzene	000098-95-3	RM11472	2009 ± 10 µg/mL

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/
CSD-QA-015.1

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

Certificate of Analysis

Product Number: CUS-00002032 **Lot Number:** 0006527178

1-methylnaphthalene	000090-12-0	RM07712	2002 ± 10 µg/mL
2,2,4-trimethylpentane	000540-84-1	RM14637	2007 ± 10 µg/mL
1-butanol	000071-36-3	RM06085	10008 ± 50 µg/mL
n-heptane	000142-82-5	RM14537	2009 ± 10 µg/mL
isopropyl alcohol	000067-63-0	RM10189	10030 ± 50 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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CSD-QA-015.1

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

Certificate of Analysis
ThermoFisher SCIENTIFIC

522617
REC. 07/22/20 BY EF
Exp. 01/18/21 By -
Open 04/22/20 By -

Certificate of Analysis

STD# 26117

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A453	Quality Test / Release Date	02/19/2020
Lot Number	198331		
Description	METHANOL, PURGE & TRAP GRADE		
Country of Origin	Venezuela	Suggested Retest Date	Feb/2025
Chemical Origin	Organic - synthetic		
BSE/TSE Comment	This product is derived from petroleum products. It does not contain any materials that are of human or animal origin, nor does it come into contact with such materials during the manufacturing process. Therefore, to the best of our knowledge, there is no potential for BSE or TSE to be present in this product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear colorless liquid free of suspended matter.
2-BUTANONE	ppb	<= 50	<25
ACETONE	ppb	<= 50	<25
AROMATIC COMPOUNDS	ppb	<= 10	<10
ASSAY	%	>= 99.9	>99.99
CARBON TETRACHLORIDE	ppb	<= 10	<10
CHLOROFORM	ppb	<= 10	<10
EVAPORATION RESIDUE	ppm	<= 1	0.22
HEPTANE	ppb	<= 50	<10
HEXANE	ppb	<= 50	<10
ISO-OCTANE	ppb	<= 50	<10
METHYL ISO-AMYL KETONE	ppb	<= 50	<25
METHYLENE CHLORIDE	ppb	<= 10	<10
OTHER DETECTABLE ALKANES	ppb	<= 50	<10
OTHER DETECTABLE CHLOROHYDROCARBONS	ppb	<= 10	<10
OTHER DETECTABLE KETONES	ppb	<= 50	<25
OTHER DETECTABLE PEAKS AS HEXANE	ppb	<= 50	<10
PENTANE	ppb	<= 50	<10
TITRATABLE ACID	MEQ/G	<= 0.0003	0.0003
TITRATABLE BASE	MEQ/G	<= 0.0002	<0.0002
VOLATILE ORGANIC CMPDS (EPA8260B OR EQUIV)	PASS/FAIL	= PASS TEST	PASS TEST

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

WATER (KARL FISCHER)	%	<= 0.2	<0.01

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

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522643
REC. 07/29/20 BY EF
Exp. __/__/__ By _
Open __/__/__ By _

STD# 26 385

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180017
Description: Acrolein
Storage: Freeze (-18 - 0ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL15595
Certification Date: July 28, 2020
Expiration Date: August 27, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Acrolein	107-02-8	10000	0.301%

Notes: Due to the nature of acrolein in solution, long term storage is not recommended. Please use immediately.

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ACCREDITED
Chemical Testing Laboratory
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Certificate of Analysis

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522644
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Exp. __/__/__ By
Open __/__/__ By

STD# 26386

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180018
Description: Vinyl Acetate
Storage: Freeze (-18 - 0 °C)
Provided As: 1 mL in 2 mL Ampoule in P&T Methanol

Lot Number: CL15596
Certification Date: July 28, 2020
Expiration Date: August 27, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Vinyl Acetate	108-05-4	2000	0.615%

Notes: Due to the nature of Vinyl Acetate in solution, long term storage is not recommended. Please use immediately.

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522645
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STOA 26 387

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180007
Description: Reactives Mix
Storage: Freeze (-18-0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL15234
Certification Date: April 28, 2020
Expiration Date: October 31, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
2-Chloroethyl vinyl ether	110-75-8	10001	0.106%
Methyl acetate	79-20-9	10001	0.225%
Acrylonitrile	107-13-1	10000	0.115%

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Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002037

Lot Number: 0006547006

522670
REC. 08/06/20 BY EF
Exp. __/__/__ By -
Open __/__/__ By -

STD#26710

Lot Issue Date: 21-Jul-2020

Expiration Date: 31-Aug-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
bromomethane	000074-83-9	RM00064	2006 ± 10 µg/mL
chloroethane	000075-00-3	RM00065	2009 ± 10 µg/mL
chloromethane	000074-87-3	RM12571	2009 ± 10 µg/mL
chlorodifluoromethane	000075-45-6	RM04765	2010 ± 10 µg/mL
dichlorodifluoromethane	000075-71-8	RM05289	2010 ± 10 µg/mL
dichlorofluoromethane	000075-43-4	RM05287	2010 ± 10 µg/mL
trichlorofluoromethane	000075-69-4	RM00017	2004 ± 10 µg/mL
vinyl chloride	000075-01-4	RM05458	2009 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

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Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002038

Lot Number: 0006547796

522671
REC. 08/06/20 BY EF
Exp. --/--/-- By
Open --/--/-- By

STD# 26711

Lot Issue Date: 15-Jul-2020

Expiration Date: 30-Nov-2020

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
2-chloroethylvinyl ether	000110-75-8	RM06940	10044 ± 50 µg/mL
acrolein	000107-02-8	RM15726	10043 ± 50 µg/mL
methyl acetate	000079-20-9	NT02091	10043 ± 50 µg/mL
acrylonitrile	000107-13-1	RM14521	10048 ± 50 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002379

Lot Number: 0006547794

522672
REC.08/06/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

Lot Issue Date: 15-Jul-2020

Expiration Date: 30-Nov-2020

Description: STD# 26712

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
vinyl acetate	000108-05-4	RM12298	2004 ± 10 µg/mL

Matrix: water (low TOC, < 50 ppb)

Storage Conditions: Store Refrigerated (2° - 8°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

M Bourgeois

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

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ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

Certificate of Analysis
ThermoFisher SCIENTIFIC

522674
REC. 08/07/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STO# 26774

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A453	Quality Test / Release Date	02/19/2020
Lot Number	198331		
Description	METHANOL, PURGE & TRAP GRADE		
Country of Origin	Venezuela	Suggested Retest Date	Feb/2025
Chemical Origin	Organic - synthetic		
BSE/TSE Comment	This product is derived from petroleum products. It does not contain any materials that are of human or animal origin, nor does it come into contact with such materials during the manufacturing process. Therefore, to the best of our knowledge, there is no potential for BSE or TSE to be present in this product.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear colorless liquid free of suspended matter.
2-BUTANONE	ppb	<= 50	<25
ACETONE	ppb	<= 50	<25
AROMATIC COMPOUNDS	ppb	<= 10	<10
ASSAY	%	>= 99.9	>99.99
CARBON TETRACHLORIDE	ppb	<= 10	<10
CHLOROFORM	ppb	<= 10	<10
EVAPORATION RESIDUE	ppm	<= 1	0.22
HEPTANE	ppb	<= 50	<10
HEXANE	ppb	<= 50	<10
ISO-OCTANE	ppb	<= 50	<10
METHYL ISO-AMYL KETONE	ppb	<= 50	<25
METHYLENE CHLORIDE	ppb	<= 10	<10
OTHER DETECTABLE ALKANES	ppb	<= 50	<10
OTHER DETECTABLE CHLOROHYDROCARBONS	ppb	<= 10	<10
OTHER DETECTABLE KETONES	ppb	<= 50	<25
OTHER DETECTABLE PEAKS AS HEXANE	ppb	<= 50	<10
PENTANE	ppb	<= 50	<10
TITRATABLE ACID	MEQ/G	<= 0.0003	0.0003
TITRATABLE BASE	MEQ/G	<= 0.0002	<0.0002
VOLATILE ORGANIC CMPDS (EPA8260B OR EQUIV)	PASS/FAIL	= PASS TEST	PASS TEST

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

WATER (KARL FISCHER)	%	<= 0.2	<0.01

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

phenova Certified Reference Materials | A Phenomenex Company

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180002
Description: 8260 Gases Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL15196
Certification Date: July 16, 2020
Expiration Date: July 31, 2025

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522700
REC.08/10/20 BY EF
Exp. --/--/-- By
Open --/--/-- By

STD # 27049

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Bromomethane	74-83-9	2003	5.904%
Chloroethane	75-00-3	2007	9.993%
Chloromethane	74-87-3	2005	3.509%
Chlorodifluoromethane	75-45-6	2001	0.865%
Dichlorodifluoromethane	75-71-8	2009	5.442%
Dichlorofluoromethane	75-43-4	2002	15.893%
Trichlorofluoromethane	75-69-4	1986	5.494%
Vinyl chloride	75-01-4	1997	5.851%

ILS46916T8_UB

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

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Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

Certificate of Analysis
ThermoFisher SCIENTIFIC

522732
REC. 08/24/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STD# 27388

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A453	Quality Test / Release Date	02/19/2020
Lot Number	198331		
Description	METHANOL, PURGE & TRAP GRADE		
Country of Origin	Venezuela	Suggested Retest Date	Feb/2025
Chemical Origin	Organic - synthetic		
BSE/TSE Comment	This product is derived from petroleum products. It does not contain any materials that are of human or animal origin, nor does it come into contact with such materials during the manufacturing process. Therefore, to the best of our knowledge, there is no potential for BSE or TSE to be present in this product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear colorless liquid free of suspended matter.
2-BUTANONE	ppb	<= 50	<25
ACETONE	ppb	<= 50	<25
AROMATIC COMPOUNDS	ppb	<= 10	<10
ASSAY	%	>= 99.9	>99.99
CARBON TETRACHLORIDE	ppb	<= 10	<10
CHLOROFORM	ppb	<= 10	<10
EVAPORATION RESIDUE	ppm	<= 1	0.22
HEPTANE	ppb	<= 50	<10
HEXANE	ppb	<= 50	<10
ISO-OCTANE	ppb	<= 50	<10
METHYL ISO-AMYL KETONE	ppb	<= 50	<25
METHYLENE CHLORIDE	ppb	<= 10	<10
OTHER DETECTABLE ALKANES	ppb	<= 50	<10
OTHER DETECTABLE CHLOROHYDROCARBONS	ppb	<= 10	<10
OTHER DETECTABLE KETONES	ppb	<= 50	<25
OTHER DETECTABLE PEAKS AS HEXANE	ppb	<= 50	<10
PENTANE	ppb	<= 50	<10
TITRATABLE ACID	MEQ/G	<= 0.0003	0.0003
TITRATABLE BASE	MEQ/G	<= 0.0002	<0.0002
VOLATILE ORGANIC CMPDS (EPA8260B OR EQUIV)	PASS/FAIL	= PASS TEST	PASS TEST

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

WATER (KARL FISCHER)	%	<= 0.2	<0.01

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

phenova Certified Reference Materials | A Phenomenex Company

Produced by Phenova
6390 Joyce Drive STE 100, Golden, CO 80403 USA ▪ Tel: 303-940-0033 ▪ Fax: 303-940-0043 ▪ info@phenova.com
Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180017
Description: Acrolein
Storage: Freeze (-18 - 0ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL15670
Certification Date: August 19, 2020
Expiration Date: September 18, 2020

522733
REC.08/21/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STD# 27397

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Acrolein	107-02-8	10000	0.571%

Notes: Due to the nature of acrolein in solution, long term storage is not recommended. Please use immediately.

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

phenova Certified Reference Materials | A Phenomenex Company

Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

Certificate of Analysis

Produced by Phenova
6390 Joyce Drive STE 100, Golden, CO 80403 USA ▪ Tel: 303-940-0033 ▪ Fax: 303-940-0043 ▪ info@phenova.com
Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180018
Description: Vinyl Acetate
Storage: Freeze (-18 - 0 °C)
Provided As: 1 mL in 2 mL Ampoule in P&T Methanol

Lot Number: CL15665
Certification Date: August 17, 2020
Expiration Date: September 16, 2020

522735
REC.08/20/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STD# 27399

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Vinyl Acetate	108-05-4	2000	0.352%

Notes: Due to the nature of Vinyl Acetate in solution, long term storage is not recommended. Please use immediately.

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

phenova Certified Reference Materials | A Phenomenex Company

Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

IL8469T018_us

SAMPLE NO.

BLA6WSSS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249417 Contract: RUSH VOC Soils

Lab Sample ID: 5249417001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	22.6		%	1	08/26/2020 15:26

SAMPLE NO.

GR6WWSS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249417 Contract: RUSH VOC Soils

Lab Sample ID: 5249417002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	13.5		%	1	08/26/2020 15:27

SAMPLE NO.

GR6WSSS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249417 Contract: RUSH VOC Soils

Lab Sample ID: 5249417003 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	15.3		%	1	08/26/2020 15:29

SAMPLE NO.

GR6PBSS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249417 Contract: RUSH VOC Soils

Lab Sample ID: 5249417004 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	14.5		%	1	08/26/2020 15:31

SAMPLE NO.

GR6PBSM

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249417 Contract: RUSH VOC Soils

Lab Sample ID: 5249417005 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	14.6		%	1	08/26/2020 15:31

SAMPLE NO.

YL8WNSS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249417 Contract: RUSH VOC Soils

Lab Sample ID: 5249417006 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	18.5		%	1	08/26/2020 15:32

FORM XII INORGANIC-1

PREPARATION LOG

Lab Name: Pace Analytical - Dayton SDG No. : 5249417 Contract: RUSH VOC Soils

Preparation Method: ASTM D2216 Batch: PMST 1482

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
5249417001	BLA6WSSS	08/26/2020	1	1
5249417002	GR6WWSS	08/26/2020	1	1
5249417003	GR6WSSS	08/26/2020	1	1
5249417004	GR6PBSS	08/26/2020	1	1
5249417005	GR6PBSM	08/26/2020	1	1
5249417006	YL8WNSS	08/26/2020	1	1

FORM XIII INORGANIC-1

ANALYSIS RUN LOG

Lab Name: Pace Analytical - Dayton SDG No. : 5249417 Contract: RUSH VOC Soils

Instrument ID: 52BL03 Analysis Method: ASTM D2216

Start Date: 08/26/2020 15:26 End Date: 08/26/2020 15:32

Sample Name	Lab Sample ID	D/F	Date	Time	MOIST
BLA6WSSS	5249417001	1	08/26/2020	15:26	X
GR6WWSS	5249417002	1	08/26/2020	15:27	X
GR6WSSS	5249417003	1	08/26/2020	15:29	X
GR6PBSS	5249417004	1	08/26/2020	15:31	X
GR6PBSM	5249417005	1	08/26/2020	15:31	X
YL8WNSS	5249417006	1	08/26/2020	15:32	X

Prep Log Report

Batch Information: PMST 48724

Template Version: EF-DAYT-I-038-Rev.00 (02Nov2018)

Analysis Method	ASTM D2216	Analyzed By	SEP	Instrument	52BL03	Oven ID	52OV01
Thermometer ID	52TC01	Oven Temp Correction Factor	0	Oven Temp In1 (C) | Corr | Date/Time | Init	104.2 | 104.2 | 08/26/2020 15:36 | SEP	Oven Temp Out1 (C) | Corr | Date/Time | Init	104.8 | 104.8 | 08/27/2020 09:22 | SEP
Desic. In 1 ID | Date/Time | Init	52DS13 | 08/27/2020 09:22 | SEP	Desic. Out 1 Date/Time | Init	08/27/2020 15:24 | EH1	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**5249417001**	Y		77.44	22.56	08/26/2020 15:26:33	10.2571	1.0005	12.9534	10.2571	M	
DRY WEIGHT	PS	**5249417002**	Y		86.48	13.52	08/26/2020 15:27:14	9.8348	1.0019	11.2153	9.8348	M	
DRY WEIGHT	PS	**5249417003**	Y		84.66	15.34	08/26/2020 15:29:56	10.1092	1.0145	11.7576	10.1092	M	
DRY WEIGHT	PS	**5249417004**	Y		85.52	14.48	08/26/2020 15:31:05	11.3538	1.0111	13.1043	11.3538	M	
DRY WEIGHT	PS	**5249417005**	Y		85.37	14.63	08/26/2020 15:31:53	11.2981	1.0041	13.0617	11.2981	M	
DRY WEIGHT	PS	**5249417006**	Y		81.54	18.46	08/26/2020 15:32:32	9.5828	1.0125	11.5234	9.5828	M	

Prep Log Report

Batch Information: PMST 48724

Template Version: EF-DAYT-I-038-Rev.00 (02Nov2018)

Analysis Method	ASTM D2216	Analyzed By	SEP	Instrument	52BL03	Oven ID	52OV01
Thermometer ID	52TC01	Oven Temp Correction Factor	0	Oven Temp In1 (C) | Corr | Date/Time | Init	104.2 | 104.2 | 08/26/2020 15:36 | SEP	Oven Temp Out1 (C) | Corr | Date/Time | Init	104.8 | 104.8 | 08/27/2020 09:22 | SEP
Desic. In 1 ID | Date/Time | Init	52DS13 | 08/27/2020 09:22 | SEP	Desic. Out 1 Date/Time | Init	08/27/2020 15:24 | EH1	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	Client Sample ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**5249417001**	Y		BLA6WSSS	77.44	22.56	08/26/2020 15:26:33	10.2571	1.0005	12.9534	10.2571	M	
DRY WEIGHT	PS	**5249417002**	Y		GR6WWSS	86.48	13.52	08/26/2020 15:27:14	9.8348	1.0019	11.2153	9.8348	M	
DRY WEIGHT	PS	**5249417003**	Y		GR6WWSS	84.66	15.34	08/26/2020 15:29:56	10.1092	1.0145	11.7576	10.1092	M	
DRY WEIGHT	PS	**5249417004**	Y		GR6PBSS	85.52	14.48	08/26/2020 15:31:05	11.3538	1.0111	13.1043	11.3538	M	
DRY WEIGHT	PS	**5249417005**	Y		GR6PBSM	85.37	14.63	08/26/2020 15:31:53	11.2981	1.0041	13.0617	11.2981	M	
DRY WEIGHT	PS	**5249417006**	Y		YL8WNSS	81.54	18.46	08/26/2020 15:32:32	9.5828	1.0125	11.5234	9.5828	M	

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 5249553

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

August 28, 2020

John Bowen
MAKSolve, LLC
261 Regency Dr
Dayton, OH 45459

RE: Project: RUSH VOC Soils
Pace Project No.: 5249553

Dear John Bowen:

Enclosed are the analytical results for sample(s) received by the laboratory on August 27, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Dayton

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christina Schneider
christina.schneider@pacelabs.com
(937)832-8242
Project Manager

Enclosures

cc: Barbara McGavern, MAKSolve, LLC

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

CERTIFICATIONS

Project:	RUSH VOC Soils
Pace Project No.:	5249553

Pace Analytical Services Dayton

25 Holiday Drive, Englewood, OH 45322
Florida Certification #: E871136
Ohio VAP Certification #: CL0032
Kentucky UST Certification #: 123049
Kentucky Wastewater Certification #: KY98039
Ohio EPA Drinking Water Lab #872

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

SAMPLE SUMMARY

Project: RUSH VOC Soils
Pace Project No.: 5249553

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5249553001	**YL10PB2SS**	Solid	08/27/20 12:34	08/27/20 15:15
5249553002	**YL10PB2SD**	Solid	08/27/20 12:35	08/27/20 15:15
5249553003	**YL10WS1SS**	Solid	08/27/20 12:37	08/27/20 15:15
5249553004	**YL10WS2SS**	Solid	08/27/20 12:36	08/27/20 15:15
5249553005	**YL10PB1SM**	Solid	08/27/20 12:33	08/27/20 15:15
5249553006	**YL10PB1SS**	Solid	08/27/20 12:32	08/27/20 15:15
5249553007	**YL10WESS**	Solid	08/27/20 12:30	08/27/20 15:15
5249553008	**YL10WESD**	Solid	08/27/20 12:31	08/27/20 15:15
5249553009	**RD8PB1SS**	Solid	08/27/20 11:15	08/27/20 15:15
5249553010	**RD8PB2SS**	Solid	08/27/20 11:17	08/27/20 15:15
5249553011	**RD8WESS**	Solid	08/27/20 11:19	08/27/20 15:15
5249553012	**082720R14**	Solid	08/27/20 10:55	08/27/20 15:15
5249553013	**RD8WSSS**	Solid	08/27/20 11:25	08/27/20 15:15
5249553014	**RD8WWSS**	Solid	08/27/20 11:22	08/27/20 15:15

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

SAMPLE ANALYTE COUNT

Project: RUSH VOC Soils
Pace Project No.: 5249553

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5249553001	**YL10PB2SS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249553002	**YL10PB2SD**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249553003	**YL10WS1SS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249553004	**YL10WS2SS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249553005	**YL10PB1SM**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249553006	**YL10PB1SS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249553007	**YL10WESS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249553008	**YL10WESD**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249553009	**RD8PB1SS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249553010	**RD8PB2SS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249553011	**RD8WESS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249553012	**082720R14**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249553013	**RD8WSSS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249553014	**RD8WWSS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1

PASI-DAY = Pace Analytical Services - Dayton

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: YL10PB2SS **Lab ID: 5249553001** Collected: 08/27/20 12:34 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	273	14.8	1	08/27/20 15:56	08/27/20 16:20	67-64-1	
Acetonitrile	ND	ug/kg	218	10.8	1	08/27/20 15:56	08/27/20 16:20	75-05-8	
Acrolein	ND	ug/kg	273	8.0	1	08/27/20 15:56	08/27/20 16:20	107-02-8	
Acrylonitrile	ND	ug/kg	109	1.2	1	08/27/20 15:56	08/27/20 16:20	107-13-1	
Benzene	ND	ug/kg	5.5	0.88	1	08/27/20 15:56	08/27/20 16:20	71-43-2	
Bromobenzene	ND	ug/kg	27.3	0.85	1	08/27/20 15:56	08/27/20 16:20	108-86-1	
Bromochloromethane	ND	ug/kg	27.3	0.67	1	08/27/20 15:56	08/27/20 16:20	74-97-5	
Bromodichloromethane	ND	ug/kg	27.3	0.86	1	08/27/20 15:56	08/27/20 16:20	75-27-4	
Bromoform	ND	ug/kg	27.3	0.66	1	08/27/20 15:56	08/27/20 16:20	75-25-2	
Bromomethane	ND	ug/kg	136	0.85	1	08/27/20 15:56	08/27/20 16:20	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	109	1.5	1	08/27/20 15:56	08/27/20 16:20	78-93-3	
n-Butylbenzene	ND	ug/kg	27.3	1.8	1	08/27/20 15:56	08/27/20 16:20	104-51-8	
sec-Butylbenzene	ND	ug/kg	27.3	1.5	1	08/27/20 15:56	08/27/20 16:20	135-98-8	
tert-Butylbenzene	ND	ug/kg	27.3	1.4	1	08/27/20 15:56	08/27/20 16:20	98-06-6	
Carbon disulfide	ND	ug/kg	109	1.7	1	08/27/20 15:56	08/27/20 16:20	75-15-0	
Carbon tetrachloride	ND	ug/kg	27.3	1.6	1	08/27/20 15:56	08/27/20 16:20	56-23-5	
Chlorobenzene	ND	ug/kg	27.3	0.83	1	08/27/20 15:56	08/27/20 16:20	108-90-7	
Chloroethane	ND	ug/kg	27.3	1.6	1	08/27/20 15:56	08/27/20 16:20	75-00-3	
Chloroform	ND	ug/kg	27.3	1.1	1	08/27/20 15:56	08/27/20 16:20	67-66-3	
Chloromethane	**4.1J**	ug/kg	27.3	0.85	1	08/27/20 15:56	08/27/20 16:20	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	27.3	0.89	1	08/27/20 15:56	08/27/20 16:20	95-49-8	
4-Chlorotoluene	ND	ug/kg	27.3	0.88	1	08/27/20 15:56	08/27/20 16:20	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	54.5	0.88	1	08/27/20 15:56	08/27/20 16:20	96-12-8	
Dibromochloromethane	ND	ug/kg	27.3	0.67	1	08/27/20 15:56	08/27/20 16:20	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	27.3	0.62	1	08/27/20 15:56	08/27/20 16:20	106-93-4	
Dibromomethane	ND	ug/kg	27.3	0.85	1	08/27/20 15:56	08/27/20 16:20	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	27.3	0.75	1	08/27/20 15:56	08/27/20 16:20	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	27.3	0.76	1	08/27/20 15:56	08/27/20 16:20	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	27.3	0.62	1	08/27/20 15:56	08/27/20 16:20	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	27.3	2.3	1	08/27/20 15:56	08/27/20 16:20	75-71-8	
1,1-Dichloroethane	ND	ug/kg	27.3	1.2	1	08/27/20 15:56	08/27/20 16:20	75-34-3	
1,2-Dichloroethane	ND	ug/kg	27.3	1.1	1	08/27/20 15:56	08/27/20 16:20	107-06-2	
1,1-Dichloroethene	ND	ug/kg	27.3	1.9	1	08/27/20 15:56	08/27/20 16:20	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	27.3	1.0	1	08/27/20 15:56	08/27/20 16:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	27.3	1.3	1	08/27/20 15:56	08/27/20 16:20	156-60-5	
1,2-Dichloropropane	ND	ug/kg	27.3	0.77	1	08/27/20 15:56	08/27/20 16:20	78-87-5	
1,3-Dichloropropane	ND	ug/kg	27.3	0.69	1	08/27/20 15:56	08/27/20 16:20	142-28-9	
2,2-Dichloropropane	ND	ug/kg	27.3	1.6	1	08/27/20 15:56	08/27/20 16:20	594-20-7	
1,1-Dichloropropene	ND	ug/kg	27.3	1.4	1	08/27/20 15:56	08/27/20 16:20	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	27.3	0.71	1	08/27/20 15:56	08/27/20 16:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	27.3	0.93	1	08/27/20 15:56	08/27/20 16:20	10061-02-6	
Ethyl acetate	ND	ug/kg	54.5	1.8	1	08/27/20 15:56	08/27/20 16:20	141-78-6	
Ethylbenzene	ND	ug/kg	27.3	1.3	1	08/27/20 15:56	08/27/20 16:20	100-41-4	
2-Hexanone	ND	ug/kg	109	4.9	1	08/27/20 15:56	08/27/20 16:20	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: YL10PB2SS **Lab ID: 5249553001** Collected: 08/27/20 12:34 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	27.3	1.1	1	08/27/20 15:56	08/27/20 16:20	98-82-8	
p-Isopropyltoluene	ND	ug/kg	27.3	5.5	1	08/27/20 15:56	08/27/20 16:20	99-87-6	
Methylene Chloride	ND	ug/kg	136	1.8	1	08/27/20 15:56	08/27/20 16:20	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	109	3.1	1	08/27/20 15:56	08/27/20 16:20	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	54.5	1.3	1	08/27/20 15:56	08/27/20 16:20	1634-04-4	
Naphthalene	ND	ug/kg	27.3	0.68	1	08/27/20 15:56	08/27/20 16:20	91-20-3	
n-Propylbenzene	ND	ug/kg	27.3	1.2	1	08/27/20 15:56	08/27/20 16:20	103-65-1	
Styrene	ND	ug/kg	27.3	1.1	1	08/27/20 15:56	08/27/20 16:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	27.3	0.66	1	08/27/20 15:56	08/27/20 16:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	27.3	0.61	1	08/27/20 15:56	08/27/20 16:20	79-34-5	
Tetrachloroethene	ND	ug/kg	27.3	1.6	1	08/27/20 15:56	08/27/20 16:20	127-18-4	
Toluene	ND	ug/kg	27.3	0.95	1	08/27/20 15:56	08/27/20 16:20	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	27.3	0.64	1	08/27/20 15:56	08/27/20 16:20	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	27.3	0.73	1	08/27/20 15:56	08/27/20 16:20	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	27.3	1.4	1	08/27/20 15:56	08/27/20 16:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	27.3	0.87	1	08/27/20 15:56	08/27/20 16:20	79-00-5	
Trichloroethene	**4.2J**	ug/kg	27.3	1.2	1	08/27/20 15:56	08/27/20 16:20	79-01-6	
Trichlorofluoromethane	ND	ug/kg	27.3	2.0	1	08/27/20 15:56	08/27/20 16:20	75-69-4	M1,R1
1,2,3-Trichloropropane	ND	ug/kg	27.3	1.4	1	08/27/20 15:56	08/27/20 16:20	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	27.3	0.90	1	08/27/20 15:56	08/27/20 16:20	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	27.3	1.0	1	08/27/20 15:56	08/27/20 16:20	108-67-8	
Vinyl acetate	ND	ug/kg	54.5	2.1	1	08/27/20 15:56	08/27/20 16:20	108-05-4	
Vinyl chloride	ND	ug/kg	27.3	2.0	1	08/27/20 15:56	08/27/20 16:20	75-01-4	
Xylene (Total)	ND	ug/kg	54.5	2.8	1	08/27/20 15:56	08/27/20 16:20	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	117	%.	78-126		1	08/27/20 15:56	08/27/20 16:20	1868-53-7	
Toluene-d8 (S)	97	%.	80-120		1	08/27/20 15:56	08/27/20 16:20	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	80-120		1	08/27/20 15:56	08/27/20 16:20	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%.	76-127		1	08/27/20 15:56	08/27/20 16:20	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**15.1**	%	0.10	0.10	1		08/27/20 20:29		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: YL10PB2SD **Lab ID: 5249553002** Collected: 08/27/20 12:35 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	289	15.7	1	08/27/20 16:25	08/27/20 16:45	67-64-1	
Acetonitrile	ND	ug/kg	231	11.4	1	08/27/20 16:25	08/27/20 16:45	75-05-8	
Acrolein	ND	ug/kg	289	8.5	1	08/27/20 16:25	08/27/20 16:45	107-02-8	
Acrylonitrile	ND	ug/kg	116	1.3	1	08/27/20 16:25	08/27/20 16:45	107-13-1	
Benzene	ND	ug/kg	5.8	0.94	1	08/27/20 16:25	08/27/20 16:45	71-43-2	
Bromobenzene	ND	ug/kg	28.9	0.90	1	08/27/20 16:25	08/27/20 16:45	108-86-1	
Bromochloromethane	ND	ug/kg	28.9	0.71	1	08/27/20 16:25	08/27/20 16:45	74-97-5	
Bromodichloromethane	ND	ug/kg	28.9	0.91	1	08/27/20 16:25	08/27/20 16:45	75-27-4	
Bromoform	ND	ug/kg	28.9	0.70	1	08/27/20 16:25	08/27/20 16:45	75-25-2	
Bromomethane	ND	ug/kg	145	0.91	1	08/27/20 16:25	08/27/20 16:45	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	116	1.6	1	08/27/20 16:25	08/27/20 16:45	78-93-3	
n-Butylbenzene	ND	ug/kg	28.9	1.9	1	08/27/20 16:25	08/27/20 16:45	104-51-8	
sec-Butylbenzene	ND	ug/kg	28.9	1.6	1	08/27/20 16:25	08/27/20 16:45	135-98-8	
tert-Butylbenzene	ND	ug/kg	28.9	1.4	1	08/27/20 16:25	08/27/20 16:45	98-06-6	
Carbon disulfide	ND	ug/kg	116	1.8	1	08/27/20 16:25	08/27/20 16:45	75-15-0	
Carbon tetrachloride	ND	ug/kg	28.9	1.7	1	08/27/20 16:25	08/27/20 16:45	56-23-5	
Chlorobenzene	ND	ug/kg	28.9	0.88	1	08/27/20 16:25	08/27/20 16:45	108-90-7	
Chloroethane	ND	ug/kg	28.9	1.7	1	08/27/20 16:25	08/27/20 16:45	75-00-3	
Chloroform	ND	ug/kg	28.9	1.2	1	08/27/20 16:25	08/27/20 16:45	67-66-3	
Chloromethane	ND	ug/kg	28.9	0.90	1	08/27/20 16:25	08/27/20 16:45	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	28.9	0.94	1	08/27/20 16:25	08/27/20 16:45	95-49-8	
4-Chlorotoluene	ND	ug/kg	28.9	0.94	1	08/27/20 16:25	08/27/20 16:45	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	57.9	0.93	1	08/27/20 16:25	08/27/20 16:45	96-12-8	
Dibromochloromethane	ND	ug/kg	28.9	0.71	1	08/27/20 16:25	08/27/20 16:45	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	28.9	0.65	1	08/27/20 16:25	08/27/20 16:45	106-93-4	
Dibromomethane	ND	ug/kg	28.9	0.90	1	08/27/20 16:25	08/27/20 16:45	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	28.9	0.80	1	08/27/20 16:25	08/27/20 16:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	28.9	0.80	1	08/27/20 16:25	08/27/20 16:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	28.9	0.66	1	08/27/20 16:25	08/27/20 16:45	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	28.9	2.5	1	08/27/20 16:25	08/27/20 16:45	75-71-8	
1,1-Dichloroethane	ND	ug/kg	28.9	1.2	1	08/27/20 16:25	08/27/20 16:45	75-34-3	
1,2-Dichloroethane	**3.1J**	ug/kg	28.9	1.2	1	08/27/20 16:25	08/27/20 16:45	107-06-2	
1,1-Dichloroethene	ND	ug/kg	28.9	2.0	1	08/27/20 16:25	08/27/20 16:45	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	28.9	1.1	1	08/27/20 16:25	08/27/20 16:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	28.9	1.4	1	08/27/20 16:25	08/27/20 16:45	156-60-5	
1,2-Dichloropropane	ND	ug/kg	28.9	0.82	1	08/27/20 16:25	08/27/20 16:45	78-87-5	
1,3-Dichloropropane	ND	ug/kg	28.9	0.73	1	08/27/20 16:25	08/27/20 16:45	142-28-9	
2,2-Dichloropropane	ND	ug/kg	28.9	1.7	1	08/27/20 16:25	08/27/20 16:45	594-20-7	
1,1-Dichloropropene	ND	ug/kg	28.9	1.5	1	08/27/20 16:25	08/27/20 16:45	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	28.9	0.75	1	08/27/20 16:25	08/27/20 16:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	28.9	0.99	1	08/27/20 16:25	08/27/20 16:45	10061-02-6	
Ethyl acetate	ND	ug/kg	57.9	2.0	1	08/27/20 16:25	08/27/20 16:45	141-78-6	
Ethylbenzene	ND	ug/kg	28.9	1.3	1	08/27/20 16:25	08/27/20 16:45	100-41-4	
2-Hexanone	ND	ug/kg	116	5.2	1	08/27/20 16:25	08/27/20 16:45	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: YL10PB2SD **Lab ID: 5249553002** Collected: 08/27/20 12:35 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	28.9	1.2	1	08/27/20 16:25	08/27/20 16:45	98-82-8	
p-Isopropyltoluene	ND	ug/kg	28.9	5.8	1	08/27/20 16:25	08/27/20 16:45	99-87-6	
Methylene Chloride	ND	ug/kg	145	1.9	1	08/27/20 16:25	08/27/20 16:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	116	3.3	1	08/27/20 16:25	08/27/20 16:45	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	57.9	1.3	1	08/27/20 16:25	08/27/20 16:45	1634-04-4	
Naphthalene	ND	ug/kg	28.9	0.73	1	08/27/20 16:25	08/27/20 16:45	91-20-3	
n-Propylbenzene	ND	ug/kg	28.9	1.2	1	08/27/20 16:25	08/27/20 16:45	103-65-1	
Styrene	ND	ug/kg	28.9	1.1	1	08/27/20 16:25	08/27/20 16:45	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	28.9	0.70	1	08/27/20 16:25	08/27/20 16:45	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	28.9	0.64	1	08/27/20 16:25	08/27/20 16:45	79-34-5	
Tetrachloroethene	ND	ug/kg	28.9	1.7	1	08/27/20 16:25	08/27/20 16:45	127-18-4	
Toluene	ND	ug/kg	28.9	1.0	1	08/27/20 16:25	08/27/20 16:45	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	28.9	0.67	1	08/27/20 16:25	08/27/20 16:45	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	28.9	0.77	1	08/27/20 16:25	08/27/20 16:45	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	28.9	1.4	1	08/27/20 16:25	08/27/20 16:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	28.9	0.92	1	08/27/20 16:25	08/27/20 16:45	79-00-5	
Trichloroethene	ND	ug/kg	28.9	1.3	1	08/27/20 16:25	08/27/20 16:45	79-01-6	
Trichlorofluoromethane	ND	ug/kg	28.9	2.1	1	08/27/20 16:25	08/27/20 16:45	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	28.9	1.5	1	08/27/20 16:25	08/27/20 16:45	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	28.9	0.96	1	08/27/20 16:25	08/27/20 16:45	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	28.9	1.1	1	08/27/20 16:25	08/27/20 16:45	108-67-8	
Vinyl acetate	ND	ug/kg	57.9	2.2	1	08/27/20 16:25	08/27/20 16:45	108-05-4	
Vinyl chloride	ND	ug/kg	28.9	2.1	1	08/27/20 16:25	08/27/20 16:45	75-01-4	
Xylene (Total)	ND	ug/kg	57.9	3.0	1	08/27/20 16:25	08/27/20 16:45	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	113	%.	78-126		1	08/27/20 16:25	08/27/20 16:45	1868-53-7	
Toluene-d8 (S)	99	%.	80-120		1	08/27/20 16:25	08/27/20 16:45	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	80-120		1	08/27/20 16:25	08/27/20 16:45	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%.	76-127		1	08/27/20 16:25	08/27/20 16:45	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**16.1**	%	0.10	0.10	1		08/27/20 20:30		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: YL10WS1SS **Lab ID: 5249553003** Collected: 08/27/20 12:37 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	299	16.3	1	08/27/20 16:25	08/27/20 17:10	67-64-1	
Acetonitrile	ND	ug/kg	239	11.8	1	08/27/20 16:25	08/27/20 17:10	75-05-8	
Acrolein	ND	ug/kg	299	8.8	1	08/27/20 16:25	08/27/20 17:10	107-02-8	
Acrylonitrile	ND	ug/kg	120	1.4	1	08/27/20 16:25	08/27/20 17:10	107-13-1	
Benzene	ND	ug/kg	6.0	0.97	1	08/27/20 16:25	08/27/20 17:10	71-43-2	
Bromobenzene	ND	ug/kg	29.9	0.93	1	08/27/20 16:25	08/27/20 17:10	108-86-1	
Bromochloromethane	ND	ug/kg	29.9	0.73	1	08/27/20 16:25	08/27/20 17:10	74-97-5	
Bromodichloromethane	ND	ug/kg	29.9	0.94	1	08/27/20 16:25	08/27/20 17:10	75-27-4	
Bromoform	ND	ug/kg	29.9	0.72	1	08/27/20 16:25	08/27/20 17:10	75-25-2	
Bromomethane	ND	ug/kg	150	0.94	1	08/27/20 16:25	08/27/20 17:10	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	120	1.7	1	08/27/20 16:25	08/27/20 17:10	78-93-3	
n-Butylbenzene	ND	ug/kg	29.9	1.9	1	08/27/20 16:25	08/27/20 17:10	104-51-8	
sec-Butylbenzene	ND	ug/kg	29.9	1.6	1	08/27/20 16:25	08/27/20 17:10	135-98-8	
tert-Butylbenzene	ND	ug/kg	29.9	1.5	1	08/27/20 16:25	08/27/20 17:10	98-06-6	
Carbon disulfide	ND	ug/kg	120	1.9	1	08/27/20 16:25	08/27/20 17:10	75-15-0	
Carbon tetrachloride	ND	ug/kg	29.9	1.7	1	08/27/20 16:25	08/27/20 17:10	56-23-5	
Chlorobenzene	ND	ug/kg	29.9	0.91	1	08/27/20 16:25	08/27/20 17:10	108-90-7	
Chloroethane	ND	ug/kg	29.9	1.7	1	08/27/20 16:25	08/27/20 17:10	75-00-3	
Chloroform	ND	ug/kg	29.9	1.2	1	08/27/20 16:25	08/27/20 17:10	67-66-3	
Chloromethane	ND	ug/kg	29.9	0.93	1	08/27/20 16:25	08/27/20 17:10	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	29.9	0.97	1	08/27/20 16:25	08/27/20 17:10	95-49-8	
4-Chlorotoluene	ND	ug/kg	29.9	0.97	1	08/27/20 16:25	08/27/20 17:10	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	59.9	0.96	1	08/27/20 16:25	08/27/20 17:10	96-12-8	
Dibromochloromethane	ND	ug/kg	29.9	0.73	1	08/27/20 16:25	08/27/20 17:10	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	29.9	0.68	1	08/27/20 16:25	08/27/20 17:10	106-93-4	
Dibromomethane	ND	ug/kg	29.9	0.93	1	08/27/20 16:25	08/27/20 17:10	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	29.9	0.83	1	08/27/20 16:25	08/27/20 17:10	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	29.9	0.83	1	08/27/20 16:25	08/27/20 17:10	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	29.9	0.68	1	08/27/20 16:25	08/27/20 17:10	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	29.9	2.6	1	08/27/20 16:25	08/27/20 17:10	75-71-8	
1,1-Dichloroethane	ND	ug/kg	29.9	1.3	1	08/27/20 16:25	08/27/20 17:10	75-34-3	
1,2-Dichloroethane	ND	ug/kg	29.9	1.2	1	08/27/20 16:25	08/27/20 17:10	107-06-2	
1,1-Dichloroethene	ND	ug/kg	29.9	2.0	1	08/27/20 16:25	08/27/20 17:10	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	29.9	1.1	1	08/27/20 16:25	08/27/20 17:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	29.9	1.4	1	08/27/20 16:25	08/27/20 17:10	156-60-5	
1,2-Dichloropropane	ND	ug/kg	29.9	0.85	1	08/27/20 16:25	08/27/20 17:10	78-87-5	
1,3-Dichloropropane	ND	ug/kg	29.9	0.75	1	08/27/20 16:25	08/27/20 17:10	142-28-9	
2,2-Dichloropropane	ND	ug/kg	29.9	1.8	1	08/27/20 16:25	08/27/20 17:10	594-20-7	
1,1-Dichloropropene	ND	ug/kg	29.9	1.5	1	08/27/20 16:25	08/27/20 17:10	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	29.9	0.78	1	08/27/20 16:25	08/27/20 17:10	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	29.9	1.0	1	08/27/20 16:25	08/27/20 17:10	10061-02-6	
Ethyl acetate	ND	ug/kg	59.9	2.0	1	08/27/20 16:25	08/27/20 17:10	141-78-6	
Ethylbenzene	ND	ug/kg	29.9	1.4	1	08/27/20 16:25	08/27/20 17:10	100-41-4	
2-Hexanone	ND	ug/kg	120	5.4	1	08/27/20 16:25	08/27/20 17:10	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: YL10WS1SS **Lab ID: 5249553003** Collected: 08/27/20 12:37 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	29.9	1.2	1	08/27/20 16:25	08/27/20 17:10	98-82-8	
p-Isopropyltoluene	ND	ug/kg	29.9	6.0	1	08/27/20 16:25	08/27/20 17:10	99-87-6	
Methylene Chloride	ND	ug/kg	150	1.9	1	08/27/20 16:25	08/27/20 17:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	120	3.4	1	08/27/20 16:25	08/27/20 17:10	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	59.9	1.4	1	08/27/20 16:25	08/27/20 17:10	1634-04-4	
Naphthalene	ND	ug/kg	29.9	0.75	1	08/27/20 16:25	08/27/20 17:10	91-20-3	
n-Propylbenzene	ND	ug/kg	29.9	1.3	1	08/27/20 16:25	08/27/20 17:10	103-65-1	
Styrene	ND	ug/kg	29.9	1.2	1	08/27/20 16:25	08/27/20 17:10	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	29.9	0.72	1	08/27/20 16:25	08/27/20 17:10	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	29.9	0.67	1	08/27/20 16:25	08/27/20 17:10	79-34-5	
Tetrachloroethene	ND	ug/kg	29.9	1.7	1	08/27/20 16:25	08/27/20 17:10	127-18-4	
Toluene	ND	ug/kg	29.9	1.0	1	08/27/20 16:25	08/27/20 17:10	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	29.9	0.70	1	08/27/20 16:25	08/27/20 17:10	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	29.9	0.80	1	08/27/20 16:25	08/27/20 17:10	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	29.9	1.5	1	08/27/20 16:25	08/27/20 17:10	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	29.9	0.95	1	08/27/20 16:25	08/27/20 17:10	79-00-5	
Trichloroethene	ND	ug/kg	29.9	1.3	1	08/27/20 16:25	08/27/20 17:10	79-01-6	
Trichlorofluoromethane	ND	ug/kg	29.9	2.2	1	08/27/20 16:25	08/27/20 17:10	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	29.9	1.5	1	08/27/20 16:25	08/27/20 17:10	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	29.9	0.99	1	08/27/20 16:25	08/27/20 17:10	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	29.9	1.1	1	08/27/20 16:25	08/27/20 17:10	108-67-8	
Vinyl acetate	ND	ug/kg	59.9	2.3	1	08/27/20 16:25	08/27/20 17:10	108-05-4	
Vinyl chloride	ND	ug/kg	29.9	2.2	1	08/27/20 16:25	08/27/20 17:10	75-01-4	
Xylene (Total)	ND	ug/kg	59.9	3.1	1	08/27/20 16:25	08/27/20 17:10	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	112	%.	78-126		1	08/27/20 16:25	08/27/20 17:10	1868-53-7	
Toluene-d8 (S)	99	%.	80-120		1	08/27/20 16:25	08/27/20 17:10	2037-26-5	
4-Bromofluorobenzene (S)	97	%.	80-120		1	08/27/20 16:25	08/27/20 17:10	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%.	76-127		1	08/27/20 16:25	08/27/20 17:10	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**18.6**	%	0.10	0.10	1		08/27/20 20:31		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: YL10WS2SS **Lab ID: 5249553004** Collected: 08/27/20 12:36 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	291	15.8	1	08/27/20 16:25	08/27/20 17:35	67-64-1	
Acetonitrile	ND	ug/kg	232	11.5	1	08/27/20 16:25	08/27/20 17:35	75-05-8	
Acrolein	ND	ug/kg	291	8.6	1	08/27/20 16:25	08/27/20 17:35	107-02-8	
Acrylonitrile	ND	ug/kg	116	1.3	1	08/27/20 16:25	08/27/20 17:35	107-13-1	
Benzene	ND	ug/kg	5.8	0.94	1	08/27/20 16:25	08/27/20 17:35	71-43-2	
Bromobenzene	ND	ug/kg	29.1	0.90	1	08/27/20 16:25	08/27/20 17:35	108-86-1	
Bromochloromethane	ND	ug/kg	29.1	0.71	1	08/27/20 16:25	08/27/20 17:35	74-97-5	
Bromodichloromethane	ND	ug/kg	29.1	0.92	1	08/27/20 16:25	08/27/20 17:35	75-27-4	
Bromoform	ND	ug/kg	29.1	0.70	1	08/27/20 16:25	08/27/20 17:35	75-25-2	
Bromomethane	ND	ug/kg	145	0.91	1	08/27/20 16:25	08/27/20 17:35	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	116	1.6	1	08/27/20 16:25	08/27/20 17:35	78-93-3	
n-Butylbenzene	ND	ug/kg	29.1	1.9	1	08/27/20 16:25	08/27/20 17:35	104-51-8	
sec-Butylbenzene	ND	ug/kg	29.1	1.6	1	08/27/20 16:25	08/27/20 17:35	135-98-8	
tert-Butylbenzene	ND	ug/kg	29.1	1.4	1	08/27/20 16:25	08/27/20 17:35	98-06-6	
Carbon disulfide	ND	ug/kg	116	1.8	1	08/27/20 16:25	08/27/20 17:35	75-15-0	
Carbon tetrachloride	ND	ug/kg	29.1	1.7	1	08/27/20 16:25	08/27/20 17:35	56-23-5	
Chlorobenzene	ND	ug/kg	29.1	0.89	1	08/27/20 16:25	08/27/20 17:35	108-90-7	
Chloroethane	ND	ug/kg	29.1	1.7	1	08/27/20 16:25	08/27/20 17:35	75-00-3	
Chloroform	ND	ug/kg	29.1	1.2	1	08/27/20 16:25	08/27/20 17:35	67-66-3	
Chloromethane	ND	ug/kg	29.1	0.91	1	08/27/20 16:25	08/27/20 17:35	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	29.1	0.94	1	08/27/20 16:25	08/27/20 17:35	95-49-8	
4-Chlorotoluene	ND	ug/kg	29.1	0.94	1	08/27/20 16:25	08/27/20 17:35	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	58.1	0.93	1	08/27/20 16:25	08/27/20 17:35	96-12-8	
Dibromochloromethane	ND	ug/kg	29.1	0.71	1	08/27/20 16:25	08/27/20 17:35	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	29.1	0.66	1	08/27/20 16:25	08/27/20 17:35	106-93-4	
Dibromomethane	ND	ug/kg	29.1	0.90	1	08/27/20 16:25	08/27/20 17:35	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	29.1	0.80	1	08/27/20 16:25	08/27/20 17:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	29.1	0.81	1	08/27/20 16:25	08/27/20 17:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	29.1	0.66	1	08/27/20 16:25	08/27/20 17:35	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	29.1	2.5	1	08/27/20 16:25	08/27/20 17:35	75-71-8	
1,1-Dichloroethane	ND	ug/kg	29.1	1.2	1	08/27/20 16:25	08/27/20 17:35	75-34-3	
1,2-Dichloroethane	ND	ug/kg	29.1	1.2	1	08/27/20 16:25	08/27/20 17:35	107-06-2	
1,1-Dichloroethene	ND	ug/kg	29.1	2.0	1	08/27/20 16:25	08/27/20 17:35	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	29.1	1.1	1	08/27/20 16:25	08/27/20 17:35	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	29.1	1.4	1	08/27/20 16:25	08/27/20 17:35	156-60-5	
1,2-Dichloropropane	ND	ug/kg	29.1	0.82	1	08/27/20 16:25	08/27/20 17:35	78-87-5	
1,3-Dichloropropane	ND	ug/kg	29.1	0.73	1	08/27/20 16:25	08/27/20 17:35	142-28-9	
2,2-Dichloropropane	ND	ug/kg	29.1	1.7	1	08/27/20 16:25	08/27/20 17:35	594-20-7	
1,1-Dichloropropene	ND	ug/kg	29.1	1.5	1	08/27/20 16:25	08/27/20 17:35	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	29.1	0.76	1	08/27/20 16:25	08/27/20 17:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	29.1	0.99	1	08/27/20 16:25	08/27/20 17:35	10061-02-6	
Ethyl acetate	ND	ug/kg	58.1	2.0	1	08/27/20 16:25	08/27/20 17:35	141-78-6	
Ethylbenzene	ND	ug/kg	29.1	1.3	1	08/27/20 16:25	08/27/20 17:35	100-41-4	
2-Hexanone	ND	ug/kg	116	5.2	1	08/27/20 16:25	08/27/20 17:35	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: YL10WS2SS **Lab ID: 5249553004** Collected: 08/27/20 12:36 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	29.1	1.2	1	08/27/20 16:25	08/27/20 17:35	98-82-8	
p-Isopropyltoluene	ND	ug/kg	29.1	5.8	1	08/27/20 16:25	08/27/20 17:35	99-87-6	
Methylene Chloride	ND	ug/kg	145	1.9	1	08/27/20 16:25	08/27/20 17:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	116	3.3	1	08/27/20 16:25	08/27/20 17:35	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	58.1	1.3	1	08/27/20 16:25	08/27/20 17:35	1634-04-4	
Naphthalene	ND	ug/kg	29.1	0.73	1	08/27/20 16:25	08/27/20 17:35	91-20-3	
n-Propylbenzene	ND	ug/kg	29.1	1.2	1	08/27/20 16:25	08/27/20 17:35	103-65-1	
Styrene	ND	ug/kg	29.1	1.1	1	08/27/20 16:25	08/27/20 17:35	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	29.1	0.70	1	08/27/20 16:25	08/27/20 17:35	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	29.1	0.65	1	08/27/20 16:25	08/27/20 17:35	79-34-5	
Tetrachloroethene	ND	ug/kg	29.1	1.7	1	08/27/20 16:25	08/27/20 17:35	127-18-4	
Toluene	ND	ug/kg	29.1	1.0	1	08/27/20 16:25	08/27/20 17:35	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	29.1	0.68	1	08/27/20 16:25	08/27/20 17:35	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	29.1	0.78	1	08/27/20 16:25	08/27/20 17:35	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	29.1	1.5	1	08/27/20 16:25	08/27/20 17:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	29.1	0.92	1	08/27/20 16:25	08/27/20 17:35	79-00-5	
Trichloroethene	ND	ug/kg	29.1	1.3	1	08/27/20 16:25	08/27/20 17:35	79-01-6	
Trichlorofluoromethane	ND	ug/kg	29.1	2.1	1	08/27/20 16:25	08/27/20 17:35	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	29.1	1.5	1	08/27/20 16:25	08/27/20 17:35	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	29.1	0.96	1	08/27/20 16:25	08/27/20 17:35	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	29.1	1.1	1	08/27/20 16:25	08/27/20 17:35	108-67-8	
Vinyl acetate	ND	ug/kg	58.1	2.3	1	08/27/20 16:25	08/27/20 17:35	108-05-4	
Vinyl chloride	ND	ug/kg	29.1	2.1	1	08/27/20 16:25	08/27/20 17:35	75-01-4	
Xylene (Total)	ND	ug/kg	58.1	3.0	1	08/27/20 16:25	08/27/20 17:35	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	110	%.	78-126		1	08/27/20 16:25	08/27/20 17:35	1868-53-7	
Toluene-d8 (S)	97	%.	80-120		1	08/27/20 16:25	08/27/20 17:35	2037-26-5	
4-Bromofluorobenzene (S)	93	%.	80-120		1	08/27/20 16:25	08/27/20 17:35	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%.	76-127		1	08/27/20 16:25	08/27/20 17:35	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**18.2**	%	0.10	0.10	1		08/27/20 20:32		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: YL10PB1SM **Lab ID: 5249553005** Collected: 08/27/20 12:33 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	299	16.3	1	08/27/20 16:25	08/27/20 18:01	67-64-1	
Acetonitrile	ND	ug/kg	239	11.8	1	08/27/20 16:25	08/27/20 18:01	75-05-8	
Acrolein	ND	ug/kg	299	8.8	1	08/27/20 16:25	08/27/20 18:01	107-02-8	
Acrylonitrile	ND	ug/kg	120	1.4	1	08/27/20 16:25	08/27/20 18:01	107-13-1	
Benzene	ND	ug/kg	6.0	0.97	1	08/27/20 16:25	08/27/20 18:01	71-43-2	
Bromobenzene	ND	ug/kg	29.9	0.93	1	08/27/20 16:25	08/27/20 18:01	108-86-1	
Bromochloromethane	ND	ug/kg	29.9	0.73	1	08/27/20 16:25	08/27/20 18:01	74-97-5	
Bromodichloromethane	ND	ug/kg	29.9	0.94	1	08/27/20 16:25	08/27/20 18:01	75-27-4	
Bromoform	ND	ug/kg	29.9	0.72	1	08/27/20 16:25	08/27/20 18:01	75-25-2	
Bromomethane	ND	ug/kg	150	0.94	1	08/27/20 16:25	08/27/20 18:01	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	120	1.7	1	08/27/20 16:25	08/27/20 18:01	78-93-3	
n-Butylbenzene	ND	ug/kg	29.9	1.9	1	08/27/20 16:25	08/27/20 18:01	104-51-8	
sec-Butylbenzene	ND	ug/kg	29.9	1.6	1	08/27/20 16:25	08/27/20 18:01	135-98-8	
tert-Butylbenzene	ND	ug/kg	29.9	1.5	1	08/27/20 16:25	08/27/20 18:01	98-06-6	
Carbon disulfide	ND	ug/kg	120	1.9	1	08/27/20 16:25	08/27/20 18:01	75-15-0	
Carbon tetrachloride	ND	ug/kg	29.9	1.7	1	08/27/20 16:25	08/27/20 18:01	56-23-5	
Chlorobenzene	ND	ug/kg	29.9	0.91	1	08/27/20 16:25	08/27/20 18:01	108-90-7	
Chloroethane	ND	ug/kg	29.9	1.7	1	08/27/20 16:25	08/27/20 18:01	75-00-3	
Chloroform	ND	ug/kg	29.9	1.2	1	08/27/20 16:25	08/27/20 18:01	67-66-3	
Chloromethane	ND	ug/kg	29.9	0.93	1	08/27/20 16:25	08/27/20 18:01	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	29.9	0.97	1	08/27/20 16:25	08/27/20 18:01	95-49-8	
4-Chlorotoluene	ND	ug/kg	29.9	0.97	1	08/27/20 16:25	08/27/20 18:01	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	59.8	0.96	1	08/27/20 16:25	08/27/20 18:01	96-12-8	
Dibromochloromethane	ND	ug/kg	29.9	0.73	1	08/27/20 16:25	08/27/20 18:01	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	29.9	0.68	1	08/27/20 16:25	08/27/20 18:01	106-93-4	
Dibromomethane	ND	ug/kg	29.9	0.93	1	08/27/20 16:25	08/27/20 18:01	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	29.9	0.83	1	08/27/20 16:25	08/27/20 18:01	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	29.9	0.83	1	08/27/20 16:25	08/27/20 18:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	29.9	0.68	1	08/27/20 16:25	08/27/20 18:01	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	29.9	2.6	1	08/27/20 16:25	08/27/20 18:01	75-71-8	
1,1-Dichloroethane	ND	ug/kg	29.9	1.3	1	08/27/20 16:25	08/27/20 18:01	75-34-3	
1,2-Dichloroethane	ND	ug/kg	29.9	1.2	1	08/27/20 16:25	08/27/20 18:01	107-06-2	
1,1-Dichloroethene	ND	ug/kg	29.9	2.0	1	08/27/20 16:25	08/27/20 18:01	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	29.9	1.1	1	08/27/20 16:25	08/27/20 18:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	29.9	1.4	1	08/27/20 16:25	08/27/20 18:01	156-60-5	
1,2-Dichloropropane	ND	ug/kg	29.9	0.85	1	08/27/20 16:25	08/27/20 18:01	78-87-5	
1,3-Dichloropropane	ND	ug/kg	29.9	0.75	1	08/27/20 16:25	08/27/20 18:01	142-28-9	
2,2-Dichloropropane	ND	ug/kg	29.9	1.8	1	08/27/20 16:25	08/27/20 18:01	594-20-7	
1,1-Dichloropropene	ND	ug/kg	29.9	1.5	1	08/27/20 16:25	08/27/20 18:01	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	29.9	0.78	1	08/27/20 16:25	08/27/20 18:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	29.9	1.0	1	08/27/20 16:25	08/27/20 18:01	10061-02-6	
Ethyl acetate	ND	ug/kg	59.8	2.0	1	08/27/20 16:25	08/27/20 18:01	141-78-6	
Ethylbenzene	ND	ug/kg	29.9	1.4	1	08/27/20 16:25	08/27/20 18:01	100-41-4	
2-Hexanone	ND	ug/kg	120	5.4	1	08/27/20 16:25	08/27/20 18:01	591-78-6	N2

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25 Holiday Drive
Englewood, OH 45322
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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: YL10PB1SM **Lab ID: 5249553005** Collected: 08/27/20 12:33 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	29.9	1.2	1	08/27/20 16:25	08/27/20 18:01	98-82-8	
p-Isopropyltoluene	ND	ug/kg	29.9	6.0	1	08/27/20 16:25	08/27/20 18:01	99-87-6	
Methylene Chloride	ND	ug/kg	150	1.9	1	08/27/20 16:25	08/27/20 18:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	120	3.4	1	08/27/20 16:25	08/27/20 18:01	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	59.8	1.4	1	08/27/20 16:25	08/27/20 18:01	1634-04-4	
Naphthalene	ND	ug/kg	29.9	0.75	1	08/27/20 16:25	08/27/20 18:01	91-20-3	
n-Propylbenzene	ND	ug/kg	29.9	1.3	1	08/27/20 16:25	08/27/20 18:01	103-65-1	
Styrene	ND	ug/kg	29.9	1.2	1	08/27/20 16:25	08/27/20 18:01	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	29.9	0.72	1	08/27/20 16:25	08/27/20 18:01	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	29.9	0.67	1	08/27/20 16:25	08/27/20 18:01	79-34-5	
Tetrachloroethene	ND	ug/kg	29.9	1.7	1	08/27/20 16:25	08/27/20 18:01	127-18-4	
Toluene	ND	ug/kg	29.9	1.0	1	08/27/20 16:25	08/27/20 18:01	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	29.9	0.70	1	08/27/20 16:25	08/27/20 18:01	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	29.9	0.80	1	08/27/20 16:25	08/27/20 18:01	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	29.9	1.5	1	08/27/20 16:25	08/27/20 18:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	29.9	0.95	1	08/27/20 16:25	08/27/20 18:01	79-00-5	
Trichloroethene	ND	ug/kg	29.9	1.3	1	08/27/20 16:25	08/27/20 18:01	79-01-6	
Trichlorofluoromethane	ND	ug/kg	29.9	2.2	1	08/27/20 16:25	08/27/20 18:01	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	29.9	1.5	1	08/27/20 16:25	08/27/20 18:01	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	29.9	0.99	1	08/27/20 16:25	08/27/20 18:01	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	29.9	1.1	1	08/27/20 16:25	08/27/20 18:01	108-67-8	
Vinyl acetate	ND	ug/kg	59.8	2.3	1	08/27/20 16:25	08/27/20 18:01	108-05-4	
Vinyl chloride	ND	ug/kg	29.9	2.2	1	08/27/20 16:25	08/27/20 18:01	75-01-4	
Xylene (Total)	ND	ug/kg	59.8	3.1	1	08/27/20 16:25	08/27/20 18:01	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	112	%.	78-126		1	08/27/20 16:25	08/27/20 18:01	1868-53-7	
Toluene-d8 (S)	98	%.	80-120		1	08/27/20 16:25	08/27/20 18:01	2037-26-5	
4-Bromofluorobenzene (S)	92	%.	80-120		1	08/27/20 16:25	08/27/20 18:01	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%.	76-127		1	08/27/20 16:25	08/27/20 18:01	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**18.9**	%	0.10	0.10	1		08/27/20 20:32		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: YL10PB1SS **Lab ID: 5249553006** Collected: 08/27/20 12:32 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	293	15.9	1	08/27/20 16:25	08/27/20 18:26	67-64-1	
Acetonitrile	ND	ug/kg	235	11.6	1	08/27/20 16:25	08/27/20 18:26	75-05-8	
Acrolein	ND	ug/kg	293	8.6	1	08/27/20 16:25	08/27/20 18:26	107-02-8	
Acrylonitrile	ND	ug/kg	117	1.3	1	08/27/20 16:25	08/27/20 18:26	107-13-1	
Benzene	ND	ug/kg	5.9	0.95	1	08/27/20 16:25	08/27/20 18:26	71-43-2	
Bromobenzene	ND	ug/kg	29.3	0.91	1	08/27/20 16:25	08/27/20 18:26	108-86-1	
Bromochloromethane	ND	ug/kg	29.3	0.72	1	08/27/20 16:25	08/27/20 18:26	74-97-5	
Bromodichloromethane	ND	ug/kg	29.3	0.92	1	08/27/20 16:25	08/27/20 18:26	75-27-4	
Bromoform	ND	ug/kg	29.3	0.71	1	08/27/20 16:25	08/27/20 18:26	75-25-2	
Bromomethane	ND	ug/kg	147	0.92	1	08/27/20 16:25	08/27/20 18:26	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	117	1.7	1	08/27/20 16:25	08/27/20 18:26	78-93-3	
n-Butylbenzene	ND	ug/kg	29.3	1.9	1	08/27/20 16:25	08/27/20 18:26	104-51-8	
sec-Butylbenzene	ND	ug/kg	29.3	1.6	1	08/27/20 16:25	08/27/20 18:26	135-98-8	
tert-Butylbenzene	ND	ug/kg	29.3	1.5	1	08/27/20 16:25	08/27/20 18:26	98-06-6	
Carbon disulfide	ND	ug/kg	117	1.8	1	08/27/20 16:25	08/27/20 18:26	75-15-0	
Carbon tetrachloride	ND	ug/kg	29.3	1.7	1	08/27/20 16:25	08/27/20 18:26	56-23-5	
Chlorobenzene	ND	ug/kg	29.3	0.90	1	08/27/20 16:25	08/27/20 18:26	108-90-7	
Chloroethane	ND	ug/kg	29.3	1.7	1	08/27/20 16:25	08/27/20 18:26	75-00-3	
Chloroform	ND	ug/kg	29.3	1.2	1	08/27/20 16:25	08/27/20 18:26	67-66-3	
Chloromethane	ND	ug/kg	29.3	0.92	1	08/27/20 16:25	08/27/20 18:26	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	29.3	0.95	1	08/27/20 16:25	08/27/20 18:26	95-49-8	
4-Chlorotoluene	ND	ug/kg	29.3	0.95	1	08/27/20 16:25	08/27/20 18:26	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	58.7	0.94	1	08/27/20 16:25	08/27/20 18:26	96-12-8	
Dibromochloromethane	ND	ug/kg	29.3	0.72	1	08/27/20 16:25	08/27/20 18:26	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	29.3	0.66	1	08/27/20 16:25	08/27/20 18:26	106-93-4	
Dibromomethane	ND	ug/kg	29.3	0.91	1	08/27/20 16:25	08/27/20 18:26	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	29.3	0.81	1	08/27/20 16:25	08/27/20 18:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	29.3	0.81	1	08/27/20 16:25	08/27/20 18:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	29.3	0.67	1	08/27/20 16:25	08/27/20 18:26	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	29.3	2.5	1	08/27/20 16:25	08/27/20 18:26	75-71-8	
1,1-Dichloroethane	ND	ug/kg	29.3	1.2	1	08/27/20 16:25	08/27/20 18:26	75-34-3	
1,2-Dichloroethane	ND	ug/kg	29.3	1.2	1	08/27/20 16:25	08/27/20 18:26	107-06-2	
1,1-Dichloroethene	ND	ug/kg	29.3	2.0	1	08/27/20 16:25	08/27/20 18:26	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	29.3	1.1	1	08/27/20 16:25	08/27/20 18:26	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	29.3	1.4	1	08/27/20 16:25	08/27/20 18:26	156-60-5	
1,2-Dichloropropane	ND	ug/kg	29.3	0.83	1	08/27/20 16:25	08/27/20 18:26	78-87-5	
1,3-Dichloropropane	ND	ug/kg	29.3	0.74	1	08/27/20 16:25	08/27/20 18:26	142-28-9	
2,2-Dichloropropane	ND	ug/kg	29.3	1.8	1	08/27/20 16:25	08/27/20 18:26	594-20-7	
1,1-Dichloropropene	ND	ug/kg	29.3	1.5	1	08/27/20 16:25	08/27/20 18:26	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	29.3	0.76	1	08/27/20 16:25	08/27/20 18:26	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	29.3	1.0	1	08/27/20 16:25	08/27/20 18:26	10061-02-6	
Ethyl acetate	ND	ug/kg	58.7	2.0	1	08/27/20 16:25	08/27/20 18:26	141-78-6	
Ethylbenzene	ND	ug/kg	29.3	1.3	1	08/27/20 16:25	08/27/20 18:26	100-41-4	
2-Hexanone	ND	ug/kg	117	5.3	1	08/27/20 16:25	08/27/20 18:26	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: YL10PB1SS **Lab ID: 5249553006** Collected: 08/27/20 12:32 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	29.3	1.2	1	08/27/20 16:25	08/27/20 18:26	98-82-8	
p-Isopropyltoluene	ND	ug/kg	29.3	5.9	1	08/27/20 16:25	08/27/20 18:26	99-87-6	
Methylene Chloride	ND	ug/kg	147	1.9	1	08/27/20 16:25	08/27/20 18:26	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	117	3.4	1	08/27/20 16:25	08/27/20 18:26	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	58.7	1.4	1	08/27/20 16:25	08/27/20 18:26	1634-04-4	
Naphthalene	ND	ug/kg	29.3	0.74	1	08/27/20 16:25	08/27/20 18:26	91-20-3	
n-Propylbenzene	ND	ug/kg	29.3	1.3	1	08/27/20 16:25	08/27/20 18:26	103-65-1	
Styrene	ND	ug/kg	29.3	1.1	1	08/27/20 16:25	08/27/20 18:26	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	29.3	0.71	1	08/27/20 16:25	08/27/20 18:26	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	29.3	0.65	1	08/27/20 16:25	08/27/20 18:26	79-34-5	
Tetrachloroethene	ND	ug/kg	29.3	1.7	1	08/27/20 16:25	08/27/20 18:26	127-18-4	
Toluene	ND	ug/kg	29.3	1.0	1	08/27/20 16:25	08/27/20 18:26	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	29.3	0.68	1	08/27/20 16:25	08/27/20 18:26	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	29.3	0.78	1	08/27/20 16:25	08/27/20 18:26	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	29.3	1.5	1	08/27/20 16:25	08/27/20 18:26	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	29.3	0.93	1	08/27/20 16:25	08/27/20 18:26	79-00-5	
Trichloroethene	**3.6J**	ug/kg	29.3	1.3	1	08/27/20 16:25	08/27/20 18:26	79-01-6	
Trichlorofluoromethane	ND	ug/kg	29.3	2.1	1	08/27/20 16:25	08/27/20 18:26	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	29.3	1.5	1	08/27/20 16:25	08/27/20 18:26	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	29.3	0.97	1	08/27/20 16:25	08/27/20 18:26	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	29.3	1.1	1	08/27/20 16:25	08/27/20 18:26	108-67-8	
Vinyl acetate	ND	ug/kg	58.7	2.3	1	08/27/20 16:25	08/27/20 18:26	108-05-4	
Vinyl chloride	ND	ug/kg	29.3	2.1	1	08/27/20 16:25	08/27/20 18:26	75-01-4	
Xylene (Total)	ND	ug/kg	58.7	3.1	1	08/27/20 16:25	08/27/20 18:26	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	112	%.	78-126		1	08/27/20 16:25	08/27/20 18:26	1868-53-7	
Toluene-d8 (S)	99	%.	80-120		1	08/27/20 16:25	08/27/20 18:26	2037-26-5	
4-Bromofluorobenzene (S)	94	%.	80-120		1	08/27/20 16:25	08/27/20 18:26	460-00-4	
1,2-Dichloroethane-d4 (S)	114	%.	76-127		1	08/27/20 16:25	08/27/20 18:26	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**18.4**	%	0.10	0.10	1		08/27/20 20:34		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: YL10WESS **Lab ID: 5249553007** Collected: 08/27/20 12:30 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	288	15.7	1	08/27/20 16:25	08/27/20 18:51	67-64-1	
Acetonitrile	ND	ug/kg	231	11.4	1	08/27/20 16:25	08/27/20 18:51	75-05-8	
Acrolein	ND	ug/kg	288	8.5	1	08/27/20 16:25	08/27/20 18:51	107-02-8	
Acrylonitrile	ND	ug/kg	115	1.3	1	08/27/20 16:25	08/27/20 18:51	107-13-1	
Benzene	ND	ug/kg	5.8	0.93	1	08/27/20 16:25	08/27/20 18:51	71-43-2	
Bromobenzene	ND	ug/kg	28.8	0.89	1	08/27/20 16:25	08/27/20 18:51	108-86-1	
Bromochloromethane	ND	ug/kg	28.8	0.71	1	08/27/20 16:25	08/27/20 18:51	74-97-5	
Bromodichloromethane	ND	ug/kg	28.8	0.91	1	08/27/20 16:25	08/27/20 18:51	75-27-4	
Bromoform	ND	ug/kg	28.8	0.70	1	08/27/20 16:25	08/27/20 18:51	75-25-2	
Bromomethane	ND	ug/kg	144	0.90	1	08/27/20 16:25	08/27/20 18:51	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	115	1.6	1	08/27/20 16:25	08/27/20 18:51	78-93-3	
n-Butylbenzene	ND	ug/kg	28.8	1.9	1	08/27/20 16:25	08/27/20 18:51	104-51-8	
sec-Butylbenzene	ND	ug/kg	28.8	1.6	1	08/27/20 16:25	08/27/20 18:51	135-98-8	
tert-Butylbenzene	ND	ug/kg	28.8	1.4	1	08/27/20 16:25	08/27/20 18:51	98-06-6	
Carbon disulfide	ND	ug/kg	115	1.8	1	08/27/20 16:25	08/27/20 18:51	75-15-0	
Carbon tetrachloride	ND	ug/kg	28.8	1.7	1	08/27/20 16:25	08/27/20 18:51	56-23-5	
Chlorobenzene	ND	ug/kg	28.8	0.88	1	08/27/20 16:25	08/27/20 18:51	108-90-7	
Chloroethane	ND	ug/kg	28.8	1.7	1	08/27/20 16:25	08/27/20 18:51	75-00-3	
Chloroform	ND	ug/kg	28.8	1.2	1	08/27/20 16:25	08/27/20 18:51	67-66-3	
Chloromethane	ND	ug/kg	28.8	0.90	1	08/27/20 16:25	08/27/20 18:51	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	28.8	0.94	1	08/27/20 16:25	08/27/20 18:51	95-49-8	
4-Chlorotoluene	ND	ug/kg	28.8	0.93	1	08/27/20 16:25	08/27/20 18:51	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	57.6	0.93	1	08/27/20 16:25	08/27/20 18:51	96-12-8	
Dibromochloromethane	ND	ug/kg	28.8	0.71	1	08/27/20 16:25	08/27/20 18:51	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	28.8	0.65	1	08/27/20 16:25	08/27/20 18:51	106-93-4	
Dibromomethane	ND	ug/kg	28.8	0.89	1	08/27/20 16:25	08/27/20 18:51	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	28.8	0.80	1	08/27/20 16:25	08/27/20 18:51	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	28.8	0.80	1	08/27/20 16:25	08/27/20 18:51	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	28.8	0.66	1	08/27/20 16:25	08/27/20 18:51	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	28.8	2.5	1	08/27/20 16:25	08/27/20 18:51	75-71-8	
1,1-Dichloroethane	ND	ug/kg	28.8	1.2	1	08/27/20 16:25	08/27/20 18:51	75-34-3	
1,2-Dichloroethane	ND	ug/kg	28.8	1.2	1	08/27/20 16:25	08/27/20 18:51	107-06-2	
1,1-Dichloroethene	ND	ug/kg	28.8	2.0	1	08/27/20 16:25	08/27/20 18:51	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	28.8	1.1	1	08/27/20 16:25	08/27/20 18:51	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	28.8	1.4	1	08/27/20 16:25	08/27/20 18:51	156-60-5	
1,2-Dichloropropane	ND	ug/kg	28.8	0.82	1	08/27/20 16:25	08/27/20 18:51	78-87-5	
1,3-Dichloropropane	ND	ug/kg	28.8	0.73	1	08/27/20 16:25	08/27/20 18:51	142-28-9	
2,2-Dichloropropane	ND	ug/kg	28.8	1.7	1	08/27/20 16:25	08/27/20 18:51	594-20-7	
1,1-Dichloropropene	ND	ug/kg	28.8	1.5	1	08/27/20 16:25	08/27/20 18:51	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	28.8	0.75	1	08/27/20 16:25	08/27/20 18:51	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	28.8	0.99	1	08/27/20 16:25	08/27/20 18:51	10061-02-6	
Ethyl acetate	ND	ug/kg	57.6	2.0	1	08/27/20 16:25	08/27/20 18:51	141-78-6	
Ethylbenzene	ND	ug/kg	28.8	1.3	1	08/27/20 16:25	08/27/20 18:51	100-41-4	
2-Hexanone	ND	ug/kg	115	5.2	1	08/27/20 16:25	08/27/20 18:51	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: YL10WESS **Lab ID: 5249553007** Collected: 08/27/20 12:30 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	28.8	1.2	1	08/27/20 16:25	08/27/20 18:51	98-82-8	
p-Isopropyltoluene	ND	ug/kg	28.8	5.8	1	08/27/20 16:25	08/27/20 18:51	99-87-6	
Methylene Chloride	ND	ug/kg	144	1.9	1	08/27/20 16:25	08/27/20 18:51	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	115	3.3	1	08/27/20 16:25	08/27/20 18:51	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	57.6	1.3	1	08/27/20 16:25	08/27/20 18:51	1634-04-4	
Naphthalene	ND	ug/kg	28.8	0.72	1	08/27/20 16:25	08/27/20 18:51	91-20-3	
n-Propylbenzene	ND	ug/kg	28.8	1.2	1	08/27/20 16:25	08/27/20 18:51	103-65-1	
Styrene	ND	ug/kg	28.8	1.1	1	08/27/20 16:25	08/27/20 18:51	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	28.8	0.69	1	08/27/20 16:25	08/27/20 18:51	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	28.8	0.64	1	08/27/20 16:25	08/27/20 18:51	79-34-5	
Tetrachloroethene	**11.0J**	ug/kg	28.8	1.7	1	08/27/20 16:25	08/27/20 18:51	127-18-4	
Toluene	ND	ug/kg	28.8	1.0	1	08/27/20 16:25	08/27/20 18:51	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	28.8	0.67	1	08/27/20 16:25	08/27/20 18:51	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	28.8	0.77	1	08/27/20 16:25	08/27/20 18:51	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	28.8	1.4	1	08/27/20 16:25	08/27/20 18:51	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	28.8	0.92	1	08/27/20 16:25	08/27/20 18:51	79-00-5	
Trichloroethene	**4.9J**	ug/kg	28.8	1.3	1	08/27/20 16:25	08/27/20 18:51	79-01-6	
Trichlorofluoromethane	ND	ug/kg	28.8	2.1	1	08/27/20 16:25	08/27/20 18:51	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	28.8	1.5	1	08/27/20 16:25	08/27/20 18:51	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	28.8	0.95	1	08/27/20 16:25	08/27/20 18:51	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	28.8	1.1	1	08/27/20 16:25	08/27/20 18:51	108-67-8	
Vinyl acetate	ND	ug/kg	57.6	2.2	1	08/27/20 16:25	08/27/20 18:51	108-05-4	
Vinyl chloride	ND	ug/kg	28.8	2.1	1	08/27/20 16:25	08/27/20 18:51	75-01-4	
Xylene (Total)	ND	ug/kg	57.6	3.0	1	08/27/20 16:25	08/27/20 18:51	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	113	%.	78-126		1	08/27/20 16:25	08/27/20 18:51	1868-53-7	
Toluene-d8 (S)	98	%.	80-120		1	08/27/20 16:25	08/27/20 18:51	2037-26-5	
4-Bromofluorobenzene (S)	92	%.	80-120		1	08/27/20 16:25	08/27/20 18:51	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%.	76-127		1	08/27/20 16:25	08/27/20 18:51	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**19.7**	%	0.10	0.10	1		08/27/20 20:35		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: YL10WESD **Lab ID: 5249553008** Collected: 08/27/20 12:31 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	288	15.7	1	08/27/20 16:25	08/27/20 19:16	67-64-1	
Acetonitrile	ND	ug/kg	231	11.4	1	08/27/20 16:25	08/27/20 19:16	75-05-8	
Acrolein	ND	ug/kg	288	8.5	1	08/27/20 16:25	08/27/20 19:16	107-02-8	
Acrylonitrile	ND	ug/kg	115	1.3	1	08/27/20 16:25	08/27/20 19:16	107-13-1	
Benzene	ND	ug/kg	5.8	0.93	1	08/27/20 16:25	08/27/20 19:16	71-43-2	
Bromobenzene	ND	ug/kg	28.8	0.89	1	08/27/20 16:25	08/27/20 19:16	108-86-1	
Bromochloromethane	ND	ug/kg	28.8	0.71	1	08/27/20 16:25	08/27/20 19:16	74-97-5	
Bromodichloromethane	ND	ug/kg	28.8	0.91	1	08/27/20 16:25	08/27/20 19:16	75-27-4	
Bromoform	ND	ug/kg	28.8	0.70	1	08/27/20 16:25	08/27/20 19:16	75-25-2	
Bromomethane	ND	ug/kg	144	0.90	1	08/27/20 16:25	08/27/20 19:16	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	115	1.6	1	08/27/20 16:25	08/27/20 19:16	78-93-3	
n-Butylbenzene	ND	ug/kg	28.8	1.9	1	08/27/20 16:25	08/27/20 19:16	104-51-8	
sec-Butylbenzene	ND	ug/kg	28.8	1.6	1	08/27/20 16:25	08/27/20 19:16	135-98-8	
tert-Butylbenzene	ND	ug/kg	28.8	1.4	1	08/27/20 16:25	08/27/20 19:16	98-06-6	
Carbon disulfide	ND	ug/kg	115	1.8	1	08/27/20 16:25	08/27/20 19:16	75-15-0	
Carbon tetrachloride	ND	ug/kg	28.8	1.7	1	08/27/20 16:25	08/27/20 19:16	56-23-5	
Chlorobenzene	ND	ug/kg	28.8	0.88	1	08/27/20 16:25	08/27/20 19:16	108-90-7	
Chloroethane	ND	ug/kg	28.8	1.7	1	08/27/20 16:25	08/27/20 19:16	75-00-3	
Chloroform	ND	ug/kg	28.8	1.2	1	08/27/20 16:25	08/27/20 19:16	67-66-3	
Chloromethane	ND	ug/kg	28.8	0.90	1	08/27/20 16:25	08/27/20 19:16	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	28.8	0.94	1	08/27/20 16:25	08/27/20 19:16	95-49-8	
4-Chlorotoluene	ND	ug/kg	28.8	0.93	1	08/27/20 16:25	08/27/20 19:16	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	57.6	0.93	1	08/27/20 16:25	08/27/20 19:16	96-12-8	
Dibromochloromethane	ND	ug/kg	28.8	0.71	1	08/27/20 16:25	08/27/20 19:16	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	28.8	0.65	1	08/27/20 16:25	08/27/20 19:16	106-93-4	
Dibromomethane	ND	ug/kg	28.8	0.89	1	08/27/20 16:25	08/27/20 19:16	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	28.8	0.80	1	08/27/20 16:25	08/27/20 19:16	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	28.8	0.80	1	08/27/20 16:25	08/27/20 19:16	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	28.8	0.66	1	08/27/20 16:25	08/27/20 19:16	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	28.8	2.5	1	08/27/20 16:25	08/27/20 19:16	75-71-8	
1,1-Dichloroethane	ND	ug/kg	28.8	1.2	1	08/27/20 16:25	08/27/20 19:16	75-34-3	
1,2-Dichloroethane	ND	ug/kg	28.8	1.2	1	08/27/20 16:25	08/27/20 19:16	107-06-2	
1,1-Dichloroethene	ND	ug/kg	28.8	2.0	1	08/27/20 16:25	08/27/20 19:16	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	28.8	1.1	1	08/27/20 16:25	08/27/20 19:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	28.8	1.4	1	08/27/20 16:25	08/27/20 19:16	156-60-5	
1,2-Dichloropropane	ND	ug/kg	28.8	0.82	1	08/27/20 16:25	08/27/20 19:16	78-87-5	
1,3-Dichloropropane	ND	ug/kg	28.8	0.73	1	08/27/20 16:25	08/27/20 19:16	142-28-9	
2,2-Dichloropropane	ND	ug/kg	28.8	1.7	1	08/27/20 16:25	08/27/20 19:16	594-20-7	
1,1-Dichloropropene	ND	ug/kg	28.8	1.5	1	08/27/20 16:25	08/27/20 19:16	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	28.8	0.75	1	08/27/20 16:25	08/27/20 19:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	28.8	0.99	1	08/27/20 16:25	08/27/20 19:16	10061-02-6	
Ethyl acetate	ND	ug/kg	57.6	2.0	1	08/27/20 16:25	08/27/20 19:16	141-78-6	
Ethylbenzene	ND	ug/kg	28.8	1.3	1	08/27/20 16:25	08/27/20 19:16	100-41-4	
2-Hexanone	ND	ug/kg	115	5.2	1	08/27/20 16:25	08/27/20 19:16	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: YL10WESD **Lab ID: 5249553008** Collected: 08/27/20 12:31 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	28.8	1.2	1	08/27/20 16:25	08/27/20 19:16	98-82-8	
p-Isopropyltoluene	ND	ug/kg	28.8	5.8	1	08/27/20 16:25	08/27/20 19:16	99-87-6	
Methylene Chloride	ND	ug/kg	144	1.9	1	08/27/20 16:25	08/27/20 19:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	115	3.3	1	08/27/20 16:25	08/27/20 19:16	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	57.6	1.3	1	08/27/20 16:25	08/27/20 19:16	1634-04-4	
Naphthalene	ND	ug/kg	28.8	0.72	1	08/27/20 16:25	08/27/20 19:16	91-20-3	
n-Propylbenzene	ND	ug/kg	28.8	1.2	1	08/27/20 16:25	08/27/20 19:16	103-65-1	
Styrene	ND	ug/kg	28.8	1.1	1	08/27/20 16:25	08/27/20 19:16	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	28.8	0.69	1	08/27/20 16:25	08/27/20 19:16	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	28.8	0.64	1	08/27/20 16:25	08/27/20 19:16	79-34-5	
Tetrachloroethene	ND	ug/kg	28.8	1.7	1	08/27/20 16:25	08/27/20 19:16	127-18-4	
Toluene	ND	ug/kg	28.8	1.0	1	08/27/20 16:25	08/27/20 19:16	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	28.8	0.67	1	08/27/20 16:25	08/27/20 19:16	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	28.8	0.77	1	08/27/20 16:25	08/27/20 19:16	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	28.8	1.4	1	08/27/20 16:25	08/27/20 19:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	28.8	0.92	1	08/27/20 16:25	08/27/20 19:16	79-00-5	
Trichloroethene	ND	ug/kg	28.8	1.3	1	08/27/20 16:25	08/27/20 19:16	79-01-6	
Trichlorofluoromethane	ND	ug/kg	28.8	2.1	1	08/27/20 16:25	08/27/20 19:16	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	28.8	1.5	1	08/27/20 16:25	08/27/20 19:16	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	28.8	0.95	1	08/27/20 16:25	08/27/20 19:16	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	28.8	1.1	1	08/27/20 16:25	08/27/20 19:16	108-67-8	
Vinyl acetate	ND	ug/kg	57.6	2.2	1	08/27/20 16:25	08/27/20 19:16	108-05-4	
Vinyl chloride	ND	ug/kg	28.8	2.1	1	08/27/20 16:25	08/27/20 19:16	75-01-4	
Xylene (Total)	ND	ug/kg	57.6	3.0	1	08/27/20 16:25	08/27/20 19:16	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	109	%.	78-126		1	08/27/20 16:25	08/27/20 19:16	1868-53-7	
Toluene-d8 (S)	99	%.	80-120		1	08/27/20 16:25	08/27/20 19:16	2037-26-5	
4-Bromofluorobenzene (S)	94	%.	80-120		1	08/27/20 16:25	08/27/20 19:16	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%.	76-127		1	08/27/20 16:25	08/27/20 19:16	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**19.2**	%	0.10	0.10	1		08/27/20 20:36		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: RD8PB1SS **Lab ID: 5249553009** Collected: 08/27/20 11:15 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	289	15.7	1	08/27/20 16:25	08/27/20 19:41	67-64-1	
Acetonitrile	ND	ug/kg	231	11.4	1	08/27/20 16:25	08/27/20 19:41	75-05-8	
Acrolein	ND	ug/kg	289	8.5	1	08/27/20 16:25	08/27/20 19:41	107-02-8	
Acrylonitrile	ND	ug/kg	116	1.3	1	08/27/20 16:25	08/27/20 19:41	107-13-1	
Benzene	ND	ug/kg	5.8	0.94	1	08/27/20 16:25	08/27/20 19:41	71-43-2	
Bromobenzene	ND	ug/kg	28.9	0.90	1	08/27/20 16:25	08/27/20 19:41	108-86-1	
Bromochloromethane	ND	ug/kg	28.9	0.71	1	08/27/20 16:25	08/27/20 19:41	74-97-5	
Bromodichloromethane	ND	ug/kg	28.9	0.91	1	08/27/20 16:25	08/27/20 19:41	75-27-4	
Bromoform	ND	ug/kg	28.9	0.70	1	08/27/20 16:25	08/27/20 19:41	75-25-2	
Bromomethane	ND	ug/kg	144	0.91	1	08/27/20 16:25	08/27/20 19:41	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	116	1.6	1	08/27/20 16:25	08/27/20 19:41	78-93-3	
n-Butylbenzene	ND	ug/kg	28.9	1.9	1	08/27/20 16:25	08/27/20 19:41	104-51-8	
sec-Butylbenzene	ND	ug/kg	28.9	1.6	1	08/27/20 16:25	08/27/20 19:41	135-98-8	
tert-Butylbenzene	ND	ug/kg	28.9	1.4	1	08/27/20 16:25	08/27/20 19:41	98-06-6	
Carbon disulfide	ND	ug/kg	116	1.8	1	08/27/20 16:25	08/27/20 19:41	75-15-0	
Carbon tetrachloride	ND	ug/kg	28.9	1.7	1	08/27/20 16:25	08/27/20 19:41	56-23-5	
Chlorobenzene	ND	ug/kg	28.9	0.88	1	08/27/20 16:25	08/27/20 19:41	108-90-7	
Chloroethane	ND	ug/kg	28.9	1.7	1	08/27/20 16:25	08/27/20 19:41	75-00-3	
Chloroform	ND	ug/kg	28.9	1.2	1	08/27/20 16:25	08/27/20 19:41	67-66-3	
Chloromethane	ND	ug/kg	28.9	0.90	1	08/27/20 16:25	08/27/20 19:41	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	28.9	0.94	1	08/27/20 16:25	08/27/20 19:41	95-49-8	
4-Chlorotoluene	ND	ug/kg	28.9	0.94	1	08/27/20 16:25	08/27/20 19:41	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	57.8	0.93	1	08/27/20 16:25	08/27/20 19:41	96-12-8	
Dibromochloromethane	ND	ug/kg	28.9	0.71	1	08/27/20 16:25	08/27/20 19:41	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	28.9	0.65	1	08/27/20 16:25	08/27/20 19:41	106-93-4	
Dibromomethane	ND	ug/kg	28.9	0.90	1	08/27/20 16:25	08/27/20 19:41	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	28.9	0.80	1	08/27/20 16:25	08/27/20 19:41	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	28.9	0.80	1	08/27/20 16:25	08/27/20 19:41	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	28.9	0.66	1	08/27/20 16:25	08/27/20 19:41	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	28.9	2.5	1	08/27/20 16:25	08/27/20 19:41	75-71-8	
1,1-Dichloroethane	ND	ug/kg	28.9	1.2	1	08/27/20 16:25	08/27/20 19:41	75-34-3	
1,2-Dichloroethane	ND	ug/kg	28.9	1.2	1	08/27/20 16:25	08/27/20 19:41	107-06-2	
1,1-Dichloroethene	ND	ug/kg	28.9	2.0	1	08/27/20 16:25	08/27/20 19:41	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	28.9	1.1	1	08/27/20 16:25	08/27/20 19:41	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	28.9	1.4	1	08/27/20 16:25	08/27/20 19:41	156-60-5	
1,2-Dichloropropane	ND	ug/kg	28.9	0.82	1	08/27/20 16:25	08/27/20 19:41	78-87-5	
1,3-Dichloropropane	ND	ug/kg	28.9	0.73	1	08/27/20 16:25	08/27/20 19:41	142-28-9	
2,2-Dichloropropane	ND	ug/kg	28.9	1.7	1	08/27/20 16:25	08/27/20 19:41	594-20-7	
1,1-Dichloropropene	ND	ug/kg	28.9	1.5	1	08/27/20 16:25	08/27/20 19:41	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	28.9	0.75	1	08/27/20 16:25	08/27/20 19:41	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	28.9	0.99	1	08/27/20 16:25	08/27/20 19:41	10061-02-6	
Ethyl acetate	ND	ug/kg	57.8	2.0	1	08/27/20 16:25	08/27/20 19:41	141-78-6	
Ethylbenzene	ND	ug/kg	28.9	1.3	1	08/27/20 16:25	08/27/20 19:41	100-41-4	
2-Hexanone	ND	ug/kg	116	5.2	1	08/27/20 16:25	08/27/20 19:41	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: RD8PB1SS **Lab ID: 5249553009** Collected: 08/27/20 11:15 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	28.9	1.2	1	08/27/20 16:25	08/27/20 19:41	98-82-8	
p-Isopropyltoluene	ND	ug/kg	28.9	5.8	1	08/27/20 16:25	08/27/20 19:41	99-87-6	
Methylene Chloride	ND	ug/kg	144	1.9	1	08/27/20 16:25	08/27/20 19:41	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	116	3.3	1	08/27/20 16:25	08/27/20 19:41	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	57.8	1.3	1	08/27/20 16:25	08/27/20 19:41	1634-04-4	
Naphthalene	ND	ug/kg	28.9	0.72	1	08/27/20 16:25	08/27/20 19:41	91-20-3	
n-Propylbenzene	ND	ug/kg	28.9	1.2	1	08/27/20 16:25	08/27/20 19:41	103-65-1	
Styrene	ND	ug/kg	28.9	1.1	1	08/27/20 16:25	08/27/20 19:41	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	28.9	0.70	1	08/27/20 16:25	08/27/20 19:41	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	28.9	0.64	1	08/27/20 16:25	08/27/20 19:41	79-34-5	
Tetrachloroethene	ND	ug/kg	28.9	1.7	1	08/27/20 16:25	08/27/20 19:41	127-18-4	
Toluene	ND	ug/kg	28.9	1.0	1	08/27/20 16:25	08/27/20 19:41	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	28.9	0.67	1	08/27/20 16:25	08/27/20 19:41	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	28.9	0.77	1	08/27/20 16:25	08/27/20 19:41	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	28.9	1.4	1	08/27/20 16:25	08/27/20 19:41	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	28.9	0.92	1	08/27/20 16:25	08/27/20 19:41	79-00-5	
Trichloroethene	ND	ug/kg	28.9	1.3	1	08/27/20 16:25	08/27/20 19:41	79-01-6	
Trichlorofluoromethane	ND	ug/kg	28.9	2.1	1	08/27/20 16:25	08/27/20 19:41	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	28.9	1.5	1	08/27/20 16:25	08/27/20 19:41	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	28.9	0.96	1	08/27/20 16:25	08/27/20 19:41	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	28.9	1.1	1	08/27/20 16:25	08/27/20 19:41	108-67-8	
Vinyl acetate	ND	ug/kg	57.8	2.2	1	08/27/20 16:25	08/27/20 19:41	108-05-4	
Vinyl chloride	ND	ug/kg	28.9	2.1	1	08/27/20 16:25	08/27/20 19:41	75-01-4	
Xylene (Total)	ND	ug/kg	57.8	3.0	1	08/27/20 16:25	08/27/20 19:41	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	113	%.	78-126		1	08/27/20 16:25	08/27/20 19:41	1868-53-7	
Toluene-d8 (S)	100	%.	80-120		1	08/27/20 16:25	08/27/20 19:41	2037-26-5	
4-Bromofluorobenzene (S)	91	%.	80-120		1	08/27/20 16:25	08/27/20 19:41	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%.	76-127		1	08/27/20 16:25	08/27/20 19:41	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**17.1**	%	0.10	0.10	1		08/27/20 20:37		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: RD8PB2SS **Lab ID: 5249553010** Collected: 08/27/20 11:17 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	298	16.2	1	08/27/20 16:25	08/27/20 20:06	67-64-1	
Acetonitrile	ND	ug/kg	238	11.8	1	08/27/20 16:25	08/27/20 20:06	75-05-8	
Acrolein	ND	ug/kg	298	8.8	1	08/27/20 16:25	08/27/20 20:06	107-02-8	
Acrylonitrile	ND	ug/kg	119	1.3	1	08/27/20 16:25	08/27/20 20:06	107-13-1	
Benzene	ND	ug/kg	6.0	0.96	1	08/27/20 16:25	08/27/20 20:06	71-43-2	
Bromobenzene	ND	ug/kg	29.8	0.93	1	08/27/20 16:25	08/27/20 20:06	108-86-1	
Bromochloromethane	ND	ug/kg	29.8	0.73	1	08/27/20 16:25	08/27/20 20:06	74-97-5	
Bromodichloromethane	ND	ug/kg	29.8	0.94	1	08/27/20 16:25	08/27/20 20:06	75-27-4	
Bromoform	ND	ug/kg	29.8	0.72	1	08/27/20 16:25	08/27/20 20:06	75-25-2	
Bromomethane	ND	ug/kg	149	0.93	1	08/27/20 16:25	08/27/20 20:06	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	119	1.7	1	08/27/20 16:25	08/27/20 20:06	78-93-3	
n-Butylbenzene	ND	ug/kg	29.8	1.9	1	08/27/20 16:25	08/27/20 20:06	104-51-8	
sec-Butylbenzene	ND	ug/kg	29.8	1.6	1	08/27/20 16:25	08/27/20 20:06	135-98-8	
tert-Butylbenzene	ND	ug/kg	29.8	1.5	1	08/27/20 16:25	08/27/20 20:06	98-06-6	
Carbon disulfide	ND	ug/kg	119	1.9	1	08/27/20 16:25	08/27/20 20:06	75-15-0	
Carbon tetrachloride	ND	ug/kg	29.8	1.7	1	08/27/20 16:25	08/27/20 20:06	56-23-5	
Chlorobenzene	ND	ug/kg	29.8	0.91	1	08/27/20 16:25	08/27/20 20:06	108-90-7	
Chloroethane	ND	ug/kg	29.8	1.7	1	08/27/20 16:25	08/27/20 20:06	75-00-3	
Chloroform	ND	ug/kg	29.8	1.2	1	08/27/20 16:25	08/27/20 20:06	67-66-3	
Chloromethane	ND	ug/kg	29.8	0.93	1	08/27/20 16:25	08/27/20 20:06	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	29.8	0.97	1	08/27/20 16:25	08/27/20 20:06	95-49-8	
4-Chlorotoluene	ND	ug/kg	29.8	0.97	1	08/27/20 16:25	08/27/20 20:06	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	59.6	0.96	1	08/27/20 16:25	08/27/20 20:06	96-12-8	
Dibromochloromethane	ND	ug/kg	29.8	0.73	1	08/27/20 16:25	08/27/20 20:06	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	29.8	0.67	1	08/27/20 16:25	08/27/20 20:06	106-93-4	
Dibromomethane	ND	ug/kg	29.8	0.92	1	08/27/20 16:25	08/27/20 20:06	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	29.8	0.82	1	08/27/20 16:25	08/27/20 20:06	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	29.8	0.83	1	08/27/20 16:25	08/27/20 20:06	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	29.8	0.68	1	08/27/20 16:25	08/27/20 20:06	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	29.8	2.6	1	08/27/20 16:25	08/27/20 20:06	75-71-8	
1,1-Dichloroethane	ND	ug/kg	29.8	1.3	1	08/27/20 16:25	08/27/20 20:06	75-34-3	
1,2-Dichloroethane	ND	ug/kg	29.8	1.2	1	08/27/20 16:25	08/27/20 20:06	107-06-2	
1,1-Dichloroethene	ND	ug/kg	29.8	2.0	1	08/27/20 16:25	08/27/20 20:06	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	29.8	1.1	1	08/27/20 16:25	08/27/20 20:06	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	29.8	1.4	1	08/27/20 16:25	08/27/20 20:06	156-60-5	
1,2-Dichloropropane	ND	ug/kg	29.8	0.84	1	08/27/20 16:25	08/27/20 20:06	78-87-5	
1,3-Dichloropropane	ND	ug/kg	29.8	0.75	1	08/27/20 16:25	08/27/20 20:06	142-28-9	
2,2-Dichloropropane	ND	ug/kg	29.8	1.8	1	08/27/20 16:25	08/27/20 20:06	594-20-7	
1,1-Dichloropropene	ND	ug/kg	29.8	1.5	1	08/27/20 16:25	08/27/20 20:06	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	29.8	0.77	1	08/27/20 16:25	08/27/20 20:06	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	29.8	1.0	1	08/27/20 16:25	08/27/20 20:06	10061-02-6	
Ethyl acetate	ND	ug/kg	59.6	2.0	1	08/27/20 16:25	08/27/20 20:06	141-78-6	
Ethylbenzene	ND	ug/kg	29.8	1.4	1	08/27/20 16:25	08/27/20 20:06	100-41-4	
2-Hexanone	ND	ug/kg	119	5.4	1	08/27/20 16:25	08/27/20 20:06	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: RD8PB2SS **Lab ID: 5249553010** Collected: 08/27/20 11:17 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	29.8	1.2	1	08/27/20 16:25	08/27/20 20:06	98-82-8	
p-Isopropyltoluene	ND	ug/kg	29.8	6.0	1	08/27/20 16:25	08/27/20 20:06	99-87-6	
Methylene Chloride	ND	ug/kg	149	1.9	1	08/27/20 16:25	08/27/20 20:06	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	119	3.4	1	08/27/20 16:25	08/27/20 20:06	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	59.6	1.4	1	08/27/20 16:25	08/27/20 20:06	1634-04-4	
Naphthalene	ND	ug/kg	29.8	0.75	1	08/27/20 16:25	08/27/20 20:06	91-20-3	
n-Propylbenzene	ND	ug/kg	29.8	1.3	1	08/27/20 16:25	08/27/20 20:06	103-65-1	
Styrene	ND	ug/kg	29.8	1.1	1	08/27/20 16:25	08/27/20 20:06	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	29.8	0.72	1	08/27/20 16:25	08/27/20 20:06	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	29.8	0.66	1	08/27/20 16:25	08/27/20 20:06	79-34-5	
Tetrachloroethene	ND	ug/kg	29.8	1.7	1	08/27/20 16:25	08/27/20 20:06	127-18-4	
Toluene	ND	ug/kg	29.8	1.0	1	08/27/20 16:25	08/27/20 20:06	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	29.8	0.69	1	08/27/20 16:25	08/27/20 20:06	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	29.8	0.80	1	08/27/20 16:25	08/27/20 20:06	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	29.8	1.5	1	08/27/20 16:25	08/27/20 20:06	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	29.8	0.95	1	08/27/20 16:25	08/27/20 20:06	79-00-5	
Trichloroethene	ND	ug/kg	29.8	1.3	1	08/27/20 16:25	08/27/20 20:06	79-01-6	
Trichlorofluoromethane	ND	ug/kg	29.8	2.1	1	08/27/20 16:25	08/27/20 20:06	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	29.8	1.5	1	08/27/20 16:25	08/27/20 20:06	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	29.8	0.99	1	08/27/20 16:25	08/27/20 20:06	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	29.8	1.1	1	08/27/20 16:25	08/27/20 20:06	108-67-8	
Vinyl acetate	ND	ug/kg	59.6	2.3	1	08/27/20 16:25	08/27/20 20:06	108-05-4	
Vinyl chloride	ND	ug/kg	29.8	2.2	1	08/27/20 16:25	08/27/20 20:06	75-01-4	
Xylene (Total)	ND	ug/kg	59.6	3.1	1	08/27/20 16:25	08/27/20 20:06	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	110	%.	78-126		1	08/27/20 16:25	08/27/20 20:06	1868-53-7	
Toluene-d8 (S)	99	%.	80-120		1	08/27/20 16:25	08/27/20 20:06	2037-26-5	
4-Bromofluorobenzene (S)	94	%.	80-120		1	08/27/20 16:25	08/27/20 20:06	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%.	76-127		1	08/27/20 16:25	08/27/20 20:06	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**17.3**	%	0.10	0.10	1		08/27/20 20:37		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: RD8WESS **Lab ID: 5249553011** Collected: 08/27/20 11:19 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	284	15.5	1	08/27/20 16:25	08/27/20 20:31	67-64-1	
Acetonitrile	ND	ug/kg	227	11.2	1	08/27/20 16:25	08/27/20 20:31	75-05-8	
Acrolein	ND	ug/kg	284	8.4	1	08/27/20 16:25	08/27/20 20:31	107-02-8	
Acrylonitrile	ND	ug/kg	114	1.3	1	08/27/20 16:25	08/27/20 20:31	107-13-1	
Benzene	ND	ug/kg	5.7	0.92	1	08/27/20 16:25	08/27/20 20:31	71-43-2	
Bromobenzene	ND	ug/kg	28.4	0.88	1	08/27/20 16:25	08/27/20 20:31	108-86-1	
Bromochloromethane	ND	ug/kg	28.4	0.70	1	08/27/20 16:25	08/27/20 20:31	74-97-5	
Bromodichloromethane	ND	ug/kg	28.4	0.90	1	08/27/20 16:25	08/27/20 20:31	75-27-4	
Bromoform	ND	ug/kg	28.4	0.69	1	08/27/20 16:25	08/27/20 20:31	75-25-2	
Bromomethane	ND	ug/kg	142	0.89	1	08/27/20 16:25	08/27/20 20:31	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	114	1.6	1	08/27/20 16:25	08/27/20 20:31	78-93-3	
n-Butylbenzene	ND	ug/kg	28.4	1.8	1	08/27/20 16:25	08/27/20 20:31	104-51-8	
sec-Butylbenzene	ND	ug/kg	28.4	1.6	1	08/27/20 16:25	08/27/20 20:31	135-98-8	
tert-Butylbenzene	ND	ug/kg	28.4	1.4	1	08/27/20 16:25	08/27/20 20:31	98-06-6	
Carbon disulfide	ND	ug/kg	114	1.8	1	08/27/20 16:25	08/27/20 20:31	75-15-0	
Carbon tetrachloride	ND	ug/kg	28.4	1.6	1	08/27/20 16:25	08/27/20 20:31	56-23-5	
Chlorobenzene	ND	ug/kg	28.4	0.87	1	08/27/20 16:25	08/27/20 20:31	108-90-7	
Chloroethane	ND	ug/kg	28.4	1.6	1	08/27/20 16:25	08/27/20 20:31	75-00-3	
Chloroform	ND	ug/kg	28.4	1.2	1	08/27/20 16:25	08/27/20 20:31	67-66-3	
Chloromethane	ND	ug/kg	28.4	0.89	1	08/27/20 16:25	08/27/20 20:31	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	28.4	0.92	1	08/27/20 16:25	08/27/20 20:31	95-49-8	
4-Chlorotoluene	ND	ug/kg	28.4	0.92	1	08/27/20 16:25	08/27/20 20:31	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	56.8	0.91	1	08/27/20 16:25	08/27/20 20:31	96-12-8	
Dibromochloromethane	ND	ug/kg	28.4	0.70	1	08/27/20 16:25	08/27/20 20:31	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	28.4	0.64	1	08/27/20 16:25	08/27/20 20:31	106-93-4	
Dibromomethane	ND	ug/kg	28.4	0.88	1	08/27/20 16:25	08/27/20 20:31	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	28.4	0.79	1	08/27/20 16:25	08/27/20 20:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	28.4	0.79	1	08/27/20 16:25	08/27/20 20:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	28.4	0.65	1	08/27/20 16:25	08/27/20 20:31	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	28.4	2.4	1	08/27/20 16:25	08/27/20 20:31	75-71-8	
1,1-Dichloroethane	ND	ug/kg	28.4	1.2	1	08/27/20 16:25	08/27/20 20:31	75-34-3	
1,2-Dichloroethane	ND	ug/kg	28.4	1.2	1	08/27/20 16:25	08/27/20 20:31	107-06-2	
1,1-Dichloroethene	ND	ug/kg	28.4	1.9	1	08/27/20 16:25	08/27/20 20:31	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	28.4	1.0	1	08/27/20 16:25	08/27/20 20:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	28.4	1.4	1	08/27/20 16:25	08/27/20 20:31	156-60-5	
1,2-Dichloropropane	ND	ug/kg	28.4	0.80	1	08/27/20 16:25	08/27/20 20:31	78-87-5	
1,3-Dichloropropane	ND	ug/kg	28.4	0.72	1	08/27/20 16:25	08/27/20 20:31	142-28-9	
2,2-Dichloropropane	ND	ug/kg	28.4	1.7	1	08/27/20 16:25	08/27/20 20:31	594-20-7	
1,1-Dichloropropene	ND	ug/kg	28.4	1.4	1	08/27/20 16:25	08/27/20 20:31	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	28.4	0.74	1	08/27/20 16:25	08/27/20 20:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	28.4	0.97	1	08/27/20 16:25	08/27/20 20:31	10061-02-6	
Ethyl acetate	ND	ug/kg	56.8	1.9	1	08/27/20 16:25	08/27/20 20:31	141-78-6	
Ethylbenzene	ND	ug/kg	28.4	1.3	1	08/27/20 16:25	08/27/20 20:31	100-41-4	
2-Hexanone	ND	ug/kg	114	5.1	1	08/27/20 16:25	08/27/20 20:31	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: RD8WESS **Lab ID: 5249553011** Collected: 08/27/20 11:19 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	28.4	1.2	1	08/27/20 16:25	08/27/20 20:31	98-82-8	
p-Isopropyltoluene	ND	ug/kg	28.4	5.7	1	08/27/20 16:25	08/27/20 20:31	99-87-6	
Methylene Chloride	ND	ug/kg	142	1.8	1	08/27/20 16:25	08/27/20 20:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	114	3.3	1	08/27/20 16:25	08/27/20 20:31	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	56.8	1.3	1	08/27/20 16:25	08/27/20 20:31	1634-04-4	
Naphthalene	ND	ug/kg	28.4	0.71	1	08/27/20 16:25	08/27/20 20:31	91-20-3	
n-Propylbenzene	ND	ug/kg	28.4	1.2	1	08/27/20 16:25	08/27/20 20:31	103-65-1	
Styrene	ND	ug/kg	28.4	1.1	1	08/27/20 16:25	08/27/20 20:31	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	28.4	0.68	1	08/27/20 16:25	08/27/20 20:31	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	28.4	0.63	1	08/27/20 16:25	08/27/20 20:31	79-34-5	
Tetrachloroethene	**3.3J**	ug/kg	28.4	1.6	1	08/27/20 16:25	08/27/20 20:31	127-18-4	
Toluene	ND	ug/kg	28.4	0.99	1	08/27/20 16:25	08/27/20 20:31	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	28.4	0.66	1	08/27/20 16:25	08/27/20 20:31	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	28.4	0.76	1	08/27/20 16:25	08/27/20 20:31	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	28.4	1.4	1	08/27/20 16:25	08/27/20 20:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	28.4	0.90	1	08/27/20 16:25	08/27/20 20:31	79-00-5	
Trichloroethene	**31.8**	ug/kg	28.4	1.3	1	08/27/20 16:25	08/27/20 20:31	79-01-6	
Trichlorofluoromethane	ND	ug/kg	28.4	2.0	1	08/27/20 16:25	08/27/20 20:31	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	28.4	1.4	1	08/27/20 16:25	08/27/20 20:31	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	28.4	0.94	1	08/27/20 16:25	08/27/20 20:31	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	28.4	1.0	1	08/27/20 16:25	08/27/20 20:31	108-67-8	
Vinyl acetate	ND	ug/kg	56.8	2.2	1	08/27/20 16:25	08/27/20 20:31	108-05-4	
Vinyl chloride	ND	ug/kg	28.4	2.1	1	08/27/20 16:25	08/27/20 20:31	75-01-4	
Xylene (Total)	ND	ug/kg	56.8	3.0	1	08/27/20 16:25	08/27/20 20:31	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	109	%.	78-126		1	08/27/20 16:25	08/27/20 20:31	1868-53-7	
Toluene-d8 (S)	100	%.	80-120		1	08/27/20 16:25	08/27/20 20:31	2037-26-5	
4-Bromofluorobenzene (S)	93	%.	80-120		1	08/27/20 16:25	08/27/20 20:31	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%.	76-127		1	08/27/20 16:25	08/27/20 20:31	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**17.0**	%	0.10	0.10	1		08/27/20 20:38		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: 082720R14 **Lab ID: 5249553012** Collected: 08/27/20 10:55 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	318	17.3	1	08/27/20 16:25	08/27/20 20:56	67-64-1	
Acetonitrile	ND	ug/kg	254	12.5	1	08/27/20 16:25	08/27/20 20:56	75-05-8	
Acrolein	ND	ug/kg	318	9.4	1	08/27/20 16:25	08/27/20 20:56	107-02-8	
Acrylonitrile	ND	ug/kg	127	1.4	1	08/27/20 16:25	08/27/20 20:56	107-13-1	
Benzene	ND	ug/kg	6.4	1.0	1	08/27/20 16:25	08/27/20 20:56	71-43-2	
Bromobenzene	ND	ug/kg	31.8	0.99	1	08/27/20 16:25	08/27/20 20:56	108-86-1	
Bromochloromethane	ND	ug/kg	31.8	0.78	1	08/27/20 16:25	08/27/20 20:56	74-97-5	
Bromodichloromethane	ND	ug/kg	31.8	1.0	1	08/27/20 16:25	08/27/20 20:56	75-27-4	
Bromoform	ND	ug/kg	31.8	0.77	1	08/27/20 16:25	08/27/20 20:56	75-25-2	
Bromomethane	ND	ug/kg	159	1.0	1	08/27/20 16:25	08/27/20 20:56	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	127	1.8	1	08/27/20 16:25	08/27/20 20:56	78-93-3	
n-Butylbenzene	ND	ug/kg	31.8	2.0	1	08/27/20 16:25	08/27/20 20:56	104-51-8	
sec-Butylbenzene	ND	ug/kg	31.8	1.7	1	08/27/20 16:25	08/27/20 20:56	135-98-8	
tert-Butylbenzene	ND	ug/kg	31.8	1.6	1	08/27/20 16:25	08/27/20 20:56	98-06-6	
Carbon disulfide	ND	ug/kg	127	2.0	1	08/27/20 16:25	08/27/20 20:56	75-15-0	
Carbon tetrachloride	ND	ug/kg	31.8	1.8	1	08/27/20 16:25	08/27/20 20:56	56-23-5	
Chlorobenzene	ND	ug/kg	31.8	0.97	1	08/27/20 16:25	08/27/20 20:56	108-90-7	
Chloroethane	ND	ug/kg	31.8	1.8	1	08/27/20 16:25	08/27/20 20:56	75-00-3	
Chloroform	ND	ug/kg	31.8	1.3	1	08/27/20 16:25	08/27/20 20:56	67-66-3	
Chloromethane	ND	ug/kg	31.8	0.99	1	08/27/20 16:25	08/27/20 20:56	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	31.8	1.0	1	08/27/20 16:25	08/27/20 20:56	95-49-8	
4-Chlorotoluene	ND	ug/kg	31.8	1.0	1	08/27/20 16:25	08/27/20 20:56	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	63.6	1.0	1	08/27/20 16:25	08/27/20 20:56	96-12-8	
Dibromochloromethane	ND	ug/kg	31.8	0.78	1	08/27/20 16:25	08/27/20 20:56	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	31.8	0.72	1	08/27/20 16:25	08/27/20 20:56	106-93-4	
Dibromomethane	ND	ug/kg	31.8	0.99	1	08/27/20 16:25	08/27/20 20:56	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	31.8	0.88	1	08/27/20 16:25	08/27/20 20:56	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	31.8	0.88	1	08/27/20 16:25	08/27/20 20:56	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	31.8	0.72	1	08/27/20 16:25	08/27/20 20:56	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	31.8	2.7	1	08/27/20 16:25	08/27/20 20:56	75-71-8	
1,1-Dichloroethane	ND	ug/kg	31.8	1.3	1	08/27/20 16:25	08/27/20 20:56	75-34-3	
1,2-Dichloroethane	ND	ug/kg	31.8	1.3	1	08/27/20 16:25	08/27/20 20:56	107-06-2	
1,1-Dichloroethene	ND	ug/kg	31.8	2.2	1	08/27/20 16:25	08/27/20 20:56	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	31.8	1.2	1	08/27/20 16:25	08/27/20 20:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	31.8	1.5	1	08/27/20 16:25	08/27/20 20:56	156-60-5	
1,2-Dichloropropane	ND	ug/kg	31.8	0.90	1	08/27/20 16:25	08/27/20 20:56	78-87-5	
1,3-Dichloropropane	ND	ug/kg	31.8	0.80	1	08/27/20 16:25	08/27/20 20:56	142-28-9	
2,2-Dichloropropane	ND	ug/kg	31.8	1.9	1	08/27/20 16:25	08/27/20 20:56	594-20-7	
1,1-Dichloropropene	ND	ug/kg	31.8	1.6	1	08/27/20 16:25	08/27/20 20:56	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	31.8	0.83	1	08/27/20 16:25	08/27/20 20:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	31.8	1.1	1	08/27/20 16:25	08/27/20 20:56	10061-02-6	
Ethyl acetate	ND	ug/kg	63.6	2.2	1	08/27/20 16:25	08/27/20 20:56	141-78-6	
Ethylbenzene	ND	ug/kg	31.8	1.5	1	08/27/20 16:25	08/27/20 20:56	100-41-4	
2-Hexanone	ND	ug/kg	127	5.7	1	08/27/20 16:25	08/27/20 20:56	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: 082720R14 **Lab ID: 5249553012** Collected: 08/27/20 10:55 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	31.8	1.3	1	08/27/20 16:25	08/27/20 20:56	98-82-8	
p-Isopropyltoluene	ND	ug/kg	31.8	6.4	1	08/27/20 16:25	08/27/20 20:56	99-87-6	
Methylene Chloride	ND	ug/kg	159	2.1	1	08/27/20 16:25	08/27/20 20:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	127	3.7	1	08/27/20 16:25	08/27/20 20:56	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	63.6	1.5	1	08/27/20 16:25	08/27/20 20:56	1634-04-4	
Naphthalene	ND	ug/kg	31.8	0.80	1	08/27/20 16:25	08/27/20 20:56	91-20-3	
n-Propylbenzene	ND	ug/kg	31.8	1.4	1	08/27/20 16:25	08/27/20 20:56	103-65-1	
Styrene	ND	ug/kg	31.8	1.2	1	08/27/20 16:25	08/27/20 20:56	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	31.8	0.77	1	08/27/20 16:25	08/27/20 20:56	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	31.8	0.71	1	08/27/20 16:25	08/27/20 20:56	79-34-5	
Tetrachloroethene	ND	ug/kg	31.8	1.8	1	08/27/20 16:25	08/27/20 20:56	127-18-4	
Toluene	ND	ug/kg	31.8	1.1	1	08/27/20 16:25	08/27/20 20:56	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	31.8	0.74	1	08/27/20 16:25	08/27/20 20:56	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	31.8	0.85	1	08/27/20 16:25	08/27/20 20:56	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	31.8	1.6	1	08/27/20 16:25	08/27/20 20:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	31.8	1.0	1	08/27/20 16:25	08/27/20 20:56	79-00-5	
Trichloroethene	ND	ug/kg	31.8	1.4	1	08/27/20 16:25	08/27/20 20:56	79-01-6	
Trichlorofluoromethane	ND	ug/kg	31.8	2.3	1	08/27/20 16:25	08/27/20 20:56	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	31.8	1.6	1	08/27/20 16:25	08/27/20 20:56	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	31.8	1.1	1	08/27/20 16:25	08/27/20 20:56	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	31.8	1.2	1	08/27/20 16:25	08/27/20 20:56	108-67-8	
Vinyl acetate	ND	ug/kg	63.6	2.5	1	08/27/20 16:25	08/27/20 20:56	108-05-4	
Vinyl chloride	ND	ug/kg	31.8	2.3	1	08/27/20 16:25	08/27/20 20:56	75-01-4	
Xylene (Total)	ND	ug/kg	63.6	3.3	1	08/27/20 16:25	08/27/20 20:56	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	112	%.	78-126		1	08/27/20 16:25	08/27/20 20:56	1868-53-7	
Toluene-d8 (S)	98	%.	80-120		1	08/27/20 16:25	08/27/20 20:56	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	80-120		1	08/27/20 16:25	08/27/20 20:56	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%.	76-127		1	08/27/20 16:25	08/27/20 20:56	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**21.5**	%	0.10	0.10	1		08/27/20 20:39		N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: RD8WSSS **Lab ID: 5249553013** Collected: 08/27/20 11:25 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	290	15.8	1	08/27/20 16:25	08/27/20 21:21	67-64-1	
Acetonitrile	ND	ug/kg	232	11.5	1	08/27/20 16:25	08/27/20 21:21	75-05-8	
Acrolein	ND	ug/kg	290	8.6	1	08/27/20 16:25	08/27/20 21:21	107-02-8	
Acrylonitrile	ND	ug/kg	116	1.3	1	08/27/20 16:25	08/27/20 21:21	107-13-1	
Benzene	ND	ug/kg	5.8	0.94	1	08/27/20 16:25	08/27/20 21:21	71-43-2	
Bromobenzene	ND	ug/kg	29.0	0.90	1	08/27/20 16:25	08/27/20 21:21	108-86-1	
Bromochloromethane	ND	ug/kg	29.0	0.71	1	08/27/20 16:25	08/27/20 21:21	74-97-5	
Bromodichloromethane	ND	ug/kg	29.0	0.92	1	08/27/20 16:25	08/27/20 21:21	75-27-4	
Bromoform	ND	ug/kg	29.0	0.70	1	08/27/20 16:25	08/27/20 21:21	75-25-2	
Bromomethane	ND	ug/kg	145	0.91	1	08/27/20 16:25	08/27/20 21:21	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	116	1.6	1	08/27/20 16:25	08/27/20 21:21	78-93-3	
n-Butylbenzene	ND	ug/kg	29.0	1.9	1	08/27/20 16:25	08/27/20 21:21	104-51-8	
sec-Butylbenzene	ND	ug/kg	29.0	1.6	1	08/27/20 16:25	08/27/20 21:21	135-98-8	
tert-Butylbenzene	ND	ug/kg	29.0	1.4	1	08/27/20 16:25	08/27/20 21:21	98-06-6	
Carbon disulfide	ND	ug/kg	116	1.8	1	08/27/20 16:25	08/27/20 21:21	75-15-0	
Carbon tetrachloride	ND	ug/kg	29.0	1.7	1	08/27/20 16:25	08/27/20 21:21	56-23-5	
Chlorobenzene	ND	ug/kg	29.0	0.89	1	08/27/20 16:25	08/27/20 21:21	108-90-7	
Chloroethane	ND	ug/kg	29.0	1.7	1	08/27/20 16:25	08/27/20 21:21	75-00-3	
Chloroform	ND	ug/kg	29.0	1.2	1	08/27/20 16:25	08/27/20 21:21	67-66-3	
Chloromethane	ND	ug/kg	29.0	0.91	1	08/27/20 16:25	08/27/20 21:21	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	29.0	0.94	1	08/27/20 16:25	08/27/20 21:21	95-49-8	
4-Chlorotoluene	ND	ug/kg	29.0	0.94	1	08/27/20 16:25	08/27/20 21:21	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	58.1	0.93	1	08/27/20 16:25	08/27/20 21:21	96-12-8	
Dibromochloromethane	ND	ug/kg	29.0	0.71	1	08/27/20 16:25	08/27/20 21:21	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	29.0	0.66	1	08/27/20 16:25	08/27/20 21:21	106-93-4	
Dibromomethane	ND	ug/kg	29.0	0.90	1	08/27/20 16:25	08/27/20 21:21	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	29.0	0.80	1	08/27/20 16:25	08/27/20 21:21	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	29.0	0.81	1	08/27/20 16:25	08/27/20 21:21	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	29.0	0.66	1	08/27/20 16:25	08/27/20 21:21	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	29.0	2.5	1	08/27/20 16:25	08/27/20 21:21	75-71-8	
1,1-Dichloroethane	ND	ug/kg	29.0	1.2	1	08/27/20 16:25	08/27/20 21:21	75-34-3	
1,2-Dichloroethane	ND	ug/kg	29.0	1.2	1	08/27/20 16:25	08/27/20 21:21	107-06-2	
1,1-Dichloroethene	ND	ug/kg	29.0	2.0	1	08/27/20 16:25	08/27/20 21:21	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	29.0	1.1	1	08/27/20 16:25	08/27/20 21:21	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	29.0	1.4	1	08/27/20 16:25	08/27/20 21:21	156-60-5	
1,2-Dichloropropane	ND	ug/kg	29.0	0.82	1	08/27/20 16:25	08/27/20 21:21	78-87-5	
1,3-Dichloropropane	ND	ug/kg	29.0	0.73	1	08/27/20 16:25	08/27/20 21:21	142-28-9	
2,2-Dichloropropane	ND	ug/kg	29.0	1.7	1	08/27/20 16:25	08/27/20 21:21	594-20-7	
1,1-Dichloropropene	ND	ug/kg	29.0	1.5	1	08/27/20 16:25	08/27/20 21:21	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	29.0	0.75	1	08/27/20 16:25	08/27/20 21:21	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	29.0	0.99	1	08/27/20 16:25	08/27/20 21:21	10061-02-6	
Ethyl acetate	ND	ug/kg	58.1	2.0	1	08/27/20 16:25	08/27/20 21:21	141-78-6	
Ethylbenzene	ND	ug/kg	29.0	1.3	1	08/27/20 16:25	08/27/20 21:21	100-41-4	
2-Hexanone	ND	ug/kg	116	5.2	1	08/27/20 16:25	08/27/20 21:21	591-78-6	N2

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: RD8WSSS **Lab ID: 5249553013** Collected: 08/27/20 11:25 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	29.0	1.2	1	08/27/20 16:25	08/27/20 21:21	98-82-8	
p-Isopropyltoluene	ND	ug/kg	29.0	5.8	1	08/27/20 16:25	08/27/20 21:21	99-87-6	
Methylene Chloride	ND	ug/kg	145	1.9	1	08/27/20 16:25	08/27/20 21:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	116	3.3	1	08/27/20 16:25	08/27/20 21:21	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	58.1	1.3	1	08/27/20 16:25	08/27/20 21:21	1634-04-4	
Naphthalene	ND	ug/kg	29.0	0.73	1	08/27/20 16:25	08/27/20 21:21	91-20-3	
n-Propylbenzene	ND	ug/kg	29.0	1.2	1	08/27/20 16:25	08/27/20 21:21	103-65-1	
Styrene	ND	ug/kg	29.0	1.1	1	08/27/20 16:25	08/27/20 21:21	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	29.0	0.70	1	08/27/20 16:25	08/27/20 21:21	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	29.0	0.65	1	08/27/20 16:25	08/27/20 21:21	79-34-5	
Tetrachloroethene	**21.3J**	ug/kg	29.0	1.7	1	08/27/20 16:25	08/27/20 21:21	127-18-4	
Toluene	ND	ug/kg	29.0	1.0	1	08/27/20 16:25	08/27/20 21:21	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	29.0	0.68	1	08/27/20 16:25	08/27/20 21:21	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	29.0	0.78	1	08/27/20 16:25	08/27/20 21:21	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	29.0	1.5	1	08/27/20 16:25	08/27/20 21:21	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	29.0	0.92	1	08/27/20 16:25	08/27/20 21:21	79-00-5	
Trichloroethene	ND	ug/kg	29.0	1.3	1	08/27/20 16:25	08/27/20 21:21	79-01-6	
Trichlorofluoromethane	ND	ug/kg	29.0	2.1	1	08/27/20 16:25	08/27/20 21:21	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	29.0	1.5	1	08/27/20 16:25	08/27/20 21:21	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	29.0	0.96	1	08/27/20 16:25	08/27/20 21:21	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	29.0	1.1	1	08/27/20 16:25	08/27/20 21:21	108-67-8	
Vinyl acetate	ND	ug/kg	58.1	2.3	1	08/27/20 16:25	08/27/20 21:21	108-05-4	
Vinyl chloride	ND	ug/kg	29.0	2.1	1	08/27/20 16:25	08/27/20 21:21	75-01-4	
Xylene (Total)	ND	ug/kg	58.1	3.0	1	08/27/20 16:25	08/27/20 21:21	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	109	%.	78-126		1	08/27/20 16:25	08/27/20 21:21	1868-53-7	
Toluene-d8 (S)	98	%.	80-120		1	08/27/20 16:25	08/27/20 21:21	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	80-120		1	08/27/20 16:25	08/27/20 21:21	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%.	76-127		1	08/27/20 16:25	08/27/20 21:21	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**21.0**	%	0.10	0.10	1		08/27/20 20:40		N2

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: RD8WWSS **Lab ID: 5249553014** Collected: 08/27/20 11:22 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	293	15.9	1	08/27/20 16:25	08/27/20 21:46	67-64-1	
Acetonitrile	ND	ug/kg	235	11.6	1	08/27/20 16:25	08/27/20 21:46	75-05-8	
Acrolein	ND	ug/kg	293	8.6	1	08/27/20 16:25	08/27/20 21:46	107-02-8	
Acrylonitrile	ND	ug/kg	117	1.3	1	08/27/20 16:25	08/27/20 21:46	107-13-1	
Benzene	ND	ug/kg	5.9	0.95	1	08/27/20 16:25	08/27/20 21:46	71-43-2	
Bromobenzene	ND	ug/kg	29.3	0.91	1	08/27/20 16:25	08/27/20 21:46	108-86-1	
Bromochloromethane	ND	ug/kg	29.3	0.72	1	08/27/20 16:25	08/27/20 21:46	74-97-5	
Bromodichloromethane	ND	ug/kg	29.3	0.92	1	08/27/20 16:25	08/27/20 21:46	75-27-4	
Bromoform	ND	ug/kg	29.3	0.71	1	08/27/20 16:25	08/27/20 21:46	75-25-2	
Bromomethane	ND	ug/kg	147	0.92	1	08/27/20 16:25	08/27/20 21:46	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	117	1.7	1	08/27/20 16:25	08/27/20 21:46	78-93-3	
n-Butylbenzene	ND	ug/kg	29.3	1.9	1	08/27/20 16:25	08/27/20 21:46	104-51-8	
sec-Butylbenzene	ND	ug/kg	29.3	1.6	1	08/27/20 16:25	08/27/20 21:46	135-98-8	
tert-Butylbenzene	ND	ug/kg	29.3	1.5	1	08/27/20 16:25	08/27/20 21:46	98-06-6	
Carbon disulfide	ND	ug/kg	117	1.8	1	08/27/20 16:25	08/27/20 21:46	75-15-0	
Carbon tetrachloride	ND	ug/kg	29.3	1.7	1	08/27/20 16:25	08/27/20 21:46	56-23-5	
Chlorobenzene	ND	ug/kg	29.3	0.89	1	08/27/20 16:25	08/27/20 21:46	108-90-7	
Chloroethane	ND	ug/kg	29.3	1.7	1	08/27/20 16:25	08/27/20 21:46	75-00-3	
Chloroform	ND	ug/kg	29.3	1.2	1	08/27/20 16:25	08/27/20 21:46	67-66-3	
Chloromethane	ND	ug/kg	29.3	0.91	1	08/27/20 16:25	08/27/20 21:46	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	29.3	0.95	1	08/27/20 16:25	08/27/20 21:46	95-49-8	
4-Chlorotoluene	ND	ug/kg	29.3	0.95	1	08/27/20 16:25	08/27/20 21:46	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	58.6	0.94	1	08/27/20 16:25	08/27/20 21:46	96-12-8	
Dibromochloromethane	ND	ug/kg	29.3	0.72	1	08/27/20 16:25	08/27/20 21:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	29.3	0.66	1	08/27/20 16:25	08/27/20 21:46	106-93-4	
Dibromomethane	ND	ug/kg	29.3	0.91	1	08/27/20 16:25	08/27/20 21:46	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	29.3	0.81	1	08/27/20 16:25	08/27/20 21:46	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	29.3	0.81	1	08/27/20 16:25	08/27/20 21:46	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	29.3	0.67	1	08/27/20 16:25	08/27/20 21:46	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	29.3	2.5	1	08/27/20 16:25	08/27/20 21:46	75-71-8	
1,1-Dichloroethane	ND	ug/kg	29.3	1.2	1	08/27/20 16:25	08/27/20 21:46	75-34-3	
1,2-Dichloroethane	ND	ug/kg	29.3	1.2	1	08/27/20 16:25	08/27/20 21:46	107-06-2	
1,1-Dichloroethene	ND	ug/kg	29.3	2.0	1	08/27/20 16:25	08/27/20 21:46	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	29.3	1.1	1	08/27/20 16:25	08/27/20 21:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	29.3	1.4	1	08/27/20 16:25	08/27/20 21:46	156-60-5	
1,2-Dichloropropane	ND	ug/kg	29.3	0.83	1	08/27/20 16:25	08/27/20 21:46	78-87-5	
1,3-Dichloropropane	ND	ug/kg	29.3	0.74	1	08/27/20 16:25	08/27/20 21:46	142-28-9	
2,2-Dichloropropane	ND	ug/kg	29.3	1.8	1	08/27/20 16:25	08/27/20 21:46	594-20-7	
1,1-Dichloropropene	ND	ug/kg	29.3	1.5	1	08/27/20 16:25	08/27/20 21:46	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	29.3	0.76	1	08/27/20 16:25	08/27/20 21:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	29.3	1.0	1	08/27/20 16:25	08/27/20 21:46	10061-02-6	
Ethyl acetate	ND	ug/kg	58.6	2.0	1	08/27/20 16:25	08/27/20 21:46	141-78-6	
Ethylbenzene	ND	ug/kg	29.3	1.3	1	08/27/20 16:25	08/27/20 21:46	100-41-4	
2-Hexanone	ND	ug/kg	117	5.3	1	08/27/20 16:25	08/27/20 21:46	591-78-6	N2

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249553

Sample: RD8WWSS **Lab ID: 5249553014** Collected: 08/27/20 11:22 Received: 08/27/20 15:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	29.3	1.2	1	08/27/20 16:25	08/27/20 21:46	98-82-8	
p-Isopropyltoluene	ND	ug/kg	29.3	5.9	1	08/27/20 16:25	08/27/20 21:46	99-87-6	
Methylene Chloride	ND	ug/kg	147	1.9	1	08/27/20 16:25	08/27/20 21:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	117	3.4	1	08/27/20 16:25	08/27/20 21:46	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	58.6	1.4	1	08/27/20 16:25	08/27/20 21:46	1634-04-4	
Naphthalene	ND	ug/kg	29.3	0.74	1	08/27/20 16:25	08/27/20 21:46	91-20-3	
n-Propylbenzene	ND	ug/kg	29.3	1.3	1	08/27/20 16:25	08/27/20 21:46	103-65-1	
Styrene	ND	ug/kg	29.3	1.1	1	08/27/20 16:25	08/27/20 21:46	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	29.3	0.71	1	08/27/20 16:25	08/27/20 21:46	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	29.3	0.65	1	08/27/20 16:25	08/27/20 21:46	79-34-5	
Tetrachloroethene	ND	ug/kg	29.3	1.7	1	08/27/20 16:25	08/27/20 21:46	127-18-4	
Toluene	ND	ug/kg	29.3	1.0	1	08/27/20 16:25	08/27/20 21:46	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	29.3	0.68	1	08/27/20 16:25	08/27/20 21:46	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	29.3	0.78	1	08/27/20 16:25	08/27/20 21:46	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	29.3	1.5	1	08/27/20 16:25	08/27/20 21:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	29.3	0.93	1	08/27/20 16:25	08/27/20 21:46	79-00-5	
Trichloroethene	ND	ug/kg	29.3	1.3	1	08/27/20 16:25	08/27/20 21:46	79-01-6	
Trichlorofluoromethane	ND	ug/kg	29.3	2.1	1	08/27/20 16:25	08/27/20 21:46	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	29.3	1.5	1	08/27/20 16:25	08/27/20 21:46	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	29.3	0.97	1	08/27/20 16:25	08/27/20 21:46	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	29.3	1.1	1	08/27/20 16:25	08/27/20 21:46	108-67-8	
Vinyl acetate	ND	ug/kg	58.6	2.3	1	08/27/20 16:25	08/27/20 21:46	108-05-4	
Vinyl chloride	ND	ug/kg	29.3	2.1	1	08/27/20 16:25	08/27/20 21:46	75-01-4	
Xylene (Total)	ND	ug/kg	58.6	3.0	1	08/27/20 16:25	08/27/20 21:46	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	110	%.	78-126		1	08/27/20 16:25	08/27/20 21:46	1868-53-7	
Toluene-d8 (S)	98	%.	80-120		1	08/27/20 16:25	08/27/20 21:46	2037-26-5	
4-Bromofluorobenzene (S)	97	%.	80-120		1	08/27/20 16:25	08/27/20 21:46	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%.	76-127		1	08/27/20 16:25	08/27/20 21:46	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**17.4**	%	0.10	0.10	1		08/27/20 20:40		N2

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QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249553

QC Batch: 48787
QC Batch Method: EPA 5035A
Analysis Method: EPA 8260B
Analysis Description: 8260B MSV 5035A Med Level
Laboratory: Pace Analytical Services - Dayton
Associated Lab Samples: 5249553001, 5249553002, 5249553003, 5249553004, 5249553005, 5249553006, 5249553007, 5249553008, 5249553009, 5249553010, 5249553011, 5249553012, 5249553013, 5249553014

METHOD BLANK: 205215
Matrix: Solid
Associated Lab Samples: 5249553001, 5249553002, 5249553003, 5249553004, 5249553005, 5249553006, 5249553007, 5249553008, 5249553009, 5249553010, 5249553011, 5249553012, 5249553013, 5249553014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	25.0	0.60	08/27/20 12:50	
1,1,1-Trichloroethane	ug/kg	ND	25.0	1.2	08/27/20 12:50	
1,1,2,2-Tetrachloroethane	ug/kg	ND	25.0	0.56	08/27/20 12:50	
1,1,2-Trichloroethane	ug/kg	ND	25.0	0.80	08/27/20 12:50	
1,1-Dichloroethane	ug/kg	ND	25.0	1.1	08/27/20 12:50	
1,1-Dichloroethene	ug/kg	ND	25.0	1.7	08/27/20 12:50	N2
1,1-Dichloropropene	ug/kg	ND	25.0	1.3	08/27/20 12:50	
1,2,3-Trichlorobenzene	ug/kg	ND	25.0	0.58	08/27/20 12:50	N2
1,2,3-Trichloropropane	ug/kg	ND	25.0	1.3	08/27/20 12:50	
1,2,4-Trichlorobenzene	ug/kg	ND	25.0	0.67	08/27/20 12:50	
1,2,4-Trimethylbenzene	ug/kg	ND	25.0	0.83	08/27/20 12:50	
1,2-Dibromo-3-chloropropane	ug/kg	ND	50.0	0.80	08/27/20 12:50	
1,2-Dibromoethane (EDB)	ug/kg	ND	25.0	0.57	08/27/20 12:50	
1,2-Dichlorobenzene	ug/kg	ND	25.0	0.69	08/27/20 12:50	
1,2-Dichloroethane	ug/kg	ND	25.0	1.0	08/27/20 12:50	
1,2-Dichloropropane	ug/kg	ND	25.0	0.71	08/27/20 12:50	
1,3,5-Trimethylbenzene	ug/kg	ND	25.0	0.92	08/27/20 12:50	
1,3-Dichlorobenzene	ug/kg	ND	25.0	0.69	08/27/20 12:50	
1,3-Dichloropropane	ug/kg	ND	25.0	0.63	08/27/20 12:50	
1,4-Dichlorobenzene	ug/kg	ND	25.0	0.57	08/27/20 12:50	
2,2-Dichloropropane	ug/kg	ND	25.0	1.5	08/27/20 12:50	
2-Butanone (MEK)	ug/kg	ND	100	1.4	08/27/20 12:50	
2-Chlorotoluene	ug/kg	ND	25.0	0.81	08/27/20 12:50	
2-Hexanone	ug/kg	ND	100	4.5	08/27/20 12:50	N2
4-Chlorotoluene	ug/kg	ND	25.0	0.81	08/27/20 12:50	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	100	2.9	08/27/20 12:50	N2
Acetone	ug/kg	ND	250	13.6	08/27/20 12:50	
Acetonitrile	ug/kg	ND	200	9.9	08/27/20 12:50	
Acrolein	ug/kg	ND	250	7.4	08/27/20 12:50	
Acrylonitrile	ug/kg	ND	100	1.1	08/27/20 12:50	
Benzene	ug/kg	ND	5.0	0.81	08/27/20 12:50	
Bromobenzene	ug/kg	ND	25.0	0.78	08/27/20 12:50	
Bromochloromethane	ug/kg	ND	25.0	0.61	08/27/20 12:50	
Bromodichloromethane	ug/kg	ND	25.0	0.79	08/27/20 12:50	
Bromoform	ug/kg	ND	25.0	0.60	08/27/20 12:50	
Bromomethane	ug/kg	ND	125	0.78	08/27/20 12:50	N2
Carbon disulfide	ug/kg	ND	100	1.6	08/27/20 12:50	
Carbon tetrachloride	ug/kg	ND	25.0	1.4	08/27/20 12:50	
Chlorobenzene	ug/kg	ND	25.0	0.76	08/27/20 12:50	

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249553

METHOD BLANK: 205215 Matrix: Solid

Associated Lab Samples: 5249553001, 5249553002, 5249553003, 5249553004, 5249553005, 5249553006, 5249553007, 5249553008, 5249553009, 5249553010, 5249553011, 5249553012, 5249553013, 5249553014

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloroethane	ug/kg	ND	25.0	1.4	08/27/20 12:50	
Chloroform	ug/kg	ND	25.0	1.0	08/27/20 12:50	
Chloromethane	ug/kg	ND	25.0	0.78	08/27/20 12:50	N2
cis-1,2-Dichloroethene	ug/kg	ND	25.0	0.91	08/27/20 12:50	
cis-1,3-Dichloropropene	ug/kg	ND	25.0	0.65	08/27/20 12:50	
Dibromochloromethane	ug/kg	ND	25.0	0.61	08/27/20 12:50	
Dibromomethane	ug/kg	ND	25.0	0.78	08/27/20 12:50	
Dichlorodifluoromethane	ug/kg	ND	25.0	2.1	08/27/20 12:50	
Ethyl acetate	ug/kg	ND	50.0	1.7	08/27/20 12:50	
Ethylbenzene	ug/kg	ND	25.0	1.2	08/27/20 12:50	
Isopropylbenzene (Cumene)	ug/kg	ND	25.0	1.0	08/27/20 12:50	
Methyl-tert-butyl ether	ug/kg	ND	50.0	1.2	08/27/20 12:50	
Methylene Chloride	ug/kg	ND	125	1.6	08/27/20 12:50	
n-Butylbenzene	ug/kg	ND	25.0	1.6	08/27/20 12:50	
n-Propylbenzene	ug/kg	ND	25.0	1.1	08/27/20 12:50	
Naphthalene	ug/kg	ND	25.0	0.63	08/27/20 12:50	
p-Isopropyltoluene	ug/kg	ND	25.0	5.0	08/27/20 12:50	
sec-Butylbenzene	ug/kg	ND	25.0	1.4	08/27/20 12:50	
Styrene	ug/kg	ND	25.0	0.96	08/27/20 12:50	
tert-Butylbenzene	ug/kg	ND	25.0	1.2	08/27/20 12:50	
Tetrachloroethene	ug/kg	ND	25.0	1.4	08/27/20 12:50	
Toluene	ug/kg	ND	25.0	0.87	08/27/20 12:50	
trans-1,2-Dichloroethene	ug/kg	ND	25.0	1.2	08/27/20 12:50	
trans-1,3-Dichloropropene	ug/kg	ND	25.0	0.86	08/27/20 12:50	
Trichloroethene	ug/kg	ND	25.0	1.1	08/27/20 12:50	
Trichlorofluoromethane	ug/kg	ND	25.0	1.8	08/27/20 12:50	
Vinyl acetate	ug/kg	ND	50.0	1.9	08/27/20 12:50	
Vinyl chloride	ug/kg	ND	25.0	1.8	08/27/20 12:50	
Xylene (Total)	ug/kg	ND	50.0	2.6	08/27/20 12:50	
1,2-Dichloroethane-d4 (S)	%.	109	76-127		08/27/20 12:50	
4-Bromofluorobenzene (S)	%.	91	80-120		08/27/20 12:50	
Dibromofluoromethane (S)	%.	109	78-126		08/27/20 12:50	
Toluene-d8 (S)	%.	98	80-120		08/27/20 12:50	

LABORATORY CONTROL SAMPLE: 205216

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	500	543	109	70-130	
1,1,1-Trichloroethane	ug/kg	500	562	112	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	500	520	104	70-130	
1,1,2-Trichloroethane	ug/kg	500	495	99	70-130	
1,1-Dichloroethane	ug/kg	500	513	103	70-130	
1,1-Dichloroethene	ug/kg	500	496	99	70-130	N2

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249553

LABORATORY CONTROL SAMPLE: 205216

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1-Dichloropropene	ug/kg	500	502	100	70-130	
1,2,3-Trichlorobenzene	ug/kg	500	462	92	70-130	N2
1,2,3-Trichloropropane	ug/kg	500	519	104	70-130	
1,2,4-Trichlorobenzene	ug/kg	500	451	90	70-130	
1,2,4-Trimethylbenzene	ug/kg	500	448	90	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	500	467	93	70-130	
1,2-Dibromoethane (EDB)	ug/kg	500	529	106	70-130	
1,2-Dichlorobenzene	ug/kg	500	466	93	70-130	
1,2-Dichloroethane	ug/kg	500	509	102	70-130	
1,2-Dichloropropane	ug/kg	500	507	101	70-130	
1,3,5-Trimethylbenzene	ug/kg	500	499	100	70-130	
1,3-Dichlorobenzene	ug/kg	500	505	101	50-150	
1,3-Dichloropropane	ug/kg	500	507	101	70-130	
1,4-Dichlorobenzene	ug/kg	500	474	95	50-150	
2,2-Dichloropropane	ug/kg	500	523	105	70-130	
2-Butanone (MEK)	ug/kg	1000	981	98	50-150	
2-Chlorotoluene	ug/kg	500	510	102	70-130	
2-Hexanone	ug/kg	1000	1110	111	50-150	N2
4-Chlorotoluene	ug/kg	500	476	95	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	1000	984	98	70-130	N2
Acetone	ug/kg	1000	1070	107	50-150	
Acetonitrile	ug/kg	1000	1240	124	70-130	
Acrolein	ug/kg	1000	778	78	70-130	
Acrylonitrile	ug/kg	1000	921	92	70-130	
Benzene	ug/kg	500	520	104	70-130	
Bromobenzene	ug/kg	500	552	110	70-130	
Bromochloromethane	ug/kg	500	525	105	70-130	
Bromodichloromethane	ug/kg	500	569	114	70-130	
Bromoform	ug/kg	500	534	107	70-130	
Bromomethane	ug/kg	500	603	121	50-150	N2
Carbon disulfide	ug/kg	500	482	96	70-130	
Carbon tetrachloride	ug/kg	500	569	114	70-130	
Chlorobenzene	ug/kg	500	509	102	70-130	
Chloroethane	ug/kg	500	545	109	50-150	
Chloroform	ug/kg	500	526	105	70-130	
Chloromethane	ug/kg	500	506	101	50-150	N2
cis-1,2-Dichloroethene	ug/kg	500	479	96	70-130	
cis-1,3-Dichloropropene	ug/kg	500	524	105	70-130	
Dibromochloromethane	ug/kg	500	563	113	70-130	
Dibromomethane	ug/kg	500	547	109	70-130	
Dichlorodifluoromethane	ug/kg	500	368	74	50-150	
Ethyl acetate	ug/kg	1000	910	91	70-130	
Ethylbenzene	ug/kg	500	485	97	70-130	
Isopropylbenzene (Cumene)	ug/kg	500	436	87	70-130	
Methyl-tert-butyl ether	ug/kg	500	484	97	70-130	
Methylene Chloride	ug/kg	500	471	94	70-130	
n-Butylbenzene	ug/kg	500	483	97	70-130	

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QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249553

LABORATORY CONTROL SAMPLE: 205216

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
n-Propylbenzene	ug/kg	500	517	103	70-130	
Naphthalene	ug/kg	500	365	73	50-150	
p-Isopropyltoluene	ug/kg	500	413	83	70-130	
sec-Butylbenzene	ug/kg	500	430	86	70-130	
Styrene	ug/kg	500	428	86	70-130	
tert-Butylbenzene	ug/kg	500	413	83	70-130	
Tetrachloroethene	ug/kg	500	569	114	70-130	
Toluene	ug/kg	500	514	103	70-130	
trans-1,2-Dichloroethene	ug/kg	500	466	93	70-130	
trans-1,3-Dichloropropene	ug/kg	500	525	105	70-130	
Trichloroethene	ug/kg	500	530	106	70-130	
Trichlorofluoromethane	ug/kg	500	568	114	50-150	
Vinyl acetate	ug/kg	500	429	86	70-130	
Vinyl chloride	ug/kg	500	438	88	50-150	
Xylene (Total)	ug/kg	1500	1400	93	70-130	
1,2-Dichloroethane-d4 (S)	%.			98	76-127	
4-Bromofluorobenzene (S)	%.			100	80-120	
Dibromofluoromethane (S)	%.			98	78-126	
Toluene-d8 (S)	%.			100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 205521 205522

Parameter	Units	5249553001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/kg	ND	577	563	603	563	105	100	48-135	7	20	
1,1,1-Trichloroethane	ug/kg	ND	577	563	648	609	112	108	49-123	6	23	
1,1,2,2-Tetrachloroethane	ug/kg	ND	577	563	571	525	99	93	43-135	8	26	
1,1,2-Trichloroethane	ug/kg	ND	577	563	607	529	105	94	52-138	14	21	
1,1-Dichloroethane	ug/kg	ND	577	563	566	538	98	96	61-129	5	20	
1,1-Dichloroethene	ug/kg	ND	577	563	552	533	96	95	41-127	4	28	N2
1,1-Dichloropropene	ug/kg	ND	577	563	561	564	97	100	44-119	1	25	
1,2,3-Trichlorobenzene	ug/kg	ND	577	563	507	492	88	87	10-110	3	30	N2
1,2,3-Trichloropropane	ug/kg	ND	577	563	572	526	99	93	46-128	8	24	
1,2,4-Trichlorobenzene	ug/kg	ND	577	563	492	474	85	84	11-130	4	38	
1,2,4-Trimethylbenzene	ug/kg	ND	577	563	496	475	86	84	24-153	4	25	
1,2-Dibromo-3-chloropropane	ug/kg	ND	577	563	516	439	89	78	30-146	16	26	
1,2-Dibromoethane (EDB)	ug/kg	ND	577	563	565	547	98	97	51-136	3	20	
1,2-Dichlorobenzene	ug/kg	ND	577	563	533	514	92	91	31-137	4	25	
1,2-Dichloroethane	ug/kg	ND	577	563	561	546	97	97	65-124	3	20	
1,2-Dichloropropane	ug/kg	ND	577	563	590	552	102	98	64-124	7	20	
1,3,5-Trimethylbenzene	ug/kg	ND	577	563	553	535	96	95	31-140	3	24	
1,3-Dichlorobenzene	ug/kg	ND	577	563	557	544	97	97	30-136	2	25	
1,3-Dichloropropane	ug/kg	ND	577	563	592	572	103	102	57-127	3	21	
1,4-Dichlorobenzene	ug/kg	ND	577	563	558	522	97	93	36-131	7	24	

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QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249553

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 205521 205522

Parameter	Units	5249553001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2,2-Dichloropropane	ug/kg	ND	577	563	522	489	90	87	45-124	6	17	
2-Butanone (MEK)	ug/kg	ND	1150	1130	905	836	78	74	35-149	8	22	
2-Chlorotoluene	ug/kg	ND	577	563	559	534	97	95	37-129	5	24	
2-Hexanone	ug/kg	ND	1150	1130	1080	996	93	88	34-134	8	23	N2
4-Chlorotoluene	ug/kg	ND	577	563	498	493	86	88	32-131	1	23	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	1150	1130	978	922	85	82	49-137	6	24	N2
Acetone	ug/kg	ND	1150	1130	978	993	85	88	12-177	2	34	
Acetonitrile	ug/kg	ND	1150	1130	1360	1500	118	133	41-152	10	38	
Acrolein	ug/kg	ND	1150	1130	858	819	74	73	10-200	5	48	
Acrylonitrile	ug/kg	ND	1150	1130	997	998	86	89	54-136	0	26	
Benzene	ug/kg	ND	577	563	600	562	104	100	61-122	7	20	
Bromobenzene	ug/kg	ND	577	563	613	598	106	106	38-133	2	21	
Bromochloromethane	ug/kg	ND	577	563	569	523	99	93	70-130	8	19	
Bromodichloromethane	ug/kg	ND	577	563	650	631	113	112	53-131	3	21	
Bromoform	ug/kg	ND	577	563	596	559	103	99	49-127	6	22	
Bromomethane	ug/kg	ND	577	563	692	629	120	112	15-168	10	22	N2
Carbon disulfide	ug/kg	ND	577	563	528	499	91	89	43-118	6	33	
Carbon tetrachloride	ug/kg	ND	577	563	663	625	115	111	39-121	6	23	
Chlorobenzene	ug/kg	ND	577	563	584	555	101	99	46-130	5	21	
Chloroethane	ug/kg	ND	577	563	686	583	119	104	6-154	16	86	
Chloroform	ug/kg	ND	577	563	569	552	99	98	62-128	3	19	
Chloromethane	ug/kg	4.1J	577	563	581	599	100	106	50-132	3	25	N2
cis-1,2-Dichloroethene	ug/kg	ND	577	563	534	495	93	88	61-127	8	20	
cis-1,3-Dichloropropene	ug/kg	ND	577	563	588	554	102	98	55-125	6	21	
Dibromochloromethane	ug/kg	ND	577	563	639	595	111	106	53-133	7	21	
Dibromomethane	ug/kg	ND	577	563	615	597	106	106	64-127	3	20	
Dichlorodifluoromethane	ug/kg	ND	577	563	441	441	76	78	10-184	0	69	
Ethyl acetate	ug/kg	ND	1150	1130	977	916	85	81	10-155	7	40	
Ethylbenzene	ug/kg	ND	577	563	542	520	94	92	40-129	4	23	
Isopropylbenzene (Cumene)	ug/kg	ND	577	563	479	462	83	82	42-121	4	24	
Methyl-tert-butyl ether	ug/kg	ND	577	563	520	513	90	91	60-132	1	27	
Methylene Chloride	ug/kg	ND	577	563	548	516	95	92	46-146	6	39	
n-Butylbenzene	ug/kg	ND	577	563	529	497	92	88	20-127	6	29	
n-Propylbenzene	ug/kg	ND	577	563	571	551	99	98	33-126	4	25	
Naphthalene	ug/kg	ND	577	563	386	384	67	68	8-150	0	31	
p-Isopropyltoluene	ug/kg	ND	577	563	445	435	77	77	27-131	2	26	
sec-Butylbenzene	ug/kg	ND	577	563	480	448	83	80	27-130	7	26	
Styrene	ug/kg	ND	577	563	482	467	84	83	41-132	3	22	
tert-Butylbenzene	ug/kg	ND	577	563	445	435	77	77	36-129	2	25	
Tetrachloroethene	ug/kg	ND	577	563	640	587	111	104	36-128	9	23	
Toluene	ug/kg	ND	577	563	583	563	101	100	50-125	3	20	
trans-1,2-Dichloroethene	ug/kg	ND	577	563	528	504	91	89	51-127	5	31	
trans-1,3-Dichloropropene	ug/kg	ND	577	563	589	553	102	98	55-126	6	21	
Trichloroethene	ug/kg	4.2J	577	563	661	597	114	105	47-132	10	20	

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QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249553

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 205521 205522

Parameter	Units	5249553001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Trichlorofluoromethane	ug/kg	ND	577	563	848	616	147	109	14-140	32	24	M1,R1
Vinyl acetate	ug/kg	ND	577	563	377	358	65	64	10-127	5	50	
Vinyl chloride	ug/kg	ND	577	563	502	515	87	92	35-130	3	54	
Xylene (Total)	ug/kg	ND	1730	1680	1500	1460	87	87	70-130	3	32	
1,2-Dichloroethane-d4 (S)	%.						97	95	76-127			
4-Bromofluorobenzene (S)	%.						95	97	80-120			
Dibromofluoromethane (S)	%.						94	98	78-126			
Toluene-d8 (S)	%.						100	102	80-120			

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QUALIFIERS

Project: RUSH VOC Soils
Pace Project No.: 5249553

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
R1	RPD value was outside control limits.

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RUSH VOC Soils
Pace Project No.: 5249553

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
5249553001	**YL10PB2SS**	EPA 5035A	48787	EPA 8260B	48847
5249553002	**YL10PB2SD**	EPA 5035A	48787	EPA 8260B	48847
5249553003	**YL10WS1SS**	EPA 5035A	48787	EPA 8260B	48847
5249553004	**YL10WS2SS**	EPA 5035A	48787	EPA 8260B	48847
5249553005	**YL10PB1SM**	EPA 5035A	48787	EPA 8260B	48847
5249553006	**YL10PB1SS**	EPA 5035A	48787	EPA 8260B	48847
5249553007	**YL10WESS**	EPA 5035A	48787	EPA 8260B	48847
5249553008	**YL10WESD**	EPA 5035A	48787	EPA 8260B	48847
5249553009	**RD8PB1SS**	EPA 5035A	48787	EPA 8260B	48847
5249553010	**RD8PB2SS**	EPA 5035A	48787	EPA 8260B	48847
5249553011	**RD8WESS**	EPA 5035A	48787	EPA 8260B	48847
5249553012	**082720R14**	EPA 5035A	48787	EPA 8260B	48847
5249553013	**RD8WSSS**	EPA 5035A	48787	EPA 8260B	48847
5249553014	**RD8WWSS**	EPA 5035A	48787	EPA 8260B	48847
5249553001	**YL10PB2SS**	ASTM D2216	48863		
5249553002	**YL10PB2SD**	ASTM D2216	48863		
5249553003	**YL10WS1SS**	ASTM D2216	48863		
5249553004	**YL10WS2SS**	ASTM D2216	48863		
5249553005	**YL10PB1SM**	ASTM D2216	48863		
5249553006	**YL10PB1SS**	ASTM D2216	48863		
5249553007	**YL10WESS**	ASTM D2216	48863		
5249553008	**YL10WESD**	ASTM D2216	48863		
5249553009	**RD8PB1SS**	ASTM D2216	48863		
5249553010	**RD8PB2SS**	ASTM D2216	48863		
5249553011	**RD8WESS**	ASTM D2216	48863		
5249553012	**082720R14**	ASTM D2216	48863		
5249553013	**RD8WSSS**	ASTM D2216	48863		
5249553014	**RD8WWSS**	ASTM D2216	48863		

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CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Numbe

WO# : 5249553

5249553

ALL SHAD

Company: MAKSolve

Address: 101 Rosary Ridge Dayton OH 45459

Report To: Barb McGaven

Copy To: John@maksolve.com

Customer Project Name/Number: Spinnaker 084-20

Phone: 3072516465

Email:

Collected By (print): Barb McGaven

Collected By (signature): Barb McG

Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [x] Hold: 30days

Billing Information: Bill to MAKSolve

Email To: Barb@maksolve.com

Site Collection Info/Address: 51 E Water Street

State: OH County/City: Troy Time Zone Collected: [ ] PT [ ] MT [ ] CT [x] ET

Site/Facility ID #:

Purchase Order #:

Quote #: 0007655

Turnaround Date Required: Rush for 8/28/20

Rush: [ ] Same Day [x] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Compliance Monitoring? [ ] Yes [x] No

DW PWS ID #:

DW Location Code:

Immediately Packed on Ice: [x] Yes [ ] No

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative T

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hy... (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Analyses

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	PCE (8260)	TCE (8260)
YL10PB2SS	SL	Grab	8/27	1234					X	X
YL10PB2SD	SL	Grab	8/27	1235					X	X
YL10WS1SS	SL	Grab	8/27	1237					X	X
YL10WS2SS	SL	Grab	8/27	1236					X	X
YL10PB1SM	SL	Grab	8/27	1233					X	X
YL10PB1SS	SL	Grab	8/27	1232					X	X
YL10WESS	SL	Grab	8/27	1230					X	X
YL10WESD	SL	Grab	8/27	1231					X	X
RD8PB1SS	SL	Grab	8/27	1115					X	X
RD8PB2SS	SL	Grab	8/27	1117					X	X

COC page #1 of 1

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signature Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
Cl Strips:			
Sample pH Acceptable	Y	N	NA
pH Strips:			
Sulfide Present	Y	N	NA
Lead Acetate Strips:			

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:
Level 4 data pkg
1 jar per sample

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N NA

Lab Tracking #: 2519620

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#:
Cooler 1 Temp Upon Receipt: 5.5 oC
Cooler 1 Therm Corr. Factor: _____ oC
Cooler 1 Corrected Temp: _____ oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Barb McG	8/27/20 1430		8/27/20 1430
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time: 8/27/20 1515
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: _____ of: _____

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

ALL SHADED AREAS are for LAB USE

Company: MAK Solve
Address: 57 Regency Ridge Dayton OH 45459
Email To: Barb@maksolve.com
Email To: John@maksolve.com

Billing Information: Bill to MAKSolve
Email To: Barb@maksolve.com
Site Collection Info/Address: 518 E. Water Street
State: OH County/City: Troy
Time Zone Collected: [ ] PT [ ] MT [ ] CT [X] ET

Project Name/Number: OP maker 084-20
Phone: 3072516465
Collected By (print): Barb McGavern
Collected By (signature): Barb McGavern
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold: 30 days

Site/Facility ID #:
Purchase Order #:
Quote #: 0000765500
Turnaround Date Required: RUSH for 8/28/20
Rush: [ ] Same Day [X] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Compliance Monitoring? [ ] Yes [X] No
DW PWS ID #:
DW Location Code:
Immediately Packed on Ice: [X] Yes [ ] No
Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

Lab Project Manager:

Container Preservative Type **: U U

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips:	
Sample pH Acceptable	Y N NA
pH Strips:	
Sulfide Present	Y N NA
Lead Acetate Strips:	

LAB USE ONLY:
Lab Sample # / Comments:

COC page #2 of #2

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	PCE (8260)	TCE (8260)
RD8WESS	SL	Grab	8/27	1119					X	X
082720R14	SL	Grab	8/27	1055					X	X
RD8WSSS	SL	Grab	8/27	1125					X	X
RD8WWSS	SL	Grab	8/27	1122					X	X

Customer Remarks / Special Conditions / Possible Hazards: Level 4 data pkg 1 jar per sample

Type of Ice Used: Wet Blue Dry None
Packing Material Used:
Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A
Lab Tracking #: 2519619
Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#:
Cooler 1 Temp Upon Receipt: 5.5 oC
Cooler 1 Therm Corr. Factor: oC
Cooler 1 Corrected Temp: oC
Comments:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO
Page: 1 of: 1

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Barb McGavern	8/27/20 1430		8/27/20 1430
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time: 8/27/20 1565
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MSV - FORM II VOA-1
SOLID VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Dayton SDG No.: 5249553 Contract: RUSH VOC Soils

Instrument ID: 52MV02

LAB SAMPLE ID	SAMPLE NAME	12D4	BFB	DIBF	TOL8
205215	205215BLANK	109	91	109	98
205216	205216LCS	98	100	98	100
205521	205521MS	97	95	94	100
205522	205522MSD	95	97	98	102
5249553001	YL10PB2SS	112	96	117	97
5249553002	YL10PB2SD	109	96	113	99
5249553003	YL10WS1SS	109	97	112	99
5249553004	YL10WS2SS	109	93	110	97
5249553005	YL10PB1SM	108	92	112	98
5249553006	YL10PB1SS	114	94	112	99
5249553007	YL10WESS	104	92	113	98
5249553008	YL10WESD	109	94	109	99
5249553009	RD8PB1SS	111	91	113	100
5249553010	RD8PB2SS	110	94	110	99
5249553011	RD8WESS	112	93	109	100
5249553012	082720R14	107	96	112	98
5249553013	RD8WSSS	107	96	109	98
5249553014	RD8WWSS	110	97	110	98

	QC LIMITS
(12D4) = 1,2-Dichloroethane-d4 (S)	(76-127)
(BFB) = 4-Bromofluorobenzene (S)	(80-120)
(DIBF) = Dibromofluoromethane (S)	(78-126)
(TOL8) = Toluene-d8 (S)	(80-120)

* Values outside of QC Limits

MSV - FORM III VOA-1

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Dayton

Lab Sample ID: 205216LCS

Date Extracted: 08/27/2020

Date Analyzed (1): 08/27/2020

Instrument: 52MV02

LCS Lot No:

Lab File ID: 082720.B\082720_03B2991.D

SDG No.: 5249553

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
Acetone	1000	1070	107	50-150
Acetonitrile	1000	1240	124	70-130
Acrolein	1000	778	78	70-130
Acrylonitrile	1000	921	92	70-130
Benzene	500	520	104	70-130
Bromobenzene	500	552	110	70-130
Bromochloromethane	500	525	105	70-130
Bromodichloromethane	500	569	114	70-130
Bromoform	500	534	107	70-130
Bromomethane	500	603	121	50-150
2-Butanone (MEK)	1000	981	98	50-150
n-Butylbenzene	500	483	97	70-130
sec-Butylbenzene	500	430	86	70-130
tert-Butylbenzene	500	413	83	70-130
Carbon disulfide	500	482	96	70-130
Carbon tetrachloride	500	569	114	70-130
Chlorobenzene	500	509	102	70-130
Chloroethane	500	545	109	50-150
Chloroform	500	526	105	70-130
Chloromethane	500	506	101	50-150
2-Chlorotoluene	500	510	102	70-130
4-Chlorotoluene	500	476	95	70-130
1,2-Dibromo-3-chloropropane	500	467	93	70-130
Dibromochloromethane	500	563	113	70-130
1,2-Dibromoethane (EDB)	500	529	106	70-130
Dibromomethane	500	547	109	70-130
1,2-Dichlorobenzene	500	466	93	70-130
1,3-Dichlorobenzene	500	505	101	50-150
1,4-Dichlorobenzene	500	474	95	50-150
Dichlorodifluoromethane	500	368	74	50-150
1,1-Dichloroethane	500	513	103	70-130
1,2-Dichloroethane	500	509	102	70-130
1,1-Dichloroethene	500	496	99	70-130
cis-1,2-Dichloroethene	500	479	96	70-130
trans-1,2-Dichloroethene	500	466	93	70-130
1,2-Dichloropropane	500	507	101	70-130
1,3-Dichloropropane	500	507	101	70-130
2,2-Dichloropropane	500	523	105	70-130
1,1-Dichloropropene	500	502	100	70-130
cis-1,3-Dichloropropene	500	524	105	70-130
trans-1,3-Dichloropropene	500	525	105	70-130
Ethyl acetate	1000	910	91	70-130
Ethylbenzene	500	485	97	70-130
2-Hexanone	1000	1110	111	50-150
Isopropylbenzene (Cumene)	500	436	87	70-130
p-Isopropyltoluene	500	413	83	70-130
Methylene Chloride	500	471	94	70-130

MSV - FORM III VOA-2

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Dayton

Lab Sample ID: 205216LCS

Date Extracted: 08/27/2020

Date Analyzed (1): 08/27/2020

Instrument: 52MV02

LCS Lot No:

Lab File ID: 082720.B\082720_03B2991.D

SDG No.: 5249553

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
4-Methyl-2-pentanone (MIBK)	1000	984	98	70-130
Methyl-tert-butyl ether	500	484	97	70-130
Naphthalene	500	365	73	50-150
n-Propylbenzene	500	517	103	70-130
Styrene	500	428	86	70-130
1,1,1,2-Tetrachloroethane	500	543	109	70-130
1,1,2,2-Tetrachloroethane	500	520	104	70-130
Tetrachloroethene	500	569	114	70-130
Toluene	500	514	103	70-130
1,2,3-Trichlorobenzene	500	462	92	70-130
1,2,4-Trichlorobenzene	500	451	90	70-130
1,1,1-Trichloroethane	500	562	112	70-130
1,1,2-Trichloroethane	500	495	99	70-130
Trichloroethene	500	530	106	70-130
Trichlorofluoromethane	500	568	114	50-150
1,2,3-Trichloropropane	500	519	104	70-130
1,2,4-Trimethylbenzene	500	448	90	70-130
1,3,5-Trimethylbenzene	500	499	100	70-130
Vinyl acetate	500	429	86	70-130
Vinyl chloride	500	438	88	50-150
Xylene (Total)	1500	1400	93	70-130

Spike Recovery: 0 out of 68 outside limits.

09/03/2020 9:52

MSV - FORM III VOA-1

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Dayton

Matrix Spike - Sample No: 205521MS

Date Extracted: 08/27/2020

Date Analyzed (1): 08/27/2020

Instrument: 52MV02

Lab File ID: 082720.B\082720_25.D

Parent Sample ID: YL10PB2SS

SDG No.: 5249553

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	577	ND	603	105	48-135
1,1,1-Trichloroethane	577	ND	648	112	49-123
1,1,2,2-Tetrachloroethane	577	ND	571	99	43-135
1,1,2-Trichloroethane	577	ND	607	105	52-138
1,1-Dichloroethane	577	ND	566	98	61-129
1,1-Dichloroethene	577	ND	552	96	41-127
1,1-Dichloropropene	577	ND	561	97	44-119
1,2,3-Trichlorobenzene	577	ND	507	88	10-110
1,2,3-Trichloropropane	577	ND	572	99	46-128
1,2,4-Trichlorobenzene	577	ND	492	85	11-130
1,2,4-Trimethylbenzene	577	ND	496	86	24-153
1,2-Dibromo-3-chloropropane	577	ND	516	89	30-146
1,2-Dibromoethane (EDB)	577	ND	565	98	51-136
1,2-Dichlorobenzene	577	ND	533	92	31-137
1,2-Dichloroethane	577	ND	561	97	65-124
1,2-Dichloropropane	577	ND	590	102	64-124
1,3,5-Trimethylbenzene	577	ND	553	96	31-140
1,3-Dichlorobenzene	577	ND	557	97	30-136
1,3-Dichloropropane	577	ND	592	103	57-127
1,4-Dichlorobenzene	577	ND	558	97	36-131
2,2-Dichloropropane	577	ND	522	90	45-124
2-Butanone (MEK)	1150	ND	905	78	35-149
2-Chlorotoluene	577	ND	559	97	37-129
2-Hexanone	1150	ND	1080	93	34-134
4-Chlorotoluene	577	ND	498	86	32-131
4-Methyl-2-pentanone (MIBK)	1150	ND	978	85	49-137
Acetone	1150	ND	978	85	12-177
Acetonitrile	1150	ND	1360	118	41-152
Acrolein	1150	ND	858	74	10-200
Acrylonitrile	1150	ND	997	86	54-136
Benzene	577	ND	600	104	61-122
Bromobenzene	577	ND	613	106	38-133
Bromochloromethane	577	ND	569	99	70-130
Bromodichloromethane	577	ND	650	113	53-131
Bromoform	577	ND	596	103	49-127
Bromomethane	577	ND	692	120	15-168
Carbon disulfide	577	ND	528	91	43-118
Carbon tetrachloride	577	ND	663	115	39-121
Chlorobenzene	577	ND	584	101	46-130
Chloroethane	577	ND	686	119	6-154
Chloroform	577	ND	569	99	62-128
Chloromethane	577	4.1J	581	100	50-132
Dibromochloromethane	577	ND	639	111	53-133
Dibromomethane	577	ND	615	106	64-127
Dichlorodifluoromethane	577	ND	441	76	10-184
Ethyl acetate	1150	ND	977	85	10-155
Ethylbenzene	577	ND	542	94	40-129

09/03/2020 9:52

MSV - FORM III VOA-2

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Dayton

Matrix Spike - Sample No: 205521MS

Date Extracted: 08/27/2020

Date Analyzed (1): 08/27/2020

Instrument: 52MV02

Lab File ID: 082720.B\082720_25.D

Parent Sample ID: YL10PB2SS

SDG No.: 5249553

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
Isopropylbenzene (Cumene)	577	ND	479	83	42-121
Methyl-tert-butyl ether	577	ND	520	90	60-132
Methylene Chloride	577	ND	548	95	46-146
Naphthalene	577	ND	386	67	8-150
Styrene	577	ND	482	84	41-132
Tetrachloroethene	577	ND	640	111	36-128
Toluene	577	ND	583	101	50-125
Trichloroethene	577	4.2J	661	114	47-132
Trichlorofluoromethane	577	ND	848	147	14-140
Vinyl acetate	577	ND	377	65	10-127
Vinyl chloride	577	ND	502	87	35-130
Xylene (Total)	1730	ND	1500	87	70-130
cis-1,2-Dichloroethene	577	ND	534	93	61-127
cis-1,3-Dichloropropene	577	ND	588	102	55-125
n-Butylbenzene	577	ND	529	92	20-127
n-Propylbenzene	577	ND	571	99	33-126
p-Isopropyltoluene	577	ND	445	77	27-131
sec-Butylbenzene	577	ND	480	83	27-130
tert-Butylbenzene	577	ND	445	77	36-129
trans-1,2-Dichloroethene	577	ND	528	91	51-127
trans-1,3-Dichloropropene	577	ND	589	102	55-126

Spike Recovery: 1 out of 68 outside limits.

09/03/2020 9:52

MSV - FORM III VOA-3

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 52MV02 Matrix Spike Duplicate - Sample No: 205522MSD

Lab File ID (2): 082720.B\082720_26.D Date Analyzed (2): 08/27/2020

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
1,1,1,2-Tetrachloroethane	563	563	100	7	0-20	48-135
1,1,1-Trichloroethane	563	609	108	6	0-23	49-123
1,1,2,2-Tetrachloroethane	563	525	93	8	0-26	43-135
1,1,2-Trichloroethane	563	529	94	14	0-21	52-138
1,1-Dichloroethane	563	538	96	5	0-20	61-129
1,1-Dichloroethene	563	533	95	4	0-28	41-127
1,1-Dichloropropene	563	564	100	1	0-25	44-119
1,2,3-Trichlorobenzene	563	492	87	3	0-30	10-110
1,2,3-Trichloropropane	563	526	93	8	0-24	46-128
1,2,4-Trichlorobenzene	563	474	84	4	0-38	11-130
1,2,4-Trimethylbenzene	563	475	84	4	0-25	24-153
1,2-Dibromo-3-chloropropane	563	439	78	16	0-26	30-146
1,2-Dibromoethane (EDB)	563	547	97	3	0-20	51-136
1,2-Dichlorobenzene	563	514	91	4	0-25	31-137
1,2-Dichloroethane	563	546	97	3	0-20	65-124
1,2-Dichloropropane	563	552	98	7	0-20	64-124
1,3,5-Trimethylbenzene	563	535	95	3	0-24	31-140
1,3-Dichlorobenzene	563	544	97	2	0-25	30-136
1,3-Dichloropropane	563	572	102	3	0-21	57-127
1,4-Dichlorobenzene	563	522	93	7	0-24	36-131
2,2-Dichloropropane	563	489	87	6	0-17	45-124
2-Butanone (MEK)	1130	836	74	8	0-22	35-149
2-Chlorotoluene	563	534	95	5	0-24	37-129
2-Hexanone	1130	996	88	8	0-23	34-134
4-Chlorotoluene	563	493	88	1	0-23	32-131
4-Methyl-2-pentanone (MIBK)	1130	922	82	6	0-24	49-137
Acetone	1130	993	88	2	0-34	12-177
Acetonitrile	1130	1500	133	10	0-38	41-152
Acrolein	1130	819	73	5	0-48	10-200
Acrylonitrile	1130	998	89	0	0-26	54-136
Benzene	563	562	100	7	0-20	61-122
Bromobenzene	563	598	106	2	0-21	38-133
Bromochloromethane	563	523	93	8	0-19	70-130
Bromodichloromethane	563	631	112	3	0-21	53-131
Bromoform	563	559	99	6	0-22	49-127
Bromomethane	563	629	112	10	0-22	15-168
Carbon disulfide	563	499	89	6	0-33	43-118
Carbon tetrachloride	563	625	111	6	0-23	39-121
Chlorobenzene	563	555	99	5	0-21	46-130
Chloroethane	563	583	104	16	0-86	6-154
Chloroform	563	552	98	3	0-19	62-128
Chloromethane	563	599	106	3	0-25	50-132
Dibromochloromethane	563	595	106	7	0-21	53-133
Dibromomethane	563	597	106	3	0-20	64-127
Dichlorodifluoromethane	563	441	78	0	0-69	10-184
Ethyl acetate	1130	916	81	7	0-40	10-155
Ethylbenzene	563	520	92	4	0-23	40-129
Isopropylbenzene (Cumene)	563	462	82	4	0-24	42-121
Methyl-tert-butyl ether	563	513	91	1	0-27	60-132

MSV - FORM III VOA-4

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 52MV02 Matrix Spike Duplicate - Sample No: 205522MSD

Lab File ID (2): 082720.B\082720_26.D Date Analyzed (2): 08/27/2020

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Methylene Chloride	563	516	92	6	0-39	46-146
Naphthalene	563	384	68	0	0-31	8-150
Styrene	563	467	83	3	0-22	41-132
Tetrachloroethene	563	587	104	9	0-23	36-128
Toluene	563	563	100	3	0-20	50-125
Trichloroethene	563	597	105	10	0-20	47-132
Trichlorofluoromethane	563	616	109	32	0-24	14-140
Vinyl acetate	563	358	64	5	0-50	10-127
Vinyl chloride	563	515	92	3	0-54	35-130
Xylene (Total)	1680	1460	87	3	0-32	70-130
cis-1,2-Dichloroethene	563	495	88	8	0-20	61-127
cis-1,3-Dichloropropene	563	554	98	6	0-21	55-125
n-Butylbenzene	563	497	88	6	0-29	20-127
n-Propylbenzene	563	551	98	4	0-25	33-126
p-Isopropyltoluene	563	435	77	2	0-26	27-131
sec-Butylbenzene	563	448	80	7	0-26	27-130
tert-Butylbenzene	563	435	77	2	0-25	36-129
trans-1,2-Dichloroethene	563	504	89	5	0-31	51-127
trans-1,3-Dichloropropene	563	553	98	6	0-21	55-126

RPD: 1 out of 68 outside limits.

Spike Recovery: 0 out of 68 outside limits.

09/03/2020 9:52

SAMPLE NO.

205215BLANK

MSV - FORM IV VOA-1
VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Dayton SDG No.: 5249553 Contract: RUSH VOC Soils

Instrument ID: 52MV02 Matrix: Solid Lab Sample ID: 205215

Lab File ID: 082720.B\082720_06.D Date Analyzed: 08/27/2020 Time:12:50

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
205216LCS	205216	082720.B\082720_03B2991.	08/27/2020 11:34
YL10PB2SS	5249553001	082720.B\082720_11.D	08/27/2020 16:20
YL10PB2SD	5249553002	082720.B\082720_12.D	08/27/2020 16:45
YL10WS1SS	5249553003	082720.B\082720_13.D	08/27/2020 17:10
YL10WS2SS	5249553004	082720.B\082720_14.D	08/27/2020 17:35
YL10PB1SM	5249553005	082720.B\082720_15.D	08/27/2020 18:01
YL10PB1SS	5249553006	082720.B\082720_16.D	08/27/2020 18:26
YL10WESS	5249553007	082720.B\082720_17.D	08/27/2020 18:51
YL10WESD	5249553008	082720.B\082720_18.D	08/27/2020 19:16
RD8PB1SS	5249553009	082720.B\082720_19.D	08/27/2020 19:41
RD8PB2SS	5249553010	082720.B\082720_20.D	08/27/2020 20:06
RD8WESS	5249553011	082720.B\082720_21.D	08/27/2020 20:31
082720R14	5249553012	082720.B\082720_22.D	08/27/2020 20:56
RD8WSSS	5249553013	082720.B\082720_23.D	08/27/2020 21:21
RD8WWSS	5249553014	082720.B\082720_24.D	08/27/2020 21:46
205521MS	205521	082720.B\082720_25.D	08/27/2020 22:11
205522MSD	205522	082720.B\082720_26.D	08/27/2020 22:36

MSV - FORM V VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Dayton SDG No.: 5249553 Contract: RUSH VOC Soils

Lab File ID: 082020.B\082020_01.D BFB Injection Date 08/20/2020

Instrument ID: 52MV02 BFB Injection Time 09:57

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	24.30	
75	30.00 - 60.00% of mass 95	49.31	
95	Mass 95 relative abundance	100.00	
96	5.00 - 9.00% of mass 95	7.36	
173	Less than 2.00% of mass 174	2.18	(1.71)[1]
174	Greater than 50.00% of mass 95	127.30	
175	5.00 - 9.00% of mass 174	8.81	(6.92)[1]
176	95.00 - 101.00% of mass 174	127.12	(99.86)[1]
177	5.00 - 9.00% of mass 176	7.18	(5.65)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1419846CAL1	1419846CAL1	082020.B\082020_03.D	08/20/2020	10:50
1419847CAL2	1419847CAL2	082020.B\082020_04.D	08/20/2020	11:15
1419848CAL3	1419848CAL3	082020.B\082020_05.D	08/20/2020	11:40
1419849CAL4	1419849CAL4	082020.B\082020_06.D	08/20/2020	12:05
1419850CAL5	1419850CAL5	082020.B\082020_07.D	08/20/2020	12:30
1419851CAL6	1419851CAL6	082020.B\082020_08.D	08/20/2020	12:55
1419852CAL7	1419852CAL7	082020.B\082020_09.D	08/20/2020	13:20
1419853CAL8	1419853CAL8	082020.B\082020_10.D	08/20/2020	13:45
1419854CAL9	1419854CAL9	082020.B\082020_11.D	08/20/2020	14:11
1419855CAL10	1419855CAL10	082020.B\082020_12.D	08/20/2020	14:36
1419856CAL11	1419856CAL11	082020.B\082020_13.D	08/20/2020	15:01
1419857CAL12	1419857CAL12	082020.B\082020_14.D	08/20/2020	15:26
1419858ICV	1419858ICV	082020.B\082020_18.D	08/20/2020	17:06

MSV - FORM V VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Dayton SDG No.: 5249553 Contract: RUSH VOC Soils
Lab File ID: 082720.B\082720_03TUNE.D BFB Injection Date 08/27/2020
Instrument ID: 52MV02 BFB Injection Time 11:34

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	24.90	
75	30.00 - 60.00% of mass 95	54.94	
95	Mass 95 relative abundance	100.00	
96	5.00 - 9.00% of mass 95	7.06	
173	Less than 2.00% of mass 174	1.92	(1.52)[1]
174	Greater than 50.00% of mass 95	126.10	
175	5.00 - 9.00% of mass 174	9.04	(7.17)[1]
176	95.00 - 101.00% of mass 174	120.98	(95.94)[1]
177	5.00 - 9.00% of mass 176	7.84	(6.48)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
205216LCS	205216LCS	082720.B\082720_03B2991.D	08/27/2020	11:34
1436636CCV	1436636CCV	082720.B\082720_03.D	08/27/2020	11:34
205215BLANK	205215BLANK	082720.B\082720_06.D	08/27/2020	12:50
YL10PB2SS	5249553001	082720.B\082720_11.D	08/27/2020	16:20
YL10PB2SD	5249553002	082720.B\082720_12.D	08/27/2020	16:45
YL10WS1SS	5249553003	082720.B\082720_13.D	08/27/2020	17:10
YL10WS2SS	5249553004	082720.B\082720_14.D	08/27/2020	17:35
YL10PB1SM	5249553005	082720.B\082720_15.D	08/27/2020	18:01
YL10PB1SS	5249553006	082720.B\082720_16.D	08/27/2020	18:26
YL10WESS	5249553007	082720.B\082720_17.D	08/27/2020	18:51
YL10WESD	5249553008	082720.B\082720_18.D	08/27/2020	19:16
RD8PB1SS	5249553009	082720.B\082720_19.D	08/27/2020	19:41
RD8PB2SS	5249553010	082720.B\082720_20.D	08/27/2020	20:06
RD8WESS	5249553011	082720.B\082720_21.D	08/27/2020	20:31
082720R14	5249553012	082720.B\082720_22.D	08/27/2020	20:56
RD8WSSS	5249553013	082720.B\082720_23.D	08/27/2020	21:21
RD8WWSS	5249553014	082720.B\082720_24.D	08/27/2020	21:46
205521MS	205521MS	082720.B\082720_25.D	08/27/2020	22:11
205522MSD	205522MSD	082720.B\082720_26.D	08/27/2020	22:36

MSV - FORM VIII VOA-1
MSV INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Dayton SDG No.: 5249553 Contract: RUSH VOC Soils

Sample ID : 1436636CCV Date Analyzed: 08/27/2020

Instrument ID: 52MV02 GC Column: Col 1 Time Analyzed: 11:34

Lab File ID: 082720.B\082720_03.D

		AREA CBZ	RT	AREA DCB	RT	AREA DFB	RT	AREA PFB	RT
12 HOUR STD		263069	10.561	174819	12.341	284163	8.317	215726	7.86
UPPER LIMIT		526138	11.061	349638	12.841	568326	8.817	431452	8.36
LOWER LIMIT		131534.5	10.061	87409.5	11.841	142081.5	7.817	107863	7.36
LAB SAMPLE ID	SAMPLE NO.								
205215	205215BLANK	230629	10.561	126392	12.341	260881	8.317	186906	7.86
205216	205216LCS	263069	10.561	174819	12.341	284163	8.317	215726	7.86
205521	205521MS	281661	10.561	186449	12.341	293706	8.317	231908	7.86
205522	205522MSD	294342	10.56	192814	12.341	305852	8.317	240363	7.86
5249553001	YL10PB2SS	249386	10.56	135241	12.341	289292	8.317	196806	7.86
5249553002	YL10PB2SD	242263	10.56	137757	12.341	277055	8.317	197214	7.86
5249553003	YL10WS1SS	239376	10.561	131633	12.341	268821	8.317	194761	7.86
5249553004	YL10WS2SS	240374	10.561	132141	12.341	275073	8.317	197456	7.86
5249553005	YL10PB1SM	241968	10.561	136591	12.341	273870	8.317	193384	7.86
5249553006	YL10PB1SS	234320	10.561	132542	12.341	268038	8.317	189456	7.86
5249553007	YL10WESS	250280	10.561	132670	12.341	281132	8.317	199368	7.86
5249553008	YL10WESD	235183	10.561	131173	12.341	274197	8.317	197387	7.86
5249553009	RD8PB1SS	245418	10.561	133287	12.341	273600	8.317	197639	7.86
5249553010	RD8PB2SS	236484	10.561	129858	12.341	270670	8.317	193182	7.86
5249553011	RD8WESS	242274	10.561	128378	12.341	268297	8.317	197384	7.86
5249553012	082720R14	228812	10.561	129811	12.341	264399	8.317	187373	7.86
5249553013	RD8WSSS	237386	10.561	133864	12.341	274455	8.317	200058	7.86
5249553014	RD8WWSS	238679	10.561	131701	12.341	275394	8.317	194364	7.86

CBZ = Chlorobenzene-D5 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
DFB = 1,4-Difluorobenzene (IS)
PFB = Pentafluorobenzene (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

YL10PB2SS

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 15:56
Lab Sample ID: 5249553001
Date Analyzed: 08/27/2020 16:20
Lab File ID: 082720.B\082720_11.D
Initial wt/vol: 5.4 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 15.1%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	4.1	J
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

YL10PB2SS

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 15:56
Lab Sample ID: 5249553001
Date Analyzed: 08/27/2020 16:20
Lab File ID: 082720.B\082720_11.D
Initial wt/vol: 5.4 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 15.1%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	4.2	J
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082720.b\082720_11.D
Lab Smp Id: 5249553001 Client Smp ID: YL10PB2SS
Inj Date : 27-AUG-2020 16:20
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249553001,
Misc Info : 2991,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082720.b\8260BSM_082020.m
Meth Date : 27-Aug-2020 12:16 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	3.531	3.537	(0.449)	2667	0.14935	0.149	
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	132018	58.2621	58.3	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	196806	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.975	7.981	(1.015)	22807	55.9503	56.0	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.316	8.317	(1.000)	313	0.15473	0.155	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	289292	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	302489	48.5732	48.6	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	249386	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.469	(1.086)	98471	48.1124	48.1	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						(D)
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	135241	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

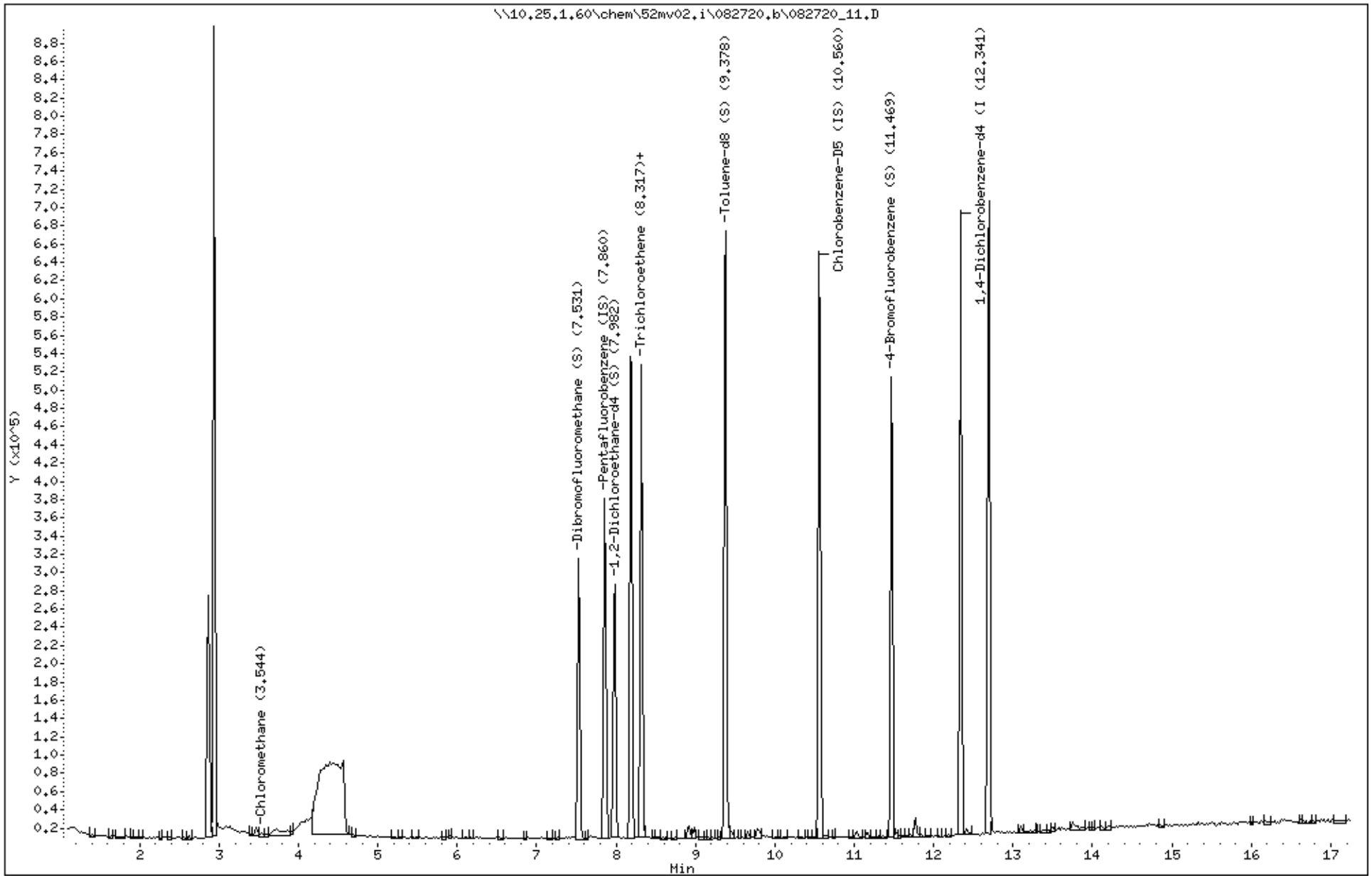
Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_11.D
Date : 27-AUG-2020 16:20
Client ID: YL10PB2SS
Sample Info: 5249553001,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082720.b/082720_11.D
Injection Date: 27-AUG-2020 16:20
Instrument: 52mv02.i
Lab Sample ID: 5249553001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

YL10PB2SD

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553002
Date Analyzed: 08/27/2020 16:45
Lab File ID: 082720.B\082720_12.D
Initial wt/vol: 5.15 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 16.1%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	3.1	J
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

YL10PB2SD

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553002
Date Analyzed: 08/27/2020 16:45
Lab File ID: 082720.B\082720_12.D
Initial wt/vol: 5.15 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 16.1%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082720.b\082720_12.D
Lab Smp Id: 5249553002 Client Smp ID: YL10PB2SD
Inj Date : 27-AUG-2020 16:45
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249553002,
Misc Info : 2991,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082720.b\8260BSM_082020.m
Meth Date : 27-Aug-2020 12:16 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	128105	56.4183	56.4	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	197214	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	22236	54.4367	54.4	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	333	0.10803	0.108	
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	277055	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	295723	49.5841	49.6	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	242263	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.469	(1.086)	95232	47.8979	47.9	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	137757	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

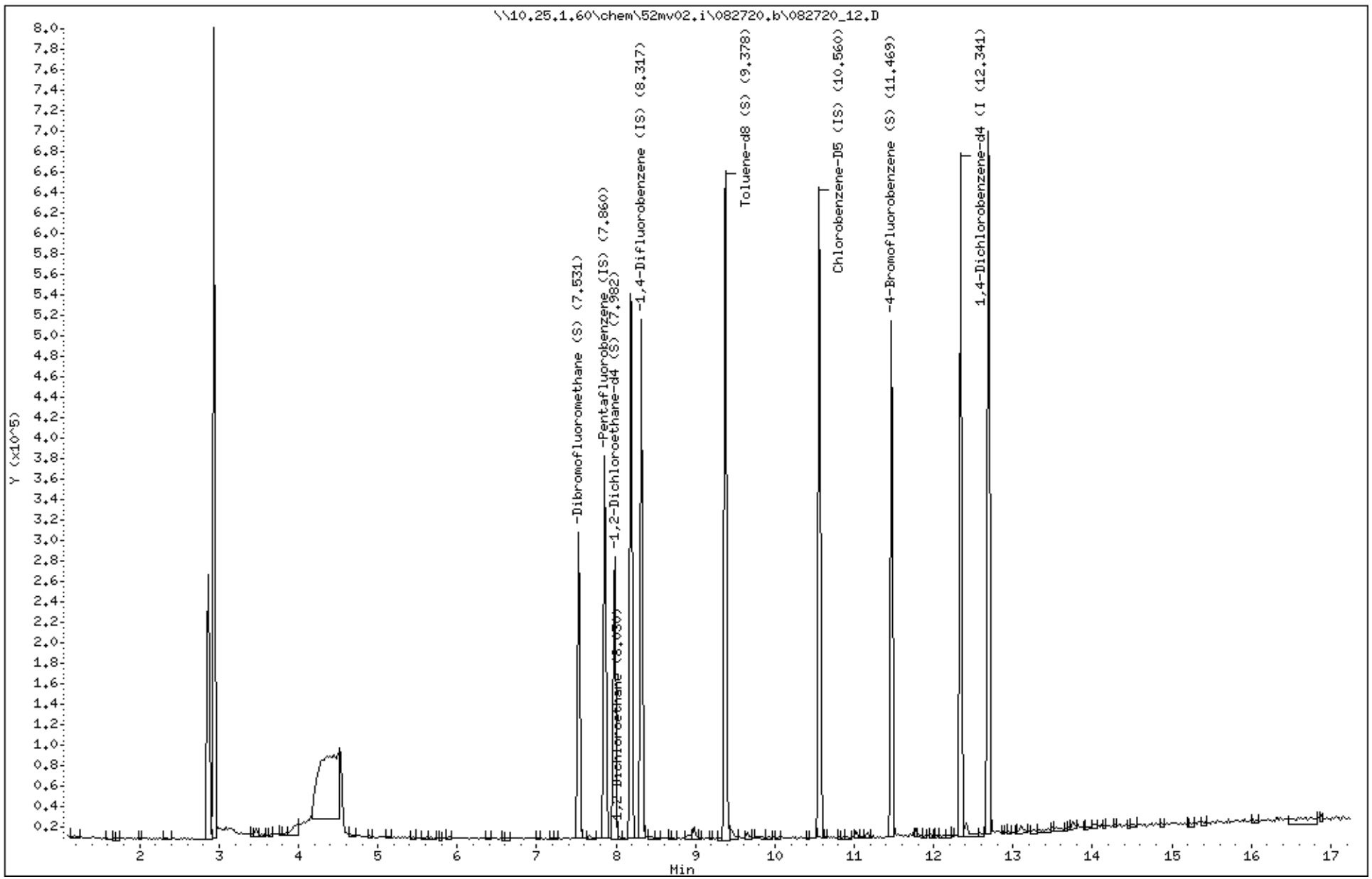
Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_12.D
Date : 27-AUG-2020 16:45
Client ID: YL10PB2SD
Sample Info: 5249553002,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082720.b/082720_12.D
Injection Date: 27-AUG-2020 16:45
Instrument: 52mv02.i
Lab Sample ID: 5249553002
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

YL10WS1SS

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553003
Date Analyzed: 08/27/2020 17:10
Lab File ID: 082720.B\082720_13.D
Initial wt/vol: 5.13 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 18.6%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

YL10WS1SS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553003
Date Analyzed: 08/27/2020 17:10
Lab File ID: 082720.B\082720_13.D
Initial wt/vol: 5.13 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 18.6%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082720.b\082720_13.D
Lab Smp Id: 5249553003 Client Smp ID: YL10WS1SS
Inj Date : 27-AUG-2020 17:10
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249553003,
Misc Info : 2991,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082720.b\8260BSM_082020.m
Meth Date : 27-Aug-2020 12:16 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	125228	55.8458	55.8	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.860	7.859	(1.000)	194761	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.975	7.981	(1.015)	21891	54.2670	54.3	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	268821	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.378	9.377	(1.128)	286367	49.4861	49.5	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	239376	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.469	11.469	(1.086)	95499	48.6115	48.6	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						(D)
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	131633	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

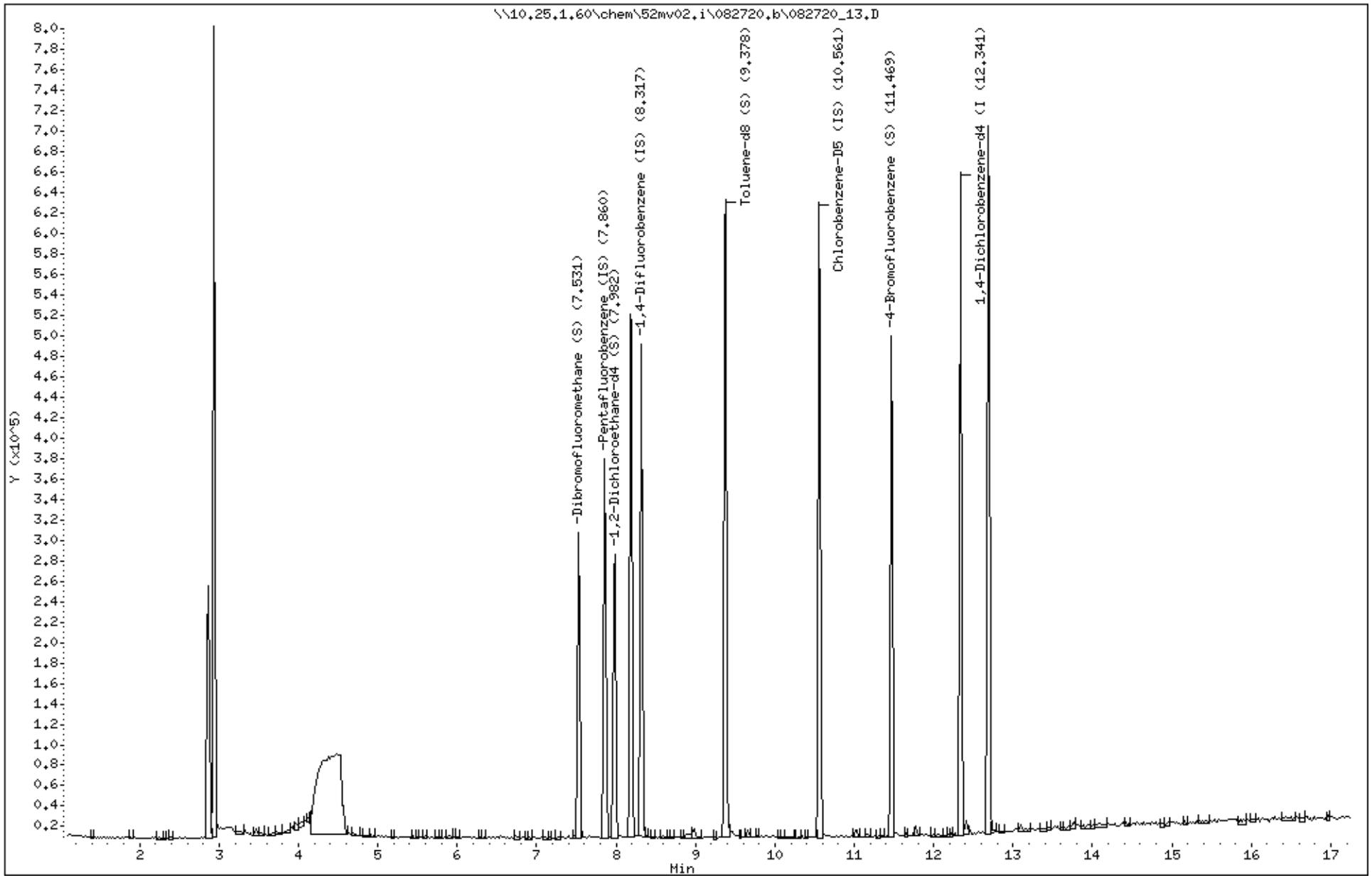
Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_13.D
Date : 27-AUG-2020 17:10
Client ID: YL10WS1SS
Sample Info: 5249553003,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082720.b/082720_13.D
Injection Date: 27-AUG-2020 17:10
Instrument: 52mv02.i
Lab Sample ID: 5249553003
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

YL10WS2SS

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553004
Date Analyzed: 08/27/2020 17:35
Lab File ID: 082720.B\082720_14.D
Initial wt/vol: 5.26 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 18.2%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

YL10WS2SS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553004
Date Analyzed: 08/27/2020 17:35
Lab File ID: 082720.B\082720_14.D
Initial wt/vol: 5.26 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 18.2%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082720.b\082720_14.D
Lab Smp Id: 5249553004 Client Smp ID: YL10WS2SS
Inj Date : 27-AUG-2020 17:35
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249553004,
Misc Info : 2991,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082720.b\8260BSM_082020.m
Meth Date : 27-Aug-2020 12:16 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	124798	54.8945	54.9	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	197456	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	22282	54.4824	54.5	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	275073	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	287559	48.5627	48.6	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	240374	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.469	11.469	(1.086)	91432	46.3481	46.3	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						(D)
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	132141	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

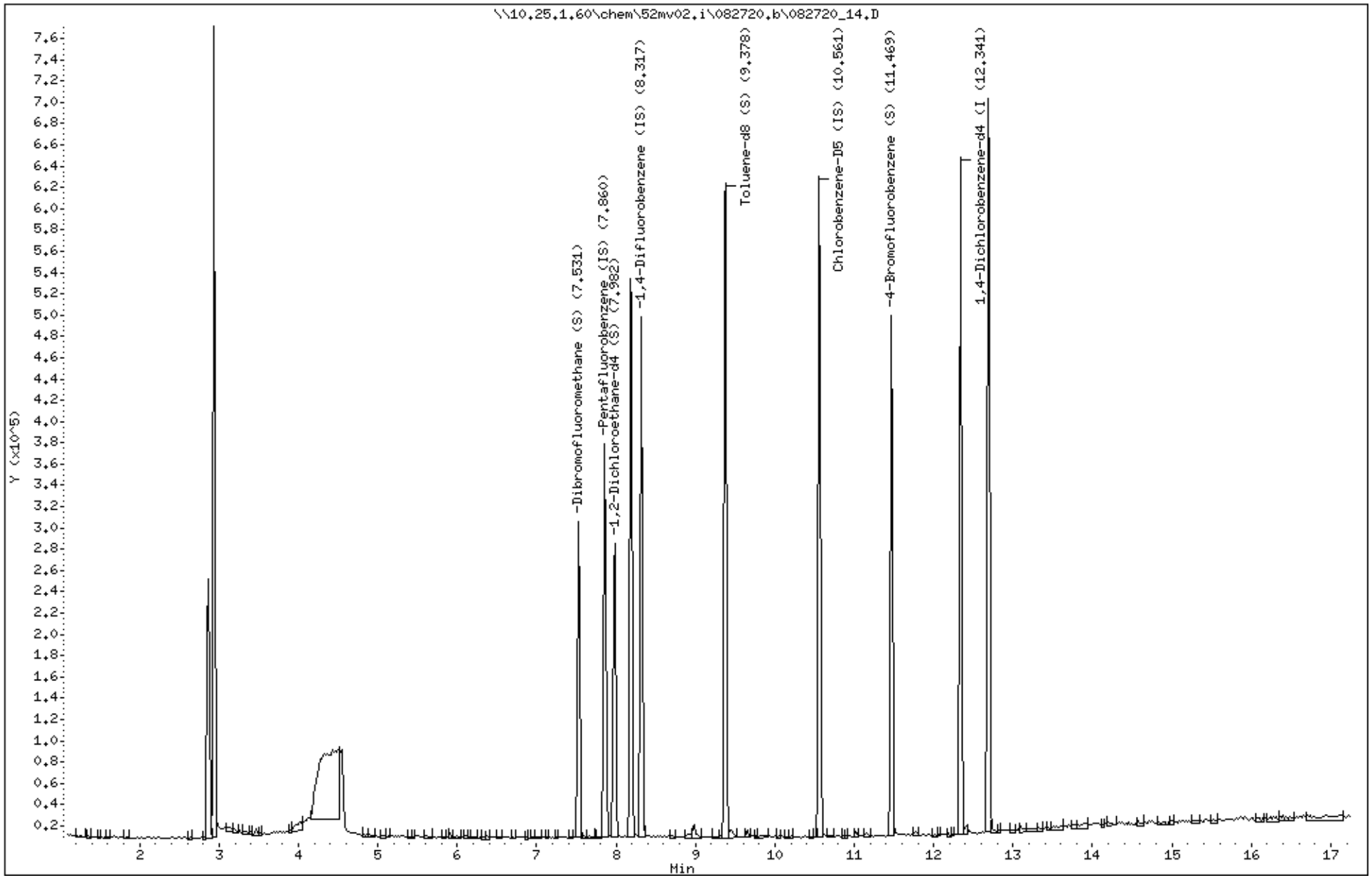
Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_14.D
Date : 27-AUG-2020 17:35
Client ID: YL10WS2SS
Sample Info: 5249553004,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082720.b/082720_14.D
Injection Date: 27-AUG-2020 17:35
Instrument: 52mv02.i
Lab Sample ID: 5249553004
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

YL10PB1SM

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553005
Date Analyzed: 08/27/2020 18:01
Lab File ID: 082720.B\082720_15.D
Initial wt/vol: 5.15 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 18.9%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

YL10PB1SM

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553005
Date Analyzed: 08/27/2020 18:01
Lab File ID: 082720.B\082720_15.D
Initial wt/vol: 5.15 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 18.9%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082720.b\082720_15.D
Lab Smp Id: 5249553005 Client Smp ID: YL10PB1SM
Inj Date : 27-AUG-2020 18:01
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249553005,
Misc Info : 2991,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082720.b\8260BSM_082020.m
Meth Date : 27-Aug-2020 12:16 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	124300	55.8267	55.8	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	193384	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21536	53.7672	53.8	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	273870	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	288438	48.9251	48.9	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	241968	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.469	(1.086)	91098	45.8746	45.9	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	136591	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

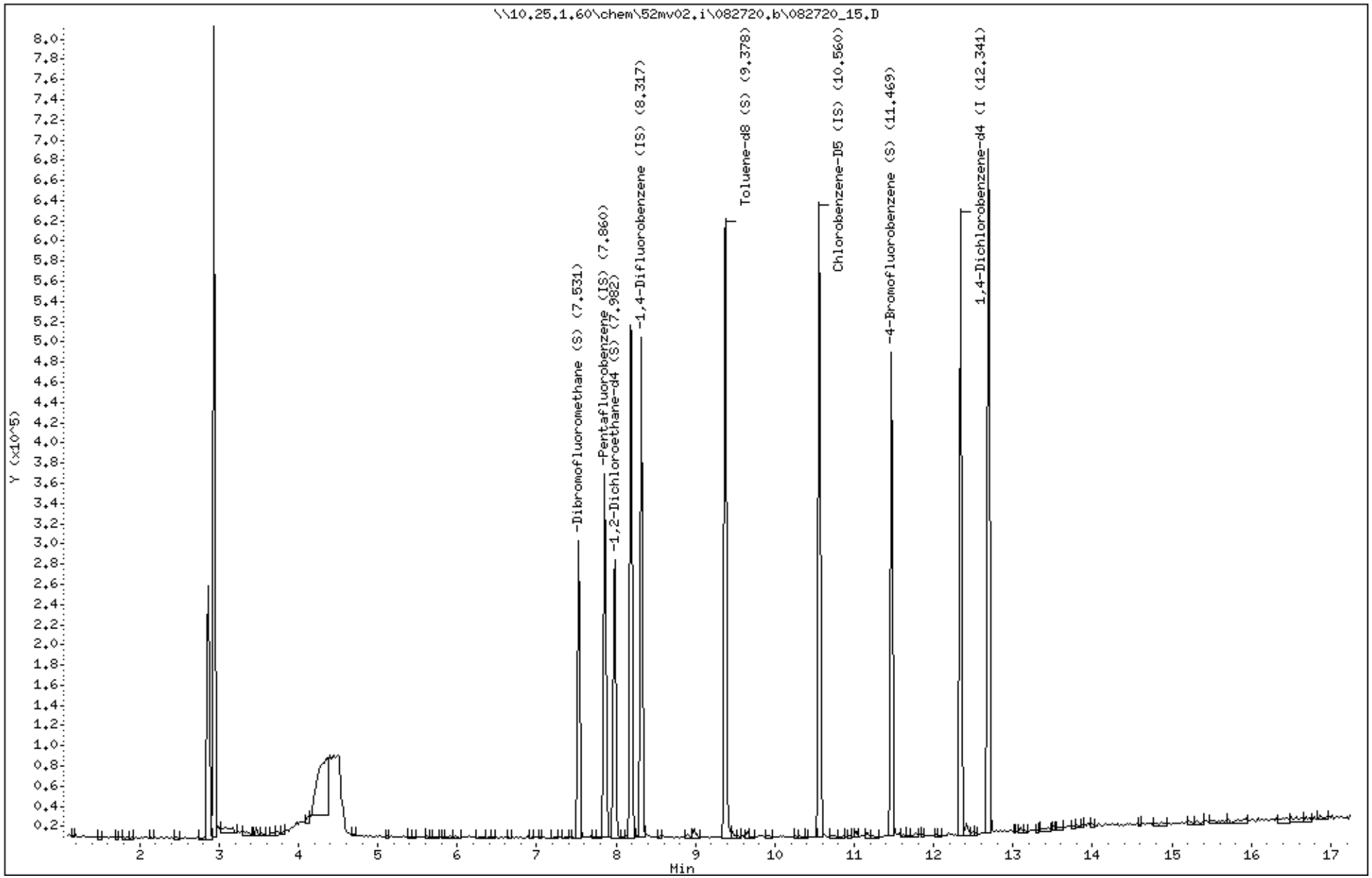
Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_15.D
Date : 27-AUG-2020 18:01
Client ID: YL10PB1SM
Sample Info: 5249553005,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082720.b/082720_15.D
Injection Date: 27-AUG-2020 18:01
Instrument: 52mv02.i
Lab Sample ID: 5249553005
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

YL10PB1SS

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553006
Date Analyzed: 08/27/2020 18:26
Lab File ID: 082720.B\082720_16.D
Initial wt/vol: 5.22 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 18.4%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

YL10PB1SS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553006
Date Analyzed: 08/27/2020 18:26
Lab File ID: 082720.B\082720_16.D
Initial wt/vol: 5.22 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 18.4%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	3.6	J
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082720.b\082720_16.D
Lab Smp Id: 5249553006 Client Smp ID: YL10PB1SS
Inj Date : 27-AUG-2020 18:26
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249553006,
Misc Info : 2991,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082720.b\8260BSM_082020.m
Meth Date : 27-Aug-2020 12:16 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						
21 Acetonitrile	41	Compound Not Detected.						
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	122072	55.9627	56.0	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	189456	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	22416	57.1245	57.1	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.317	8.317	(1.000)	228	0.12165	0.122	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	268038	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	284619	49.3277	49.3	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	234320	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.469	11.469	(1.086)	90842	47.2388	47.2	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	132542	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

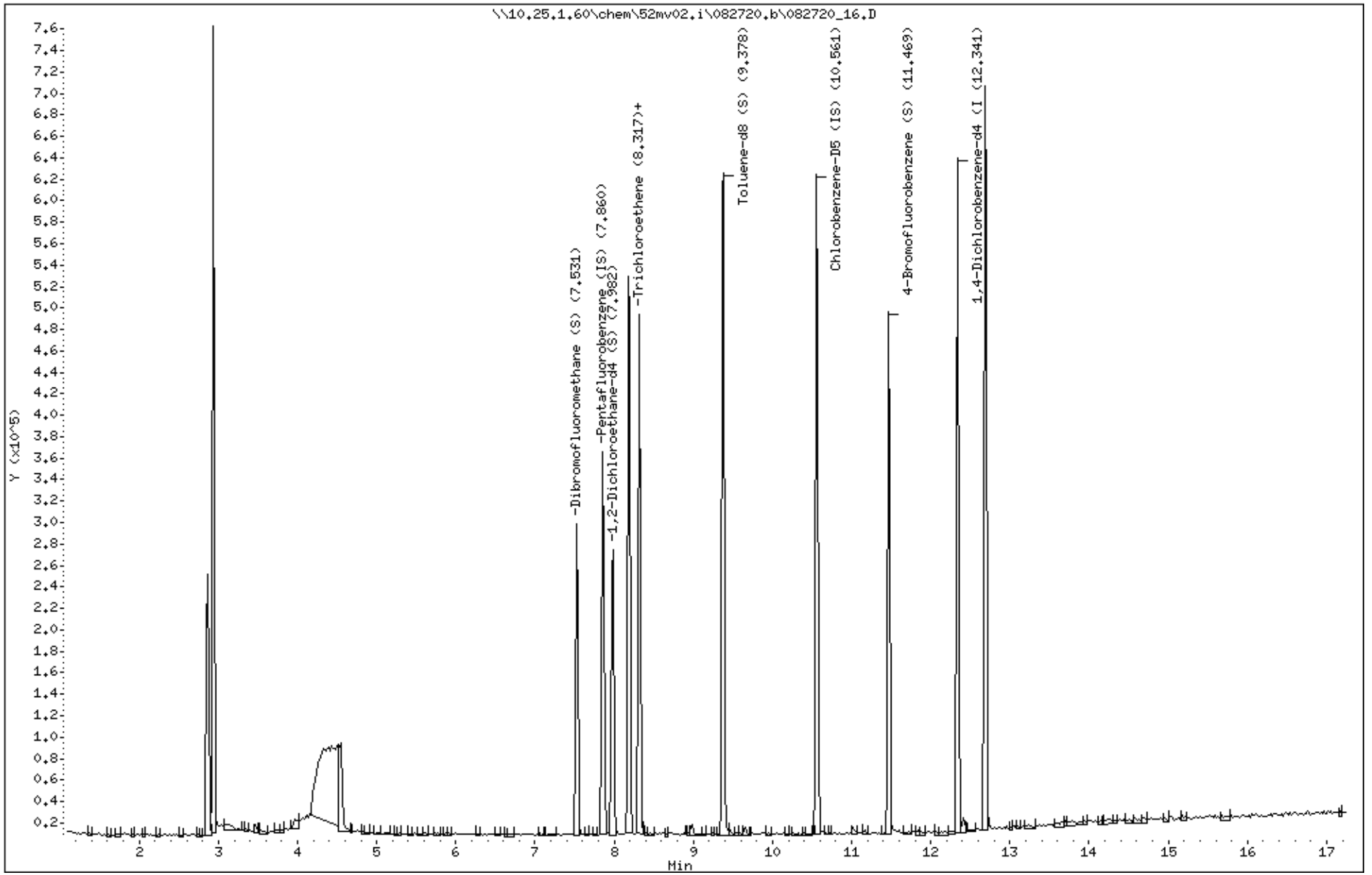
Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_16.D
Date : 27-AUG-2020 18:26
Client ID: YL10PB1SS
Sample Info: 5249553006,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



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Injection Date: 27-AUG-2020 18:26
Instrument: 52mv02.i
Lab Sample ID: 5249553006
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

YL10WESS

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553007
Date Analyzed: 08/27/2020 18:51
Lab File ID: 082720.B\082720_17.D
Initial wt/vol: 5.4 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 19.7%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

YL10WESS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553007
Date Analyzed: 08/27/2020 18:51
Lab File ID: 082720.B\082720_17.D
Initial wt/vol: 5.4 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 19.7%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	11.0	J
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	4.9	J
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082720.b\082720_17.D
Lab Smp Id: 5249553007 Client Smp ID: YL10WESS
Inj Date : 27-AUG-2020 18:51
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249553007,
Misc Info : 2991,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082720.b\8260BSM_082020.m
Meth Date : 27-Aug-2020 12:16 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	129355	56.3533	56.4	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	199368	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						
	41 Methacrylonitrile	41	Compound Not Detected.						
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21571	52.2381	52.2	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.323	8.317	(1.001)	332	0.16888	0.169	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	281132	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	295826	48.8821	48.9	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	654	0.38074	0.381	
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	250280	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.469	11.469	(1.086)	94452	45.9839	46.0	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	132670	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

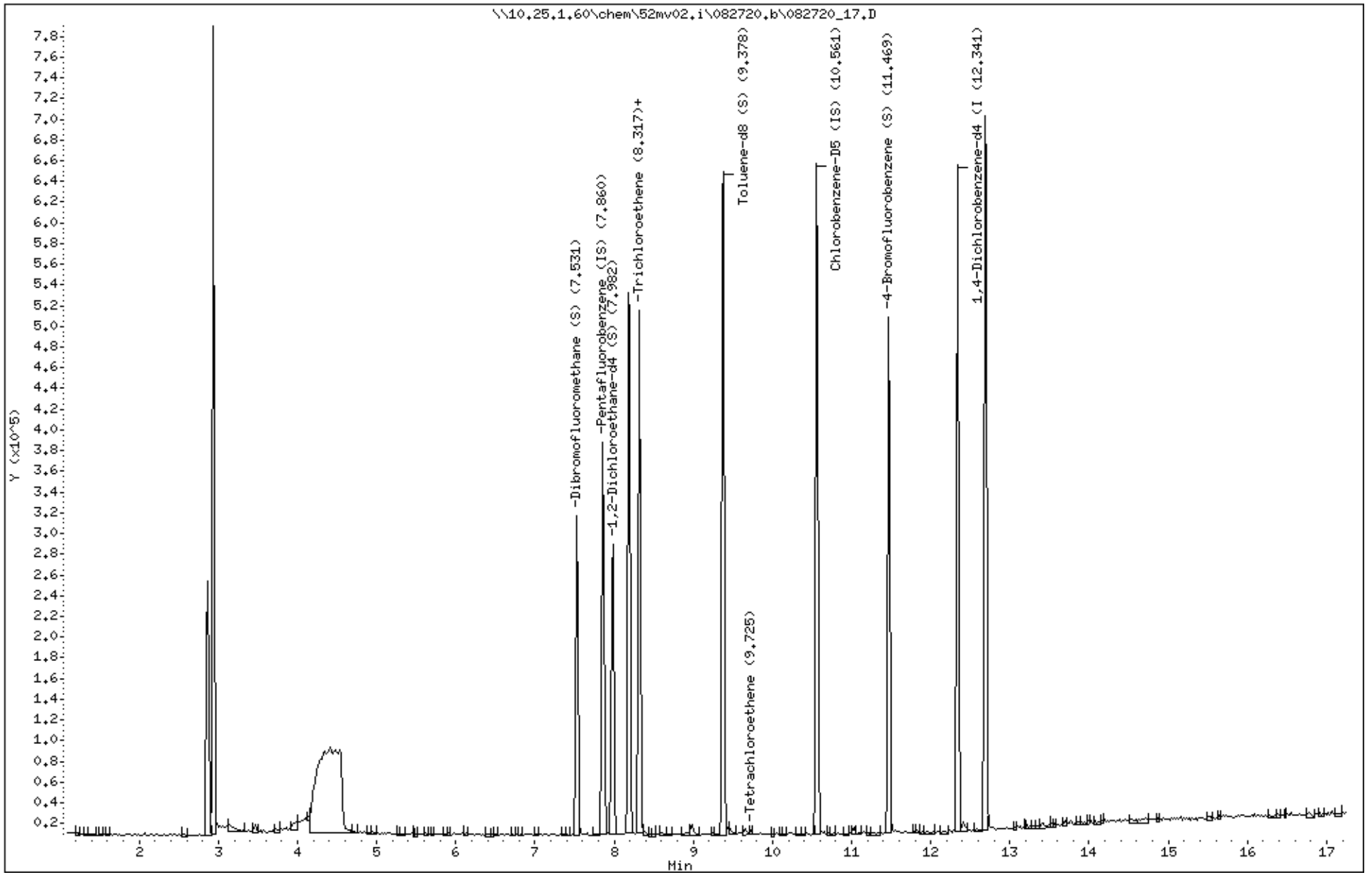
Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_17.D
Date : 27-AUG-2020 18:51
Client ID: YL10WESS
Sample Info: 5249553007,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



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Injection Date: 27-AUG-2020 18:51
Instrument: 52mv02.i
Lab Sample ID: 5249553007
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

YL10WESD

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553008
Date Analyzed: 08/27/2020 19:16
Lab File ID: 082720.B\082720_18.D
Initial wt/vol: 5.37 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 19.2%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

YL10WESD

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553008
Date Analyzed: 08/27/2020 19:16
Lab File ID: 082720.B\082720_18.D
Initial wt/vol: 5.37 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 19.2%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082720.b\082720_18.D
Lab Smp Id: 5249553008 Client Smp ID: YL10WESD
Inj Date : 27-AUG-2020 19:16
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249553008,
Misc Info : 2991,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082720.b\8260BSM_082020.m
Meth Date : 27-Aug-2020 12:16 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	123907	54.5216	54.5	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						(D)
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	197387	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	22186	54.2667	54.3	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	274197	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	291887	49.4511	49.4	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	235183	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.469	(1.086)	90788	47.0374	47.0	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	131173	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

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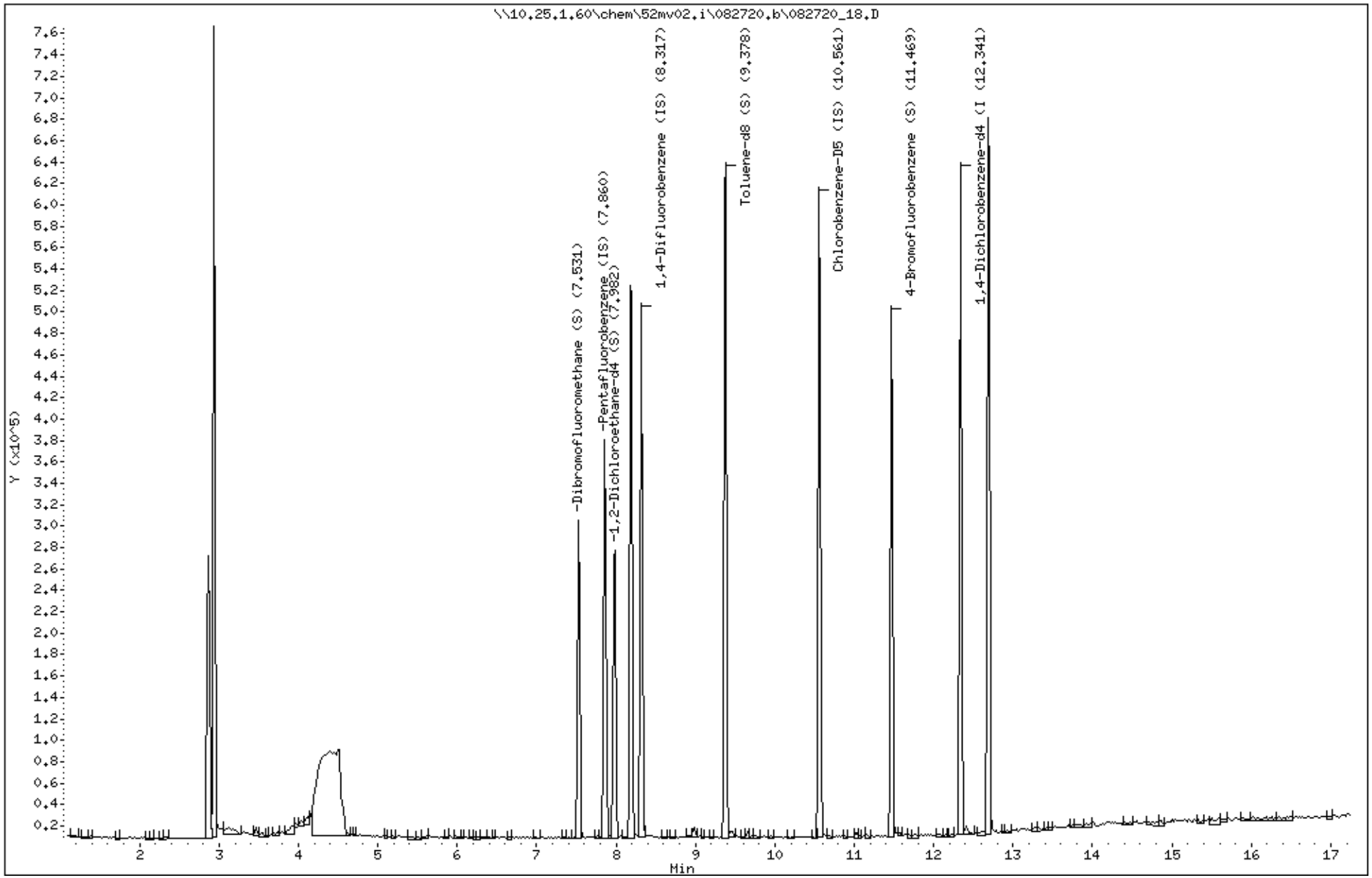
Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_18.D
Date : 27-AUG-2020 19:16
Client ID: YL10WESD
Sample Info: 5249553008,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082720.b/082720_18.D
Injection Date: 27-AUG-2020 19:16
Instrument: 52mv02.i
Lab Sample ID: 5249553008
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

RD8PB1SS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553009
Date Analyzed: 08/27/2020 19:41
Lab File ID: 082720.B\082720_19.D
Initial wt/vol: 5.22 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 17.1%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

RD8PB1SS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553009
Date Analyzed: 08/27/2020 19:41
Lab File ID: 082720.B\082720_19.D
Initial wt/vol: 5.22 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 17.1%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082720.b\082720_19.D
Lab Smp Id: 5249553009 Client Smp ID: RD8PB1SS
Inj Date : 27-AUG-2020 19:41
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249553009,
Misc Info : 2991,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082720.b\8260BSM_082020.m
Meth Date : 27-Aug-2020 12:16 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						
21 Acetonitrile	41	Compound Not Detected.						
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	128187	56.3330	56.3	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	197639	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	22707	55.4702	55.5	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	273600	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	295486	50.1700	50.2	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	245418	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.469	(1.086)	91881	45.6184	45.6	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	133287	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

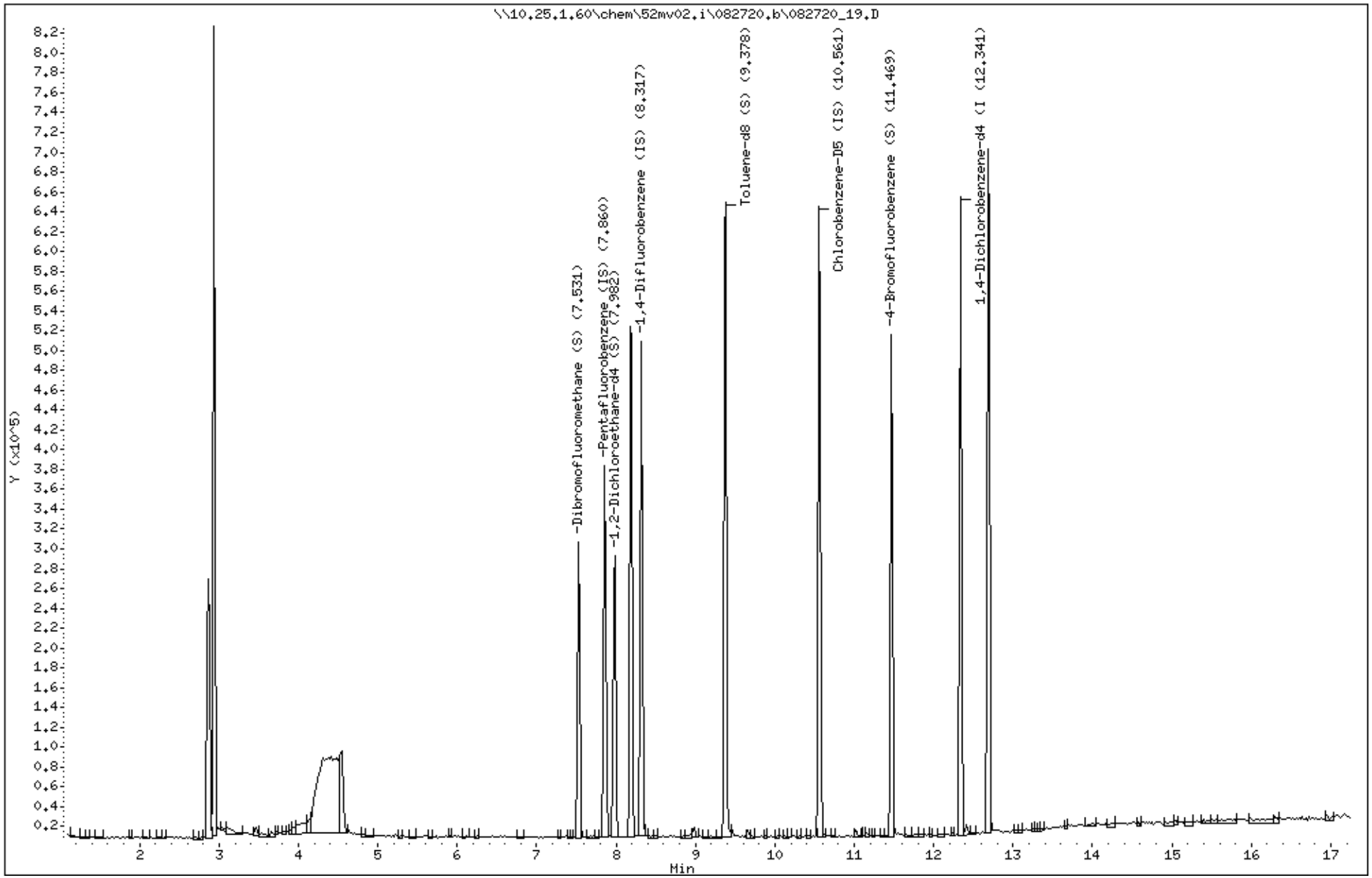
Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_19.D
Date : 27-AUG-2020 19:41
Client ID: RD8PB1SS
Sample Info: 5249553009,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082720.b/082720_19.D
Injection Date: 27-AUG-2020 19:41
Instrument: 52mv02.i
Lab Sample ID: 5249553009
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

RD8PB2SS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553010
Date Analyzed: 08/27/2020 20:06
Lab File ID: 082720.B\082720_20.D
Initial wt/vol: 5.07 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 17.3%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

RD8PB2SS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553010
Date Analyzed: 08/27/2020 20:06
Lab File ID: 082720.B\082720_20.D
Initial wt/vol: 5.07 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 17.3%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082720.b\082720_20.D
Lab Smp Id: 5249553010 Client Smp ID: RD8PB2SS
Inj Date : 27-AUG-2020 20:06
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249553010,
Misc Info : 2991,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082720.b\8260BSM_082020.m
Meth Date : 27-Aug-2020 12:16 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	122408	55.0344	55.0	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	193182	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	22003	54.9905	55.0	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	270670	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	289353	49.6605	49.7	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	236484	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.469	11.469	(1.086)	91077	46.9276	46.9	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	129858	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

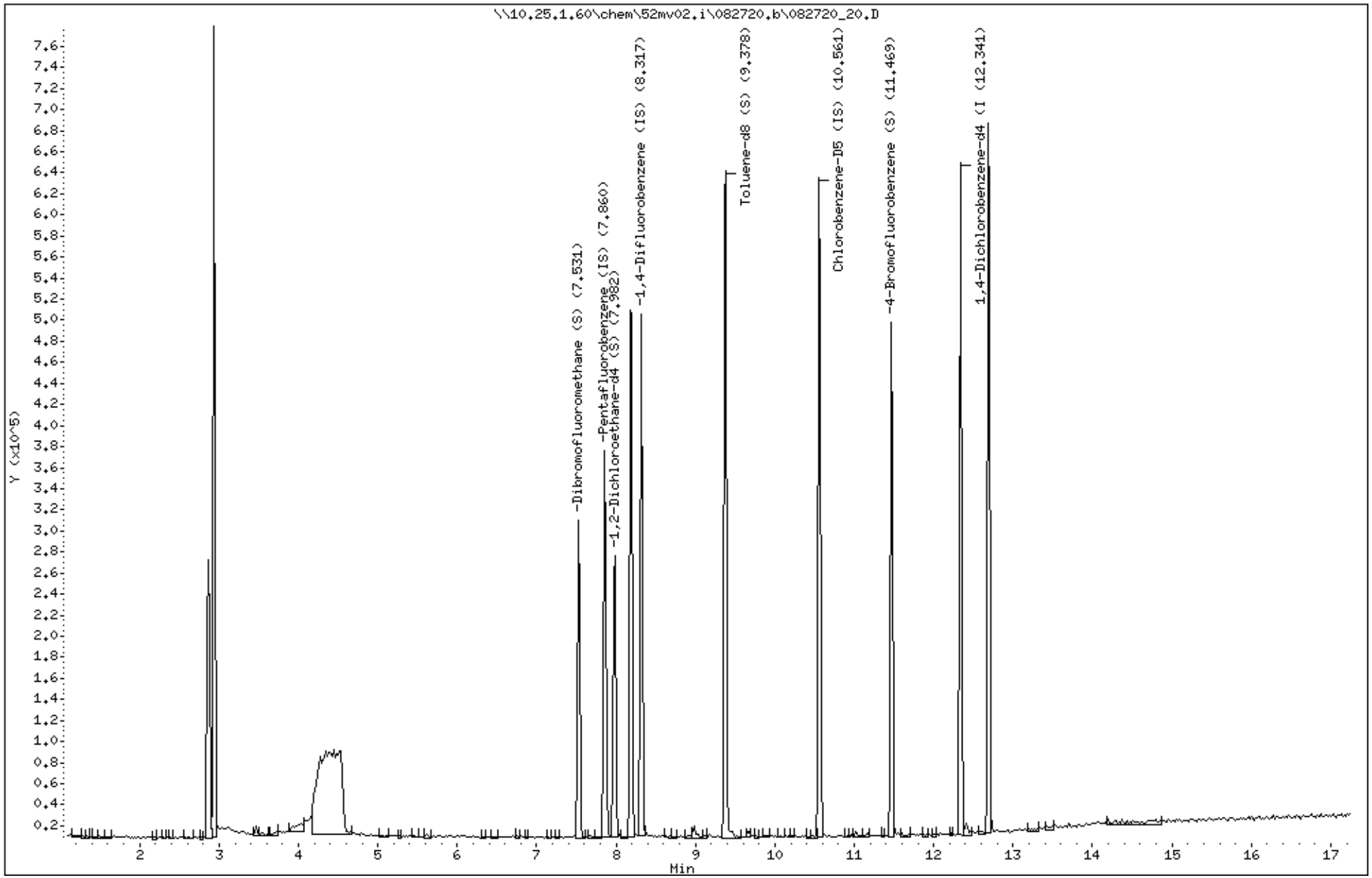
Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_20.D
Date : 27-AUG-2020 20:06
Client ID: RD8PB2SS
Sample Info: 5249553010,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082720.b/082720_20.D
Injection Date: 27-AUG-2020 20:06
Instrument: 52mv02.i
Lab Sample ID: 5249553010
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

RD8WESS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553011
Date Analyzed: 08/27/2020 20:31
Lab File ID: 082720.B\082720_21.D
Initial wt/vol: 5.3 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 17.0%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

RD8WESS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553011
Date Analyzed: 08/27/2020 20:31
Lab File ID: 082720.B\082720_21.D
Initial wt/vol: 5.3 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 17.0%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	3.3	J
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	31.8	
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082720.b\082720_21.D
Lab Smp Id: 5249553011 Client Smp ID: RD8WESS
Inj Date : 27-AUG-2020 20:31
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249553011,
Misc Info : 2991,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082720.b\8260BSM_082020.m
Meth Date : 27-Aug-2020 12:16 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	124033	54.5779	54.6	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	197384	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	22927	56.0800	56.1	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.323	8.317	(1.001)	2099	1.11881	1.12	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	268297	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	288815	50.0066	50.0	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	9.725	9.719	(0.921)	195	0.11728	0.117	
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	242274	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.469	(1.086)	92229	46.3855	46.4	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	128378	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

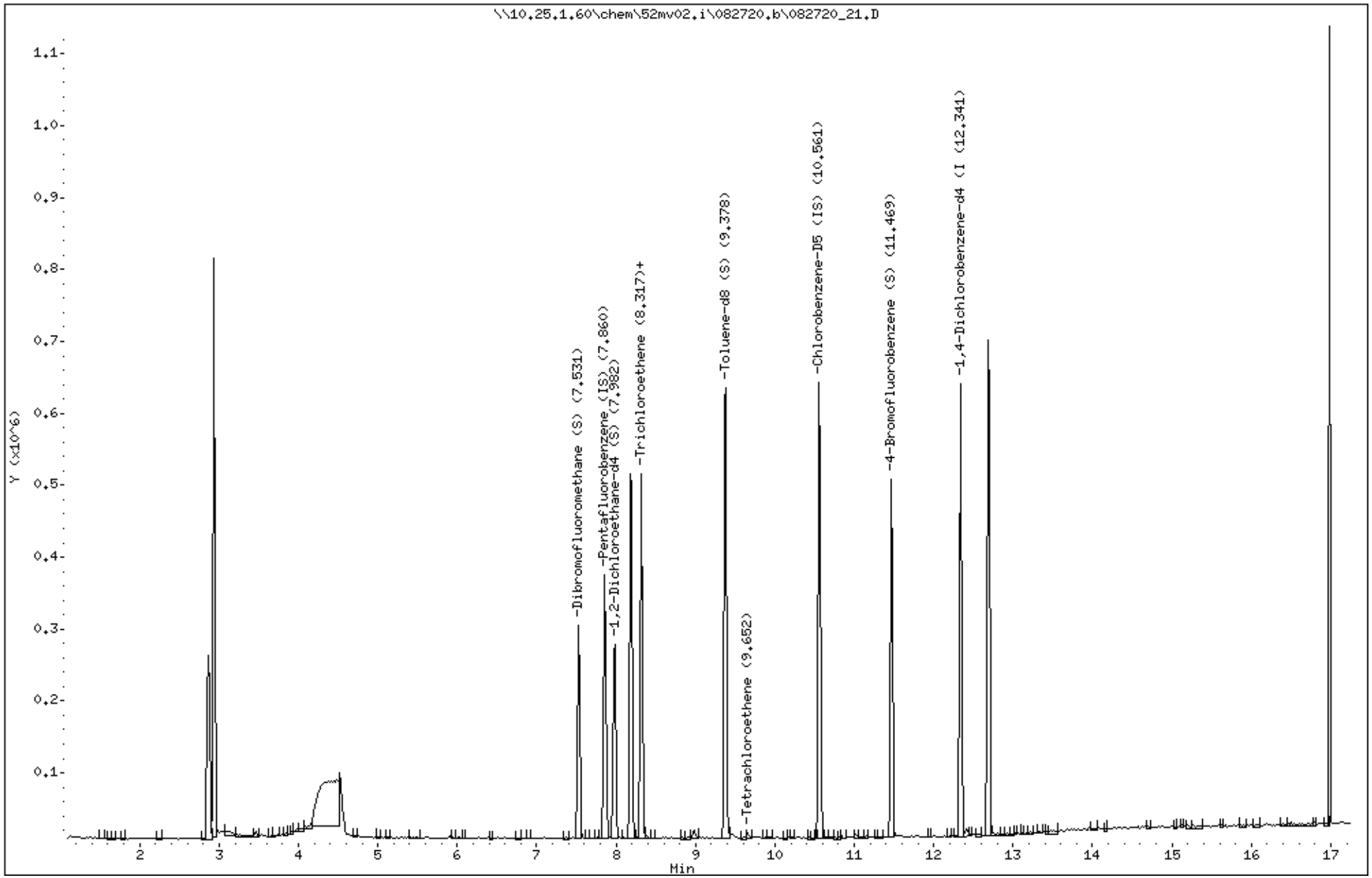
Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_21.D
Date : 27-AUG-2020 20:31
Client ID: RD8WESS
Sample Info: 5249553011,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082720.b/082720_21.D
Injection Date: 27-AUG-2020 20:31
Instrument: 52mv02.i
Lab Sample ID: 5249553011
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

082720R14

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553012
Date Analyzed: 08/27/2020 20:56
Lab File ID: 082720.B\082720_22.D
Initial wt/vol: 5.01 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 21.5%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

082720R14

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553012
Date Analyzed: 08/27/2020 20:56
Lab File ID: 082720.B\082720_22.D
Initial wt/vol: 5.01 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 21.5%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082720.b\082720_22.D
Lab Smp Id: 5249553012 Client Smp ID: 082720R14
Inj Date : 27-AUG-2020 20:56
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249553012,
Misc Info : 2991,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082720.b\8260BSM_082020.m
Meth Date : 27-Aug-2020 12:16 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						
21 Acetonitrile	41	Compound Not Detected.						
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	120704	55.9508	56.0	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	187373	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	20760	53.4925	53.5	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	264399	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	278570	48.9438	48.9	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	228812	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.469	11.469	(1.086)	89968	47.9105	47.9	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	129811	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

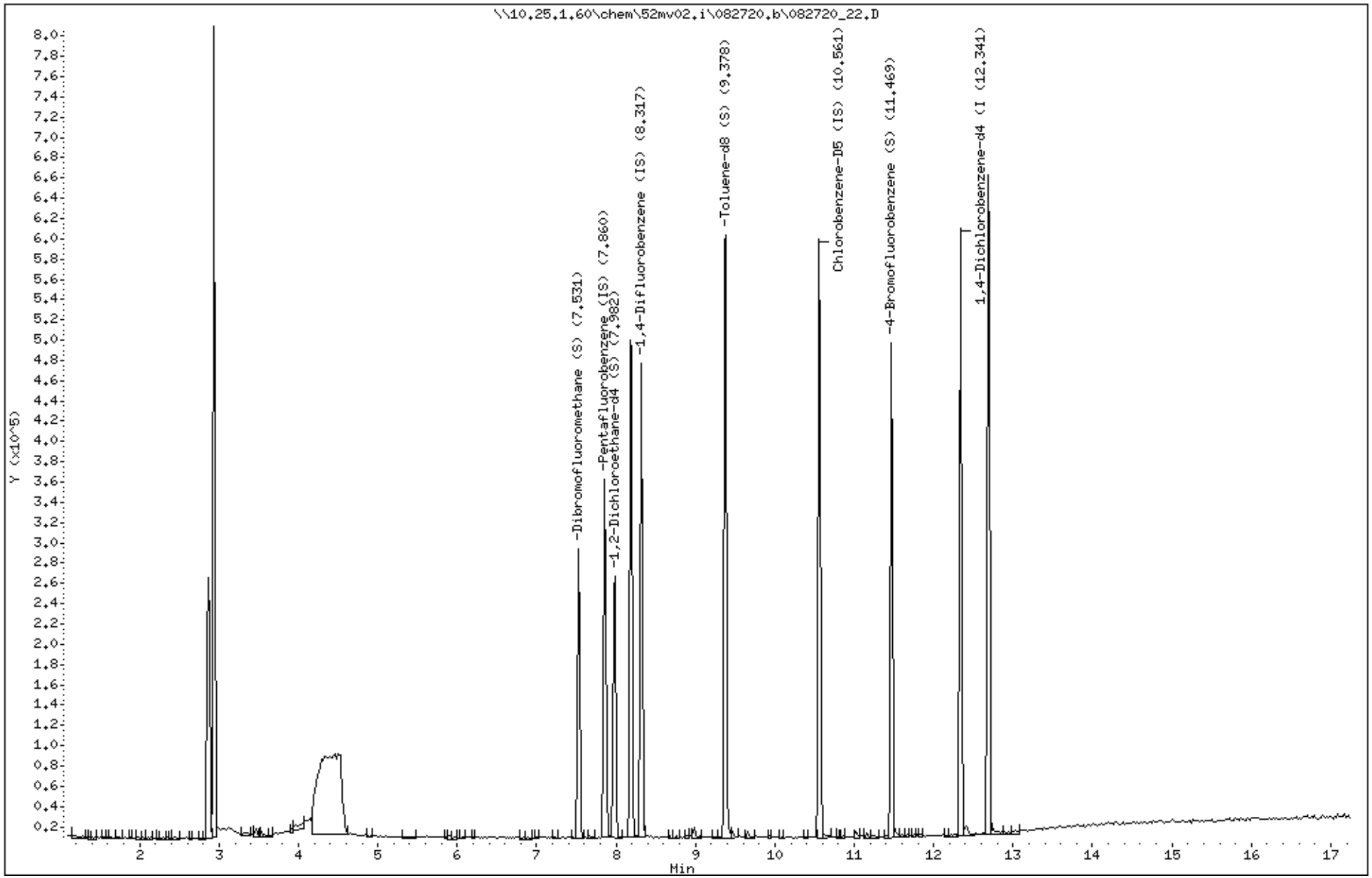
Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_22.D
Date : 27-AUG-2020 20:56
Client ID: 082720R14
Sample Info: 5249553012,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082720.b/082720_22.D
Injection Date: 27-AUG-2020 20:56
Instrument: 52mv02.i
Lab Sample ID: 5249553012
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

RD8WSSS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553013
Date Analyzed: 08/27/2020 21:21
Lab File ID: 082720.B\082720_23.D
Initial wt/vol: 5.45 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 21.0%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

RD8WSSS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553013
Date Analyzed: 08/27/2020 21:21
Lab File ID: 082720.B\082720_23.D
Initial wt/vol: 5.45 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 21.0%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	21.3	J
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082720.b\082720_23.D
Lab Smp Id: 5249553013 Client Smp ID: RD8WSSS
Inj Date : 27-AUG-2020 21:21
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249553013,
Misc Info : 2991,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082720.b\8260BSM_082020.m
Meth Date : 27-Aug-2020 12:16 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 19
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						
21 Acetonitrile	41	Compound Not Detected.						
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.524	7.530	(0.957)	125029	54.2808	54.3	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	200058	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.975	7.981	(1.015)	22147	53.4480	53.4	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	274455	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	289525	49.0048	49.0	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	1198	0.73533	0.735	
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	237386	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.469	(1.086)	93201	47.8395	47.8	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	133864	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

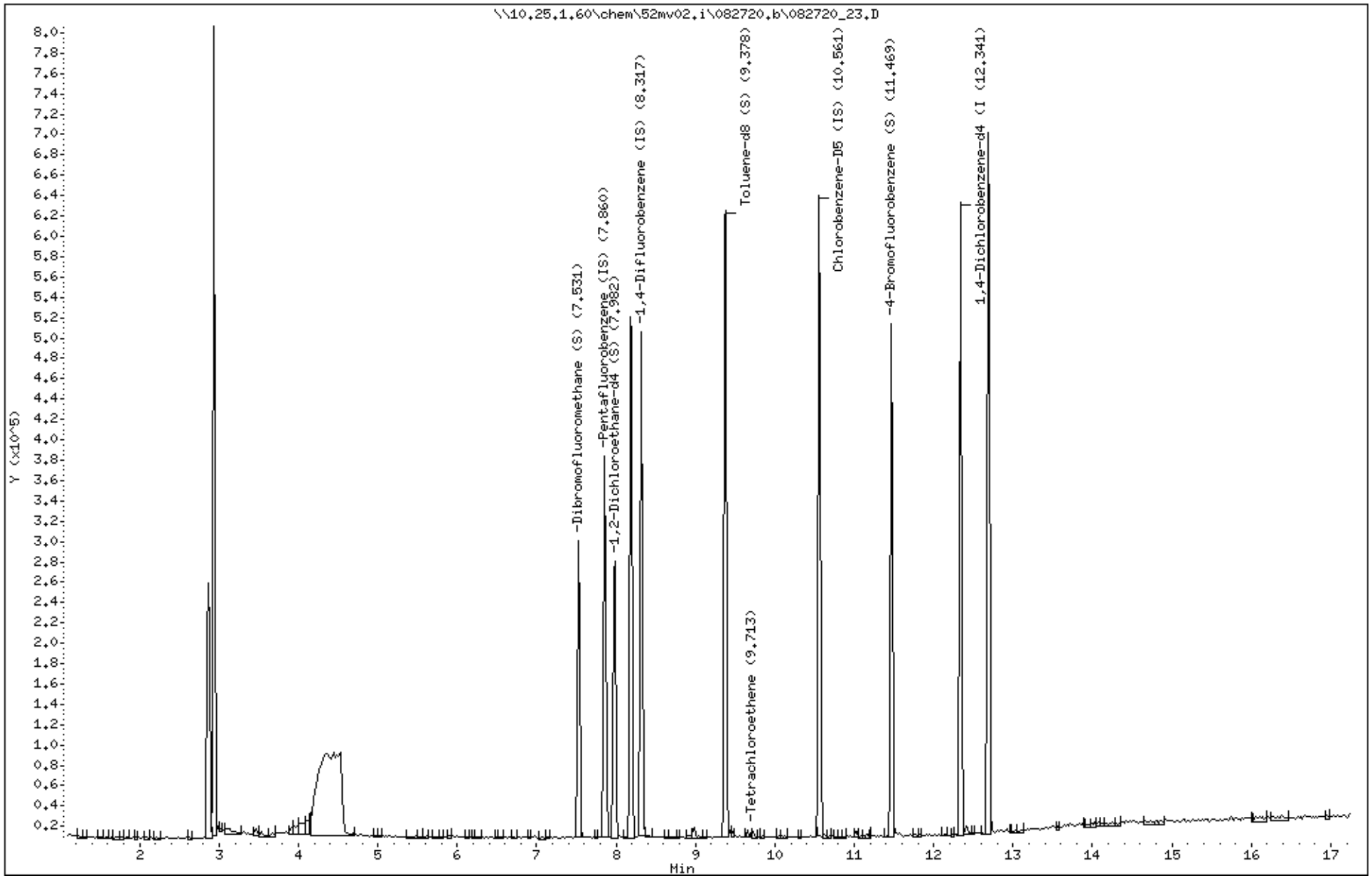
Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_23.D
Date : 27-AUG-2020 21:21
Client ID: RD8WSSS
Sample Info: 5249553013,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082720.b/082720_23.D
Injection Date: 27-AUG-2020 21:21
Instrument: 52mv02.i
Lab Sample ID: 5249553013
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

RD8WWSS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553014
Date Analyzed: 08/27/2020 21:46
Lab File ID: 082720.B\082720_24.D
Initial wt/vol: 5.16 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 17.4%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

RD8WWSS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 5249553014
Date Analyzed: 08/27/2020 21:46
Lab File ID: 082720.B\082720_24.D
Initial wt/vol: 5.16 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 17.4%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082720.b\082720_24.D
Lab Smp Id: 5249553014 Client Smp ID: RD8WWSS
Inj Date : 27-AUG-2020 21:46
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249553014,
Misc Info : 2991,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082720.b\8260BSM_082020.m
Meth Date : 27-Aug-2020 12:16 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 20
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						(D)
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						
21 Acetonitrile	41	Compound Not Detected.						
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	123575	55.2212	55.2	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						(D)
	37 1,1-Dichloropropene	75	Compound Not Detected.						
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	194364	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.975	7.981	(1.015)	22146	55.0113	55.0	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	275394	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	291654	49.1968	49.2	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	238679	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.469	(1.086)	94552	48.2700	48.3	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	131701	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

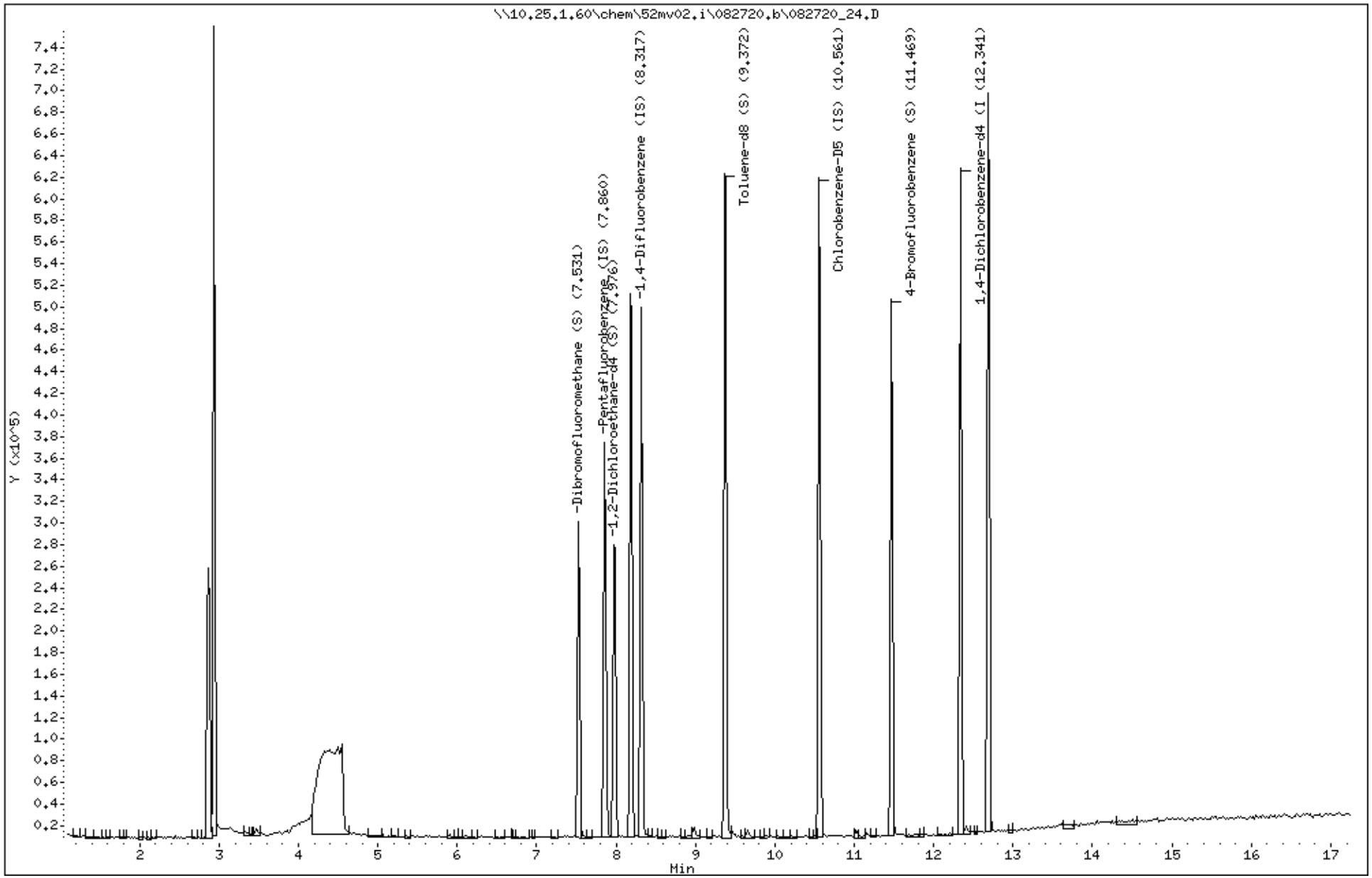
Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_24.D
Date : 27-AUG-2020 21:46
Client ID: RD8WWSS
Sample Info: 5249553014,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082720.b/082720_24.D
Injection Date: 27-AUG-2020 21:46
Instrument: 52mv02.i
Lab Sample ID: 5249553014
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

MSV - FORM VI VOA-1

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249553

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Acetone	Wt Linear			0.62900	0.55994	0.50057	0.45567
Acetonitrile	Wt Linear				0.06914	0.02812	0.03538
Acrolein	Averaged				0.08416	0.06550	0.06663
Acrylonitrile	Averaged			0.21923	0.20463	0.19660	0.17821
Benzene	Averaged	1.47226	1.17470	1.10627	1.43668	1.30598	1.38283
Bromobenzene	Averaged		0.44187	0.42245	0.49777	0.46884	0.54542
Bromochloromethane	Averaged		0.31597	0.30786	0.31639	0.29311	0.30419
Bromodichloromethane	Averaged		0.37292	0.40712	0.57953	0.49521	0.61500
Bromoform	Averaged		0.43514	0.43198	0.48641	0.42825	0.47385
Bromomethane	Wt Linear			1.52273	1.15152	0.76564	0.66086
2-Butanone (MEK)	Averaged			0.50647	0.40123	0.44364	0.43519
n-Butylbenzene	Averaged			1.39216	1.45958	1.44353	1.59712
sec-Butylbenzene	Wt Linear		1.18759	1.24368	1.67899	1.52562	1.84820
tert-Butylbenzene	Wt Linear		1.05533	1.23614	1.25134	1.14366	1.44555
Carbon disulfide	Averaged		1.57701	1.57013	1.73228	1.48016	1.64695
Carbon tetrachloride	Averaged			0.40579	0.50689	0.49562	0.54603
Chlorobenzene	Averaged		1.00310	0.91983	1.08642	0.90944	1.03666
Chloroethane	Wt Linear			0.21117	0.31149	0.17587	0.20642
Chloroform	Averaged		0.91551	1.14590	1.17564	1.07349	1.06717
Chloromethane	Wt Linear		1.70187	1.21534	1.00675	0.83064	0.79315
2-Chlorotoluene	Wt Linear		0.20503	0.23617	0.27463	0.30975	0.37215
4-Chlorotoluene	Wt Linear		0.30194	0.21412	0.30492	0.29219	0.31811
1,2-Dibromo-3-chloropropane	Averaged				0.21563	0.16898	0.14356
Dibromochloromethane	Averaged		0.39061	0.41330	0.50471	0.47639	0.52153
1,2-Dibromoethane (EDB)	Averaged		0.39922	0.39891	0.44521	0.38546	0.43818
Dibromomethane	Averaged		0.30841	0.27910	0.31794	0.30634	0.32971
1,2-Dichlorobenzene	Averaged	1.62186	1.64056	1.43913	1.59814	1.34139	1.48556
1,3-Dichlorobenzene	Averaged	1.46004	1.15332	1.12127	1.39100	1.22471	1.36866
1,4-Dichlorobenzene	Averaged	1.92711	1.64810	1.47102	1.57896	1.41215	1.52701
Dichlorodifluoromethane	Averaged		0.59716	0.66099	0.60136	0.62199	0.59348
1,1-Dichloroethane	Averaged		0.89883	0.86932	1.02064	0.92741	0.97039
1,2-Dichloroethane	Averaged			0.94445	0.99469	0.81825	0.81708
1,1-Dichloroethene	Averaged		0.62480	0.59321	0.74340	0.67088	0.75046
cis-1,2-Dichloroethene	Averaged		0.61860	0.67545	0.71938	0.63203	0.67887

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 9:52

MSV - FORM VI VOA-2

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249553

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
trans-1,2-Dichloroethene	Averaged		0.55331	0.47234	0.48357	0.41487	0.49134
1,2-Dichloropropane	Averaged		0.34955	0.36433	0.39290	0.35841	0.38826
1,3-Dichloropropane	Averaged		0.31663	0.43033	0.53682	0.46817	0.51113
2,2-Dichloropropane	Averaged		0.79065	0.80509	0.78585	0.68606	0.73428
1,1-Dichloropropene	Averaged		0.33046	0.35306	0.39409	0.34712	0.40174
cis-1,3-Dichloropropene	Averaged			0.40994	0.46953	0.45855	0.51880
trans-1,3-Dichloropropene	Averaged			0.40977	0.46953	0.45855	0.51319
Ethyl acetate	Averaged		0.62504	0.56797	0.61081	0.52501	0.56996
Ethylbenzene	Averaged		1.16922	1.07603	1.16044	1.13282	1.26091
2-Hexanone	Averaged			0.32992	0.32976	0.36720	0.41358
Isopropylbenzene (Cumene)	Wt Linear		0.73184	0.72215	0.88627	0.85802	1.07692
p-Isopropyltoluene	Wt Linear		1.05533	1.23614	1.25134	1.14366	1.44555
Methylene Chloride	Averaged			0.95867	0.99674	0.81915	0.85680
4-Methyl-2-pentanone (MIBK)	Averaged					0.03167	0.03396
Methyl-tert-butyl ether	Averaged		1.04371	0.98592	1.12170	0.97810	1.03498
Naphthalene	Wt Linear		1.29997	1.18745	1.36631	1.29132	1.36736
n-Propylbenzene	Averaged		1.17895	1.25876	1.48439	1.43680	1.65273
Styrene	Wt Linear		0.51595	0.49065	0.60308	0.57764	0.71624
1,1,1,2-Tetrachloroethane	Averaged		0.39735	0.45216	0.48731	0.40596	0.42534
1,1,2,2-Tetrachloroethane	Averaged			0.55212	0.57143	0.54413	0.58617
Tetrachloroethene	Averaged		0.28810	0.33725	0.33197	0.34833	0.35819
Toluene	Averaged		1.09209	1.19764	1.30569	1.22009	1.30131
1,2,3-Trichlorobenzene	Averaged		0.85249	0.82329	0.83816	0.81429	0.82024
1,2,4-Trichlorobenzene	Averaged			0.89496	0.87936	0.88914	0.92716
1,1,1-Trichloroethane	Averaged		0.51511	0.55802	0.63628	0.56094	0.61942
1,1,2-Trichloroethane	Averaged		0.37160	0.30364	0.37829	0.29572	0.32933
Trichloroethene	Averaged	0.28552	0.31598	0.34344	0.39369	0.32979	0.38287
Trichlorofluoromethane	Averaged			0.48751	0.40869	0.39167	0.37503
1,2,3-Trichloropropane	Averaged	0.67083	0.55786	0.50074	0.60209	0.54758	0.55729
1,2,4-Trimethylbenzene	Wt Linear		1.28216	1.05543	1.25794	1.29529	1.61333
1,3,5-Trimethylbenzene	Averaged			1.28003	1.37323	1.37049	1.59529
Vinyl acetate	Averaged					0.58340	0.90658
Vinyl chloride	Averaged		0.71725	0.64891	0.61115	0.59900	0.56828
m&p-Xylene	Wt Linear	0.80750	0.71388	0.69095	0.86918	0.85161	0.98882

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 9:52

MSV - FORM VI VOA-3

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249553

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
o-Xylene	Wt Linear		0.36816	0.33352	0.37551	0.36020	0.41933
4-Bromofluorobenzene (S)	Averaged	0.37583	0.38941	0.39051	0.38275	0.39379	0.40003
Dibromofluoromethane (S)	Averaged	0.62769	0.63739	0.63657	0.62879	0.60966	0.59270
1,2-Dichloroethane-d4 (S)	Averaged	0.11531	0.11871	0.12158	0.11740	0.10453	0.10269
Toluene-d8 (S)	Averaged	1.07880	1.06882	1.06855	1.06786	1.07640	1.08438

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 9:52

MSV - FORM VI VOA-4

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249553

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10	CAL11	CAL12
Acetone	Wt Linear	0.41297	0.37566	0.38708	0.38211		
Acetonitrile	Wt Linear	0.03841	0.04679	0.04704	0.04491	0.03970	0.03979
Acrolein	Averaged	0.06891	0.06557	0.07027	0.07036	0.06357	0.06812
Acrylonitrile	Averaged	0.19915	0.17729	0.19776	0.19478	0.15804	0.18702
Benzene	Averaged	1.31989	1.27390	1.26059	1.22497	1.19823	1.18934
Bromobenzene	Averaged	0.53532	0.51542	0.53131	0.52655	0.53912	0.54081
Bromochloromethane	Averaged	0.29998	0.27204	0.26235	0.25826	0.23994	0.24926
Bromodichloromethane	Averaged	0.57885	0.55715	0.54332	0.54171	0.54086	0.53536
Bromoform	Averaged	0.45373	0.43426	0.44389	0.44328	0.46996	0.46892
Bromomethane	Wt Linear	0.57307	0.44908	0.42634	0.42378		
2-Butanone (MEK)	Averaged	0.45432	0.40986	0.43930	0.44055	0.37212	0.38920
n-Butylbenzene	Averaged	1.64990	1.87691	1.98741	1.98878	1.98038	2.04750
sec-Butylbenzene	Wt Linear	2.02276	2.15907	2.27908	2.29075	2.34314	2.41368
tert-Butylbenzene	Wt Linear	1.56217	1.76643	1.88637	1.94028	1.98006	2.04581
Carbon disulfide	Averaged	1.55020	1.42898	1.38821	1.36729	1.28575	1.29953
Carbon tetrachloride	Averaged	0.54343	0.52196	0.51532	0.50192	0.49242	0.50459
Chlorobenzene	Averaged	0.97199	0.93701	0.94485	0.92345	0.94437	0.93402
Chloroethane	Wt Linear	0.17297	0.17535	0.16509	0.15481		
Chloroform	Averaged	1.02572	0.96877	0.93921	0.91532	0.85890	0.86431
Chloromethane	Wt Linear	0.77949	0.73419	0.74763	0.73348	0.67654	0.66670
2-Chlorotoluene	Wt Linear	0.37818	0.37125	0.37579	0.37739	0.38782	0.39117
4-Chlorotoluene	Wt Linear	0.34412	0.37138	0.38926	0.38621	0.39446	0.39306
1,2-Dibromo-3-chloropropane	Averaged	0.14501	0.14799	0.15810	0.15828	0.16380	0.17031
Dibromochloromethane	Averaged	0.49970	0.47857	0.47752	0.47753	0.50069	0.49027
1,2-Dibromoethane (EDB)	Averaged	0.41880	0.39767	0.39462	0.39355	0.40951	0.40529
Dibromomethane	Averaged	0.31359	0.30014	0.28875	0.28214	0.27687	0.27295
1,2-Dichlorobenzene	Averaged	1.38076	1.36447	1.37412	1.37990	1.39095	1.43503
1,3-Dichlorobenzene	Averaged	1.32401	1.33959	1.38908	1.38767	1.38402	1.42750
1,4-Dichlorobenzene	Averaged	1.40109	1.37817	1.41490	1.41231	1.40741	1.44148
Dichlorodifluoromethane	Averaged	0.63941	0.59785	0.61150	0.61837	0.54554	0.54297
1,1-Dichloroethane	Averaged	0.91623	0.87020	0.84971	0.81510	0.77035	0.77571
1,2-Dichloroethane	Averaged	0.78755	0.72382	0.70860	0.69974	0.66582	0.65542
1,1-Dichloroethene	Averaged	0.69997	0.66374	0.66212	0.67660	0.64092	0.65097
cis-1,2-Dichloroethene	Averaged	0.64084	0.63911	0.63898	0.63619	0.61855	0.63882

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 9:52

MSV - FORM VI VOA-5

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249553

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10	CAL11	CAL12
trans-1,2-Dichloroethene	Averaged	0.45350	0.42924	0.43177	0.42614	0.40870	0.41864
1,2-Dichloropropane	Averaged	0.38813	0.36744	0.35842	0.34791	0.35389	0.34693
1,3-Dichloropropane	Averaged	0.50225	0.50220	0.50732	0.51074	0.51045	0.50531
2,2-Dichloropropane	Averaged	0.66678	0.63008	0.59855	0.60546	0.58521	0.58171
1,1-Dichloropropene	Averaged	0.41853	0.42140	0.42293	0.42298	0.42154	0.42409
cis-1,3-Dichloropropene	Averaged	0.52492	0.53191	0.54225	0.54657	0.54771	0.54824
trans-1,3-Dichloropropene	Averaged	0.52492	0.53127	0.54126	0.54522	0.54708	0.54754
Ethyl acetate	Averaged	0.56493	0.55790	0.55626	0.54125	0.53408	0.52840
Ethylbenzene	Averaged	1.24337	1.35695	1.44133	1.46916	1.53813	1.54037
2-Hexanone	Averaged	0.43312	0.46856	0.46295	0.47817	0.46940	0.46841
Isopropylbenzene (Cumene)	Wt Linear	1.13672	1.27637	1.35788	1.37491	1.42487	1.44774
p-Isopropyltoluene	Wt Linear	1.56217	1.76643	1.88637	1.94028	1.98006	2.04581
Methylene Chloride	Averaged	0.80589	0.74727	0.73858	0.70291	0.66532	0.67584
4-Methyl-2-pentanone (MIBK)	Averaged	0.03057	0.03726	0.03590	0.03857	0.03908	0.03925
Methyl-tert-butyl ether	Averaged	1.06283	1.08682	1.09285	1.09333	1.03414	1.08647
Naphthalene	Wt Linear	1.41816	1.68396	1.89011	1.96265	2.01139	2.11026
n-Propylbenzene	Averaged	1.60570	1.73759	1.79225	1.79662	1.85505	1.84384
Styrene	Wt Linear	0.77986	0.88210	0.93092	0.93426	0.97298	0.97405
1,1,1,2-Tetrachloroethane	Averaged	0.41282	0.38406	0.38418	0.37132	0.38050	0.38077
1,1,2,2-Tetrachloroethane	Averaged	0.55539	0.51874	0.51464	0.49827	0.50770	0.50090
Tetrachloroethene	Averaged	0.35335	0.34404	0.35038	0.34843	0.35950	0.35515
Toluene	Averaged	1.25999	1.25926	1.26706	1.26351	1.28160	1.26660
1,2,3-Trichlorobenzene	Averaged	0.87483	0.92204	0.98164	0.99100	1.05707	1.09411
1,2,4-Trichlorobenzene	Averaged	0.86786	0.96199	1.06119	1.06390	1.11694	1.18487
1,1,1-Trichloroethane	Averaged	0.60969	0.57373	0.56212	0.55376	0.54652	0.53855
1,1,2-Trichloroethane	Averaged	0.32889	0.30035	0.29535	0.29349	0.29206	0.28701
Trichloroethene	Averaged	0.37458	0.35481	0.34975	0.35403	0.35714	0.35398
Trichlorofluoromethane	Averaged	0.37535	0.34595	0.32841	0.30466		
1,2,3-Trichloropropane	Averaged	0.57805	0.55752	0.54325	0.53642	0.54134	0.51772
1,2,4-Trimethylbenzene	Wt Linear	1.71069	1.86363	1.94154	1.94909	1.94934	2.01891
1,3,5-Trimethylbenzene	Averaged	1.68023	1.75448	1.84643	1.84471	1.84227	1.92279
Vinyl acetate	Averaged	0.90400	0.97338	0.94500	0.89650	0.87287	0.88498
Vinyl chloride	Averaged	0.58640	0.57381	0.57350	0.58579	0.52769	0.53398
m&p-Xylene	Wt Linear	1.06052	1.12895	1.15194	1.14203	1.16909	1.15864

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 9:52

MSV - FORM VI VOA-6

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249553

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10	CAL11	CAL12
o-Xylene	Wt Linear	0.42934	0.48412	0.50927	0.53019	0.56736	0.56819
4-Bromofluorobenzene (S)	Averaged	0.41167	0.42397	0.42542	0.43138	0.44972	0.44967
Dibromofluoromethane (S)	Averaged	0.57485	0.54985	0.54466	0.52424	0.47680	0.50490
1,2-Dichloroethane-d4 (S)	Averaged	0.10484	0.09552	0.09525	0.09239	0.08563	0.08890
Toluene-d8 (S)	Averaged	1.08337	1.07913	1.08743	1.07610	1.07934	1.06580

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 9:52

MSV - FORM VI VOA-7

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249553

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Acetone	Wt Linear		0.99848	0.01374774	0.38153	
Acetonitrile	Wt Linear		0.99061	0.00060749	0.04173	
Acrolein	Averaged	8.73847			0.06923	
Acrylonitrile	Averaged	8.87425			0.19127	
Benzene	Averaged	8.62942			1.27880	
Bromobenzene	Averaged	8.48252			0.50590	
Bromochloromethane	Averaged	9.85318			0.28358	
Bromodichloromethane	Averaged	14.00186			0.52427	
Bromoform	Averaged	4.41496			0.45179	
Bromomethane	Wt Linear		0.99117	0.02722209	0.42450	
2-Butanone (MEK)	Averaged	8.88630			0.42919	
n-Butylbenzene	Averaged	14.94450			1.74233	
sec-Butylbenzene	Wt Linear		0.99752	-0.0235130	2.32577	
tert-Butylbenzene	Wt Linear		0.99539	-0.0212852	1.95174	
Carbon disulfide	Averaged	9.71280			1.48423	
Carbon tetrachloride	Averaged	7.73071			0.50339	
Chlorobenzene	Averaged	5.75373			0.96465	
Chloroethane	Wt Linear		0.99271	0.00289449	0.16240	
Chloroform	Averaged	10.99465			0.99545	
Chloromethane	Wt Linear		0.99766	0.01147544	0.69502	
2-Chlorotoluene	Wt Linear		0.99948	-0.0028441	0.38497	
4-Chlorotoluene	Wt Linear		0.99856	-0.0028784	0.38834	
1,2-Dibromo-3-chloropropane	Averaged	13.38306			0.16352	
Dibromochloromethane	Averaged	8.28025			0.47553	
1,2-Dibromoethane (EDB)	Averaged	4.64138			0.40786	
Dibromomethane	Averaged	6.36753			0.29781	
1,2-Dichlorobenzene	Averaged	7.39530			1.45432	
1,3-Dichlorobenzene	Averaged	8.08472			1.33091	
1,4-Dichlorobenzene	Averaged	10.46018			1.50164	
Dichlorodifluoromethane	Averaged	5.84563			0.60278	
1,1-Dichloroethane	Averaged	8.80603			0.88035	
1,2-Dichloroethane	Averaged	14.72899			0.78154	
1,1-Dichloroethene	Averaged	7.00161			0.67064	
cis-1,2-Dichloroethene	Averaged	4.67942			0.64880	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 9:52

MSV - FORM VI VOA-8

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249553

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
trans-1,2-Dichloroethene	Averaged	9.66545			0.45304	
1,2-Dichloropropane	Averaged	4.68693			0.36511	
1,3-Dichloropropane	Averaged	12.73991			0.48194	
2,2-Dichloropropane	Averaged	12.80164			0.67907	
1,1-Dichloropropene	Averaged	8.96428			0.39618	
cis-1,3-Dichloropropene	Averaged	9.32428			0.50984	
trans-1,3-Dichloropropene	Averaged	9.26560			0.50883	
Ethyl acetate	Averaged	5.68883			0.56197	
Ethylbenzene	Averaged	12.90669			1.30807	
2-Hexanone	Averaged	14.03454			0.42211	
Isopropylbenzene (Cumene)	Wt Linear		0.99637	-0.0156127	1.39474	
p-Isopropyltoluene	Wt Linear		0.99539	-0.0212852	1.95174	
Methylene Chloride	Averaged	14.30697			0.79672	
4-Methyl-2-pentanone (MIBK)	Averaged	9.46365			0.03578	
Methyl-tert-butyl ether	Averaged	4.34204			1.05644	
Naphthalene	Wt Linear		0.99209	-0.0210899	1.97334	
n-Propylbenzene	Averaged	14.69415			1.60388	
Styrene	Wt Linear		0.99669	-0.0104898	0.94781	
1,1,1,2-Tetrachloroethane	Averaged	8.73379			0.40743	
1,1,2,2-Tetrachloroethane	Averaged	5.80301			0.53495	
Tetrachloroethene	Averaged	5.85748			0.34315	
Toluene	Averaged	4.82081			1.24680	
1,2,3-Trichlorobenzene	Averaged	11.00536			0.91538	
1,2,4-Trichlorobenzene	Averaged	11.50100			0.98474	
1,1,1-Trichloroethane	Averaged	6.44871			0.57038	
1,1,2-Trichloroethane	Averaged	10.24085			0.31598	
Trichloroethene	Averaged	8.38981			0.34963	
Trichlorofluoromethane	Averaged	14.86295			0.37716	
1,2,3-Trichloropropane	Averaged	7.81870			0.55922	
1,2,4-Trimethylbenzene	Wt Linear		0.99797	-0.0184252	1.95772	
1,3,5-Trimethylbenzene	Averaged	14.19477			1.65100	
Vinyl acetate	Averaged	13.85329			0.87084	
Vinyl chloride	Averaged	8.94064			0.59325	
m&p-Xylene	Wt Linear		0.99877	-0.0092364	1.14911	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 9:52

MSV - FORM VI VOA-9

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249553

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
o-Xylene	Wt Linear		0.99470	-0.0052424	0.54262	
4-Bromofluorobenzene (S)	Averaged	6.19963			0.41034	
Dibromofluoromethane (S)	Averaged	9.59315			0.57568	
1,2-Dichloroethane-d4 (S)	Averaged	11.94143			0.10356	
Toluene-d8 (S)	Averaged	0.66305			1.07633	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_03.D
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 20-AUG-2020 10:50
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal1,27237:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 10:50 Cal File: 082020_03.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						(D)
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						(D)
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						(D)
9 1,1-Dichloroethene	61	5.238	5.226	(0.666)	569	0.20000	0.208	
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						(D)
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						(D)
17 Methyl acetate	43	Compound Not Detected.						(D)
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						(D)
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	863	0.20000	0.240	
	24 Acrylonitrile	53	Compound Not Detected.						
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	737	0.20000	0.278(T)	
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						(D)
	29 Cyclohexane	56	Compound Not Detected.						(D)
	30 Chloroform	83	7.372	7.372	(0.938)	932	0.20000	0.236(M)	NI
	31 Ethyl acetate	43	Compound Not Detected.						(D)
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	576	0.20000	0.202	
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	128324	50.0000	54.5	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						(D)
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	204440	50.0000		
	39 Benzene	78	7.878	7.872	(0.947)	1748	0.20000	0.230	
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	23574	50.0000	55.7	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	1197	0.20000	0.364	
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.323	8.317	(1.001)	339	0.20000	0.163	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	296822	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.676	8.670	(1.043)	169	0.20000	0.0956	
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	9.719	9.713	(1.169)	492	0.20000	0.162	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	320213	50.0000	50.1	
	58 Toluene	91	9.420	9.414	(1.133)	1693	0.20000	0.229	
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						(D)
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	10.066	10.060	(1.210)	722	0.20000	0.252	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	477	0.20000	0.225	
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	10.560	10.554	(1.000)	1806	0.20000	0.266	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	259753	50.0000		
	71 Chlorobenzene	112	10.584	10.578	(1.002)	1258	0.20000	0.251	
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	10.657	10.651	(1.009)	1678	0.40000	0.330	
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						(D)
	76 Bromoform	173	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	97623	50.0000	45.8	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)
	80 n-Propylbenzene	91	11.529	11.523	(1.092)	1365	0.20000	0.164	
	81 Bromobenzene	156	11.584	11.578	(1.097)	395	0.20000	0.148	
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
	83 1,3,5-Trimethylbenzene	105	11.657	11.651	(0.945)	1019	0.20000	0.227	
	84 2-Chlorotoluene	126	Compound Not Detected.						(D)
	85 4-Chlorotoluene	126	Compound Not Detected.						(D)
	86 Isopropylbenzene (Cumene)	105	11.218	11.212	(1.062)	845	0.20000	0.141	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	697	0.20000	0.243	
	88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	89 Cyclohexanone	98	Compound Not Detected.						
	90 tert-Butylbenzene	119	Compound Not Detected.						(D)
	91 1,2,4-Trimethylbenzene	105	11.974	11.968	(0.970)	588	0.20000	0.130	
	92 sec-Butylbenzene	105	Compound Not Detected.						
	93 p-Isopropyltoluene	119	12.151	12.145	(0.985)	466	0.20000	0.105	
	94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	794	0.20000	0.221	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	135955	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	1048	0.20000	0.263	
	97 n-Butylbenzene	91	Compound Not Detected.						
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	882	0.20000	0.225	
	99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
	102 Naphthalene	128	Compound Not Detected.						
	103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

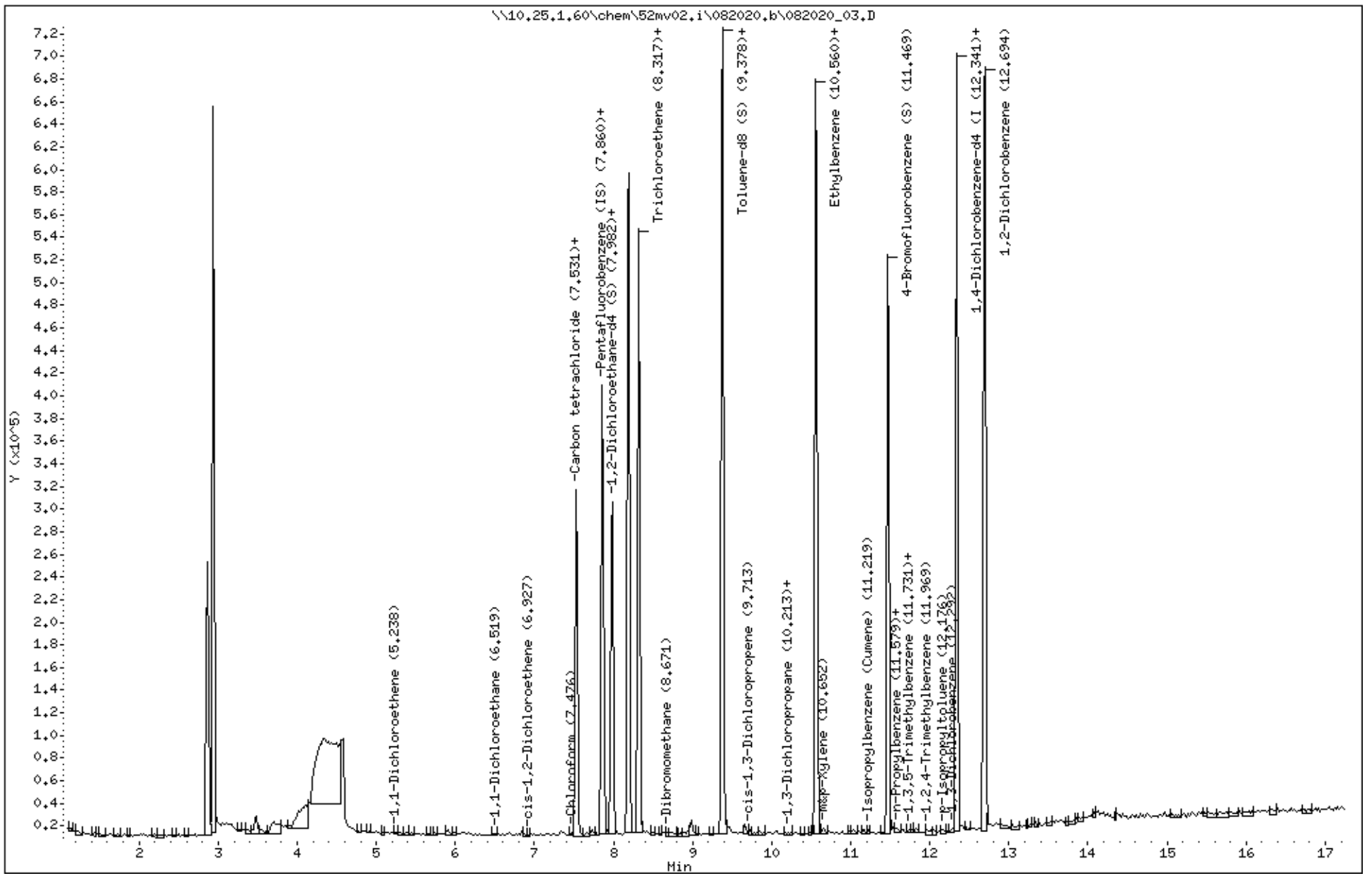
T - Target compound detected outside RT window.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
NI: Indicates that the peak was not integrated at all by the computer software.

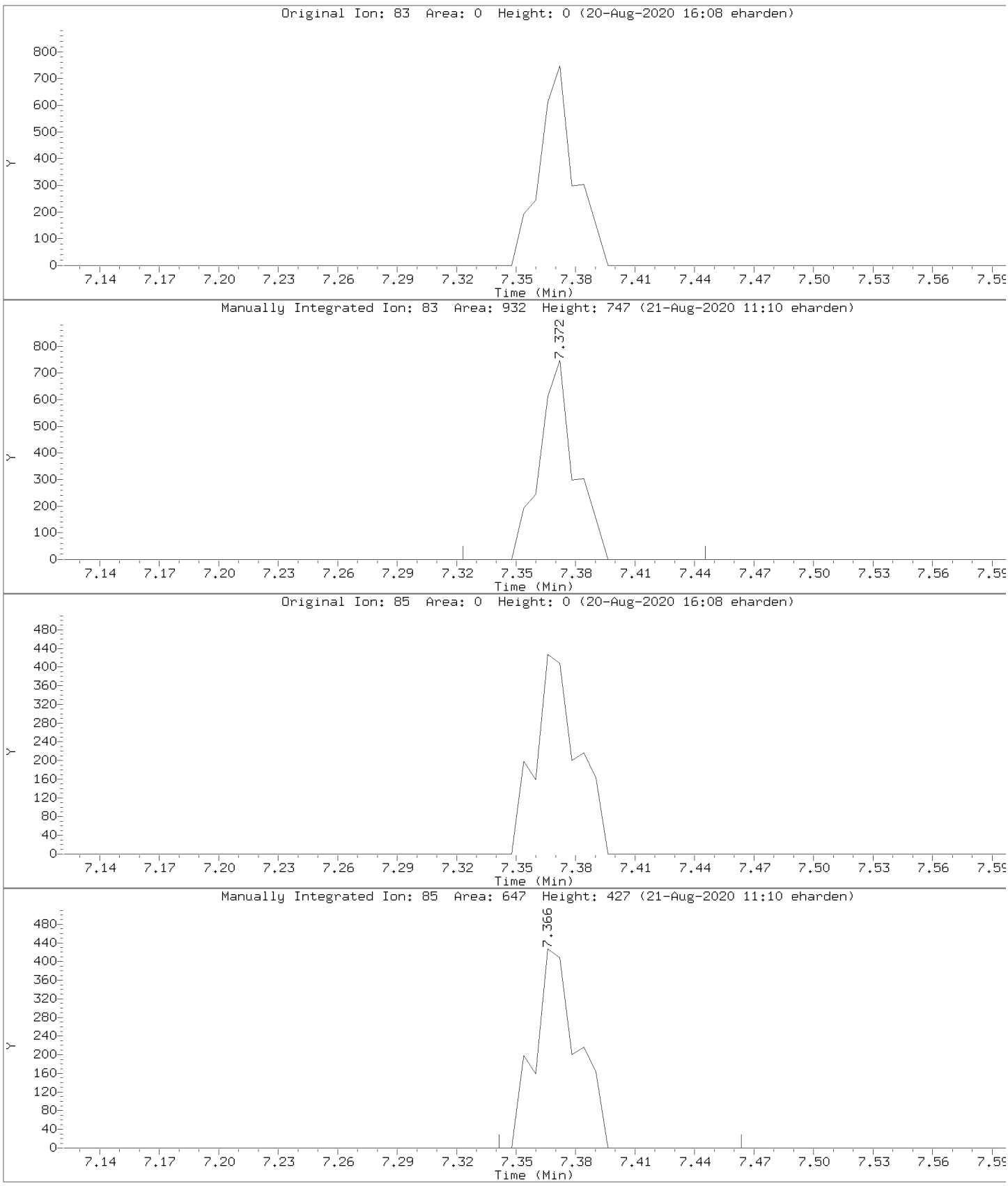
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_03.D
Date : 20-AUG-2020 10:50
Client ID: CAL1
Sample Info: CAL1,27237:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_03.D
Injection Date: 20-AUG-2020 10:50
Instrument: 52mv02.i
Lab Sample ID: CAL1

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_04.D
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 20-AUG-2020 11:15
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal2,27238:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 11:15 Cal File: 082020_04.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.226	(0.408)	1253	0.50000	0.745(MH)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	3571	0.50000	1.04	
3 Vinyl chloride	62	3.708	3.702	(0.472)	1505	0.50000	0.604(M)	LT
4 1,3-Butadiene	39	3.708	3.708	(0.472)	1520	0.50000	0.683	
5 Bromomethane	94	4.195	4.195	(0.534)	5381	0.50000	1.82	
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						(D)
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	1311	0.50000	0.466	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	1053	0.50000	0.567(M)	LT
11 Carbon disulfide	76	5.293	5.293	(0.673)	3309	0.50000	0.531	
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						(D)
14 Allyl chloride	76	5.780	5.787	(0.736)	303	0.50000	0.350	
15 Methylene Chloride	49	5.908	5.902	(0.752)	2179	0.50000	0.634(M)	NI
16 Acetone	43	5.988	5.976	(0.762)	5178	1.00000	2.84	
17 Methyl acetate	43	6.073	6.067	(0.773)	3562	1.00000	1.60	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	1161	0.50000	0.611	
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	6.171	6.165	(0.785)	2190	0.50000	0.493(T)	
21 Acetonitrile	41	Compound Not Detected.						
22 Chloroprene	53	6.646	6.640	(0.846)	1072	0.50000	0.397	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	1886	0.50000	0.510	
	24 Acrylonitrile	53	Compound Not Detected.						(D)
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	1298	0.50000	0.477	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	1659	0.50000	0.592(T)	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	663	0.50000	0.557	
	29 Cyclohexane	56	7.335	7.335	(0.882)	767	0.50000	0.308	
	30 Chloroform	83	7.372	7.372	(0.938)	1921	0.50000	0.460(M)	NI
	31 Ethyl acetate	43	7.433	7.433	(0.946)	2623	1.00000	1.11(T)	
	32 Carbon tetrachloride	117	7.518	7.512	(0.904)	765	0.50000	0.262	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	1518	1.00000	2.16	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	133742	50.0000	55.4	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	1565	0.50000	0.452	
	36 2-Butanone (MEK)	43	Compound Not Detected.						(D)
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	1004	0.50000	0.417(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	209828	50.0000		
	39 Benzene	78	7.865	7.872	(0.946)	3569	0.50000	0.459	
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	2101	1.00000	1.15	
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	24908	50.0000	57.3	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	2134	0.50000	0.633	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	1482	0.50000	0.370	
	46 Trichloroethene	130	8.317	8.317	(1.000)	960	0.50000	0.452	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	303821	50.0000		
	48 Methylcyclohexane	98	8.329	8.317	(1.001)	565	0.50000	0.561(M)	LT
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.676	8.670	(1.043)	937	0.50000	0.518	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	1062	0.50000	0.479	
	52 Bromodichloromethane	83	8.774	8.768	(1.055)	1133	0.50000	0.356	
	53 Methyl methacrylate	69	8.835	8.823	(1.062)	345	0.50000	0.308(TH)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	996	0.50000	0.321	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	324729	50.0000	49.6	
	58 Toluene	91	9.420	9.414	(1.133)	3318	0.50000	0.438	
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	996	0.50000	0.315(M)	NI
	62 Tetrachloroethene	164	9.713	9.719	(0.920)	770	0.50000	0.420	
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	1129	0.50000	0.588	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	1044	0.50000	0.411(M)	NI
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	962	0.50000	0.328	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	1067	0.50000	0.489	
	68 2-Hexanone	43	Compound Not Detected.						(D)
	69 Ethylbenzene	91	10.560	10.554	(1.000)	3125	0.50000	0.447	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	267272	50.0000		
	71 Chlorobenzene	112	10.572	10.578	(1.001)	2681	0.50000	0.520	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	1062	0.50000	0.488	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	3816	1.00000	0.730	
	74 o-Xylene	106	10.993	10.993	(1.041)	984	0.50000	0.402	
	75 Styrene	104	11.029	11.029	(1.044)	1379	0.50000	0.337	
	76 Bromoform	173	11.103	11.103	(1.051)	1163	0.50000	0.482(M)	NI

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.231	11.225	(1.063)	1438	0.50000	0.387	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	104078	50.0000	47.4	
79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)
80 n-Propylbenzene	91	11.529	11.523	(1.092)	3151	0.50000	0.368	
81 Bromobenzene	156	11.584	11.578	(1.097)	1181	0.50000	0.431	
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						(D)
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	1752	0.50000	0.364(H)	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	548	0.50000	0.295	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	807	0.50000	0.443	
86 Isopropylbenzene (Cumene)	105	11.206	11.212	(1.061)	1956	0.50000	0.316	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	1491	0.50000	0.508	
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	1540	0.50000	0.324	
91 1,2,4-Trimethylbenzene	105	11.974	11.968	(0.970)	1871	0.50000	0.385	
92 sec-Butylbenzene	105	12.066	12.060	(0.978)	1733	0.50000	0.300	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	1540	0.50000	0.324	
94 1,3-Dichlorobenzene	146	12.297	12.291	(0.997)	1683	0.50000	0.437	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	145926	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	2405	0.50000	0.563	
97 n-Butylbenzene	91	12.480	12.486	(1.011)	1826	0.50000	0.359	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	2394	0.50000	0.570	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	415	0.50000	0.870	
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						(D)
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	852	0.50000	0.308	
102 Naphthalene	128	14.206	14.193	(1.151)	1897	0.50000	0.399(M)	NI
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	1244	0.50000	0.466	

QC Flag Legend

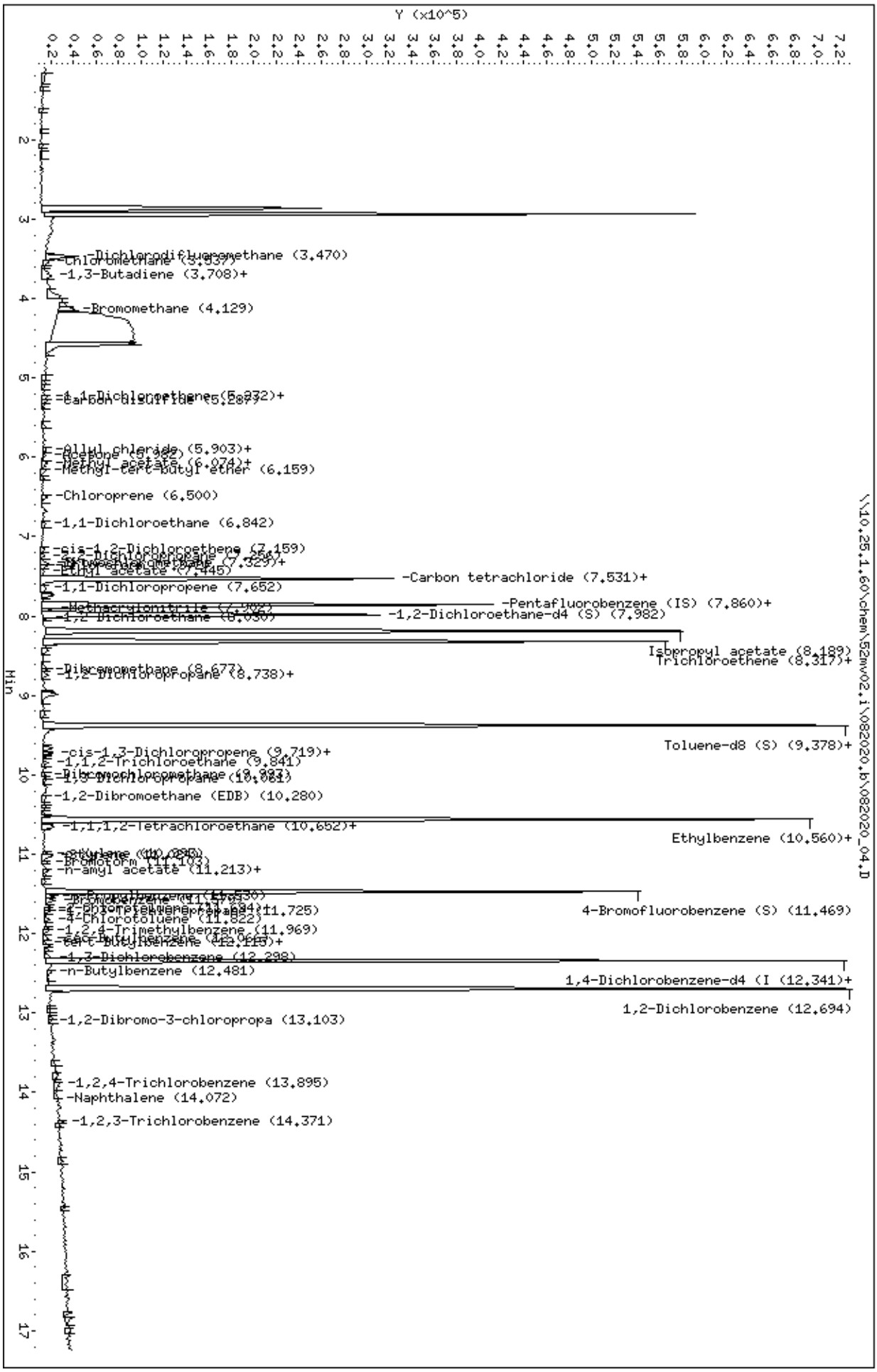
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_04.D
Date : 20-AUG-2020 11:15
Client ID: CAL2
Sample Info: CAL2,27238:1
Purge Volume: 5.0
Column phase: RTX-VMS

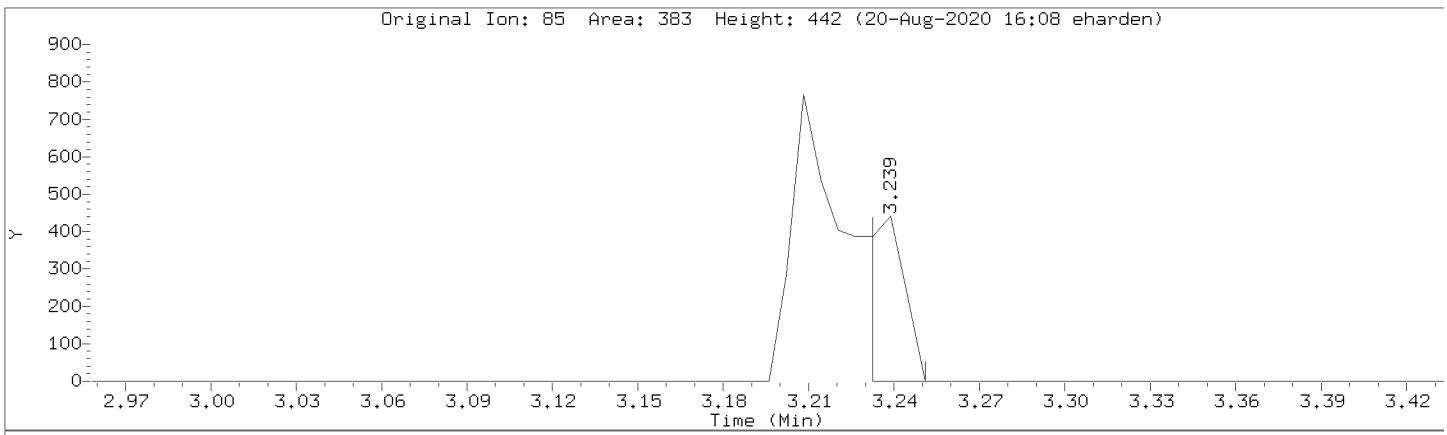
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

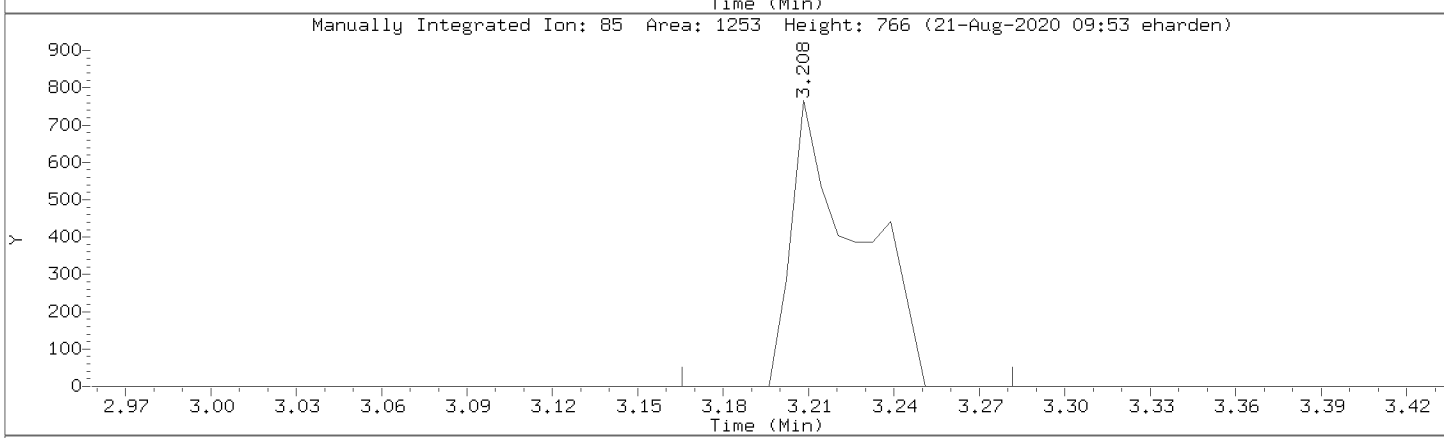


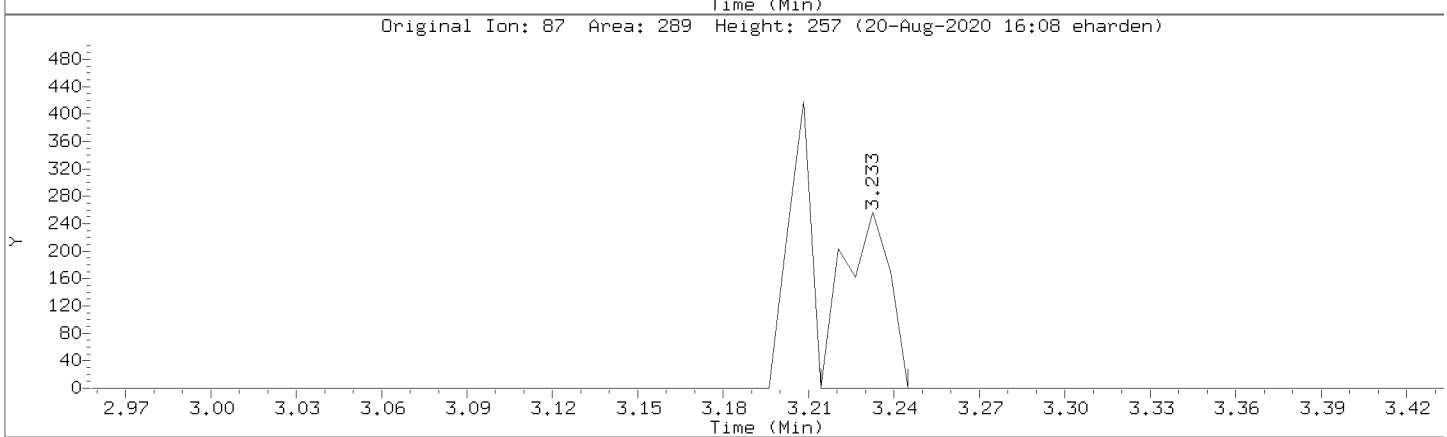
Page 4

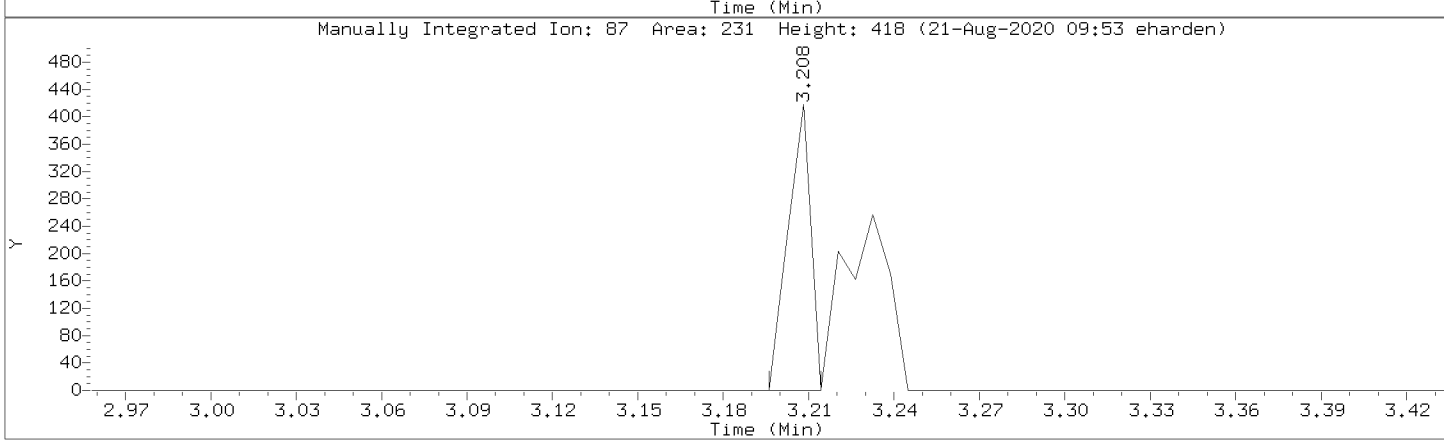
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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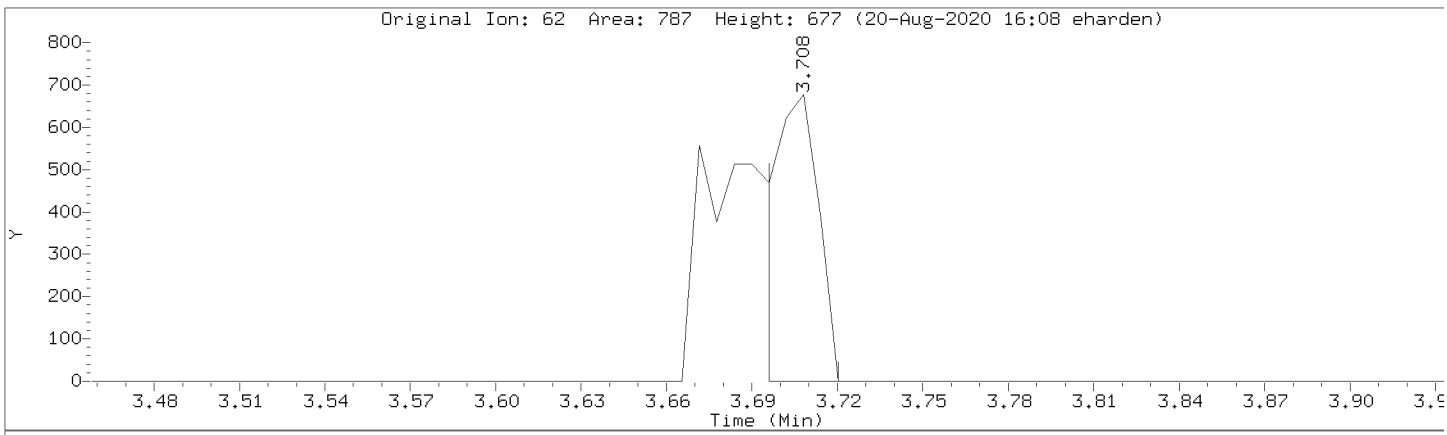
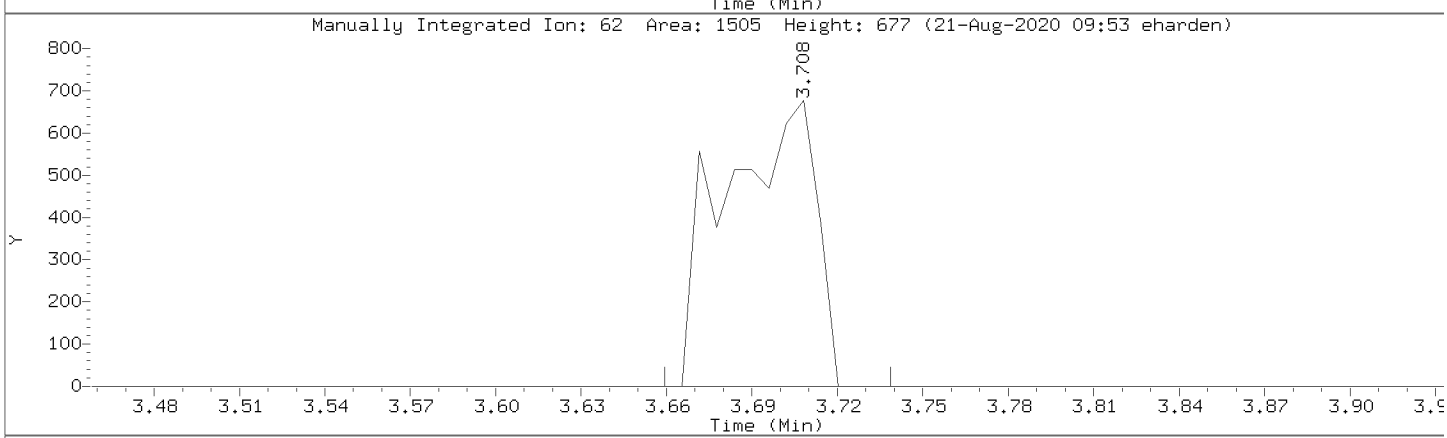
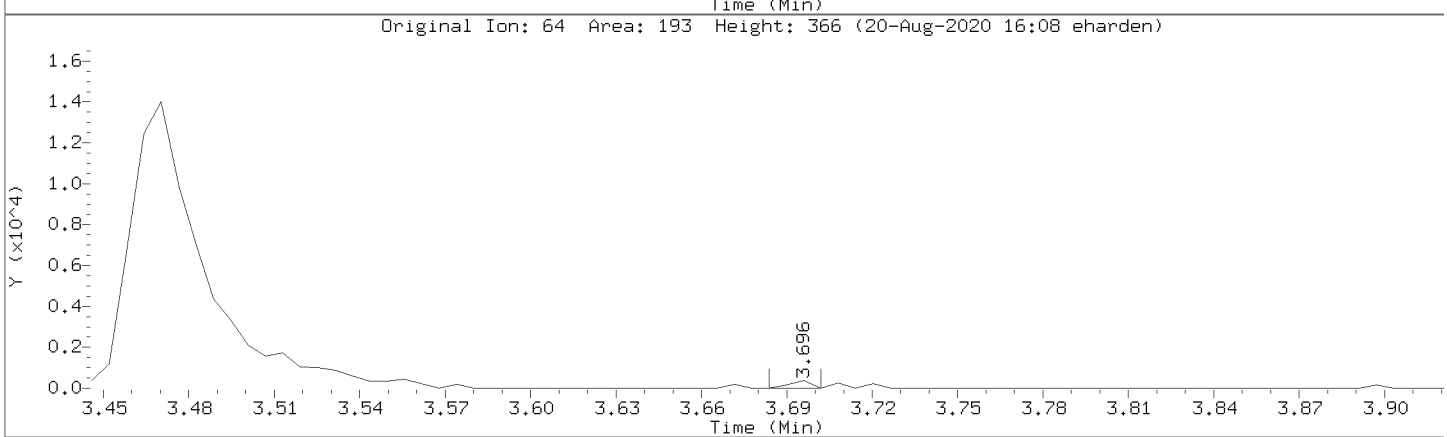
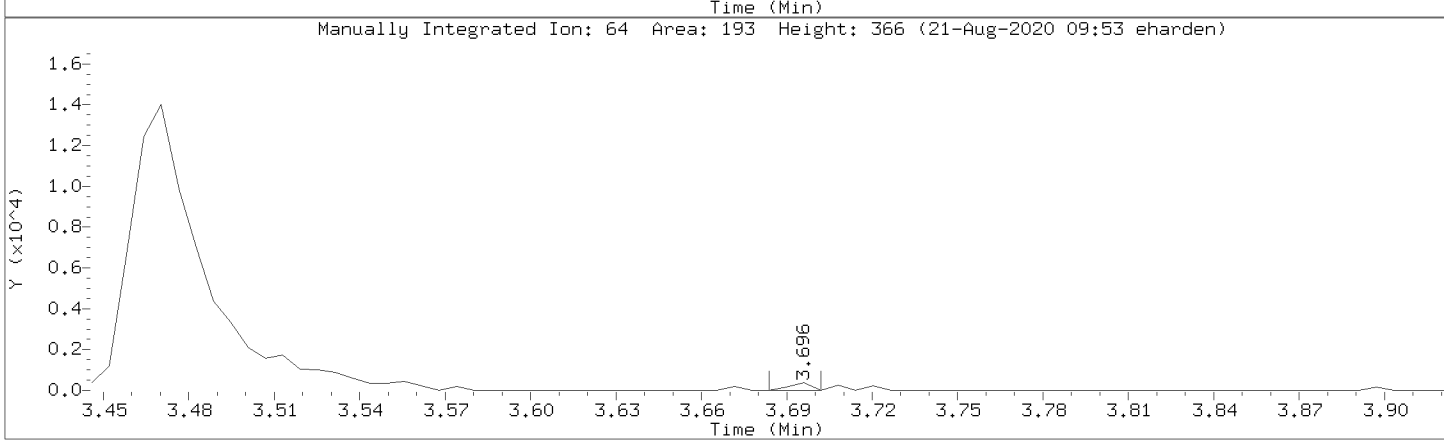
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4









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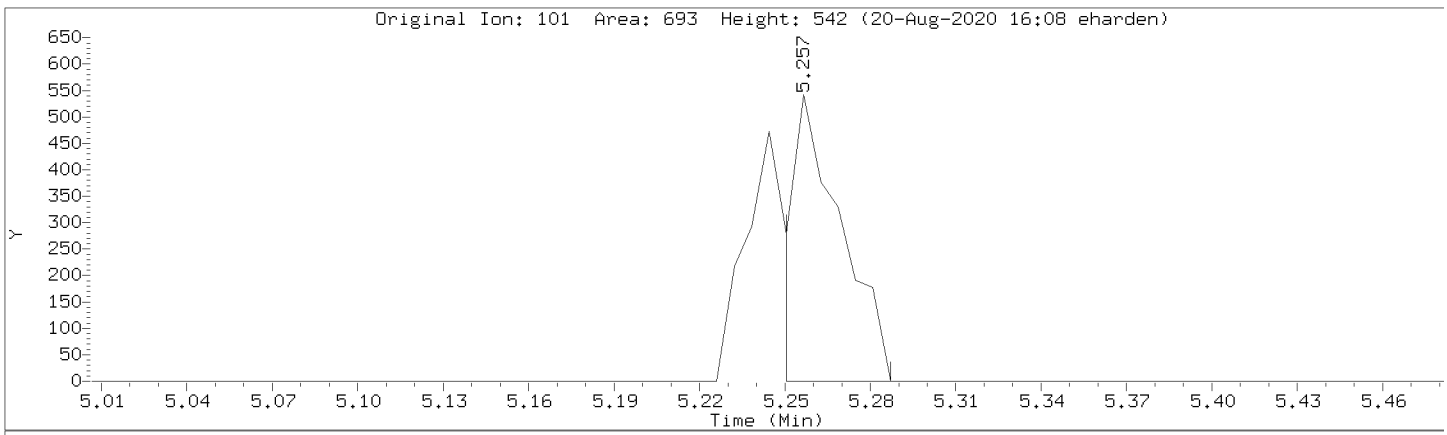
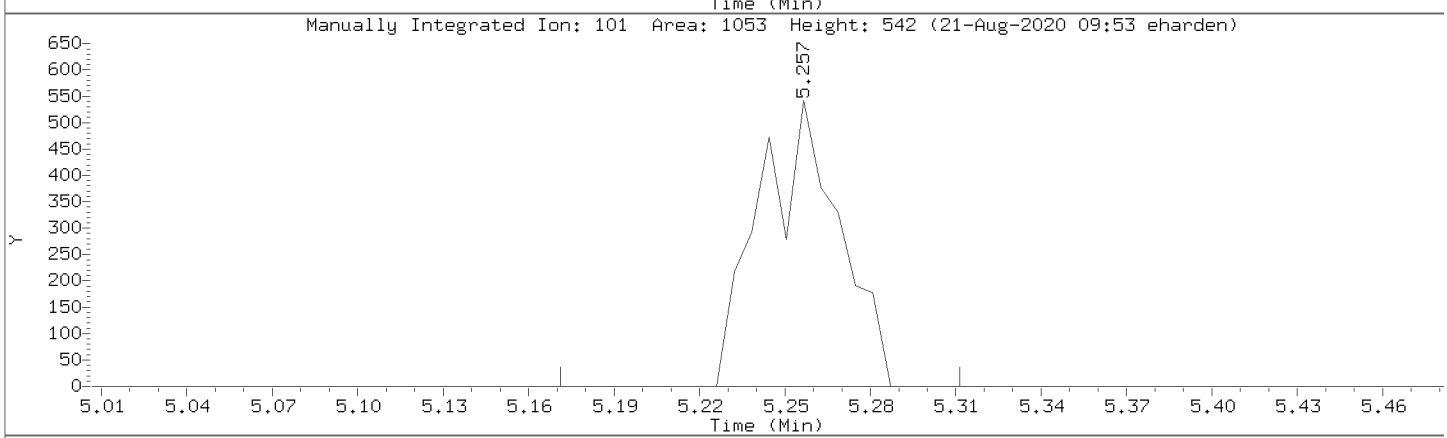
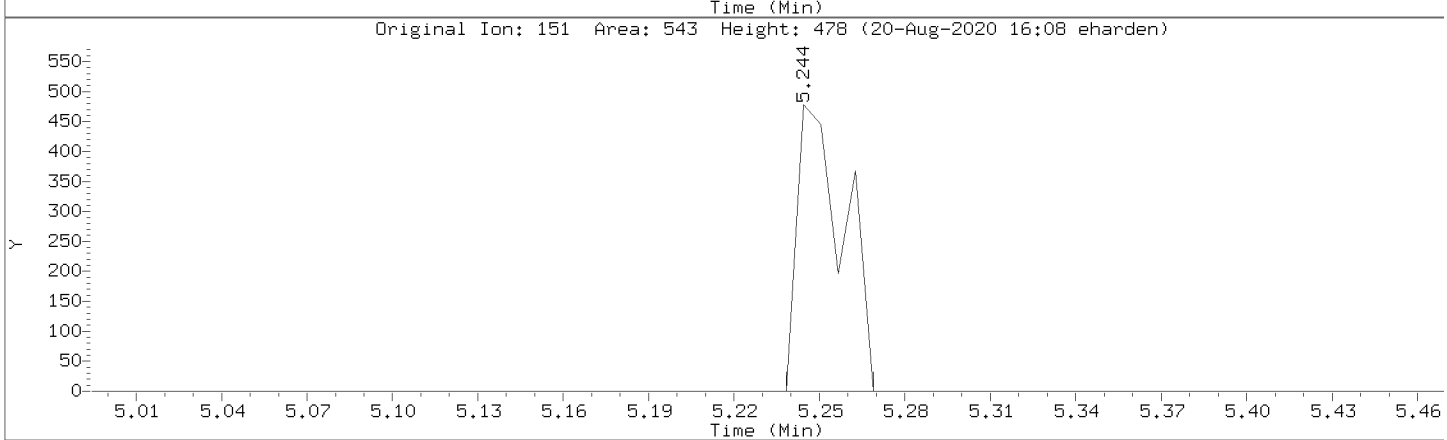
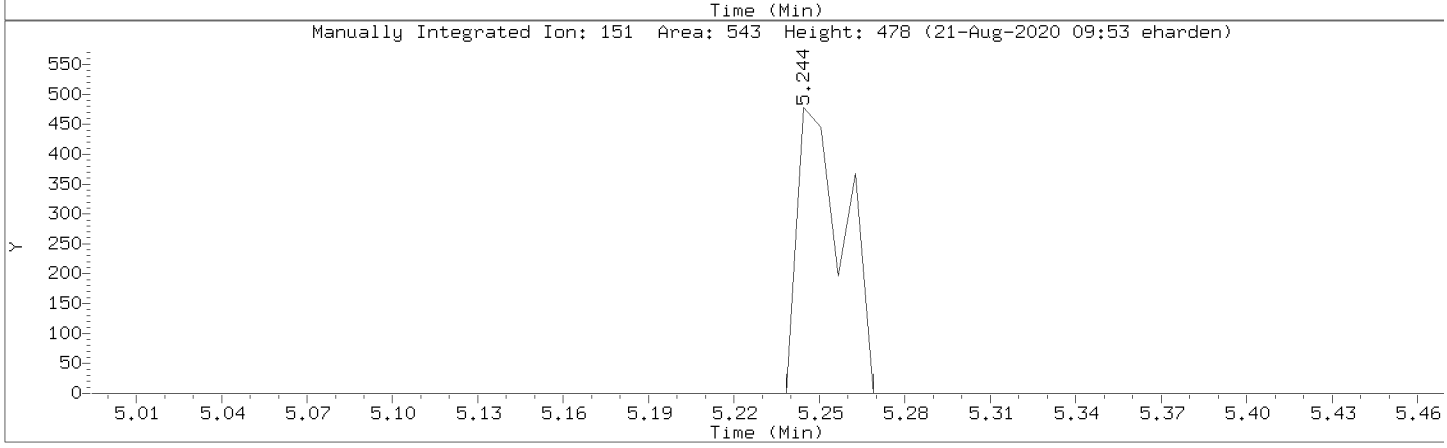
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: 1,1,2-Trichlorotrifluoroethane Review Code: LT
CAS Number: 76-13-1









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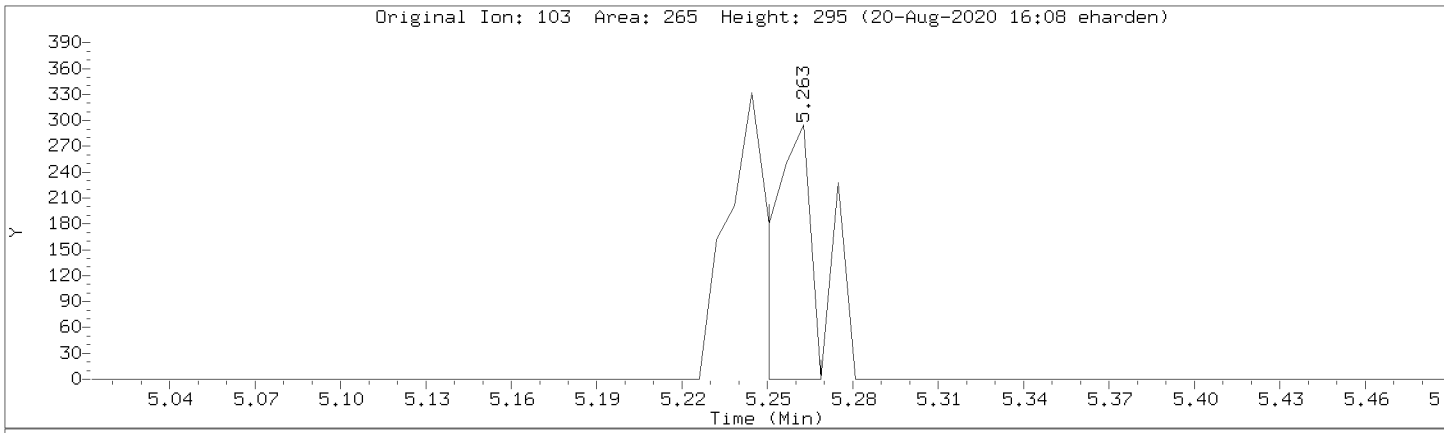
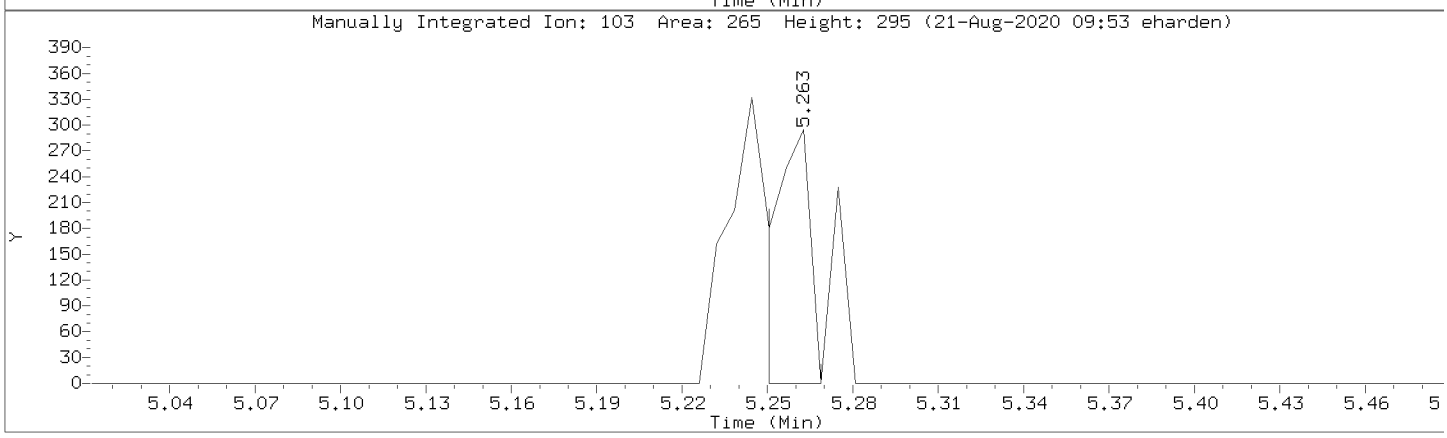
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2





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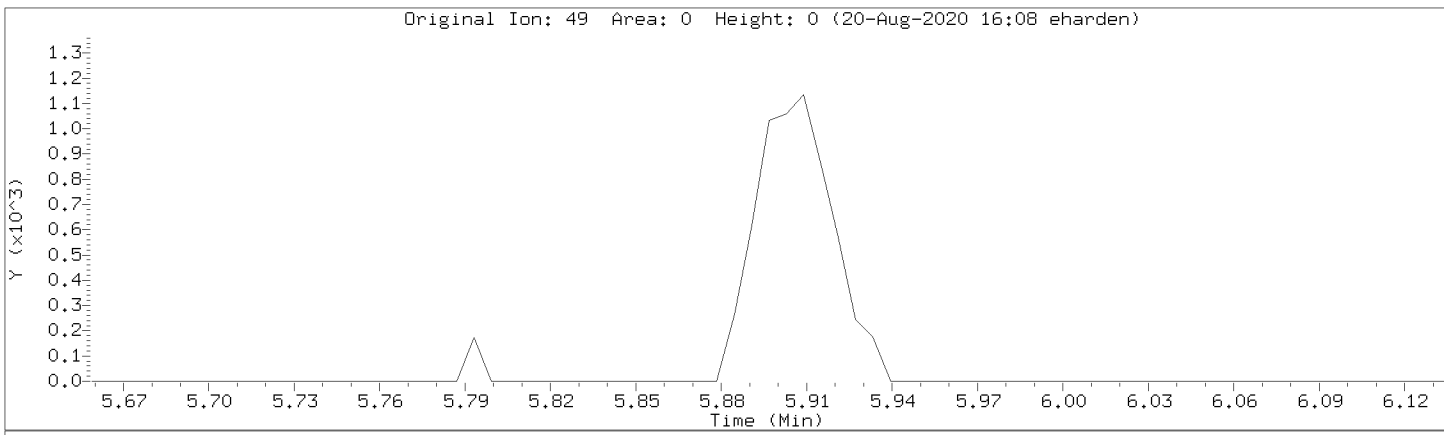
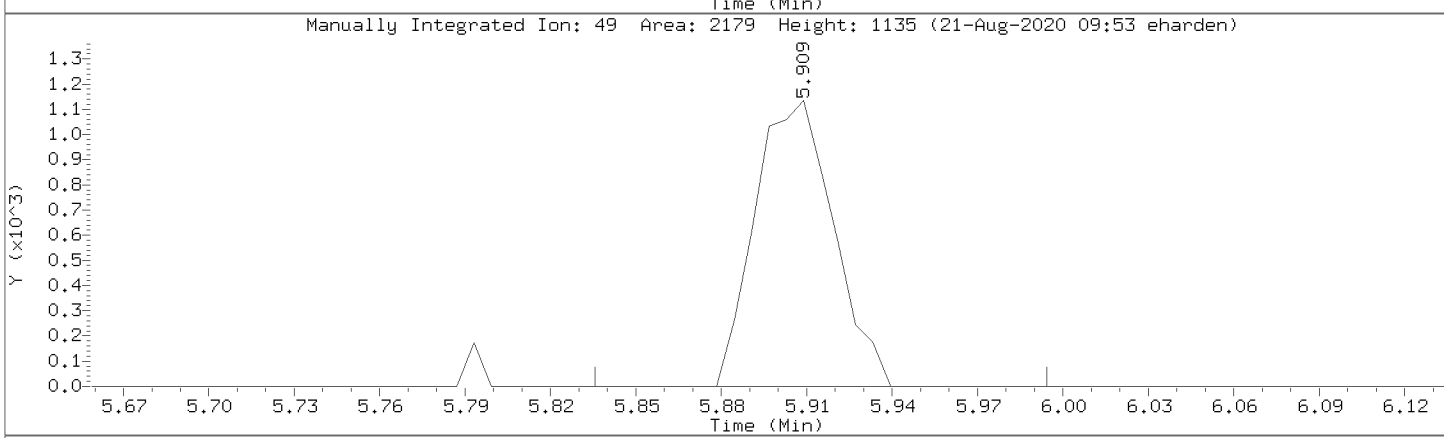
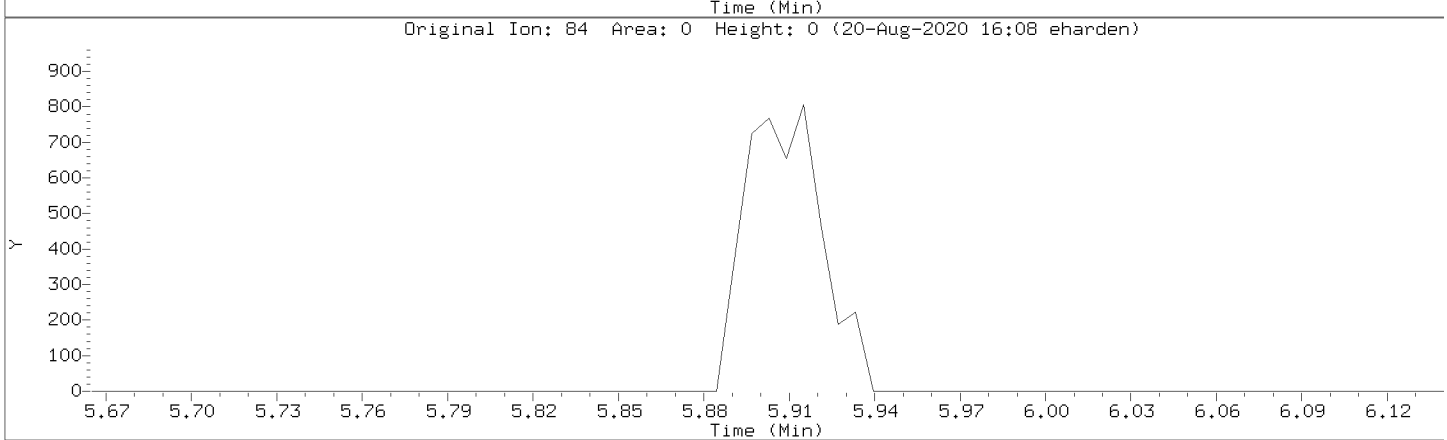
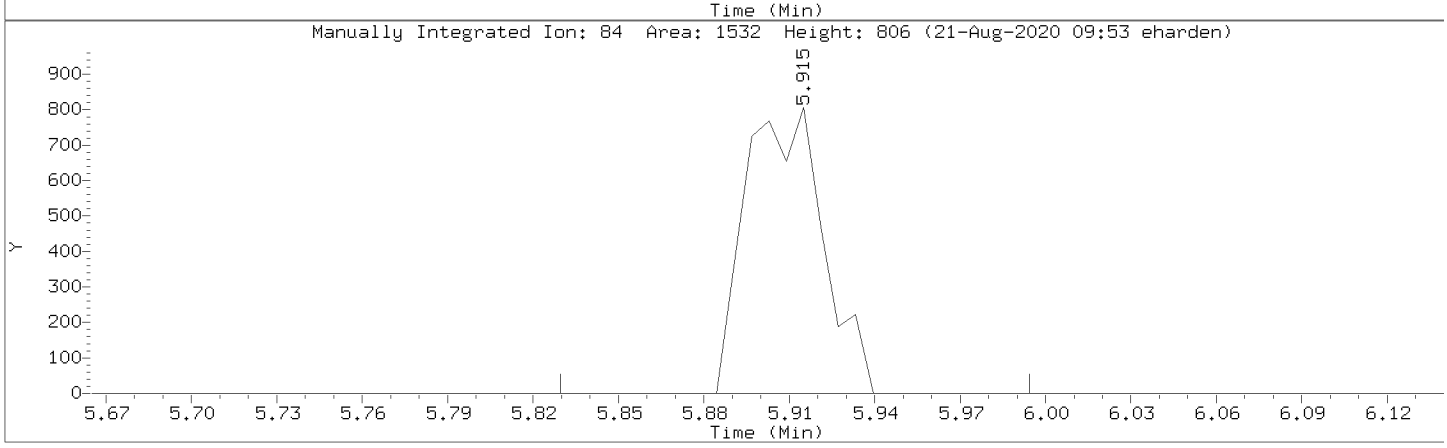
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2









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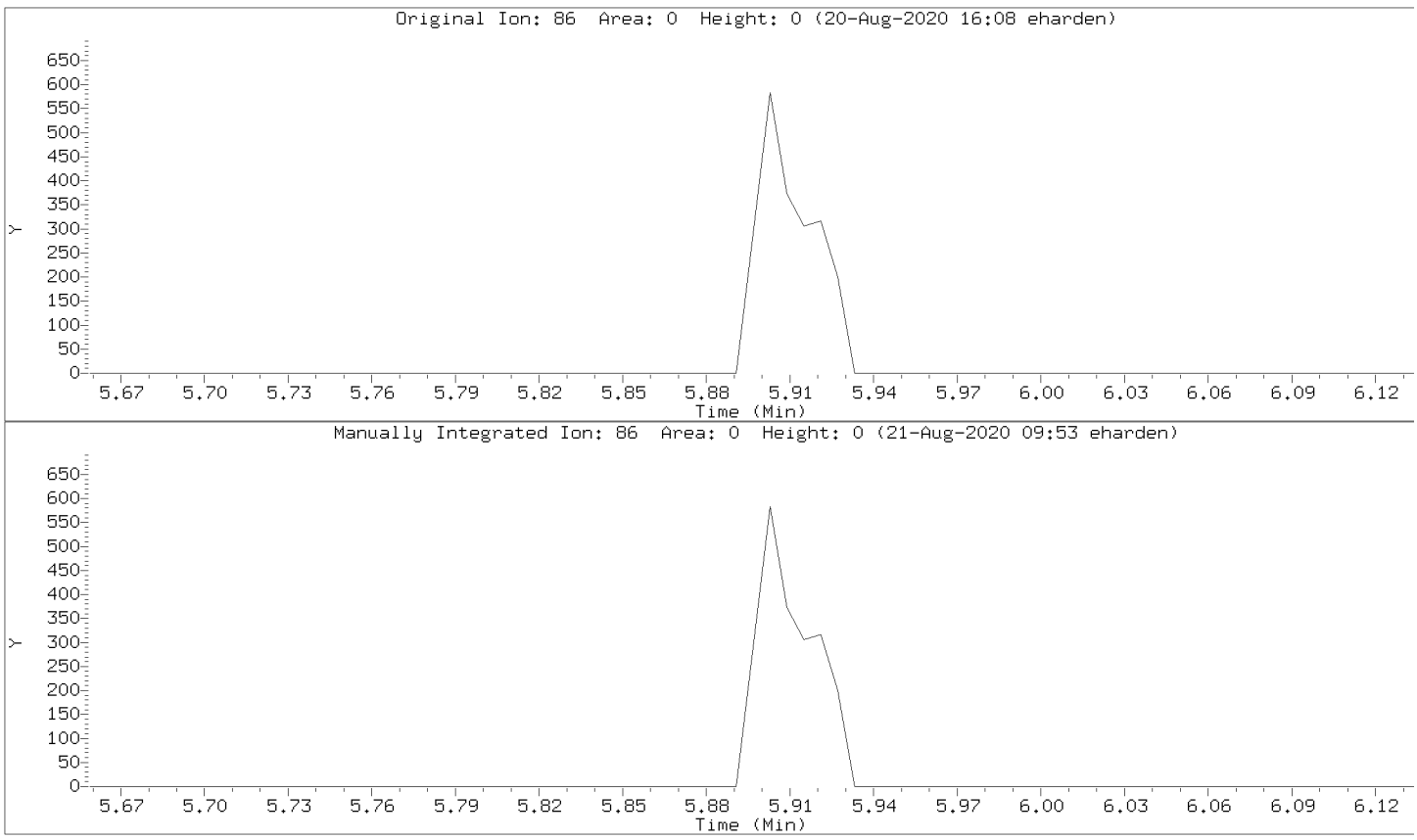
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2



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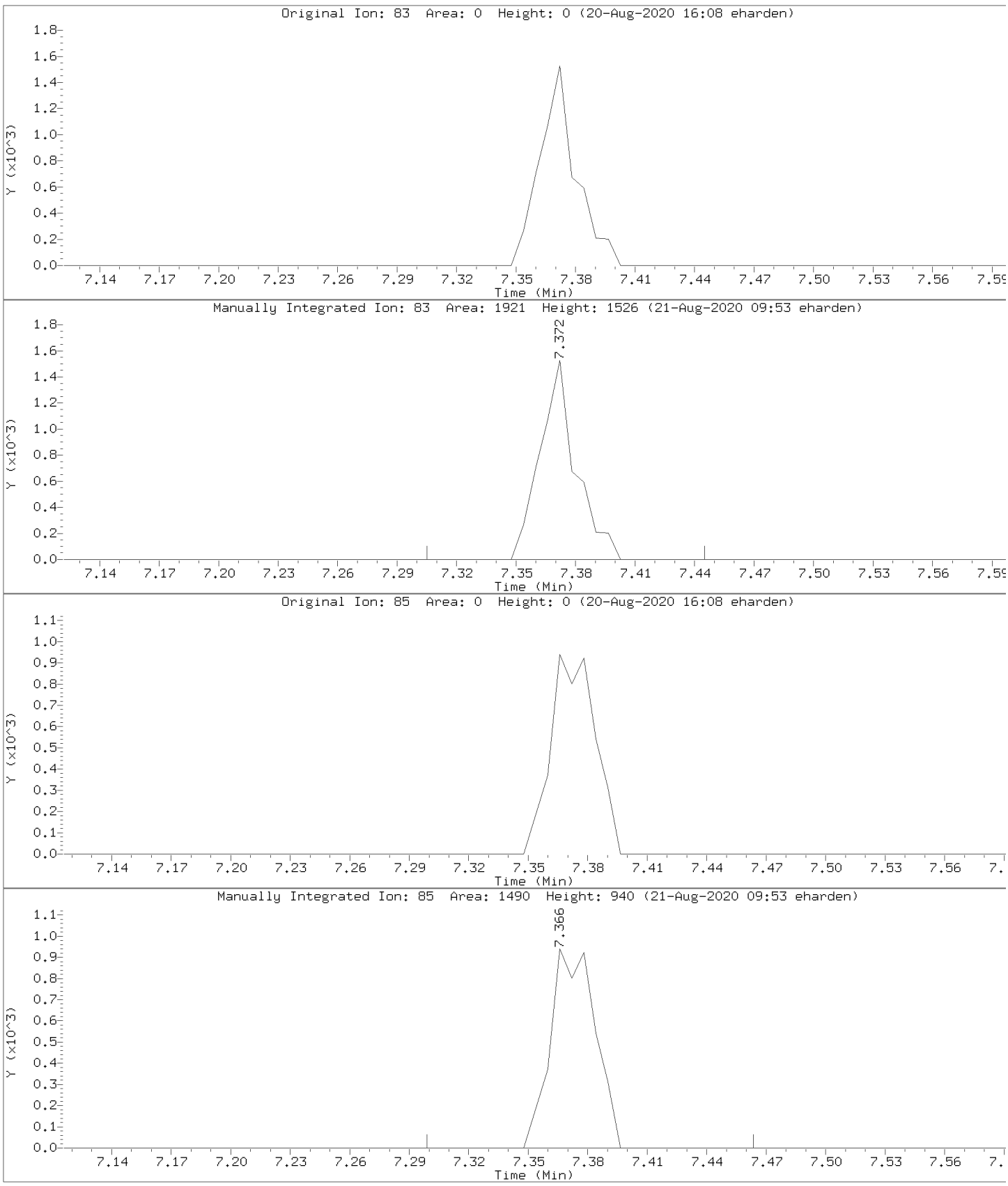
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3



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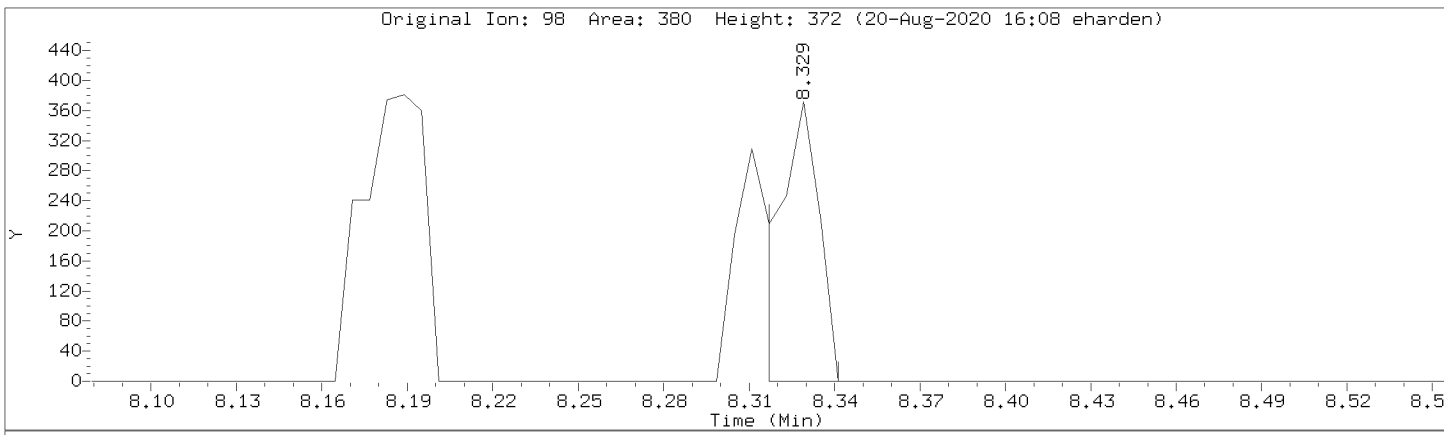
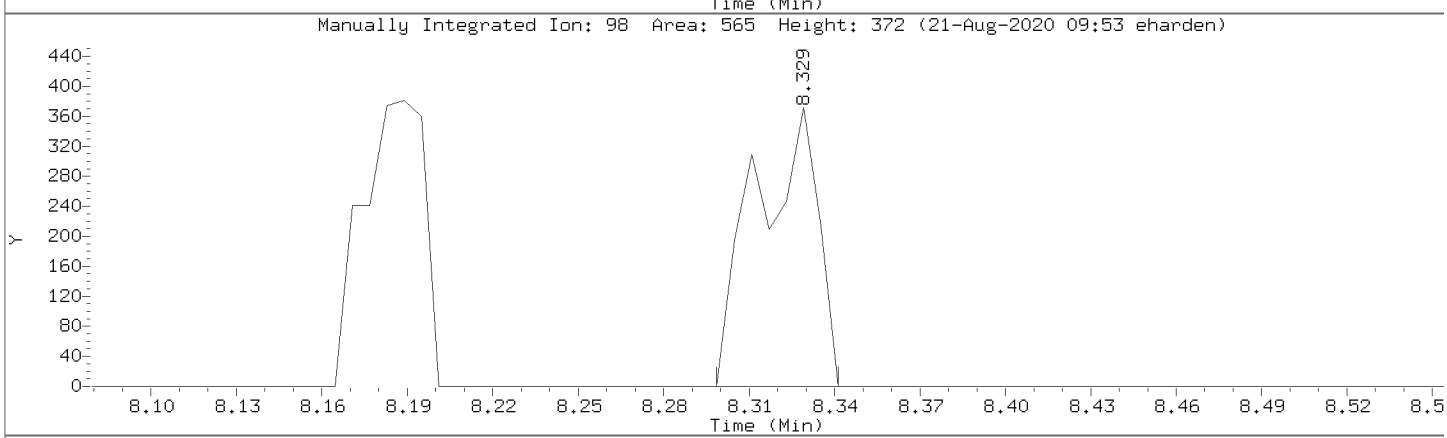
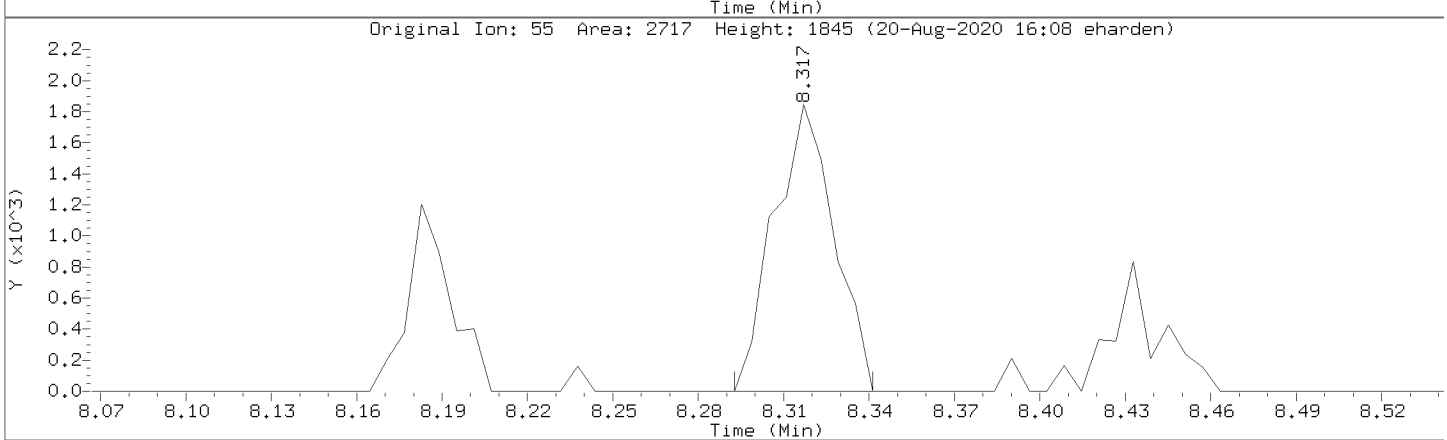
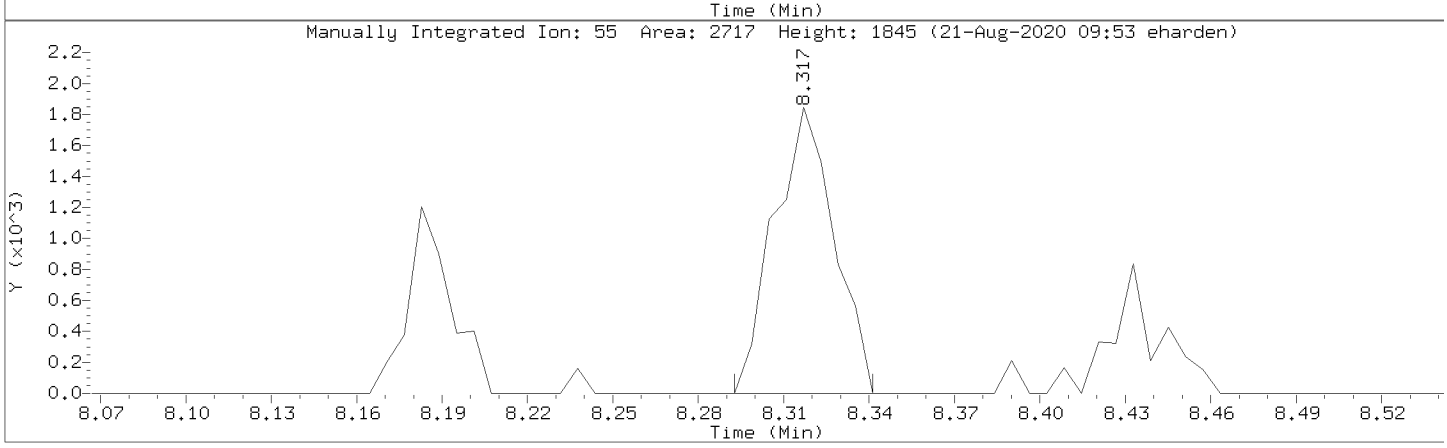
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Methylcyclohexane Review Code: LT
CAS Number: 108-87-2









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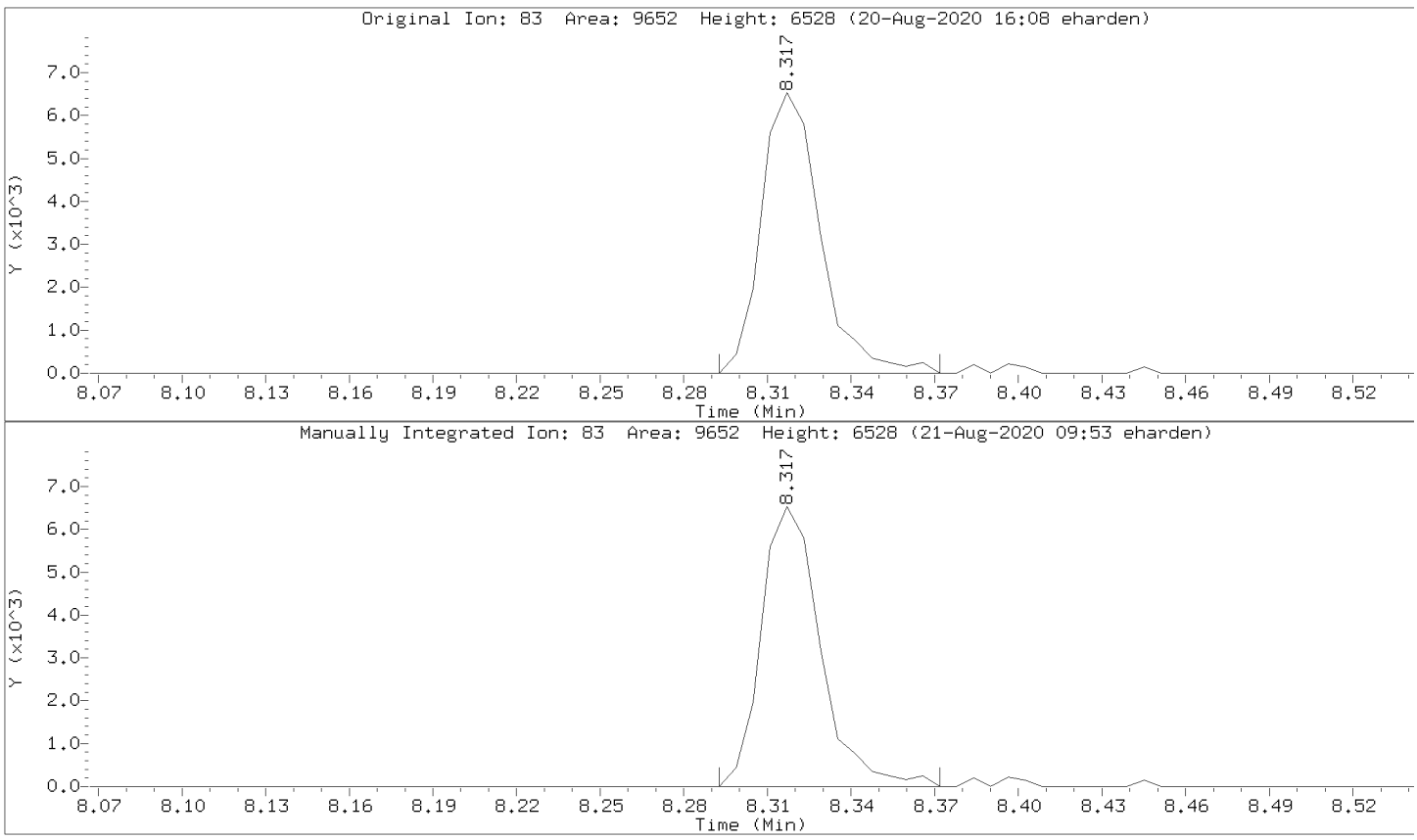
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2



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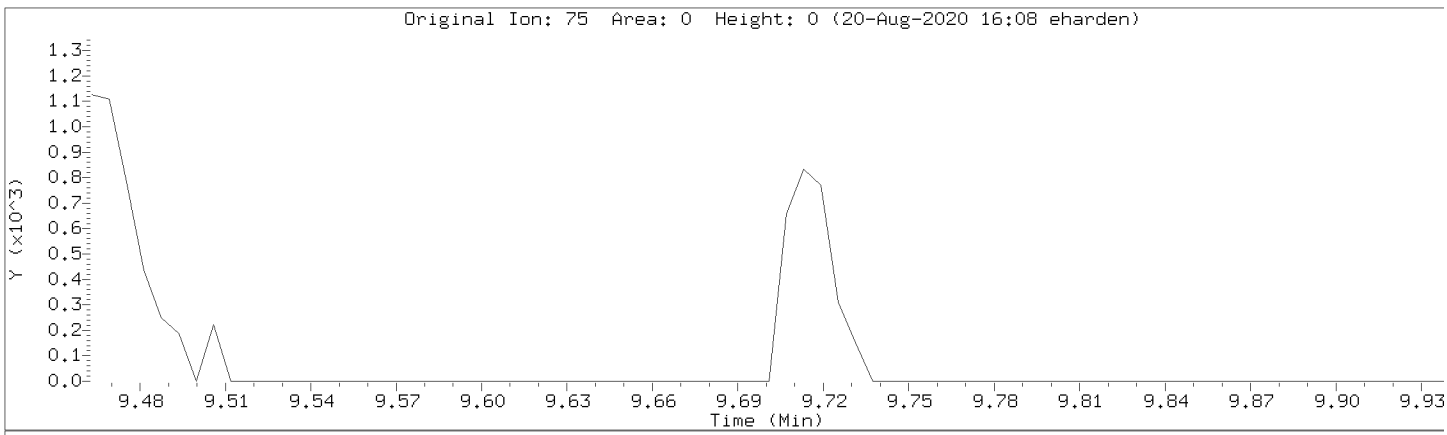
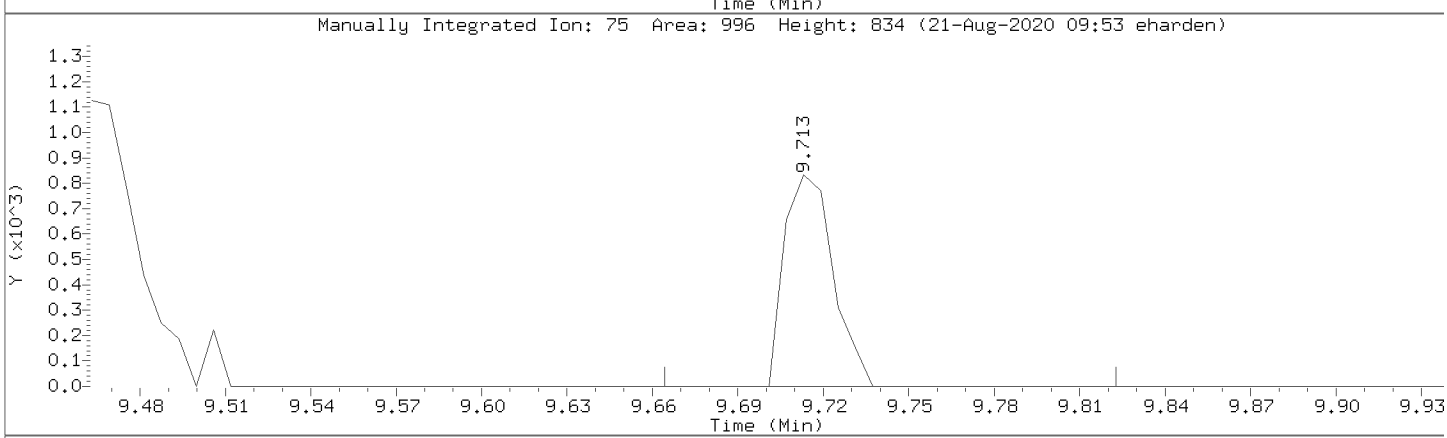
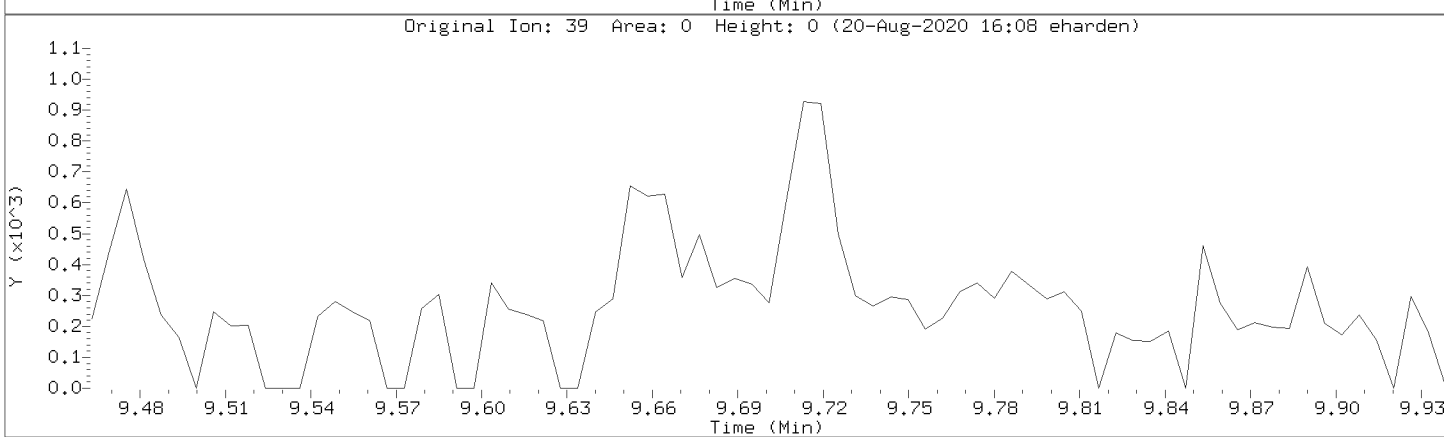
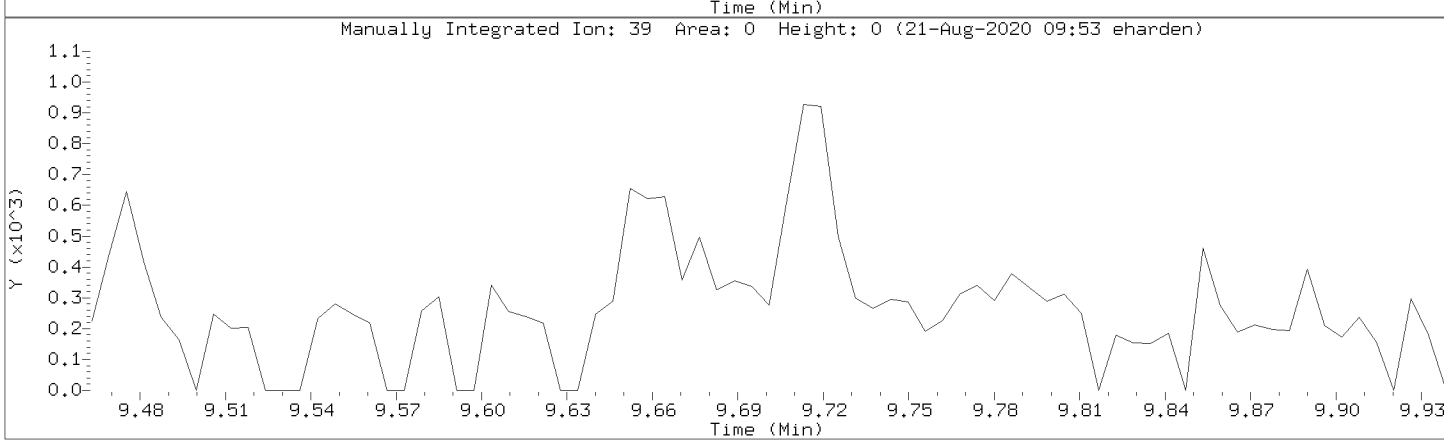
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: trans-1,3-Dichloropropene Review Code: NI
CAS Number: 10061-02-6









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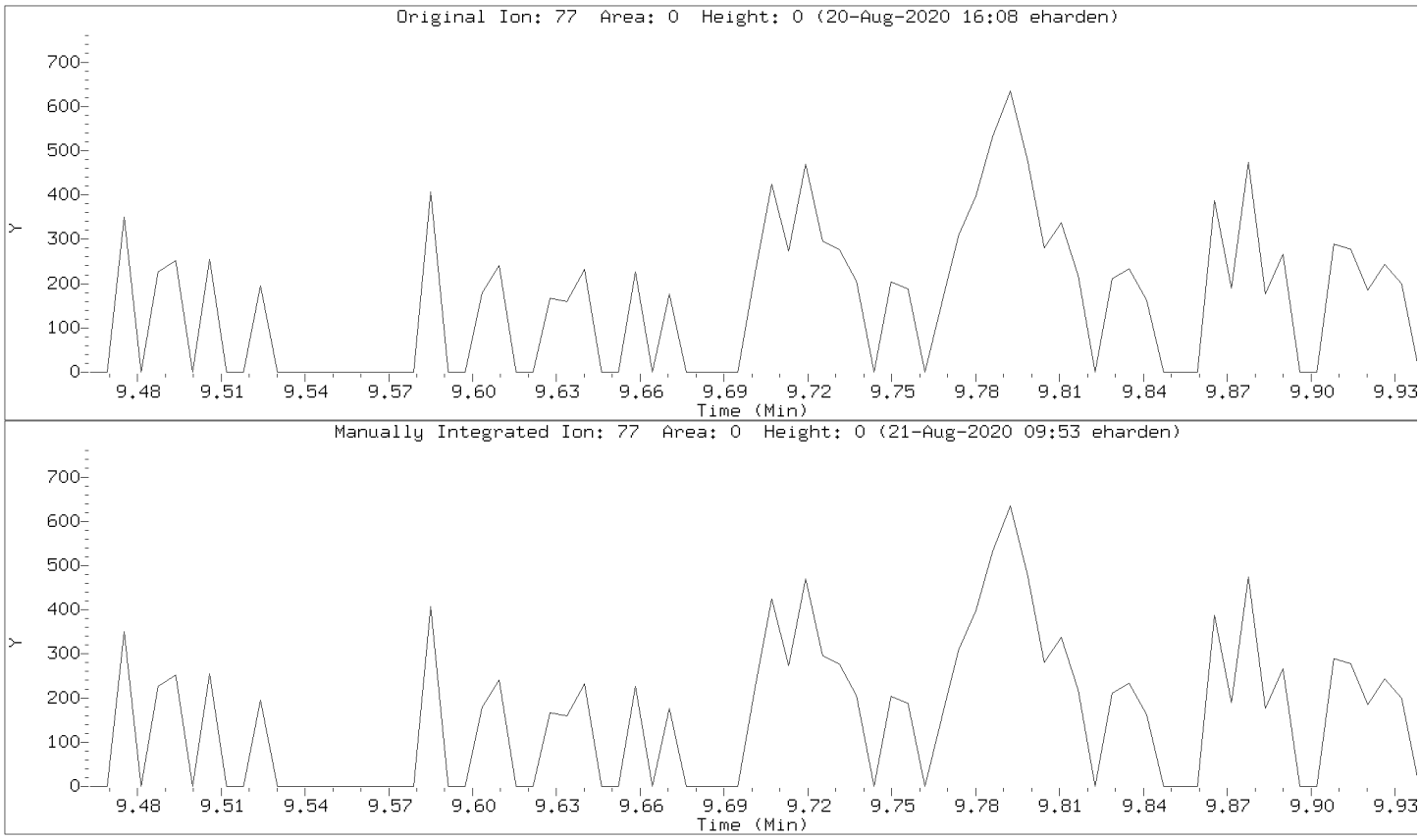
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2



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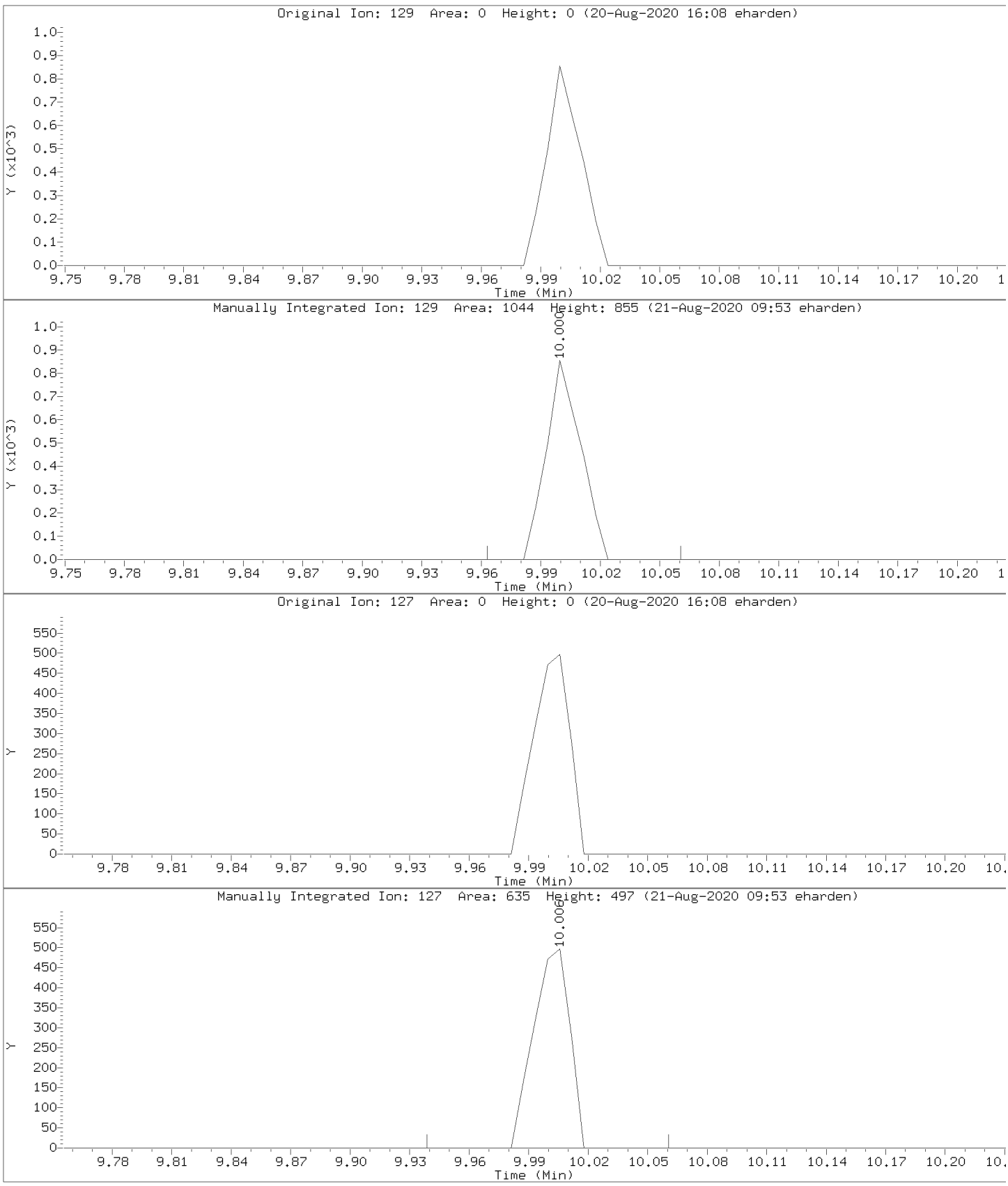
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Dibromochloromethane Review Code: NI
CAS Number: 124-48-1



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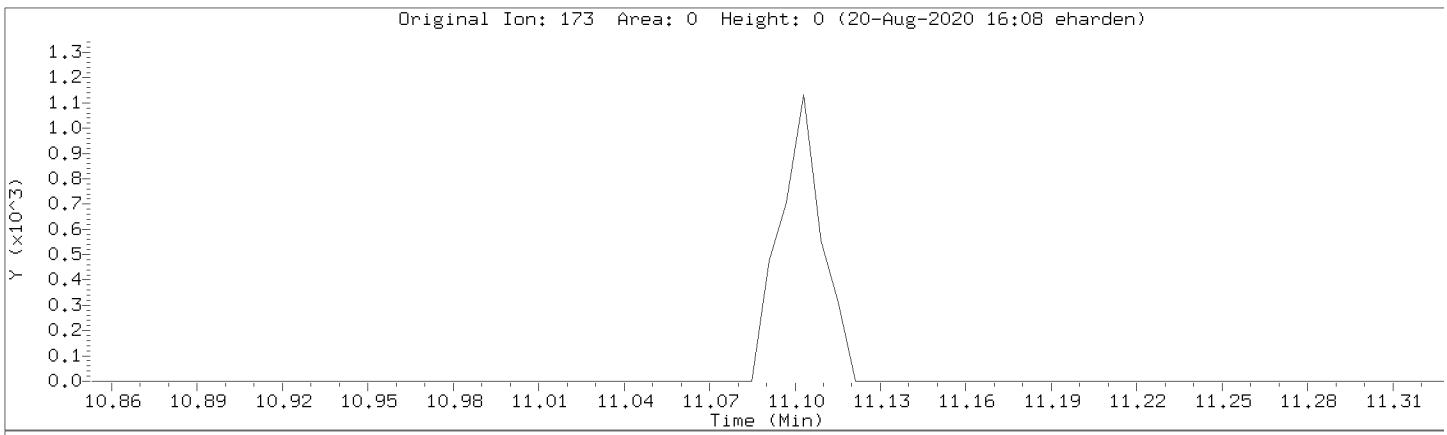
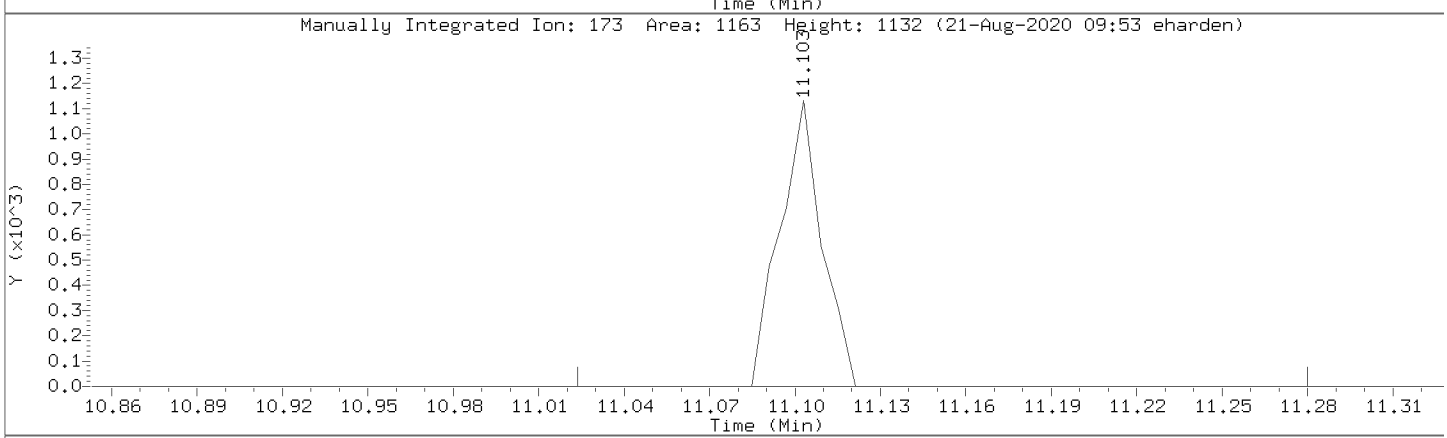
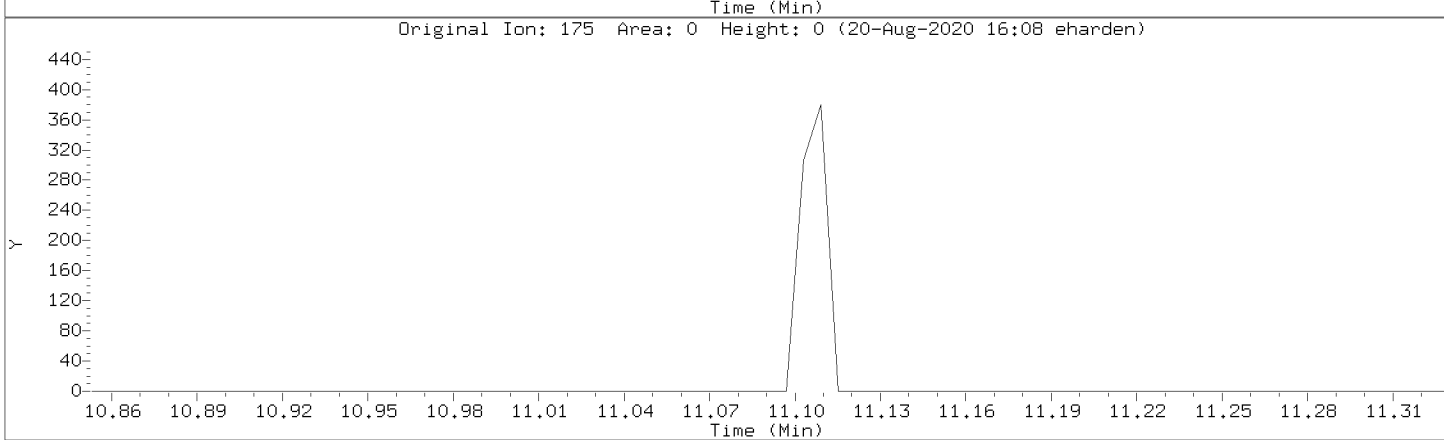
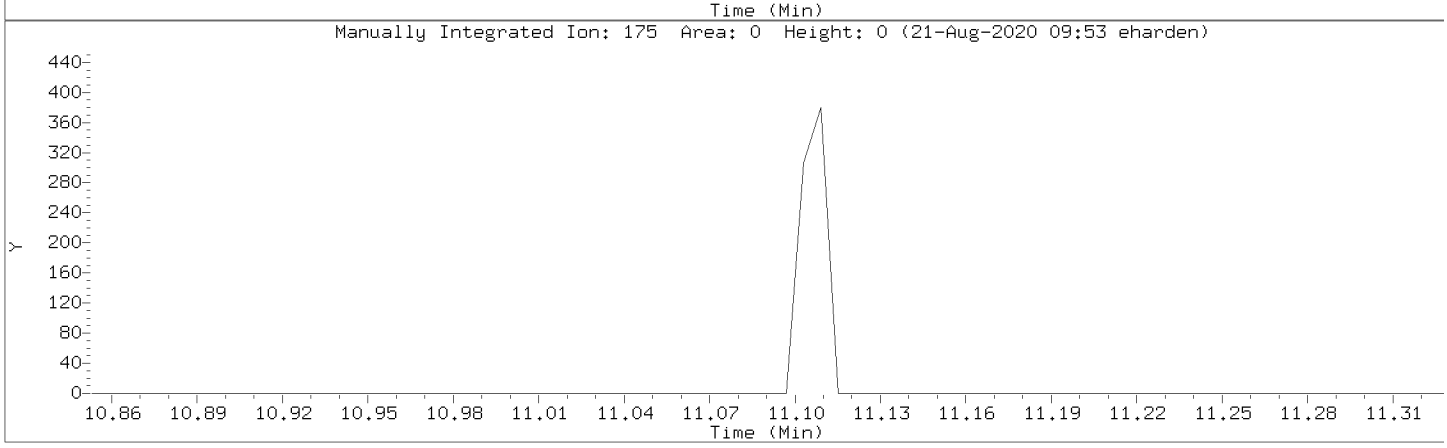
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2









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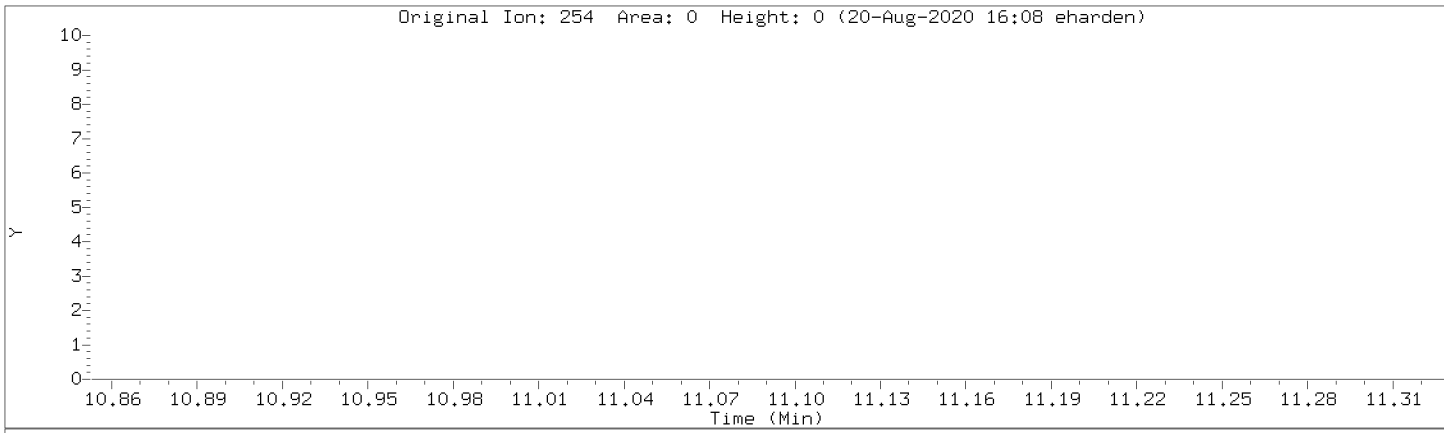
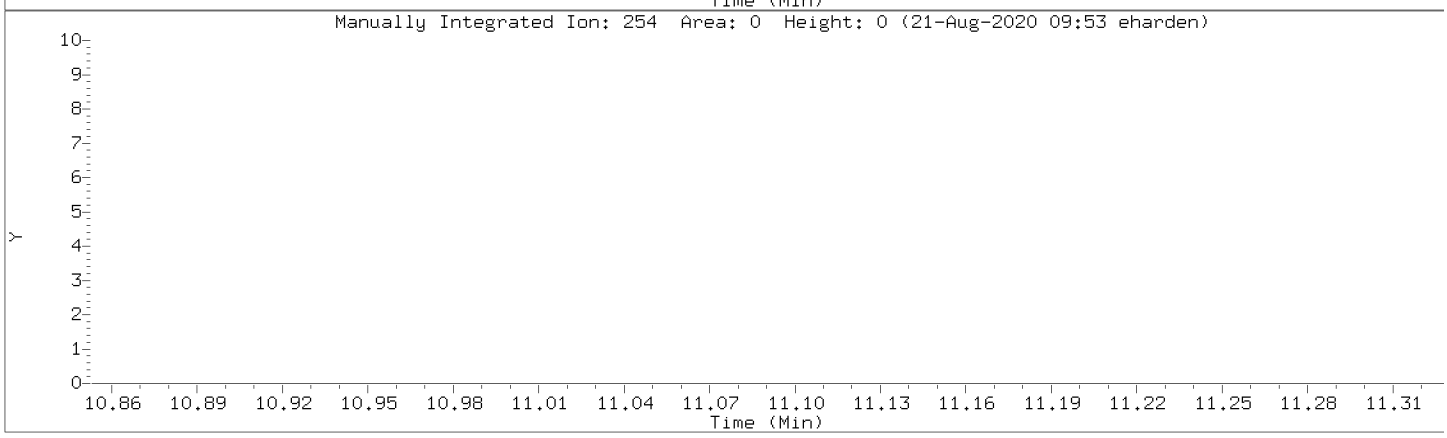
Lab Sample ID: CAL2





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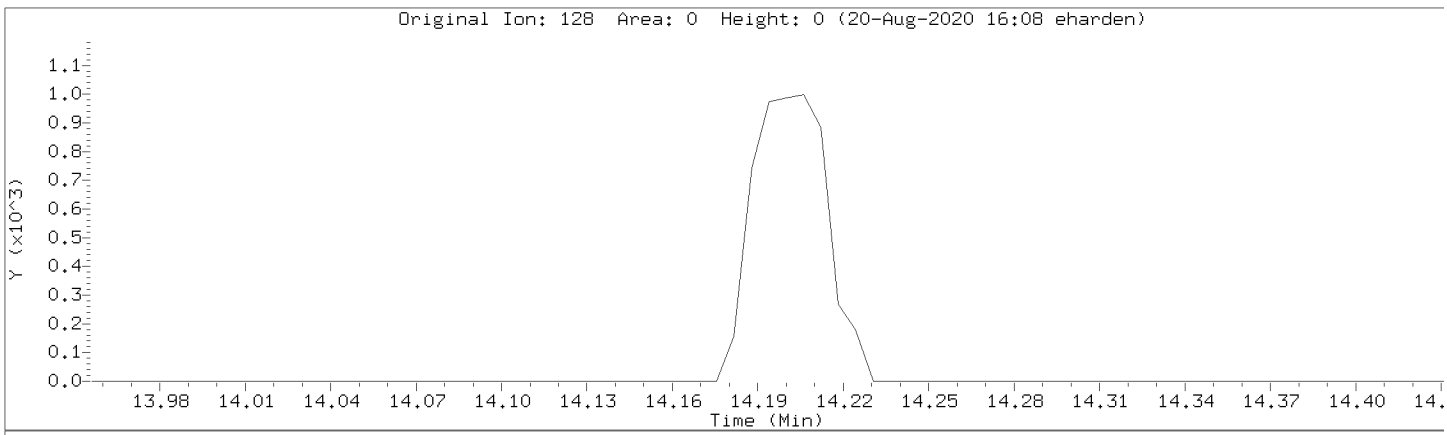
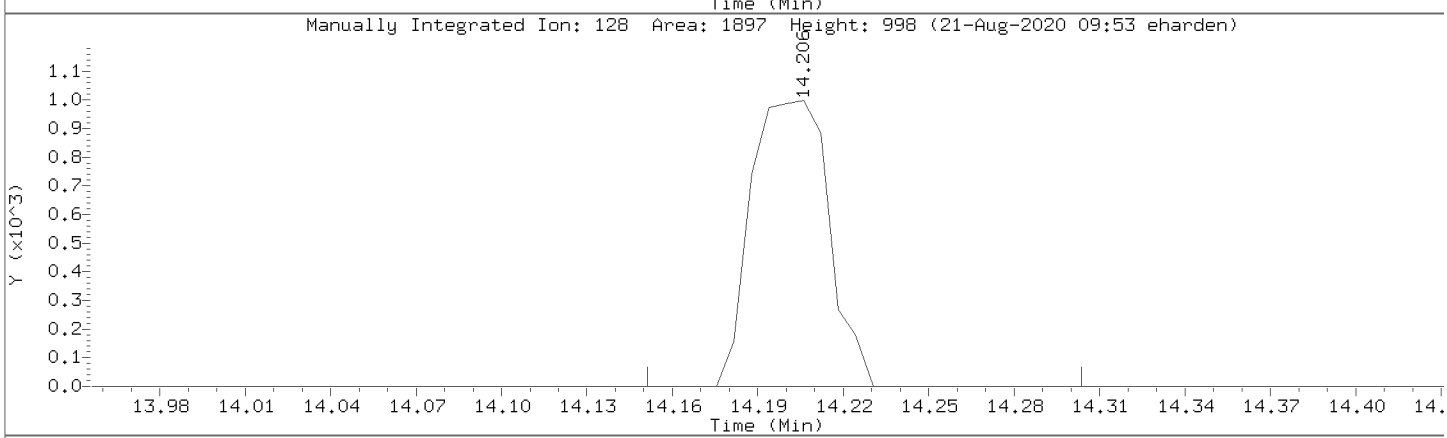
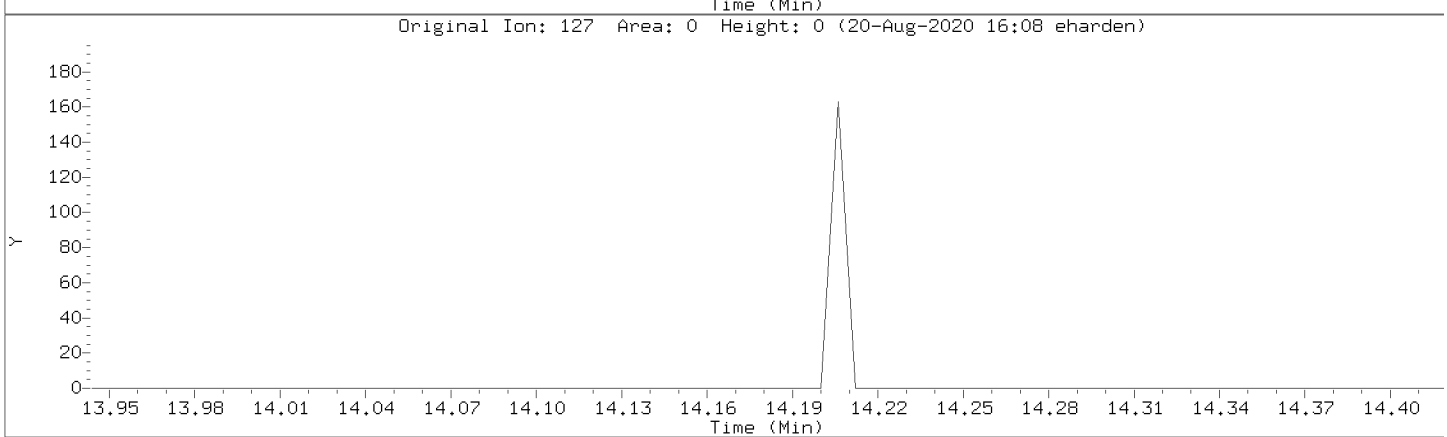
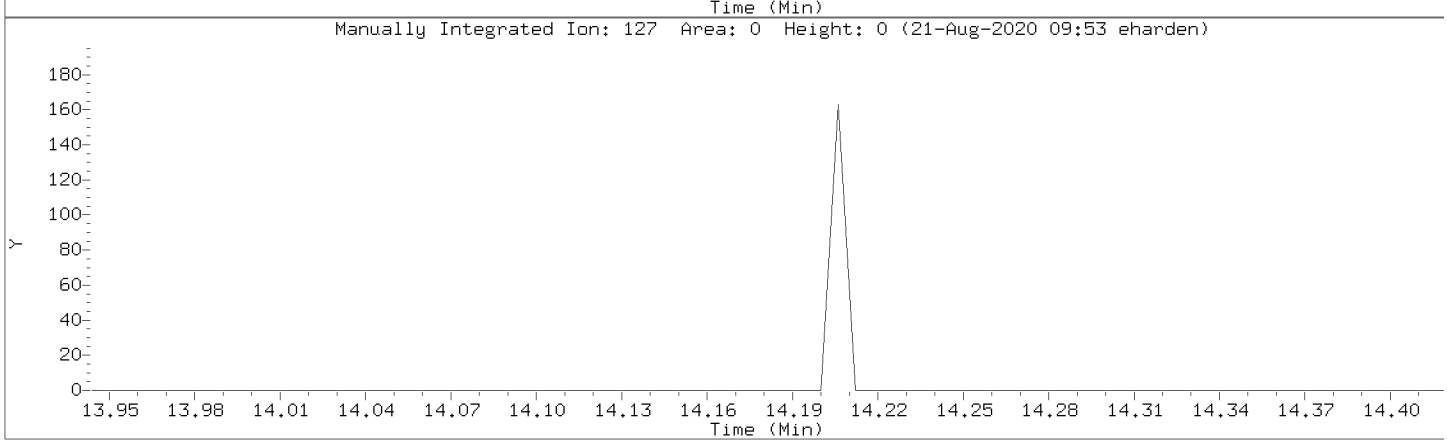
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Naphthalene Review Code: NI
CAS Number: 91-20-3









Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_05.D
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 20-AUG-2020 11:40
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal3,27239:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 11:40 Cal File: 082020_05.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.226	(0.409)	2789	1.00000	1.10(M)	LT
2 Chloromethane	50	3.537	3.543	(0.450)	5128	1.00000	0.923	
3 Vinyl chloride	62	3.696	3.702	(0.470)	2738	1.00000	1.09	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	2410	1.00000	1.08	
5 Bromomethane	94	4.195	4.195	(0.534)	6425	1.00000	0.381	
6 Chloroethane	64	4.360	4.360	(0.555)	891	1.00000	0.409(H)	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	2057	1.00000	1.29	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	810	1.00000	0.924	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	2503	1.00000	0.884	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	1938	1.00000	1.04	
11 Carbon disulfide	76	5.293	5.293	(0.673)	6625	1.00000	1.06	
12 Iodomethane	142	5.433	5.439	(0.691)	1071	1.00000	5.29(M)	NI
13 Acrolein	56	5.671	5.659	(0.722)	662	2.00000	2.27	
14 Allyl chloride	76	5.780	5.787	(0.736)	1021	1.00000	1.17	
15 Methylene Chloride	49	5.908	5.902	(0.752)	4045	1.00000	1.20(M)	NI
16 Acetone	43	5.982	5.976	(0.761)	5308	2.00000	1.50	
17 Methyl acetate	43	6.073	6.067	(0.773)	4622	2.00000	1.59	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	1993	1.00000	1.04	
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	6.158	6.165	(0.784)	4160	1.00000	0.933(T)	
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	6.640	6.640	(0.845)	2223	1.00000	0.834	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	3668	1.00000	0.987	
	24 Acrylonitrile	53	6.744	6.738	(0.858)	1850	2.00000	2.29	
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	2850	1.00000	1.04	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	3397	1.00000	1.18	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	1299	1.00000	1.08	
	29 Cyclohexane	56	7.335	7.335	(0.882)	1942	1.00000	0.757	
	30 Chloroform	83	7.378	7.372	(0.939)	4835	1.00000	1.15(M)	NI
	31 Ethyl acetate	43	7.439	7.433	(0.946)	4793	2.00000	2.02	
	32 Carbon tetrachloride	117	7.506	7.512	(0.902)	2447	1.00000	0.806	
	33 Tetrahydrofuran	42	7.536	7.536	(0.959)	2431	2.00000	1.81	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	134298	50.0000	55.3	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	3365	1.00000	0.978	
	36 2-Butanone (MEK)	43	7.634	7.628	(0.971)	4274	2.00000	2.36	
	37 1,1-Dichloropropene	75	7.664	7.658	(0.922)	2129	1.00000	0.891(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	210970	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	6671	1.00000	0.865	
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	3260	2.00000	1.78	
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25649	50.0000	58.7	
	44 1,2-Dichloroethane	62	8.042	8.036	(1.023)	3985	1.00000	1.21	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	3749	1.00000	0.954	
	46 Trichloroethene	130	8.317	8.317	(1.000)	2071	1.00000	0.982	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	301510	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	802	1.00000	0.802	
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.670	8.670	(1.043)	1683	1.00000	0.937	
	51 1,2-Dichloropropane	63	8.743	8.737	(1.051)	2197	1.00000	0.998	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	2455	1.00000	0.776	
	53 Methyl methacrylate	69	8.829	8.823	(1.062)	871	1.00000	1.43(TH)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	1689	2.00000	3.22	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	2472	1.00000	0.804	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	322180	50.0000	49.6	
	58 Toluene	91	9.414	9.414	(1.132)	7222	1.00000	0.960	
	59 2-Nitropropane	43	9.609	9.603	(1.155)	1386	1.00000	1.35(MH)	LT
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	2471	1.00000	0.805(M)	NI
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	1805	1.00000	0.983	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	1570	1.00000	0.810(M)	WP
	64 1,1,2-Trichloroethane	83	9.841	9.847	(1.183)	1831	1.00000	0.961	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	2212	1.00000	0.869	
	66 1,3-Dichloropropane	76	10.066	10.060	(1.210)	2595	1.00000	0.893	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	2135	1.00000	0.978	
	68 2-Hexanone	43	10.280	10.280	(1.236)	3979	2.00000	1.56	
	69 Ethylbenzene	91	10.560	10.554	(1.000)	5759	1.00000	0.823	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	267604	50.0000		
	71 Chlorobenzene	112	10.572	10.578	(1.001)	4923	1.00000	0.954	
	72 1,1,1,2-Tetrachloroethane	131	10.603	10.609	(1.004)	2420	1.00000	1.11	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	7396	2.00000	1.41	
	74 o-Xylene	106	10.987	10.993	(1.040)	1785	1.00000	0.729	
	75 Styrene	104	11.036	11.029	(1.045)	2626	1.00000	0.641	
	76 Bromoform	173	11.103	11.103	(1.051)	2312	1.00000	0.956(M)	NI

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.231	11.225	(1.063)	2647	1.00000	0.712	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	104502	50.0000	47.6	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	1137	1.00000	1.29	
80 n-Propylbenzene	91	11.529	11.523	(1.092)	6737	1.00000	0.785	
81 Bromobenzene	156	11.584	11.578	(1.097)	2261	1.00000	0.825	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	2955	1.00000	1.03(H)	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	3733	1.00000	0.775	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	1264	1.00000	0.680	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	1146	1.00000	0.628	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	3865	1.00000	0.624	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	2680	1.00000	0.912	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	456	1.00000	0.662(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	3605	1.00000	0.760	
91 1,2,4-Trimethylbenzene	105	11.974	11.968	(0.970)	3078	1.00000	0.634	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	3627	1.00000	0.628	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	3605	1.00000	0.760	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	3270	1.00000	0.850	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	145817	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	4290	1.00000	1.00	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	4060	1.00000	0.799	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	4197	1.00000	1.00	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	659	1.00000	1.38	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	1405	1.00000	1.08	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	2610	1.00000	0.944	
102 Naphthalene	128	14.200	14.193	(1.151)	3463	1.00000	0.729	
103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	2401	1.00000	0.899	

QC Flag Legend

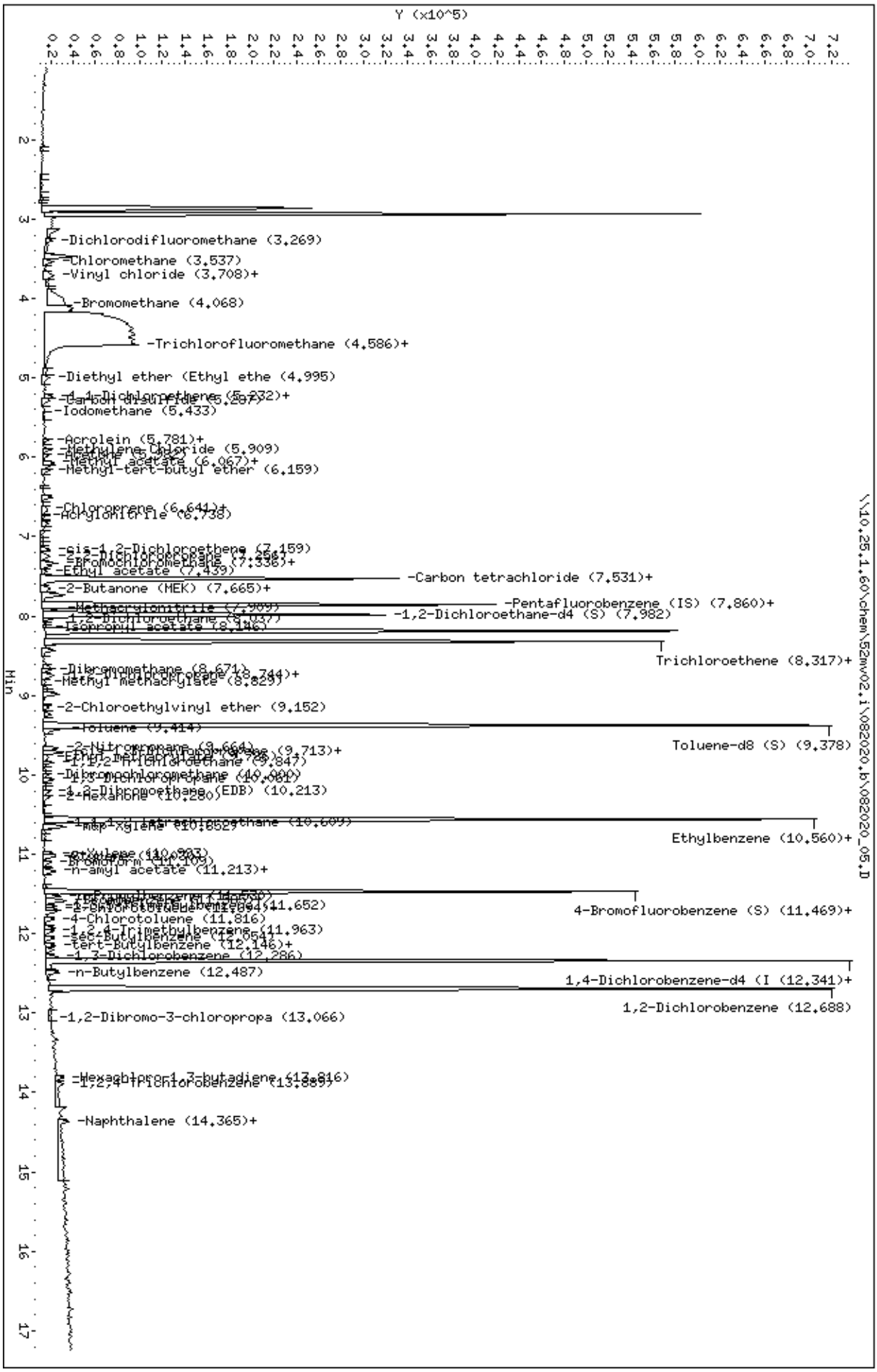
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_05.D
Date : 20-AUG-2020 11:40
Client ID: CAL3
Sample Info: CAL3,27239:1
Purge Volume: 5.0
Column phase: RTX-VMS

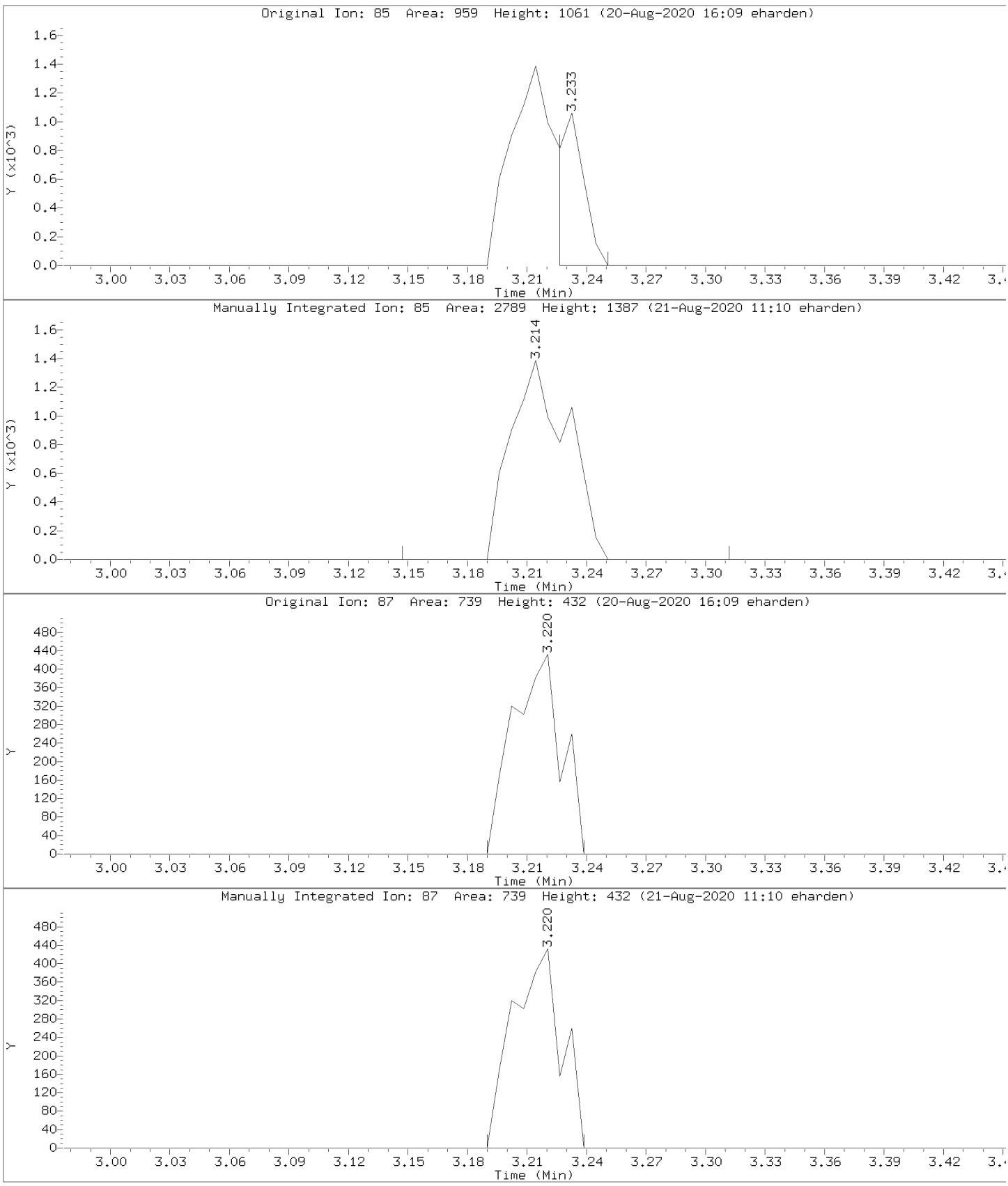
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Page 4

Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_05.D
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



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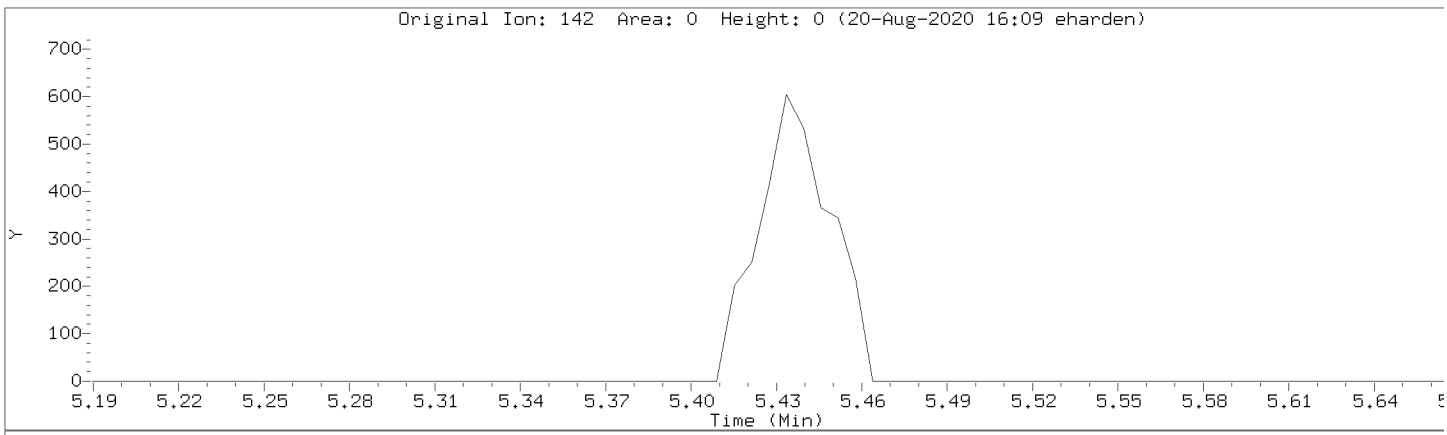
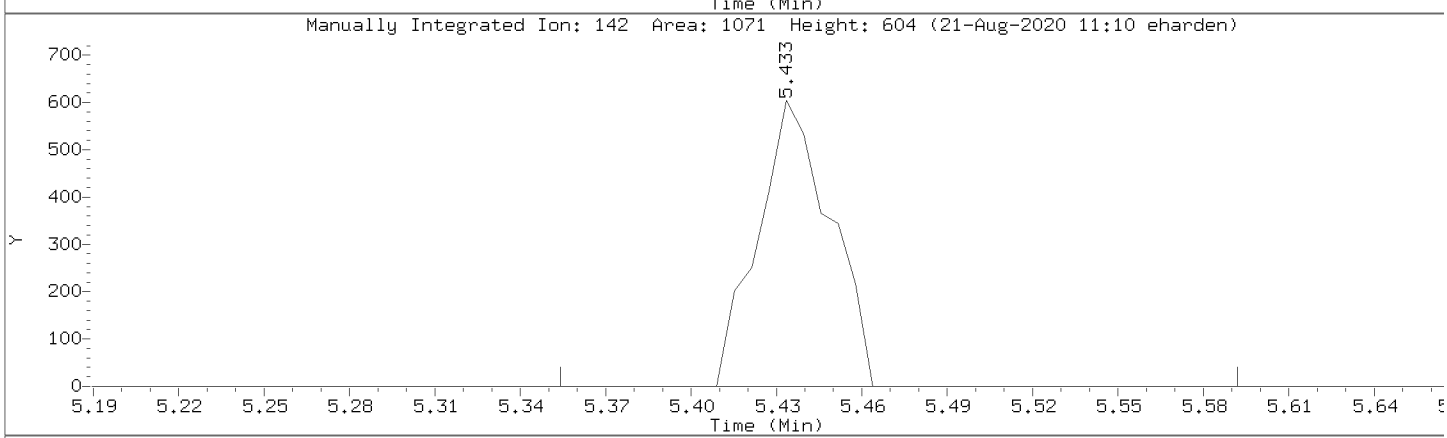
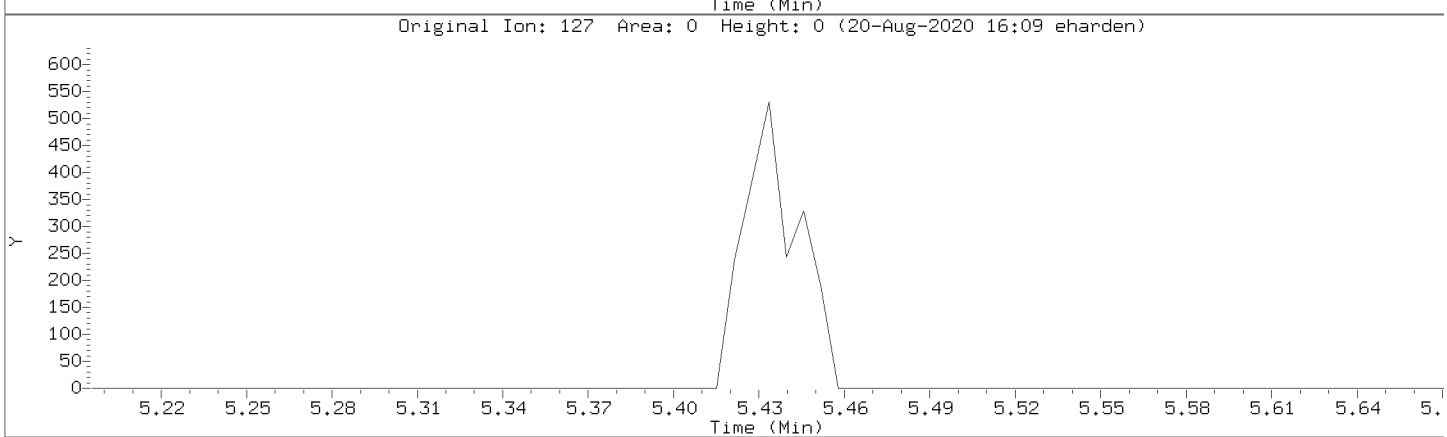
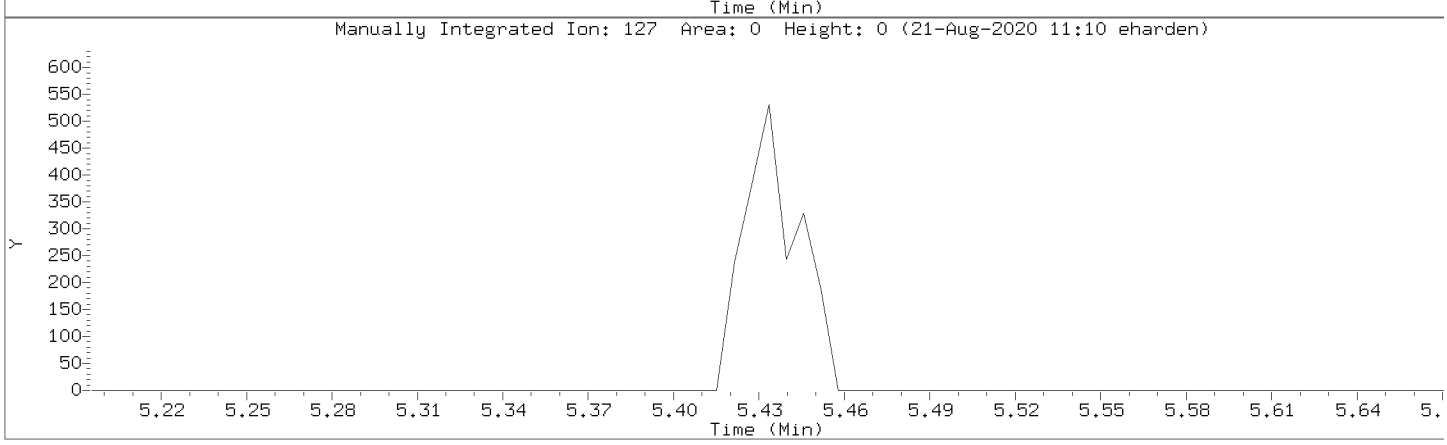
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4









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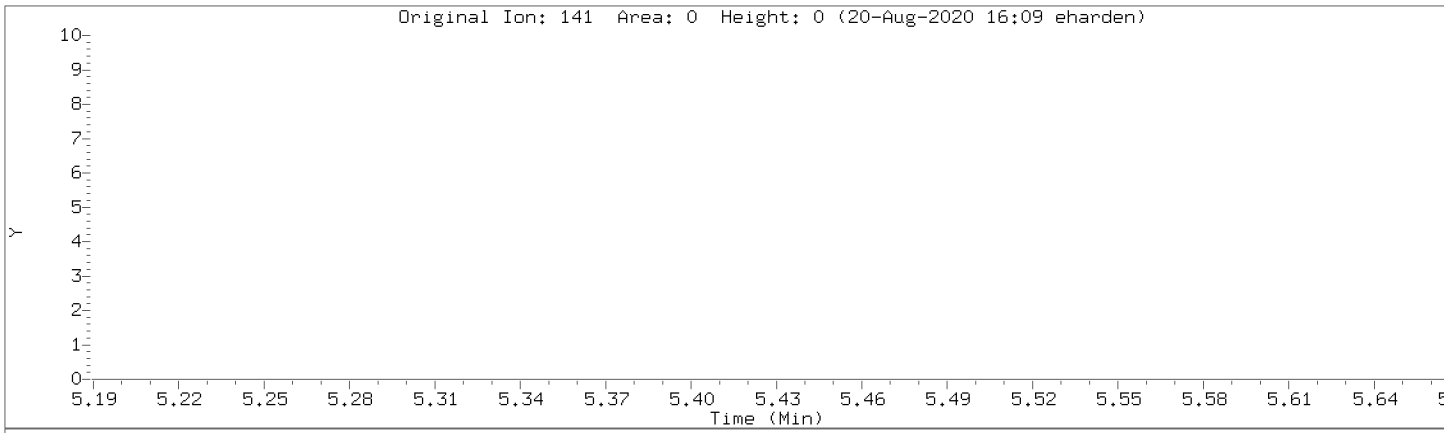
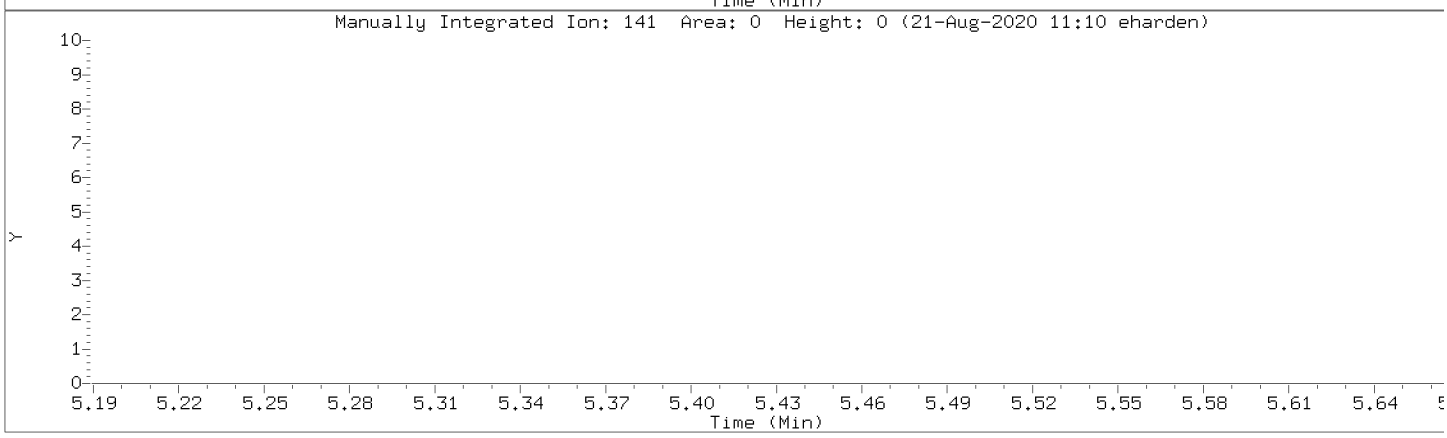
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3





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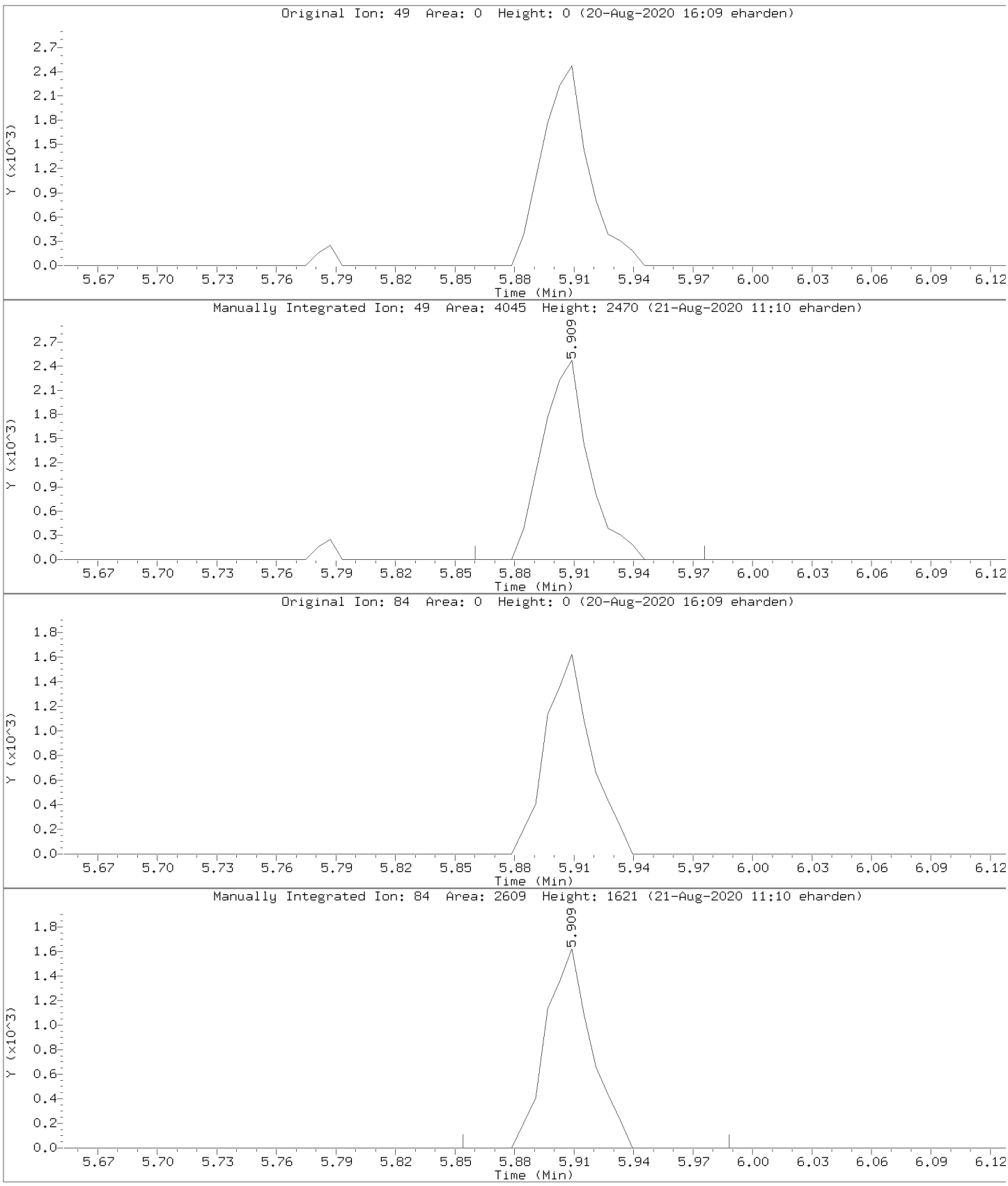
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2



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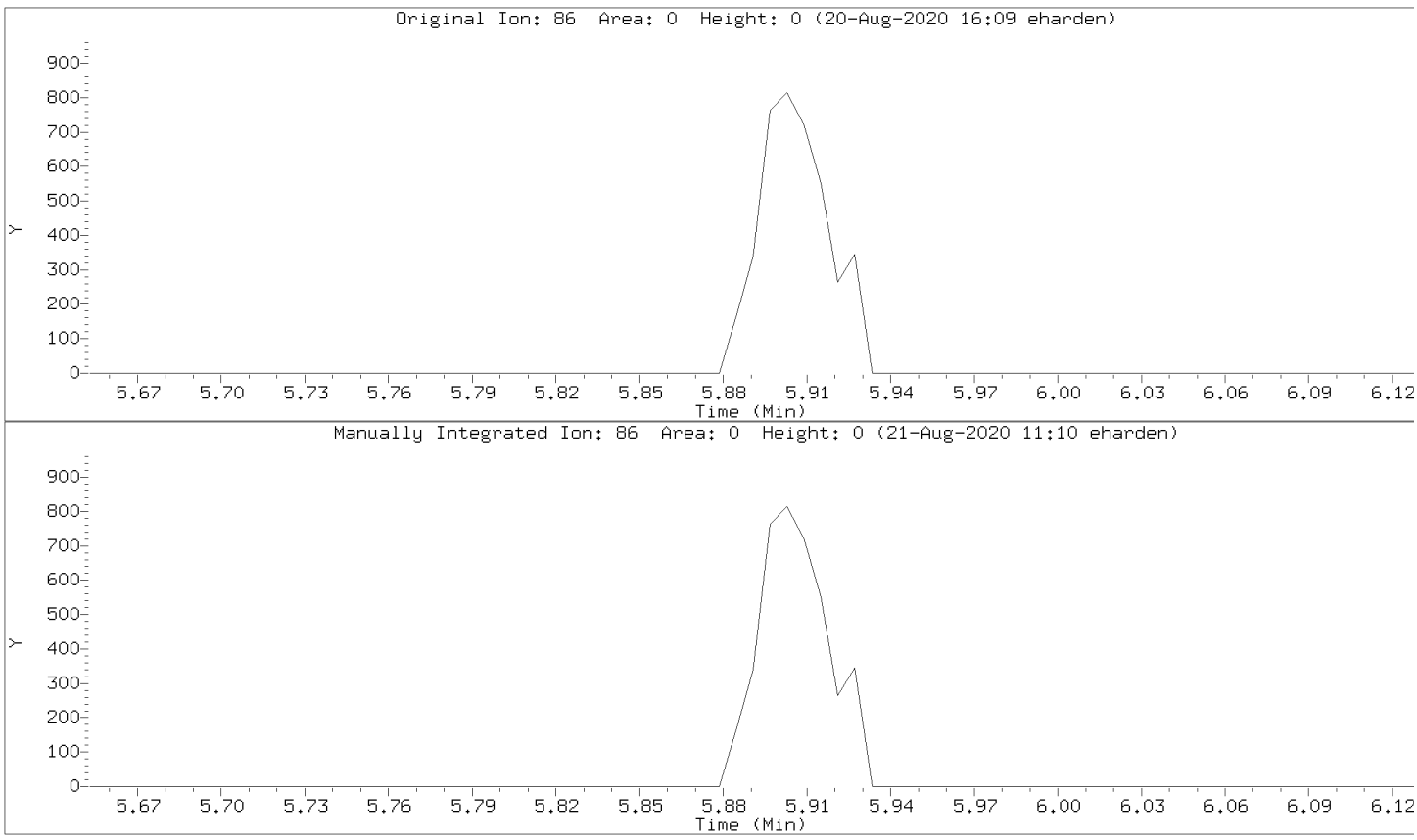
Lab Sample ID: CAL3



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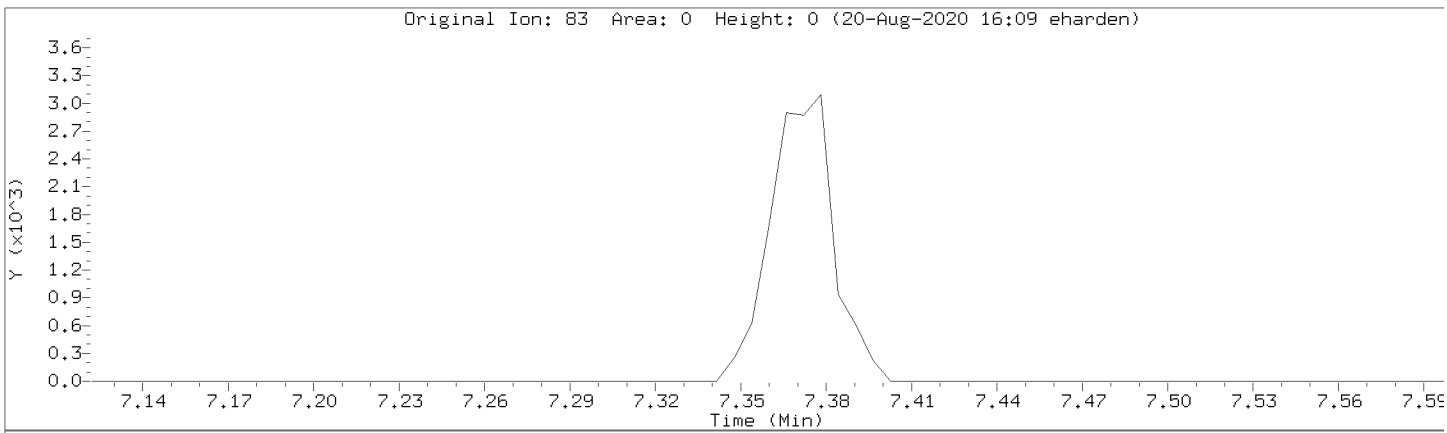
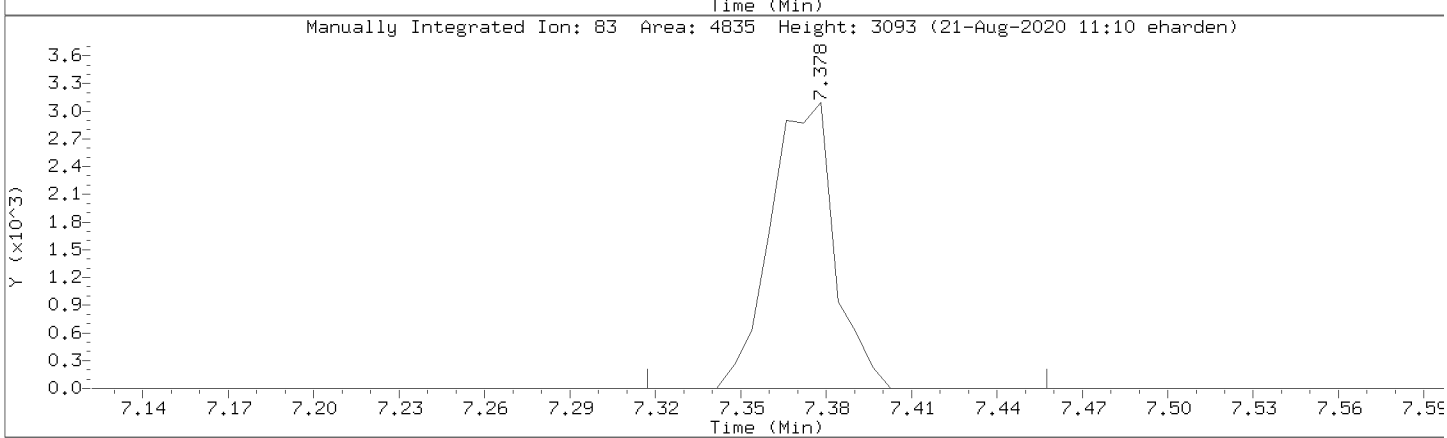
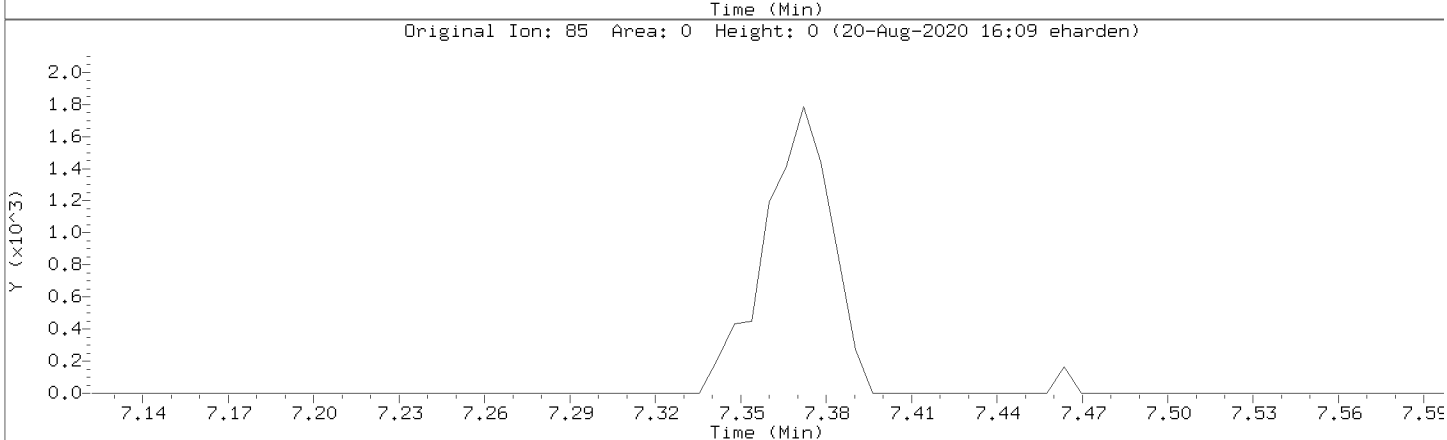
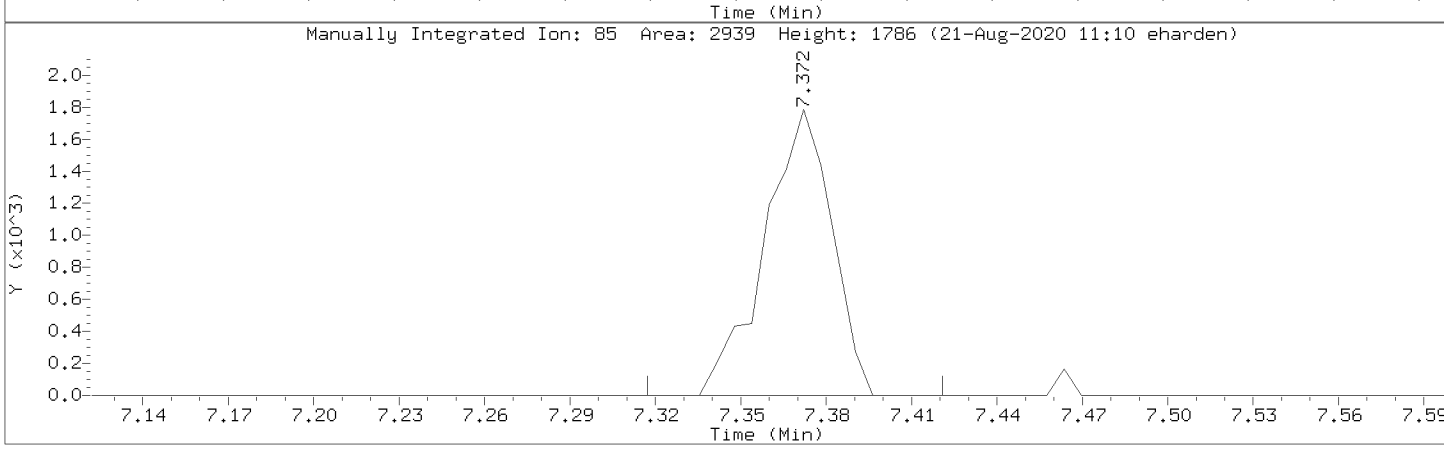
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3









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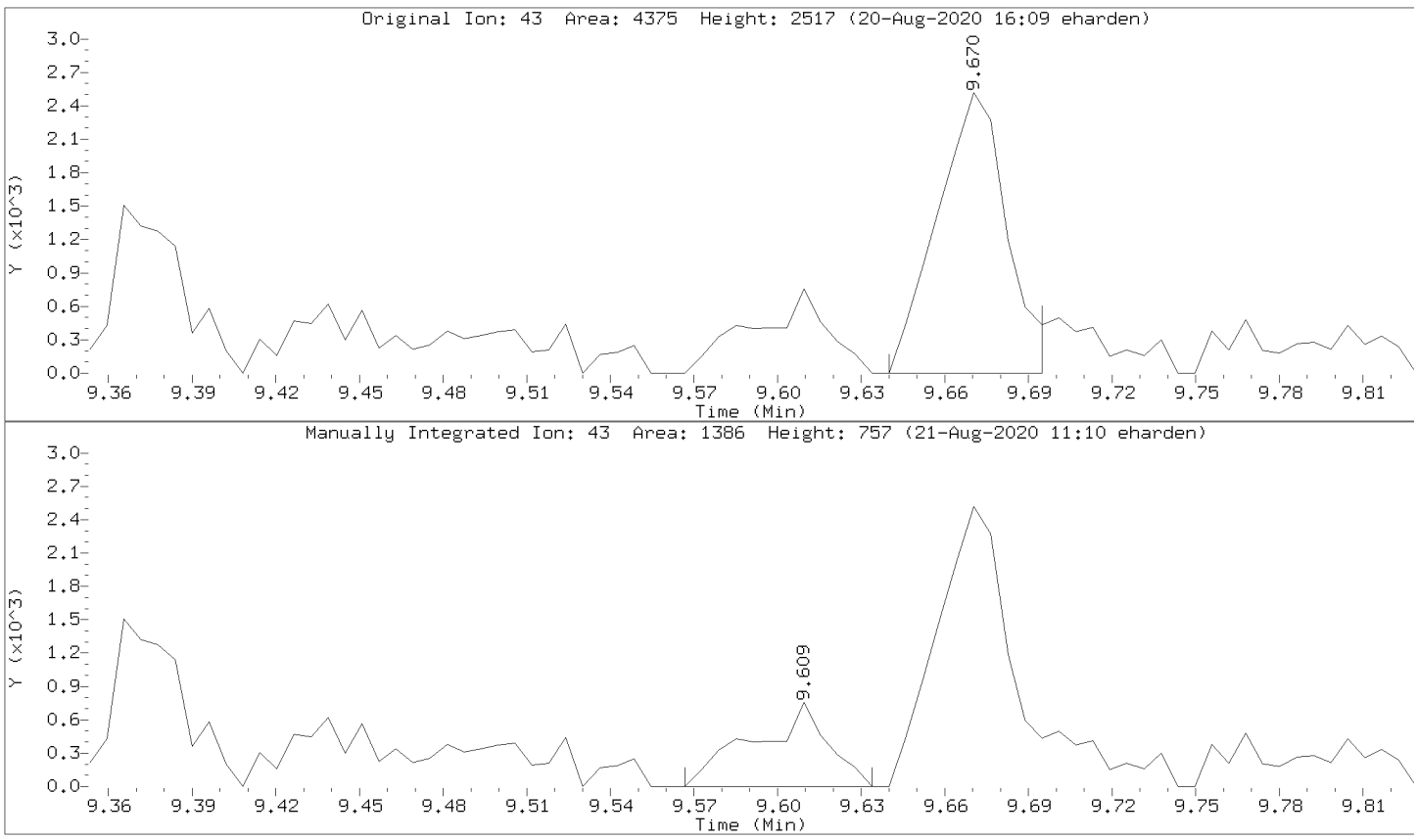
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: 2-Nitropropane Review Code: LT
CAS Number: 79-46-9



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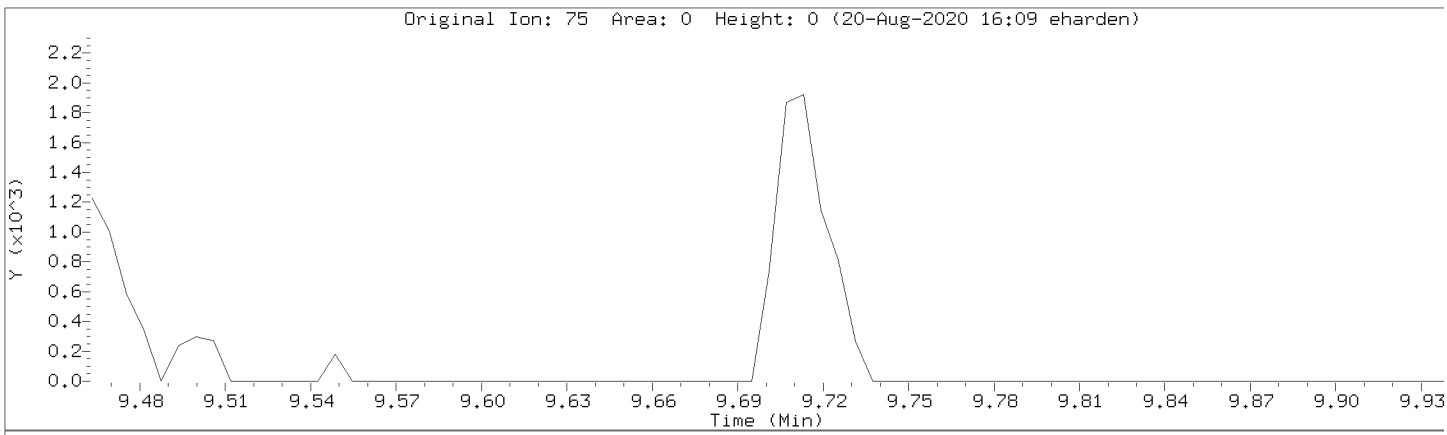
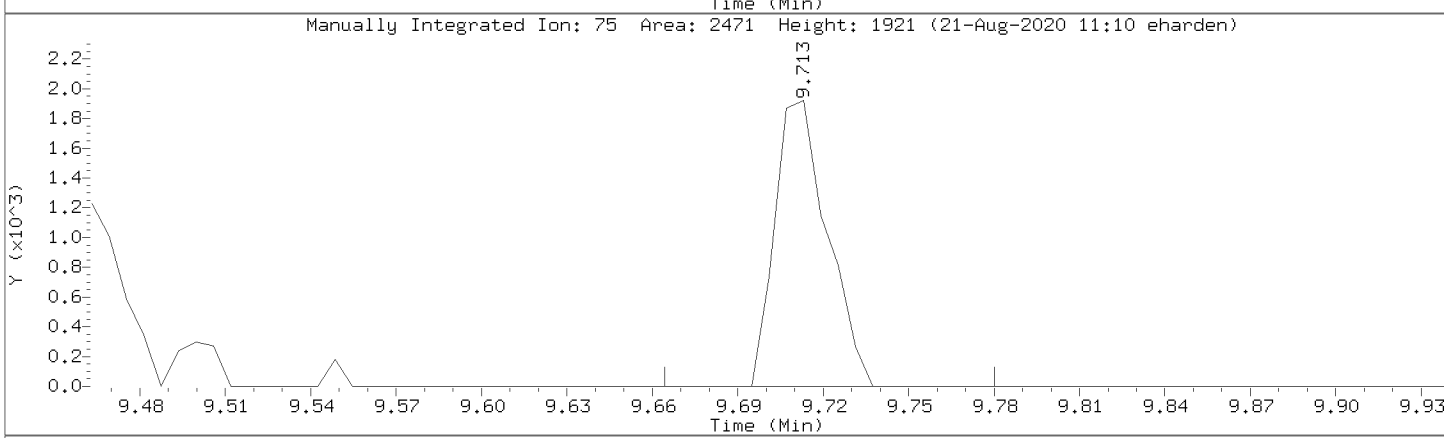
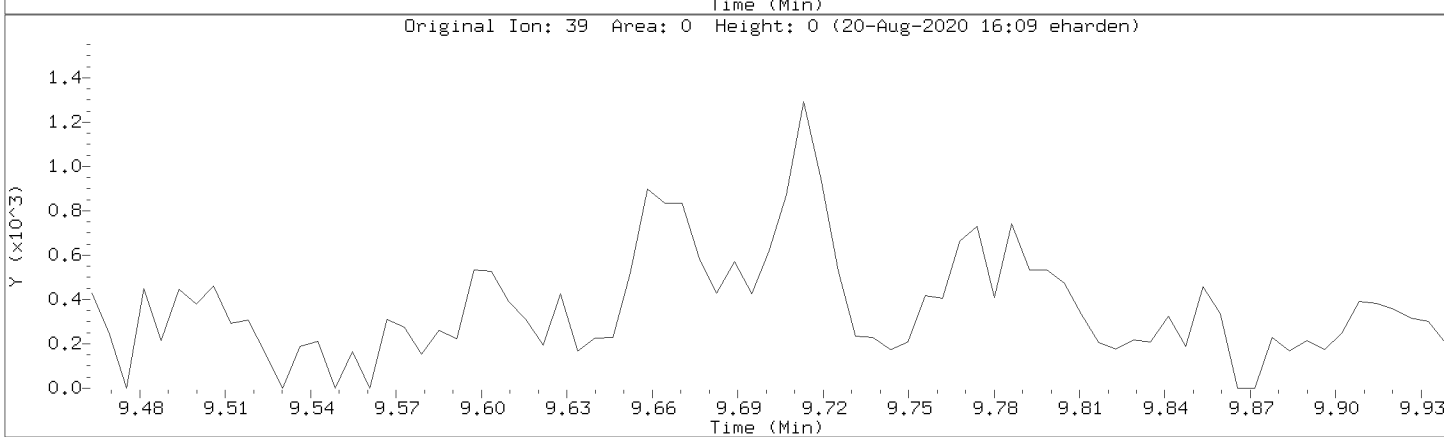
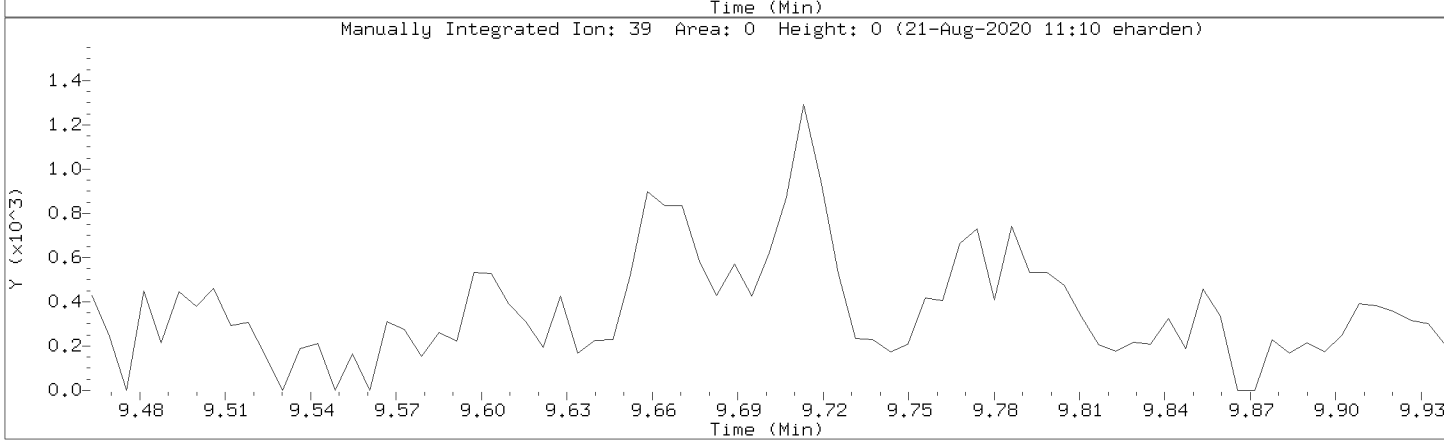
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: trans-1,3-Dichloropropene Review Code: NI
CAS Number: 10061-02-6









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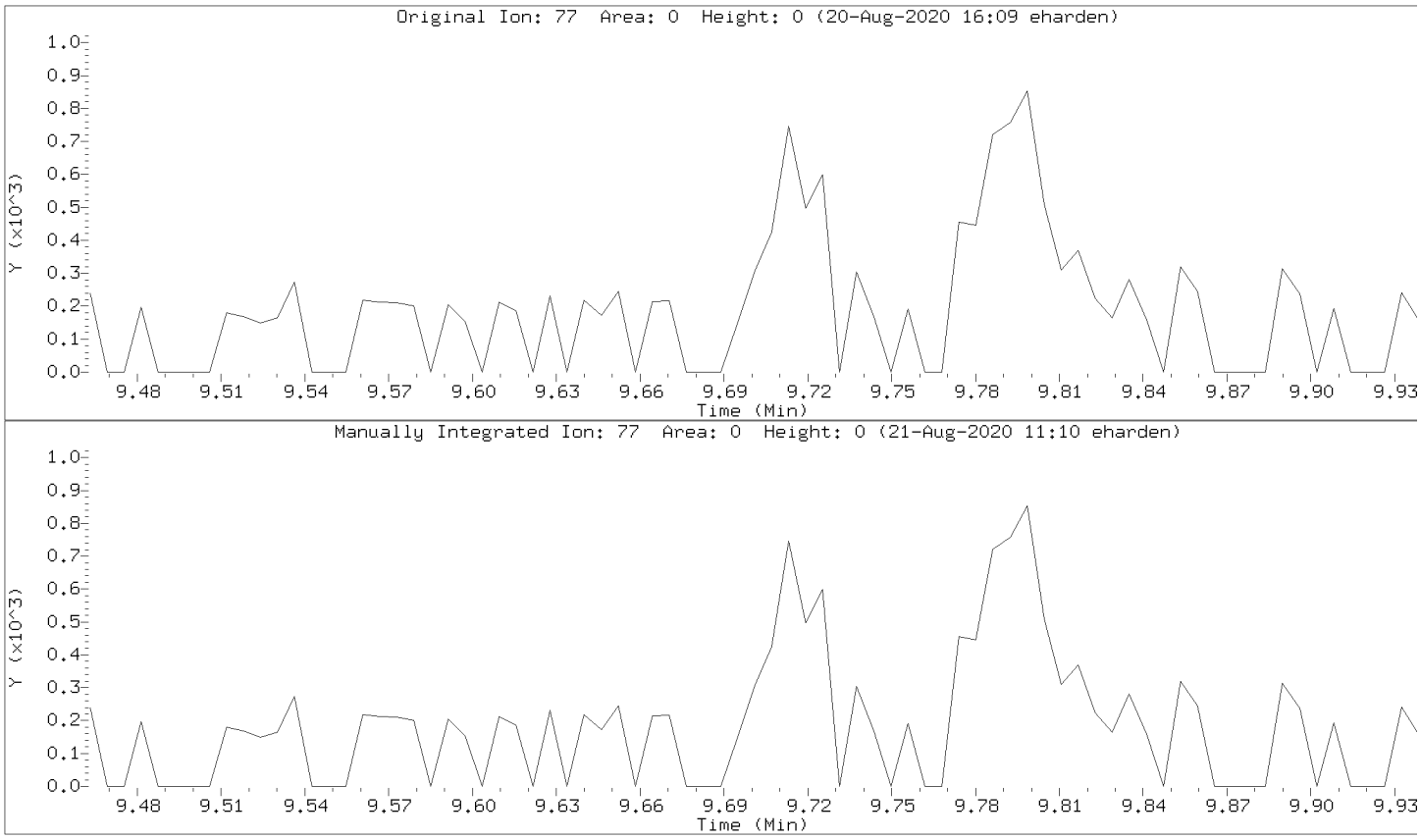
Lab Sample ID: CAL3



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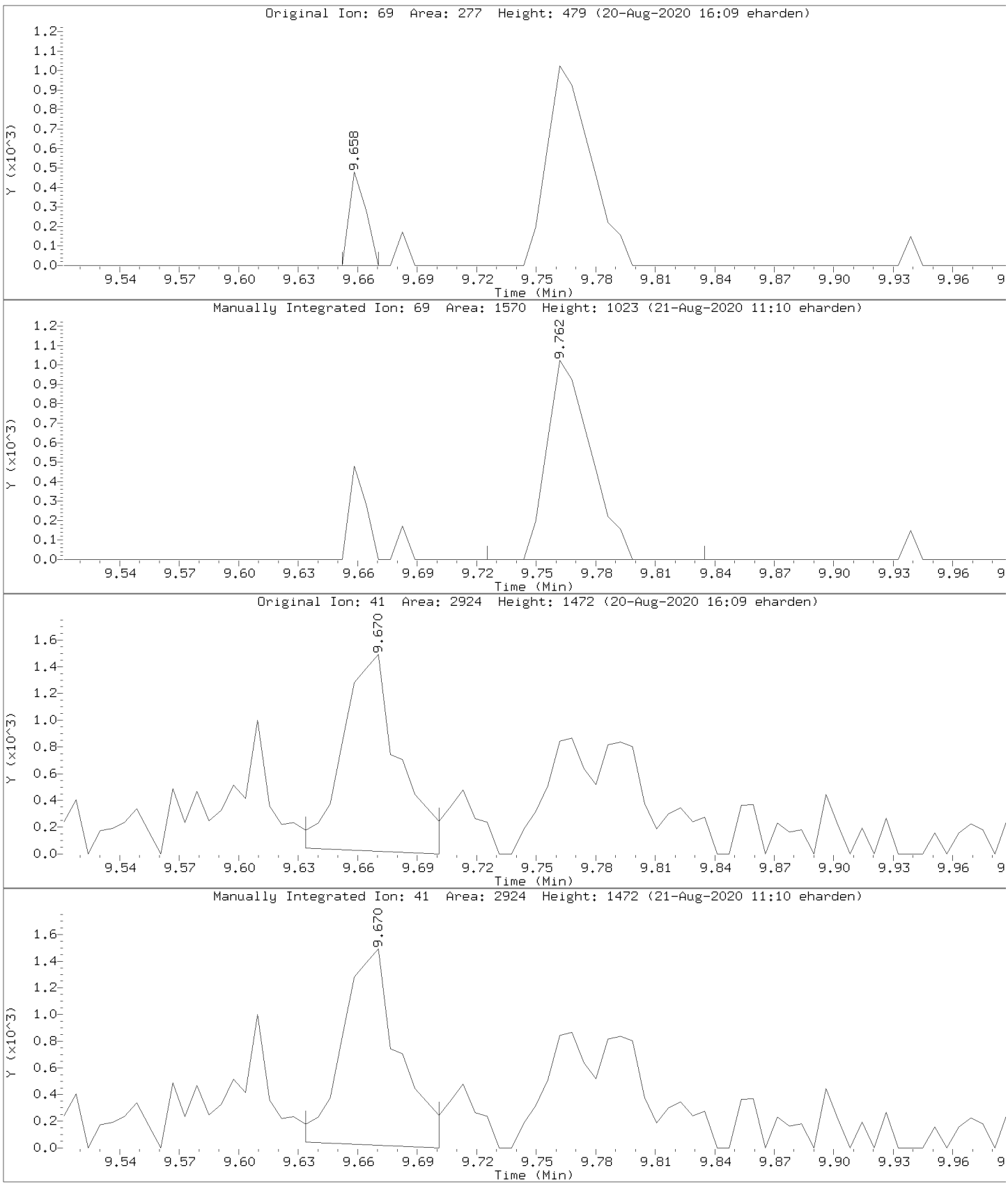
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Ethyl methacrylate Review Code: WP
CAS Number: 97-63-2



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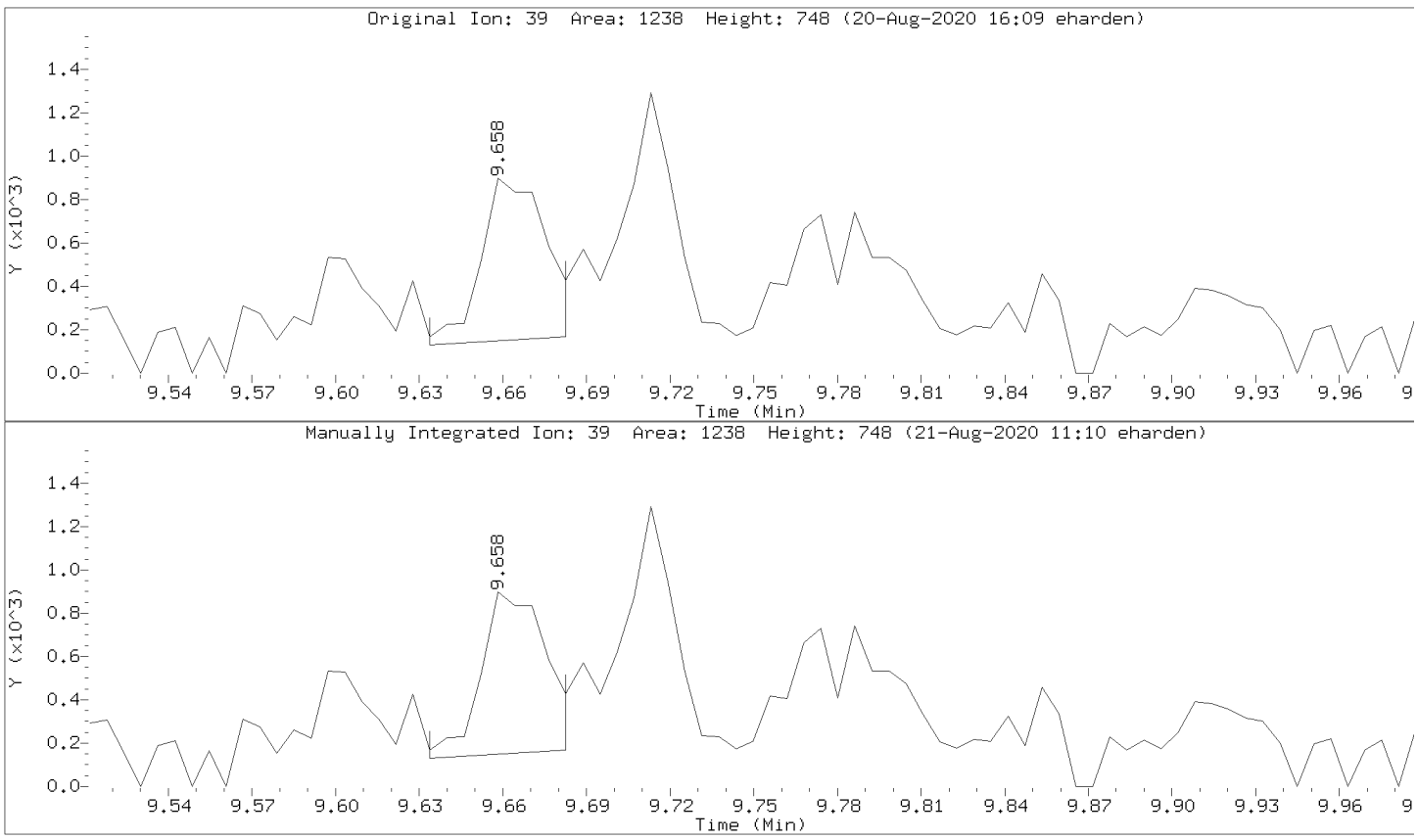
Lab Sample ID: CAL3



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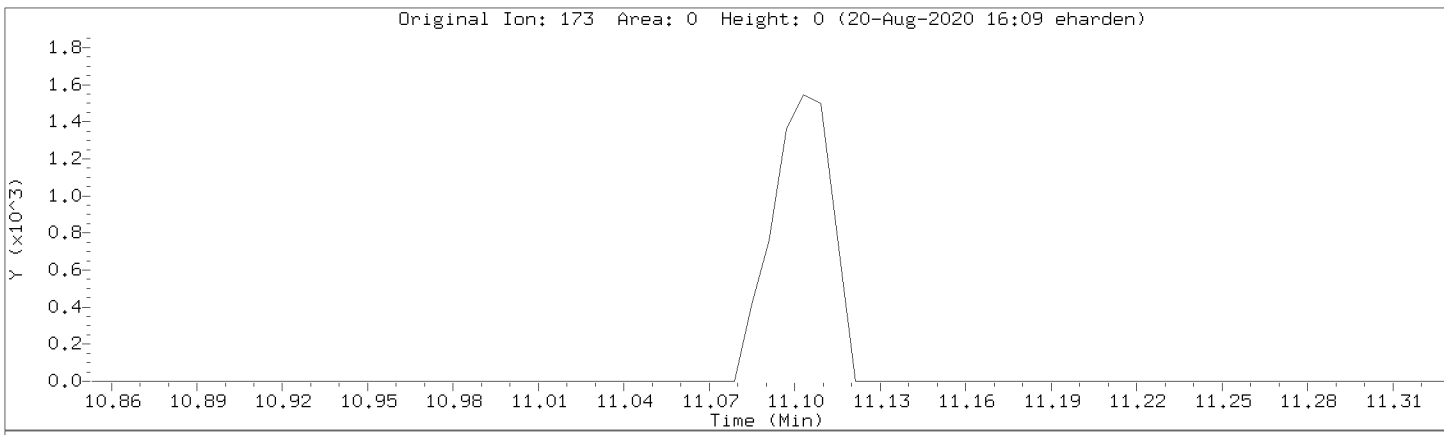
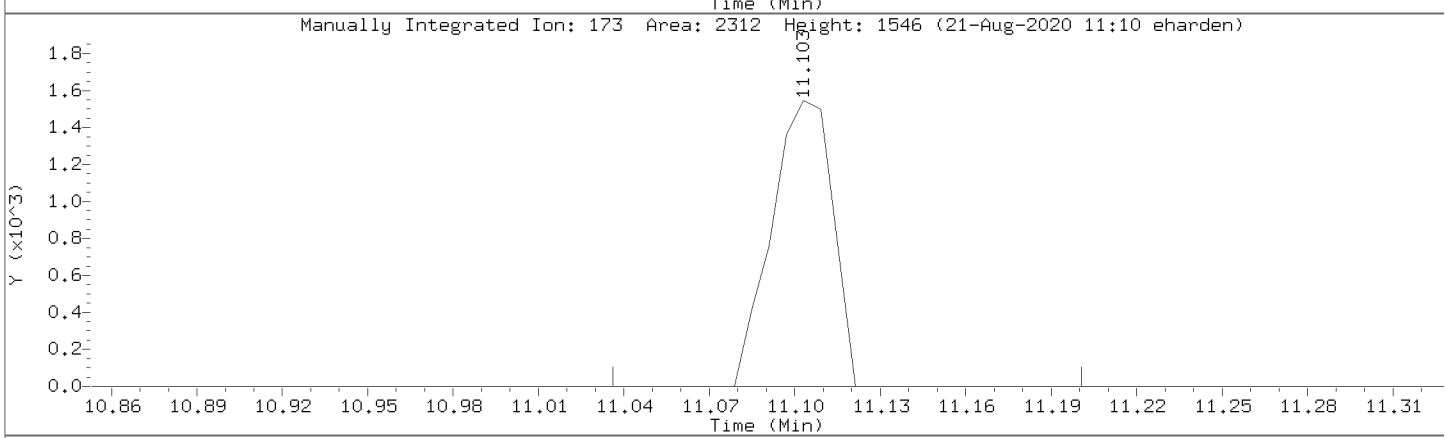
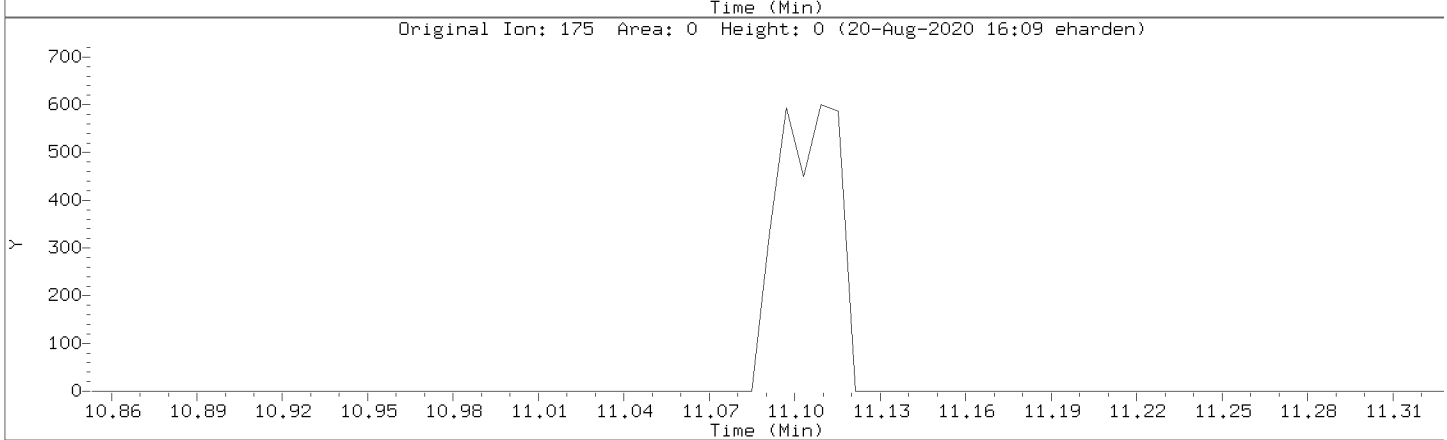
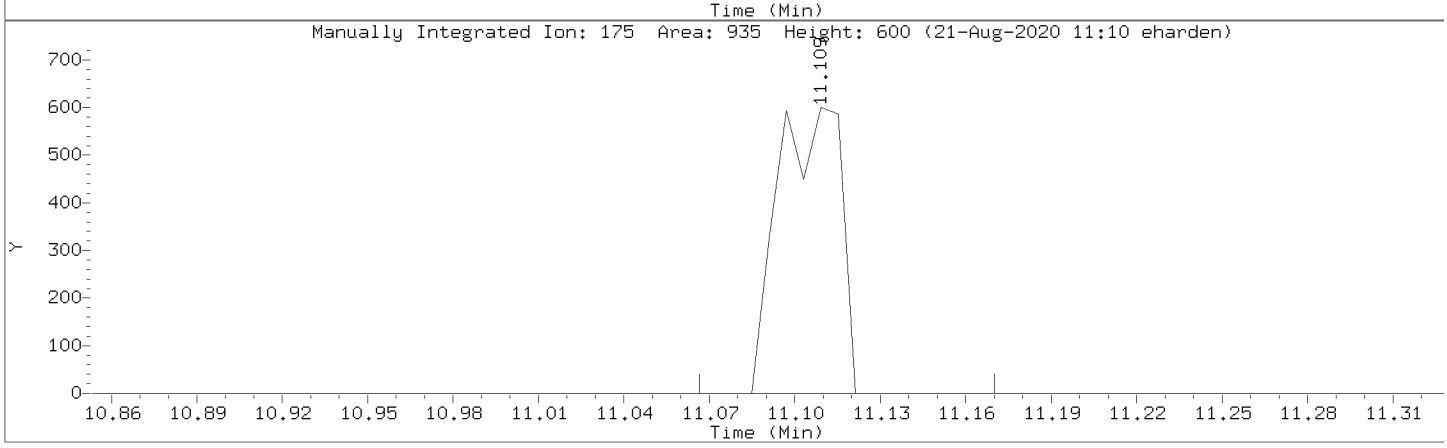
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2









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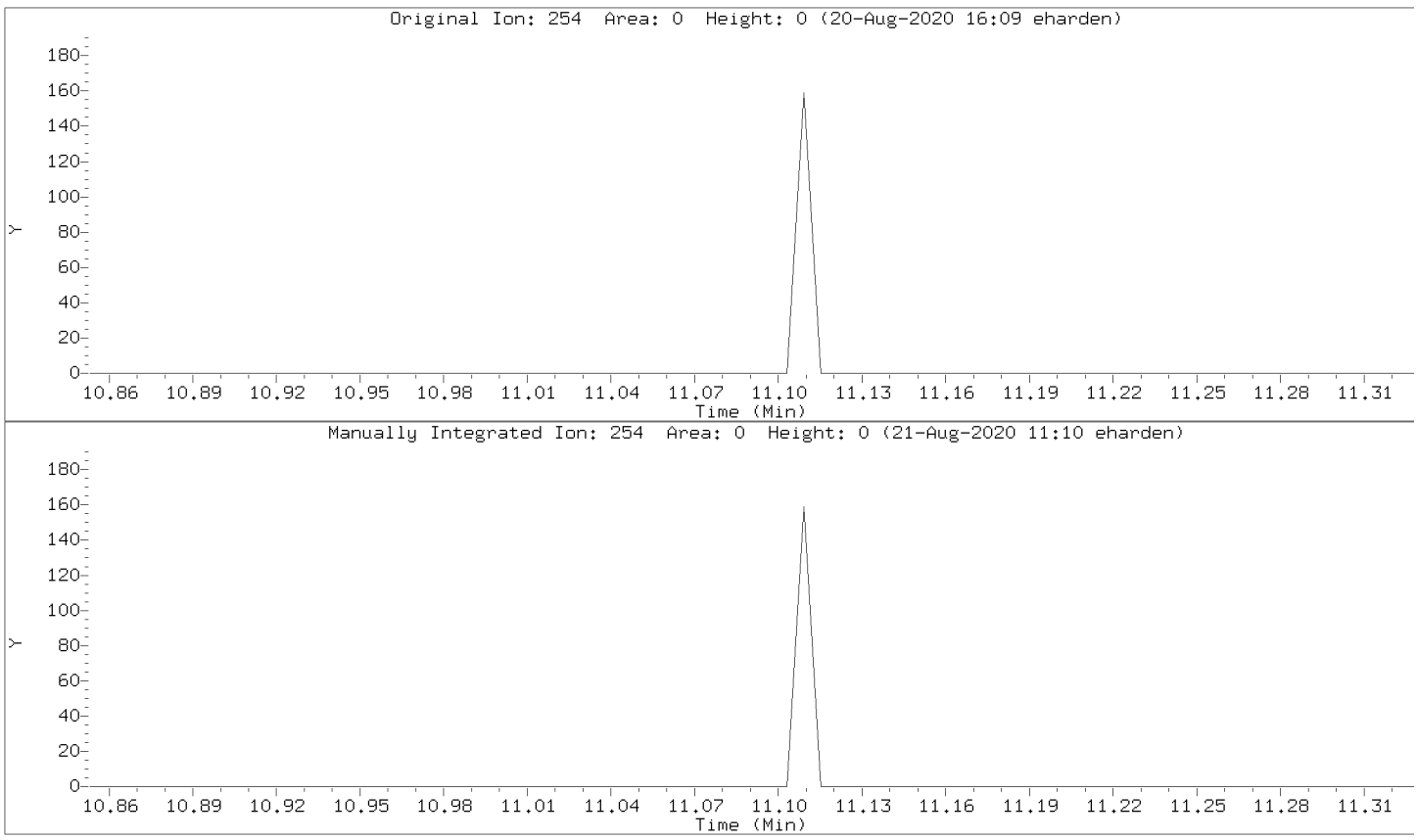
Lab Sample ID: CAL3



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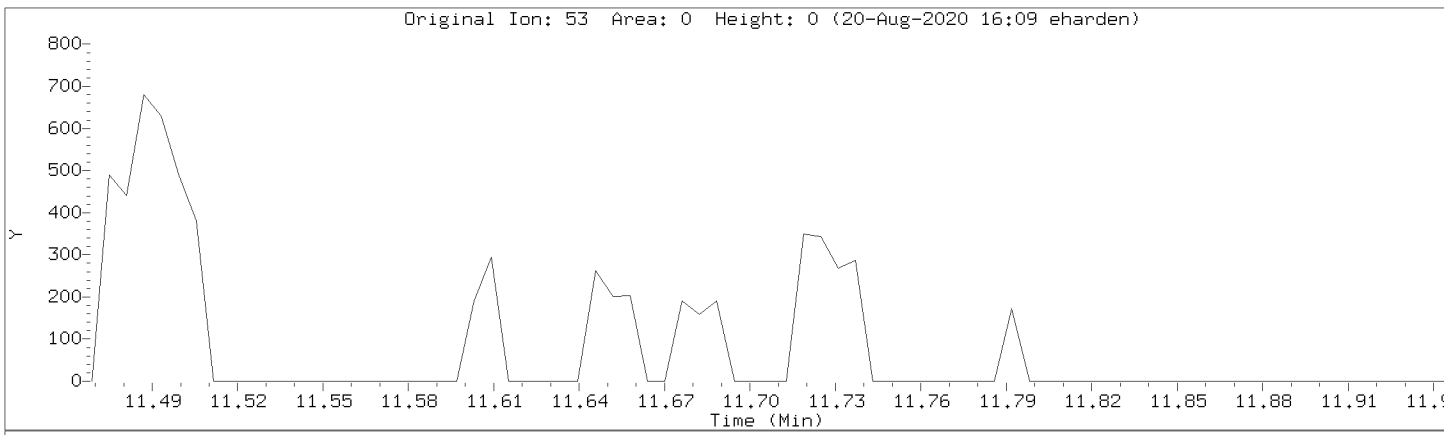
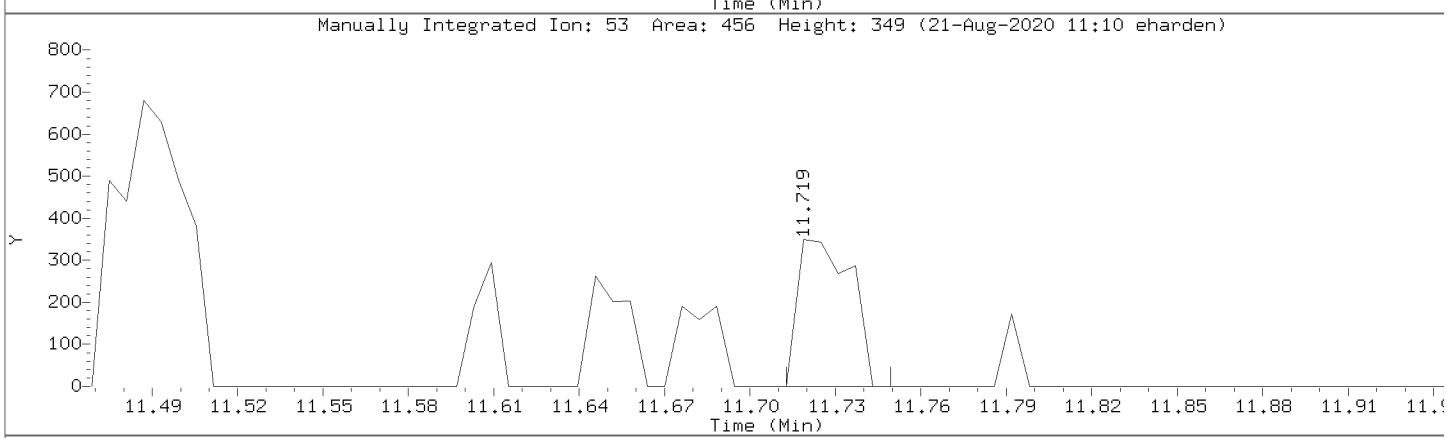
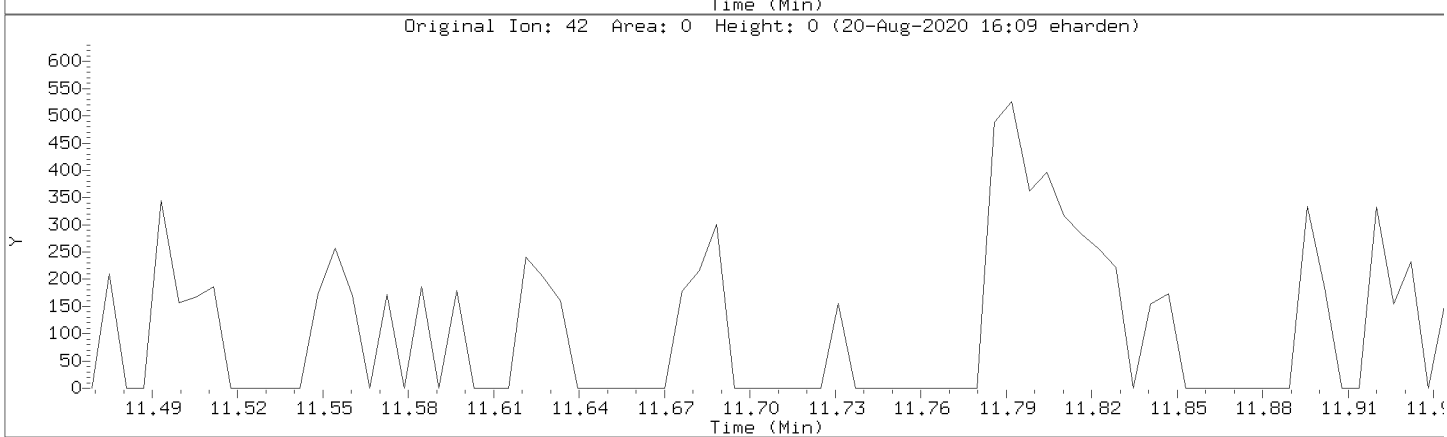
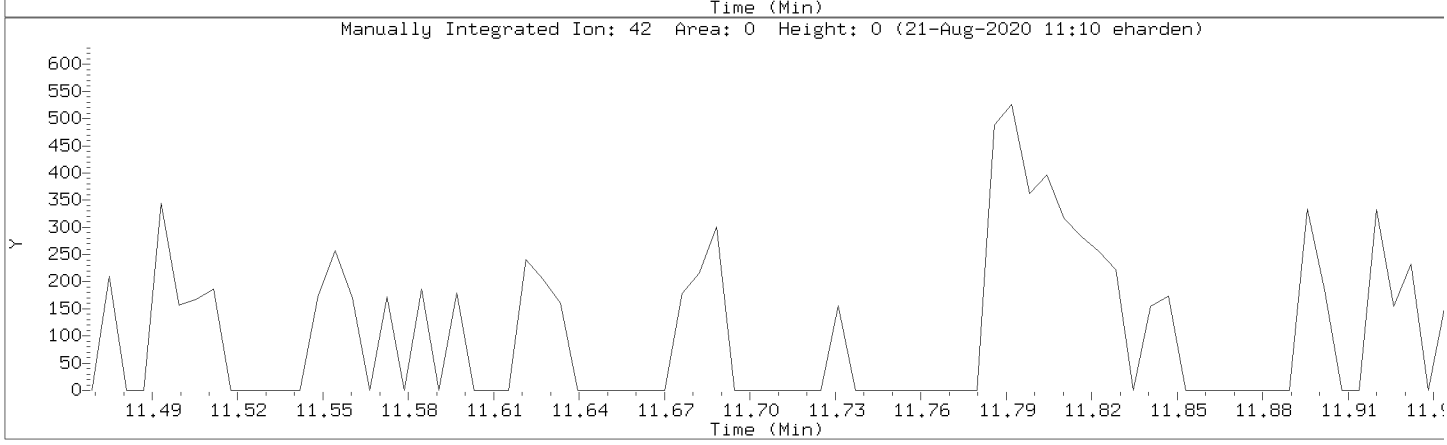
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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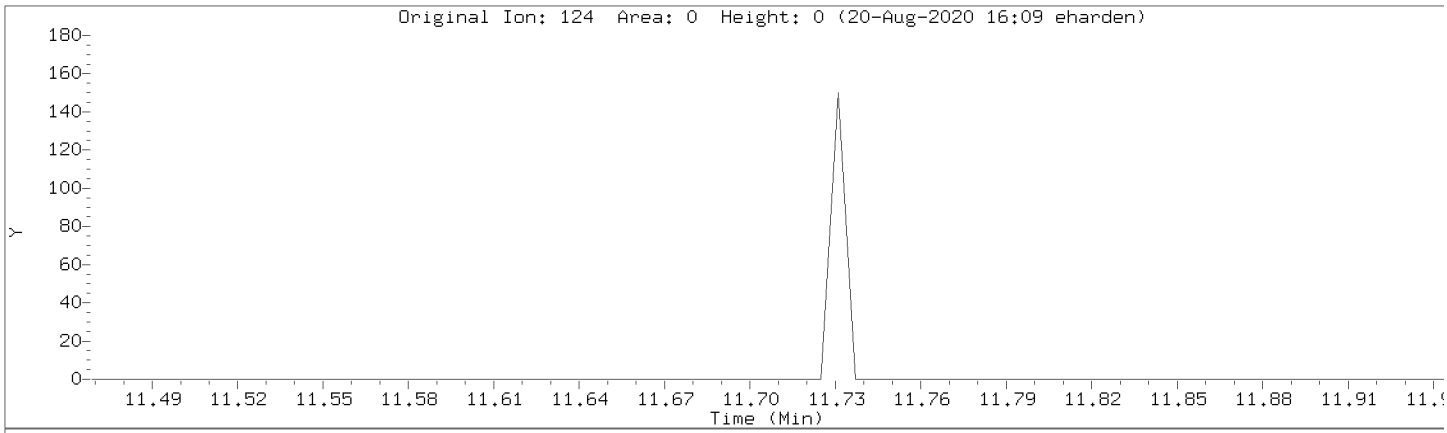
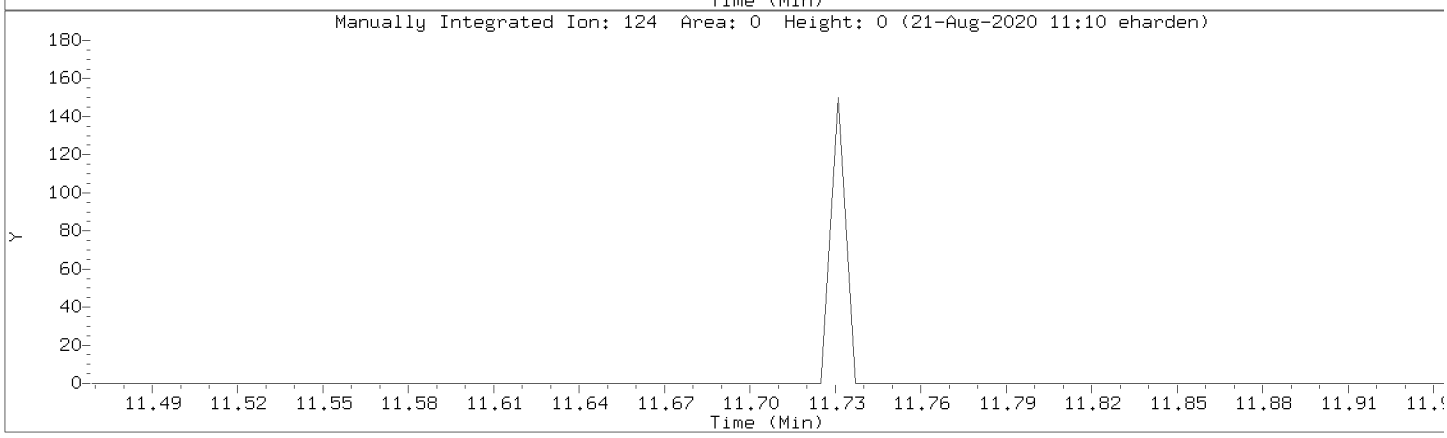
Lab Sample ID: CAL3





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_06.D
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 20-AUG-2020 12:05
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal4,27240:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 12:05 Cal File: 082020_06.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.226	(0.408)	5284	2.00000	2.00	
2 Chloromethane	50	3.537	3.543	(0.450)	8846	2.00000	2.07	
3 Vinyl chloride	62	3.690	3.702	(0.469)	5370	2.00000	2.06	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	4686	2.00000	2.01	
5 Bromomethane	94	4.196	4.195	(0.534)	10118	2.00000	2.22	
6 Chloroethane	64	4.360	4.360	(0.555)	2737	2.00000	2.94	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	3591	2.00000	2.17	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	1948	2.00000	2.13	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	6532	2.00000	2.22	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	4079	2.00000	2.10	
11 Carbon disulfide	76	5.293	5.293	(0.673)	15221	2.00000	2.33	
12 Iodomethane	142	5.433	5.439	(0.691)	1612	2.00000	5.60(M)	NI
13 Acrolein	56	5.671	5.659	(0.722)	1479	4.00000	4.86	
14 Allyl chloride	76	5.787	5.787	(0.736)	2084	2.00000	2.30	
15 Methylene Chloride	49	5.902	5.902	(0.751)	8758	2.00000	2.50(M)	NI
16 Acetone	43	5.976	5.976	(0.760)	9840	4.00000	4.07	
17 Methyl acetate	43	6.073	6.067	(0.773)	8873	4.00000	3.62	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	4249	2.00000	2.13	
19 n-Hexane	86	6.128	6.110	(0.780)	343	2.00000	1.63(M)	LT
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	9856	2.00000	2.12	
21 Acetonitrile	41	6.463	6.463	(0.822)	1215	4.00000	6.91(H)	WP
22 Chloroprene	53	6.640	6.640	(0.845)	5232	2.00000	1.85	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	8968	2.00000	2.32	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	3596	4.00000	4.28	
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	6321	2.00000	2.22	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	6905	2.00000	2.35	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	2780	2.00000	2.23	
	29 Cyclohexane	56	7.341	7.335	(0.883)	4834	2.00000	1.88	
	30 Chloroform	83	7.372	7.372	(0.938)	10330	2.00000	2.36(M)	NI
	31 Ethyl acetate	43	7.439	7.433	(0.946)	10734	4.00000	4.35	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	6350	2.00000	2.11	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	4093	4.00000	5.58	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	138125	50.0000	54.6	
	35 1,1,1-Trichloroethane	97	7.573	7.567	(0.911)	7971	2.00000	2.23	
	36 2-Butanone (MEK)	43	7.634	7.628	(0.971)	7051	4.00000	3.74(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	4937	2.00000	1.99(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	219667	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	17998	2.00000	2.25	
	40 Propionitrile	54	7.896	7.902	(1.005)	1674	4.00000	4.47	
	41 Methacrylonitrile	41	7.908	7.902	(1.006)	8204	4.00000	4.31	
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25790	50.0000	56.7	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	8740	2.00000	2.48	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	8630	2.00000	2.06	
	46 Trichloroethene	130	8.323	8.317	(1.001)	4932	2.00000	2.25	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	313187	50.0000		
	48 Methylcyclohexane	98	8.329	8.317	(1.001)	1819	2.00000	1.75	
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.670	8.670	(1.043)	3983	2.00000	2.14	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	4922	2.00000	2.15	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	7260	2.00000	2.21	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	1992	2.00000	1.72(H)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	9.152	9.146	(1.100)	3154	4.00000	3.14	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	5882	2.00000	1.84	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	334441	50.0000	49.6	
	58 Toluene	91	9.414	9.414	(1.132)	16357	2.00000	2.09	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	1870	2.00000	2.21(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	5882	2.00000	1.81	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	3682	2.00000	1.93	
	63 Ethyl methacrylate	69	9.762	9.761	(1.174)	3660	2.00000	1.82(H)	
	64 1,1,2-Trichloroethane	83	9.841	9.847	(1.183)	4739	2.00000	2.39	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	5598	2.00000	2.12	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	6725	2.00000	2.23	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	4938	2.00000	2.18	
	68 2-Hexanone	43	10.280	10.280	(1.236)	8262	4.00000	3.12	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	12871	2.00000	1.77	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	277286	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	12050	2.00000	2.25	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	5405	2.00000	2.39	
	73 m&p-Xylene	91	10.652	10.651	(1.009)	19281	4.00000	3.56	
	74 o-Xylene	106	10.993	10.993	(1.041)	4165	2.00000	1.64	
	75 Styrene	104	11.030	11.029	(1.044)	6689	2.00000	1.58	
	76 Bromoform	173	11.103	11.103	(1.051)	5395	2.00000	2.15(M)	NI

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.225	11.225	(1.063)	7161	2.00000	1.86	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	106130	50.0000	46.6	
	79 cis-1,4-Dichloro-2-butene	53	11.493	11.487	(1.088)	2265	2.00000	2.49	
	80 n-Propylbenzene	91	11.523	11.523	(1.091)	16464	2.00000	1.85	
	81 Bromobenzene	156	11.578	11.578	(1.096)	5521	2.00000	1.94	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	6338	2.00000	2.14	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	8731	2.00000	1.66	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	3046	2.00000	1.58	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	3382	2.00000	1.79	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	9830	2.00000	1.53	
	87 1,2,3-Trichloropropane	75	11.725	11.724	(1.110)	6678	2.00000	2.19	
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	1815	2.00000	2.54	
	89 Cyclohexanone	98	Compound Not Detected.						(D)
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	7956	2.00000	1.54	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	7998	2.00000	1.51	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	10675	2.00000	1.70	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	7956	2.00000	1.54	
	94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	8844	2.00000	2.11	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	158950	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	10039	2.00000	2.16	
	97 n-Butylbenzene	91	12.487	12.486	(1.012)	9280	2.00000	1.68	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	10161	2.00000	2.22	
	99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	1371	2.00000	2.64	
	100 Hexachloro-1,3-butadiene	225	13.816	13.822	(1.120)	2915	2.00000	2.06	
	101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	5591	2.00000	1.85	
	102 Naphthalene	128	14.194	14.193	(1.150)	8687	2.00000	1.68	
	103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	5329	2.00000	1.83	

QC Flag Legend

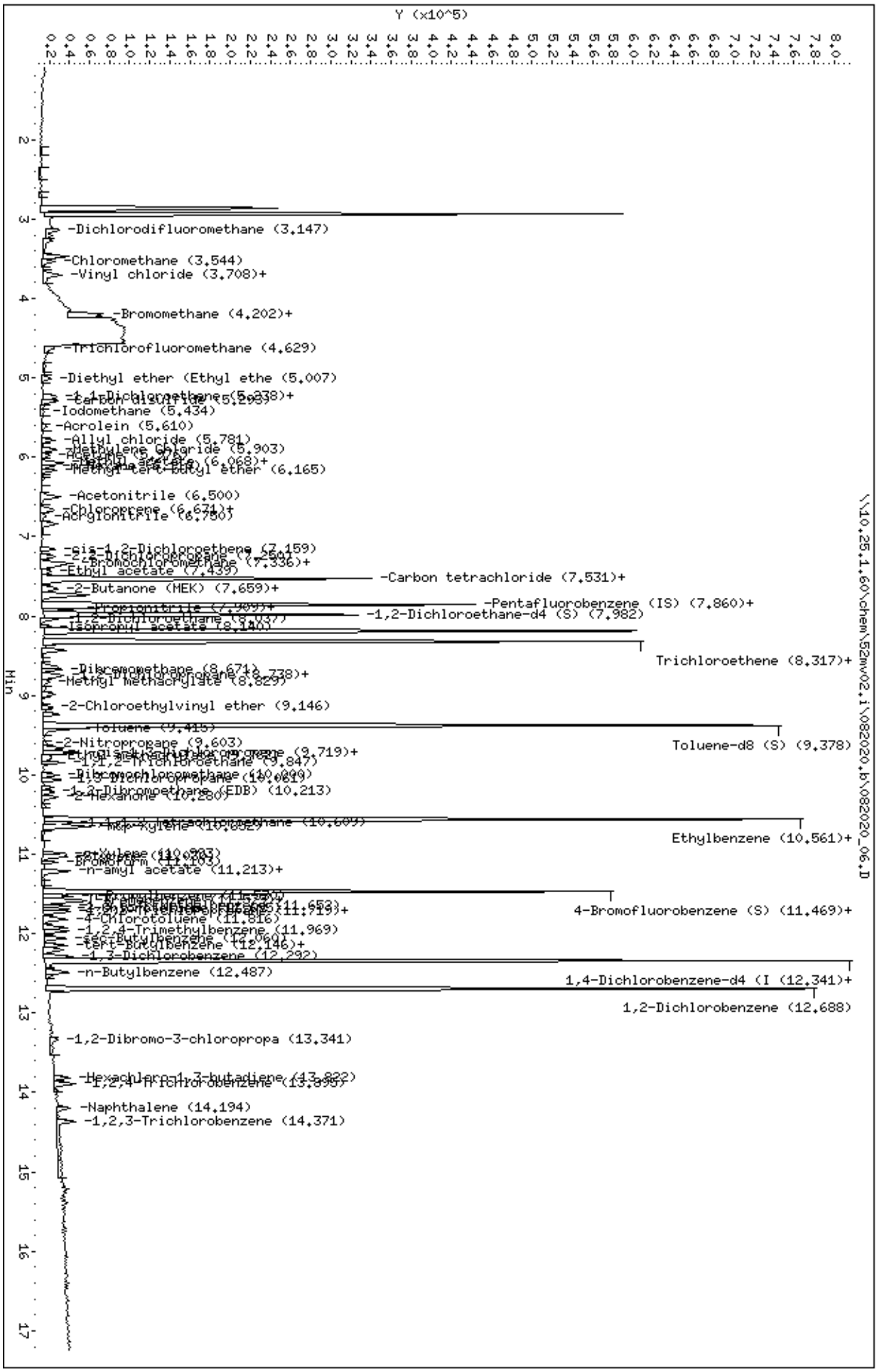
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
NI: Indicates that the peak was not integrated at all by the computer software.
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_06.D
Date : 20-AUG-2020 12:05
Client ID: CAL4
Sample Info: CAL4,27240:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Page 4

Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_06.D
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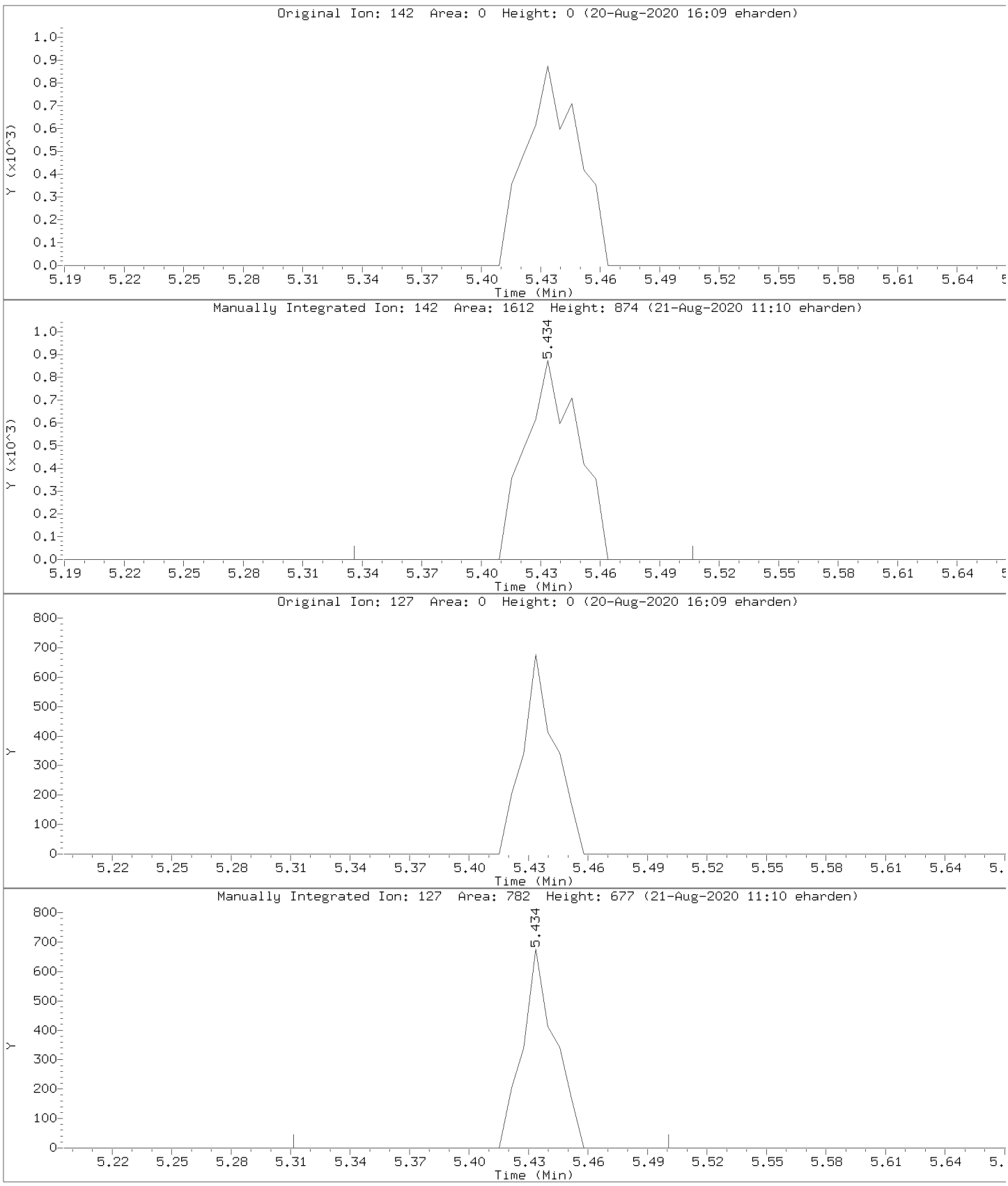
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4



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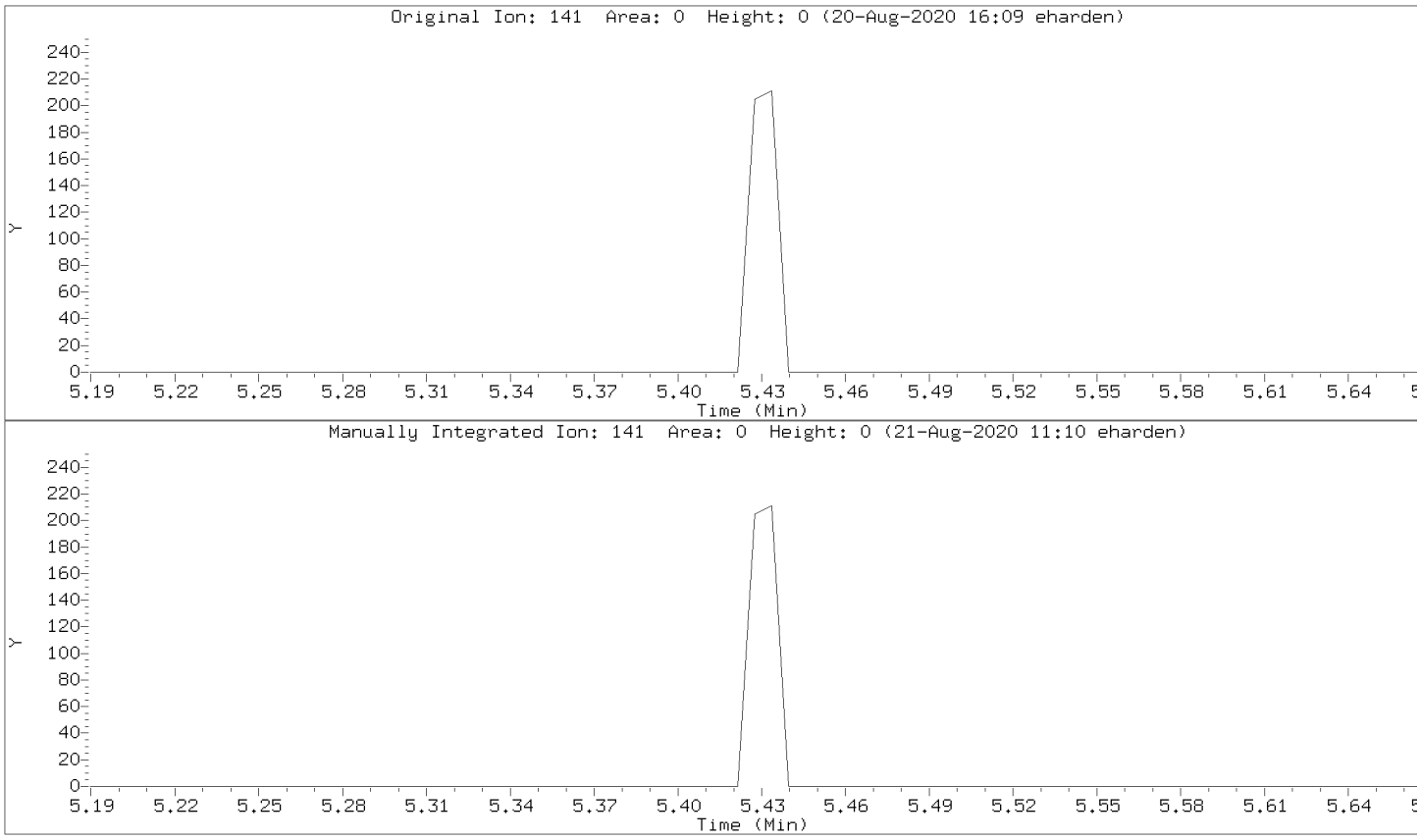
Instrument: 52mv02.i
Lab Sample ID: CAL4



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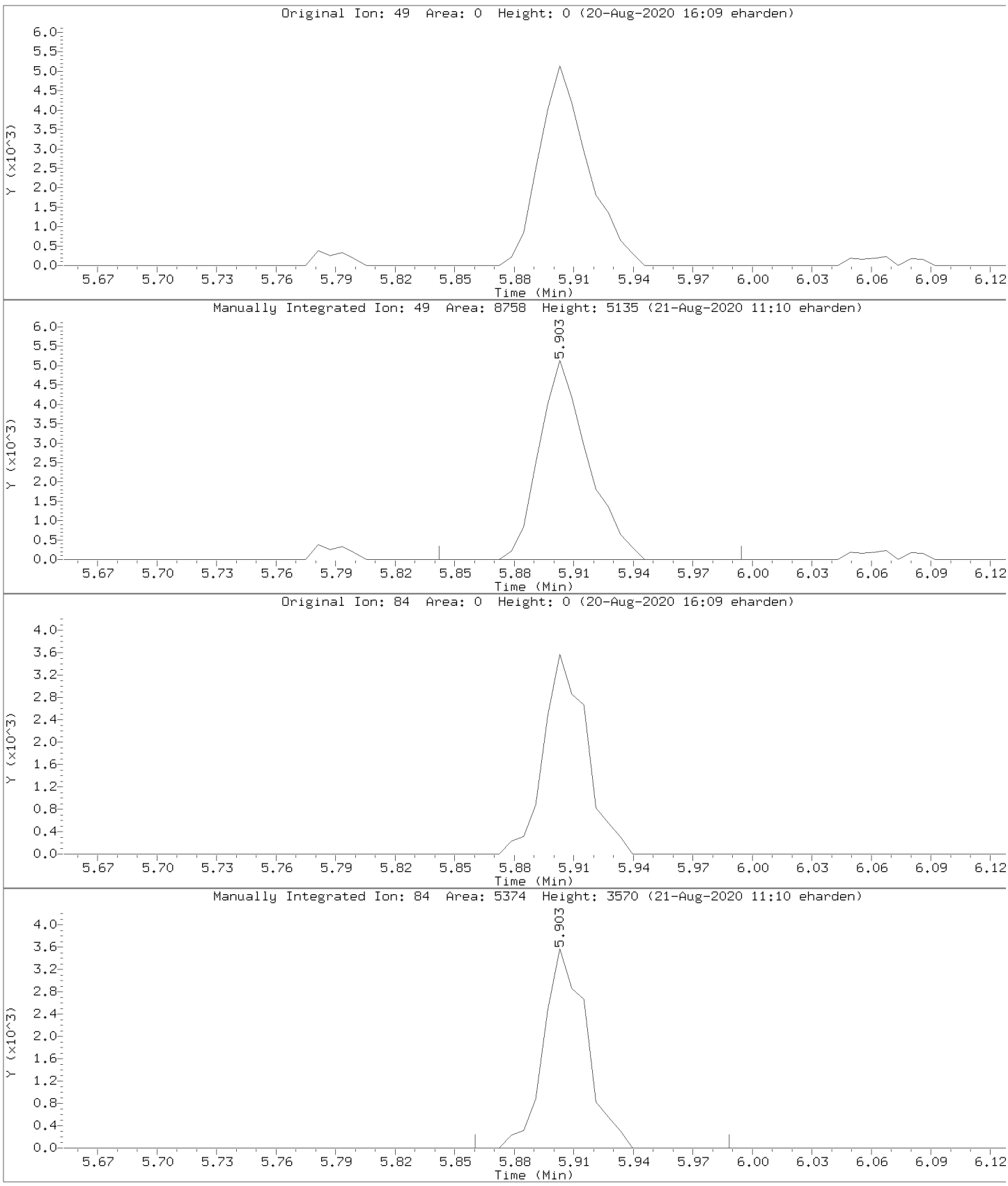
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2



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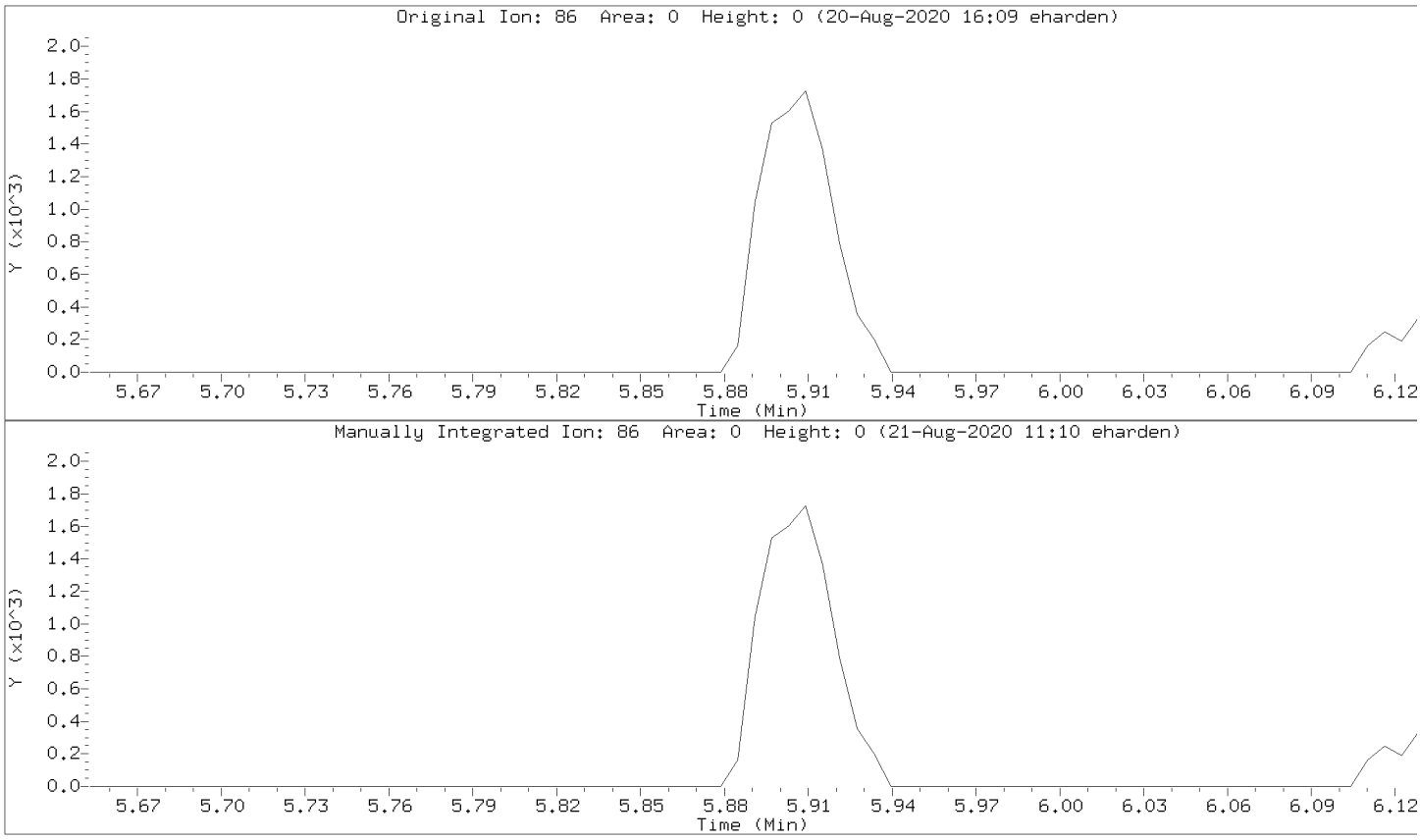
Instrument: 52mv02.i
Lab Sample ID: CAL4



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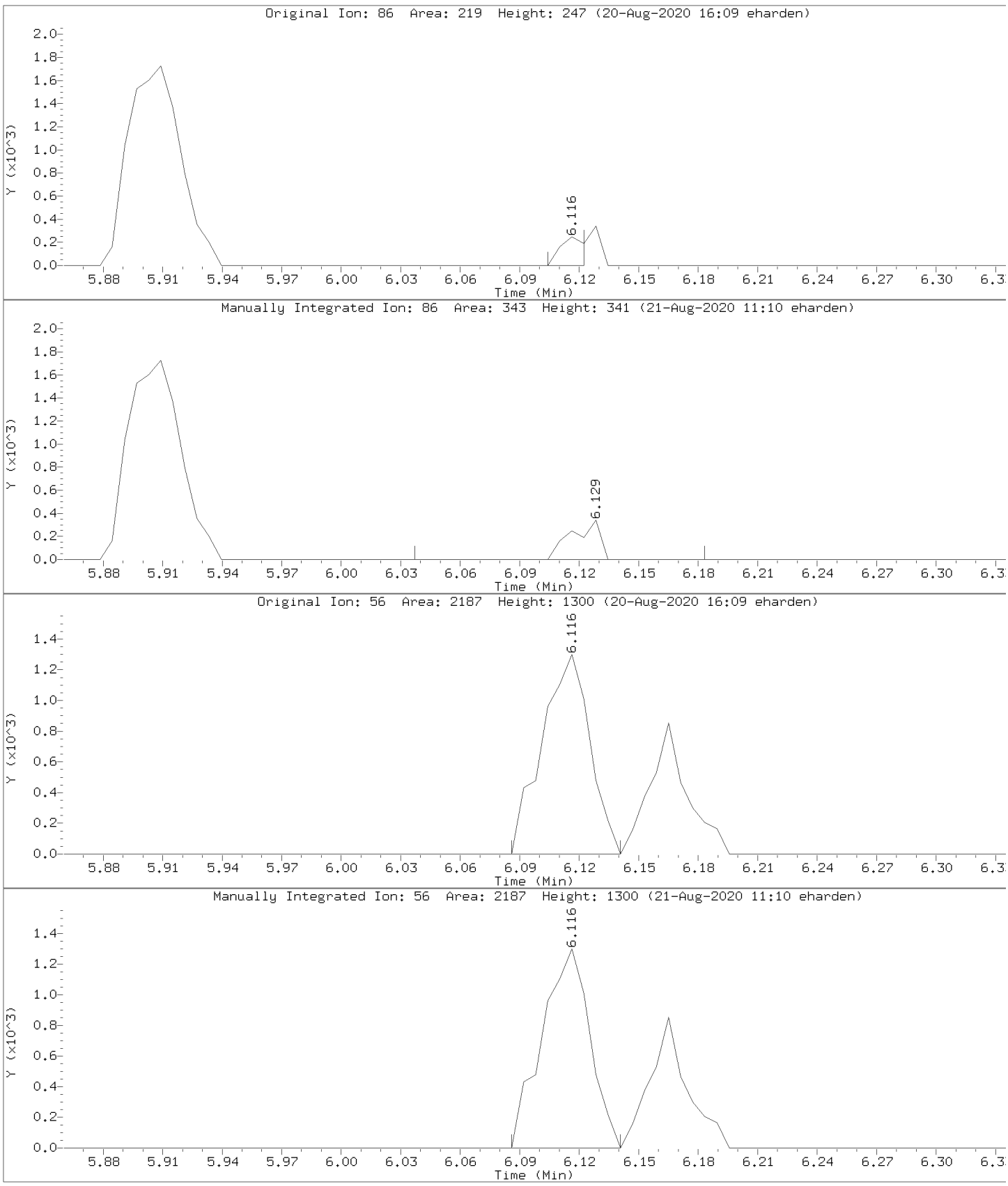
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: n-Hexane Review Code: LT
CAS Number: 110-54-03



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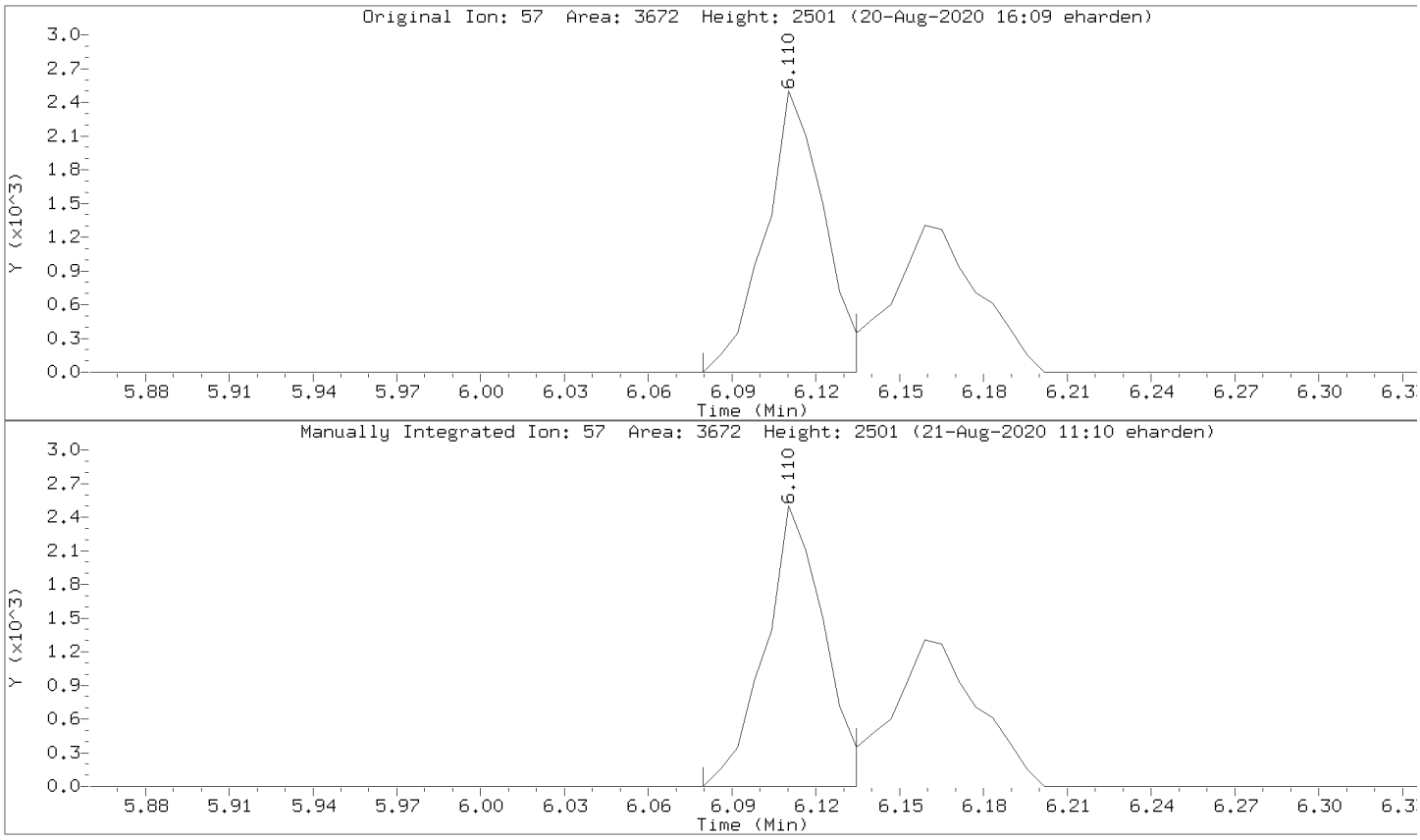

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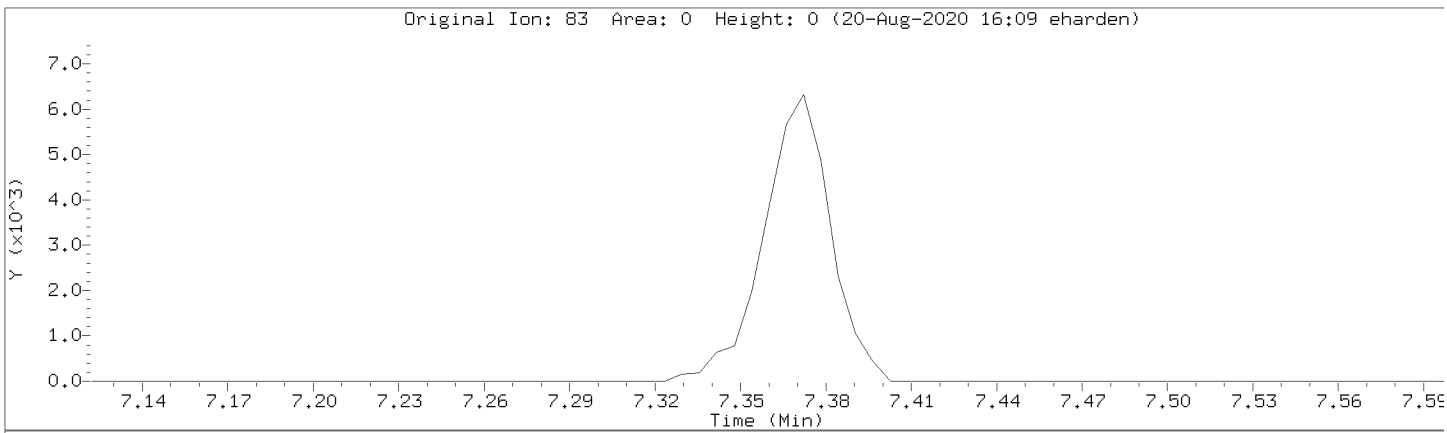
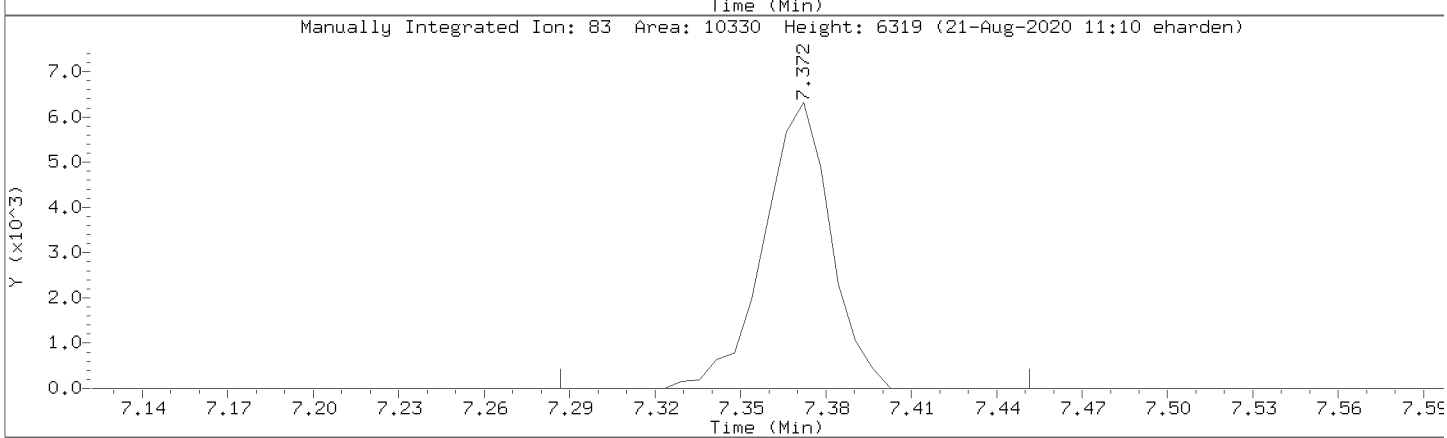
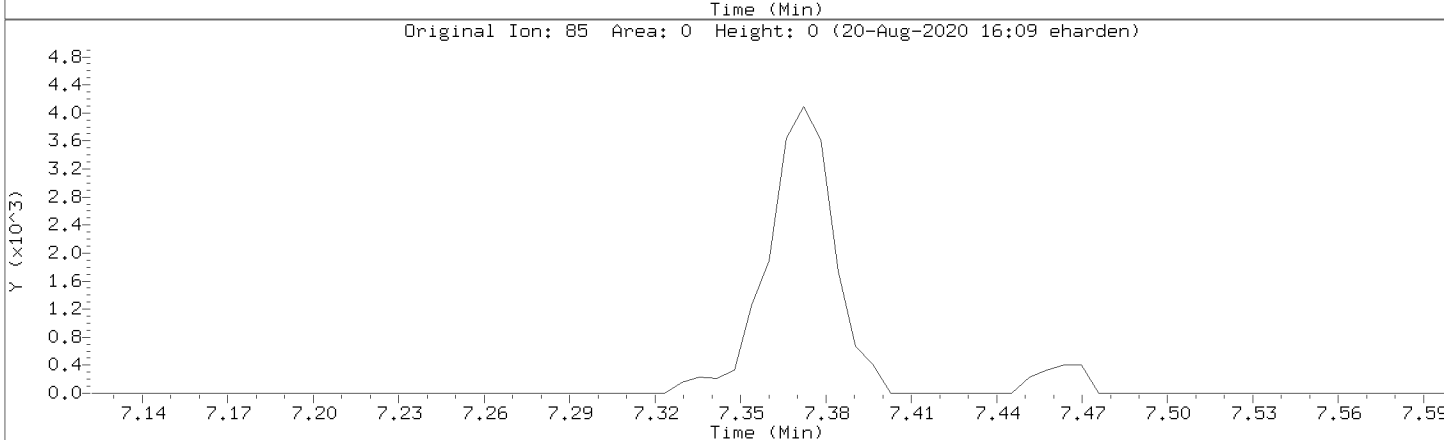
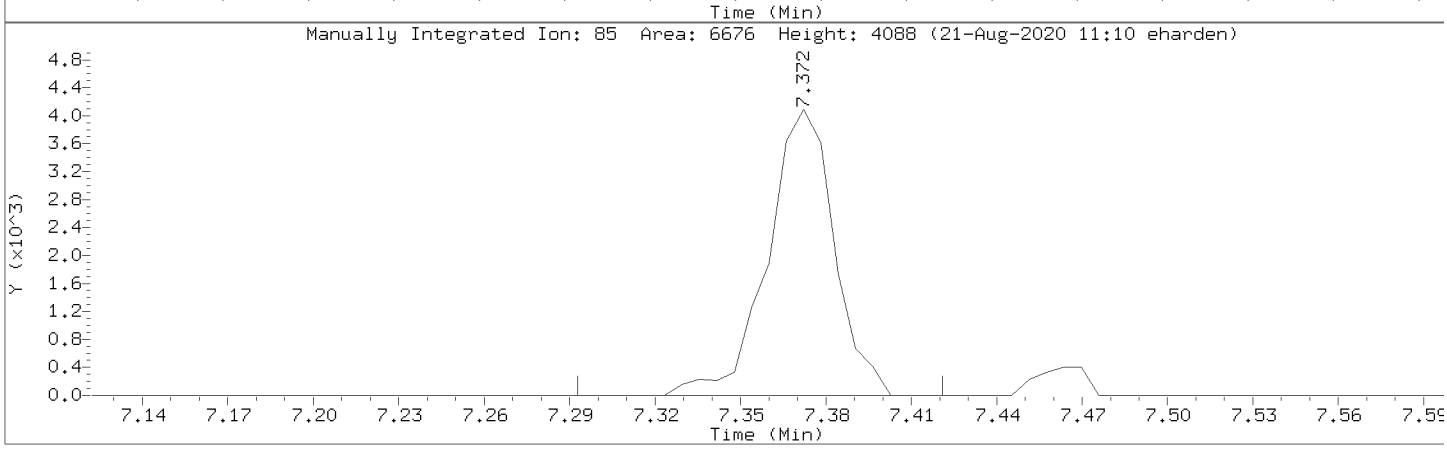
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3









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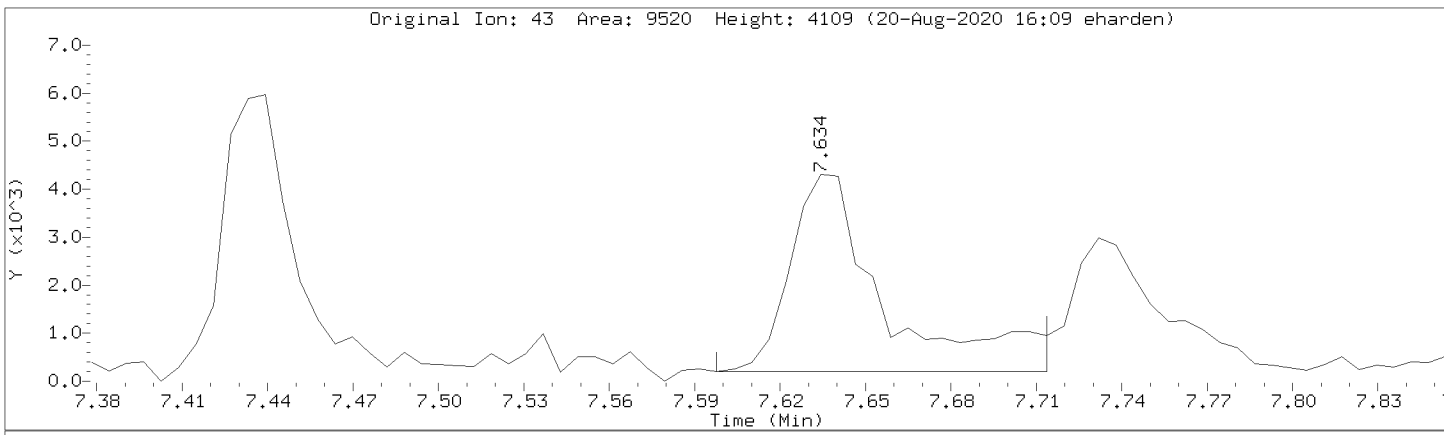
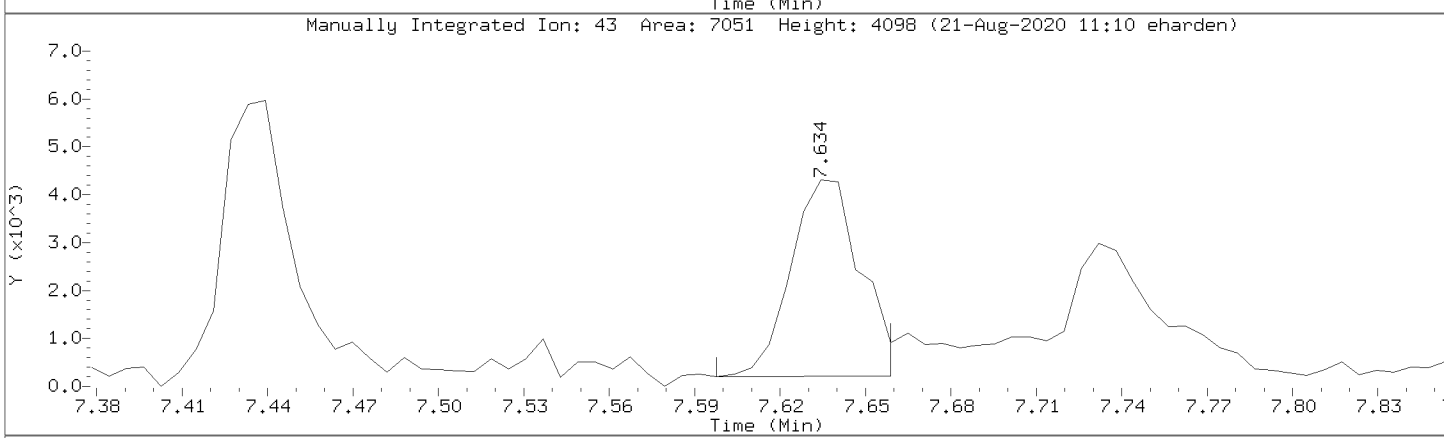
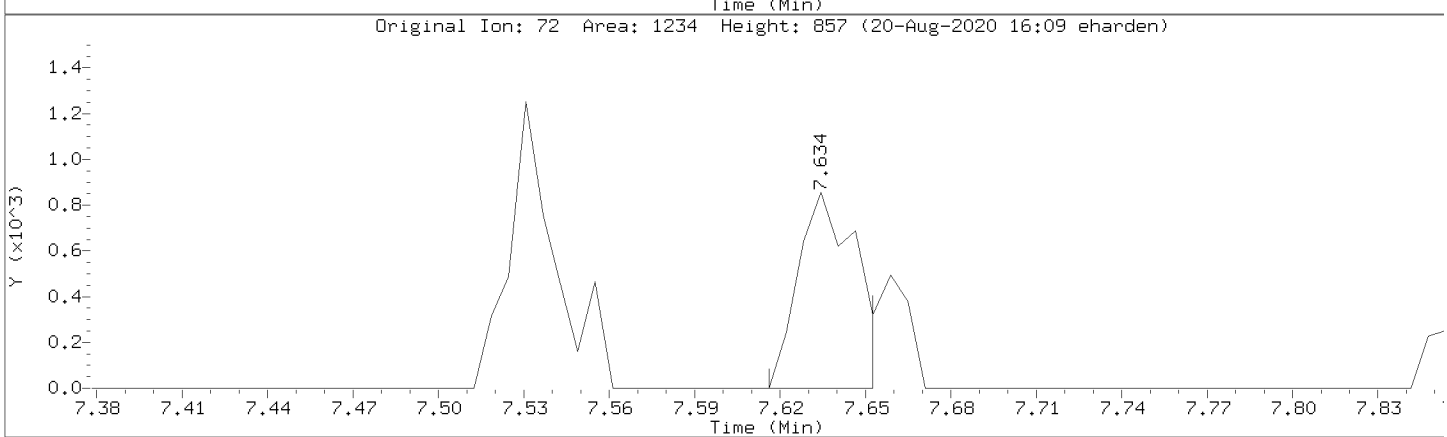
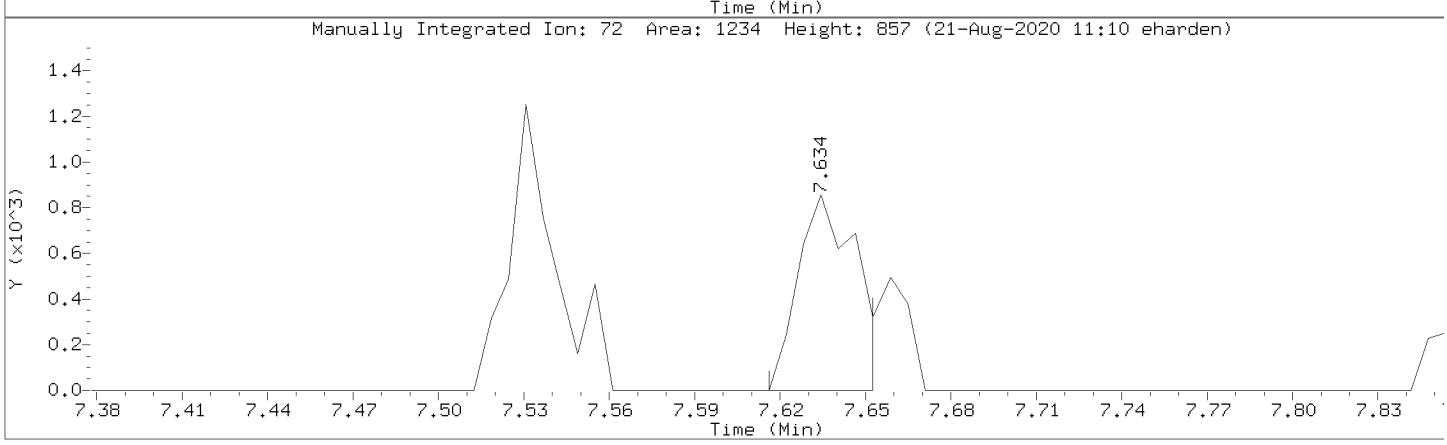
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3









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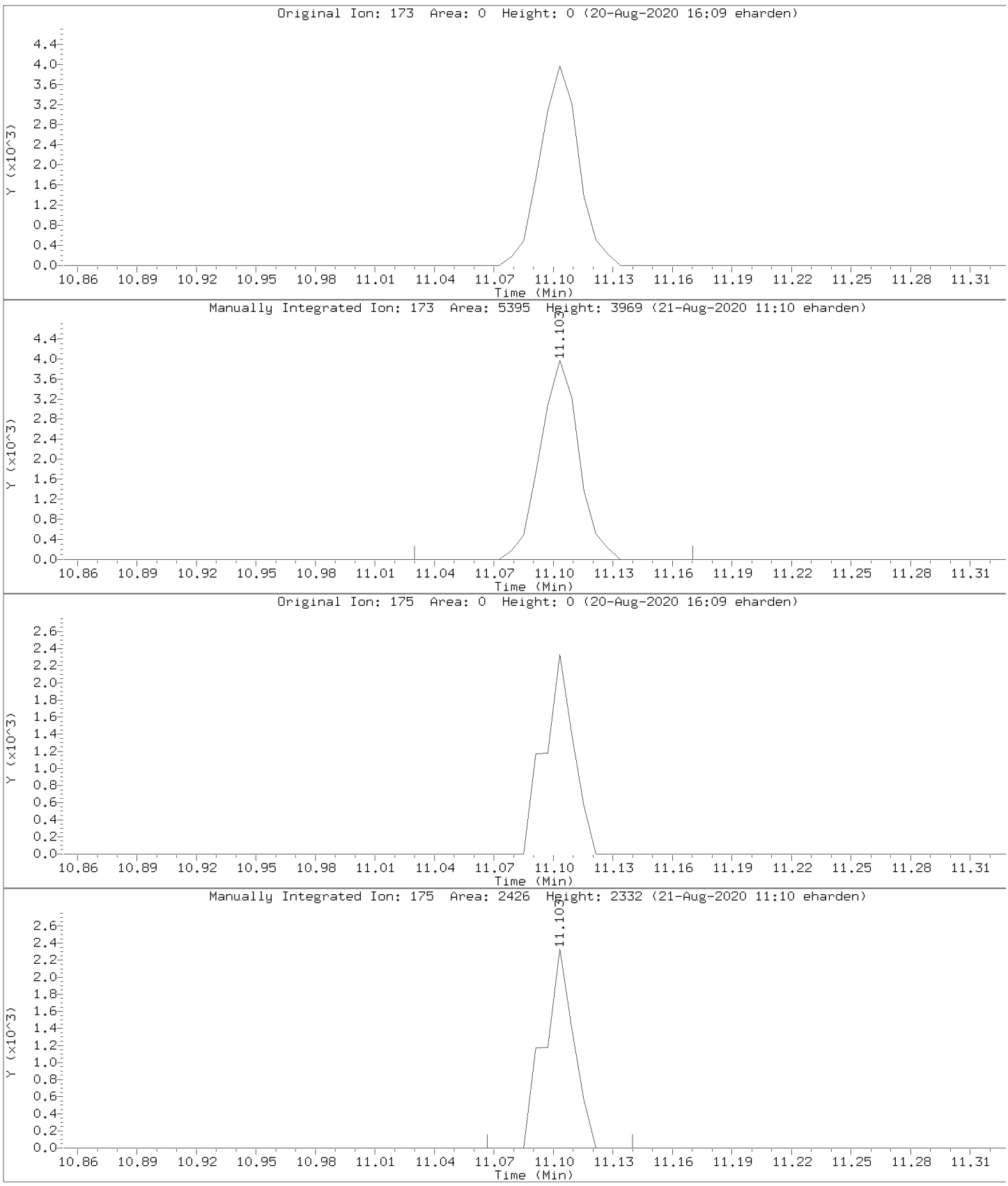
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2



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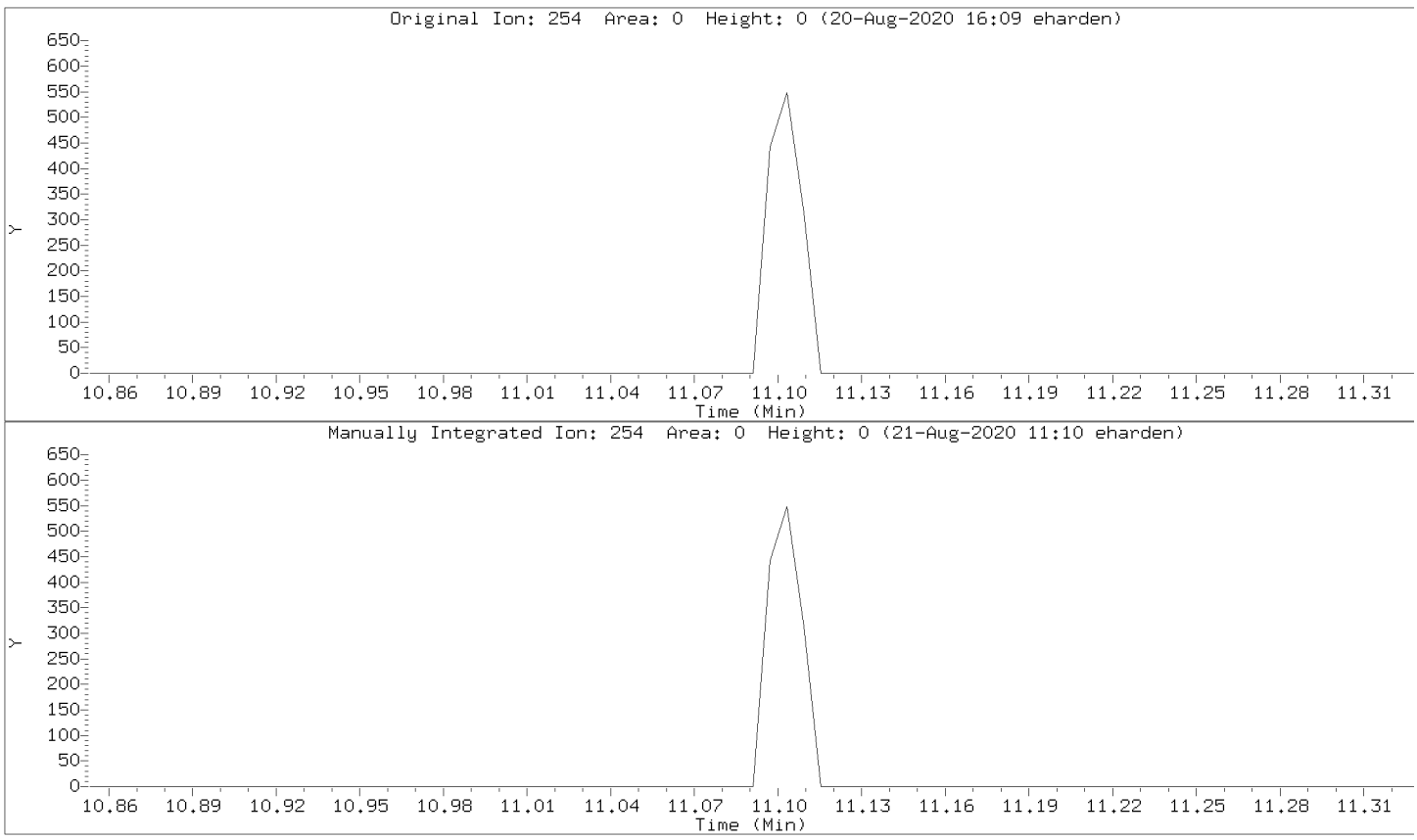
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_07.D
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Inj Date : 20-AUG-2020 12:30
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal5,27241:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 12:30 Cal File: 082020_07.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.226	(0.408)	14553	5.00000	6.57(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	19435	5.00000	5.07	
3 Vinyl chloride	62	3.702	3.702	(0.471)	14015	5.00000	5.05	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	11700	5.00000	4.71	
5 Bromomethane	94	4.195	4.195	(0.534)	17914	5.00000	5.43	
6 Chloroethane	64	4.366	4.360	(0.556)	4115	5.00000	4.60	
7 Trichlorofluoromethane	101	4.525	4.531	(0.576)	9164	5.00000	5.38	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	5183	5.00000	5.33	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	15697	5.00000	5.00	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	11299	5.00000	5.46	
11 Carbon disulfide	76	5.287	5.293	(0.673)	34632	5.00000	4.99	
12 Iodomethane	142	5.433	5.439	(0.691)	3620	5.00000	2.40(M)	NI
13 Acrolein	56	5.665	5.659	(0.721)	3065	10.0000	9.72	
14 Allyl chloride	76	5.787	5.787	(0.736)	4947	5.00000	5.12	
15 Methylene Chloride	49	5.902	5.902	(0.751)	19166	5.00000	5.00(M)	NI
16 Acetone	43	5.976	5.976	(0.760)	23424	10.0000	11.5	
17 Methyl acetate	43	6.073	6.067	(0.773)	24665	10.0000	9.97	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	9707	5.00000	4.58	
19 n-Hexane	86	6.110	6.110	(0.777)	987	5.00000	4.39	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	22885	5.00000	4.62	
21 Acetonitrile	41	6.457	6.463	(0.822)	1316	10.0000	7.03(H)	
22 Chloroprene	53	6.646	6.640	(0.846)	13100	5.00000	4.35	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	21699	5.00000	5.27	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	9200	10.0000	10.3	
	25 Vinyl acetate	43	6.866	6.860	(0.874)	13650	5.00000	3.35(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	14788	5.00000	4.87	
	27 2,2-Dichloropropane	77	7.256	7.250	(0.923)	16052	5.00000	5.14	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	6858	5.00000	5.17	
	29 Cyclohexane	56	7.335	7.335	(0.882)	11423	5.00000	4.31	
	30 Chloroform	83	7.372	7.372	(0.938)	25117	5.00000	5.39	
	31 Ethyl acetate	43	7.433	7.433	(0.946)	24568	10.0000	9.34	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	16017	5.00000	5.16	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	7403	10.0000	9.47	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	142646	50.0000	53.0	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	18128	5.00000	4.92	
	36 2-Butanone (MEK)	43	7.634	7.628	(0.971)	20760	10.0000	10.3(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	11218	5.00000	4.38(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	233975	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	42206	5.00000	5.11	
	40 Propionitrile	54	7.908	7.902	(1.006)	4081	10.0000	10.2	
	41 Methacrylonitrile	41	7.908	7.902	(1.006)	19063	10.0000	9.40	
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	24458	50.0000	50.5	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	19145	5.00000	5.10	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	20765	5.00000	4.65	
	46 Trichloroethene	130	8.323	8.317	(1.001)	10658	5.00000	4.72	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	323174	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	4857	5.00000	4.53	
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.670	8.670	(1.043)	9900	5.00000	5.14	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	11583	5.00000	4.91	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	16004	5.00000	4.72	
	53 Methyl methacrylate	69	8.829	8.823	(1.062)	4271	5.00000	3.58(H)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	7311	10.0000	7.06	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	14819	5.00000	4.50	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	347863	50.0000	50.0	
	58 Toluene	91	9.414	9.414	(1.132)	39430	5.00000	4.89	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	3643	5.00000	4.18(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	2047	10.0000	8.85(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	14819	5.00000	4.41	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	10094	5.00000	5.08	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	8601	5.00000	4.14(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	9557	5.00000	4.68	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	13805	5.00000	5.01	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	15130	5.00000	4.86	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	11170	5.00000	4.72	
	68 2-Hexanone	43	10.280	10.280	(1.236)	23734	10.0000	8.70	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	32827	5.00000	4.33	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	289782	50.0000		
	71 Chlorobenzene	112	10.572	10.578	(1.001)	26354	5.00000	4.71	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	11764	5.00000	4.98	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	49356	10.0000	8.71	
	74 o-Xylene	106	10.993	10.993	(1.041)	10438	5.00000	3.93	
	75 Styrene	104	11.029	11.029	(1.044)	16739	5.00000	3.77	
	76 Bromoform	173	11.103	11.103	(1.051)	12410	5.00000	4.74(M)	NI

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.224	11.225	(1.063)	15978	5.00000	3.97	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	114113	50.0000	48.0	
	79 cis-1,4-Dichloro-2-butene	53	11.493	11.487	(1.088)	4646	5.00000	4.88	
	80 n-Propylbenzene	91	11.529	11.523	(1.092)	41636	5.00000	4.48	
	81 Bromobenzene	156	11.578	11.578	(1.096)	13586	5.00000	4.58	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	15768	5.00000	5.08	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	23455	5.00000	4.15	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	8976	5.00000	4.46	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	8467	5.00000	4.29	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	24864	5.00000	3.71	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	15868	5.00000	4.99	
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	3621	5.00000	4.85(M)	NI
	89 Cyclohexanone	98	Compound Not Detected.						(D)
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	19573	5.00000	3.52	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	22168	5.00000	3.89	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	26110	5.00000	3.85	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	19573	5.00000	3.52	
	94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	20960	5.00000	4.64	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	171143	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	24168	5.00000	4.83	
	97 n-Butylbenzene	91	12.486	12.486	(1.012)	24705	5.00000	4.14	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	22957	5.00000	4.66	
	99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	2892	5.00000	5.17	
	100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	6852	5.00000	4.49	
	101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	15217	5.00000	4.69	
	102 Naphthalene	128	14.200	14.193	(1.151)	22100	5.00000	3.96	
	103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	13936	5.00000	4.45	

QC Flag Legend

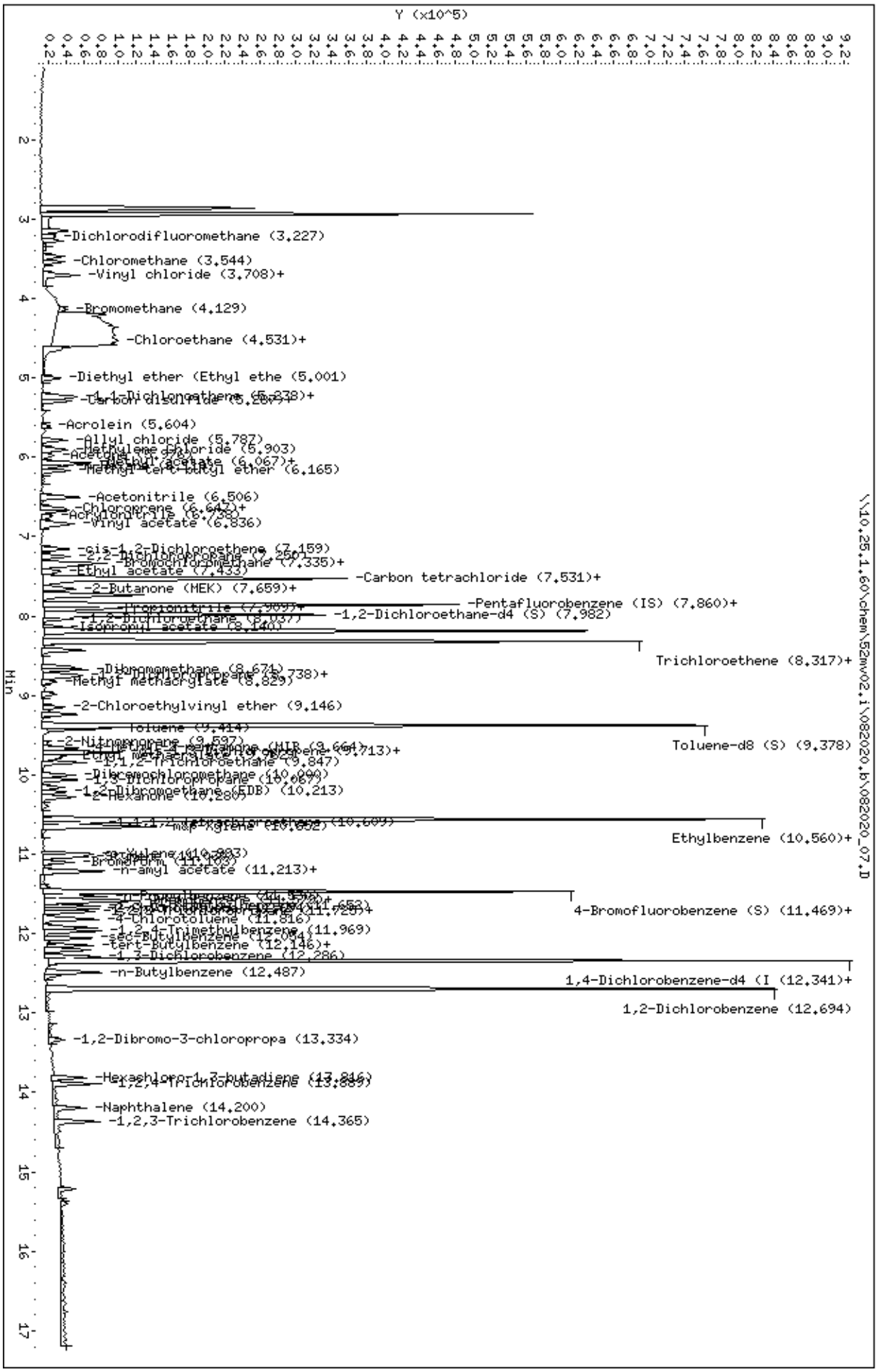
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_07.D
Date : 20-AUG-2020 12:30
Client ID: CAL5
Sample Info: CAL5,27241:1
Purge Volume: 5.0
Column phase: RTX-VMS

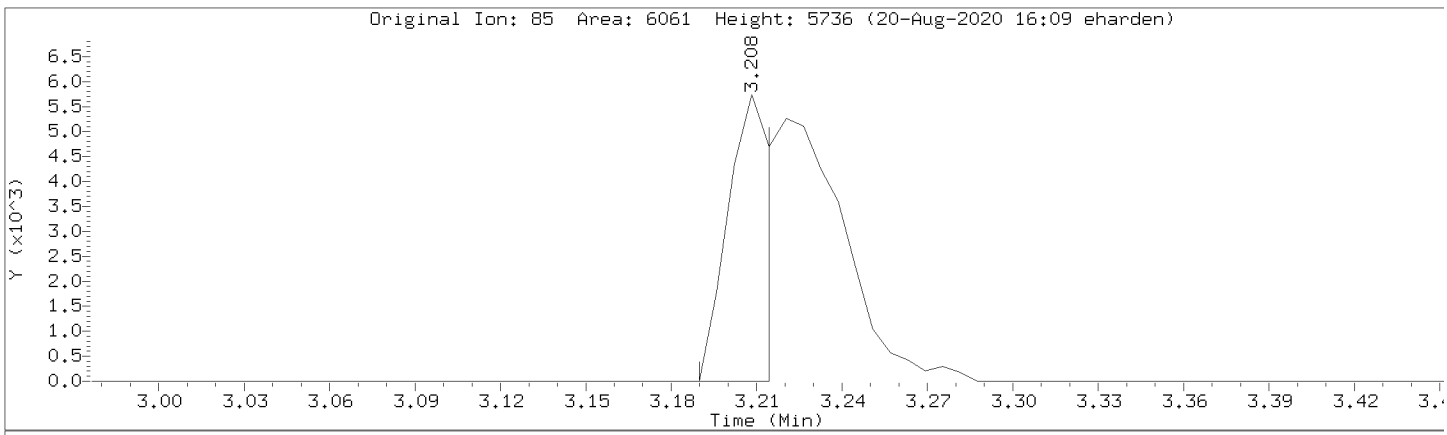
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

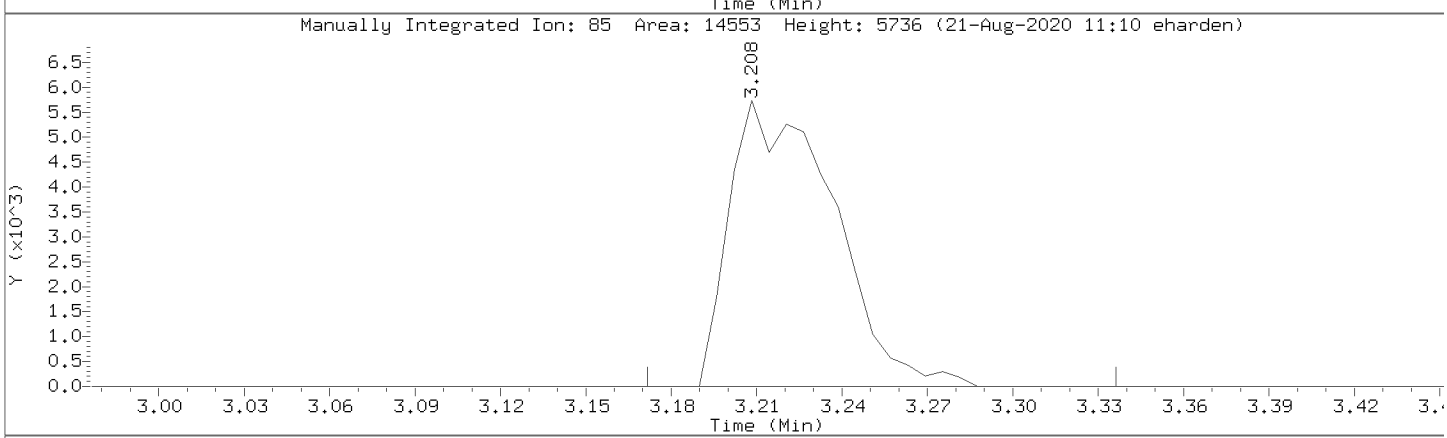


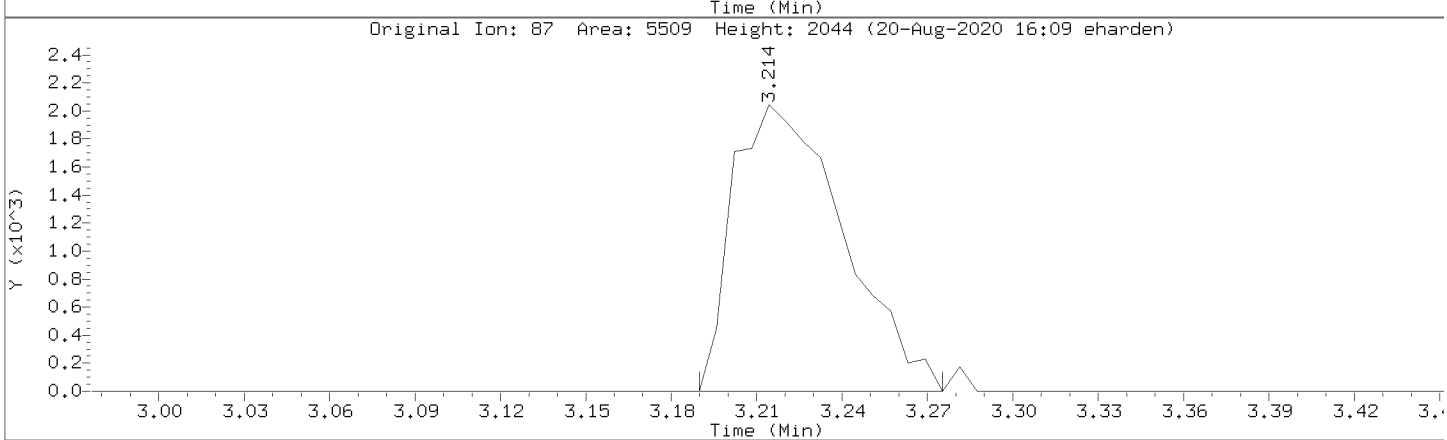
Page 4

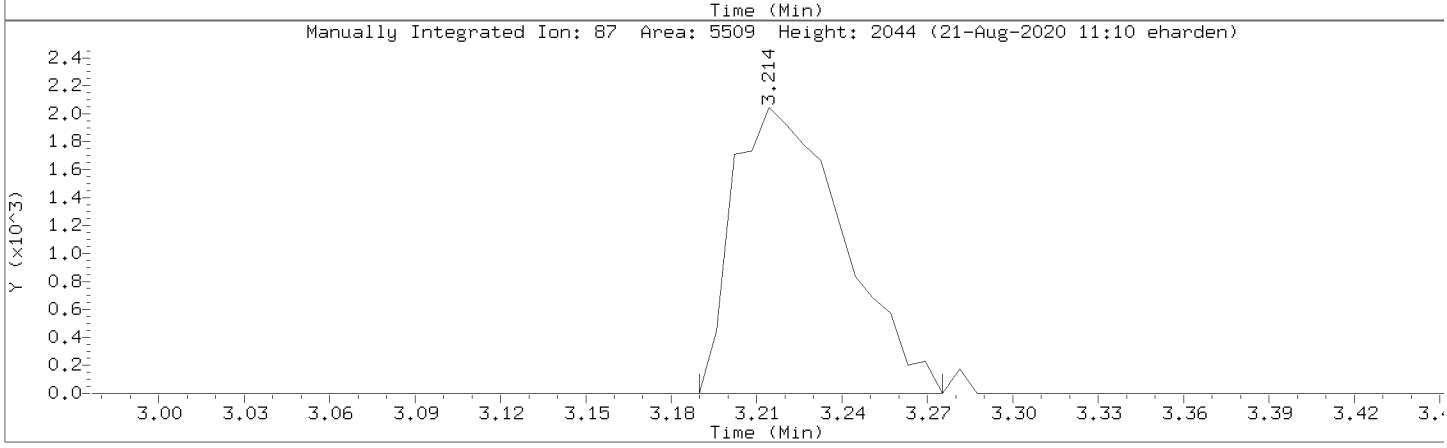
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_07.D
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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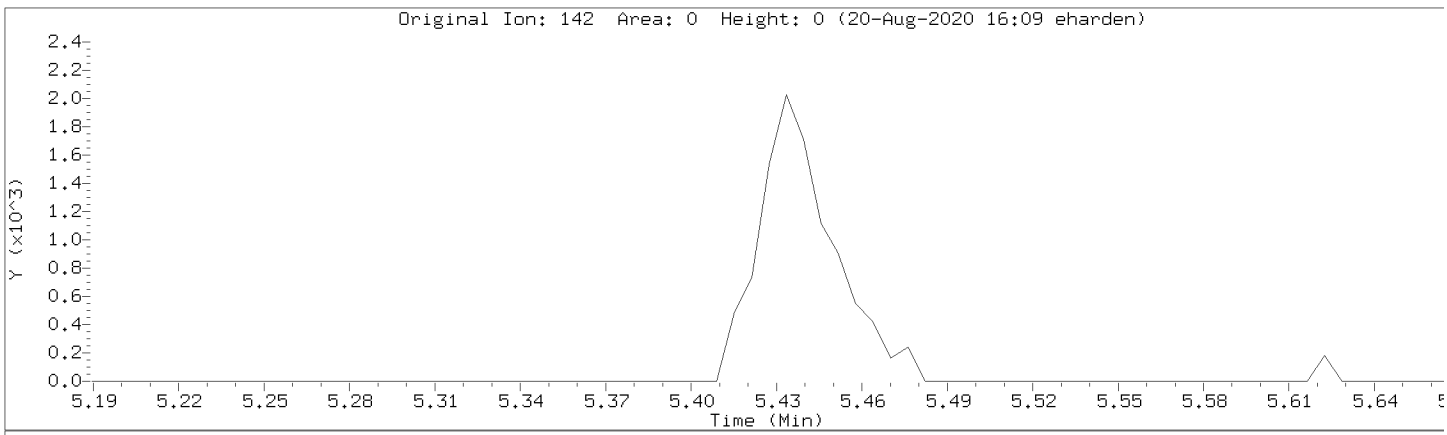
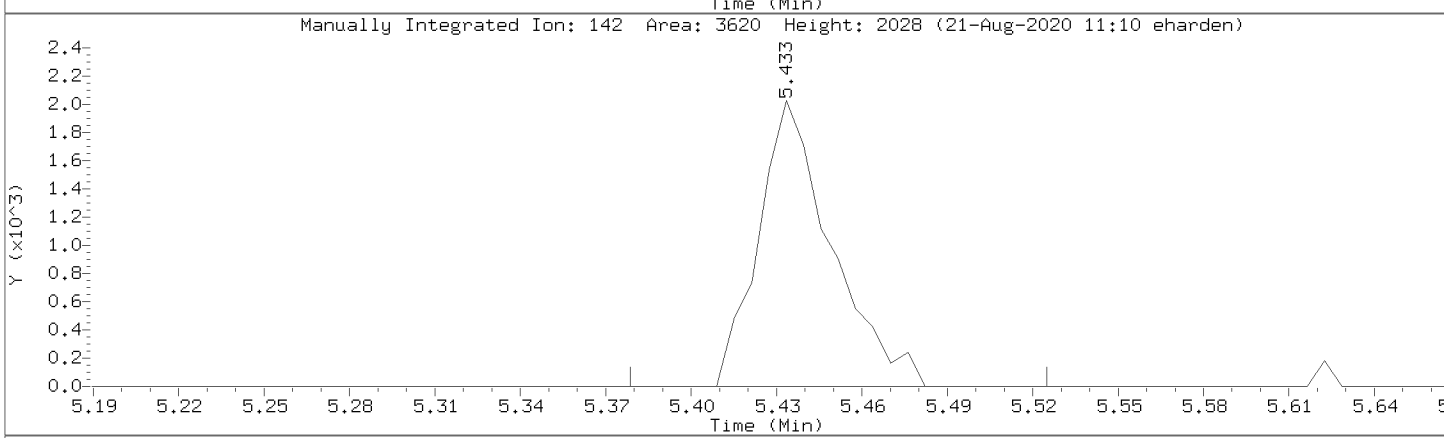
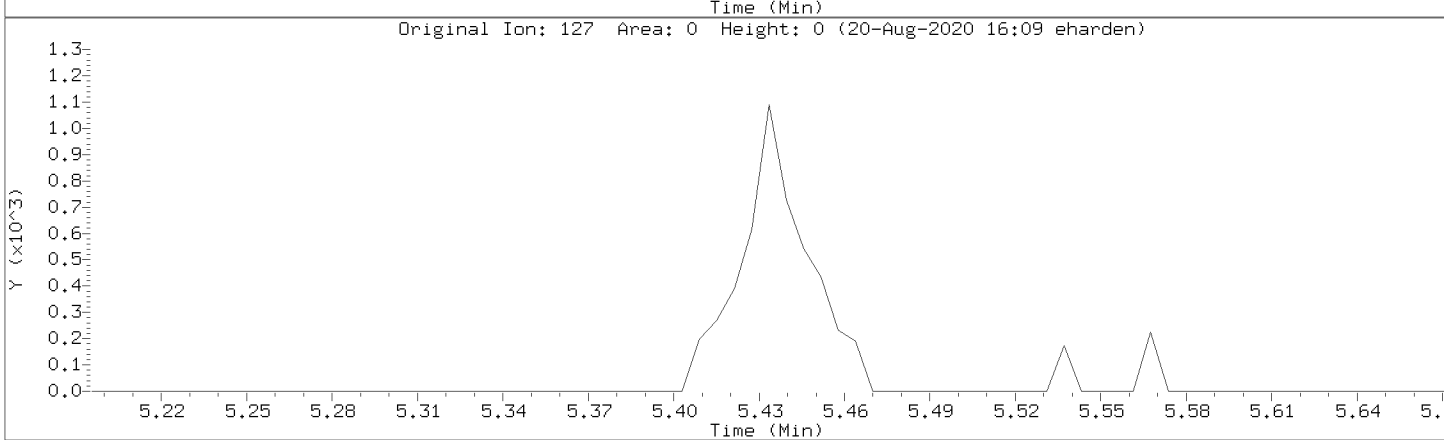
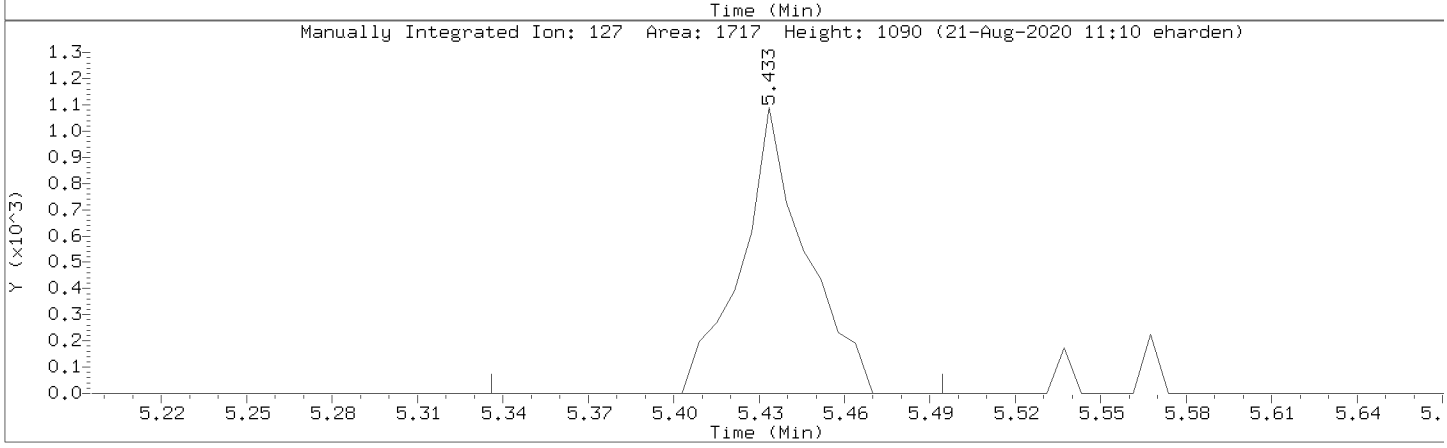
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4









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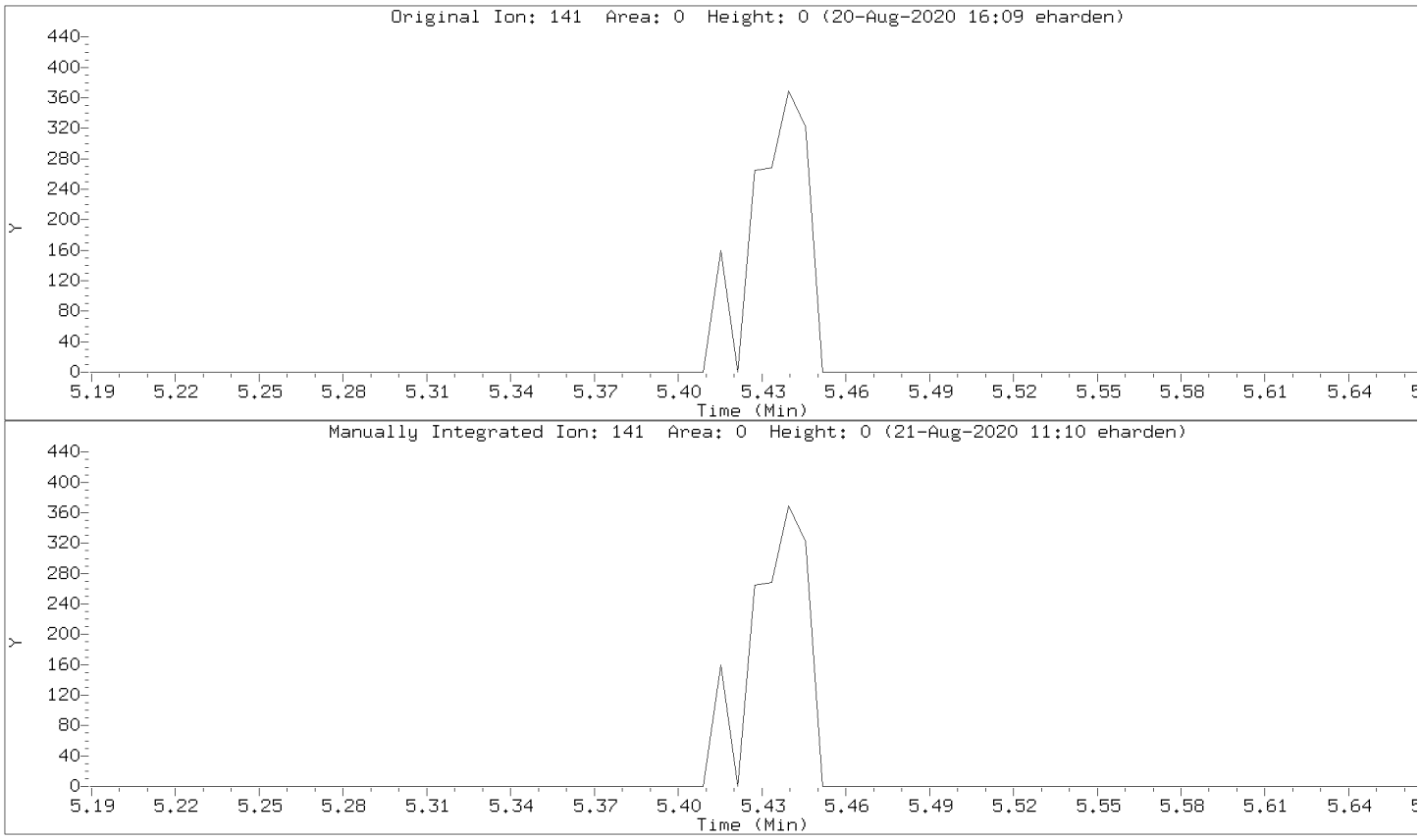
Instrument: 52mv02.i
Lab Sample ID: CAL5



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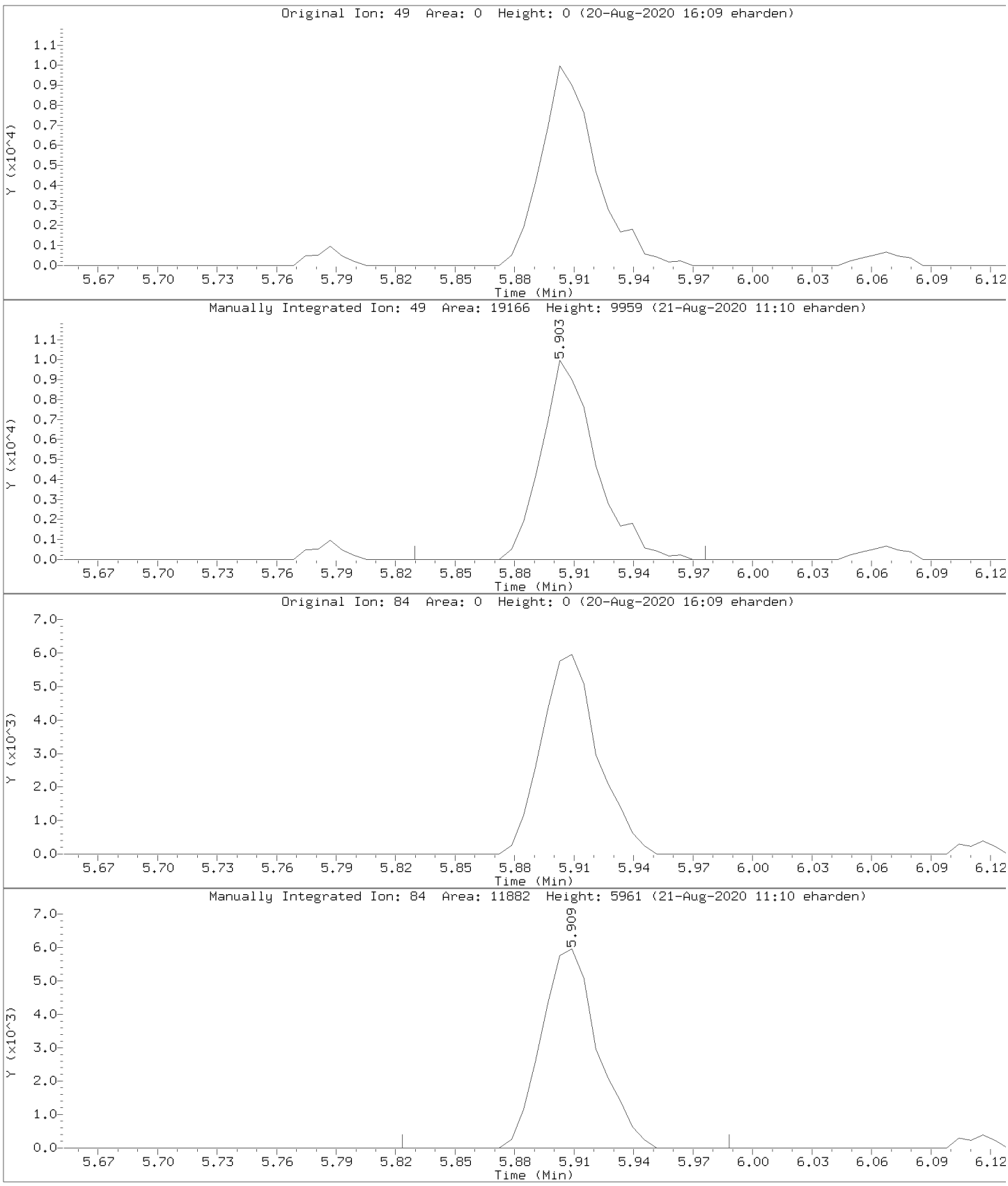
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2



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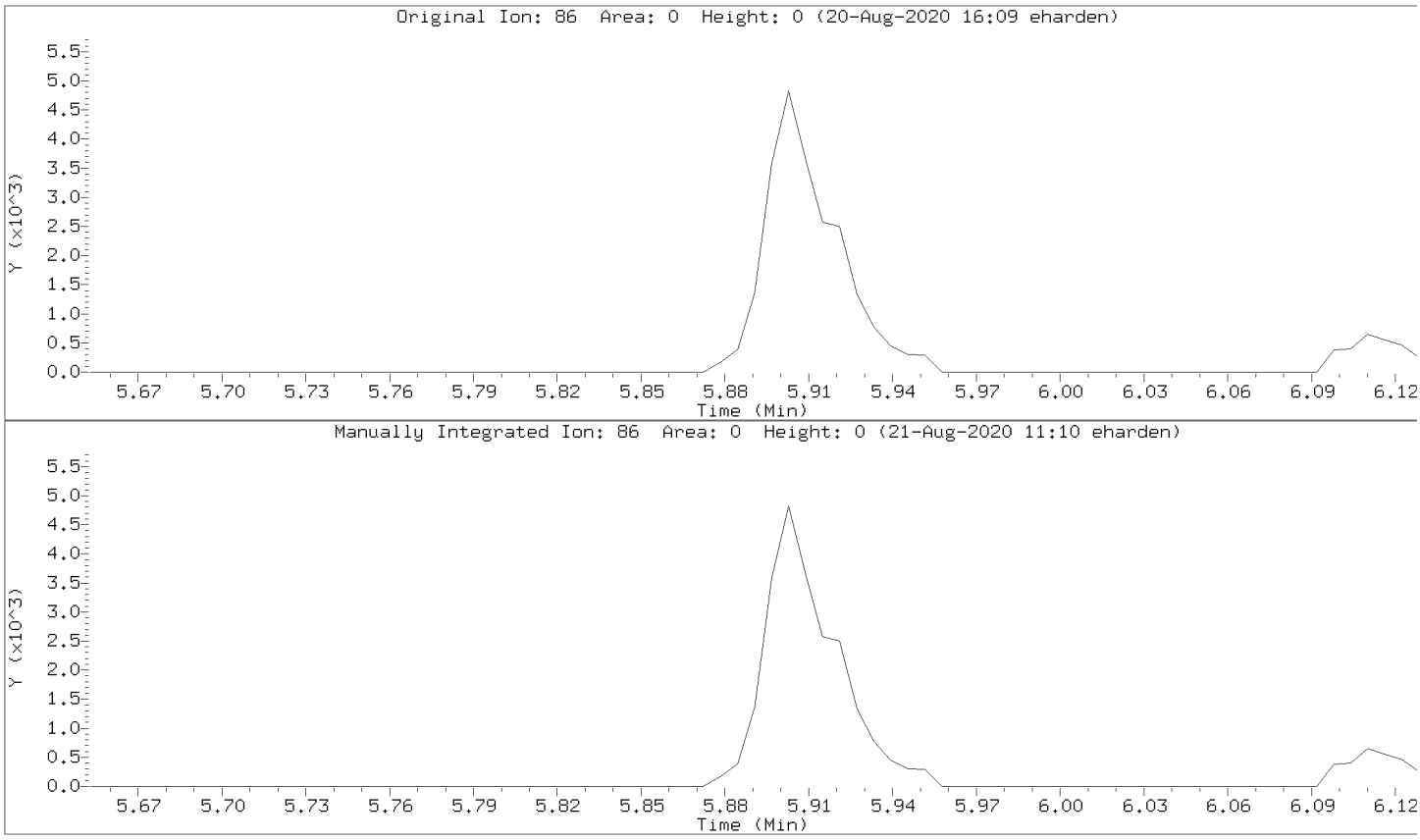
Instrument: 52mv02.i
Lab Sample ID: CAL5



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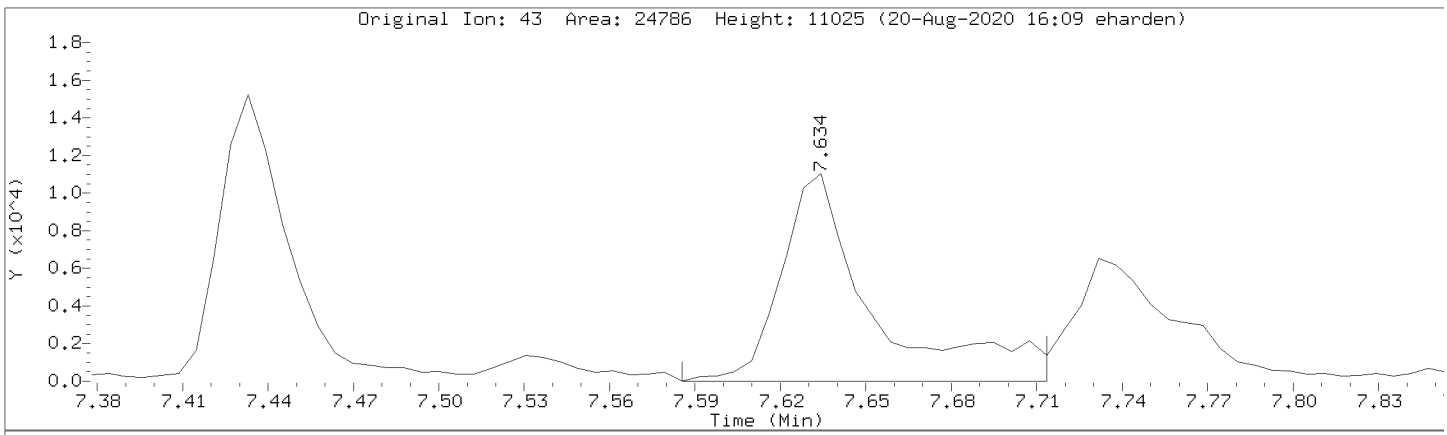
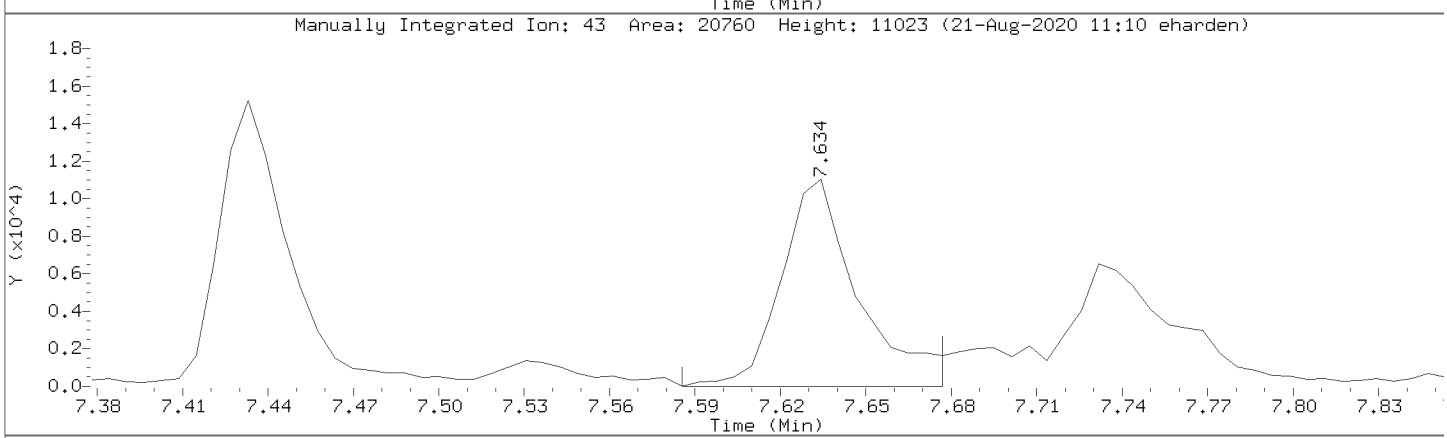
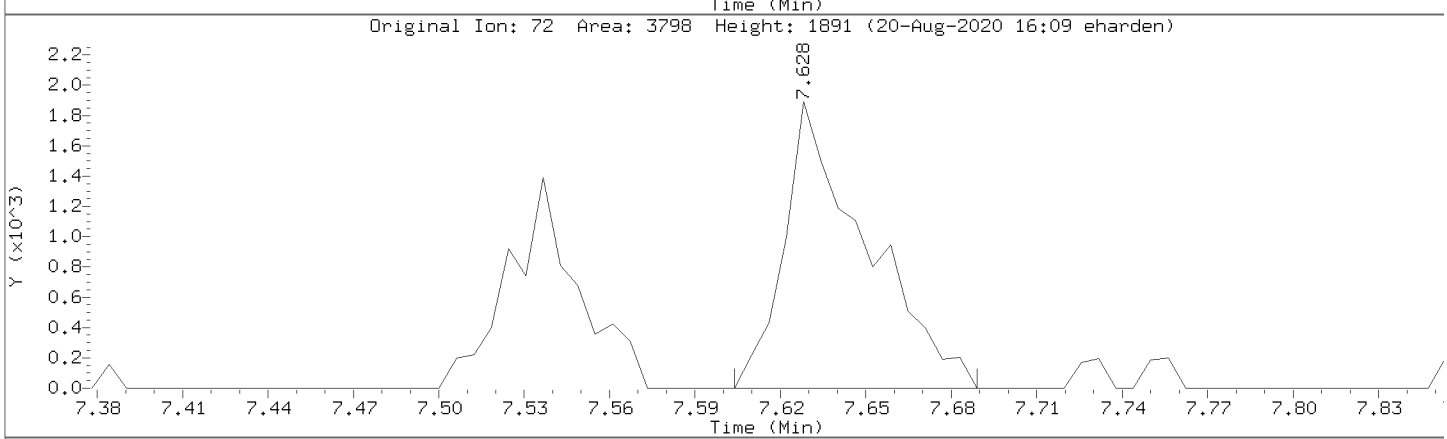
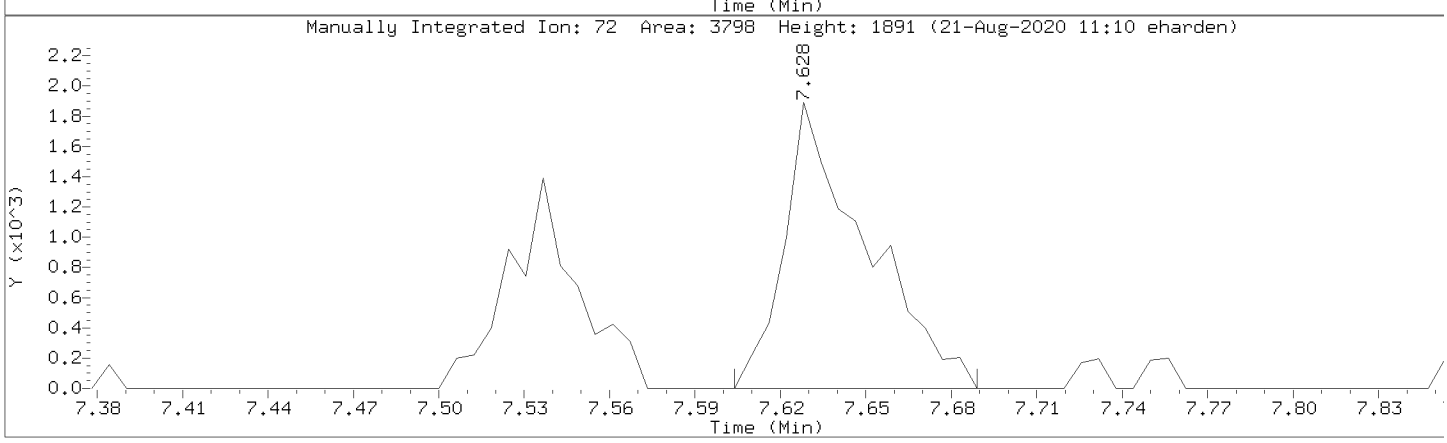
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3









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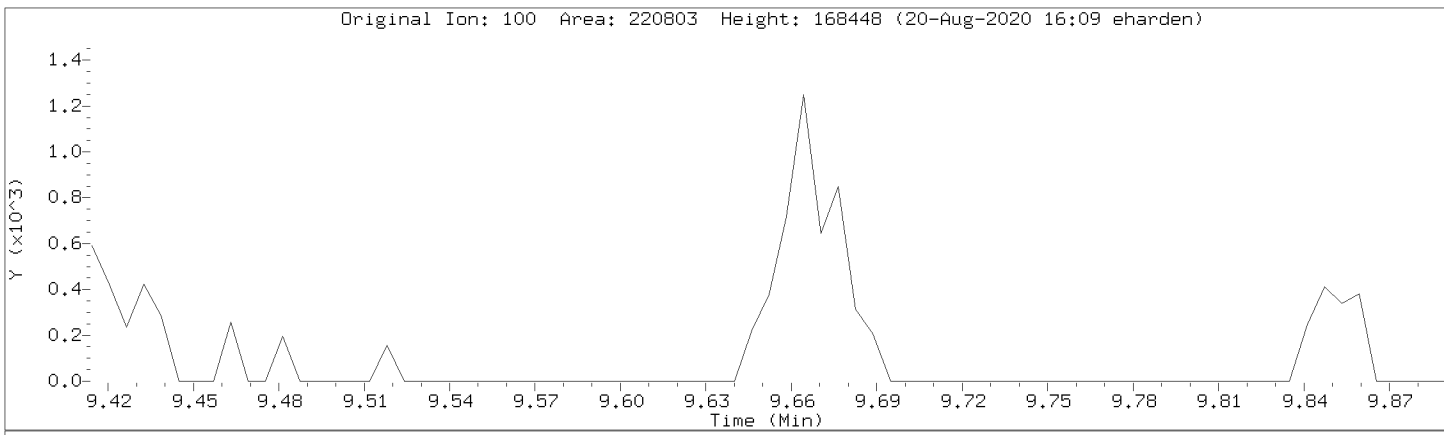
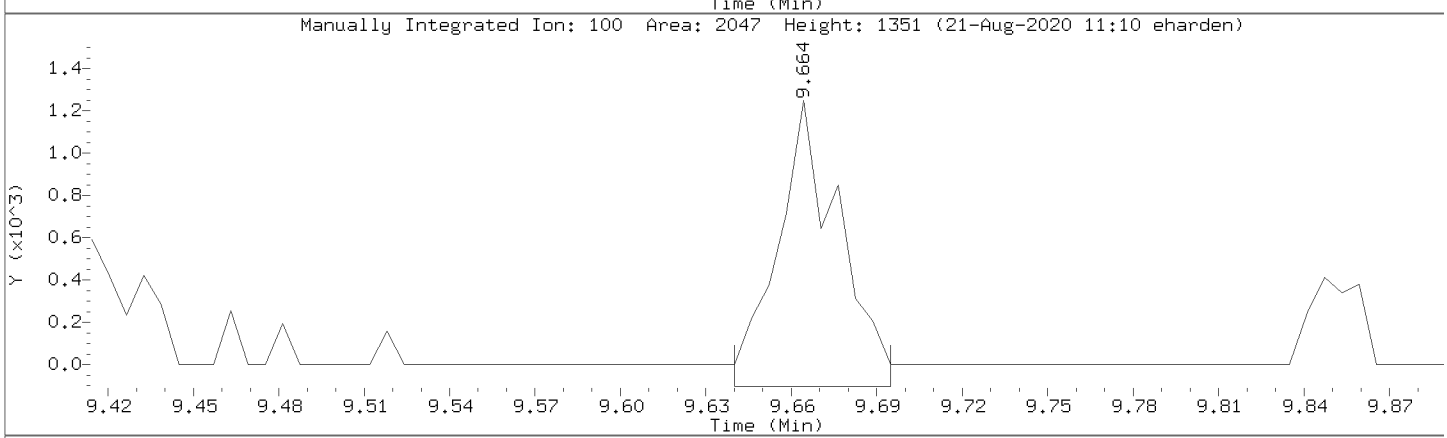
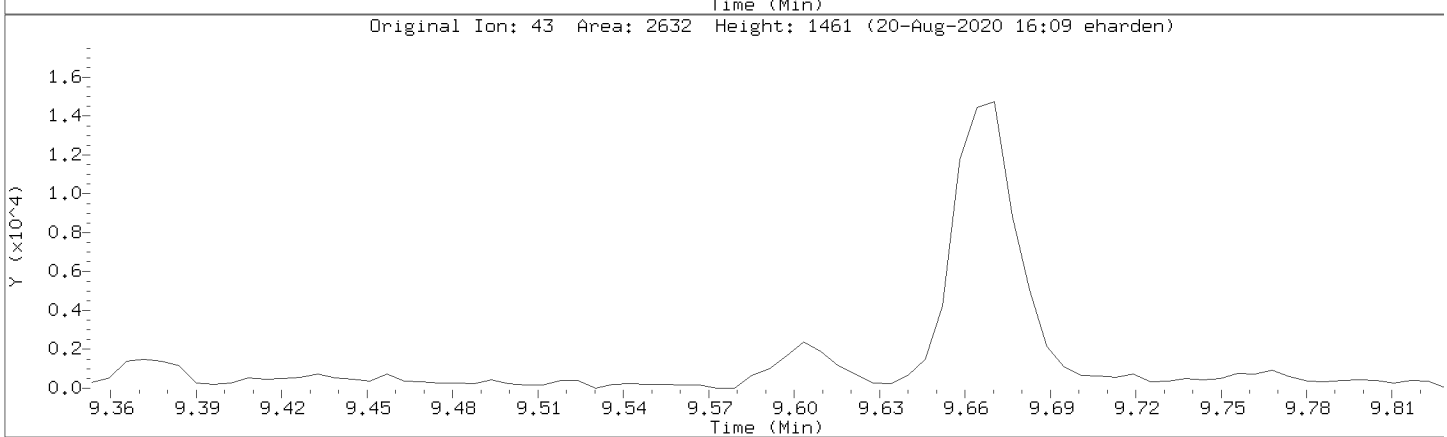
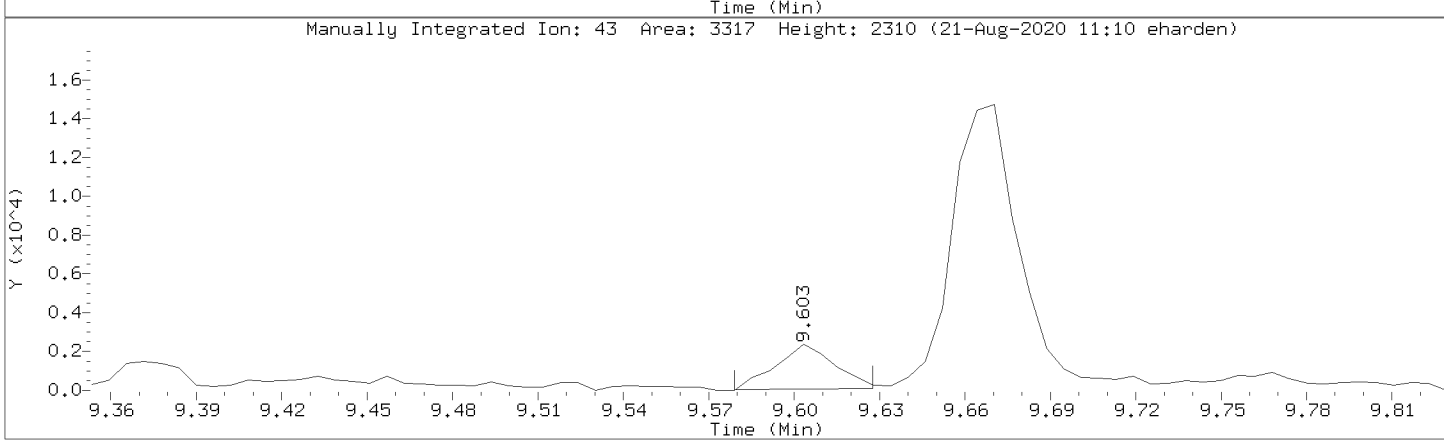
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1

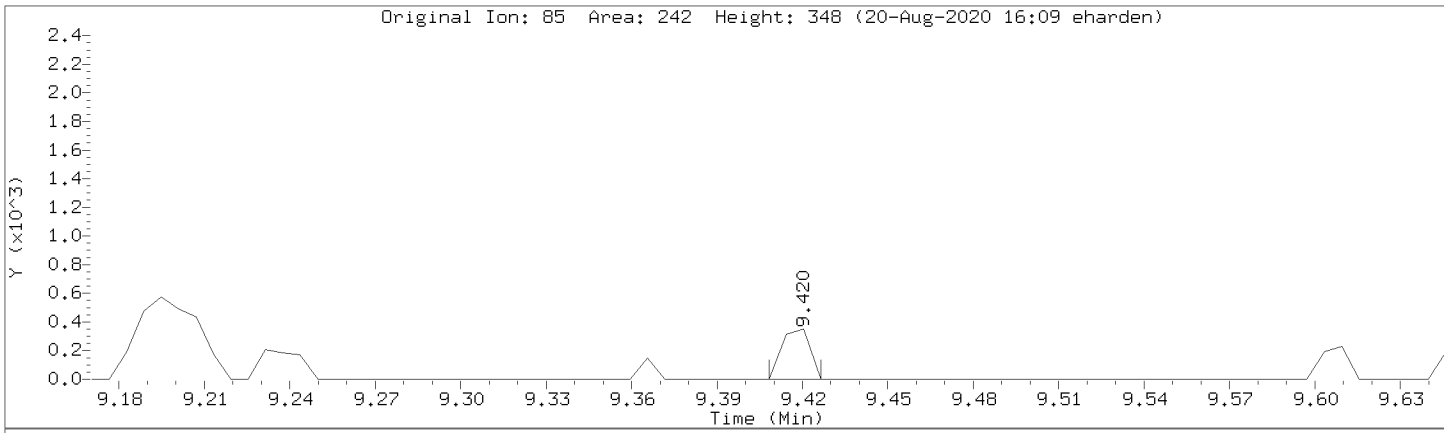


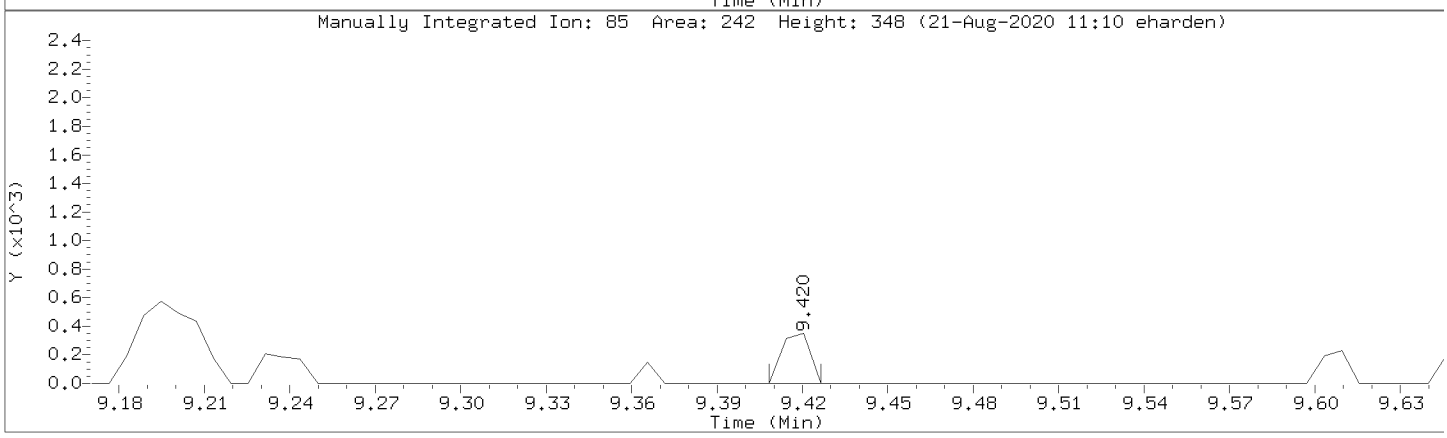






Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_07.D
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5





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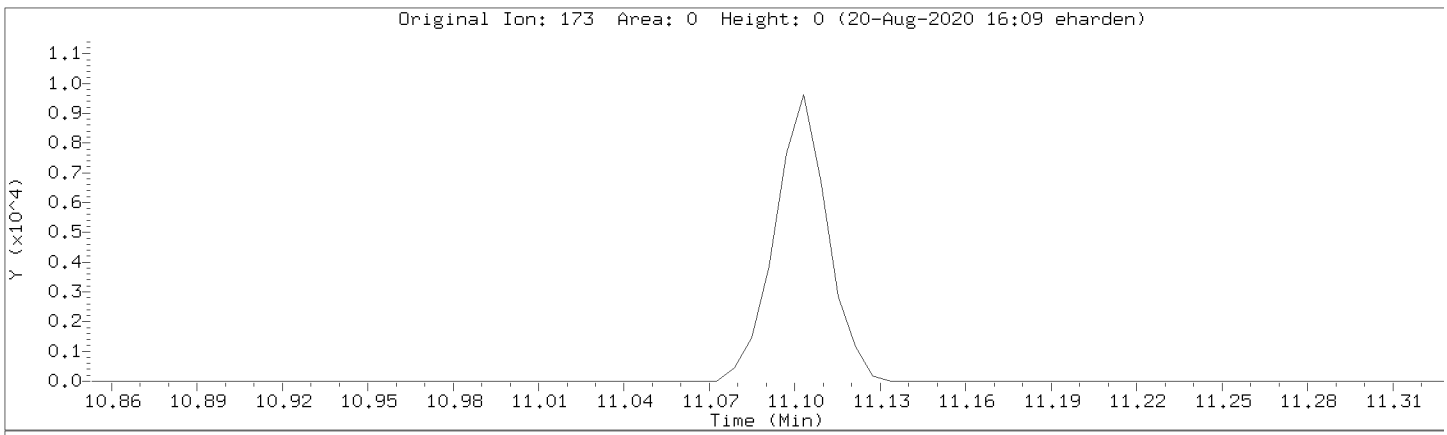
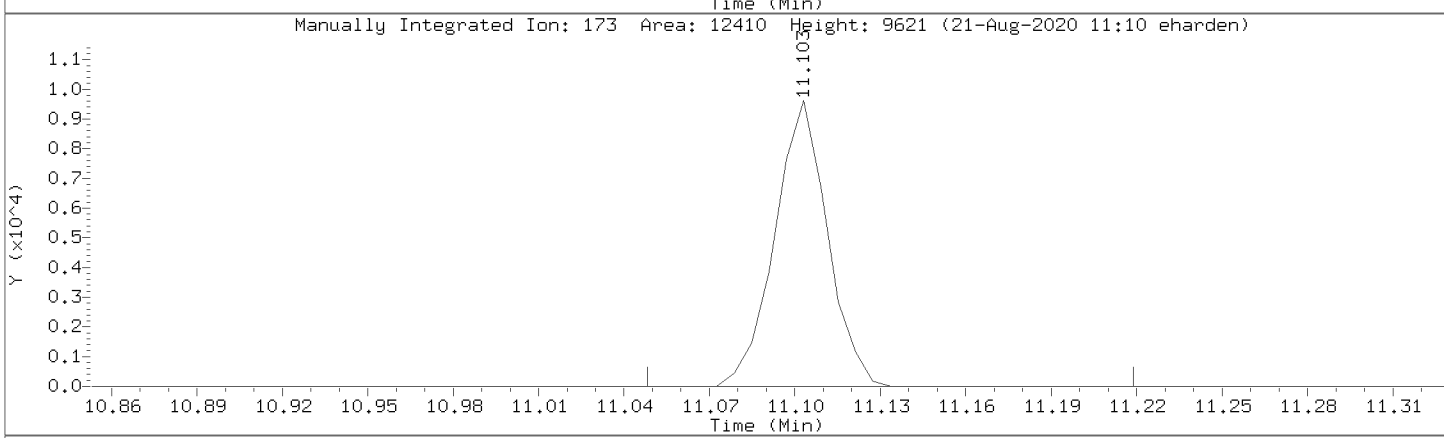
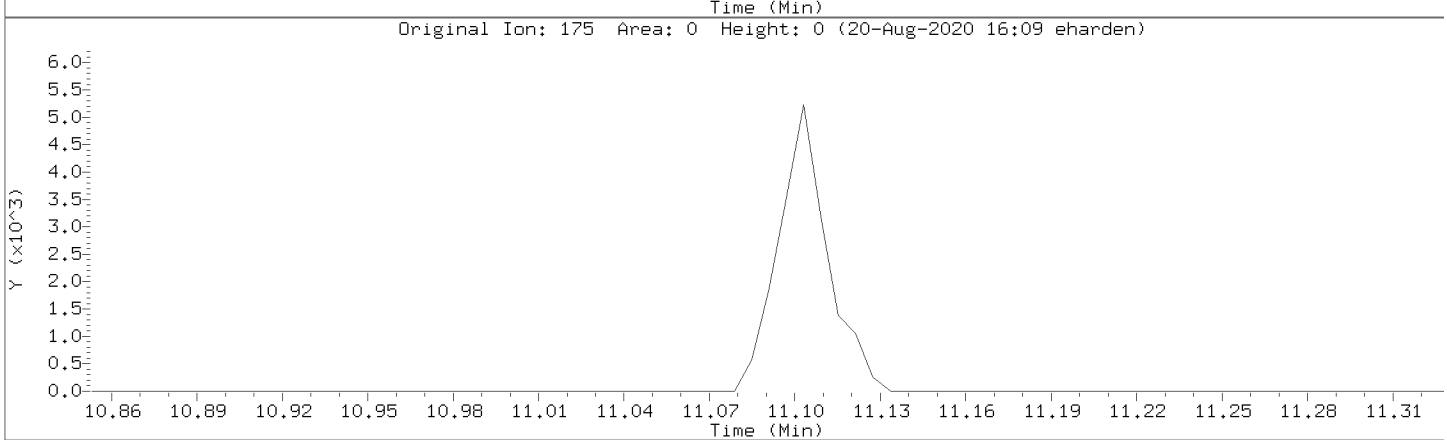
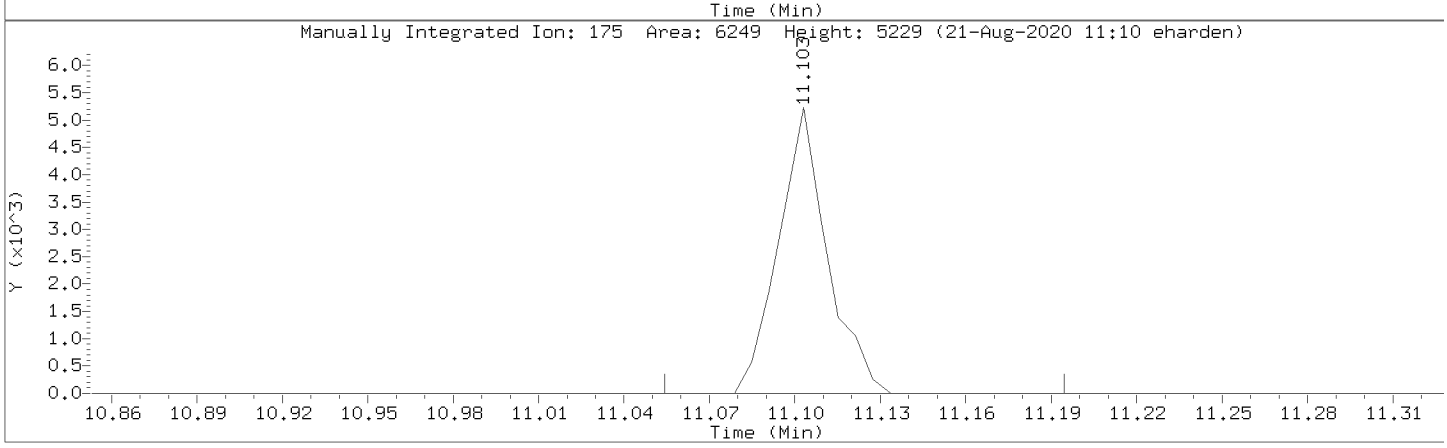
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2









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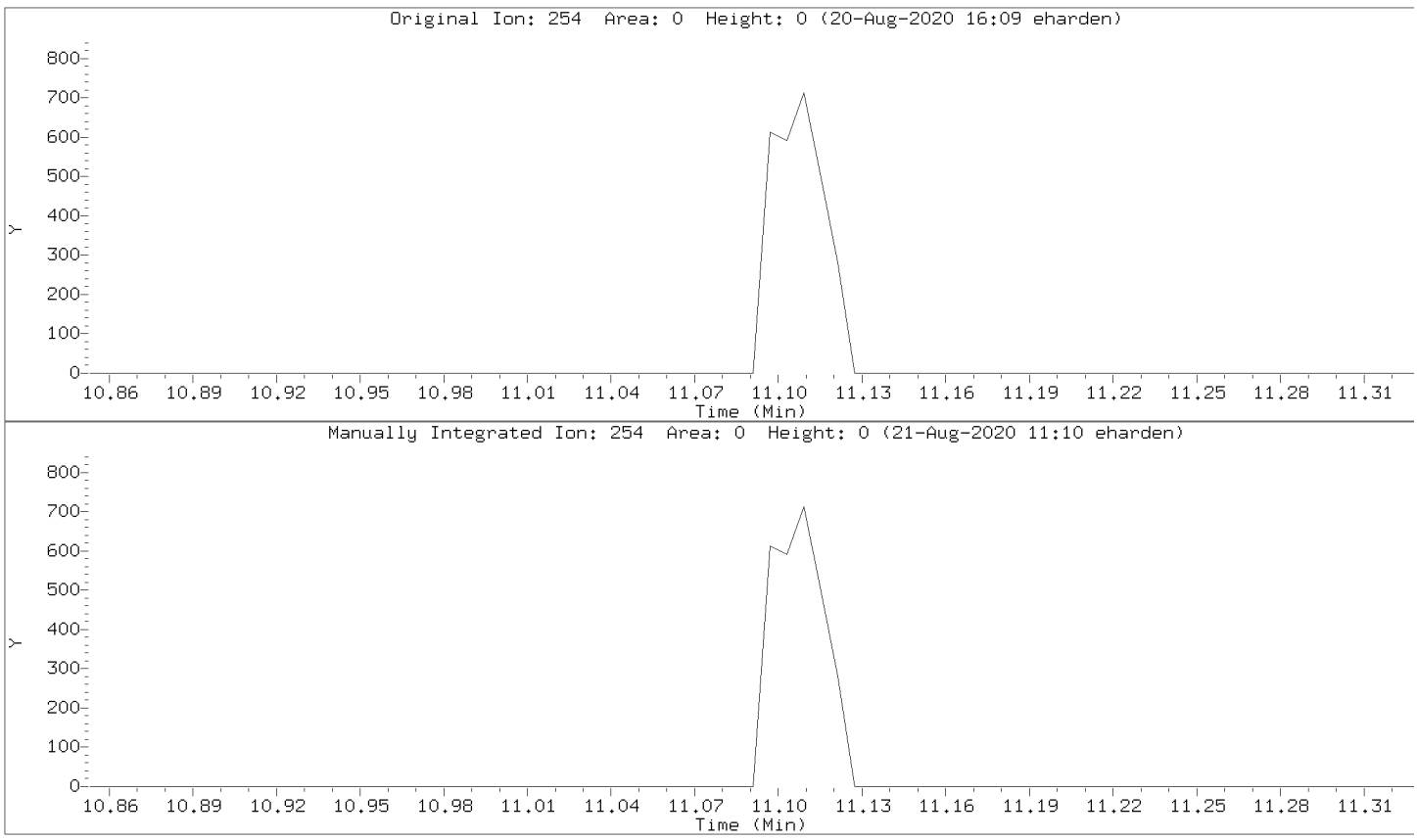
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5



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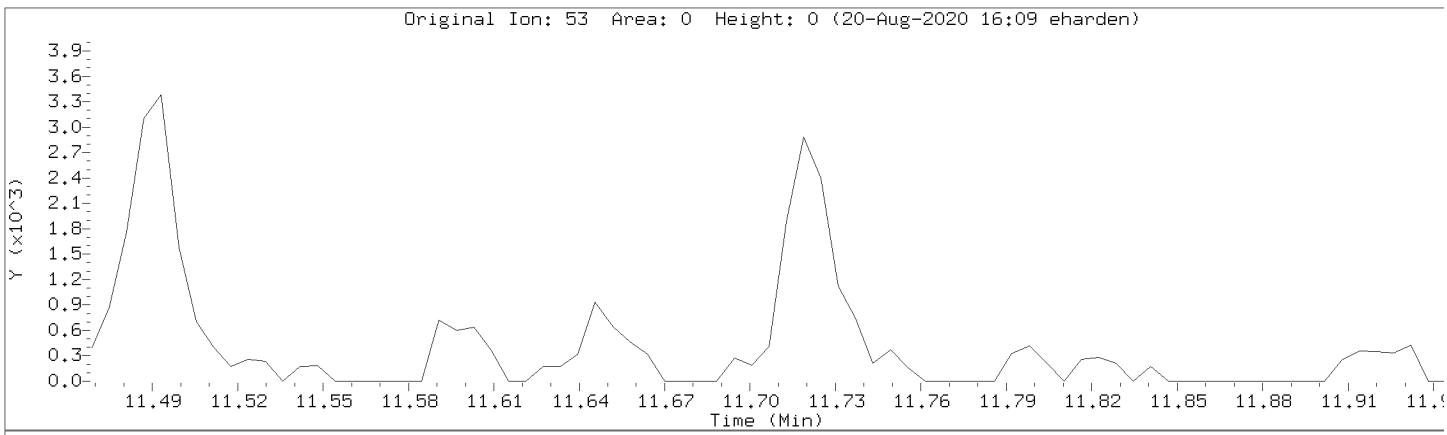
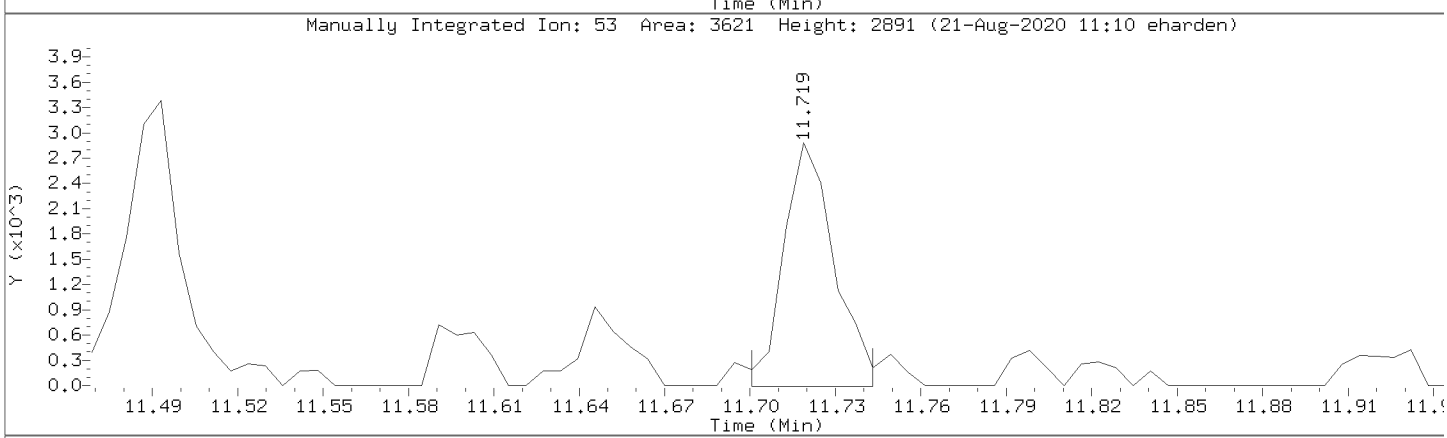
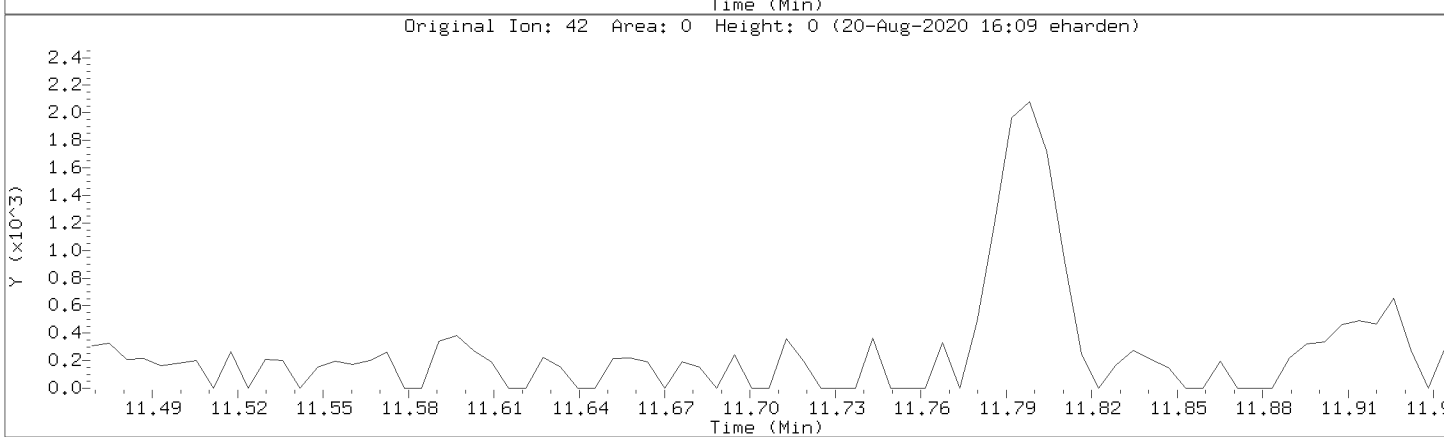
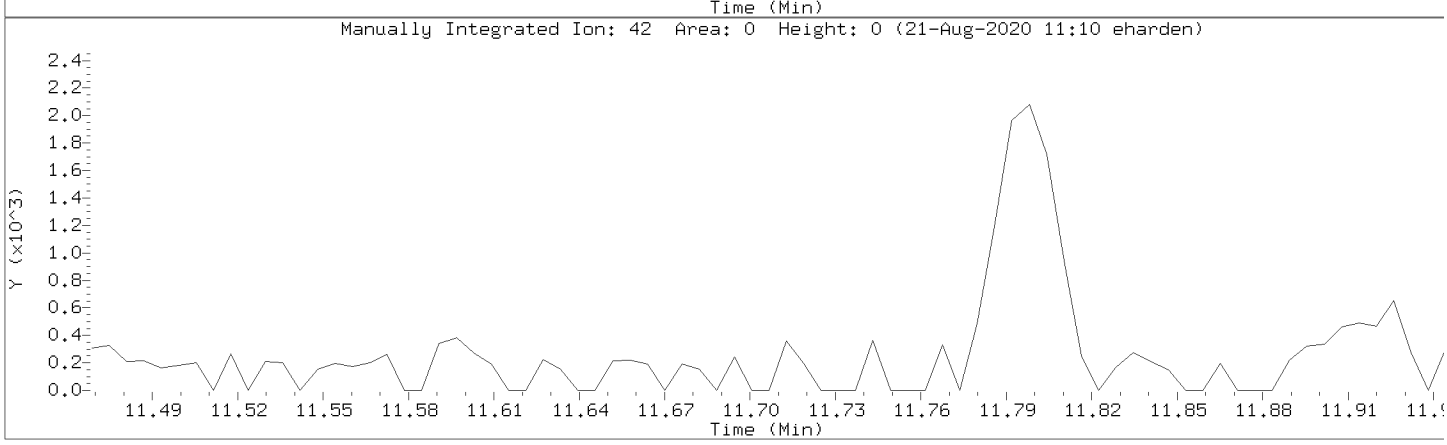
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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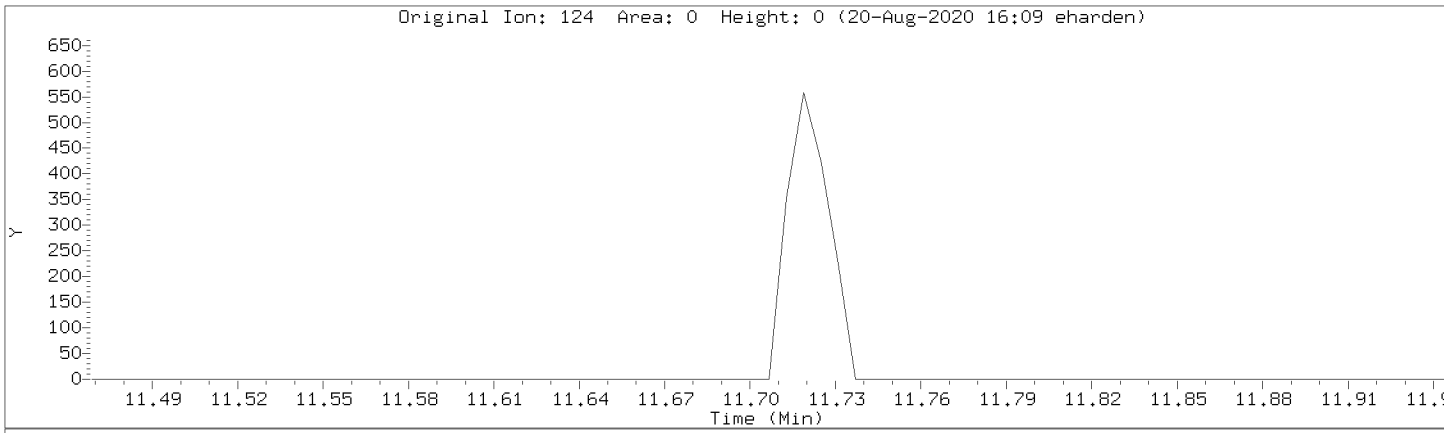
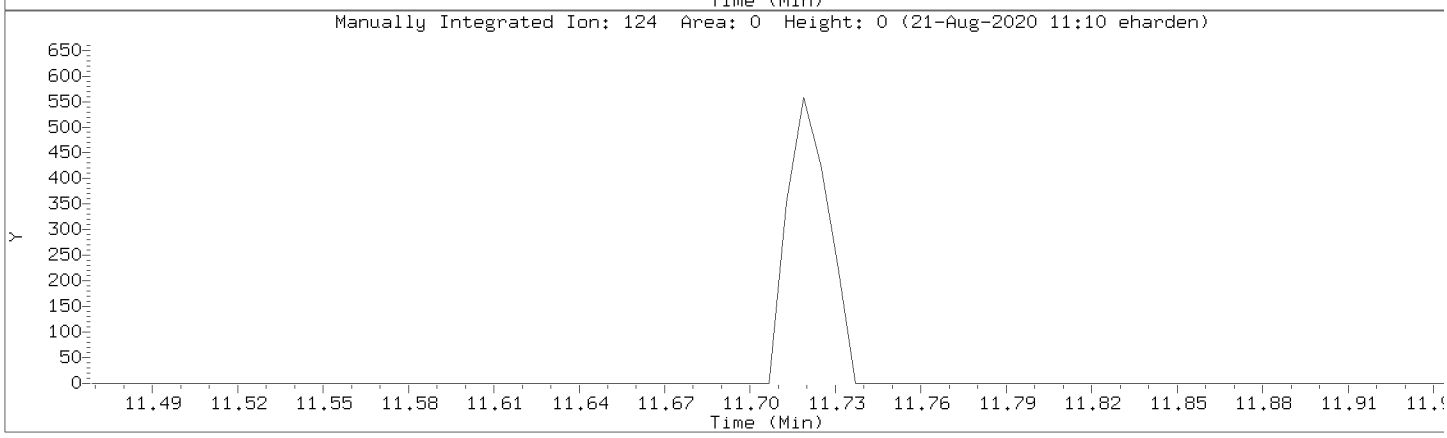
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_08.D
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 20-AUG-2020 12:55
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal6,27242:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 12:55 Cal File: 082020_08.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.226	(0.409)	29295	10.0000	9.84	
2 Chloromethane	50	3.543	3.543	(0.451)	39151	10.0000	10.6	
3 Vinyl chloride	62	3.689	3.702	(0.469)	28051	10.0000	9.58	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	27387	10.0000	10.4	
5 Bromomethane	94	4.195	4.195	(0.534)	32621	10.0000	12.4	
6 Chloroethane	64	4.360	4.360	(0.555)	10189	10.0000	11.8	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	18512	10.0000	9.94	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	11455	10.0000	11.2	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	37044	10.0000	11.2	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	23374	10.0000	10.7	
11 Carbon disulfide	76	5.293	5.293	(0.673)	81296	10.0000	11.1	
12 Iodomethane	142	5.433	5.439	(0.691)	8958	10.0000	9.59(T)	
13 Acrolein	56	5.659	5.659	(0.720)	6578	20.0000	19.2	
14 Allyl chloride	76	5.780	5.787	(0.736)	10499	10.0000	10.3	
15 Methylene Chloride	49	5.902	5.902	(0.751)	42293	10.0000	10.8(T)	
16 Acetone	43	5.969	5.976	(0.760)	44985	20.0000	22.1	
17 Methyl acetate	43	6.073	6.067	(0.773)	48220	20.0000	20.6	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	24253	10.0000	10.8	
19 n-Hexane	86	6.110	6.110	(0.777)	2234	10.0000	9.43	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	51088	10.0000	9.80	
21 Acetonitrile	41	6.457	6.463	(0.822)	3493	20.0000	16.2(H)	
22 Chloroprene	53	6.640	6.640	(0.845)	30445	10.0000	9.77	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	47900	10.0000	11.0	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	17593	20.0000	18.6	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	44750	10.0000	10.4(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	33510	10.0000	10.5	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	36245	10.0000	10.8	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	15015	10.0000	10.7	
	29 Cyclohexane	56	7.335	7.335	(0.882)	26642	10.0000	9.35	
	30 Chloroform	83	7.372	7.372	(0.938)	52677	10.0000	10.7	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	56268	20.0000	20.3	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	36580	10.0000	10.8	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	14388	20.0000	19.0	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	146283	50.0000	51.5	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	41497	10.0000	10.8	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	42963	20.0000	20.3	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	26914	10.0000	10.1(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	246807	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	92640	10.0000	10.8	
	40 Propionitrile	54	7.890	7.902	(1.004)	9386	20.0000	22.3	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	44057	20.0000	20.6	
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25345	50.0000	49.6	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	40332	10.0000	10.4	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	46853	10.0000	10.2	
	46 Trichloroethene	130	8.323	8.317	(1.001)	25650	10.0000	11.0	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	334966	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	10846	10.0000	9.77	
	49 n-Butanol	56	8.518	8.524	(1.024)	718	20.0000	14.0(MH)	LT
	50 Dibromomethane	93	8.670	8.670	(1.043)	22088	10.0000	11.1	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	26011	10.0000	10.6	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	41201	10.0000	11.7	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	11241	10.0000	8.54(H)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						(D)
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	17674	20.0000	15.5	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	34756	10.0000	10.2	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	363232	50.0000	50.4	
	58 Toluene	91	9.414	9.414	(1.132)	87179	10.0000	10.4	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	8683	10.0000	10.0(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.670	9.664	(1.163)	4550	20.0000	19.0(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	34380	10.0000	10.1	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	22100	10.0000	10.4	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	20969	10.0000	8.39(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	22063	10.0000	10.4	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	32178	10.0000	11.0	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	34242	10.0000	10.6	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	27035	10.0000	10.7	
	68 2-Hexanone	43	10.273	10.280	(1.235)	55414	20.0000	19.6	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	77797	10.0000	9.64	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	308495	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	63961	10.0000	10.7	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	26243	10.0000	10.4	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	122019	20.0000	17.6	
	74 o-Xylene	106	10.993	10.993	(1.041)	25872	10.0000	8.21	
	75 Styrene	104	11.029	11.029	(1.044)	44191	10.0000	8.11	
	76 Bromoform	173	11.103	11.103	(1.051)	29236	10.0000	10.5	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.225	11.225	(1.063)	38823	10.0000	8.40	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	123406	50.0000	48.7	
	79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	9323	10.0000	9.20	
	80 n-Propylbenzene	91	11.523	11.523	(1.091)	101972	10.0000	10.3	
	81 Bromobenzene	156	11.578	11.578	(1.096)	33652	10.0000	10.8	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	36166	10.0000	11.0	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	61206	10.0000	9.66	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	22961	10.0000	10.0	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	19627	10.0000	8.56	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	66445	10.0000	8.28	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	34384	10.0000	9.96(M)	CO
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	7978	10.0000	10.0(M)	NI
	89 Cyclohexanone	98	Compound Not Detected.						
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	55461	10.0000	7.95	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	61898	10.0000	8.71	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	70909	10.0000	8.45	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	55461	10.0000	7.95	
	94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	52511	10.0000	10.3	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	191833	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	58586	10.0000	10.2	
	97 n-Butylbenzene	91	12.486	12.486	(1.012)	61276	10.0000	9.17	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	56996	10.0000	10.2	
	99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	5508	10.0000	8.78	
	100 Hexachloro-1,3-butadiene	225	13.815	13.822	(1.120)	17340	10.0000	10.1	
	101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	35572	10.0000	9.42	
	102 Naphthalene	128	14.193	14.193	(1.150)	52461	10.0000	7.46	
	103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	31470	10.0000	8.96	

QC Flag Legend

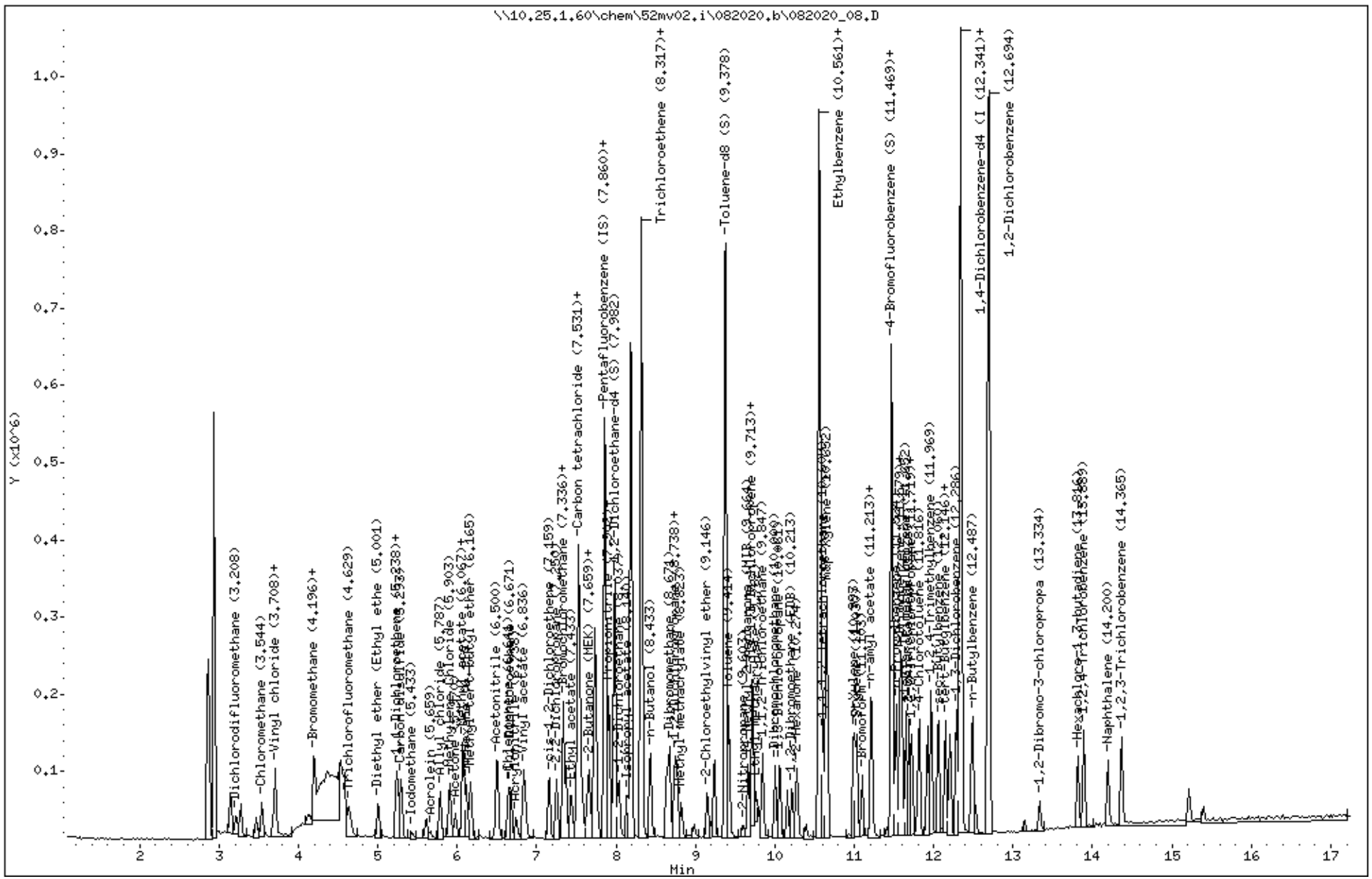
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_08.D
Date : 20-AUG-2020 12:55
Client ID: CAL6
Sample Info: CAL6,27242:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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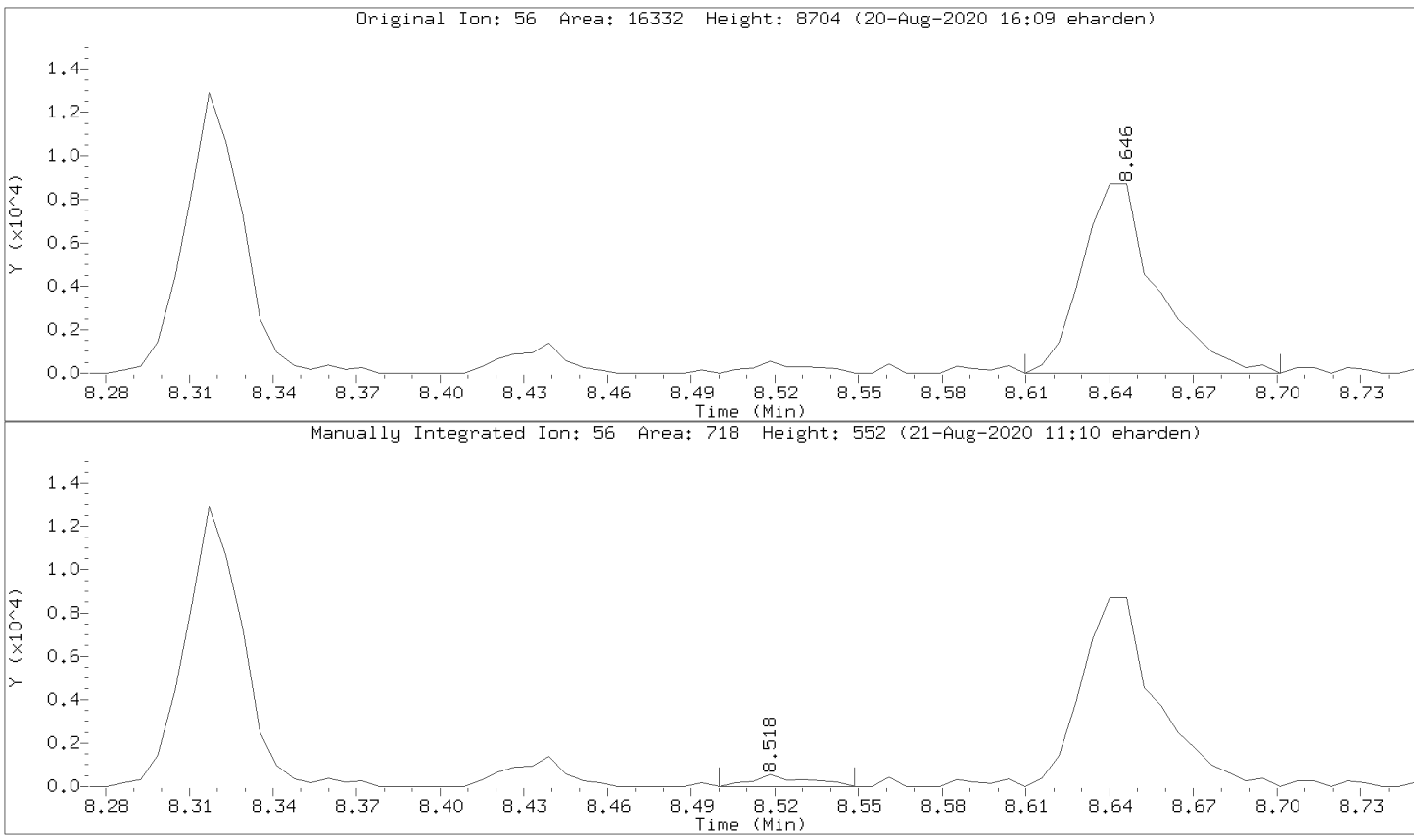
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: n-Butanol Review Code: LT
CAS Number: 71-36-3



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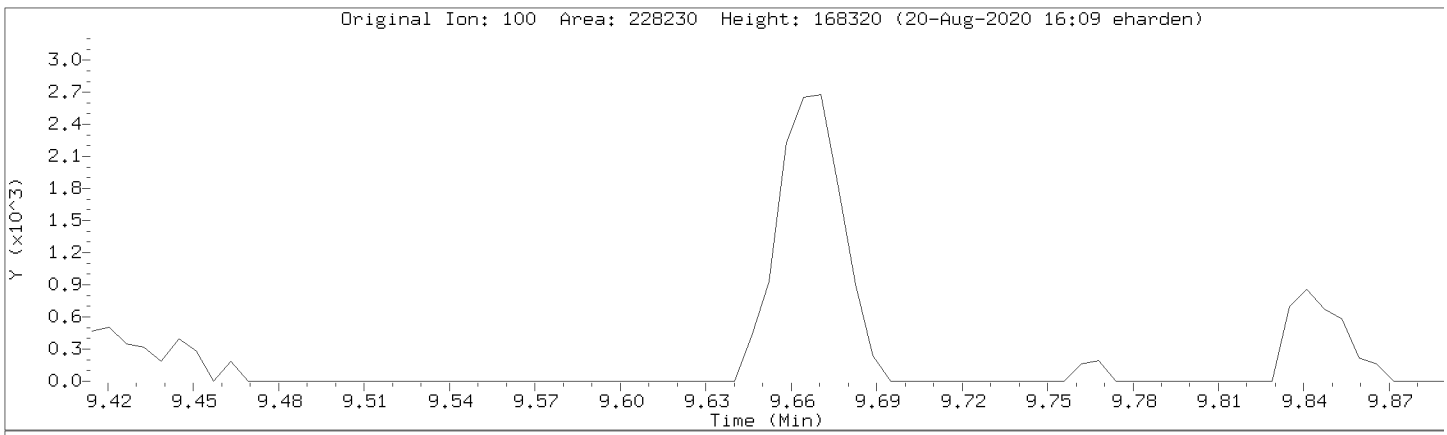
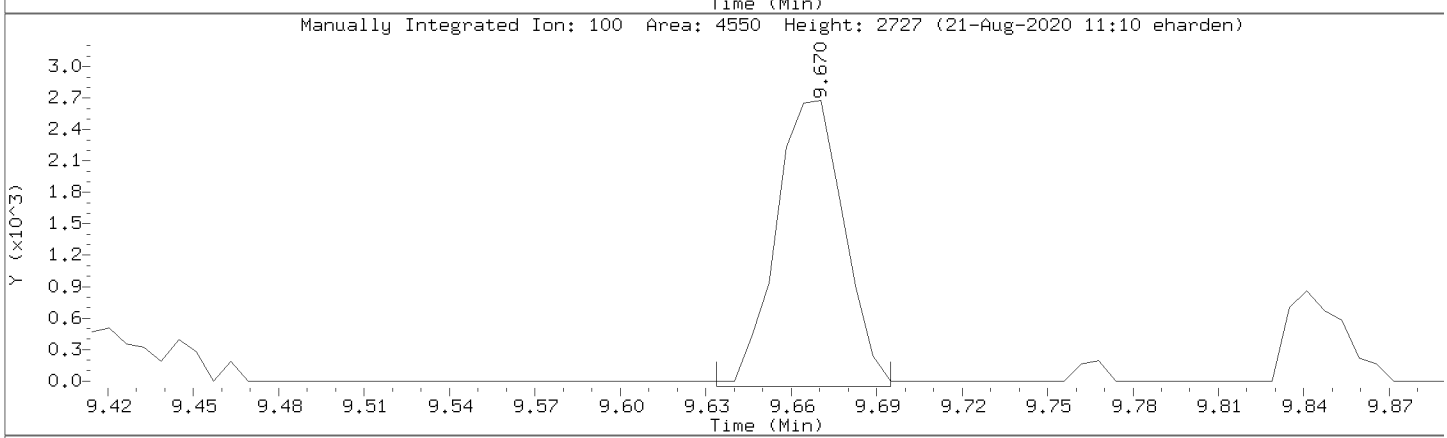
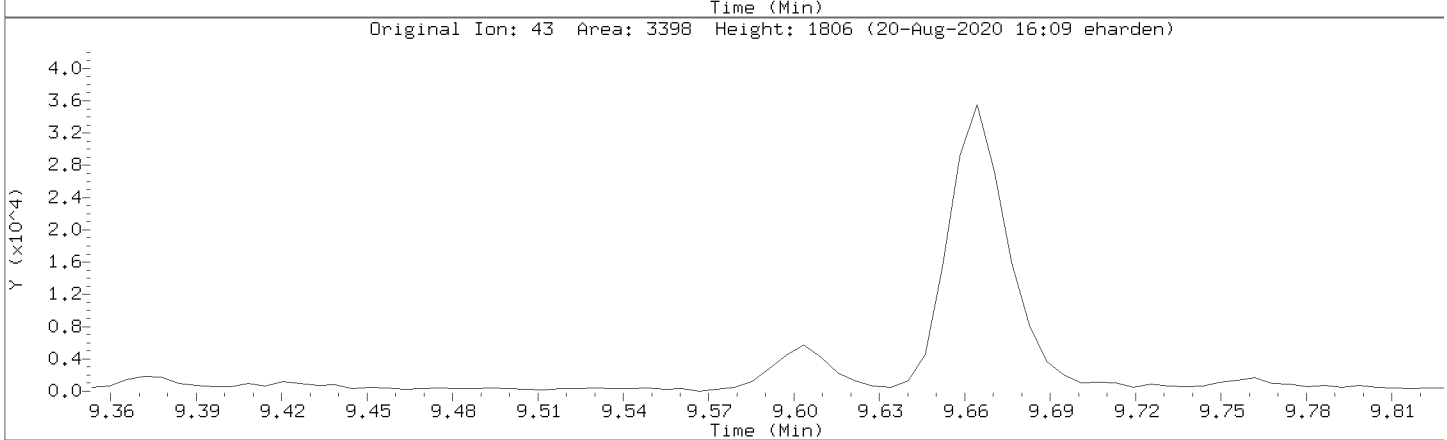
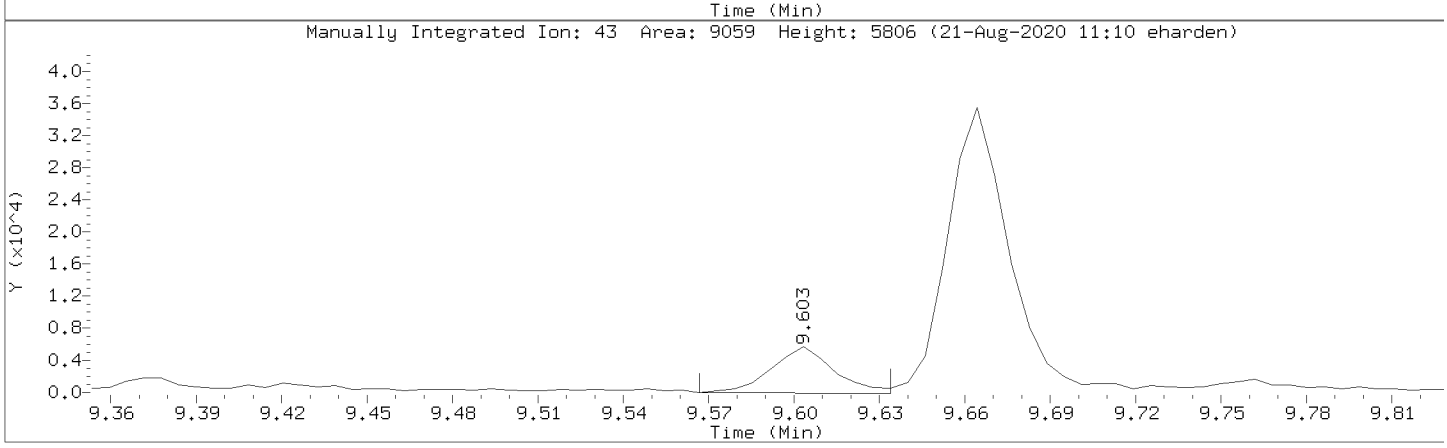
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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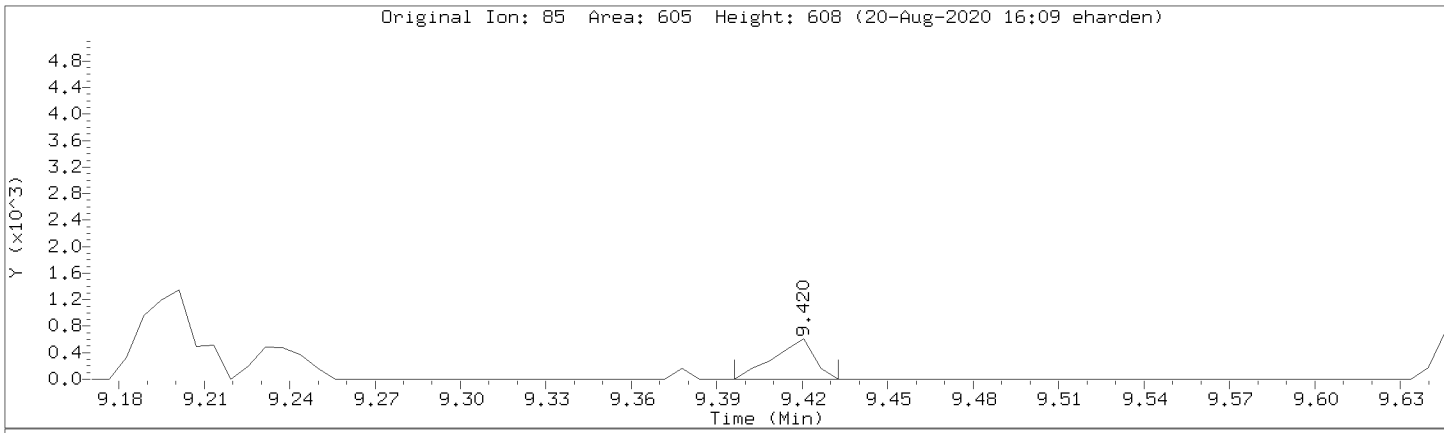
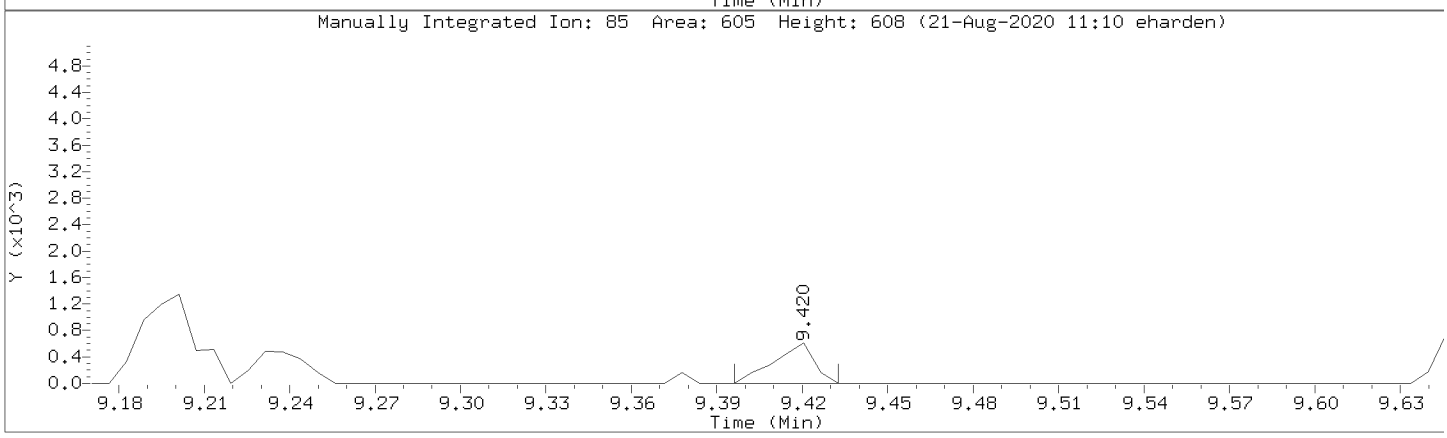
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6





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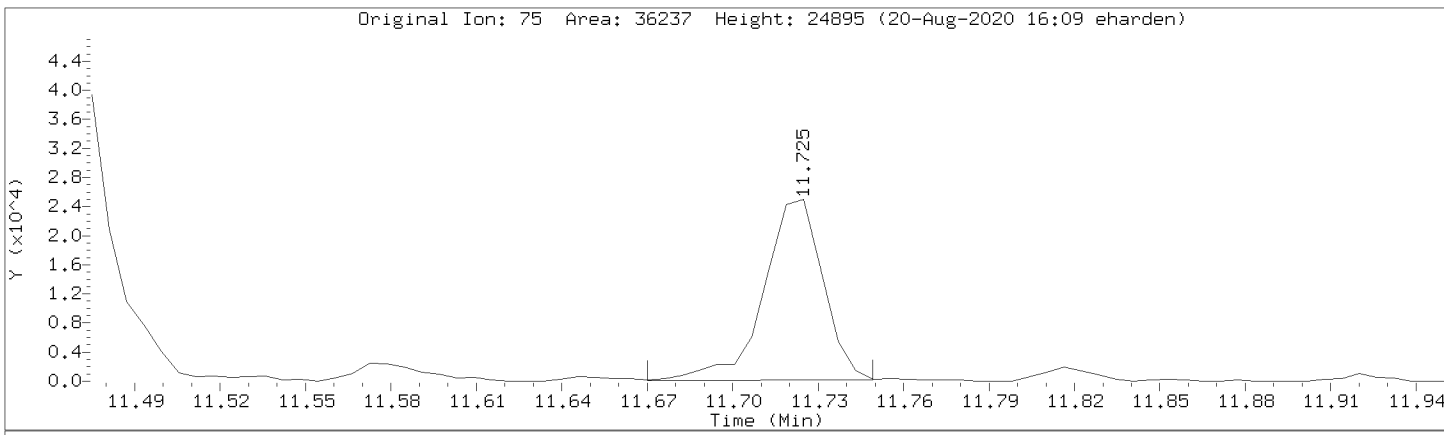
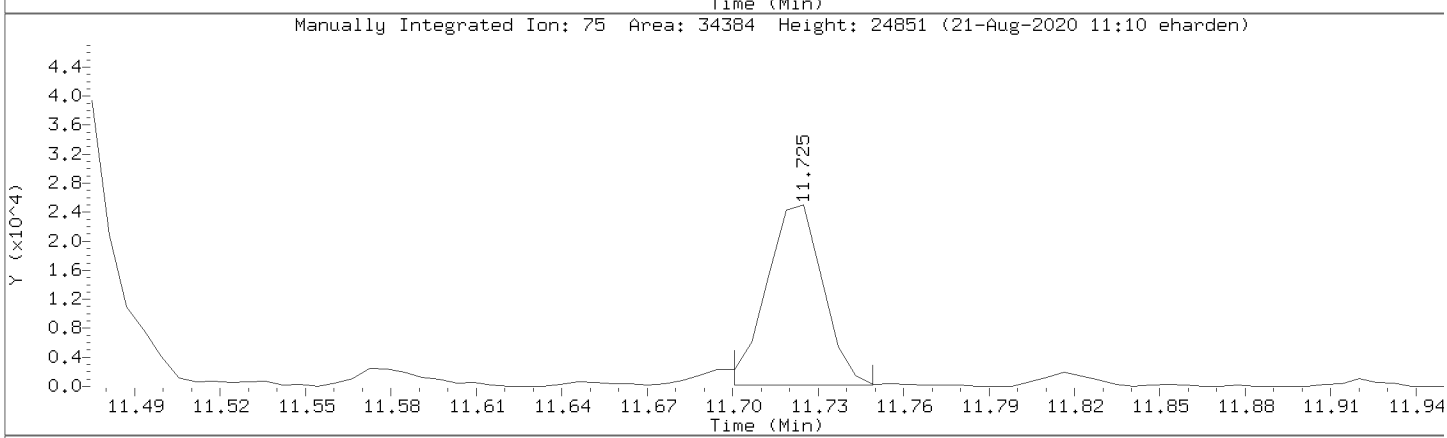
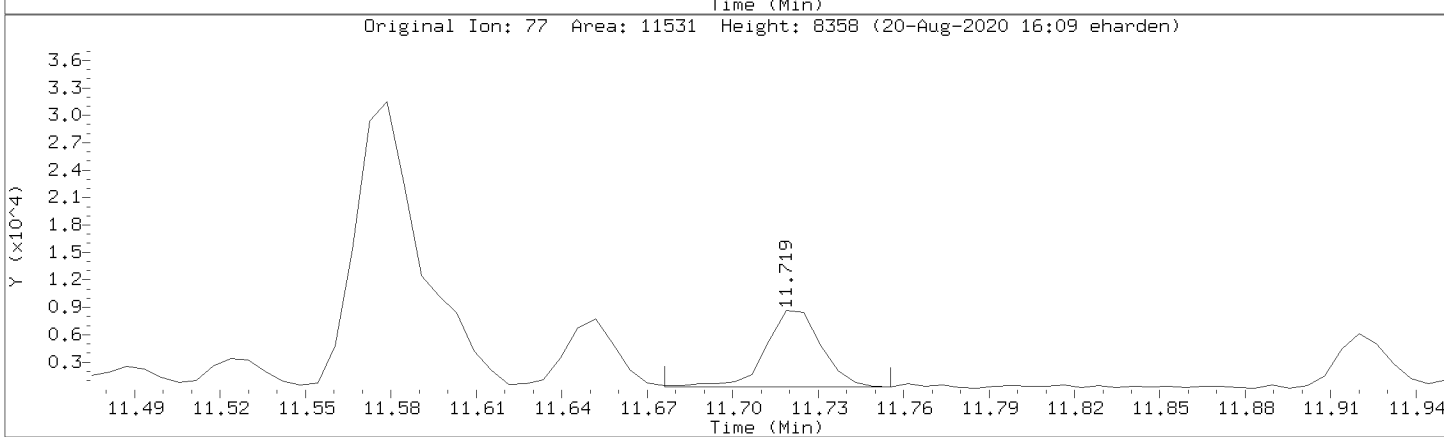
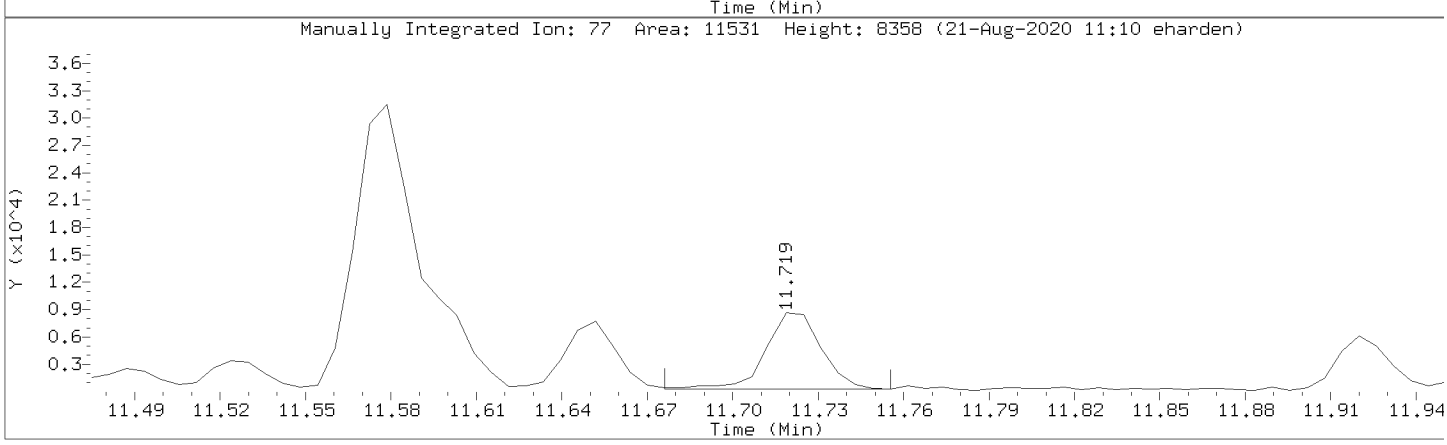
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: 1,2,3-Trichloropropane Review Code: CO
CAS Number: 96-18-4









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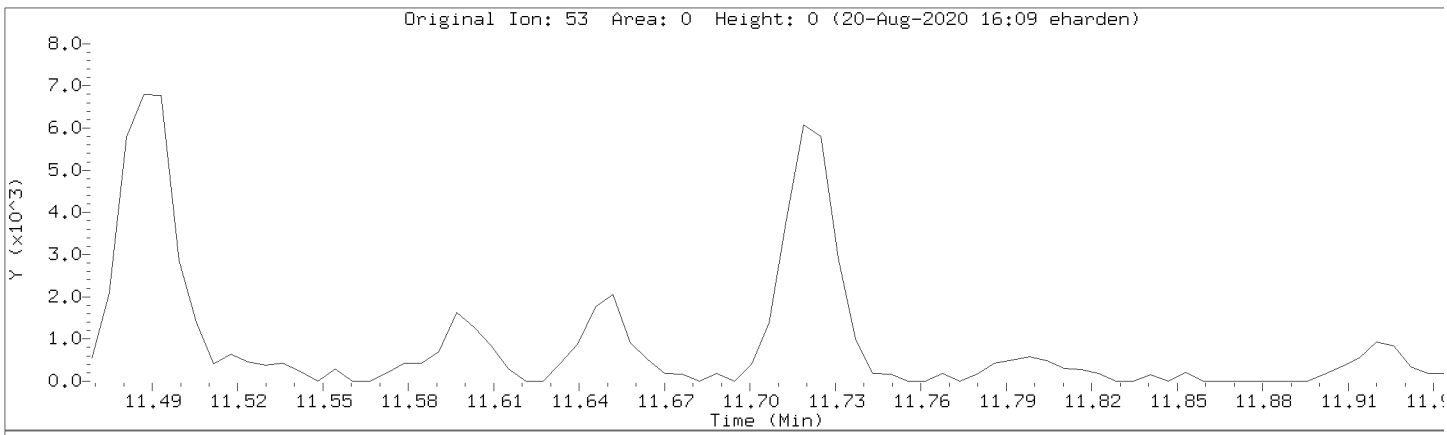
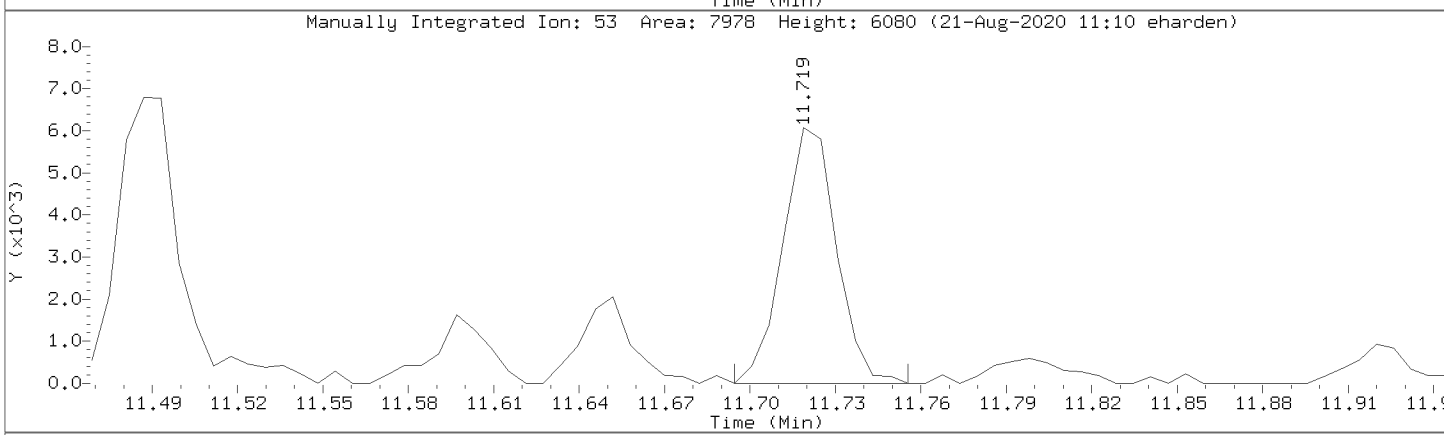
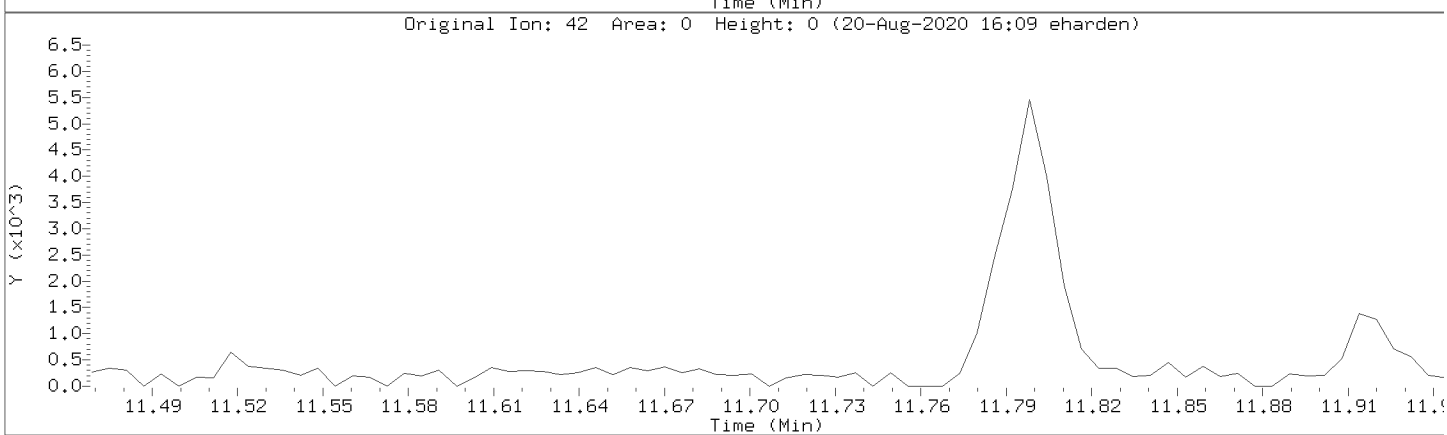
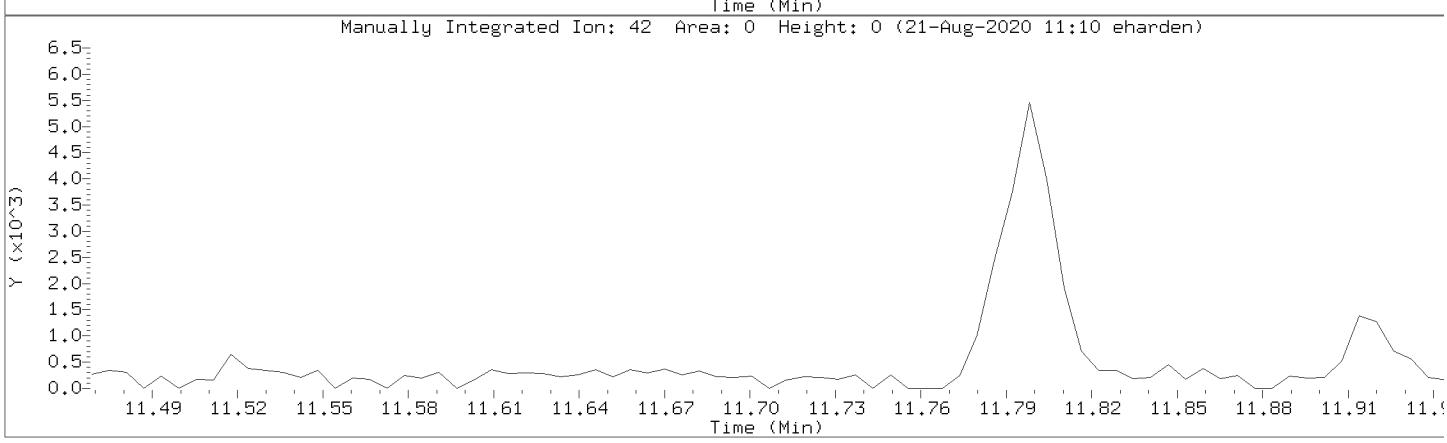
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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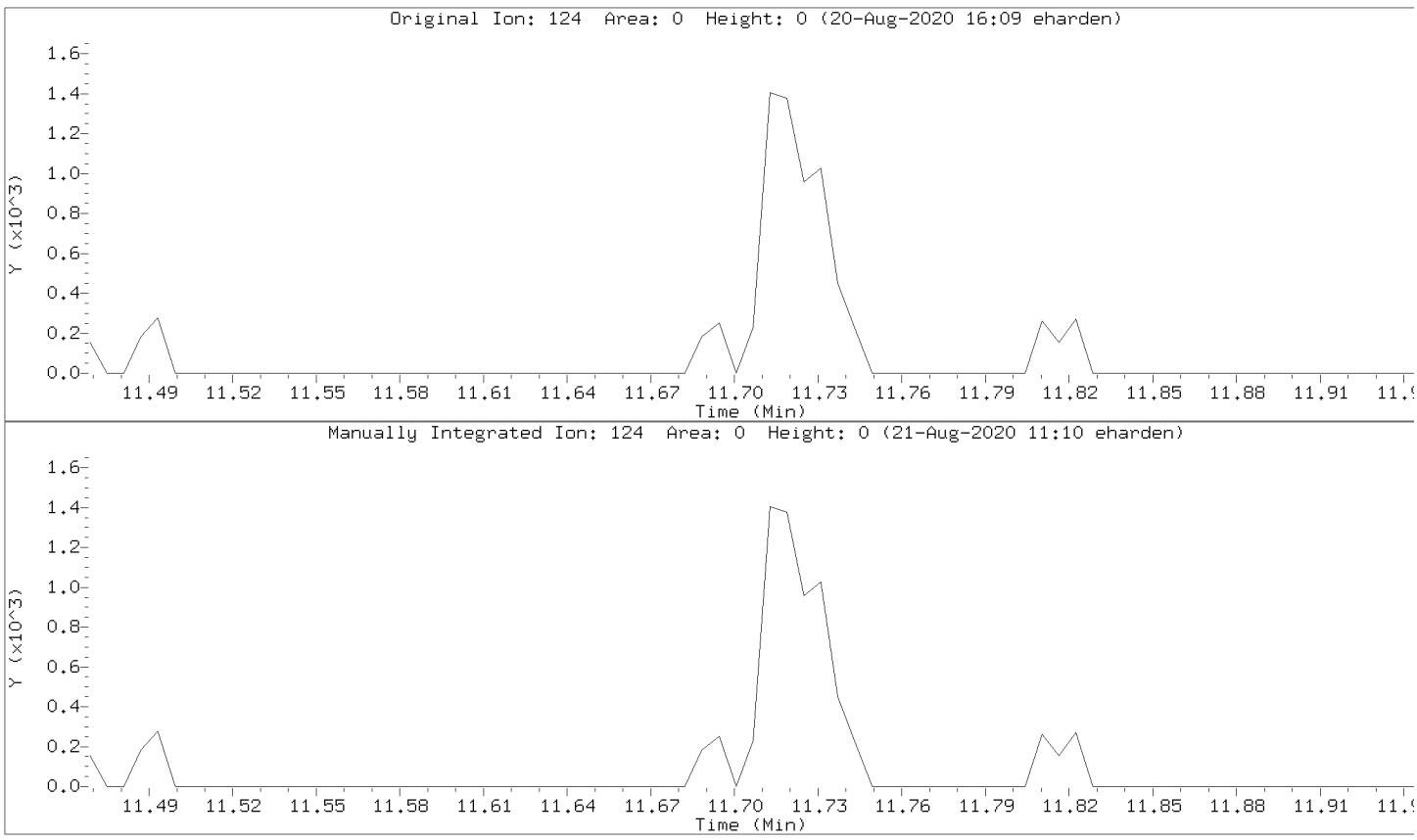
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_09.D
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Inj Date : 20-AUG-2020 13:20
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal7,27243:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 13:20 Cal File: 082020_09.D
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.410)	66551	20.0000	21.2(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	81131	20.0000	21.6	
3 Vinyl chloride	62	3.702	3.702	(0.471)	61034	20.0000	19.8	
4 1,3-Butadiene	39	3.714	3.708	(0.473)	53829	20.0000	19.5	
5 Bromomethane	94	4.201	4.195	(0.535)	59646	20.0000	23.8	
6 Chloroethane	64	4.360	4.360	(0.555)	18003	20.0000	20.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	39067	20.0000	19.9	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	21772	20.0000	20.1	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	72854	20.0000	20.9	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	49223	20.0000	21.4	
11 Carbon disulfide	76	5.293	5.293	(0.673)	161348	20.0000	20.9	
12 Iodomethane	142	5.433	5.439	(0.691)	23205	20.0000	16.7	
13 Acrolein	56	5.659	5.659	(0.720)	14345	40.0000	39.8	
14 Allyl chloride	76	5.787	5.787	(0.736)	19759	20.0000	18.4	
15 Methylene Chloride	49	5.902	5.902	(0.751)	83879	20.0000	20.2	
16 Acetone	43	5.976	5.976	(0.760)	85965	40.0000	41.5	
17 Methyl acetate	43	6.067	6.067	(0.772)	105076	40.0000	43.5	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	47201	20.0000	20.0	
19 n-Hexane	86	6.116	6.110	(0.778)	4689	20.0000	18.8	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	110621	20.0000	20.1	
21 Acetonitrile	41	6.457	6.463	(0.822)	7995	40.0000	36.1(H)	
22 Chloroprene	53	6.646	6.640	(0.846)	66082	20.0000	20.1	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	95363	20.0000	20.8	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	41455	40.0000	41.6	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	94090	20.0000	20.8(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	66700	20.0000	19.8	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	69400	20.0000	19.6	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	31223	20.0000	21.2	
	29 Cyclohexane	56	7.335	7.335	(0.882)	58345	20.0000	19.6	
	30 Chloroform	83	7.372	7.372	(0.938)	106759	20.0000	20.6	
	31 Ethyl acetate	43	7.433	7.433	(0.946)	117599	40.0000	40.2	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	76046	20.0000	21.6	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	31173	40.0000	41.7	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	149580	50.0000	49.9	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	85319	20.0000	21.4	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	94574	40.0000	42.3	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	58568	20.0000	21.1(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	260205	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	184702	20.0000	20.6	
	40 Propionitrile	54	7.896	7.902	(1.005)	18434	40.0000	41.6	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	92418	40.0000	41.0	
	42 Isobutanol	43	7.993	7.987	(1.017)	3297	40.0000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	27279	50.0000	50.6	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	81970	20.0000	20.2	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	100475	20.0000	20.7	
	46 Trichloroethene	130	8.317	8.317	(1.000)	52418	20.0000	21.4	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	349844	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	23561	20.0000	20.3	
	49 n-Butanol	56	8.512	8.524	(1.023)	2226	40.0000	41.6(H)	
	50 Dibromomethane	93	8.670	8.670	(1.043)	43883	20.0000	21.0	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	54314	20.0000	21.3	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	81003	20.0000	22.1	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	25633	20.0000	17.7	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	1026	40.0000	(M)	LT
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	40736	40.0000	32.0	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	73456	20.0000	20.6	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	379010	50.0000	50.3	
	58 Toluene	91	9.414	9.414	(1.132)	176320	20.0000	20.2	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	16319	20.0000	18.5(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	8556	40.0000	34.2(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	73456	20.0000	20.6	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	46748	20.0000	20.6	
	63 Ethyl methacrylate	69	9.755	9.761	(1.173)	47723	20.0000	17.4(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	46024	20.0000	20.8	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	66111	20.0000	21.0	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	70284	20.0000	20.8	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	55408	20.0000	20.5	
	68 2-Hexanone	43	10.273	10.280	(1.235)	121220	40.0000	41.0	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	164499	20.0000	19.0	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	330753	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	128596	20.0000	20.2	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	54617	20.0000	20.3	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	280615	40.0000	37.3	
	74 o-Xylene	106	10.993	10.993	(1.041)	56802	20.0000	16.3	
	75 Styrene	104	11.029	11.029	(1.044)	103176	20.0000	17.0	
	76 Bromoform	173	11.103	11.103	(1.051)	60029	20.0000	20.1	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	92598	20.0000	17.8	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	136161	50.0000	50.2	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	19403	20.0000	17.9	
80 n-Propylbenzene	91	11.529	11.523	(1.092)	212436	20.0000	20.0	
81 Bromobenzene	156	11.578	11.578	(1.096)	70823	20.0000	21.2	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	73479	20.0000	20.8	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	142512	20.0000	20.4	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	50034	20.0000	20.0	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	45527	20.0000	18.1	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	150389	20.0000	16.8	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	76477	20.0000	20.7	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	16946	20.0000	19.9	
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	132498	20.0000	16.6	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	145095	20.0000	17.9	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	171564	20.0000	17.9	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	132498	20.0000	16.6	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	112298	20.0000	19.9	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	212042	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	118836	20.0000	18.7	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	139939	20.0000	18.9	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	117112	20.0000	19.0	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	12299	20.0000	17.7	
100 Hexachloro-1,3-butadiene	225	13.815	13.822	(1.120)	34339	20.0000	18.2	
101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	73609	20.0000	17.6	
102 Naphthalene	128	14.193	14.193	(1.150)	120284	20.0000	14.9	
103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	74200	20.0000	19.1	

QC Flag Legend

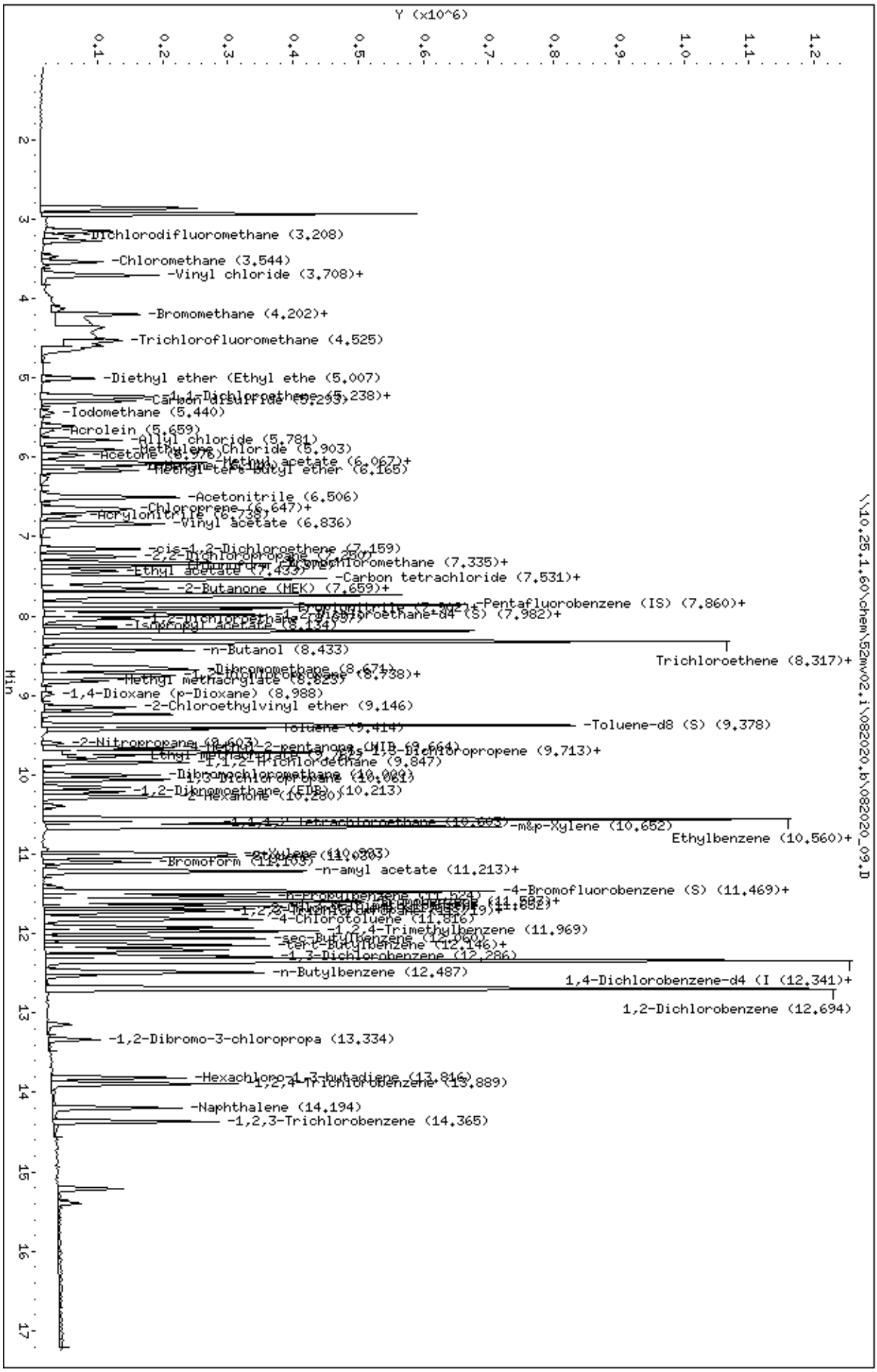
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_09.D
Date : 20-AUG-2020 13:20
Client ID: CAL7
Sample Info: CAL7,27243:1
Purge Volume: 5.0
Column phase: RTX-VMS

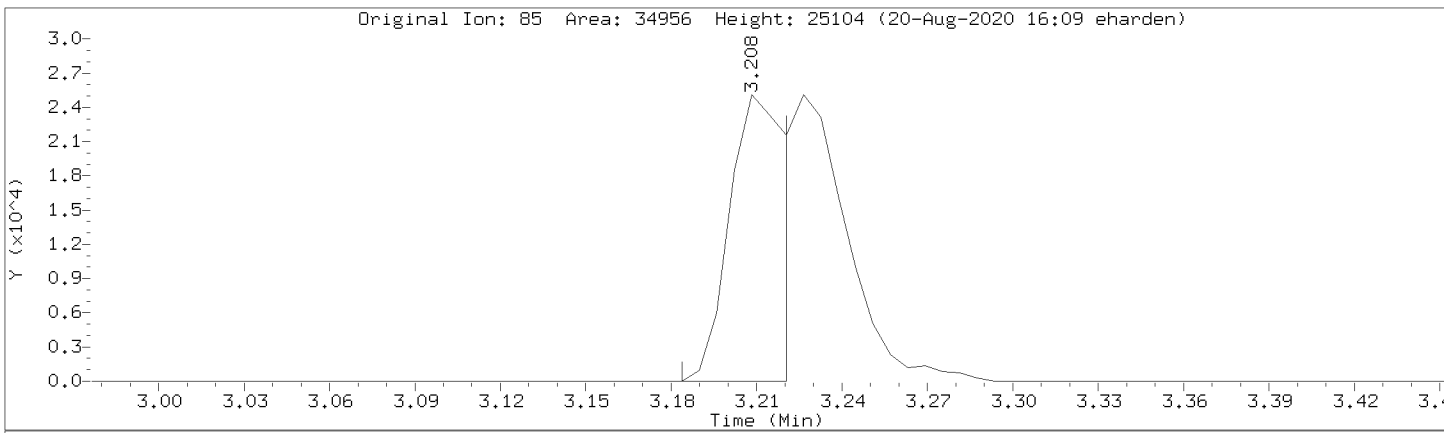
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

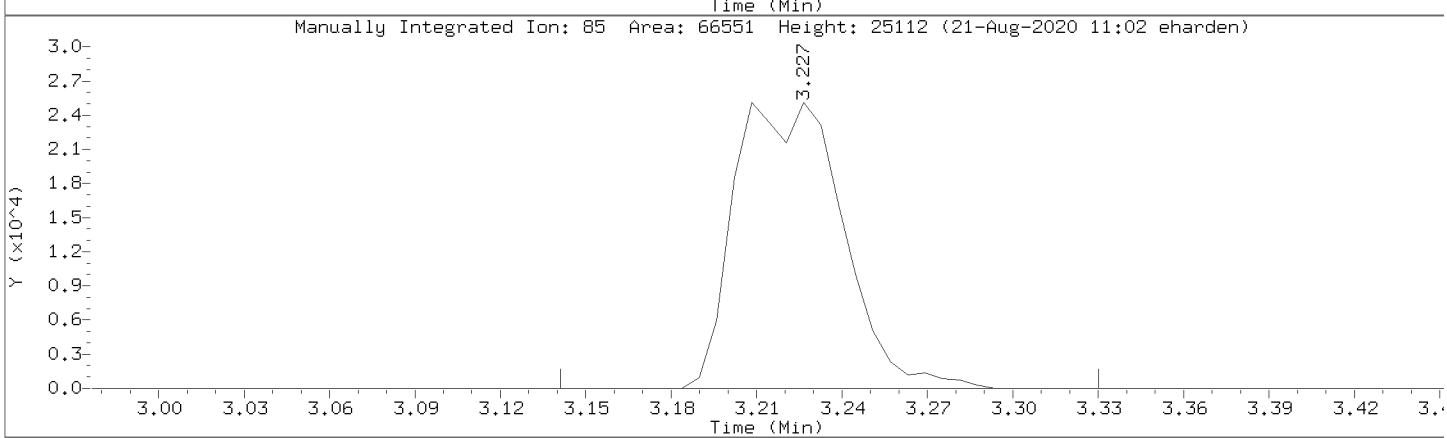


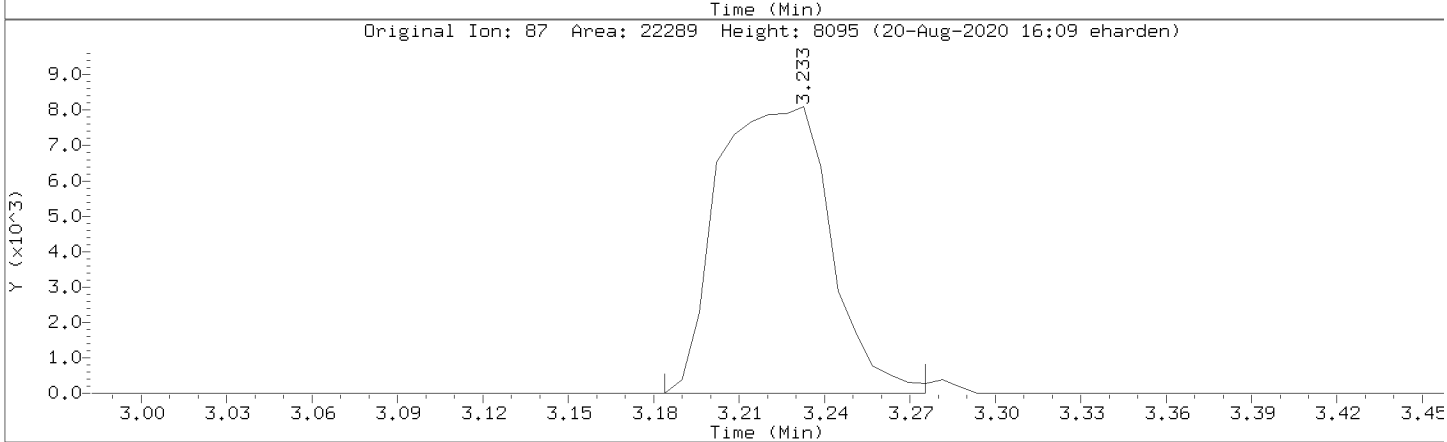
Page 4

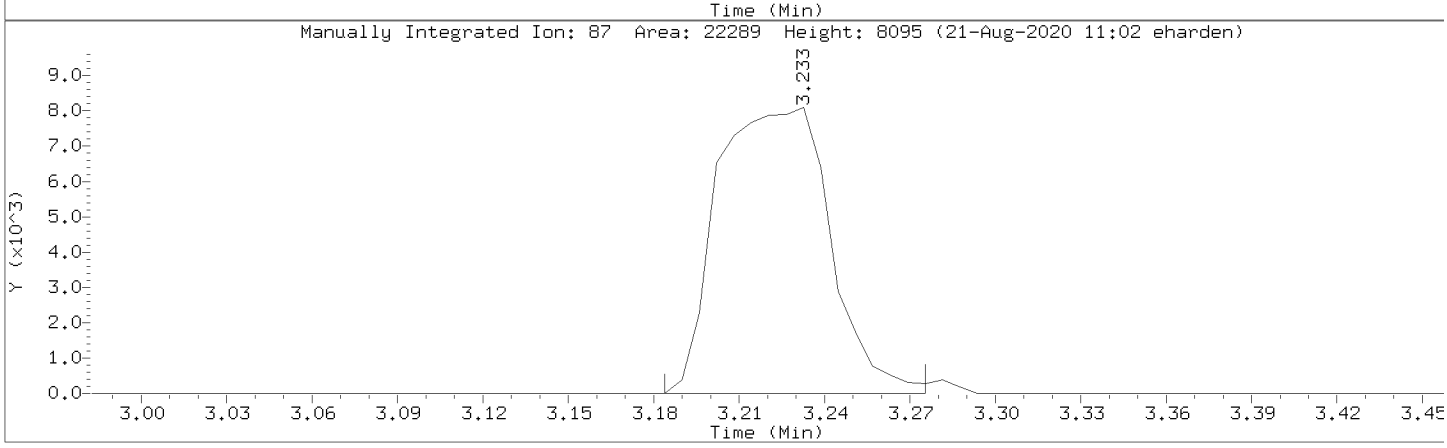
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_09.D
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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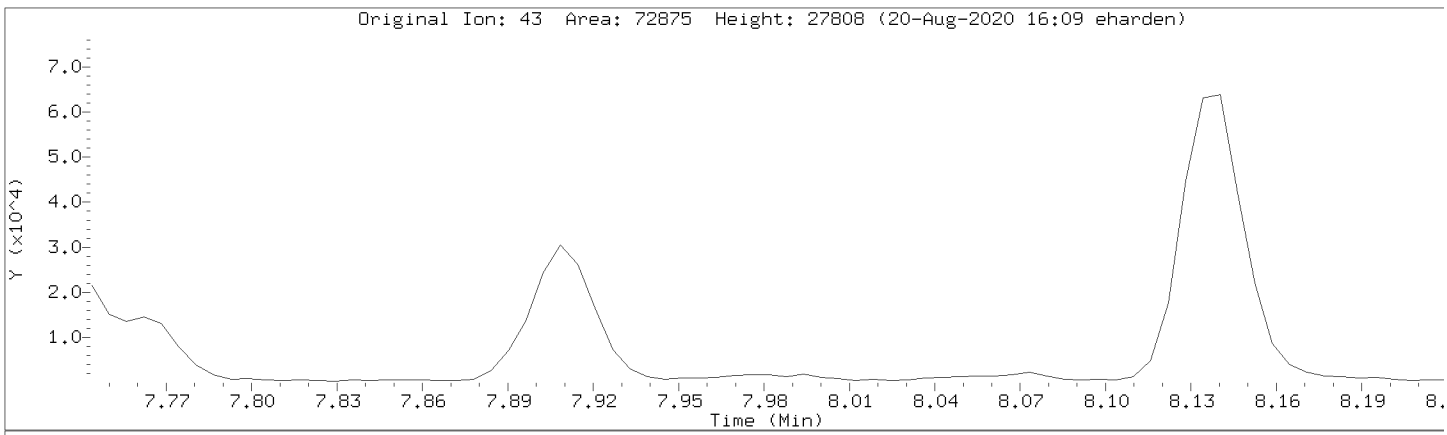
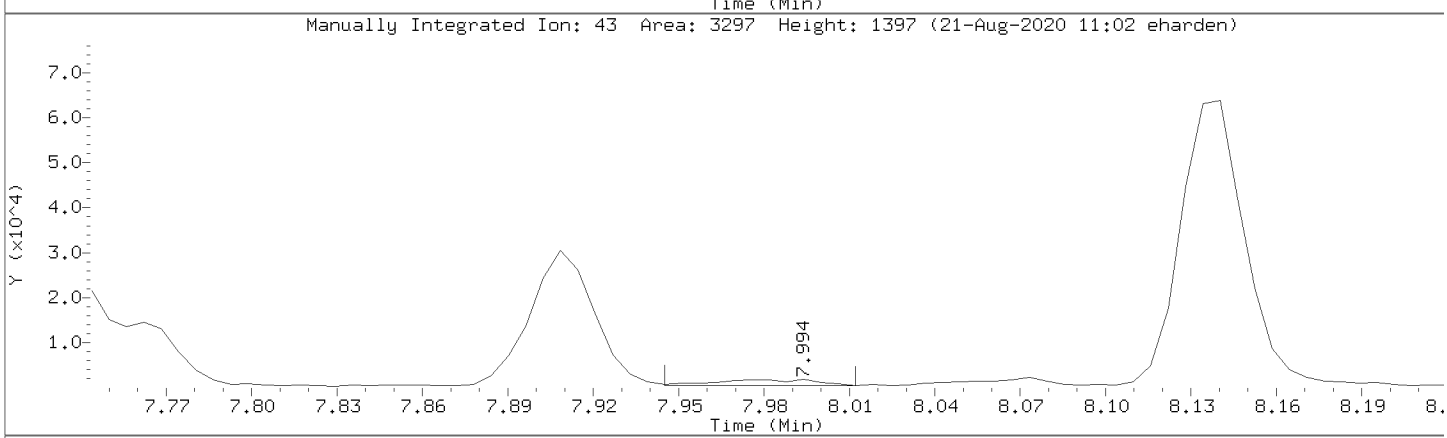
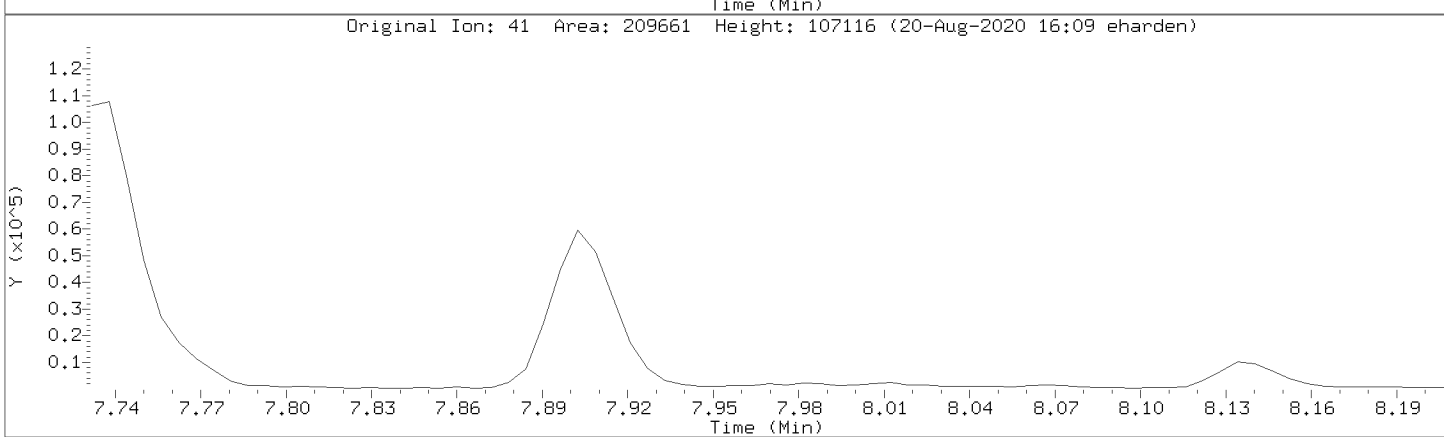
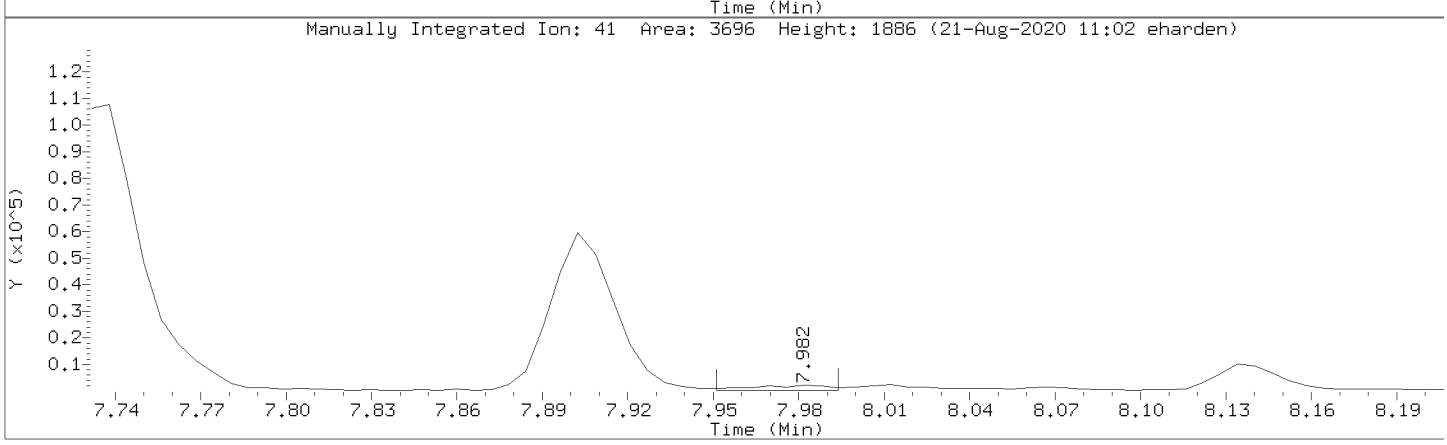
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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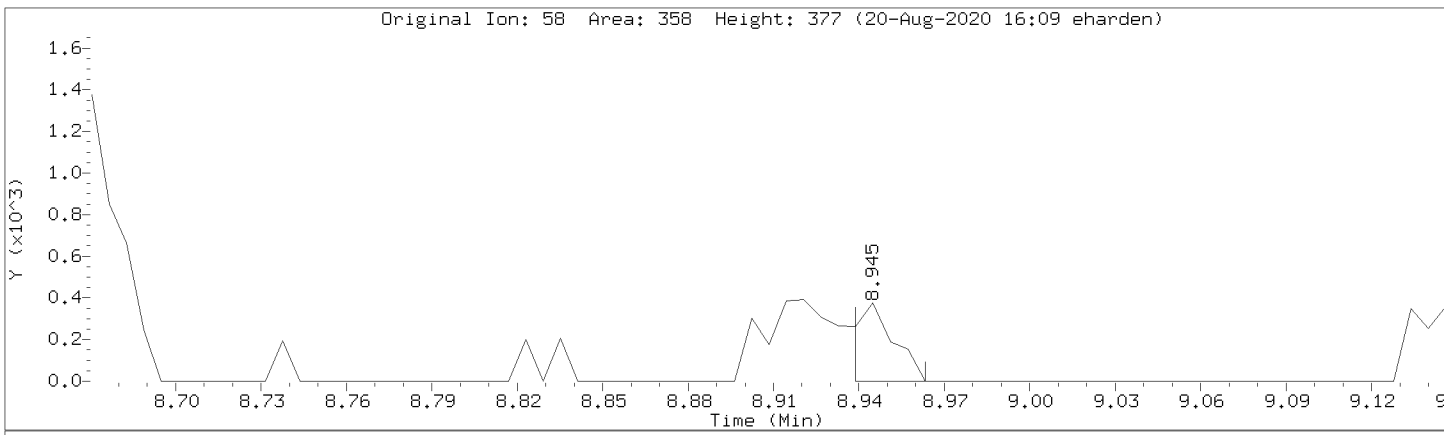
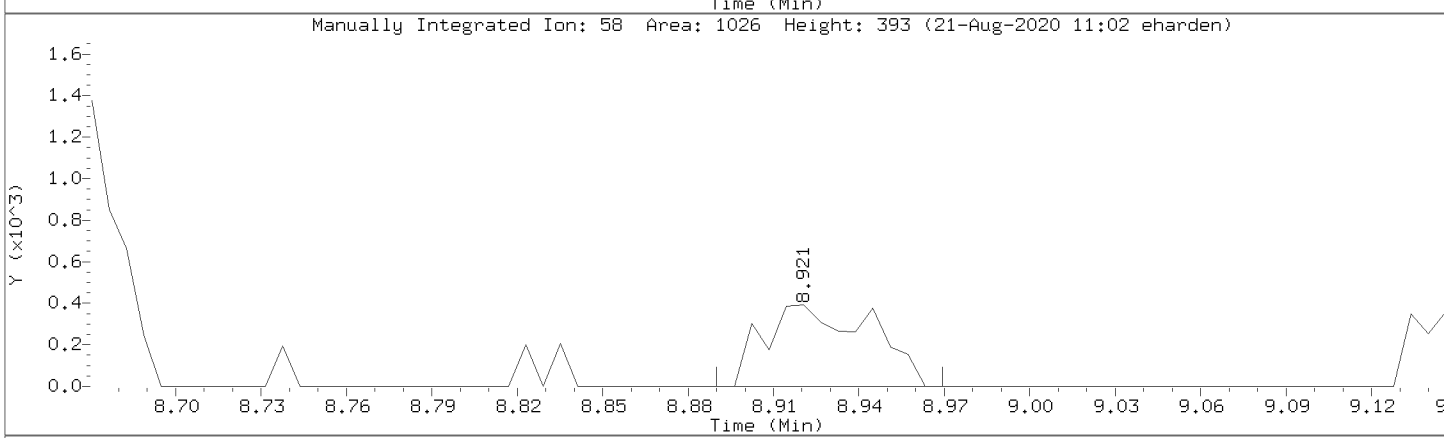
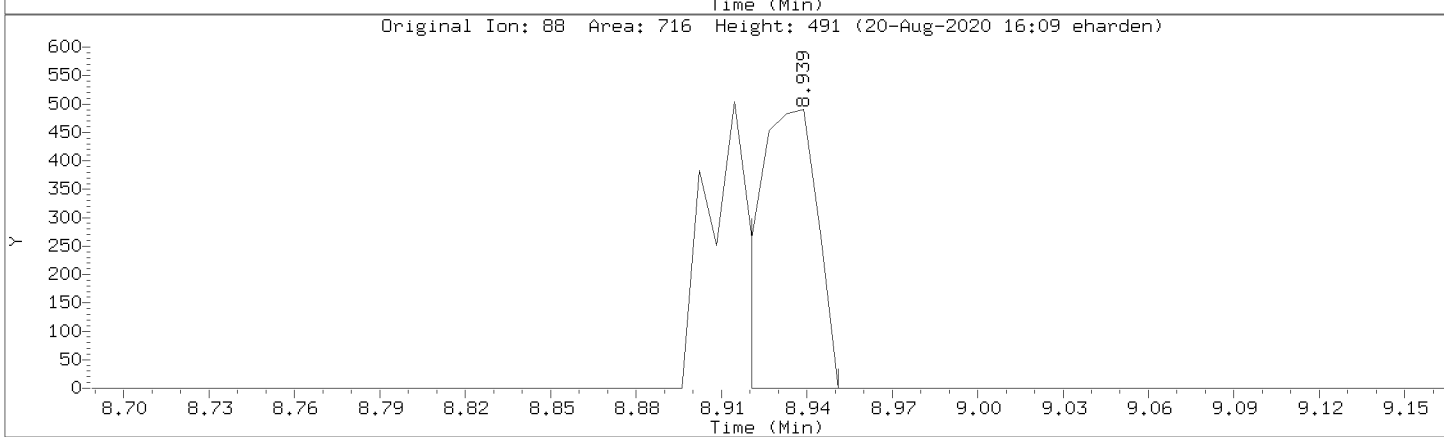
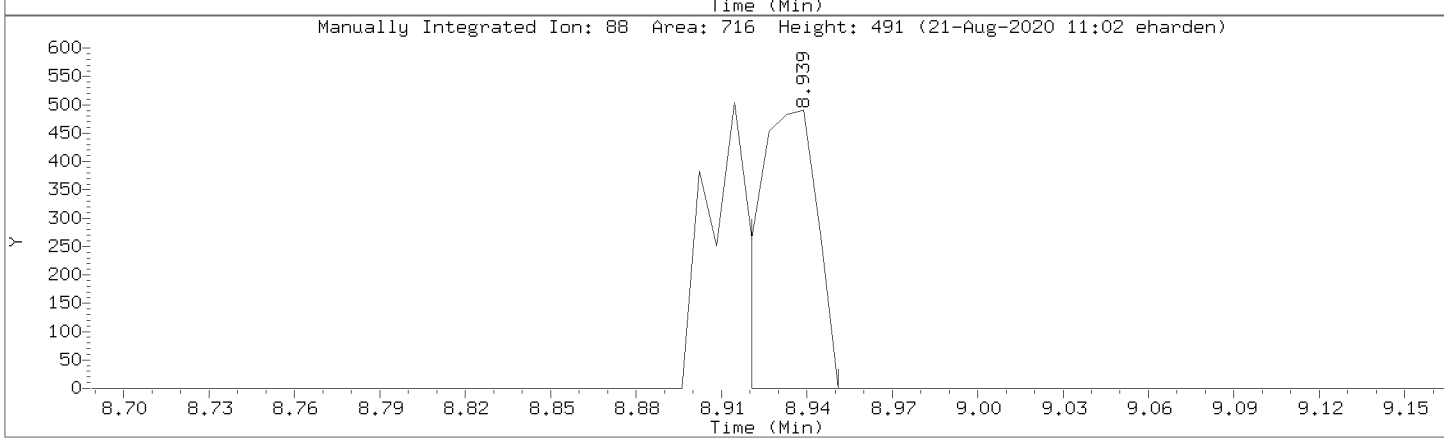
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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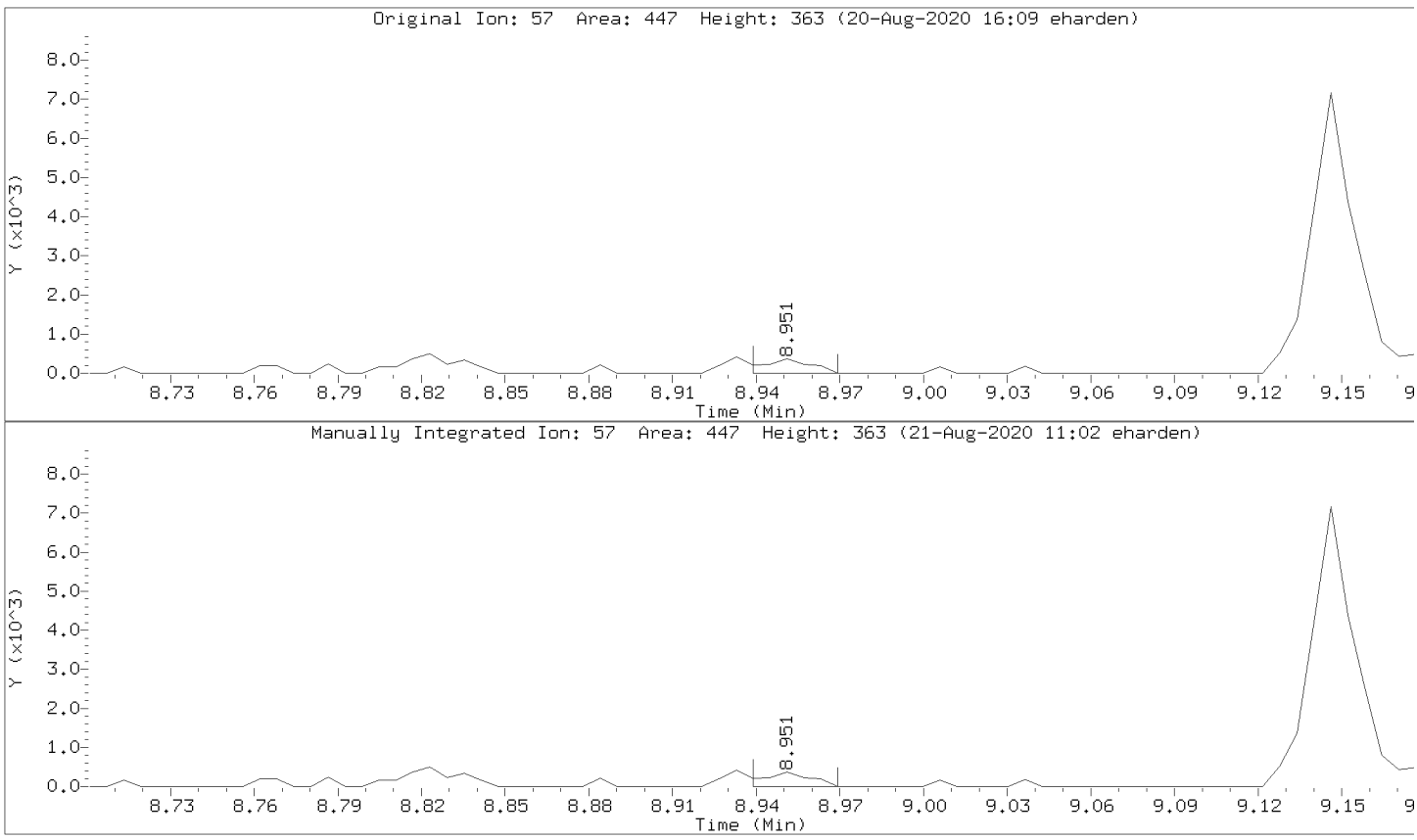
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7



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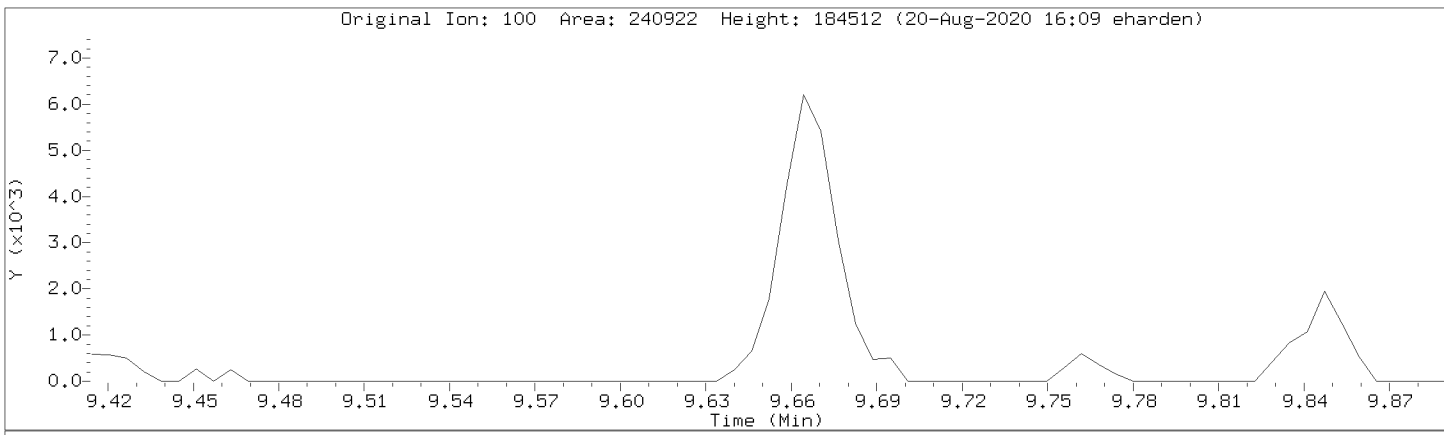
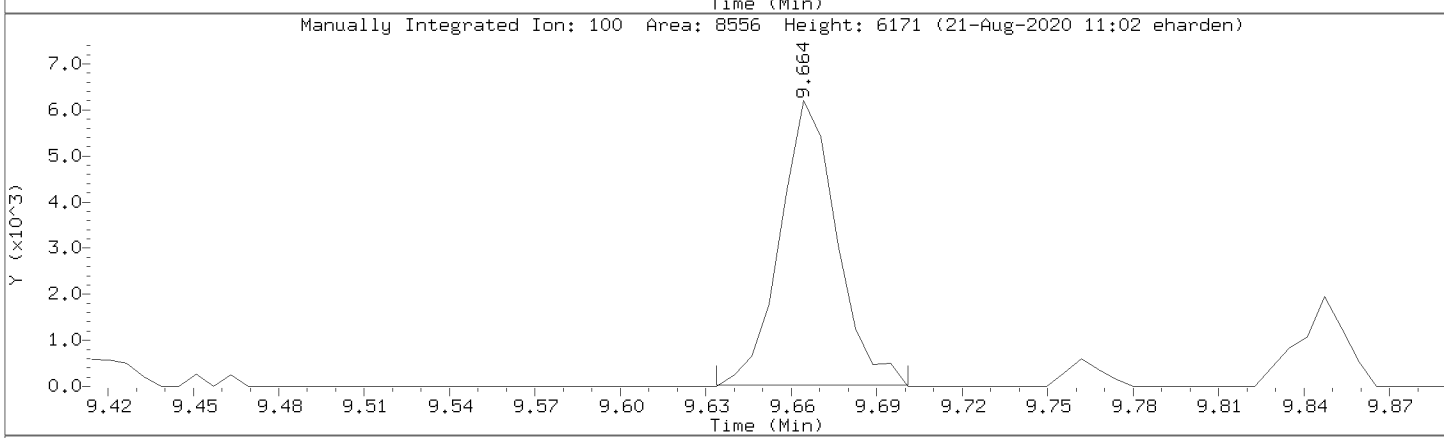
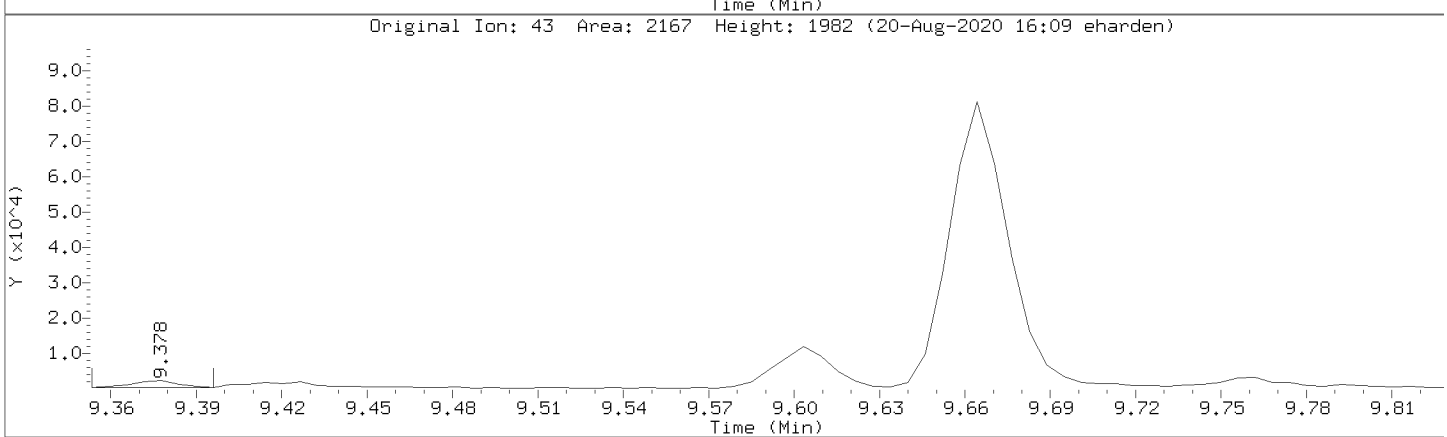
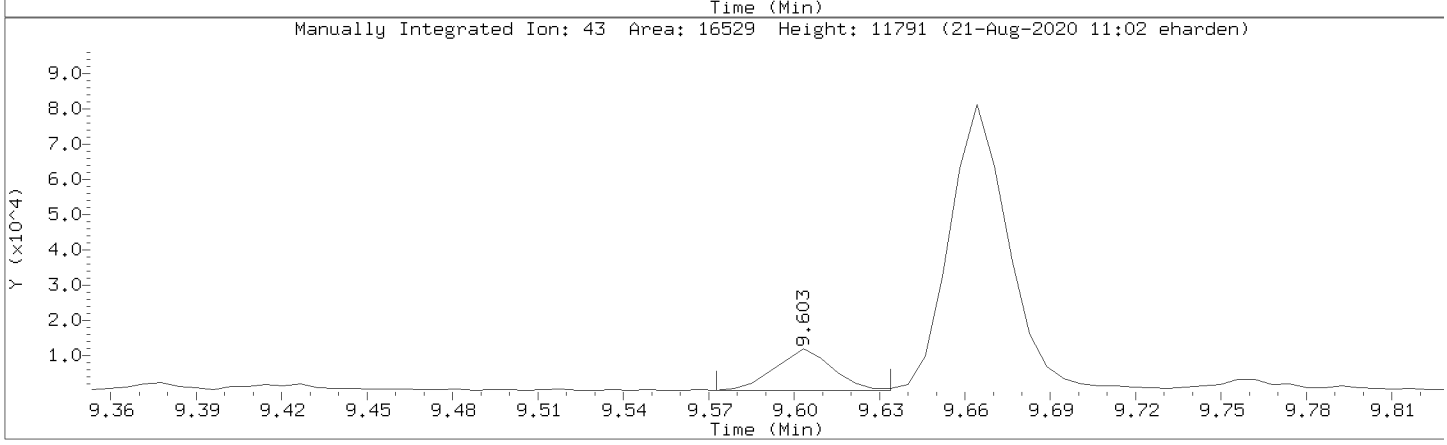
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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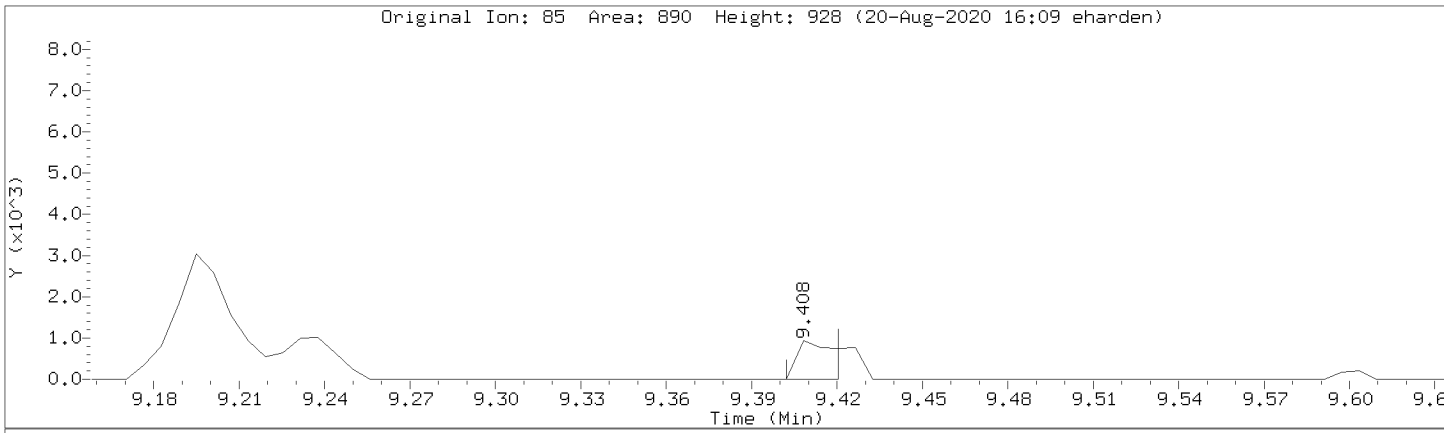
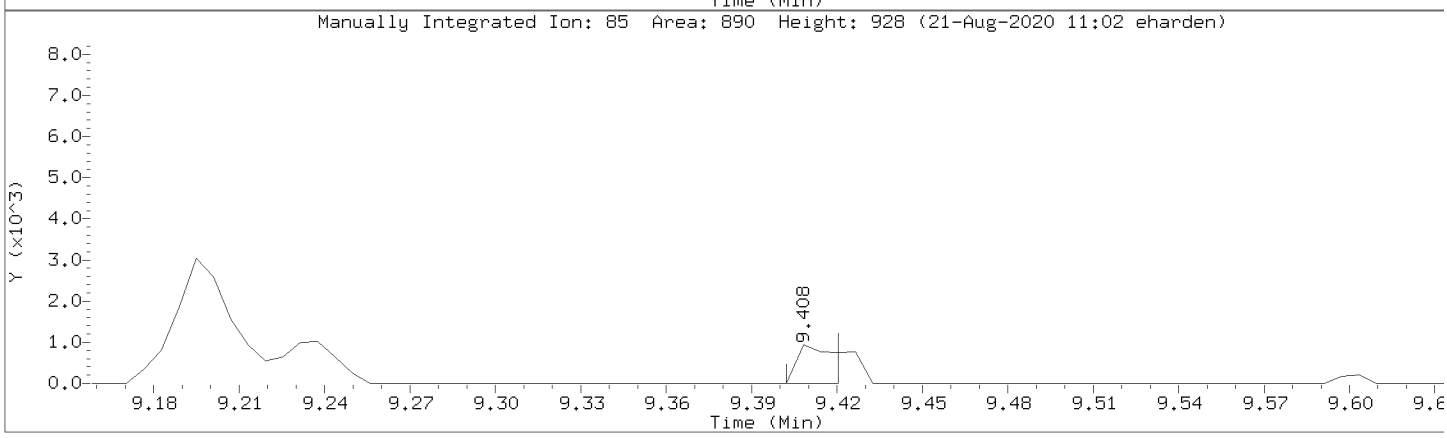
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_10.D
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Inj Date : 20-AUG-2020 13:45
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal8,27244:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 13:45 Cal File: 082020_10.D
Als bottle: 8 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.220	3.226	(0.410)	173079	50.0000	49.6(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	212550	50.0000	52.0	
3 Vinyl chloride	62	3.695	3.702	(0.470)	166119	50.0000	48.4	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	144991	50.0000	47.2	
5 Bromomethane	94	4.201	4.195	(0.535)	130011	50.0000	49.7	
6 Chloroethane	64	4.366	4.360	(0.556)	50765	50.0000	53.1	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	100155	50.0000	45.9	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	58875	50.0000	48.9	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	192156	50.0000	49.5	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	122394	50.0000	47.8	
11 Carbon disulfide	76	5.287	5.293	(0.673)	413695	50.0000	48.1	
12 Iodomethane	142	5.439	5.439	(0.692)	89679	50.0000	44.8	
13 Acrolein	56	5.658	5.659	(0.720)	37965	100.000	94.7	
14 Allyl chloride	76	5.780	5.787	(0.736)	56951	50.0000	47.7	
15 Methylene Chloride	49	5.902	5.902	(0.751)	216337	50.0000	46.9	
16 Acetone	43	5.969	5.976	(0.760)	217508	100.000	96.6	
17 Methyl acetate	43	6.067	6.067	(0.772)	274607	100.000	103	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	124266	50.0000	47.4	
19 n-Hexane	86	6.110	6.110	(0.777)	14689	50.0000	52.8	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	314639	50.0000	51.4	
21 Acetonitrile	41	6.457	6.463	(0.822)	27093	100.000	111(H)	
22 Chloroprene	53	6.640	6.640	(0.845)	195675	50.0000	53.5	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	251927	50.0000	49.4	
24 Acrylonitrile	53	6.738	6.738	(0.857)	102650	100.000	92.7	
25 Vinyl acetate	43	6.859	6.860	(0.873)	281798	50.0000	55.9	
26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	185024	50.0000	49.2	
27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	182412	50.0000	46.4	
28 Bromochloromethane	128	7.335	7.335	(0.933)	78756	50.0000	48.0	
29 Cyclohexane	56	7.335	7.335	(0.882)	177735	50.0000	54.3	
30 Chloroform	83	7.372	7.372	(0.938)	280462	50.0000	48.6	
31 Ethyl acetate	43	7.426	7.433	(0.945)	323030	100.000	99.3	
32 Carbon tetrachloride	117	7.512	7.512	(0.903)	200727	50.0000	51.8	
33 Tetrahydrofuran	42	7.530	7.536	(0.958)	79823	100.000	99.2	
$ 34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	159185	50.0000	47.8	
35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	220636	50.0000	50.3	
36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	237312	100.000	95.5(M)	CO
37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	162055	50.0000	53.2(H)	
* 38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	289504	50.0000		
39 Benzene	78	7.871	7.872	(0.946)	489899	50.0000	49.8	
40 Propionitrile	54	7.890	7.902	(1.004)	49807	100.000	101	
41 Methacrylonitrile	41	7.902	7.902	(1.005)	257917	100.000	103	
42 Isobutanol	43	7.963	7.987	(1.013)	9414	100.000	(MH)	WP
$ 43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	27652	50.0000	46.1	
44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	209549	50.0000	46.3	
45 Isopropyl acetate	43	8.134	8.134	(1.035)	280793	50.0000	52.1	
46 Trichloroethene	130	8.316	8.317	(1.000)	136449	50.0000	50.7	
* 47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	384566	50.0000		
48 Methylcyclohexane	98	8.323	8.317	(1.001)	63924	50.0000	50.2	
49 n-Butanol	56	8.518	8.524	(1.024)	6256	100.000	106(M)	WP
50 Dibromomethane	93	8.670	8.670	(1.043)	115423	50.0000	50.4	
51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	141305	50.0000	50.3	
52 Bromodichloromethane	83	8.762	8.768	(1.054)	214260	50.0000	53.1	
53 Methyl methacrylate	69	8.822	8.823	(1.061)	75413	50.0000	46.2	
54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	1885	100.000		
55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	131862	100.000	90.8	
56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	204555	50.0000	52.2	
$ 57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	414998	50.0000	50.1	
58 Toluene	91	9.414	9.414	(1.132)	484269	50.0000	50.5	
59 2-Nitropropane	43	9.603	9.603	(1.155)	44089	50.0000	46.2(H)	
60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	28658	100.000	104(M)	WP
61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	204310	50.0000	52.2	
62 Tetrachloroethene	164	9.719	9.719	(0.920)	126445	50.0000	50.1	
63 Ethyl methacrylate	69	9.755	9.761	(1.173)	146188	50.0000	47.0(H)	
64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	115505	50.0000	47.5	
65 Dibromochloromethane	129	9.999	9.999	(0.947)	175886	50.0000	50.3	
66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	193129	50.0000	52.1	
67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	146153	50.0000	48.8	
68 2-Hexanone	43	10.280	10.280	(1.236)	360382	100.000	111	
69 Ethylbenzene	91	10.554	10.554	(0.999)	498717	50.0000	51.9	
* 70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	367527	50.0000		
71 Chlorobenzene	112	10.578	10.578	(1.002)	344375	50.0000	48.6	
72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	141151	50.0000	47.1	
73 m&p-Xylene	91	10.651	10.651	(1.009)	829841	100.000	98.6	
74 o-Xylene	106	10.993	10.993	(1.041)	177926	50.0000	45.1	
75 Styrene	104	11.029	11.029	(1.044)	324197	50.0000	47.1	
76 Bromoform	173	11.103	11.103	(1.051)	159603	50.0000	48.1	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.224	11.225	(1.063)	289017	50.0000	48.8	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	155822	50.0000	51.7	
	79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	54700	50.0000	45.3	
	80 n-Propylbenzene	91	11.523	11.523	(1.091)	638613	50.0000	54.2	
	81 Bromobenzene	156	11.578	11.578	(1.096)	189432	50.0000	50.9	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	190650	50.0000	48.5	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	416577	50.0000	53.1	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	136445	50.0000	48.6	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	136492	50.0000	48.2	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	469102	50.0000	46.3	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	204905	50.0000	49.8	
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	49228	50.0000	52.0(M)	NI
	89 Cyclohexanone	98	Compound Not Detected.						
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	419415	50.0000	45.8	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	442492	50.0000	48.1	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	512642	50.0000	46.9	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	419415	50.0000	45.8	
	94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	318067	50.0000	50.3	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	237436	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	327228	50.0000	45.9	
	97 n-Butylbenzene	91	12.486	12.486	(1.012)	445646	50.0000	53.9	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	323974	50.0000	46.9	
	99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	35137	50.0000	45.2	
	100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	100028	50.0000	47.2	
	101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	228410	50.0000	48.8	
	102 Naphthalene	128	14.199	14.193	(1.151)	399832	50.0000	43.2	
	103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	218926	50.0000	50.4	

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_10.D

Page 4

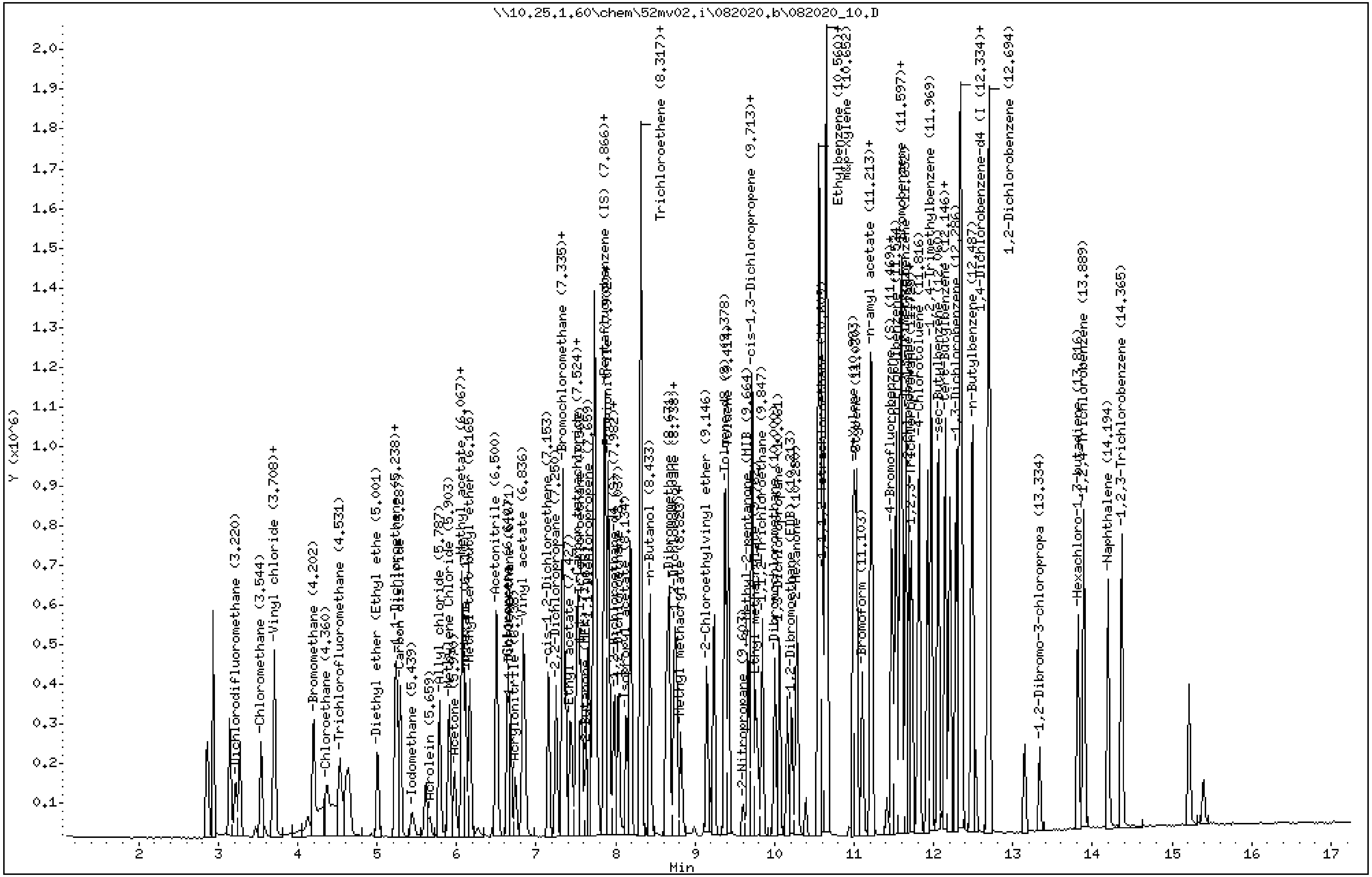
Date : 20-AUG-2020 13:45

Client ID: CAL8 | Instrument: 52mv02.i

Sample Info: CAL8,27244:1

Purge Volume: 5.0 | Operator: EAH

Column phase: RTX-VMS | Column diameter: 0.18



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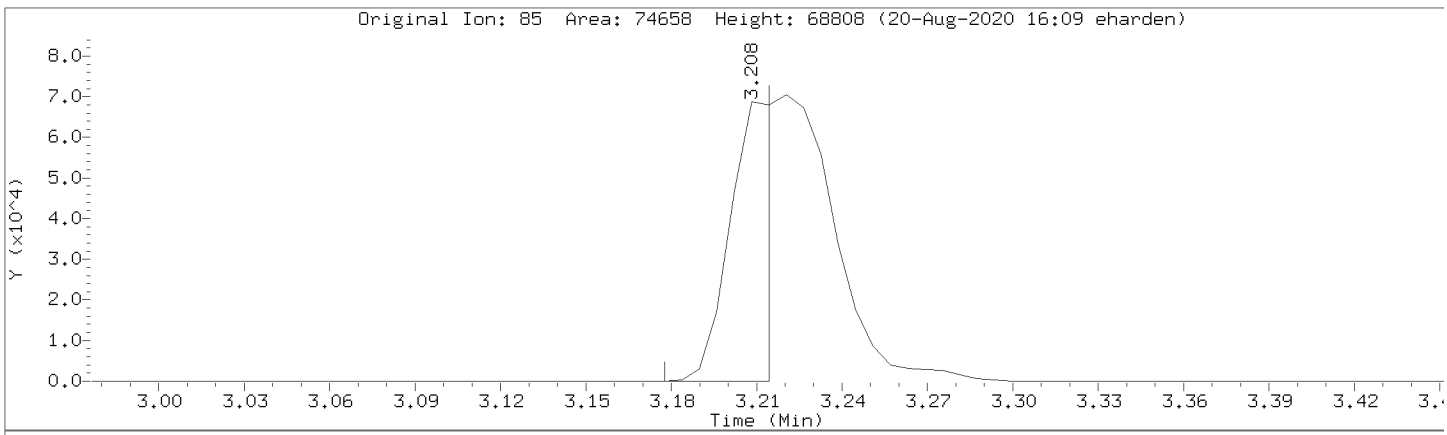
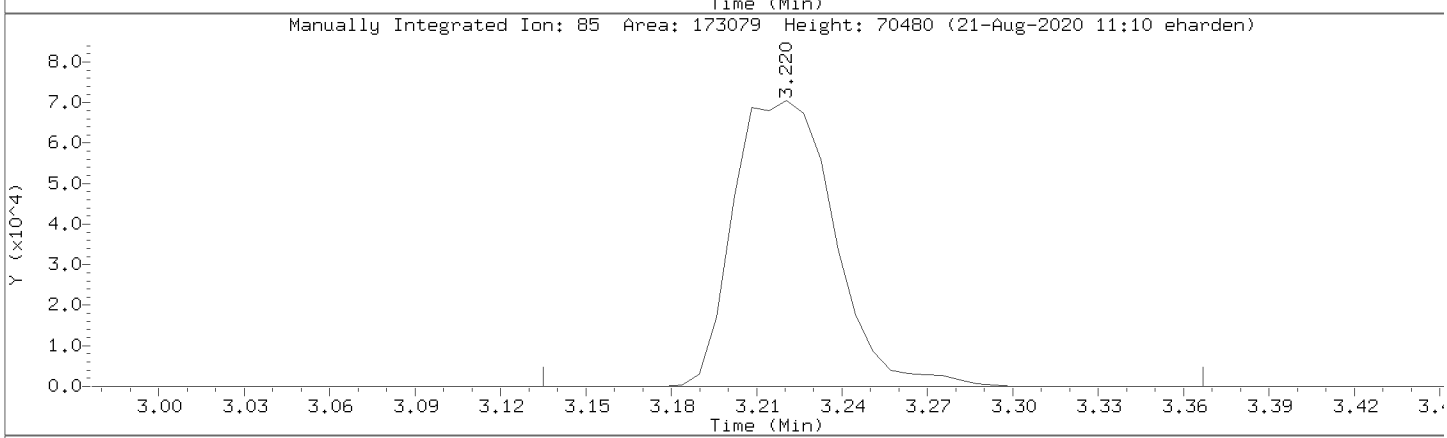
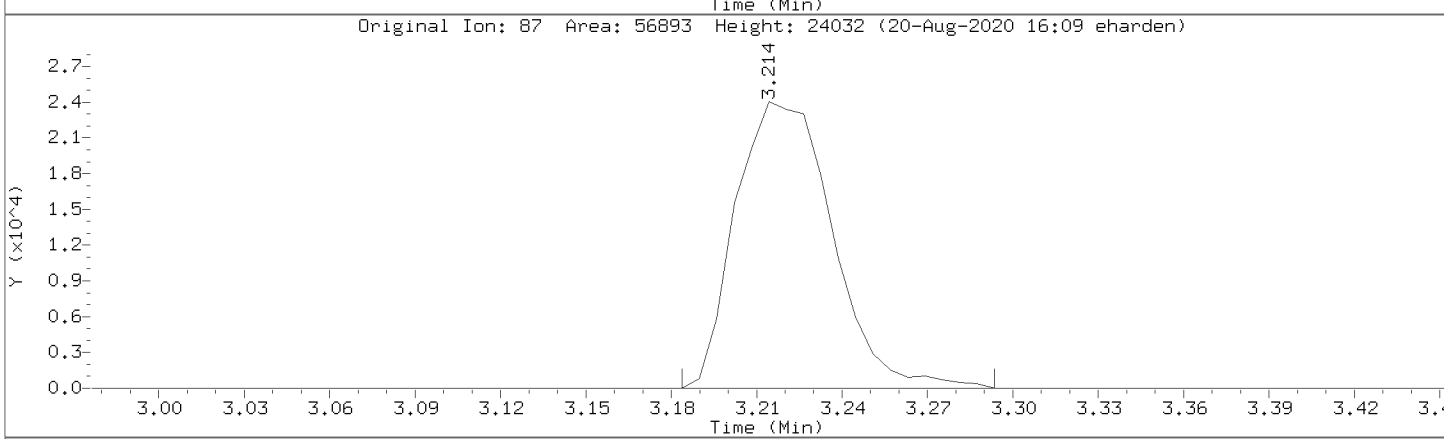
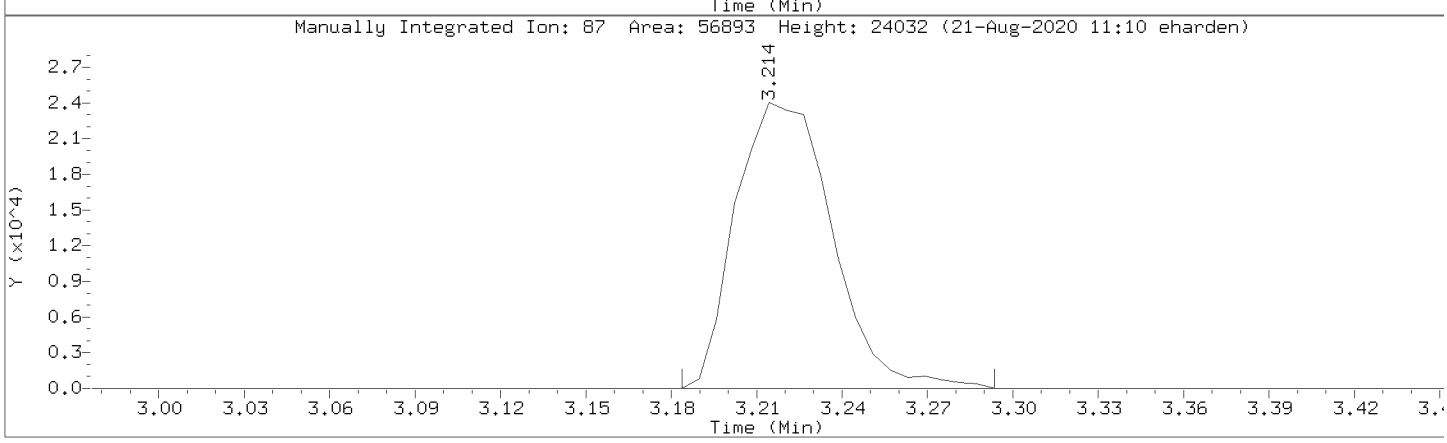
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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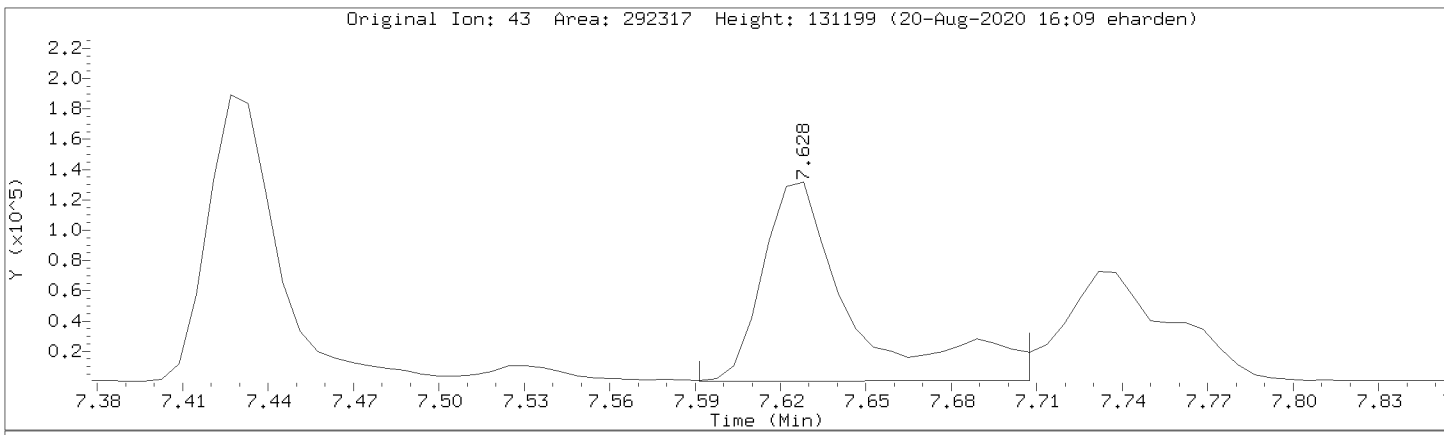
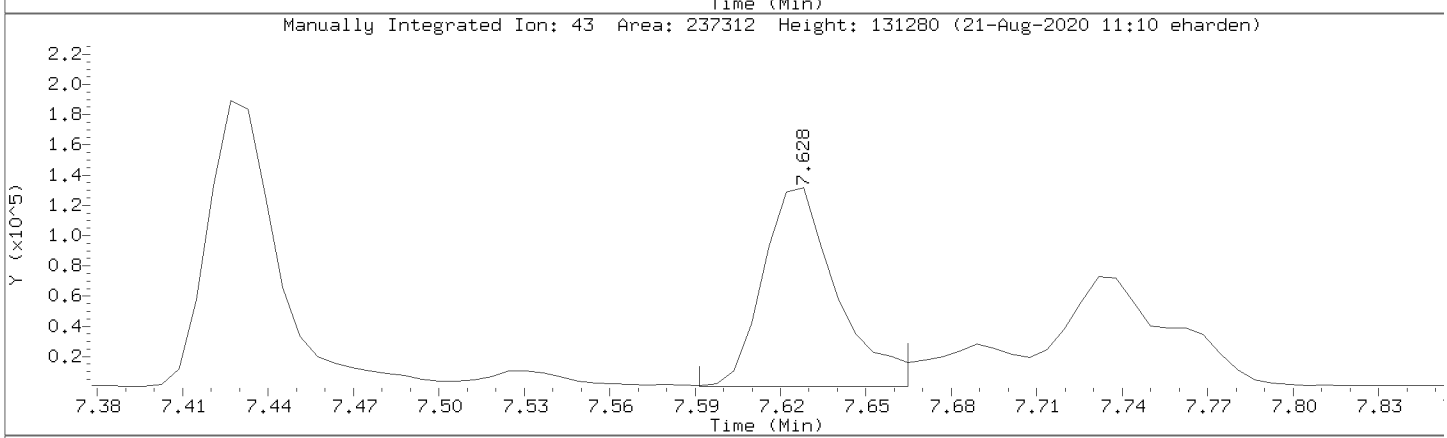
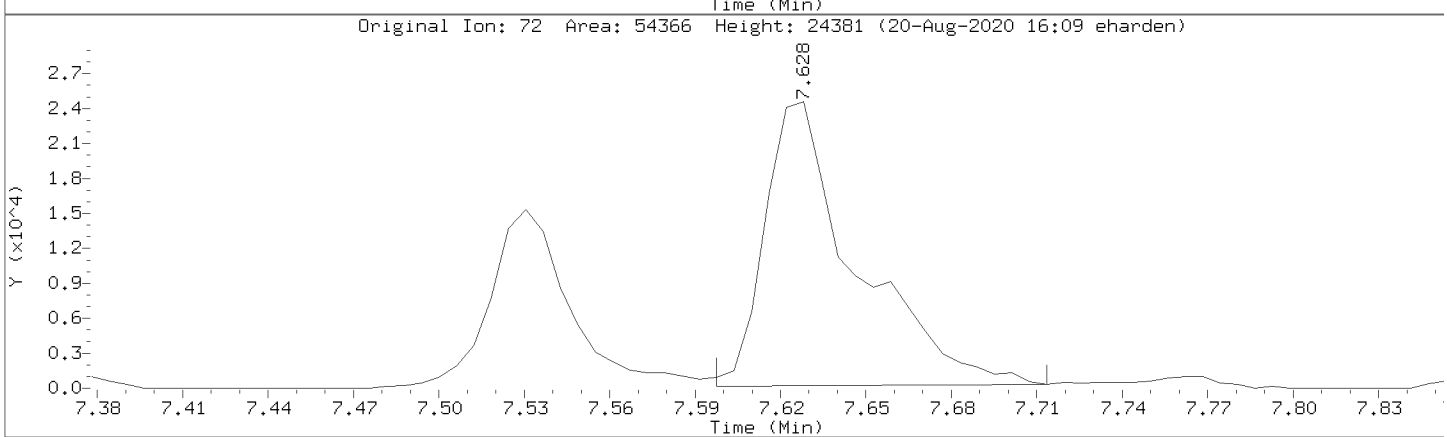
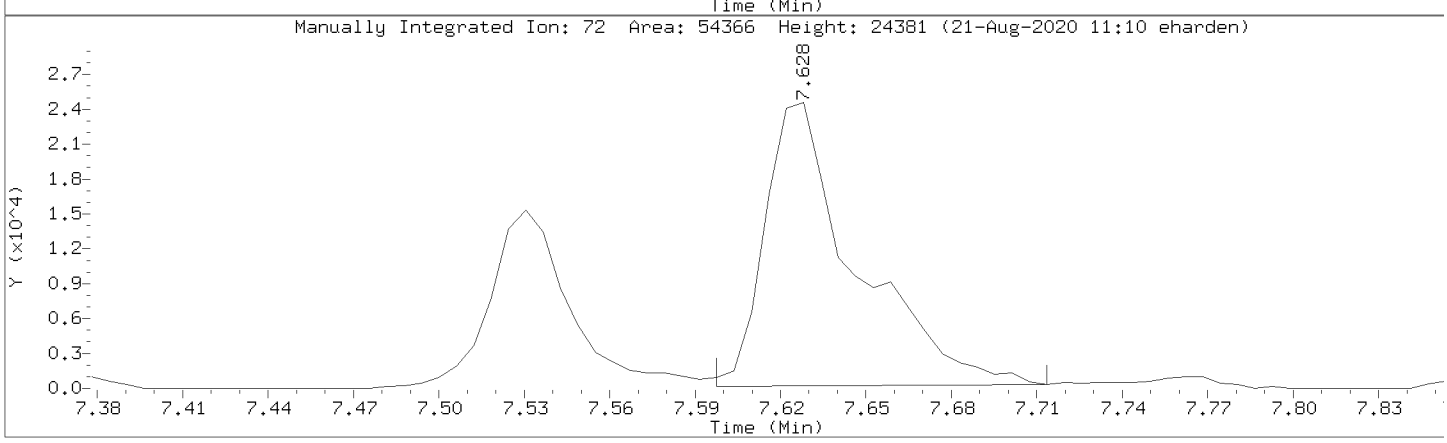
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3









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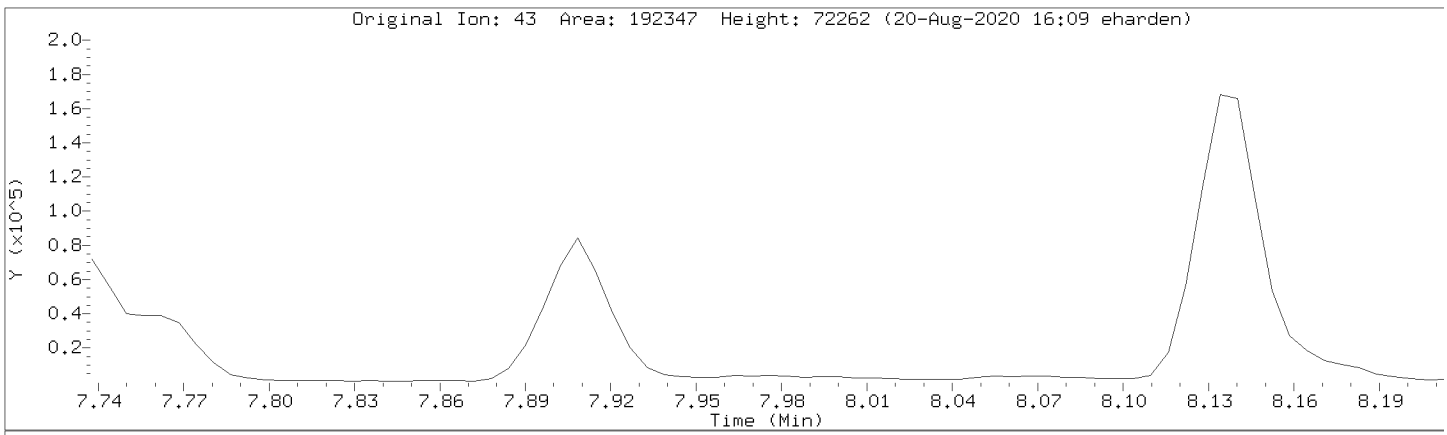
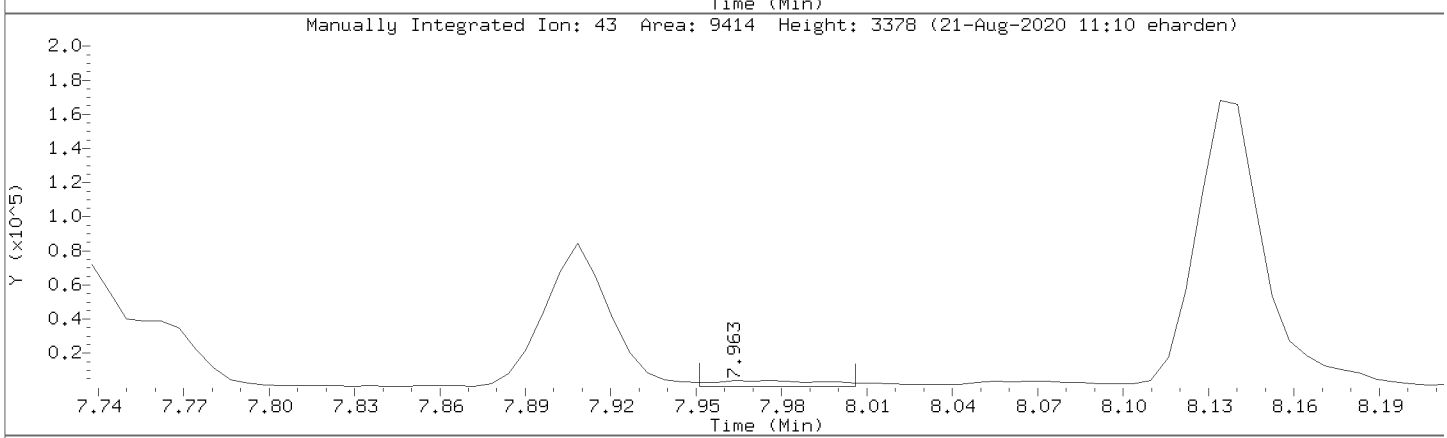
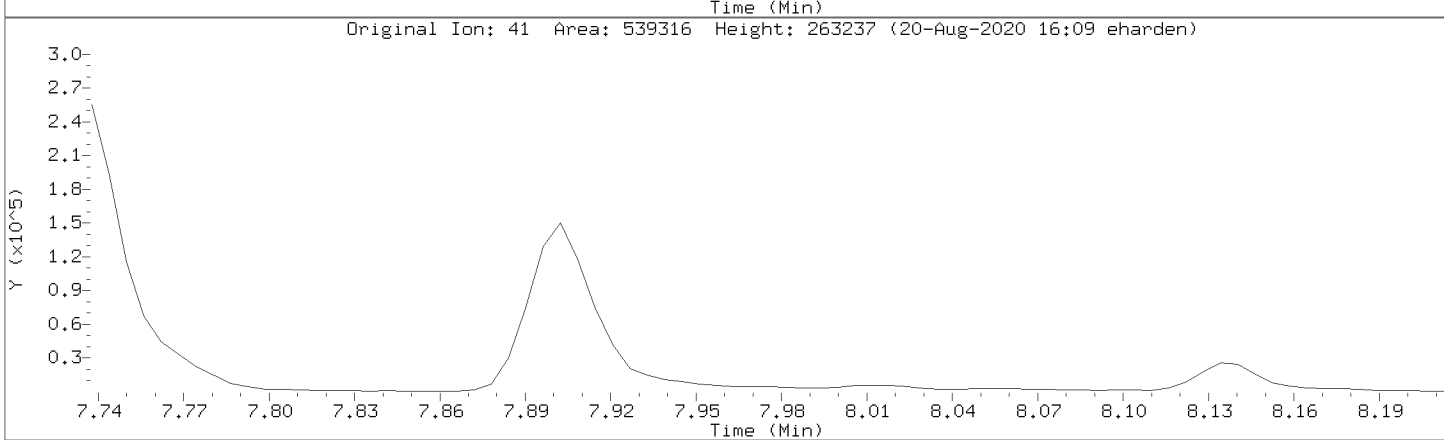
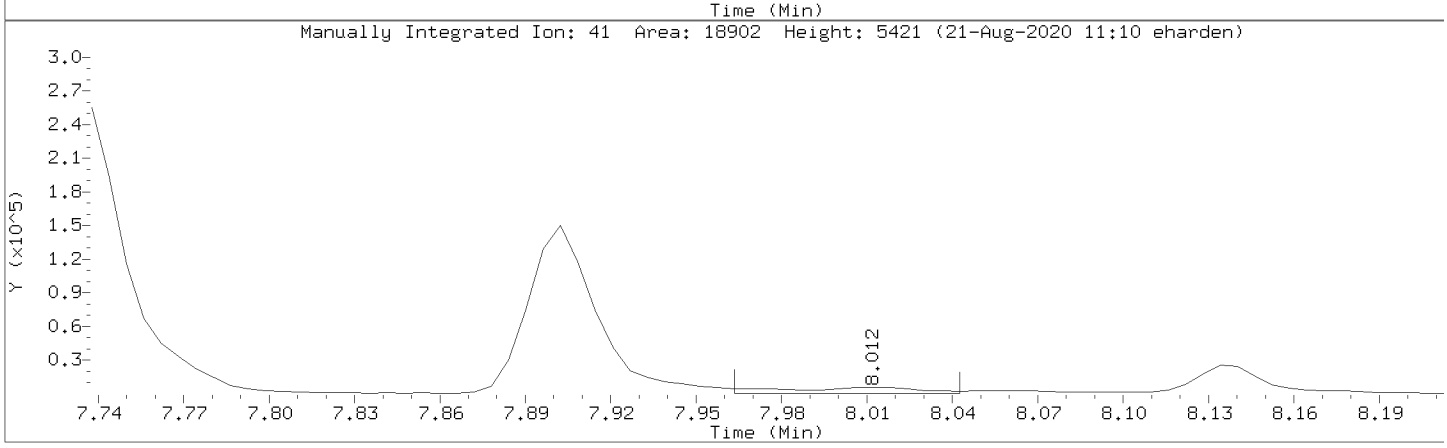
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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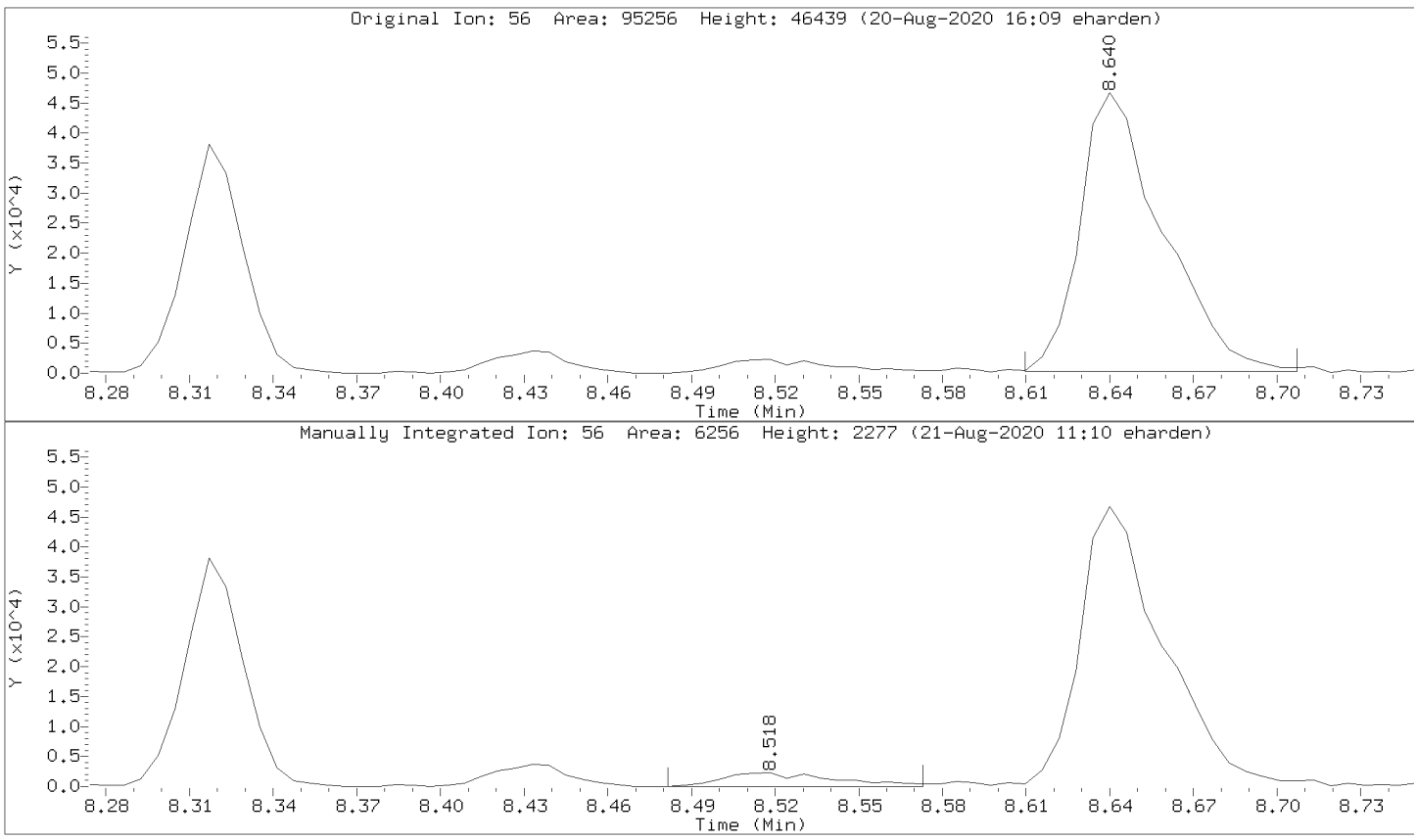
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3



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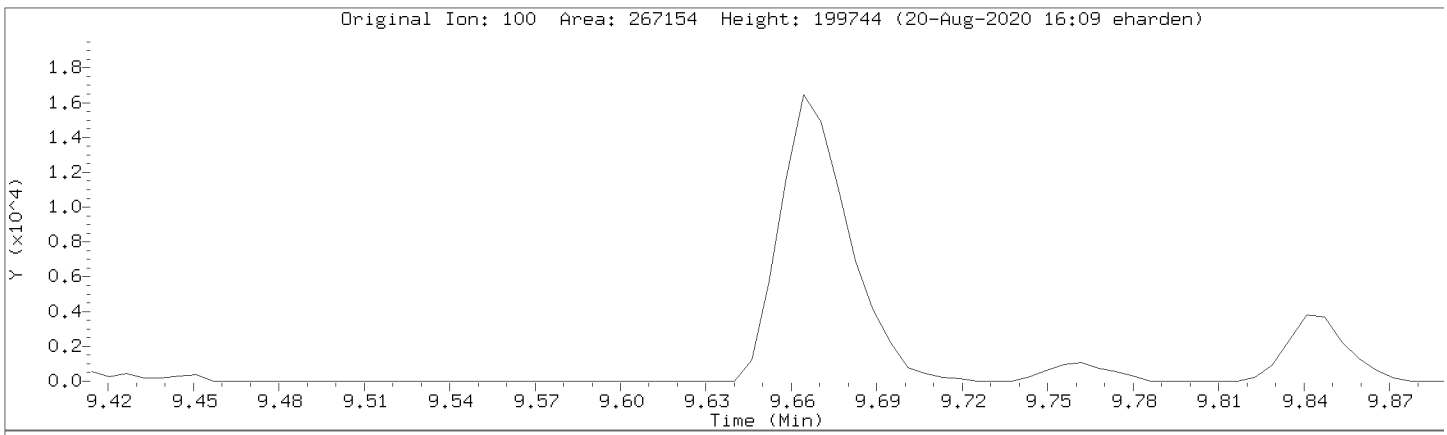
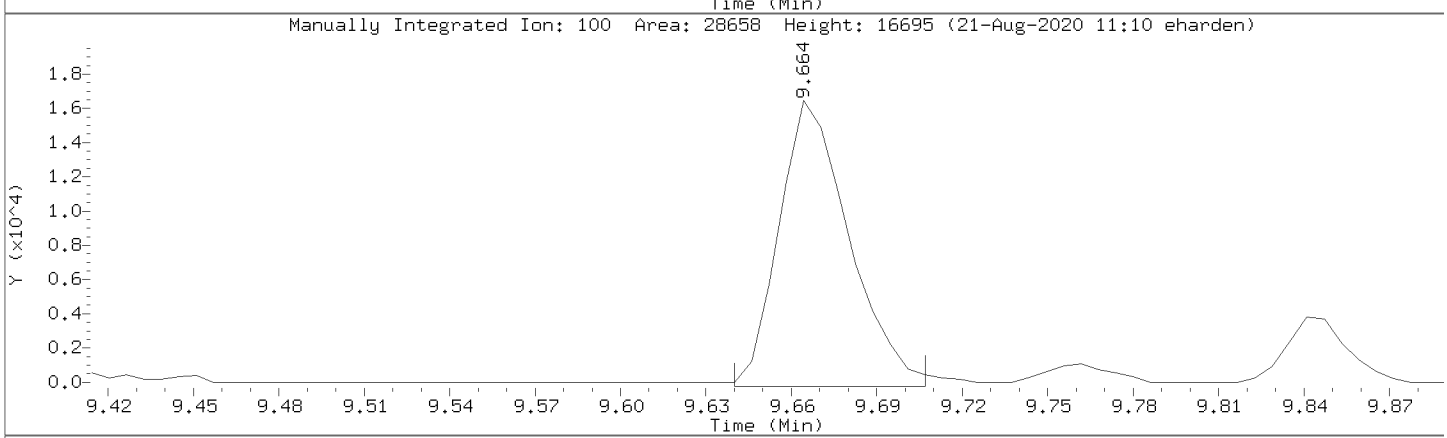
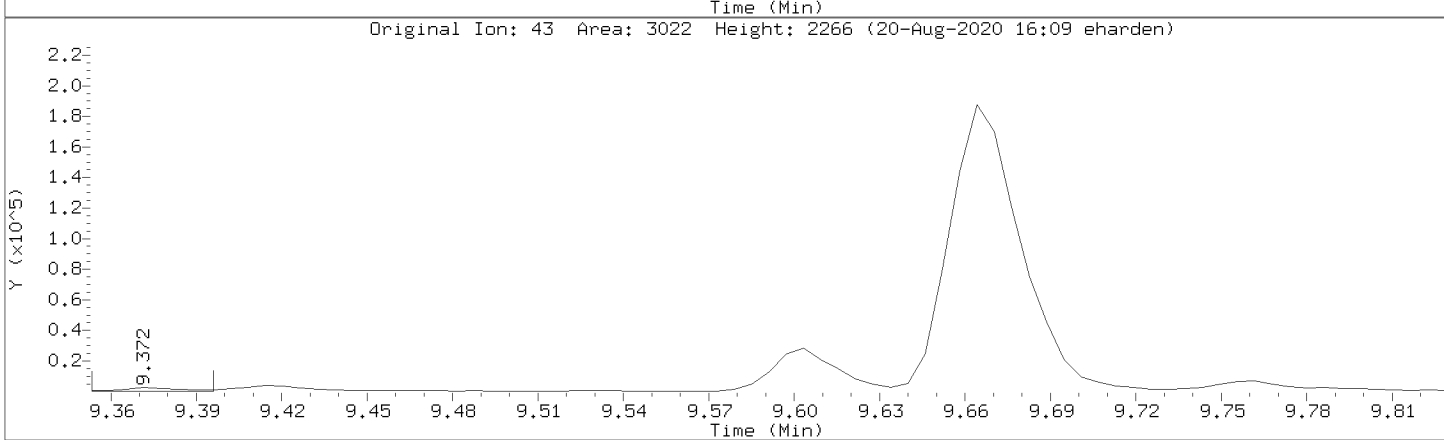
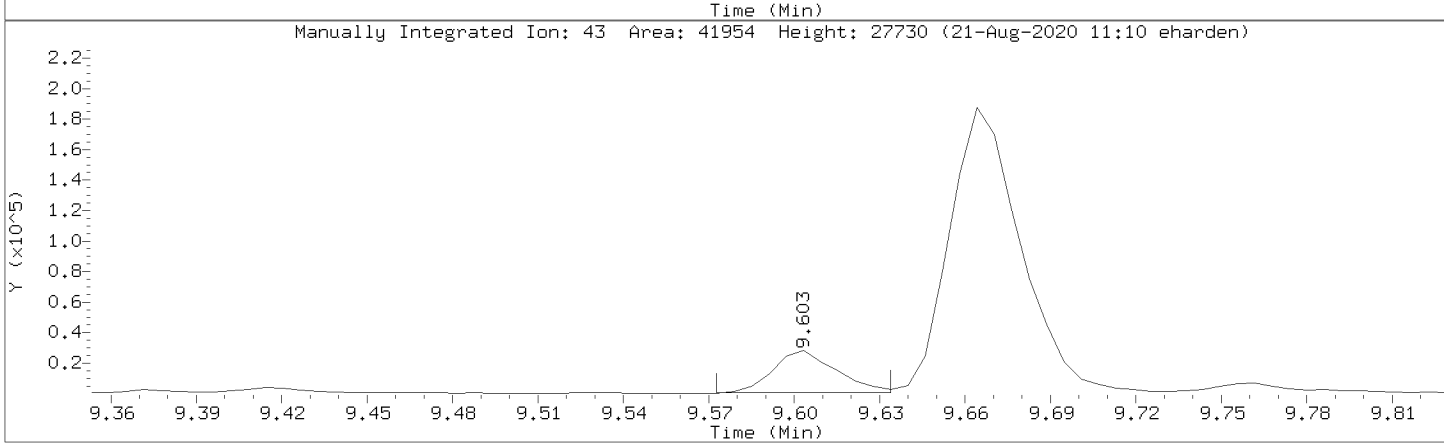
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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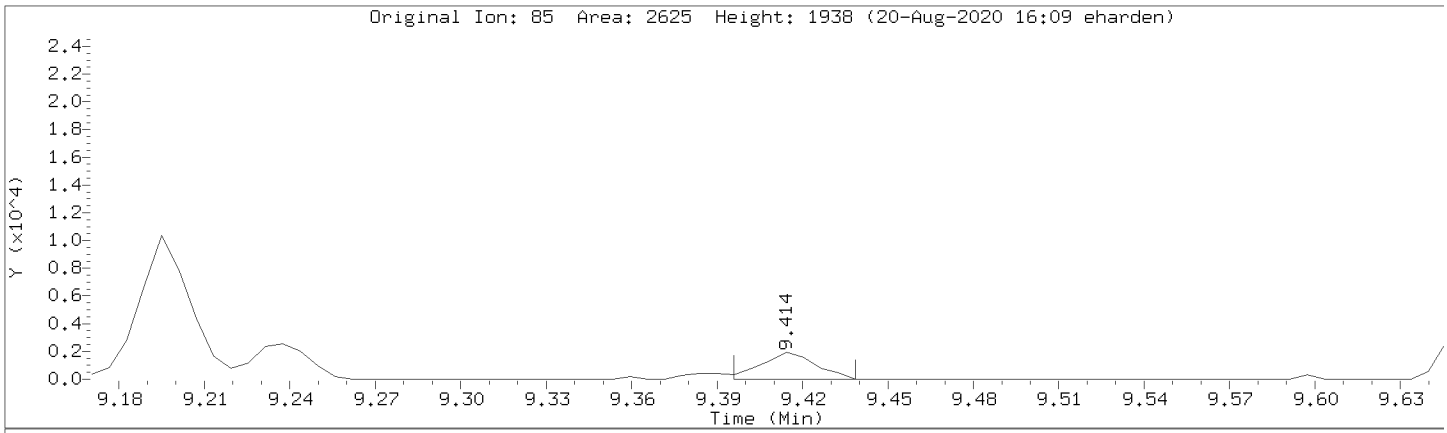
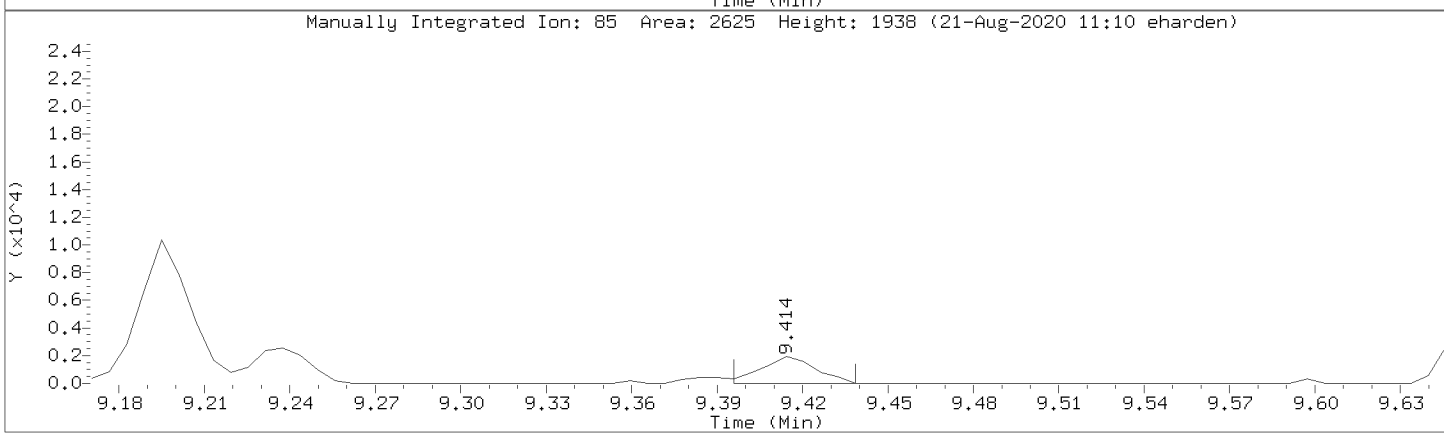
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8





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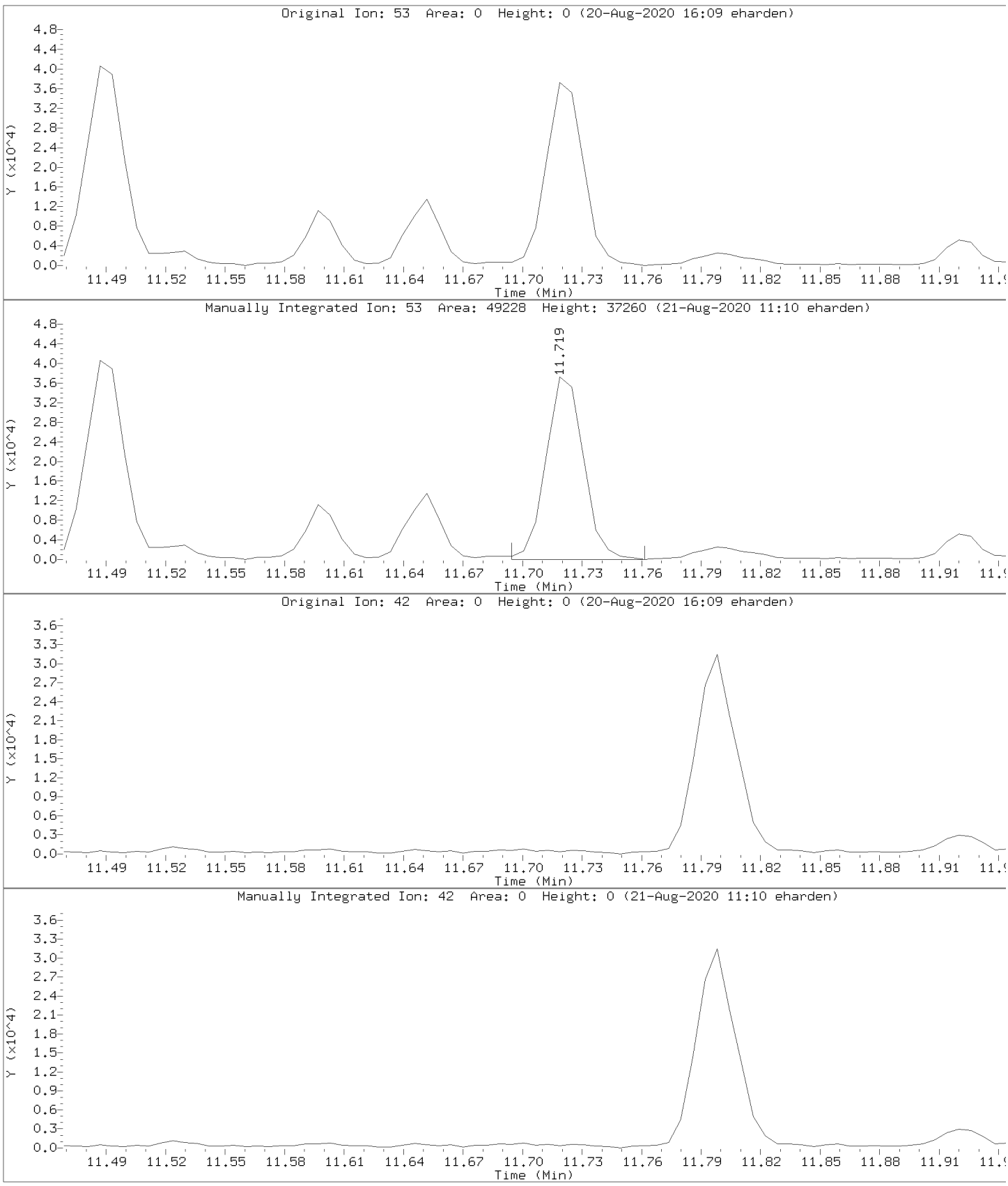
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6



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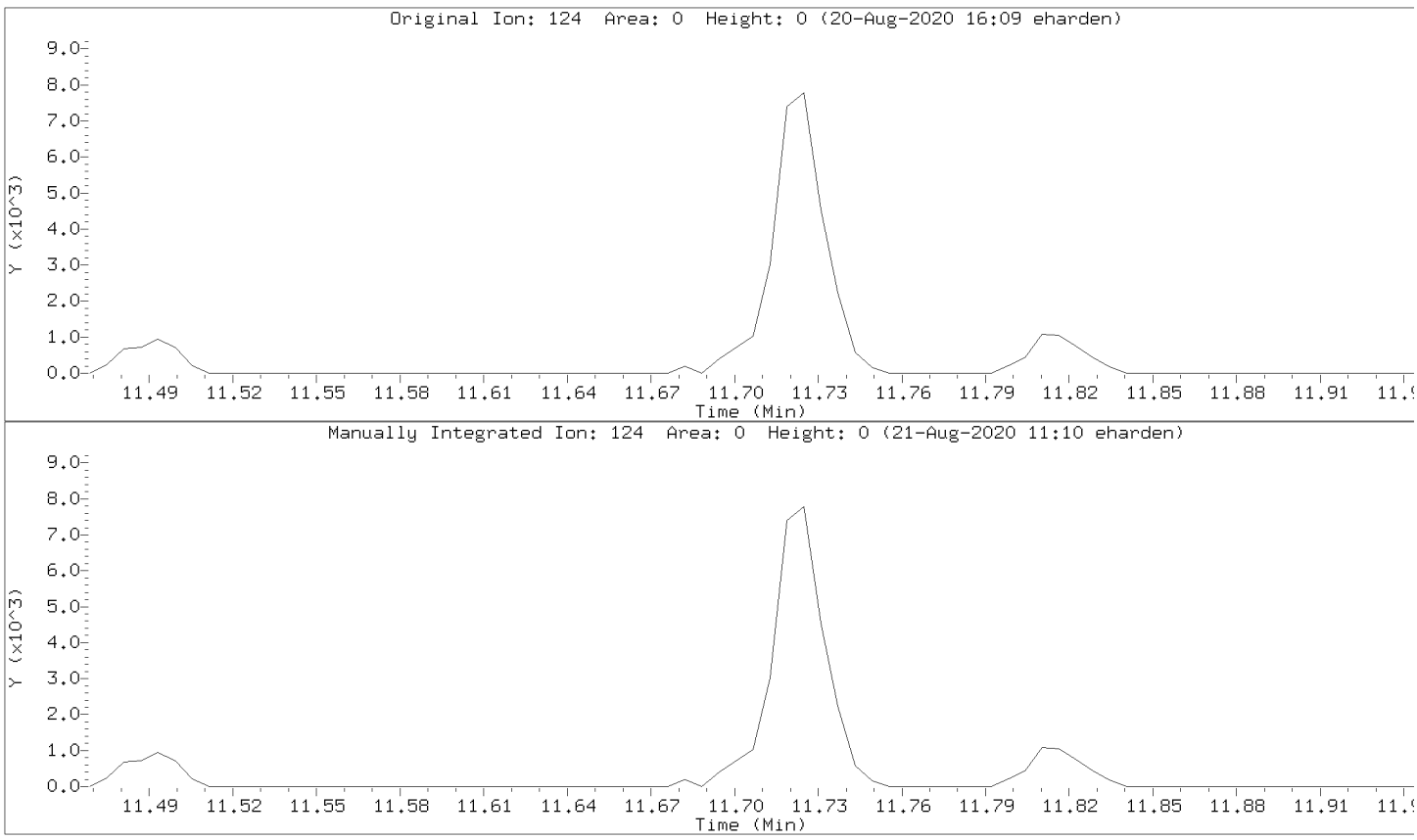
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_11.D
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Comment :
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Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 14:11 Cal File: 082020_11.D
Als bottle: 9 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.410)	283760	75.0000	76.1(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	346933	75.0000	79.8	
3 Vinyl chloride	62	3.702	3.702	(0.471)	266129	75.0000	72.5	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	229006	75.0000	69.8	
5 Bromomethane	94	4.201	4.195	(0.535)	197842	75.0000	72.1	
6 Chloroethane	64	4.366	4.360	(0.556)	76609	75.0000	75.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	152397	75.0000	65.3	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	95070	75.0000	73.9	
9 1,1-Dichloroethene	61	5.226	5.226	(0.665)	307254	75.0000	74.0	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	190336	75.0000	69.5	
11 Carbon disulfide	76	5.287	5.293	(0.673)	644187	75.0000	70.1	
12 Iodomethane	142	5.445	5.439	(0.693)	174575	75.0000	74.4	
13 Acrolein	56	5.658	5.659	(0.720)	65220	150.000	152	
14 Allyl chloride	76	5.786	5.787	(0.736)	91135	75.0000	71.4	
15 Methylene Chloride	49	5.902	5.902	(0.751)	342732	75.0000	69.5	
16 Acetone	43	5.969	5.976	(0.760)	359242	150.000	150	
17 Methyl acetate	43	6.067	6.067	(0.772)	445182	150.000	157	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	200360	75.0000	71.5	
19 n-Hexane	86	6.110	6.110	(0.777)	24817	75.0000	83.6	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	507129	75.0000	77.6	
21 Acetonitrile	41	6.457	6.463	(0.822)	43661	150.000	168(H)	
22 Chloroprene	53	6.640	6.640	(0.845)	329381	75.0000	84.3	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	394304	75.0000	72.4	
24 Acrylonitrile	53	6.731	6.738	(0.857)	183534	150.000	155	
25 Vinyl acetate	43	6.859	6.860	(0.873)	438519	75.0000	81.4	
26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	296515	75.0000	73.9	
27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	277755	75.0000	66.1	
28 Bromochloromethane	128	7.335	7.335	(0.933)	121740	75.0000	69.4	
29 Cyclohexane	56	7.335	7.335	(0.882)	289677	75.0000	82.8	
30 Chloroform	83	7.372	7.372	(0.938)	435835	75.0000	70.8	
31 Ethyl acetate	43	7.426	7.433	(0.945)	516261	150.000	148	
32 Carbon tetrachloride	117	7.506	7.512	(0.902)	317911	75.0000	76.8	
33 Tetrahydrofuran	42	7.530	7.536	(0.958)	139651	150.000	164	
$ 34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	168498	50.0000	47.3	
35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	346786	75.0000	73.9	
36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	407706	150.000	154	
37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	260917	75.0000	80.1(H)	
* 38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	309362	50.0000		
39 Benzene	78	7.871	7.872	(0.946)	777686	75.0000	73.9	
40 Propionitrile	54	7.896	7.902	(1.005)	76528	150.000	145	
41 Methacrylonitrile	41	7.902	7.902	(1.005)	401655	150.000	150	
42 Isobutanol	43	7.975	7.987	(1.015)	20414	150.000	(MH)	WP
$ 43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	29467	50.0000	46.0	
44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	328819	75.0000	68.0	
45 Isopropyl acetate	43	8.134	8.134	(1.035)	448742	75.0000	77.9	
46 Trichloroethene	130	8.316	8.317	(1.000)	215771	75.0000	75.0	
* 47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	411283	50.0000		
48 Methylcyclohexane	98	8.316	8.317	(1.000)	104652	75.0000	76.8	
49 n-Butanol	56	8.512	8.524	(1.023)	10615	150.000	169(H)	
50 Dibromomethane	93	8.670	8.670	(1.043)	178140	75.0000	72.7	
51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	221116	75.0000	73.6	
52 Bromodichloromethane	83	8.768	8.768	(1.054)	335188	75.0000	77.7	
53 Methyl methacrylate	69	8.822	8.823	(1.061)	128004	75.0000	72.9	
54 1,4-Dioxane (p-Dioxane)	58	8.932	8.920	(1.074)	3243	150.000	(MH)	LT
55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	229530	150.000	147	
56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	334526	75.0000	79.8	
$ 57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	447242	50.0000	50.5	
58 Toluene	91	9.414	9.414	(1.132)	781683	75.0000	76.2	
59 2-Nitropropane	43	9.603	9.603	(1.155)	75539	75.0000	74.4(H)	
60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	44292	150.000	150(M)	WP
61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	333917	75.0000	79.8	
62 Tetrachloroethene	164	9.719	9.719	(0.920)	205799	75.0000	76.6	
63 Ethyl methacrylate	69	9.761	9.761	(1.174)	245737	75.0000	73.4(H)	
64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	182207	75.0000	70.1	
65 Dibromochloromethane	129	9.999	9.999	(0.947)	280478	75.0000	75.3	
66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	312981	75.0000	79.0	
67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	231783	75.0000	72.6	
68 2-Hexanone	43	10.273	10.280	(1.235)	571212	150.000	164	
69 Ethylbenzene	91	10.554	10.554	(0.999)	846583	75.0000	82.6	
* 70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	391574	50.0000		
71 Chlorobenzene	112	10.578	10.578	(1.002)	554970	75.0000	73.5	
72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	225655	75.0000	70.7	
73 m&p-Xylene	91	10.651	10.651	(1.009)	1353204	150.000	151	
74 o-Xylene	106	10.993	10.993	(1.041)	299124	75.0000	70.9	
75 Styrene	104	11.029	11.029	(1.044)	546784	75.0000	74.2	
76 Bromoform	173	11.103	11.103	(1.051)	260722	75.0000	73.7	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	479165	75.0000	75.6	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	166582	50.0000	51.8	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	91712	75.0000	71.3	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	1052699	75.0000	83.8	
81 Bromobenzene	156	11.578	11.578	(1.096)	312070	75.0000	78.8	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	302282	75.0000	72.2	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	695519	75.0000	83.9	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	220722	75.0000	73.6	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	228636	75.0000	75.5	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	797567	75.0000	73.6	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	319085	75.0000	72.8	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	78111	75.0000	77.5(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	710565	75.0000	73.0	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	731346	75.0000	74.8	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	858491	75.0000	74.0	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	710565	75.0000	73.0	
94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	523242	75.0000	78.3	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	251122	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	532968	75.0000	70.7	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	748624	75.0000	85.5	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	517606	75.0000	70.9	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	59552	75.0000	72.5	
100 Hexachloro-1,3-butadiene	225	13.815	13.822	(1.120)	164678	75.0000	73.6	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	399731	75.0000	80.8	
102 Naphthalene	128	14.193	14.193	(1.150)	711974	75.0000	72.4	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	369768	75.0000	80.4	

QC Flag Legend

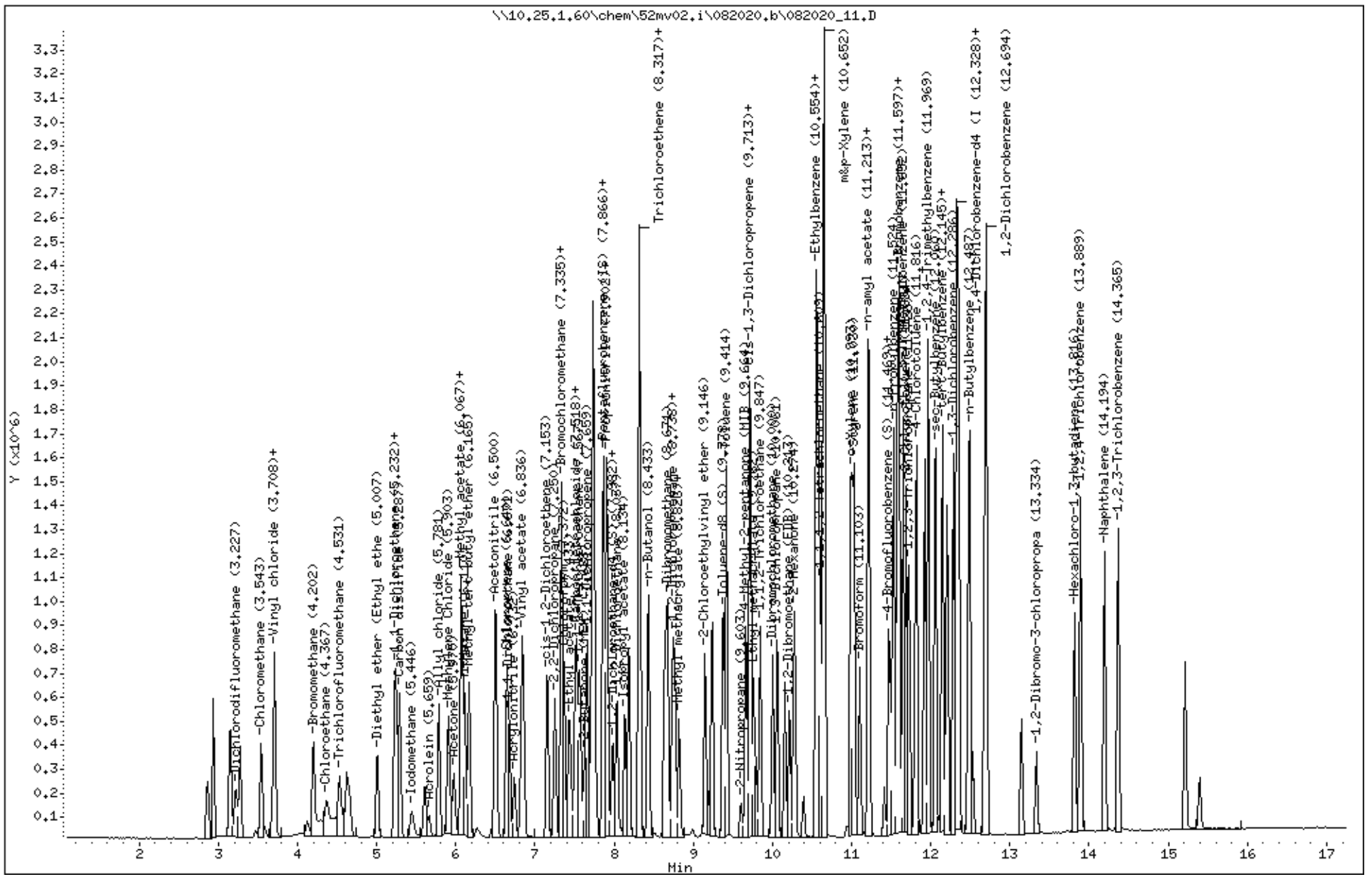
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_11.D
Date : 20-AUG-2020 14:11
Client ID: CAL9
Sample Info: CAL9,27245:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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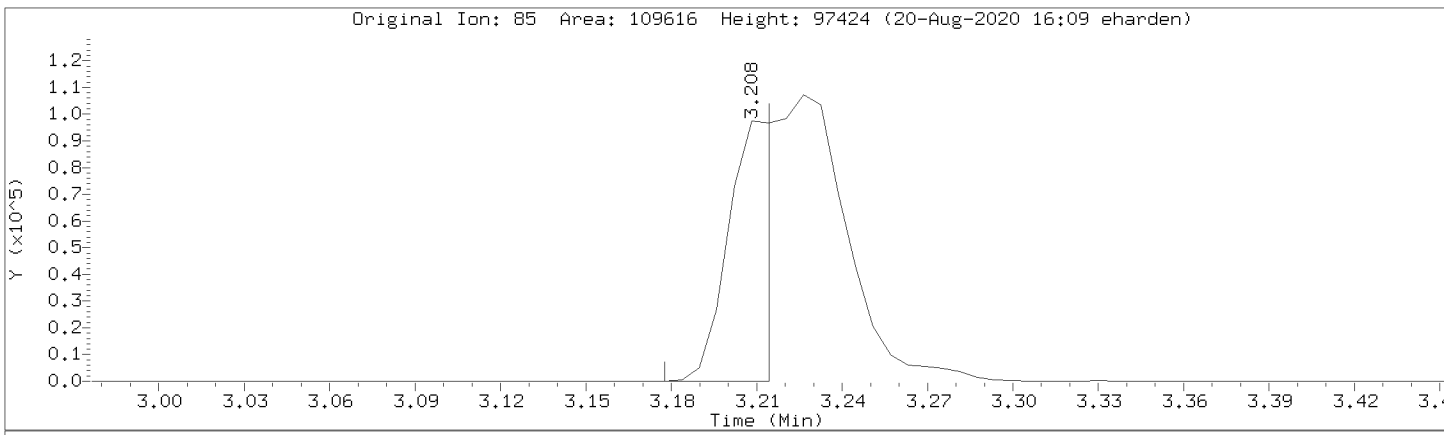
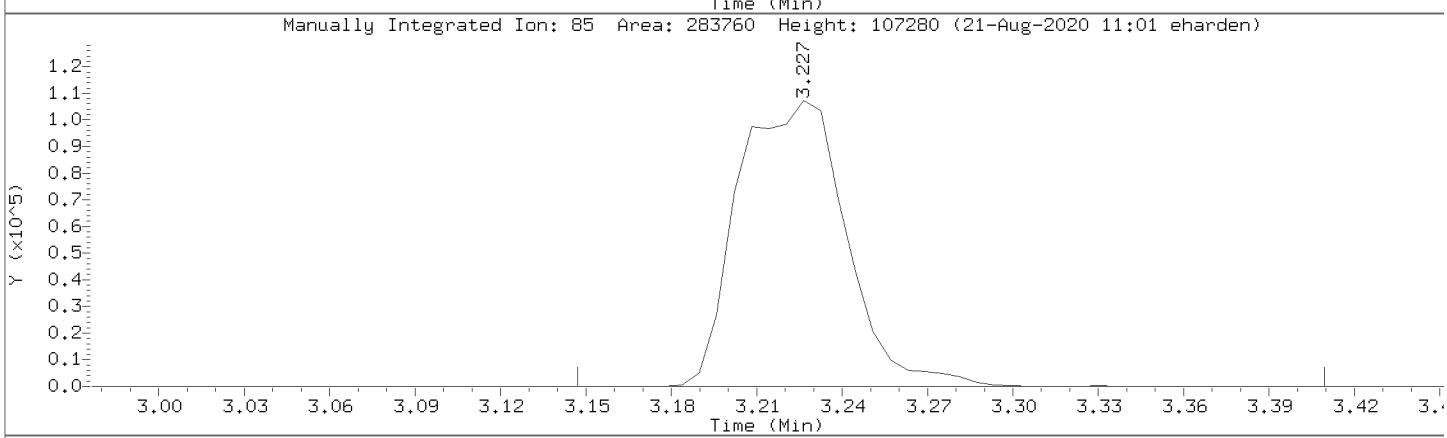
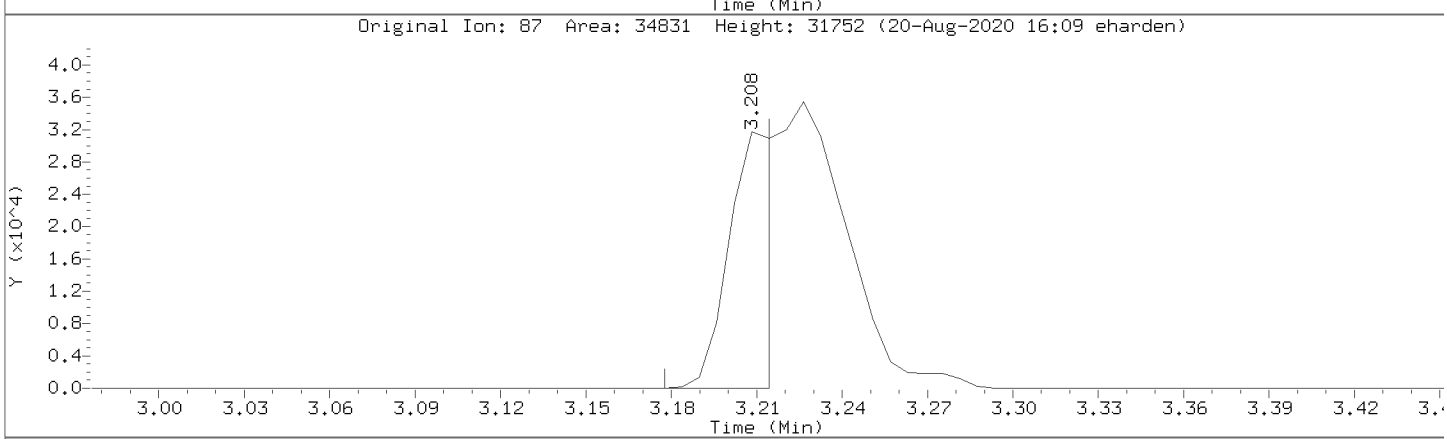
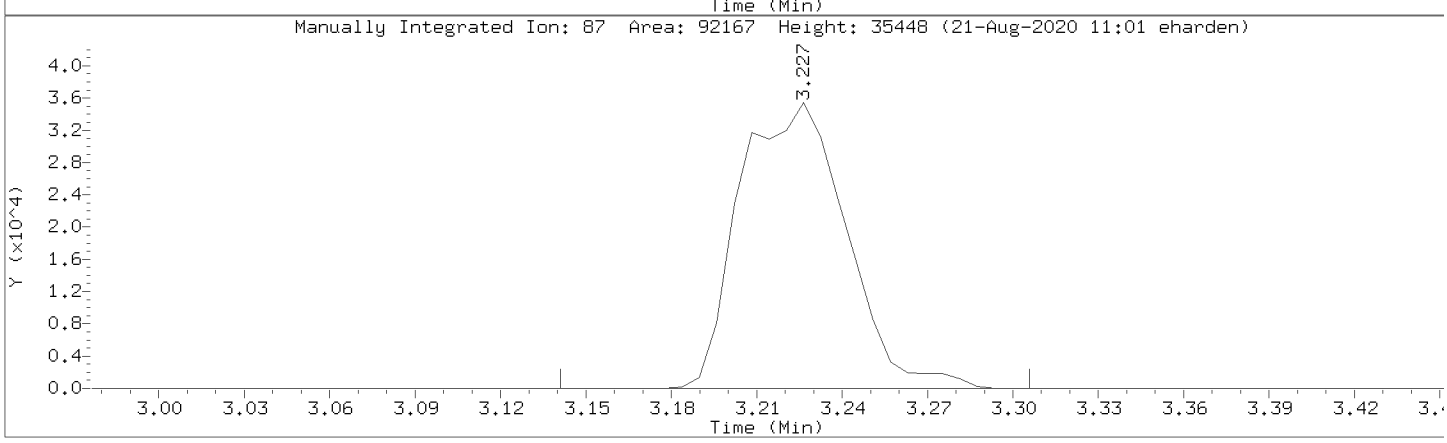
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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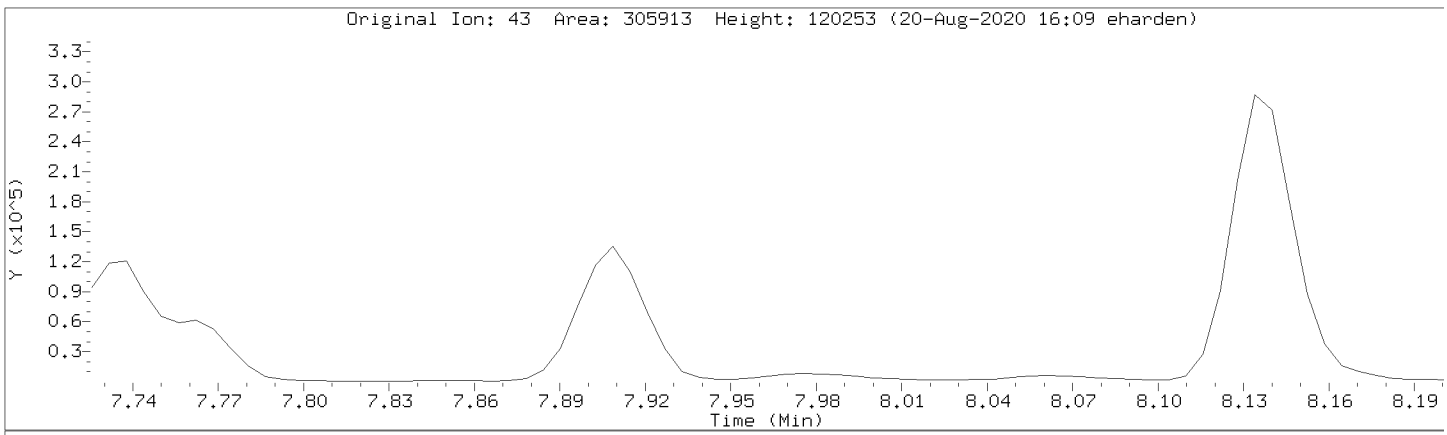
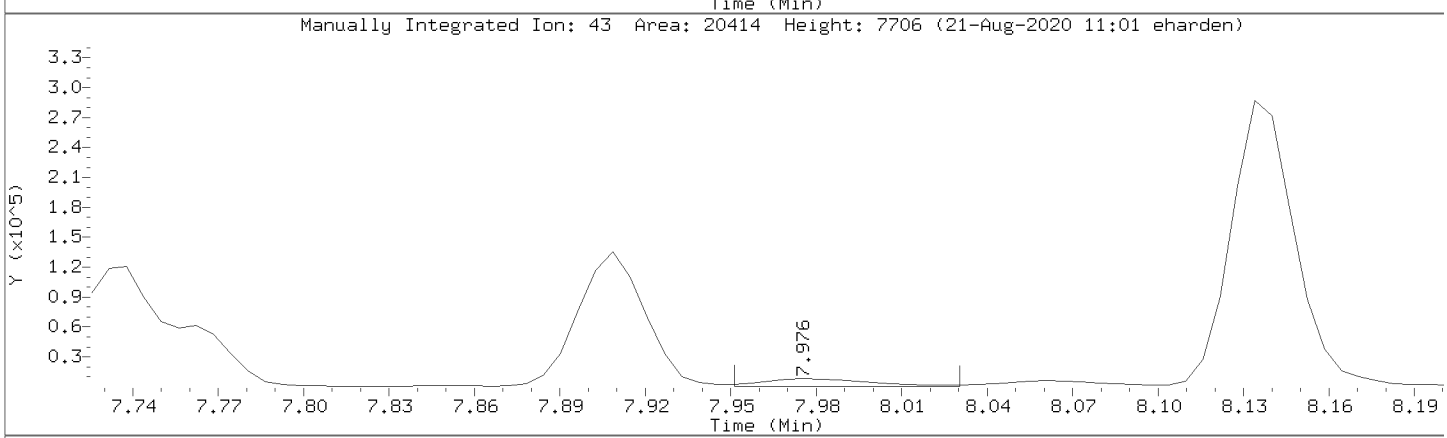
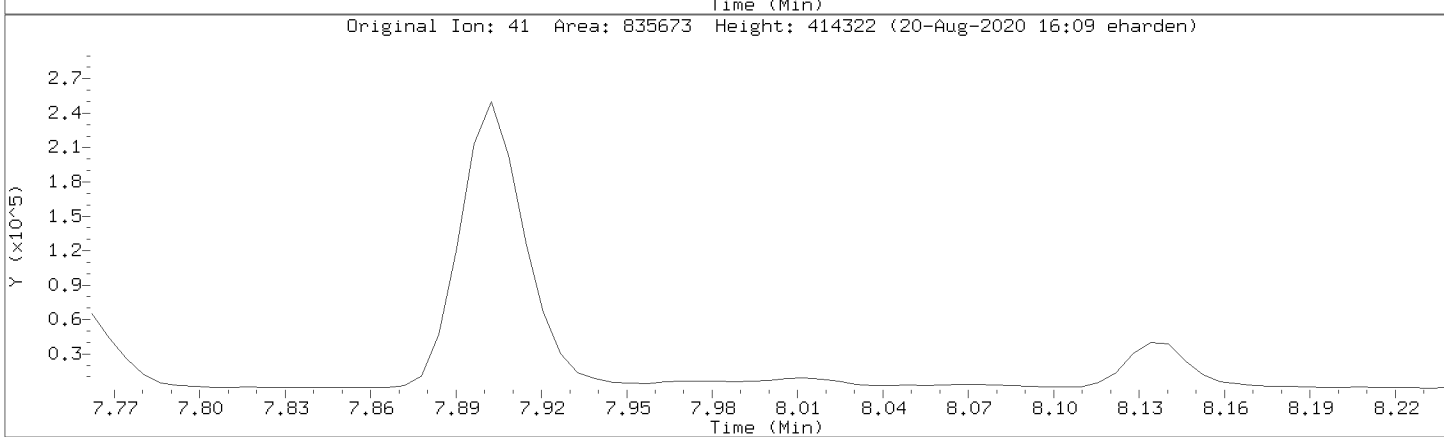
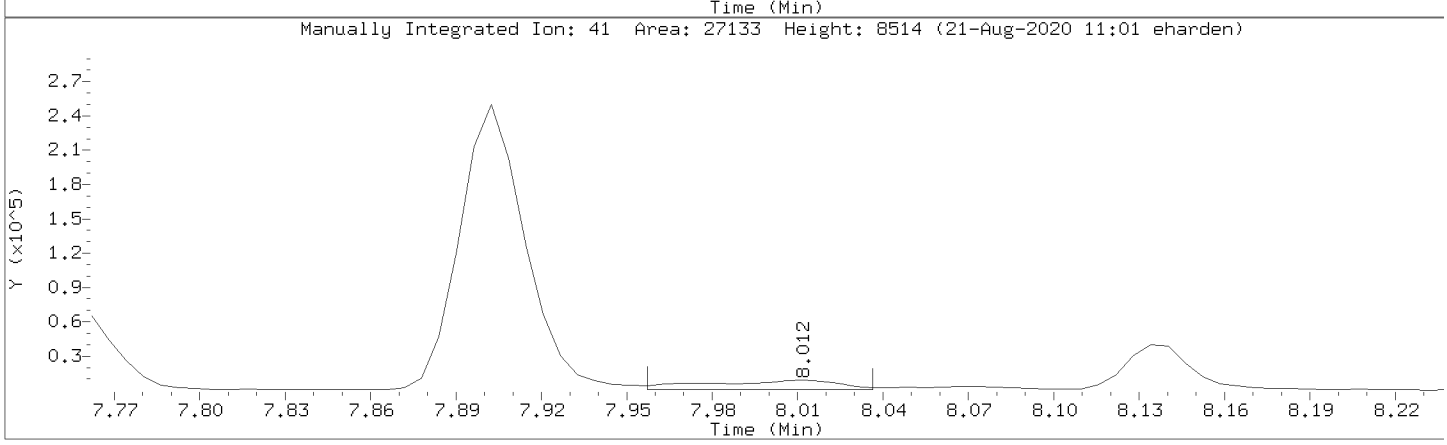
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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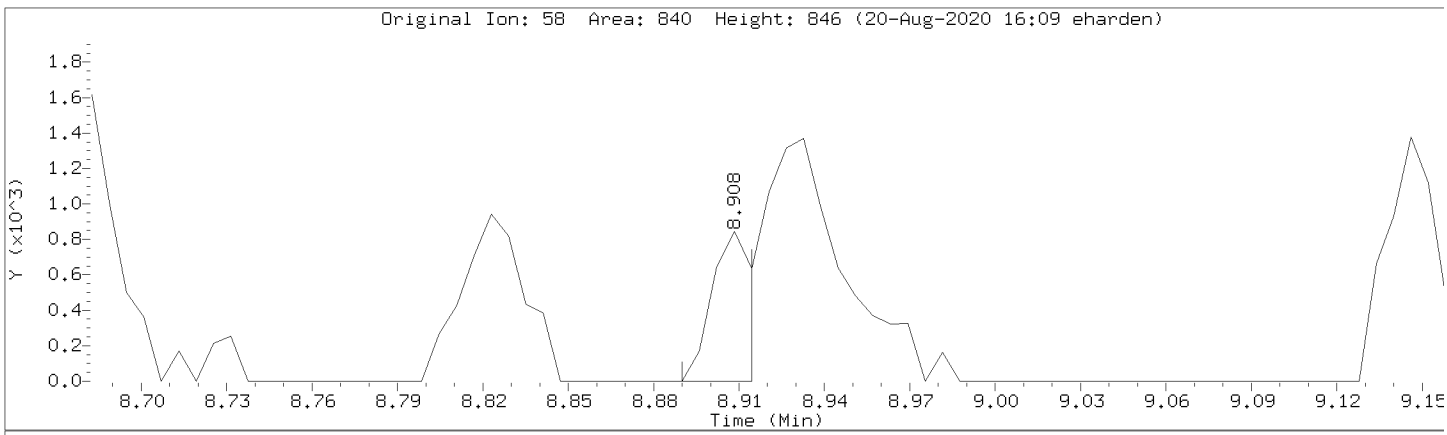
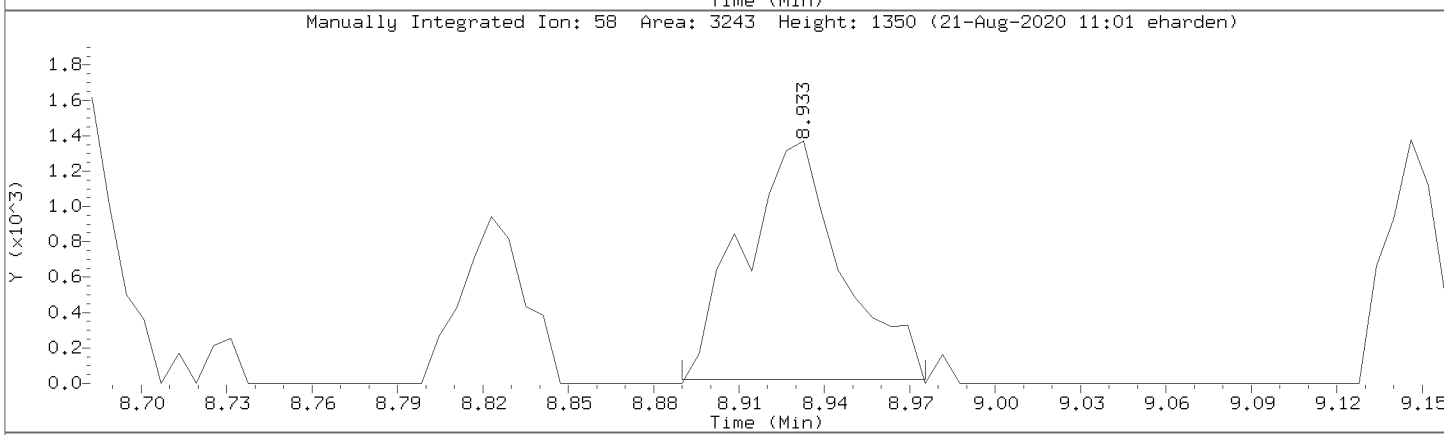
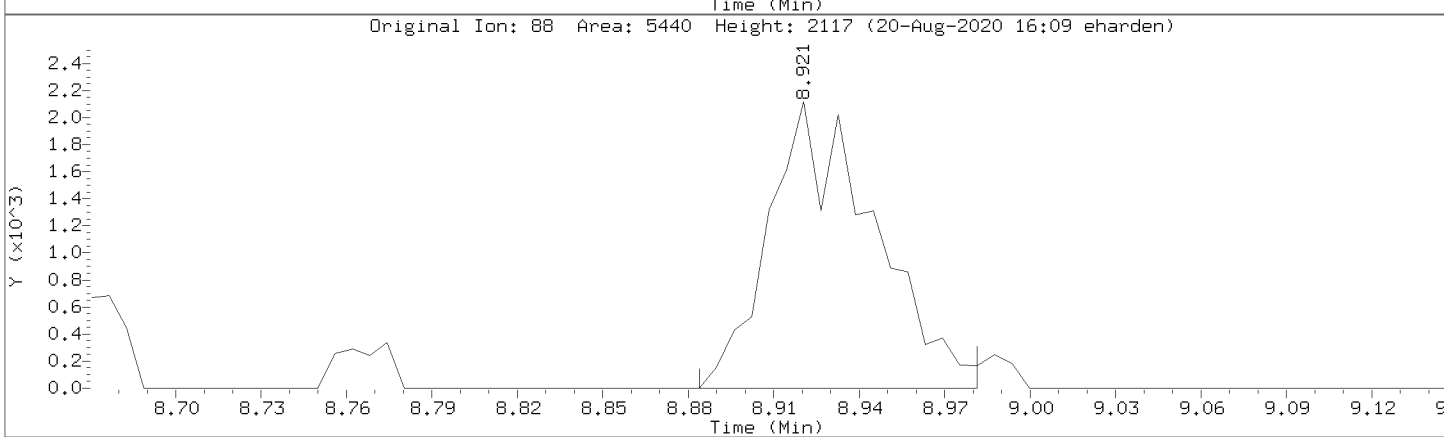
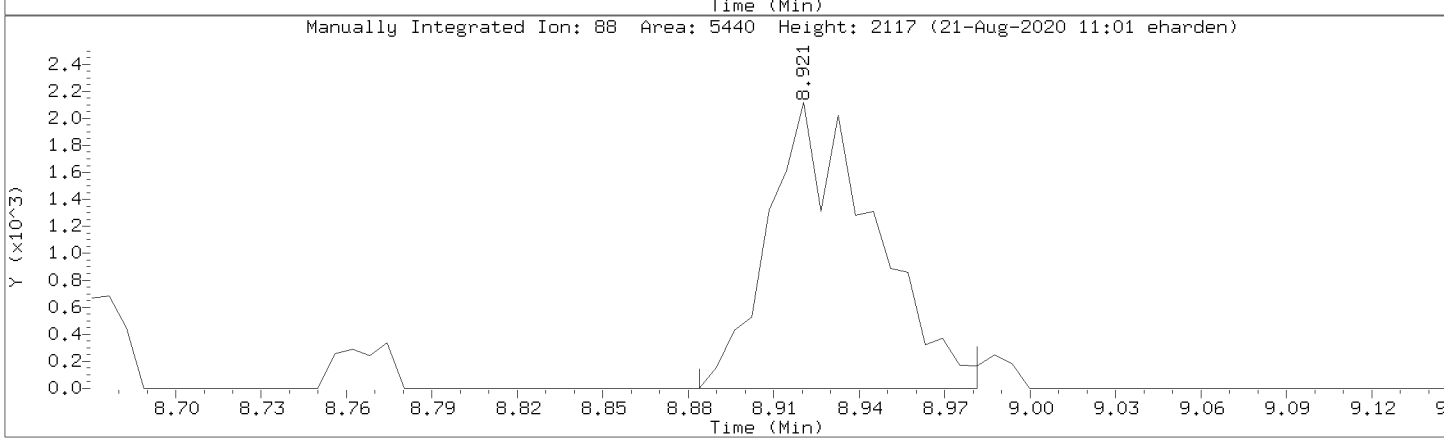
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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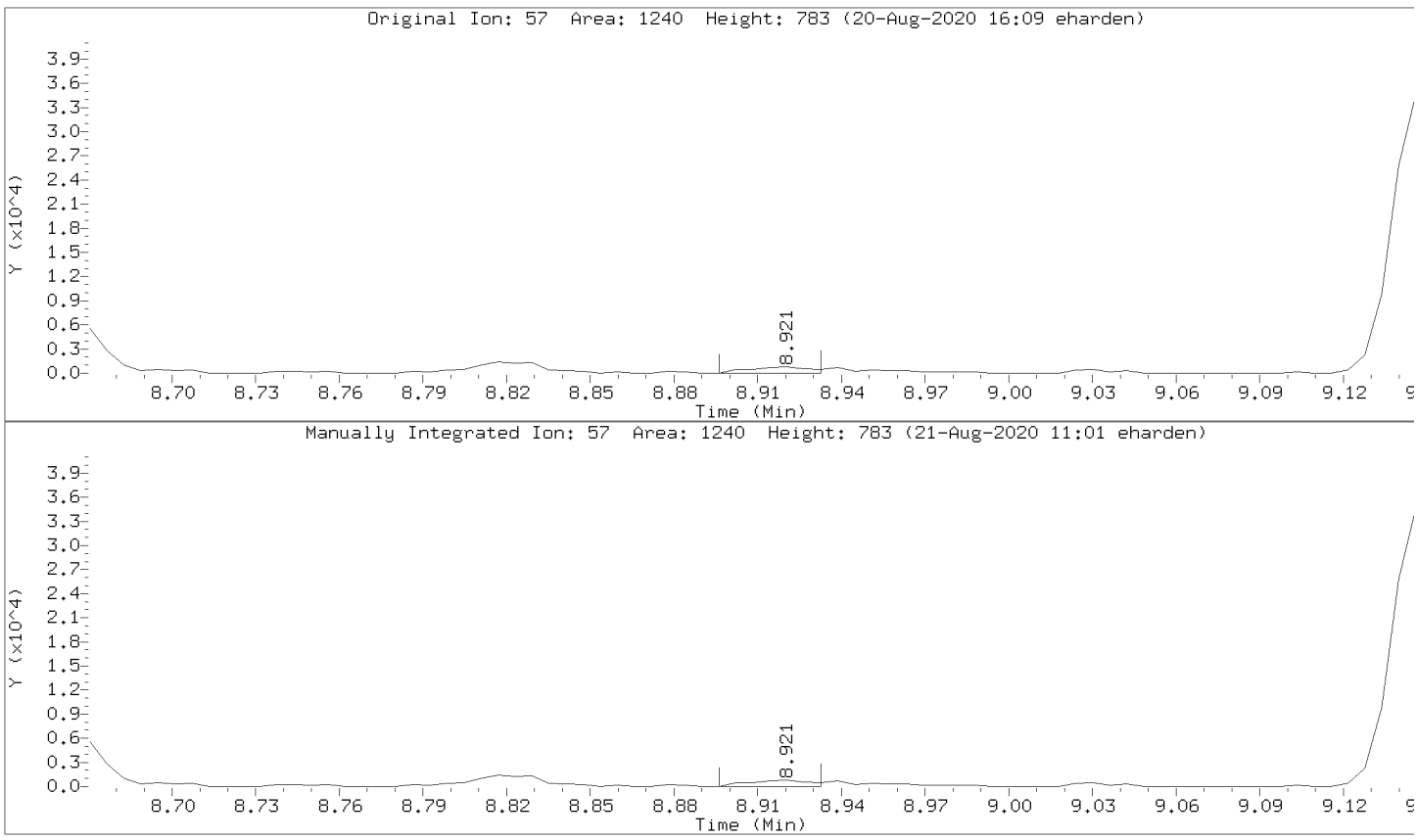
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9



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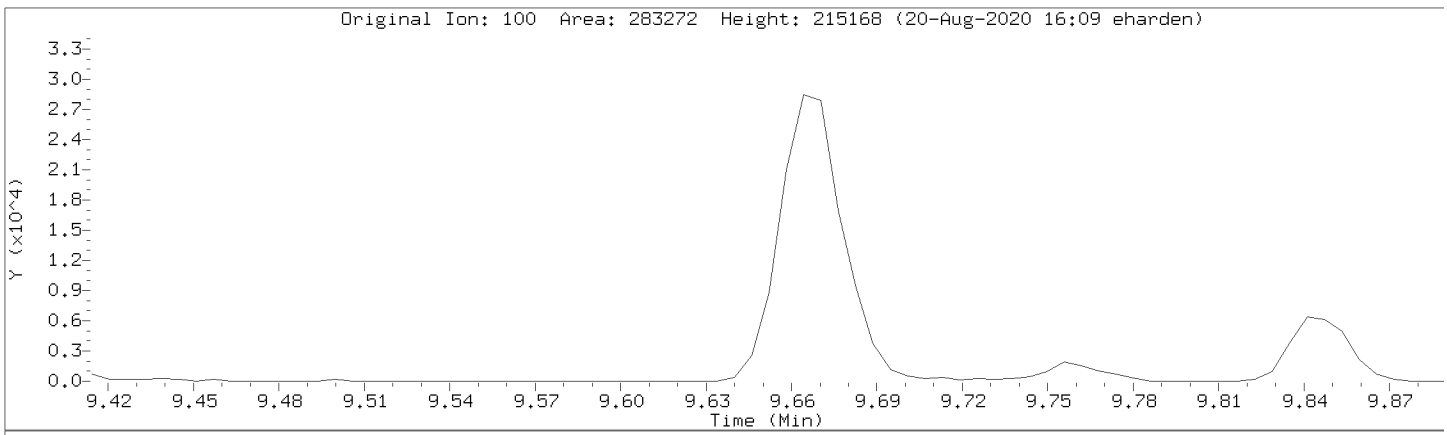
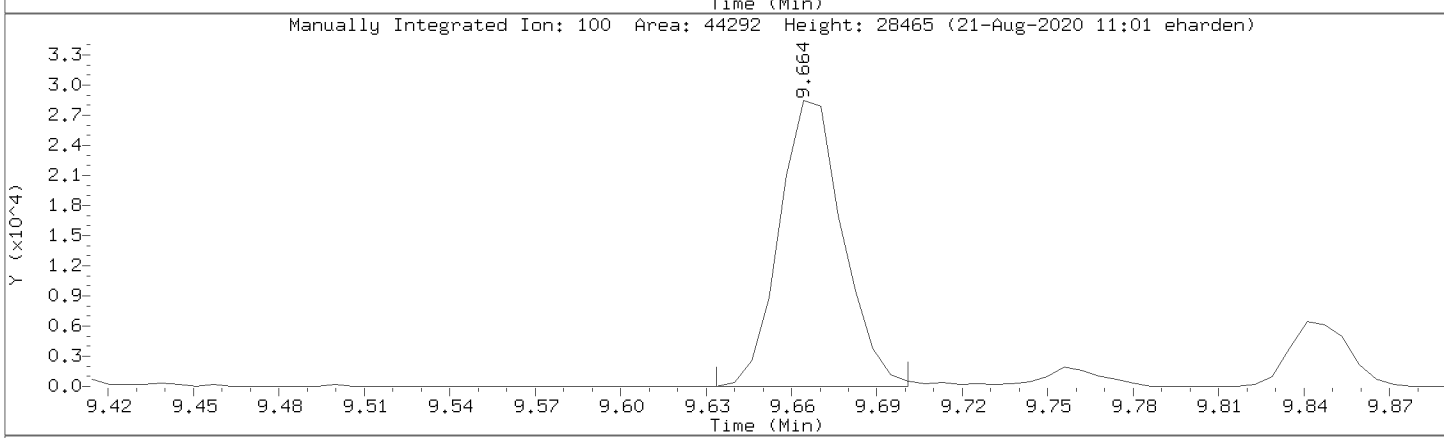
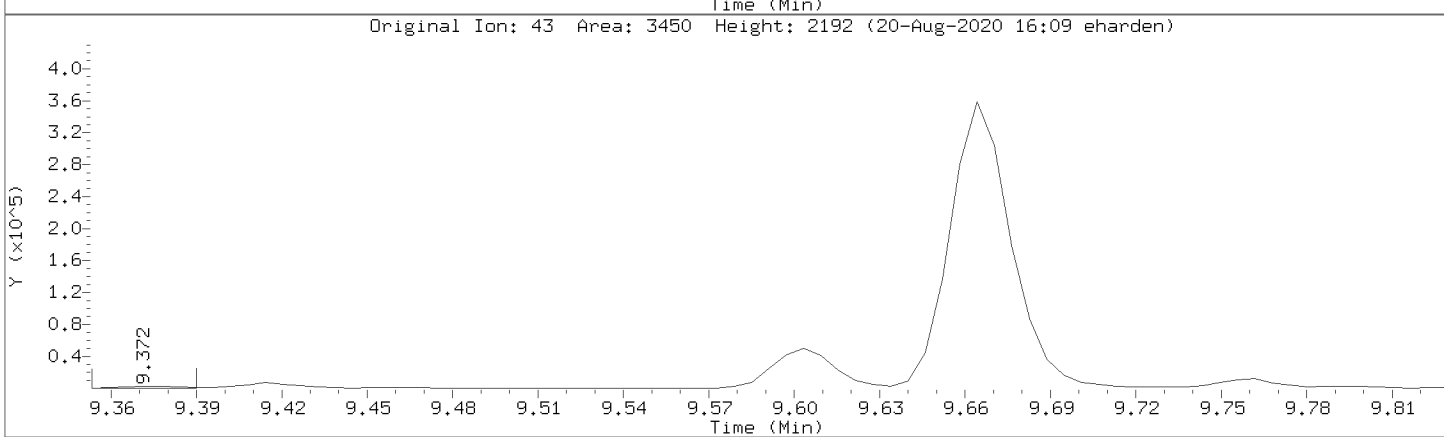
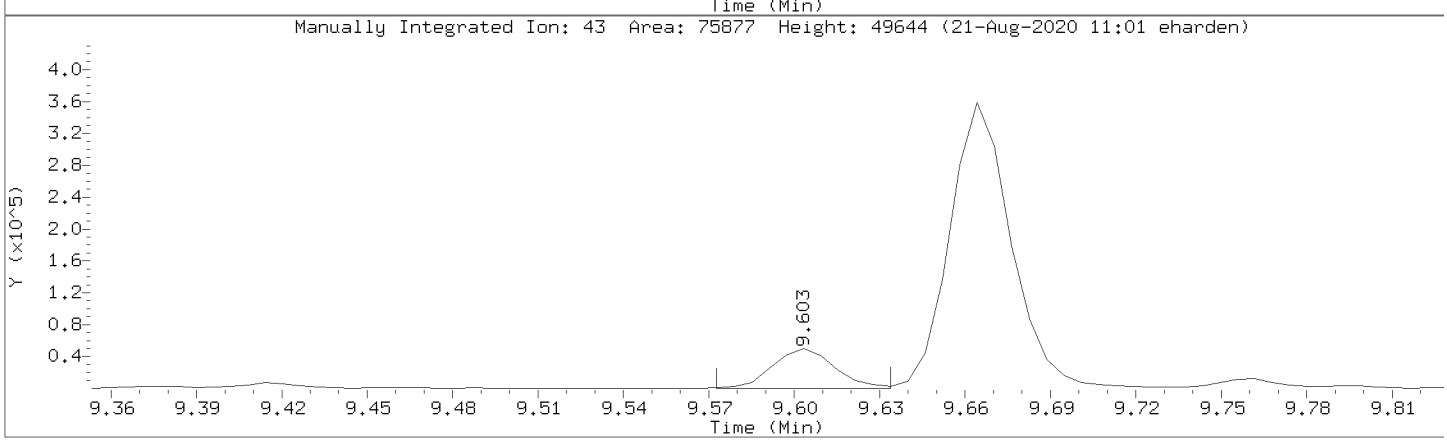
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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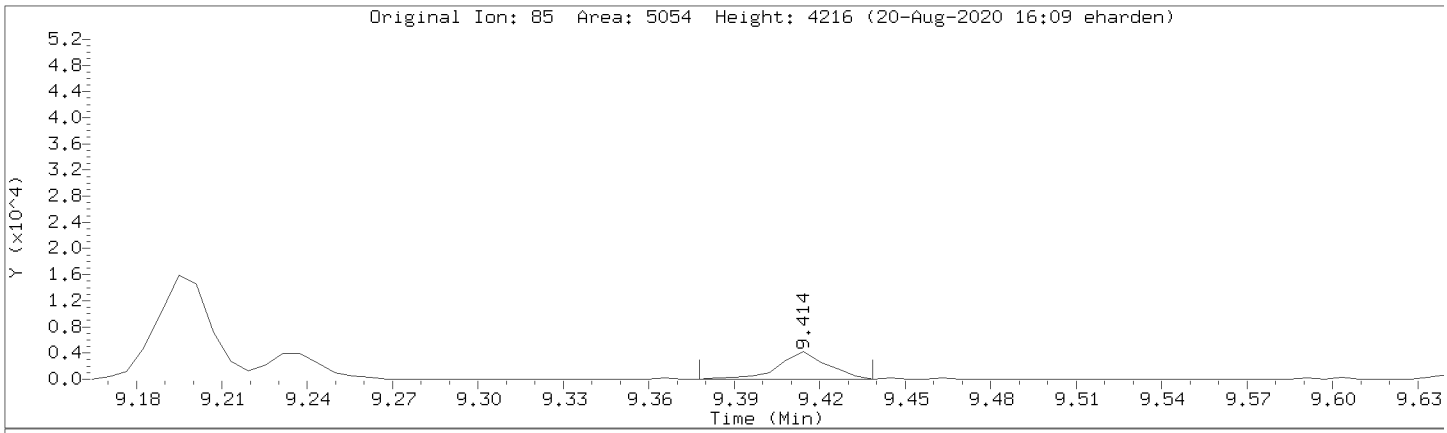
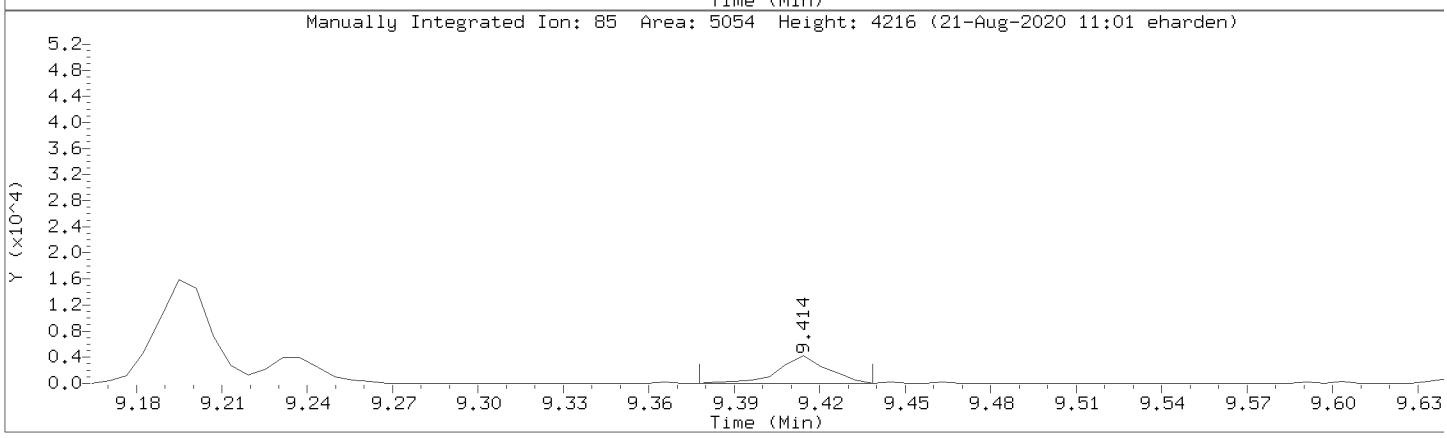
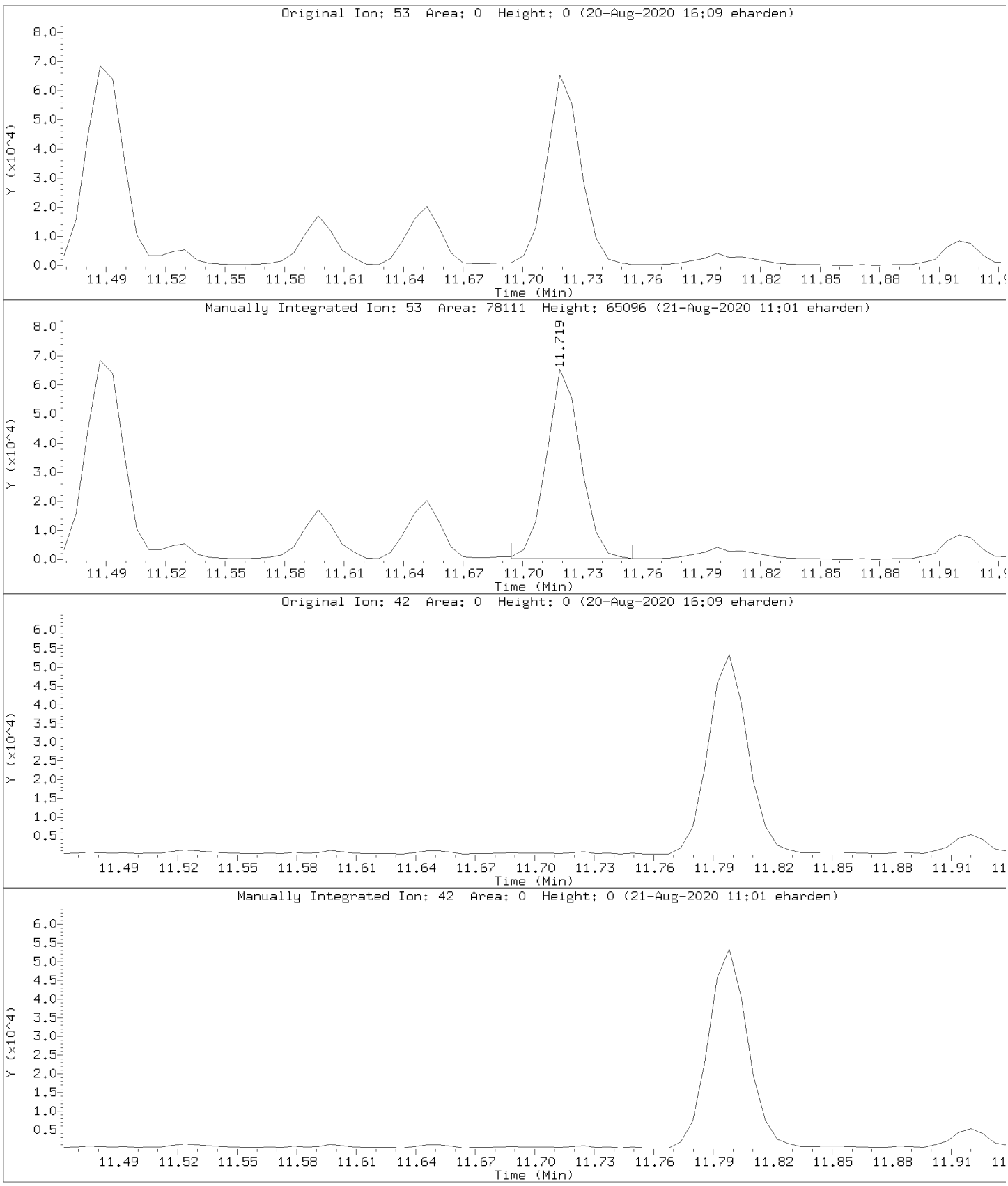
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9





Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_11.D
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6



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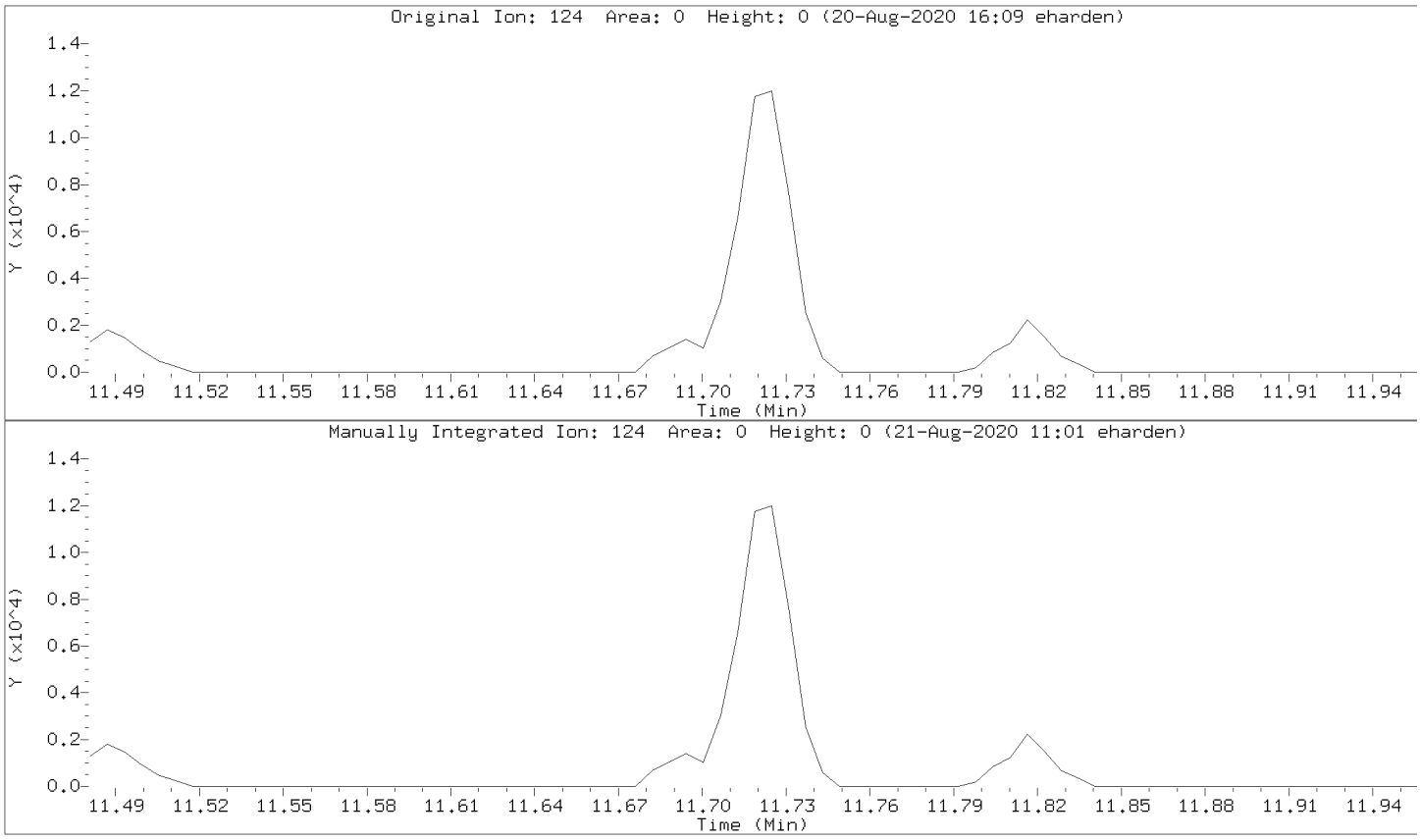
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_12.D
Lab Smp Id: CAL10 Client Smp ID: CAL10
Inj Date : 20-AUG-2020 14:36
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal10,27246:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 14:36 Cal File: 082020_12.D
Als bottle: 10 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.232	3.226	(0.411)	408577	100.000	102(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	484636	100.000	105	
3 Vinyl chloride	62	3.702	3.702	(0.471)	387049	100.000	98.7	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	337639	100.000	96.3	
5 Bromomethane	94	4.201	4.195	(0.535)	280008	100.000	96.6	
6 Chloroethane	64	4.366	4.360	(0.556)	102291	100.000	94.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	201296	100.000	80.8	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	132497	100.000	96.5	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	447052	100.000	101	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	271477	100.000	92.9	
11 Carbon disulfide	76	5.287	5.293	(0.673)	903417	100.000	92.1	
12 Iodomethane	142	5.445	5.439	(0.693)	281734	100.000	105	
13 Acrolein	56	5.659	5.659	(0.720)	92978	200.000	203	
14 Allyl chloride	76	5.787	5.787	(0.736)	131327	100.000	96.3	
15 Methylene Chloride	49	5.902	5.902	(0.751)	464439	100.000	88.2	
16 Acetone	43	5.969	5.976	(0.760)	504949	200.000	198	
17 Methyl acetate	43	6.067	6.067	(0.772)	615823	200.000	204(A)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	281562	100.000	94.1	
19 n-Hexane	86	6.110	6.110	(0.777)	34191	100.000	108	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	722402	100.000	103	
21 Acetonitrile	41	6.463	6.463	(0.822)	59347	200.000	214(AH)	
22 Chloroprene	53	6.640	6.640	(0.845)	465931	100.000	112	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	538565	100.000	92.6	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	257393	200.000	204(A)	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	592348	100.000	103	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	420353	100.000	98.0	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	400045	100.000	89.2	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	170642	100.000	91.1	
	29 Cyclohexane	56	7.335	7.335	(0.882)	419057	100.000	113	
	30 Chloroform	83	7.372	7.372	(0.938)	604780	100.000	92.0	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	715243	200.000	193	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	438244	100.000	99.7	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	196080	200.000	216(A)	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	173193	50.0000	45.5	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	483513	100.000	97.1	
	36 2-Butanone (MEK)	43	7.622	7.628	(0.970)	582167	200.000	205	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	369324	100.000	107(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	330367	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	1069569	100.000	95.8	
	40 Propionitrile	54	7.896	7.902	(1.005)	106137	200.000	188	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	553697	200.000	193	
	42 Isobutanol	43	7.981	7.987	(1.016)	27725	200.000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	30521	50.0000	44.6	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	462341	100.000	89.5	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	647452	100.000	105	
	46 Trichloroethene	130	8.317	8.317	(1.000)	309121	100.000	101	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	436570	50.0000		
	48 Methylcyclohexane	98	8.317	8.317	(1.000)	158128	100.000	109	
	49 n-Butanol	56	8.512	8.524	(1.023)	14392	200.000	216(AH)	
	50 Dibromomethane	93	8.670	8.670	(1.043)	246347	100.000	94.7	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	303772	100.000	95.3	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	472990	100.000	103	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	186585	100.000	99.8	
	54 1,4-Dioxane (p-Dioxane)	58	8.932	8.920	(1.074)	5966	200.000		
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	331081	200.000	199	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	477231	100.000	107	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	469795	50.0000	50.0	
	58 Toluene	91	9.414	9.414	(1.132)	1103221	100.000	101	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	107110	100.000	99.6(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	67349	200.000	216(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	476057	100.000	107	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	293850	100.000	102	
	63 Ethyl methacrylate	69	9.755	9.761	(1.173)	357290	100.000	100(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	256256	100.000	92.9	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	402726	100.000	100	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	445948	100.000	106	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	331903	100.000	96.5	
	68 2-Hexanone	43	10.273	10.280	(1.235)	835017	200.000	226	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	1239031	100.000	112	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	421679	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	778798	100.000	95.7	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	313159	100.000	91.1	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	1926275	200.000	199	
	74 o-Xylene	106	10.993	10.993	(1.041)	447143	100.000	98.2	
	75 Styrene	104	11.029	11.029	(1.044)	787917	100.000	99.1	
	76 Bromoform	173	11.103	11.103	(1.051)	373847	100.000	98.1	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	674839	100.000	98.7	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	181905	50.0000	52.6	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	126903	100.000	91.6	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	1515194	100.000	112	
81 Bromobenzene	156	11.578	11.578	(1.096)	444066	100.000	104	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	420224	100.000	93.1	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	994488	100.000	112	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	318275	100.000	98.4	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	325711	100.000	99.8	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	1159541	100.000	99.1	
87 1,2,3-Trichloropropane	75	11.718	11.724	(1.110)	452394	100.000	95.9	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	107903	100.000	99.4(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	1046010	100.000	100	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	1050761	100.000	100	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	1234948	100.000	99.0	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	1046010	100.000	100	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	748097	100.000	104	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	269551	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	761377	100.000	94.0	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	1072153	100.000	114	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	743908	100.000	94.9	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	85330	100.000	96.8	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	240583	100.000	100	
101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	573550	100.000	108	
102 Naphthalene	128	14.193	14.193	(1.150)	1058070	100.000	100	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	534252	100.000	108	

QC Flag Legend

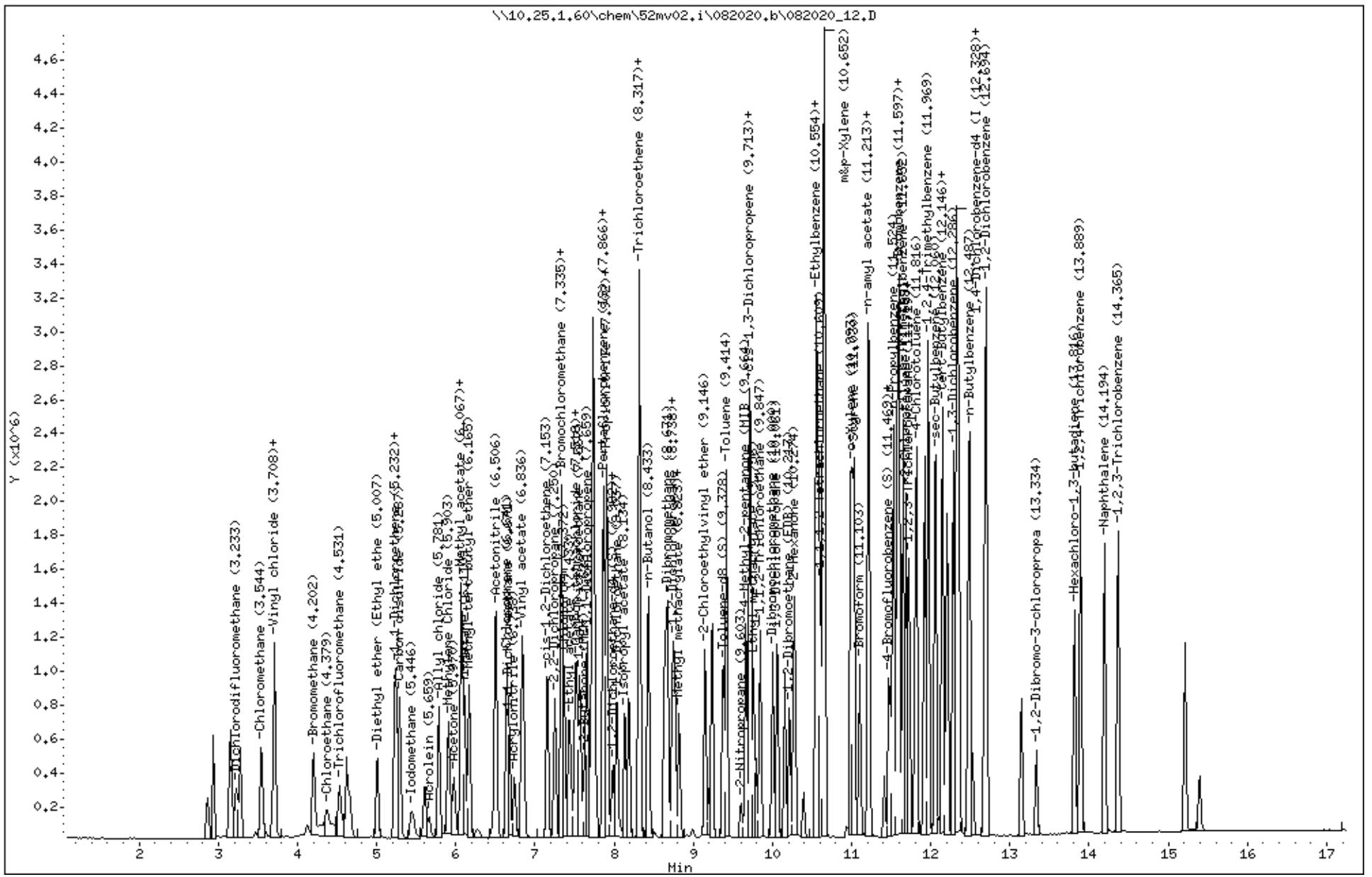
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_12.D
Date : 20-AUG-2020 14:36
Client ID: CAL10
Sample Info: CAL10,27246:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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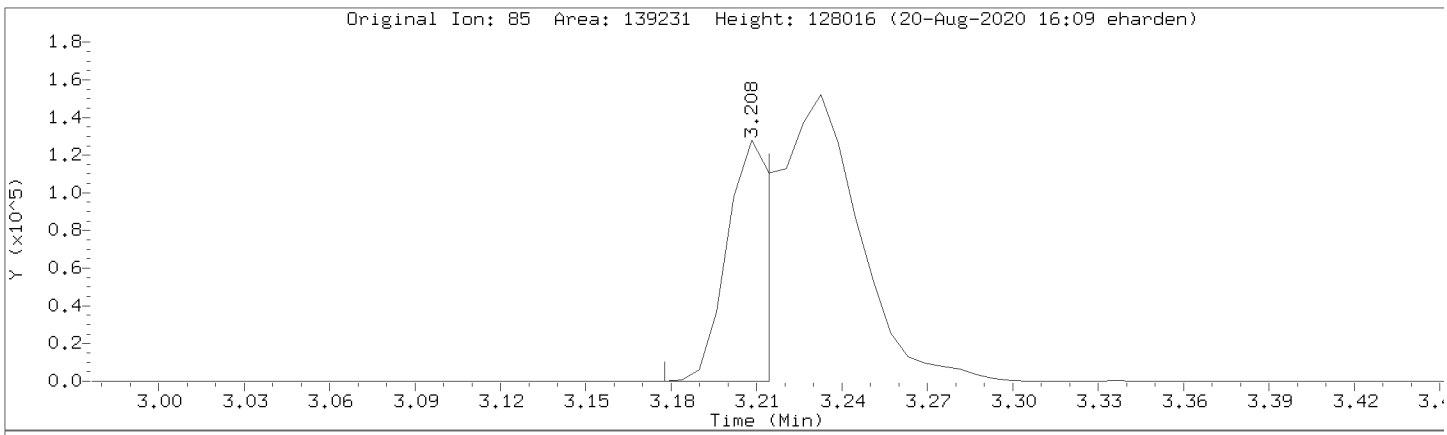
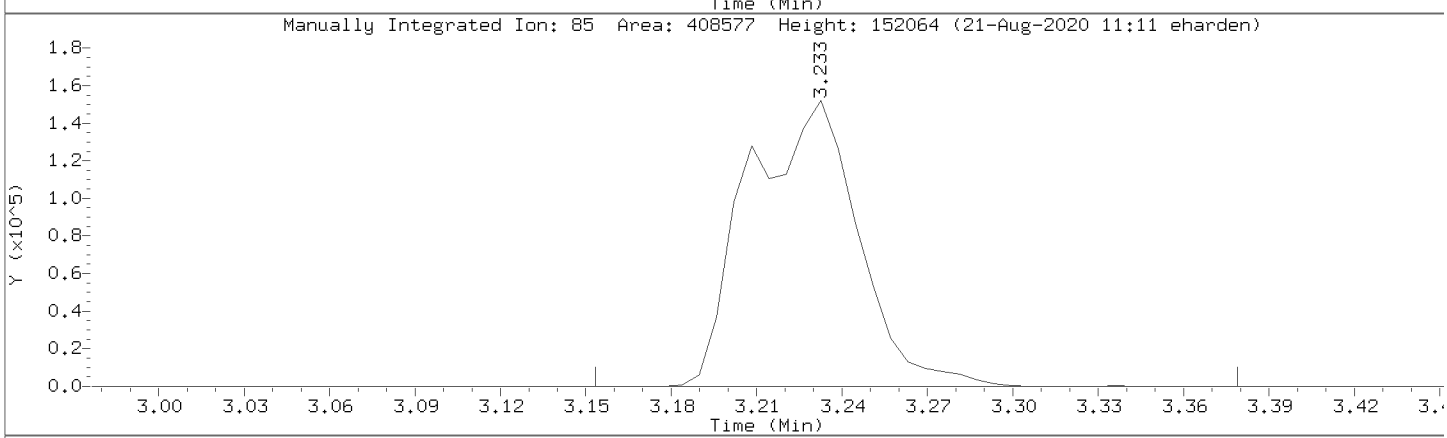
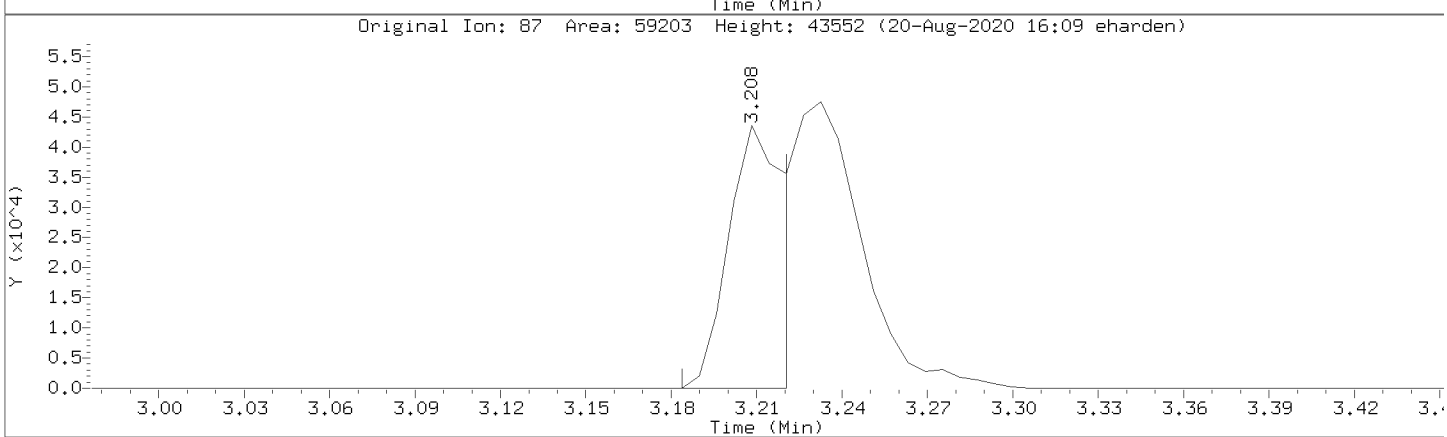
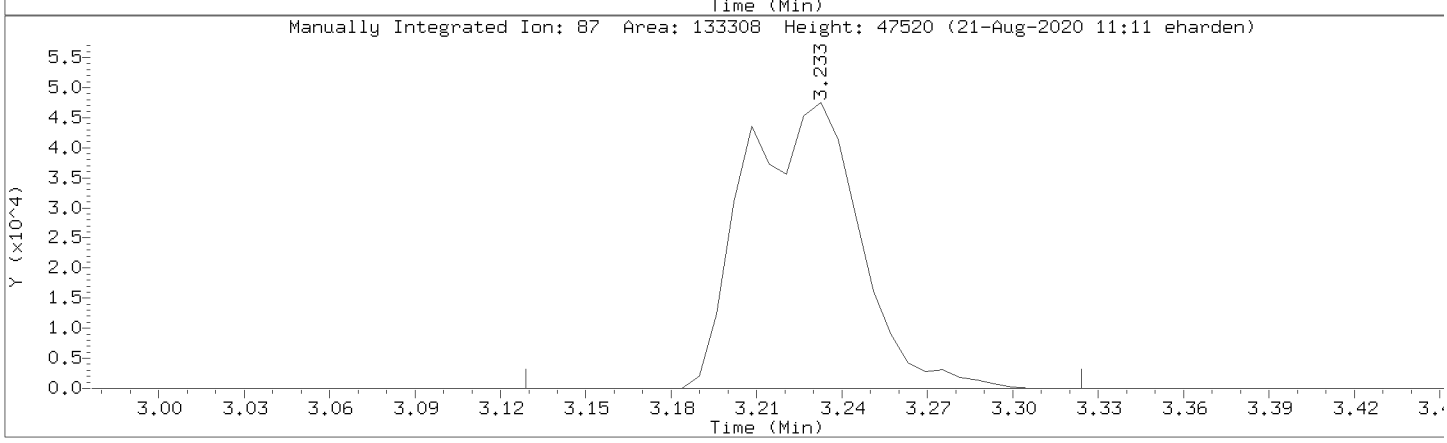
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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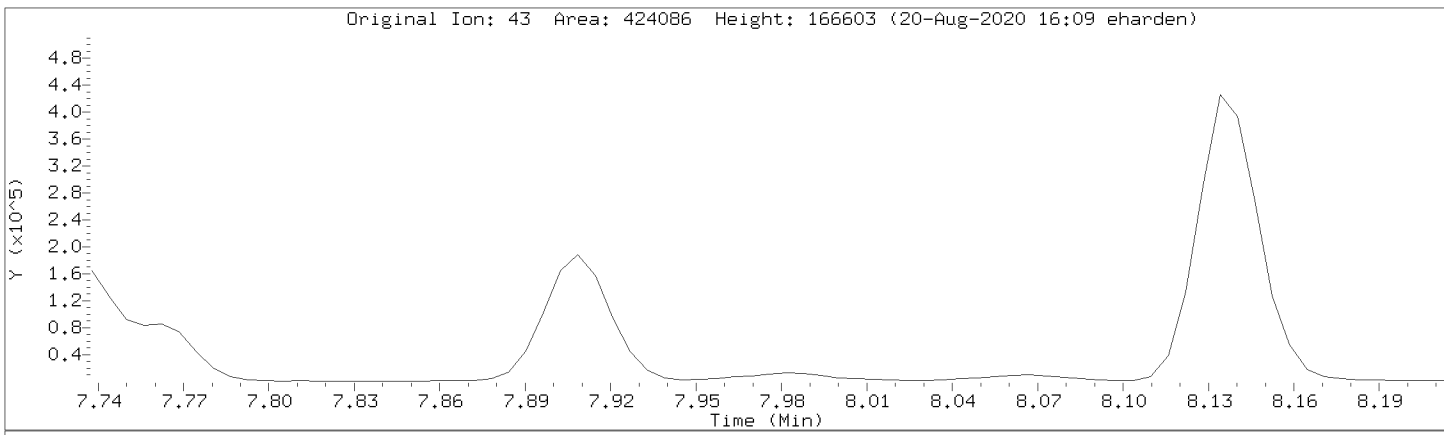
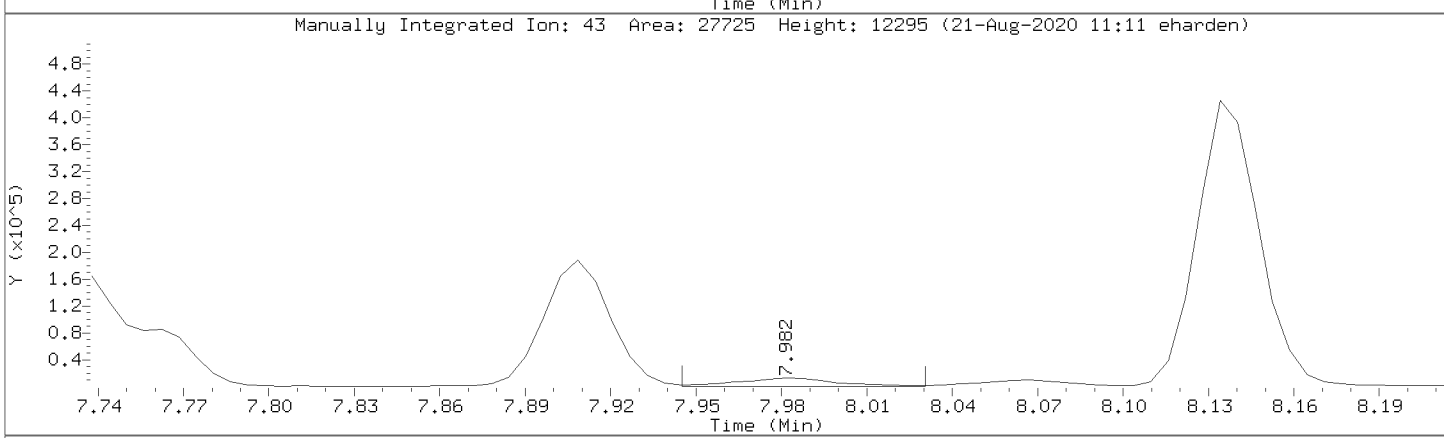
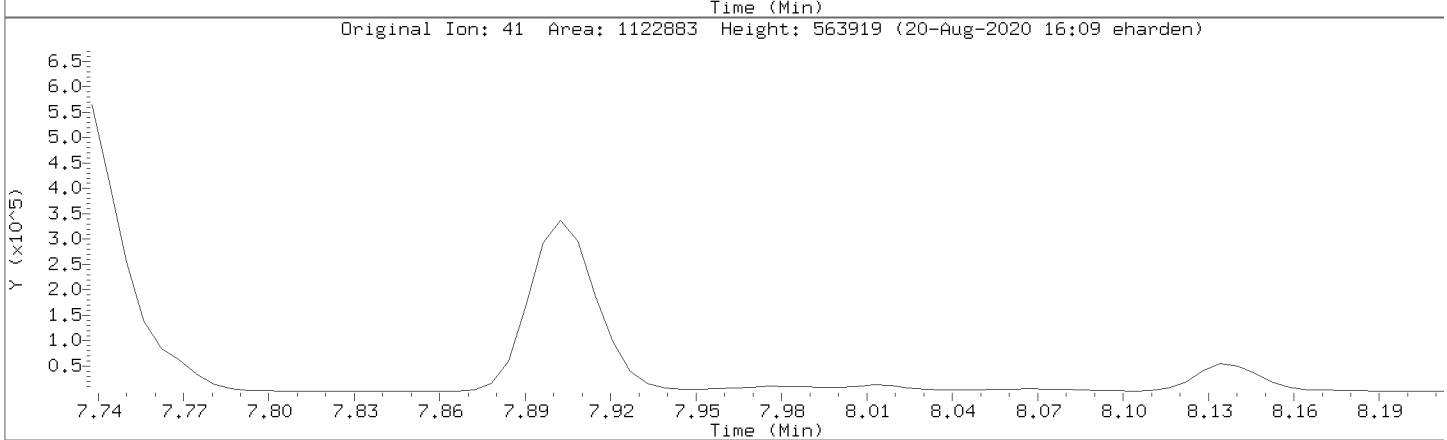
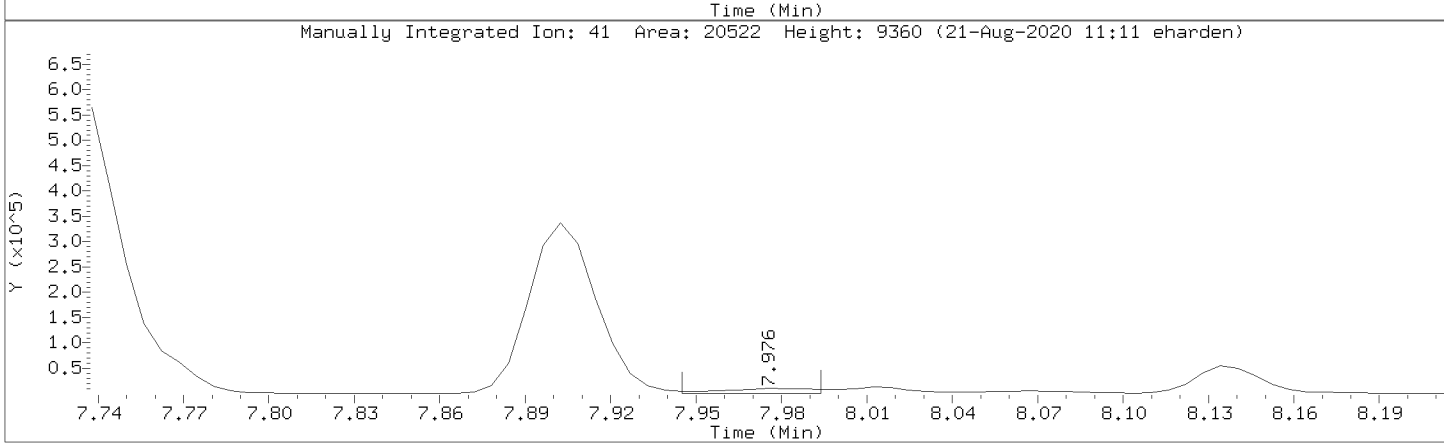
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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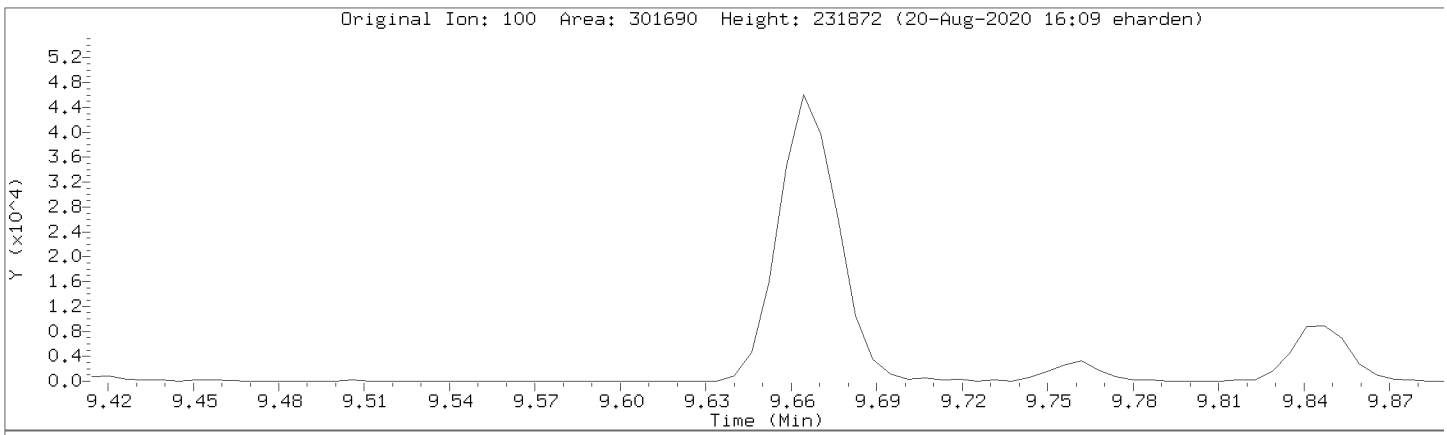
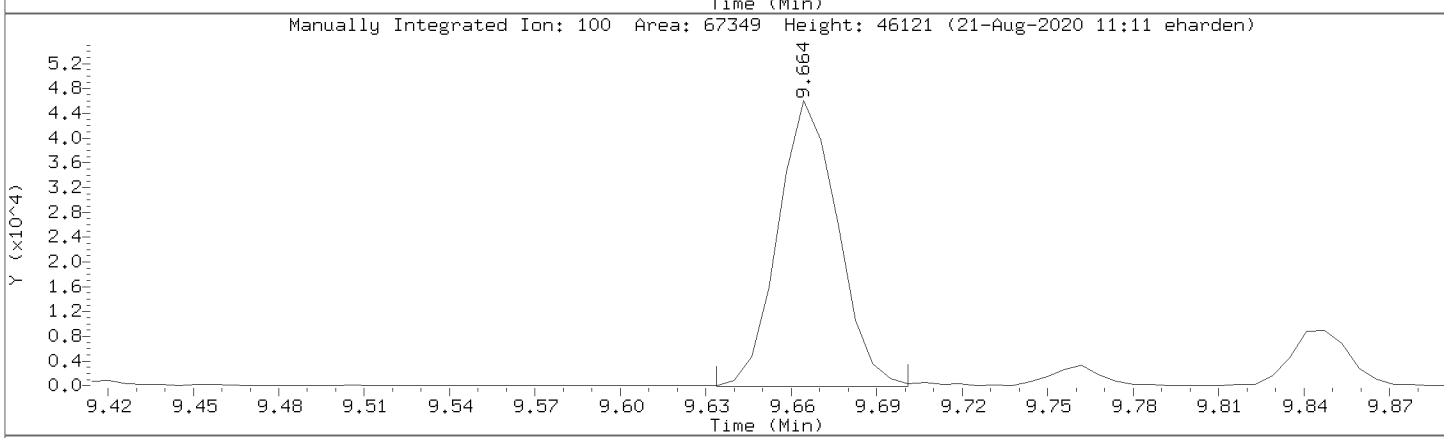
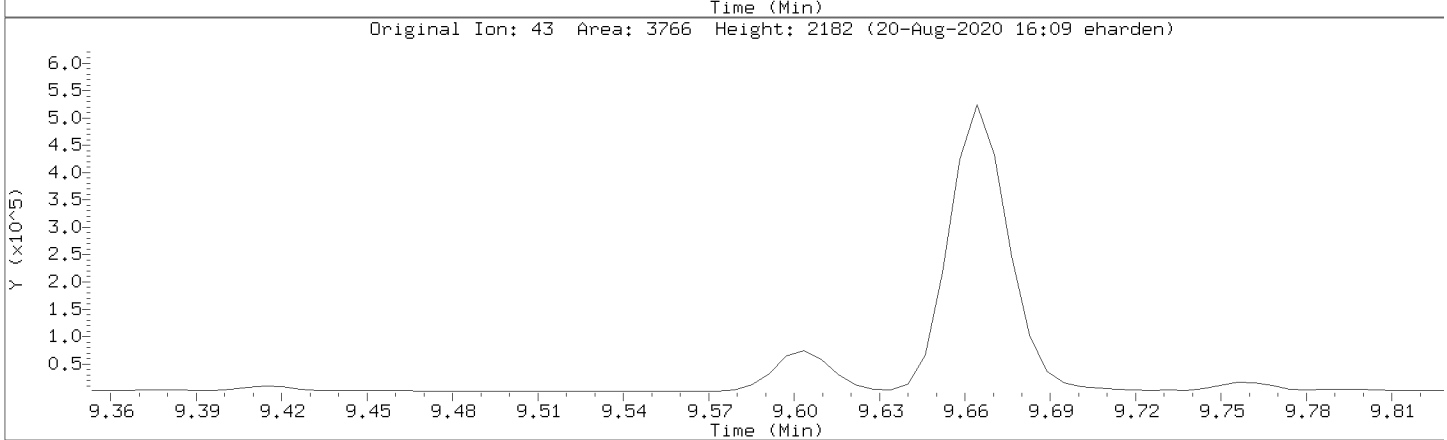
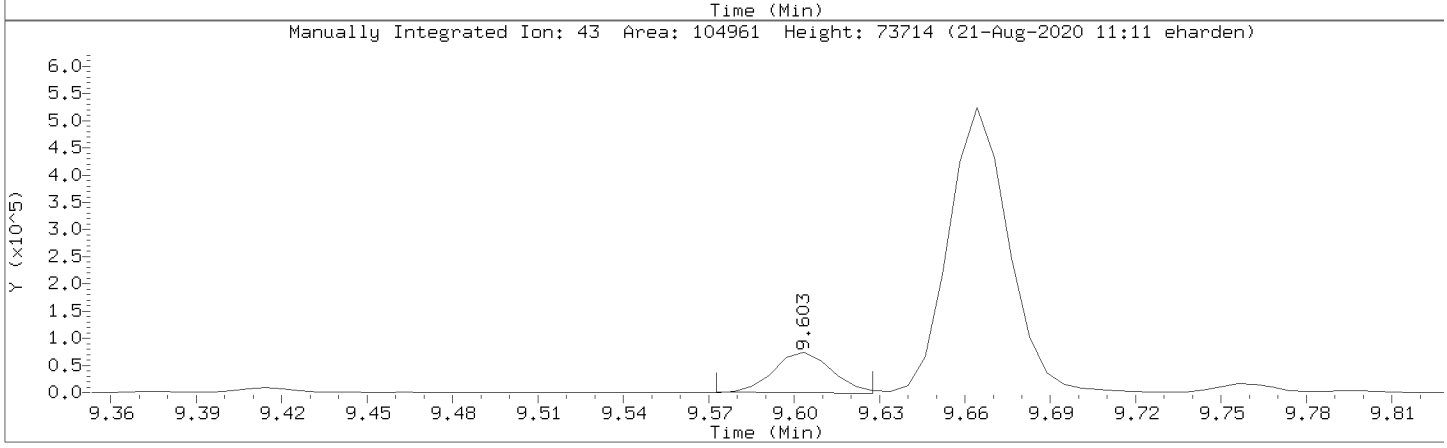
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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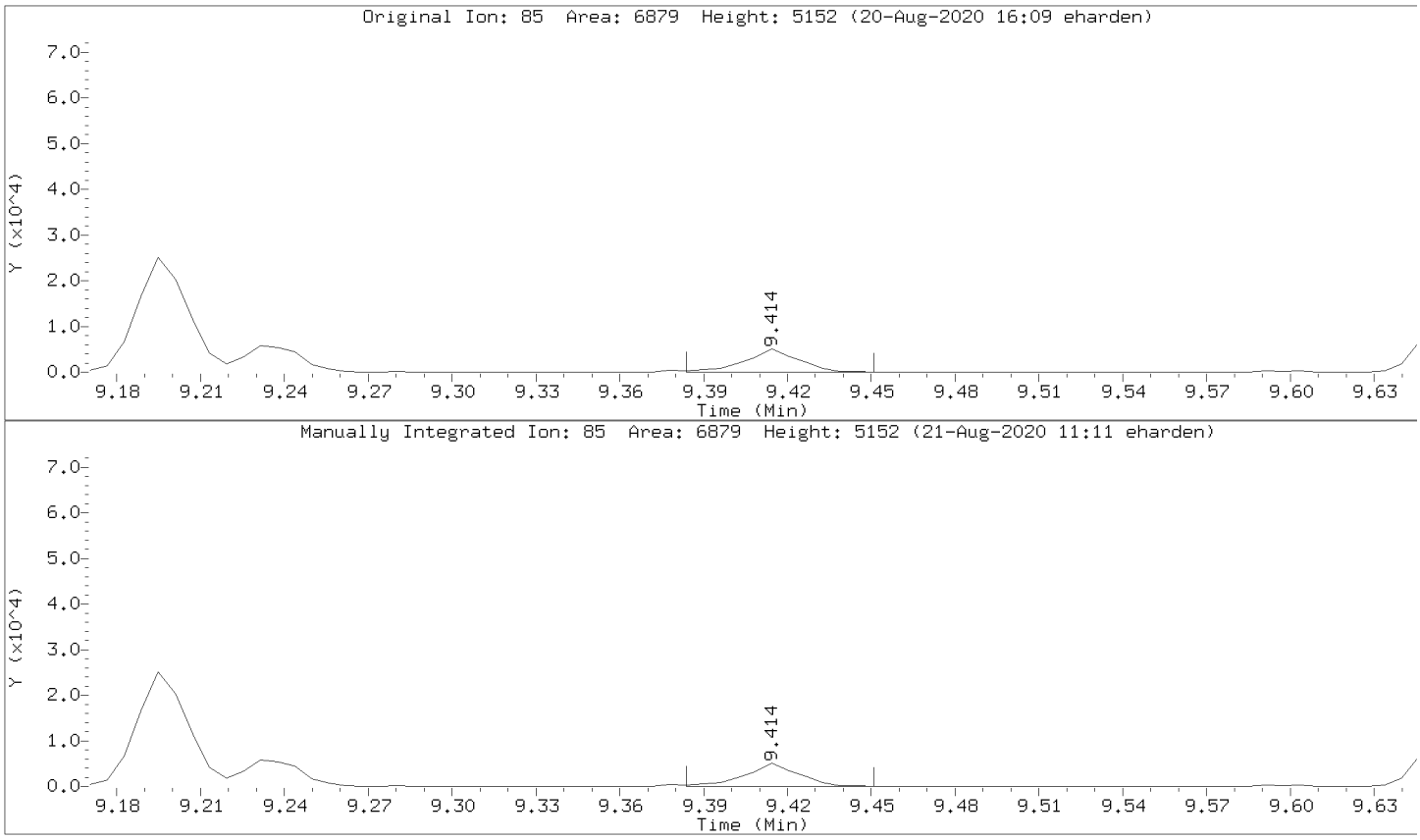
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10



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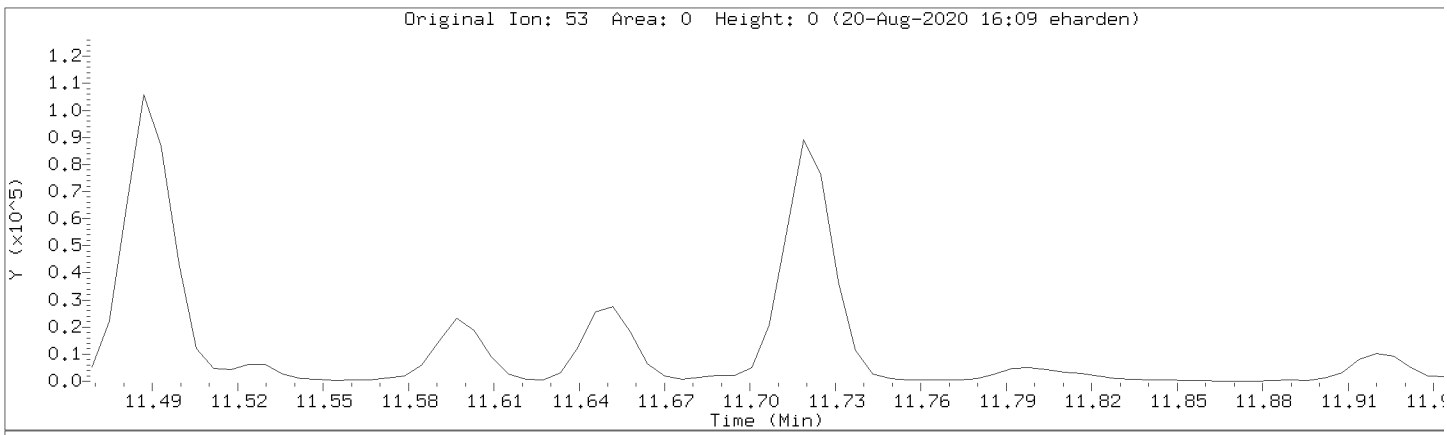
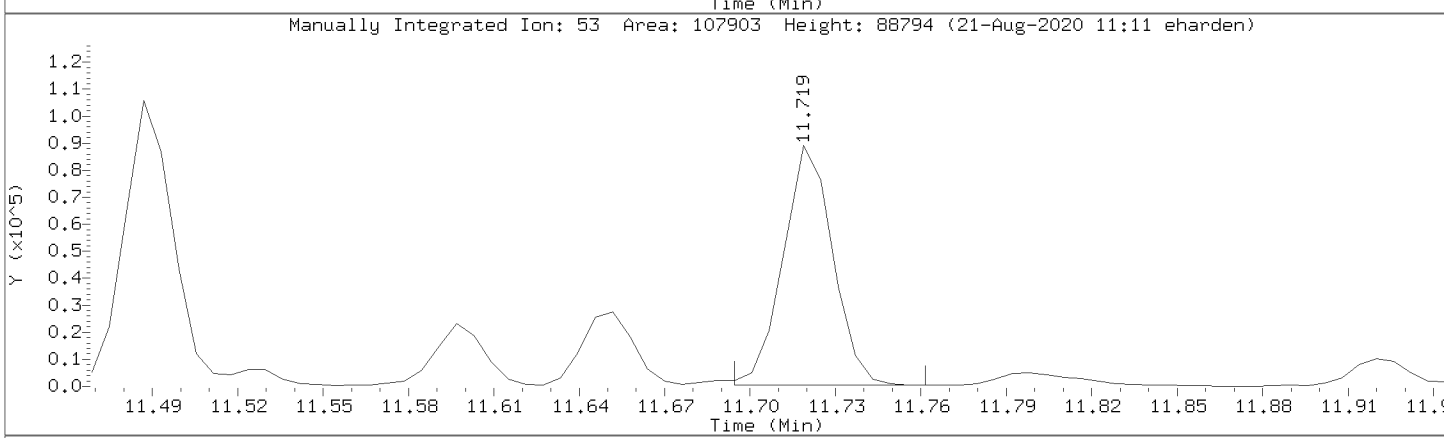
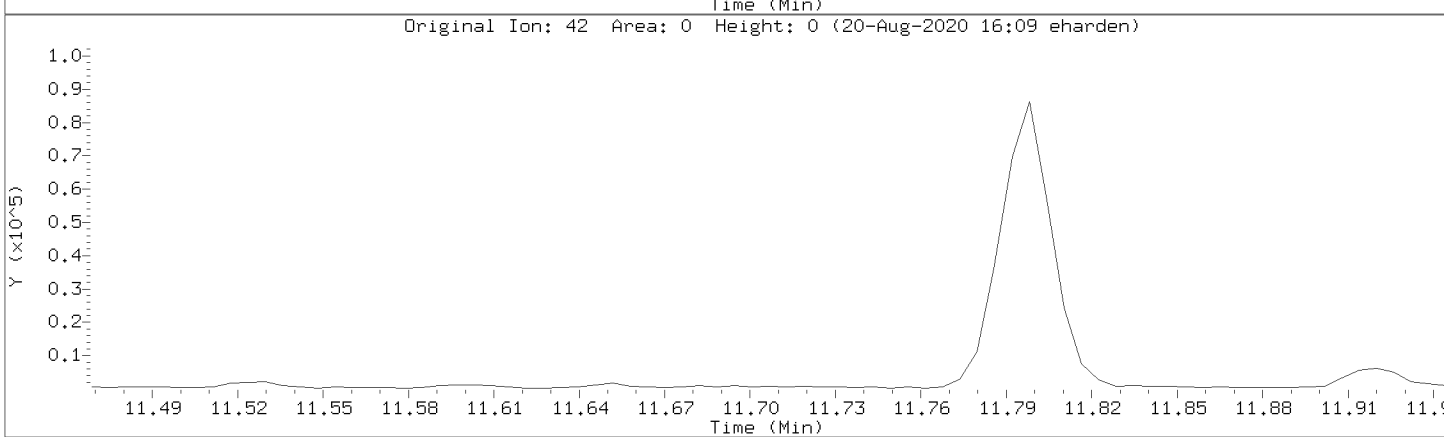
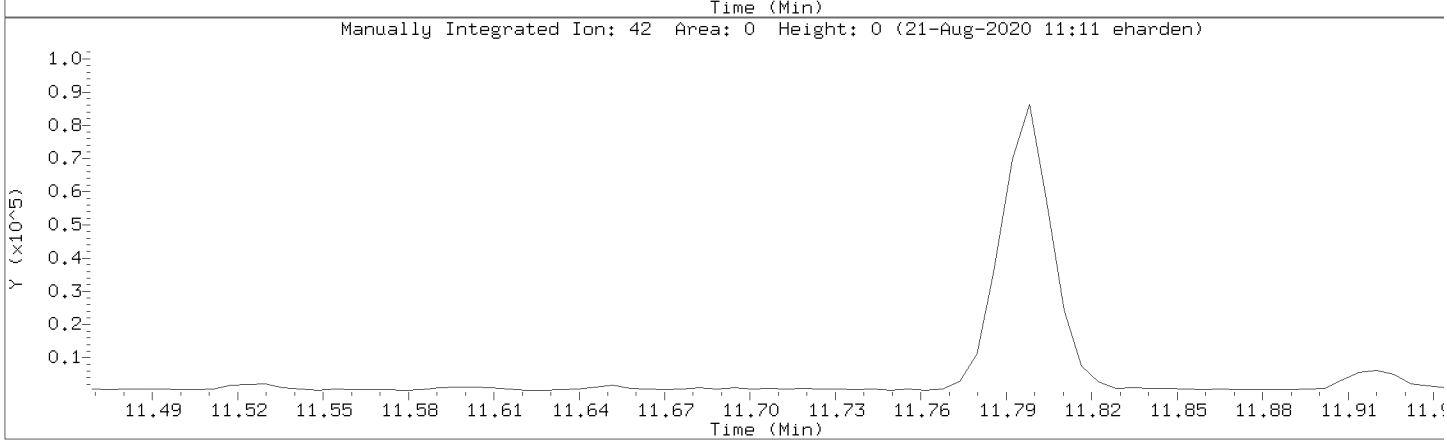
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6

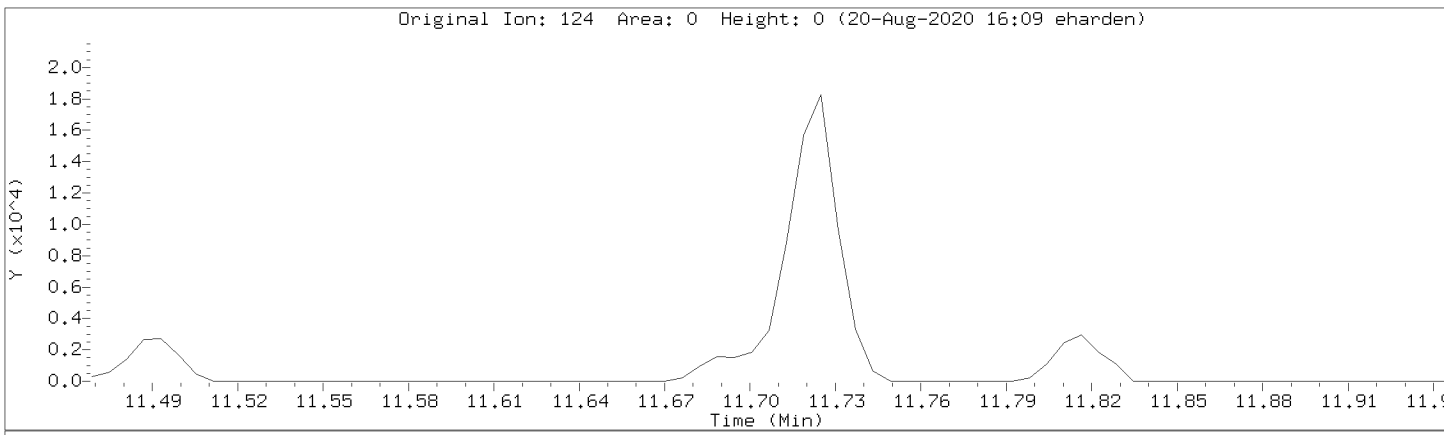


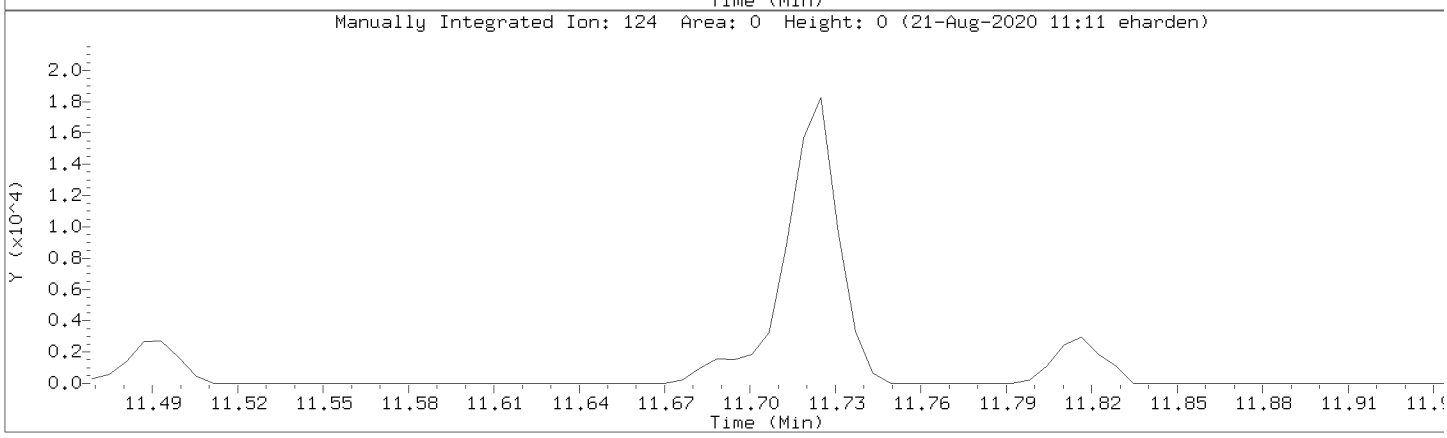






Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_12.D
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_13.D
Lab Smp Id: CAL11 Client Smp ID: CAL11
Inj Date : 20-AUG-2020 15:01
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal11,27247:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 11 Calibration Sample, Level: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.411)	596195	150.000	136	
2 Chloromethane	50	3.543	3.543	(0.451)	739356	150.000	145	
3 Vinyl chloride	62	3.696	3.702	(0.470)	576689	150.000	133	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	505231	150.000	131	
5 Bromomethane	94	4.202	4.195	(0.535)	405786	150.000	128	
6 Chloroethane	64	4.372	4.360	(0.556)	160377	150.000	135	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	281645	150.000	102	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	213435	150.000	141	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	700428	150.000	143	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	416914	150.000	129	
11 Carbon disulfide	76	5.293	5.293	(0.673)	1405135	150.000	130	
12 Iodomethane	142	5.445	5.439	(0.693)	477239	150.000	149	
13 Acrolein	56	5.653	5.659	(0.719)	138935	300.000	275	
14 Allyl chloride	76	5.781	5.787	(0.736)	206328	150.000	137	
15 Methylene Chloride	49	5.903	5.902	(0.751)	727096	150.000	125	
16 Acetone	43	5.970	5.976	(0.760)	656255	300.000	234	
17 Methyl acetate	43	6.067	6.067	(0.772)	970273	300.000	292(A)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	446654	150.000	135	
19 n-Hexane	86	6.110	6.110	(0.777)	56907	150.000	163	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	1130159	150.000	147	
21 Acetonitrile	41	6.457	6.463	(0.822)	86780	300.000	285(AH)	
22 Chloroprene	53	6.640	6.640	(0.845)	759997	150.000	165	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	841882	150.000	131	
	24 Acrylonitrile	53	6.732	6.738	(0.857)	345438	300.000	248(A)	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	953920	150.000	150	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	675979	150.000	143	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	639550	150.000	129	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	262219	150.000	127	
	29 Cyclohexane	56	7.335	7.335	(0.882)	673959	150.000	169	
	30 Chloroform	83	7.372	7.372	(0.938)	938653	150.000	129	
	31 Ethyl acetate	43	7.427	7.433	(0.945)	1167339	300.000	285(A)	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	693313	150.000	147	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	267882	300.000	269(A)	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	173692	50.0000	41.4	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	769482	150.000	144	
	36 2-Butanone (MEK)	43	7.622	7.628	(0.970)	813342	300.000	260	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	593514	150.000	160(H)	
*	38 Pentafluorobenzene (IS)	168	7.860	7.859	(1.000)	364284	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	1687076	150.000	140	
	40 Propionitrile	54	7.896	7.902	(1.005)	166664	300.000	268(A)	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	899644	300.000	285(A)	
	42 Isobutanol	43	7.939	7.987	(1.010)	51350	300.000	326(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	31193	50.0000	41.3	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	727644	150.000	128	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	1065124	150.000	157	
	46 Trichloroethene	130	8.317	8.317	(1.000)	502843	150.000	153	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	469326	50.0000		
	48 Methylcyclohexane	98	8.317	8.317	(1.000)	251607	150.000	162	
	49 n-Butanol	56	8.506	8.524	(1.023)	20257	300.000	282(AM)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	389827	150.000	139	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	498266	150.000	145	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	761518	150.000	155	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	310093	150.000	154	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	8913	300.000	(M)	LT
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	556411	300.000	310(A)	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	771157	150.000	161	
$	57 Toluene-d8 (S)	98	9.378	9.377	(1.128)	506560	50.0000	50.1	
	58 Toluene	91	9.414	9.414	(1.132)	1804467	150.000	154	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	173571	150.000	150(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	110057	300.000	328(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	770276	150.000	161	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	474671	150.000	157	
	63 Ethyl methacrylate	69	9.762	9.761	(1.174)	589423	150.000	153(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	411208	150.000	139	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	661080	150.000	158	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	718701	150.000	159	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	540700	150.000	151	
	68 2-Hexanone	43	10.280	10.280	(1.236)	1321811	300.000	334	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	2030868	150.000	176	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	440117	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	1246902	150.000	147	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	502389	150.000	140	
	73 m&p-Xylene	91	10.652	10.651	(1.009)	3087209	300.000	306	
	74 o-Xylene	106	10.993	10.993	(1.041)	749110	150.000	157	
	75 Styrene	104	11.030	11.029	(1.044)	1284674	150.000	154	
	76 Bromoform	173	11.103	11.103	(1.051)	620516	150.000	156	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.225	11.225	(1.063)	1097042	150.000	153	
$ 78 4-Bromofluorobenzene (S)	95	11.469	11.468	(1.086)	197928	50.0000	54.8	
79 cis-1,4-Dichloro-2-butene	53	11.493	11.487	(1.088)	206357	150.000	143	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	2449319	150.000	173	
81 Bromobenzene	156	11.578	11.578	(1.096)	711831	150.000	160	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	670344	150.000	142	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	1583363	150.000	167	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	512053	150.000	151	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	520832	150.000	153	
86 Isopropylbenzene (Cumene)	105	11.213	11.212	(1.062)	1881332	150.000	154	
87 1,2,3-Trichloropropane	75	11.725	11.724	(1.110)	714757	150.000	145	
88 trans-1,4-Dichloro-2-butene	53	11.725	11.718	(1.110)	175075	150.000	154(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	1701781	150.000	153	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	1675381	150.000	150	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	2013841	150.000	152	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	1701781	150.000	153	
94 1,3-Dichlorobenzene	146	12.292	12.291	(0.996)	1189514	150.000	156	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	286487	50.0000		
96 1,4-Dichlorobenzene	146	12.353	12.352	(1.001)	1209618	150.000	140	
97 n-Butylbenzene	91	12.487	12.486	(1.012)	1702056	150.000	170	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	1195470	150.000	143	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	140776	150.000	150	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	396371	150.000	155	
101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	959966	150.000	170	
102 Naphthalene	128	14.194	14.193	(1.150)	1728714	150.000	153	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	908509	150.000	173	

QC Flag Legend

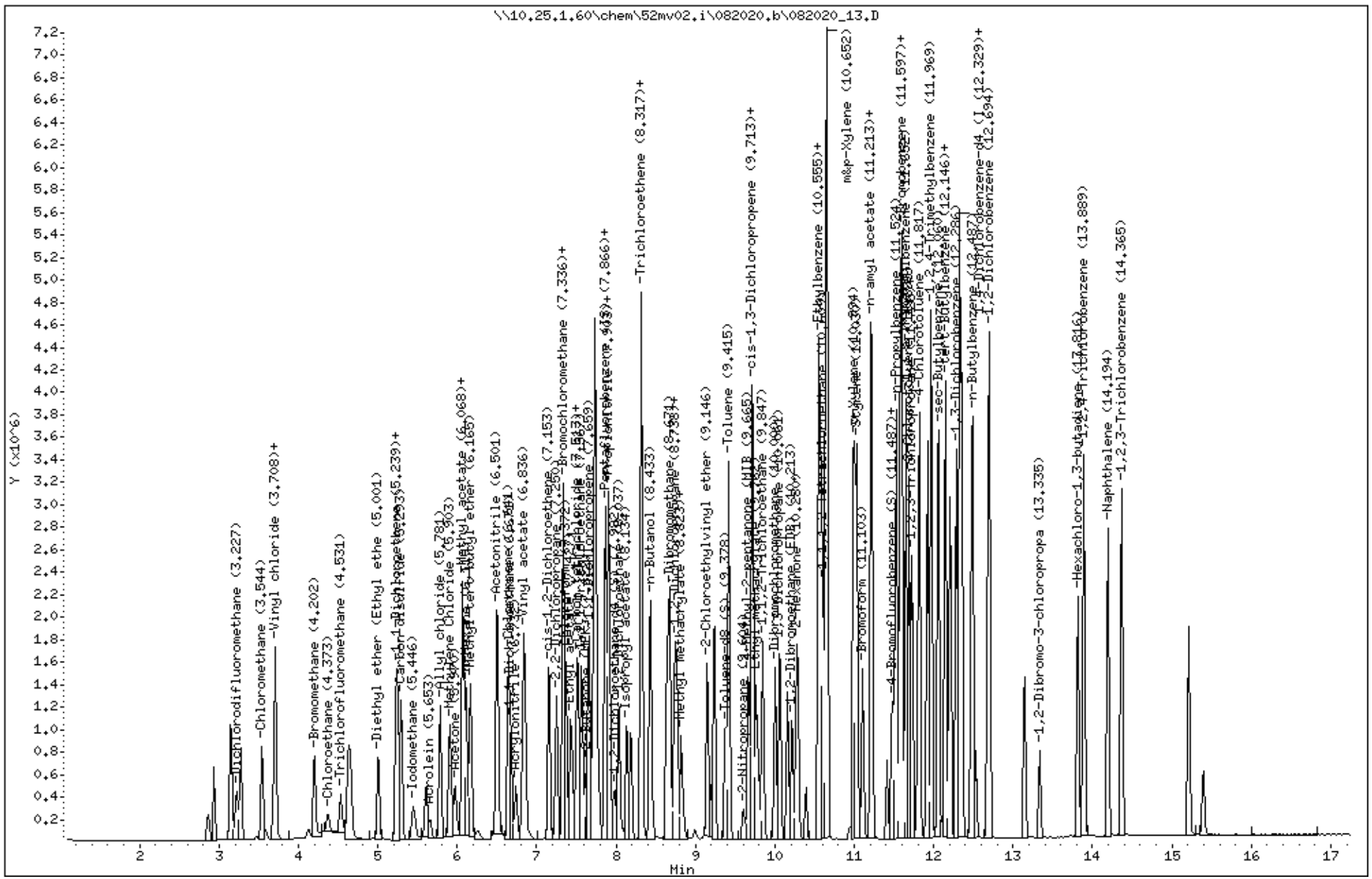
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_13.D
Date : 20-AUG-2020 15:01
Client ID: CAL11
Sample Info: CAL11,27247:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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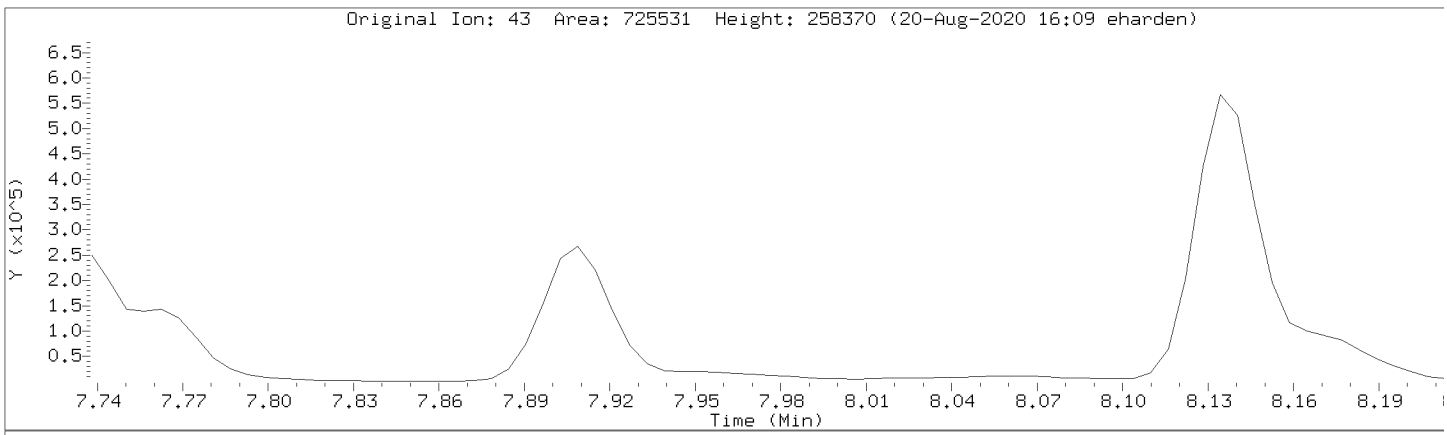
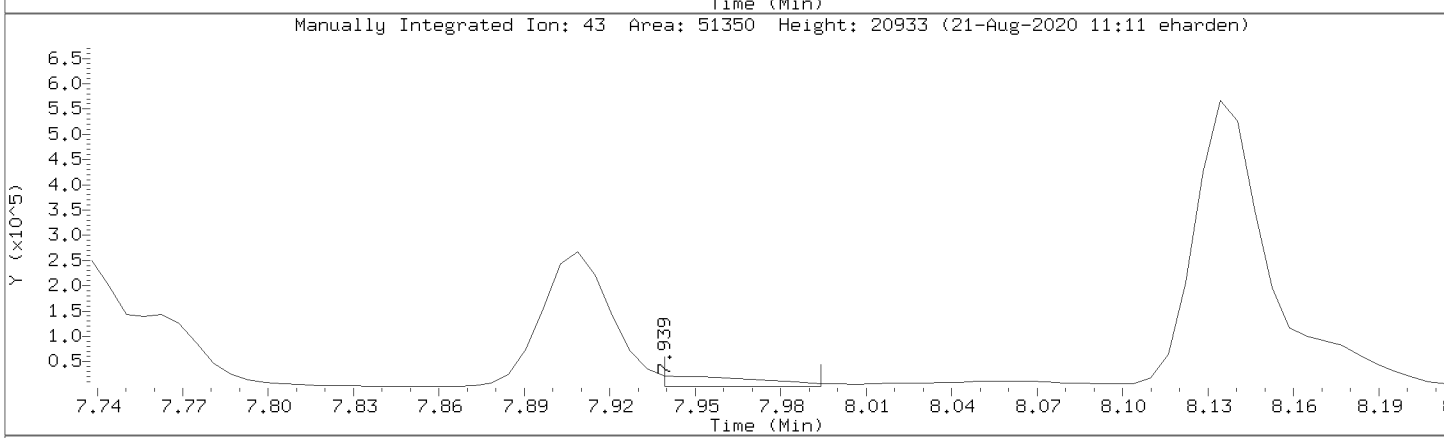
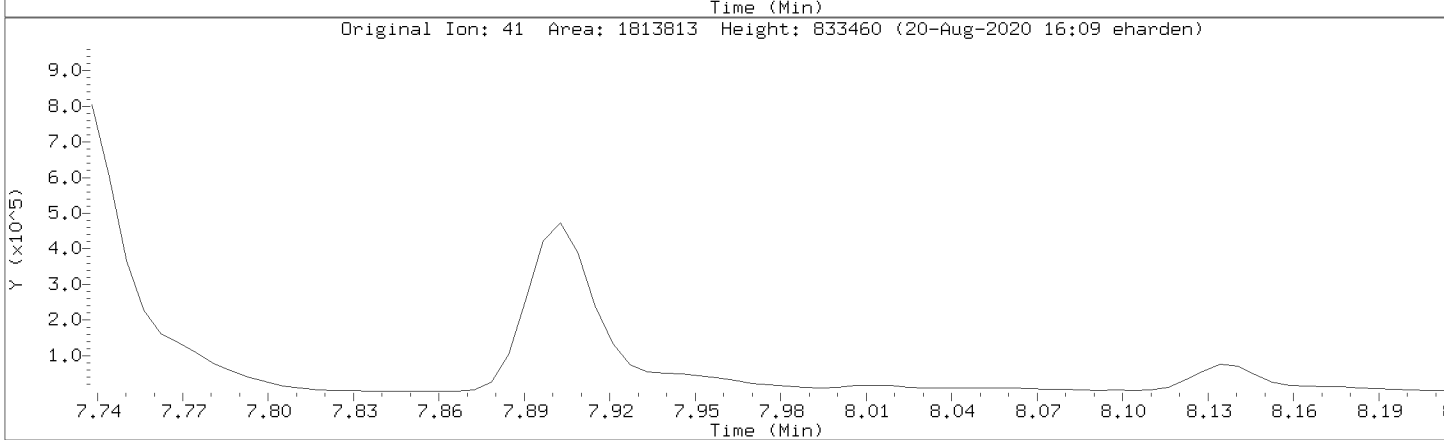
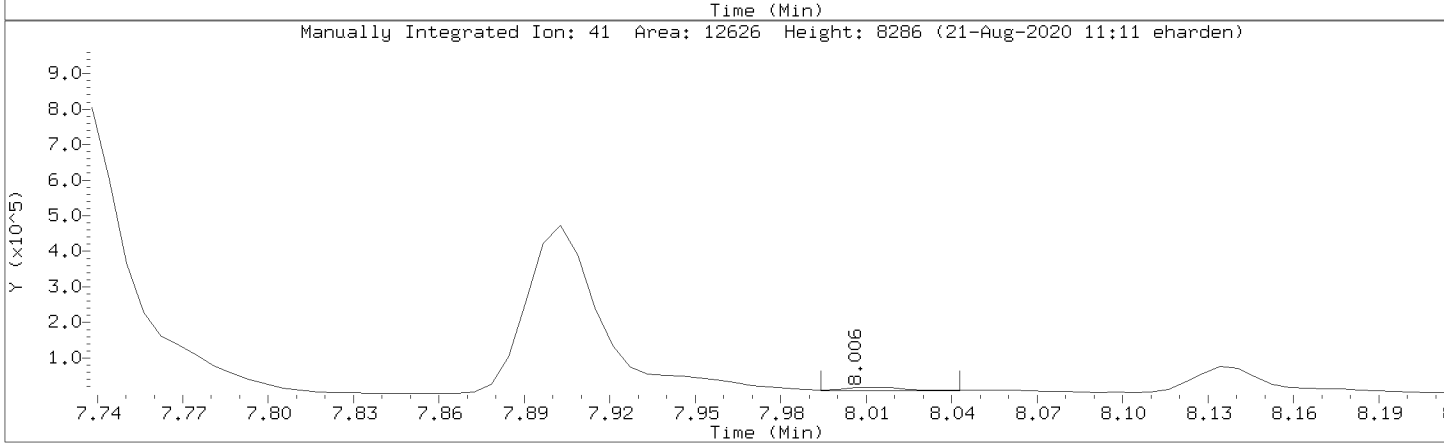
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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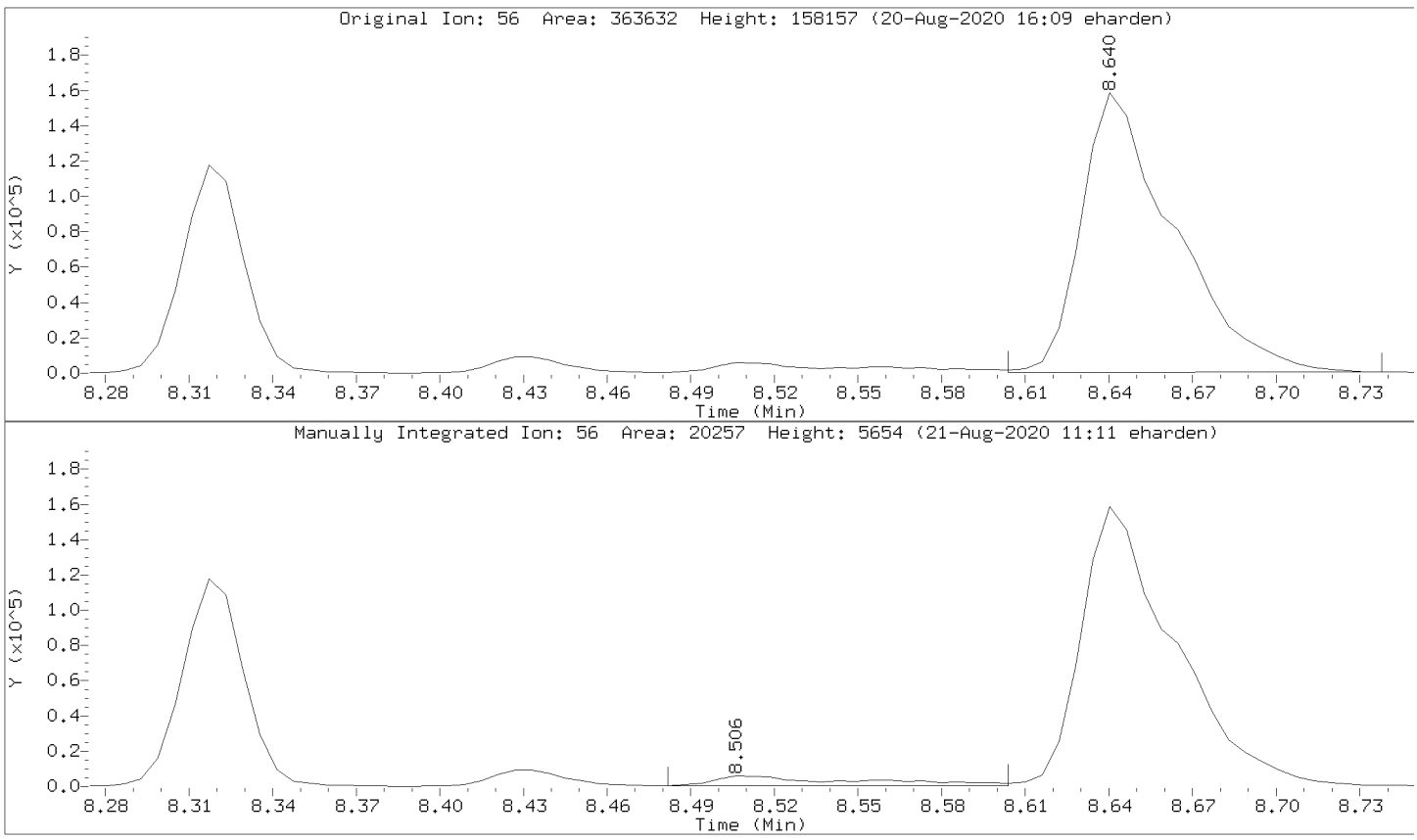
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3



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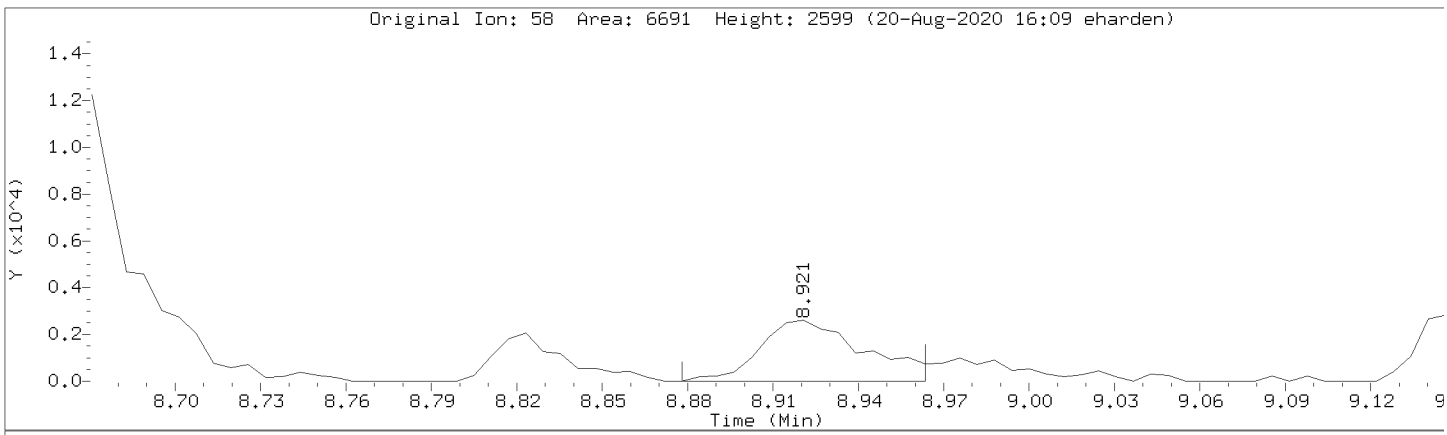
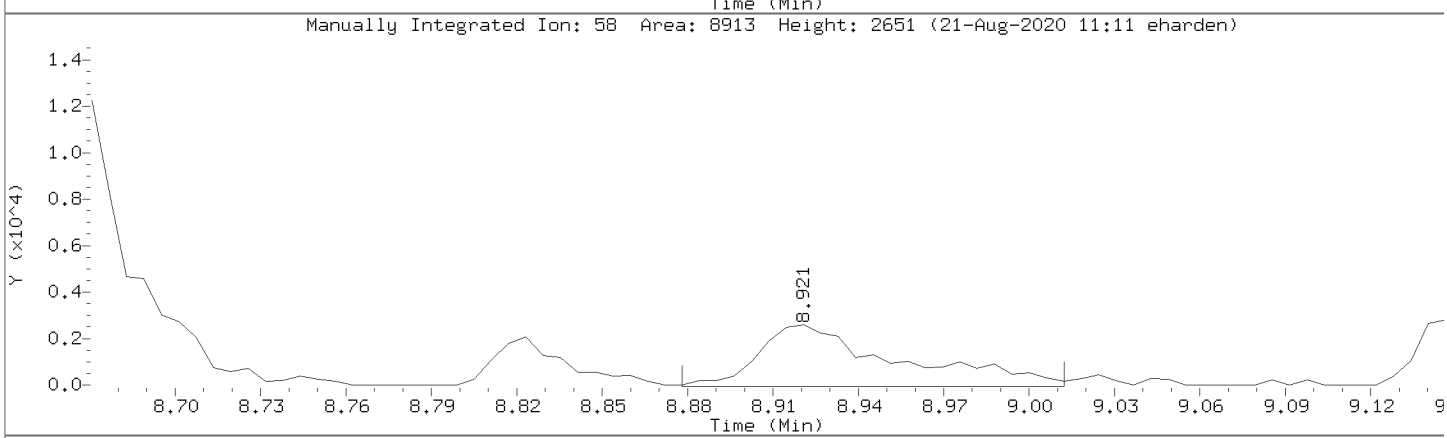
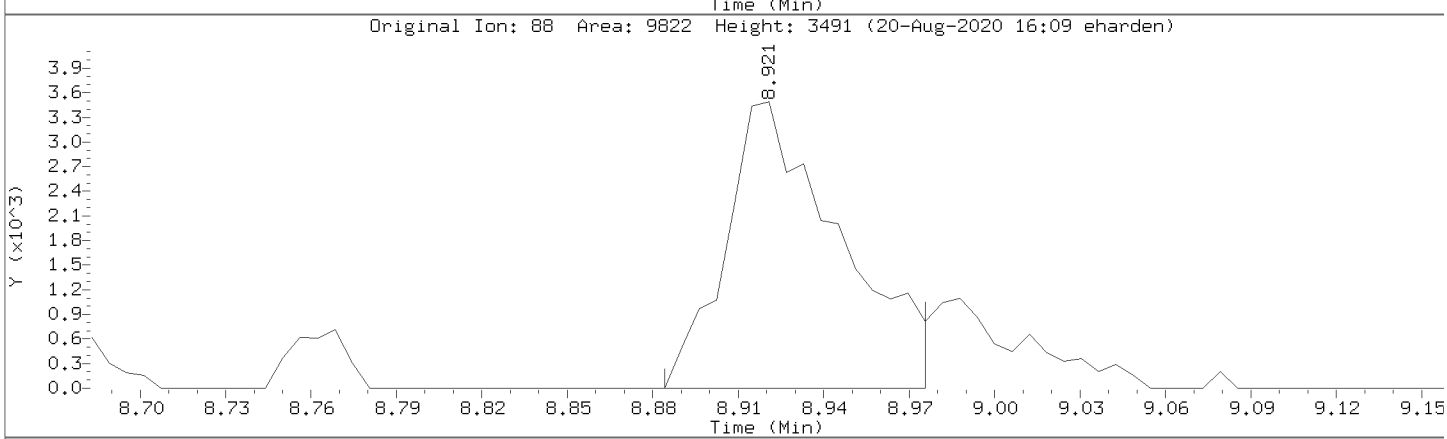
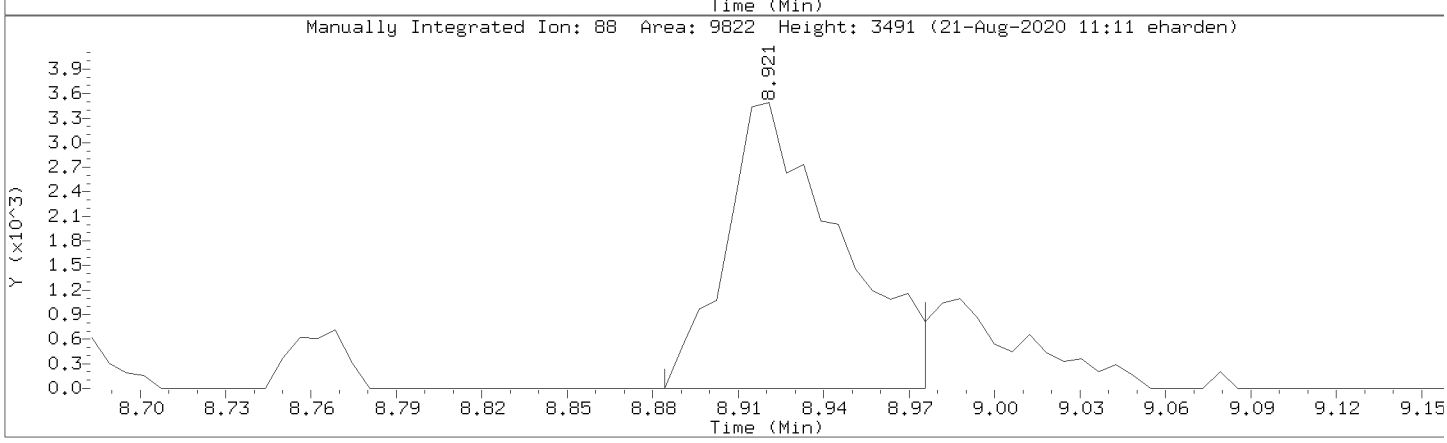
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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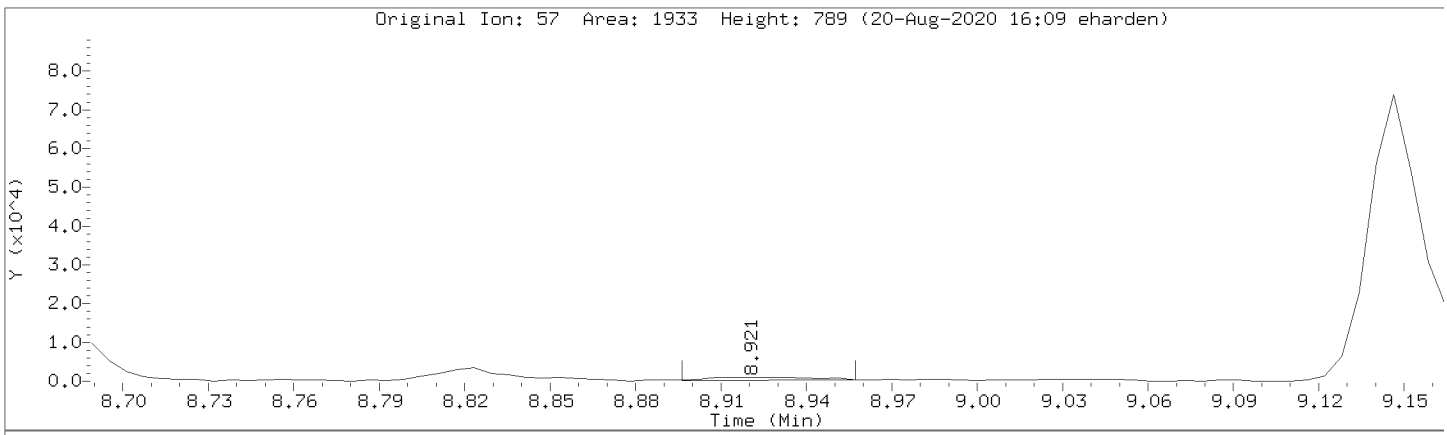
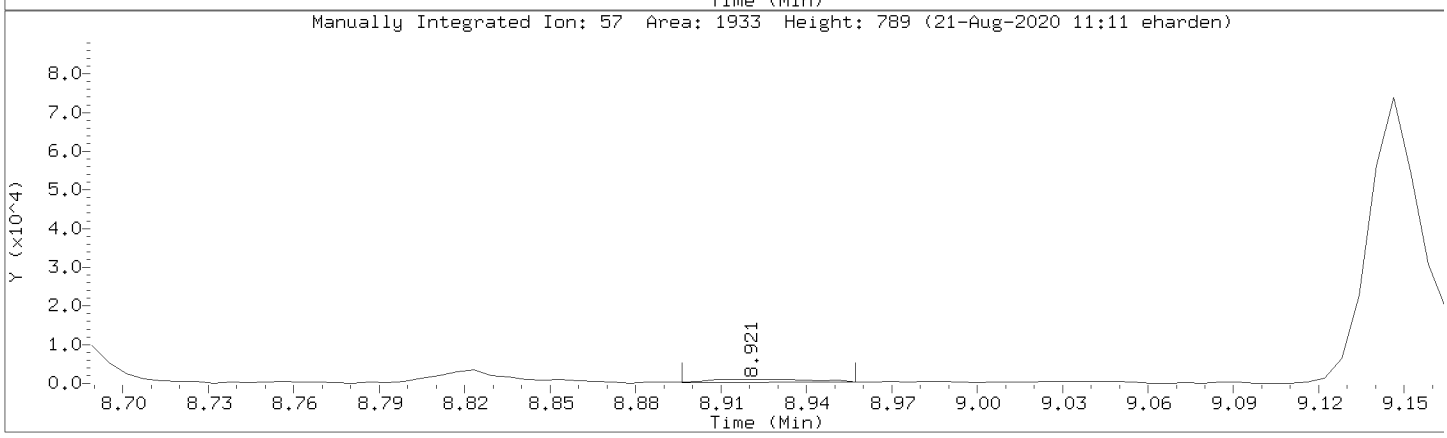
Instrument: 52mv02.i
Lab Sample ID: CAL11





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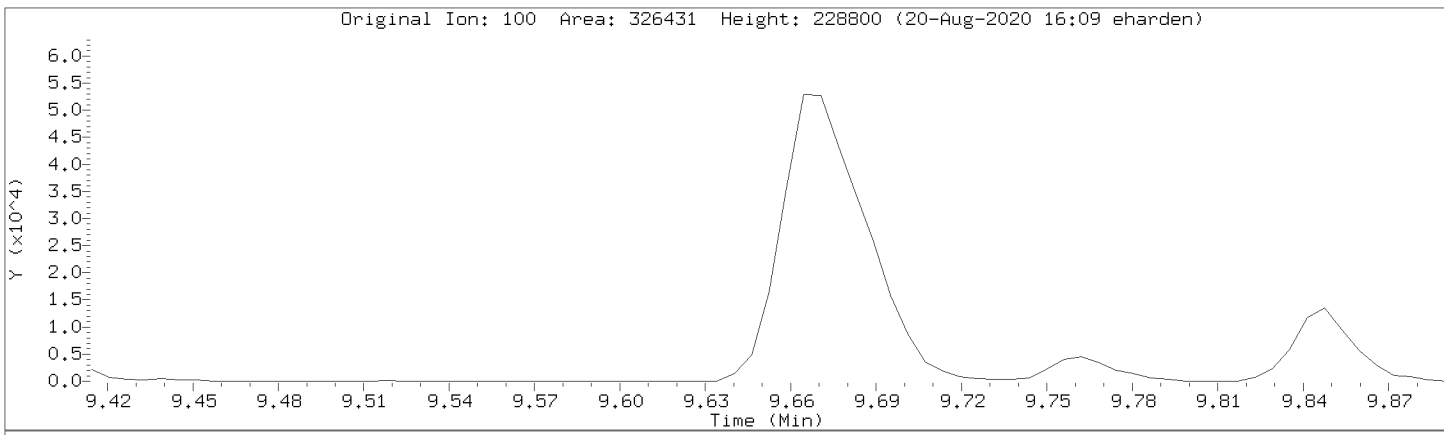
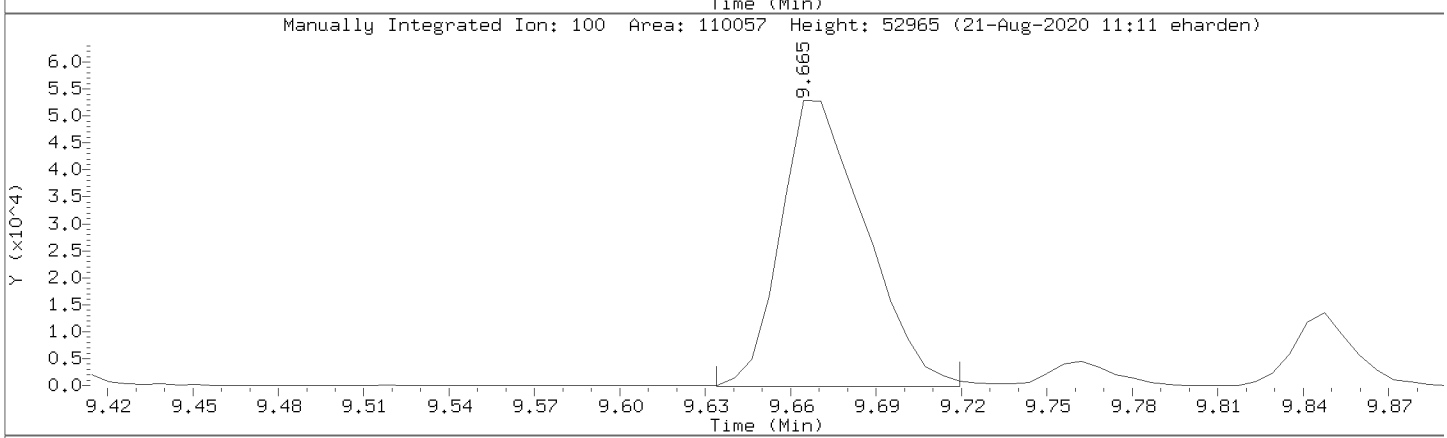
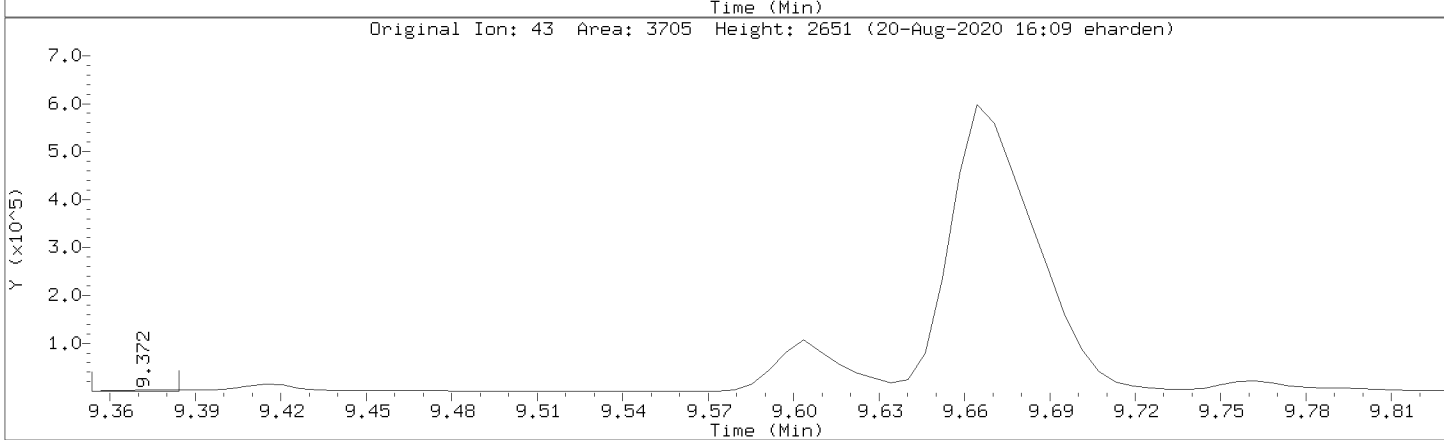
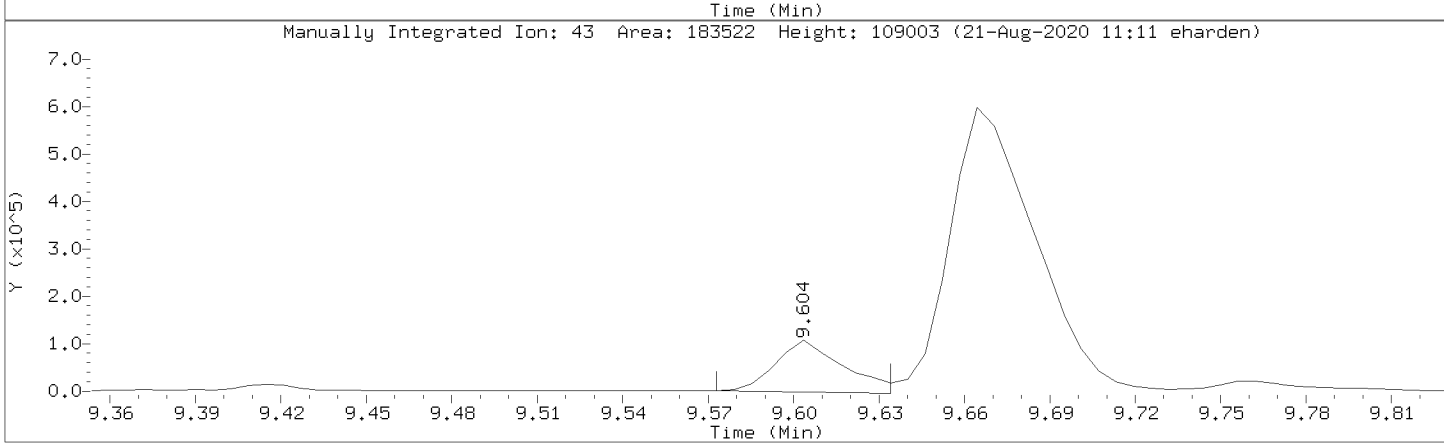
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1

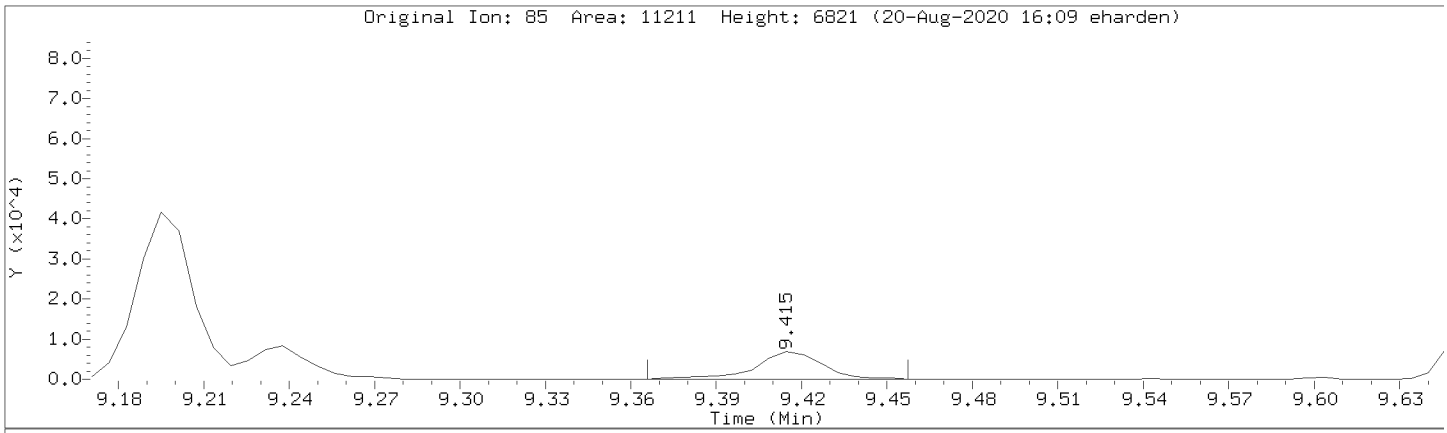


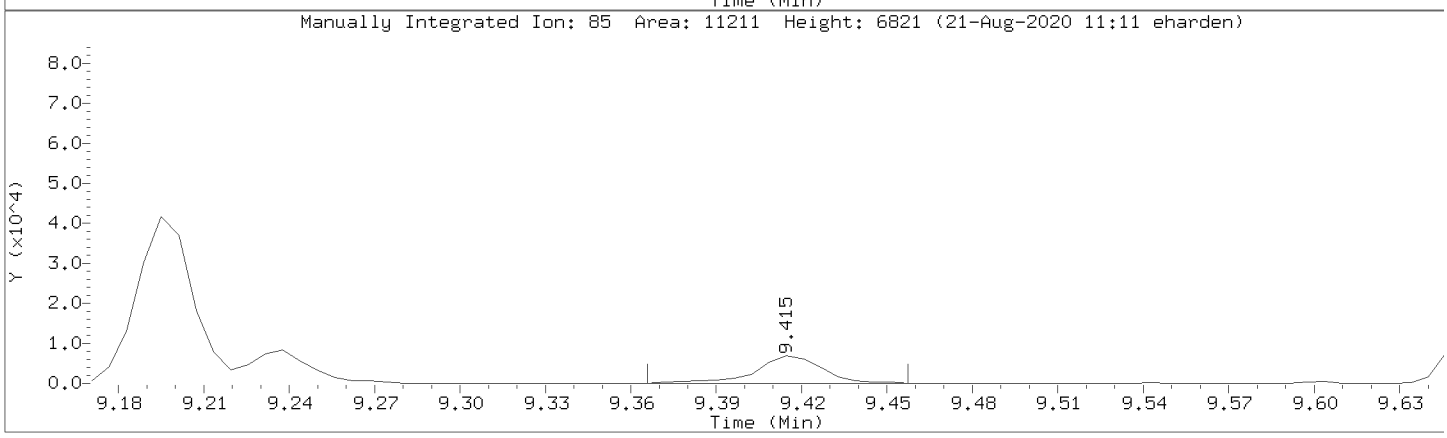






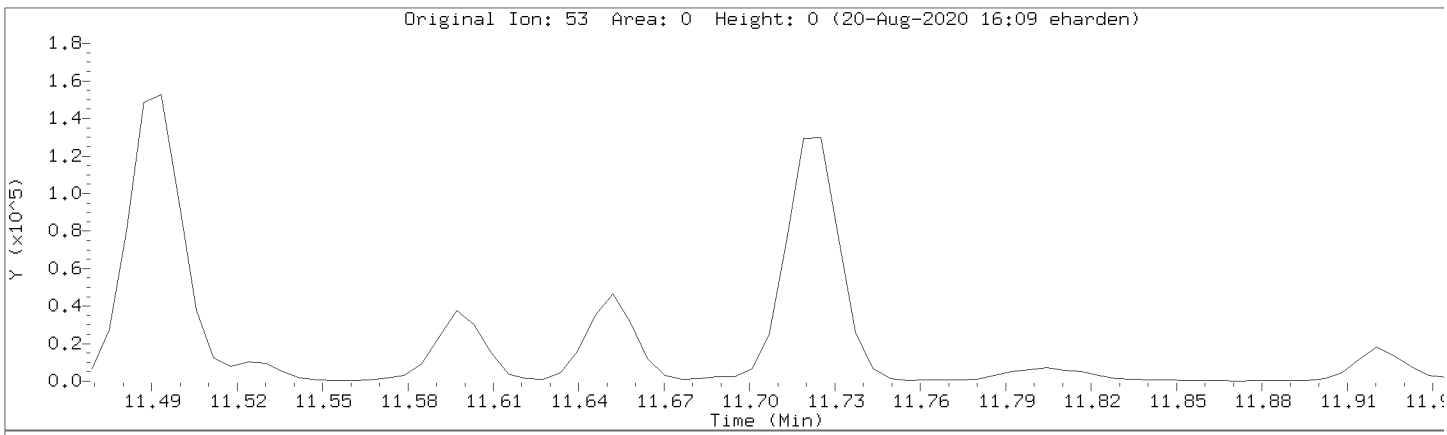
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_13.D
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

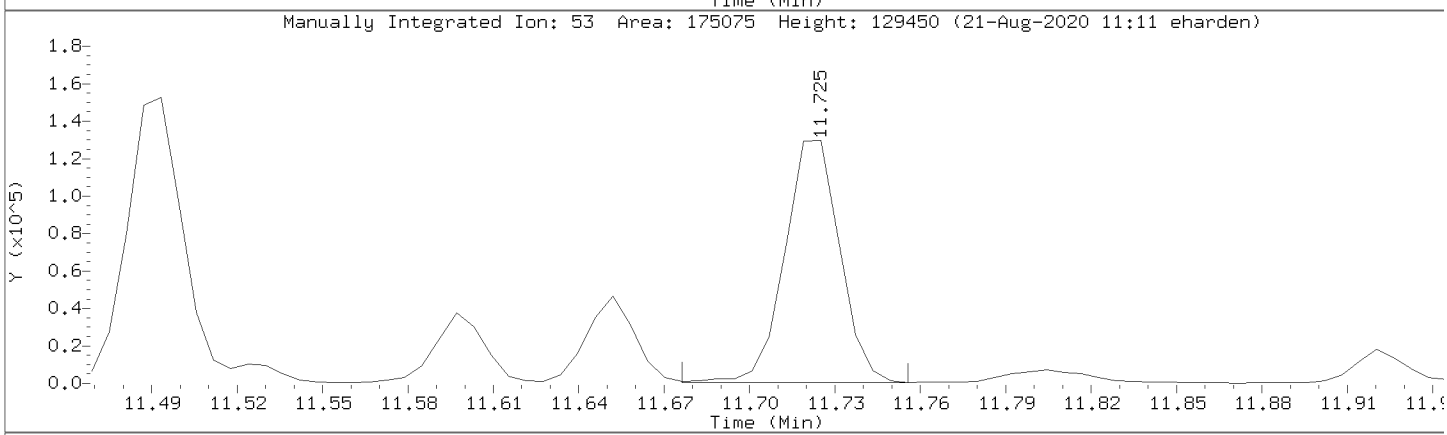


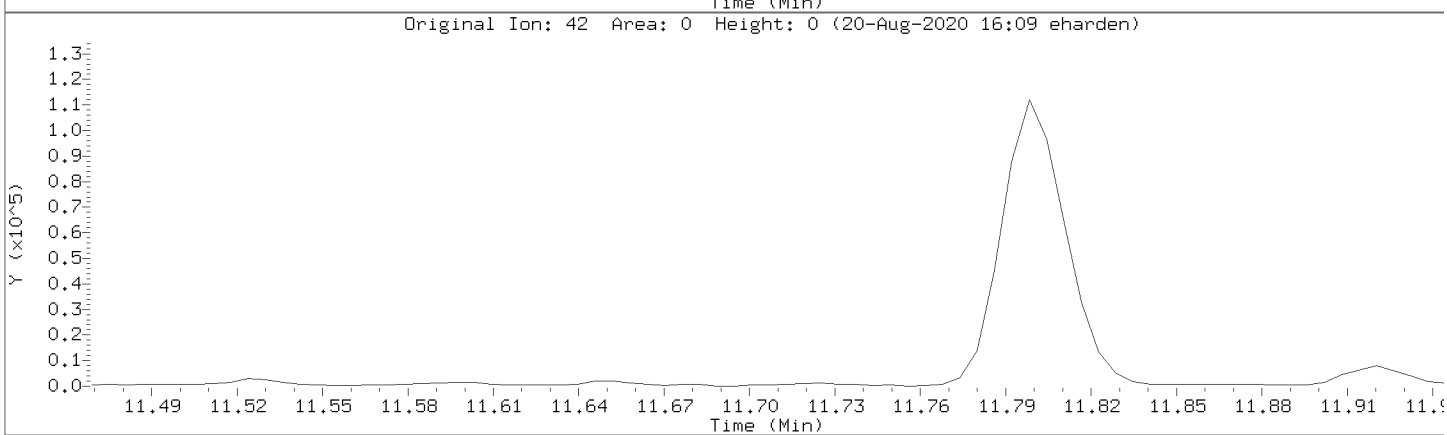


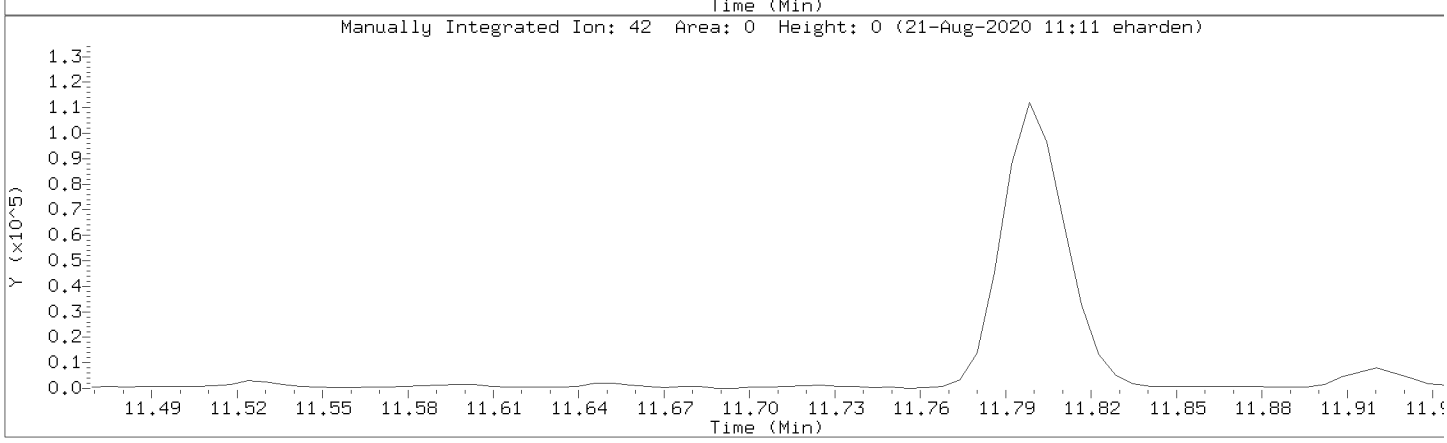
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_13.D
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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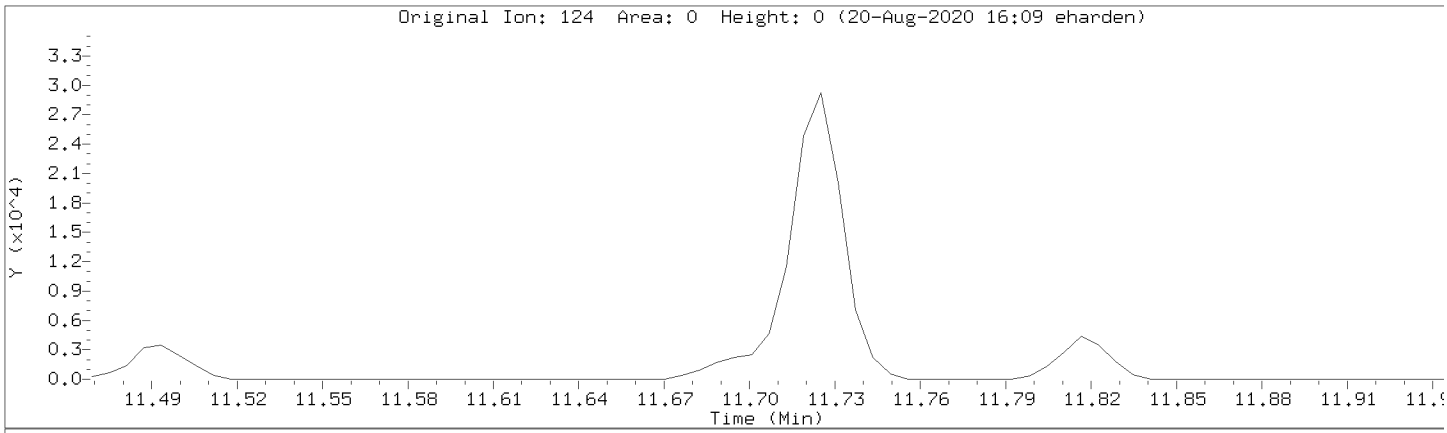
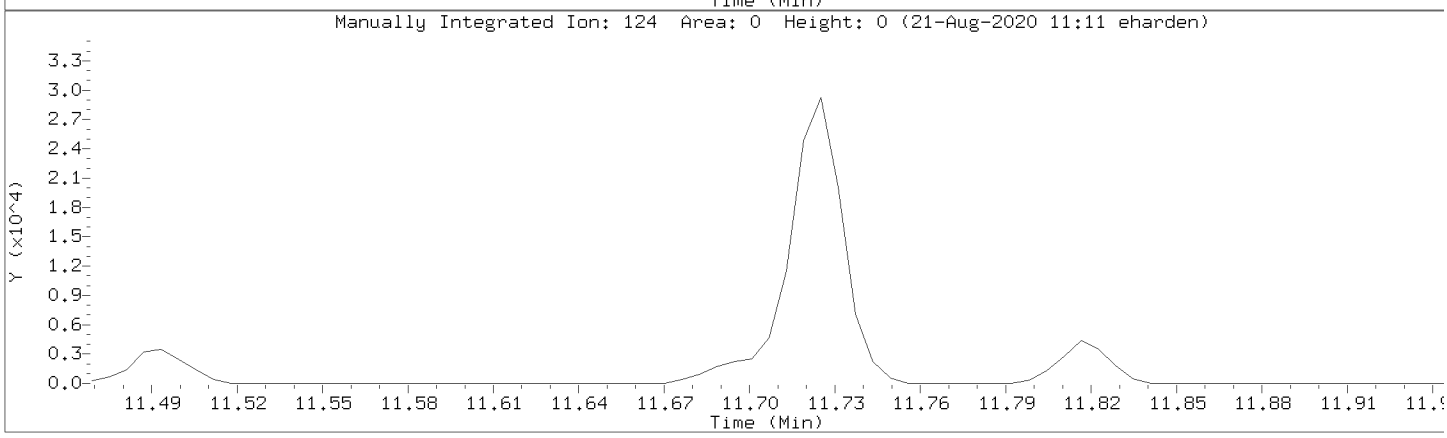
Instrument: 52mv02.i
Lab Sample ID: CAL11





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_14.D
Lab Smp Id: CAL12 Client Smp ID: CAL12
Inj Date : 20-AUG-2020 15:26
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal12,27248:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 15:26 Cal File: 082020_14.D
Als bottle: 12 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.410)	843624	200.000	180	
2 Chloromethane	50	3.543	3.543	(0.451)	1035862	200.000	191	
3 Vinyl chloride	62	3.702	3.702	(0.471)	829656	200.000	180	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	724882	200.000	176	
5 Bromomethane	94	4.201	4.195	(0.535)	575423	200.000	171	
6 Chloroethane	64	4.372	4.360	(0.556)	201667	200.000	159	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	390171	200.000	133	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	307440	200.000	190	
9 1,1-Dichloroethene	61	5.226	5.226	(0.665)	1011414	200.000	194	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	600631	200.000	175	
11 Carbon disulfide	76	5.287	5.293	(0.673)	2019084	200.000	175	
12 Iodomethane	142	5.451	5.439	(0.694)	734096	200.000	200	
13 Acrolein	56	5.658	5.659	(0.720)	211690	400.000	394	
14 Allyl chloride	76	5.786	5.787	(0.736)	294574	200.000	184	
15 Methylene Chloride	49	5.908	5.902	(0.752)	1050051	200.000	170	
16 Acetone	43	5.969	5.976	(0.760)	1032420	400.000	346	
17 Methyl acetate	43	6.067	6.067	(0.772)	1381491	400.000	390(A)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	650447	200.000	185	
19 n-Hexane	86	6.110	6.110	(0.777)	81559	200.000	219(A)	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	1688062	200.000	206(A)	
21 Acetonitrile	41	6.457	6.463	(0.822)	123656	400.000	381(AH)	
22 Chloroprene	53	6.640	6.640	(0.845)	1112304	200.000	227(A)	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	1205231	200.000	176	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	581161	400.000	391(A)	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	1375005	200.000	203(A)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	992534	200.000	197	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	903801	200.000	171	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	387279	200.000	176	
	29 Cyclohexane	56	7.335	7.335	(0.882)	980896	200.000	229(A)	
	30 Chloroform	83	7.372	7.372	(0.938)	1342881	200.000	174	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	1641965	400.000	376(A)	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	1014164	200.000	200(A)	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	425365	400.000	401(A)	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	196115	50.0000	43.8	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	1082414	200.000	189	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	1209413	400.000	363(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	852371	200.000	214(AH)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	388427	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	2390433	200.000	186	
	40 Propionitrile	54	7.896	7.902	(1.005)	235361	400.000	356(A)	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	1267856	400.000	376(A)	
	42 Isobutanol	43	8.006	7.987	(1.019)	63350	400.000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	34530	50.0000	42.9	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	1018325	200.000	168	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	1505636	200.000	208(A)	
	46 Trichloroethene	130	8.316	8.317	(1.000)	711450	200.000	202(A)	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	502471	50.0000		
	48 Methylcyclohexane	98	8.316	8.317	(1.000)	366667	200.000	220(A)	
	49 n-Butanol	56	8.524	8.524	(1.025)	32202	400.000	419(AH)	
	50 Dibromomethane	93	8.670	8.670	(1.043)	548606	200.000	183	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	697290	200.000	190	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	1076005	200.000	204(A)	
	53 Methyl methacrylate	69	8.822	8.823	(1.061)	445324	200.000	206(A)	
	54 1,4-Dioxane (p-Dioxane)	58	8.926	8.920	(1.073)	12627	400.000		
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	804281	400.000	417(A)	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	1101907	200.000	215(A)	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	535532	50.0000	49.5	
	58 Toluene	91	9.414	9.414	(1.132)	2545722	200.000	203(A)	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	254950	200.000	206(AH)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.670	9.664	(1.163)	157776	400.000	439(AM)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	1100485	200.000	215(A)	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	675307	200.000	207(A)	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	846262	200.000	206(AH)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	576866	200.000	182	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	932240	200.000	206(A)	
	66 1,3-Dichloropropane	76	10.066	10.060	(1.210)	1015605	200.000	210(A)	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	770644	200.000	199	
	68 2-Hexanone	43	10.280	10.280	(1.236)	1882914	400.000	444(A)	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	2928963	200.000	236(A)	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	475366	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	1776013	200.000	194	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	724011	200.000	187	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	4406208	400.000	404(A)	
	74 o-Xylene	106	10.993	10.993	(1.041)	1080392	200.000	210(A)	
	75 Styrene	104	11.029	11.029	(1.044)	1852119	200.000	206(A)	
	76 Bromoform	173	11.103	11.103	(1.051)	891644	200.000	208(A)	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.224	11.225	(1.063)	1568685	200.000	203(A)	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	213757	50.0000	54.8	
	79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	295248	200.000	189	
	80 n-Propylbenzene	91	11.529	11.523	(1.092)	3505994	200.000	230(A)	
	81 Bromobenzene	156	11.578	11.578	(1.096)	1028329	200.000	214(A)	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	952451	200.000	187	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	2283486	200.000	233(AH)	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	743796	200.000	204(A)	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	747393	200.000	203(A)	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	2752818	200.000	208(A)	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	984420	200.000	185	
	88 trans-1,4-Dichloro-2-butene	53	11.724	11.718	(1.110)	245006	200.000	200(AM)	NI
	89 Cyclohexanone	98	Compound Not Detected.						(D)
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	2429584	200.000	210(A)	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	2397637	200.000	207(A)	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	2866460	200.000	208(A)	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	2429584	200.000	210(A)	
	94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	1695278	200.000	214(A)	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	296897	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	1711879	200.000	192	
	97 n-Butylbenzene	91	12.486	12.486	(1.012)	2431584	200.000	235(A)	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	1704224	200.000	197	
	99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	202261	200.000	208(A)	
	100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	587132	200.000	222(A)	
	101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	1407142	200.000	241(A)	
	102 Naphthalene	128	14.193	14.193	(1.150)	2506120	200.000	214(A)	
	103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	1299349	200.000	239(A)	

QC Flag Legend

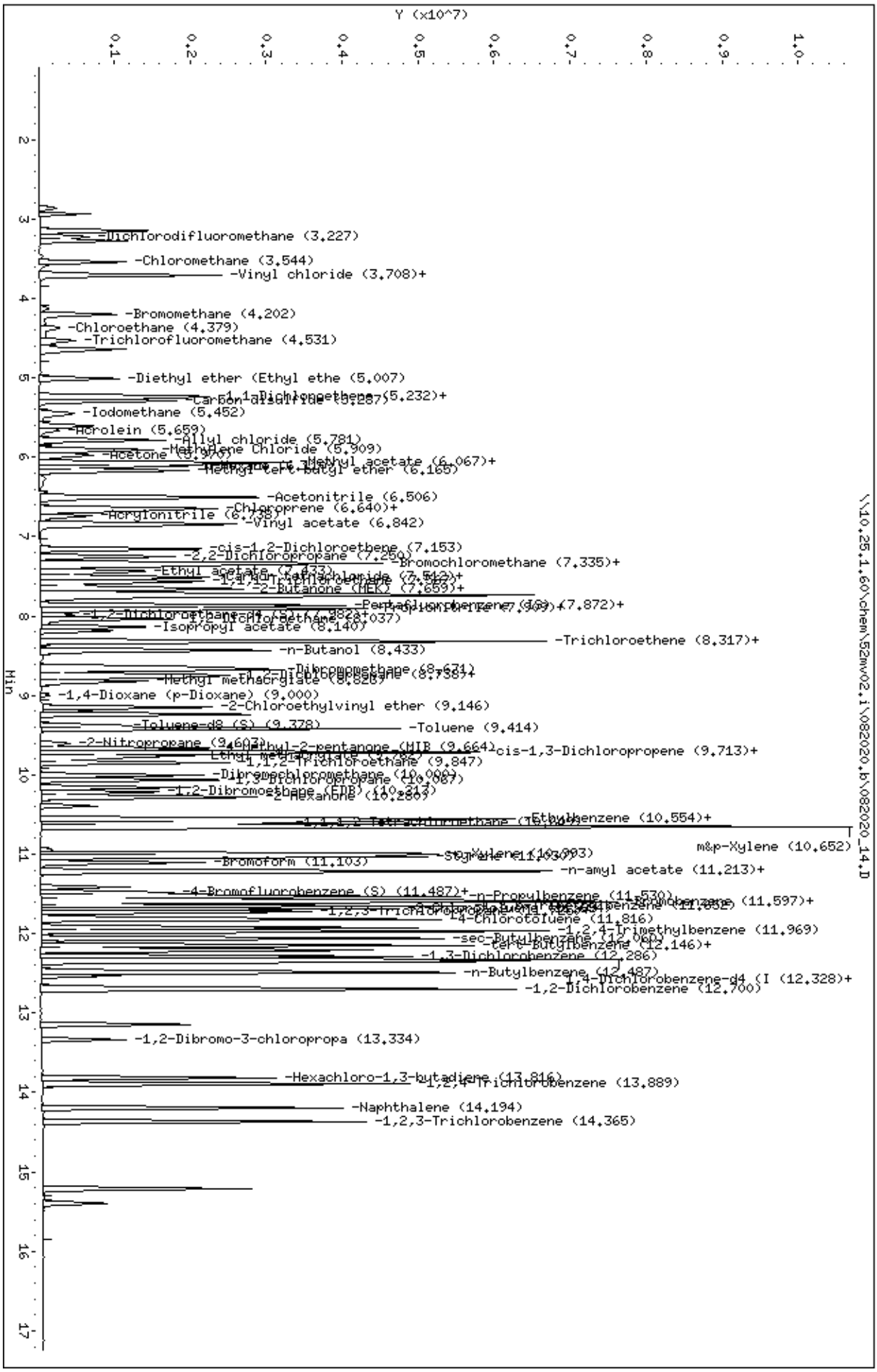
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_14.D
Date : 20-AUG-2020 15:26
Client ID: CAL12
Sample Info: CAL12,27248:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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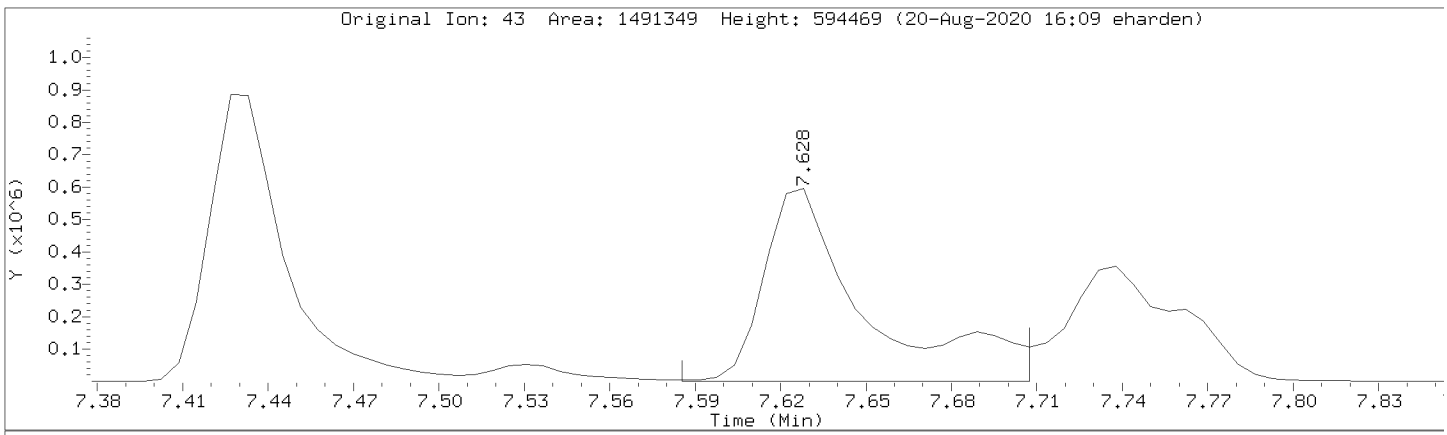
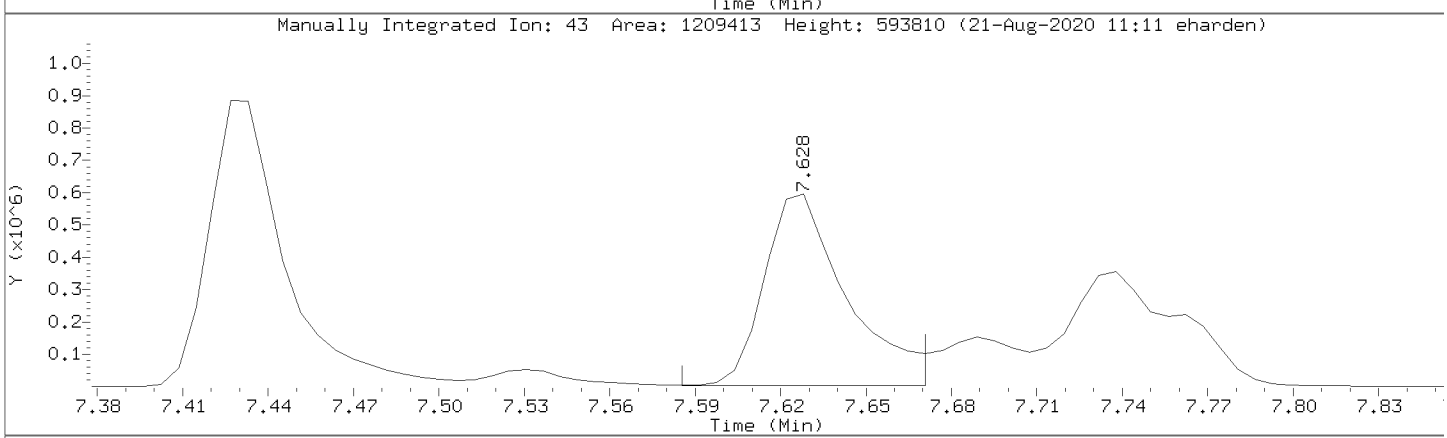
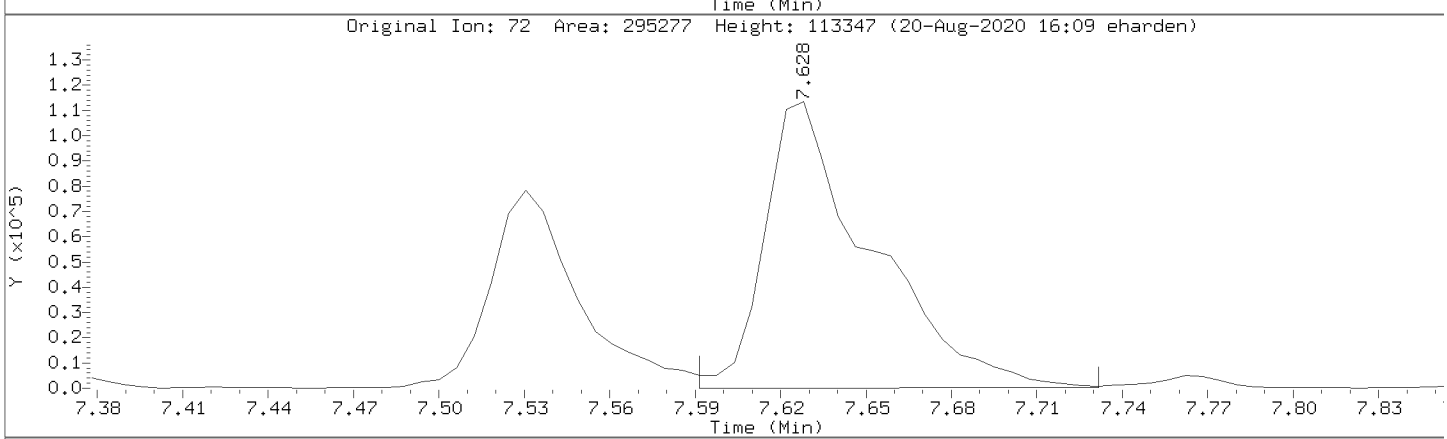
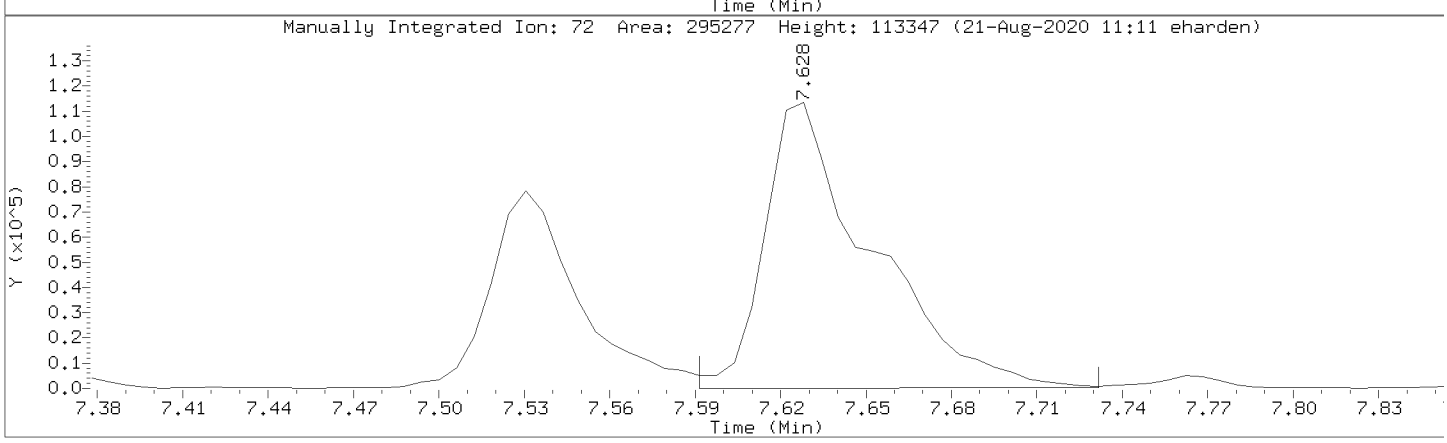
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3









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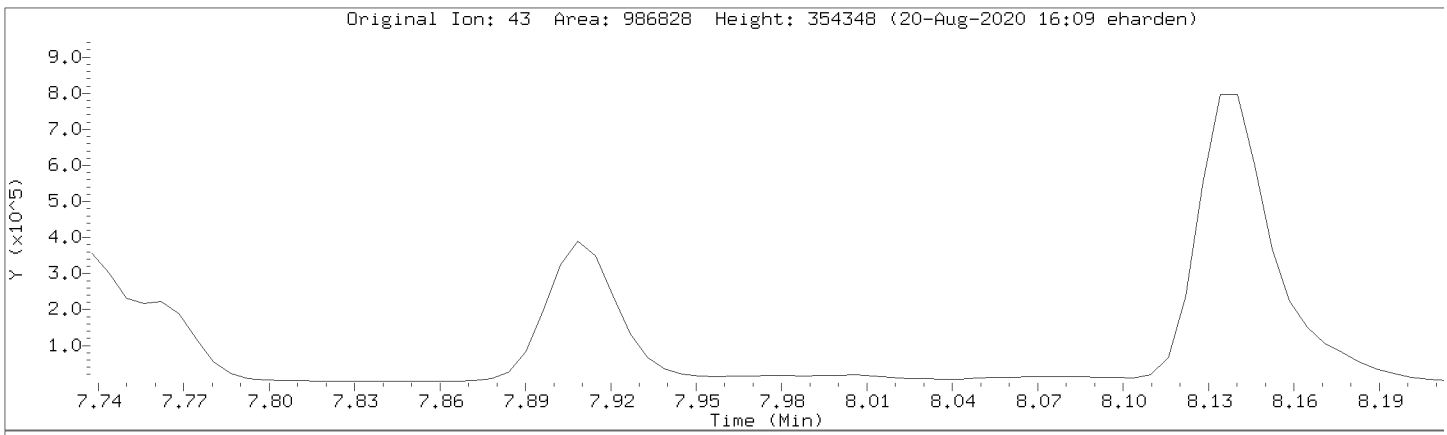
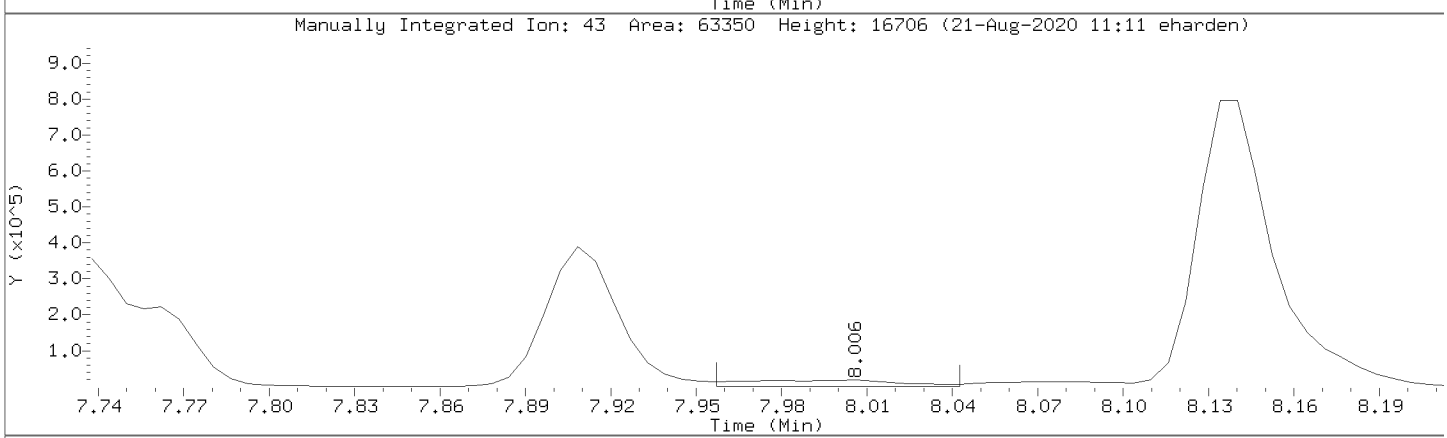
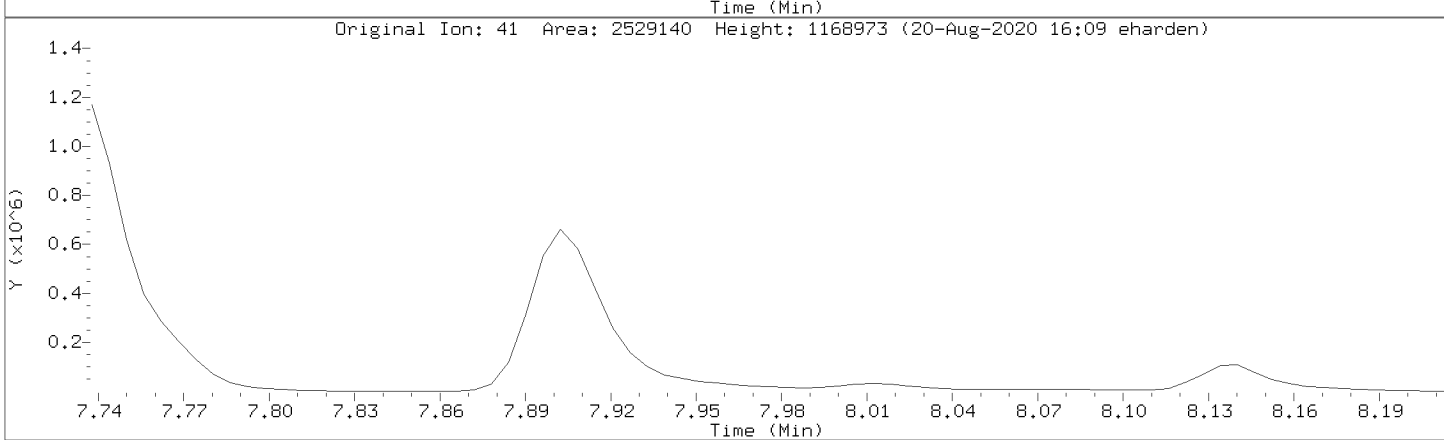
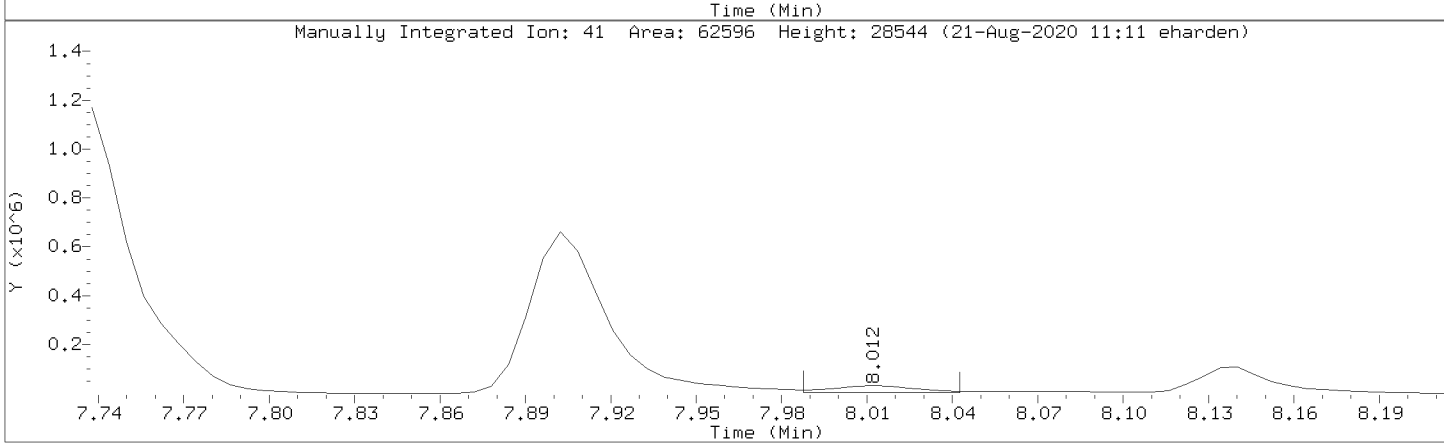
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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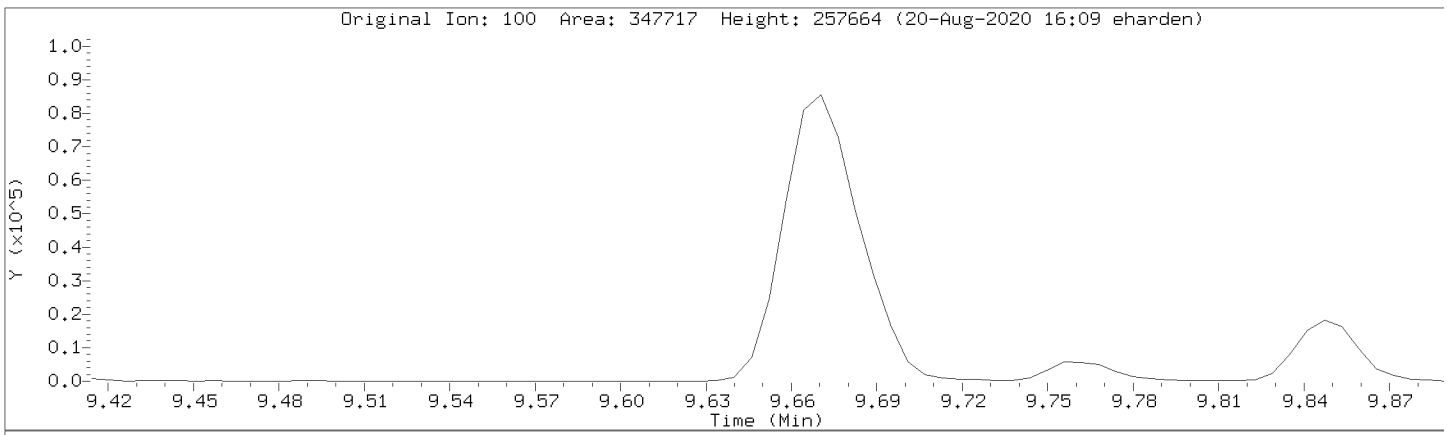
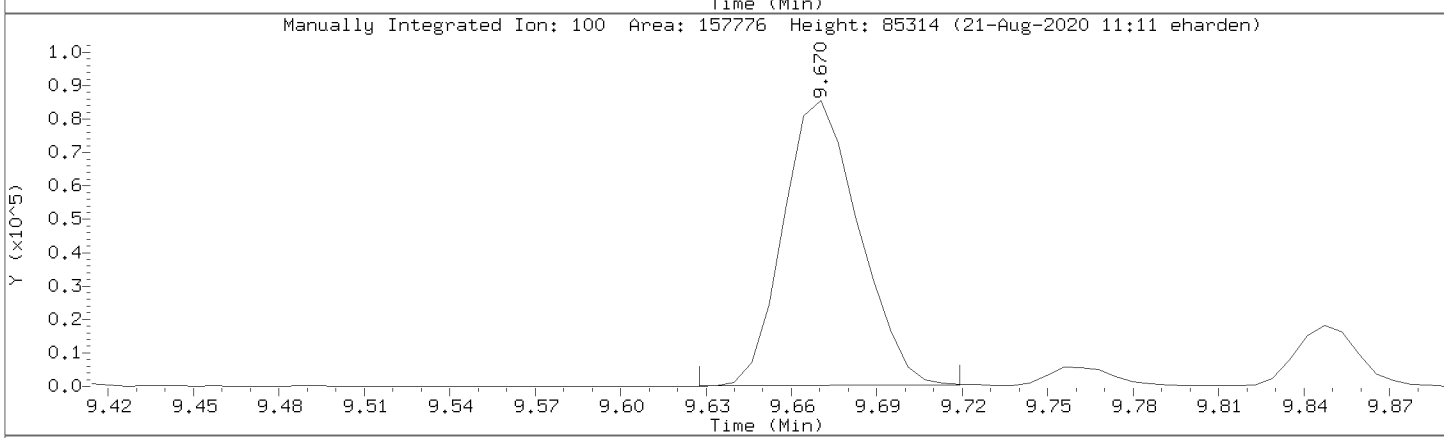
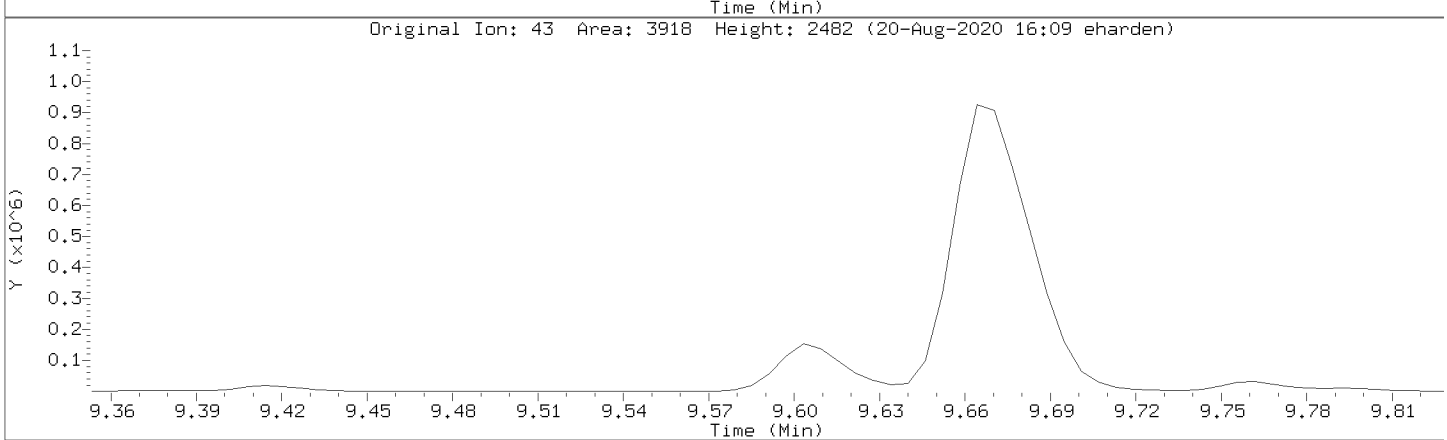
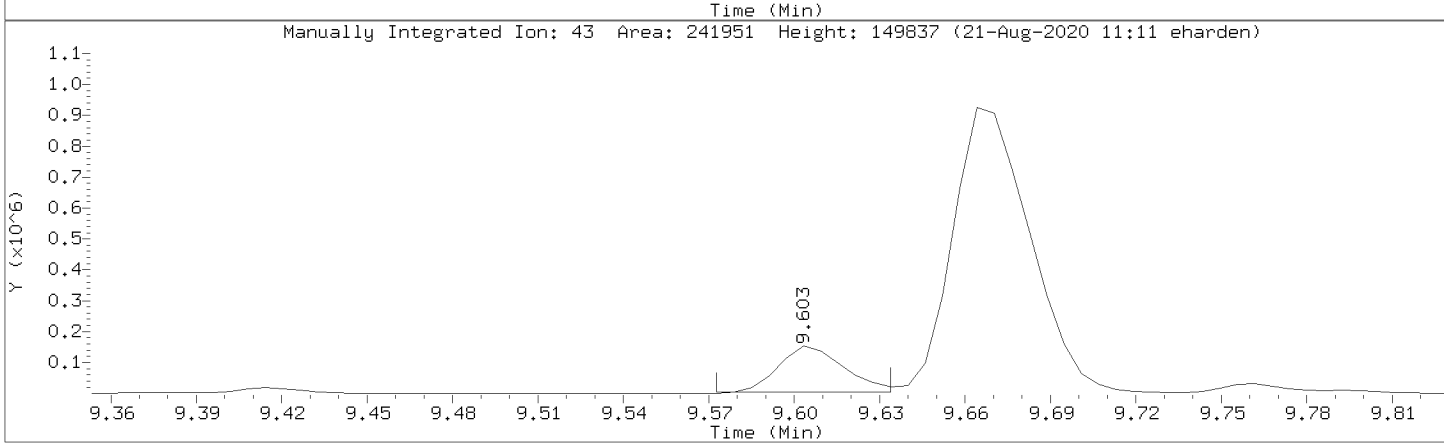
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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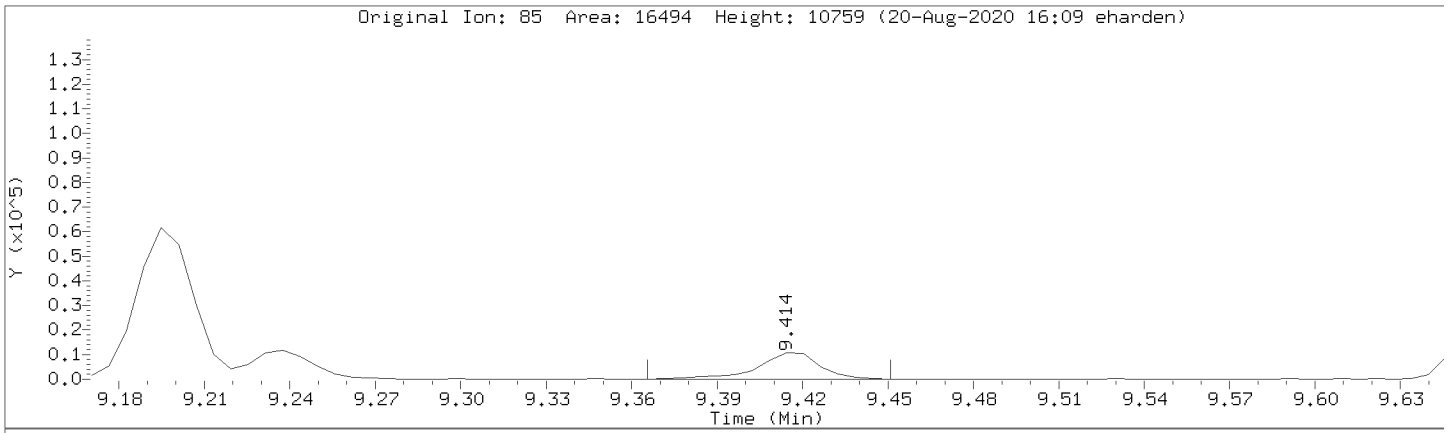
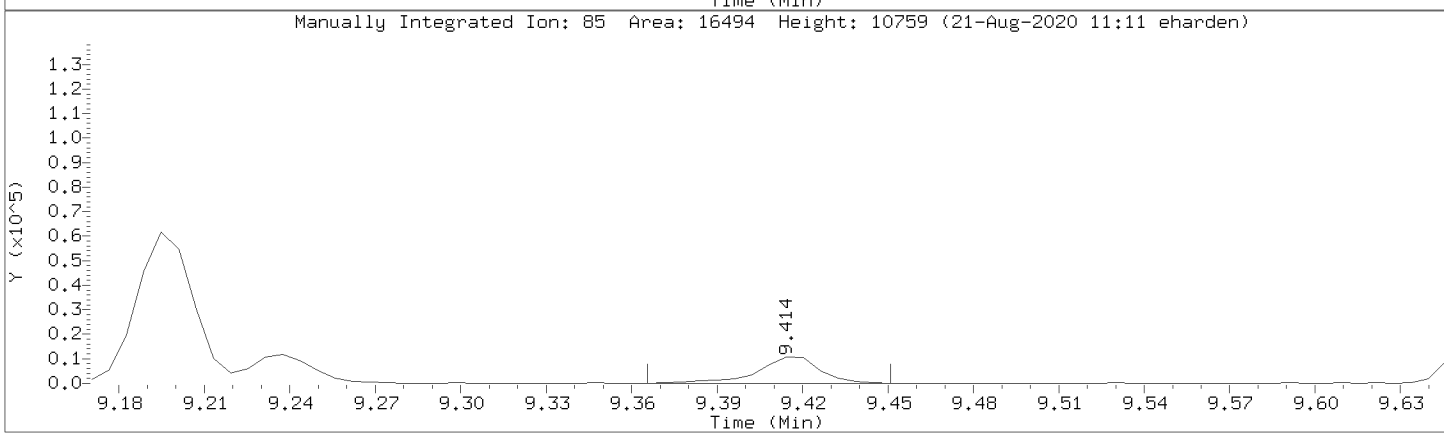
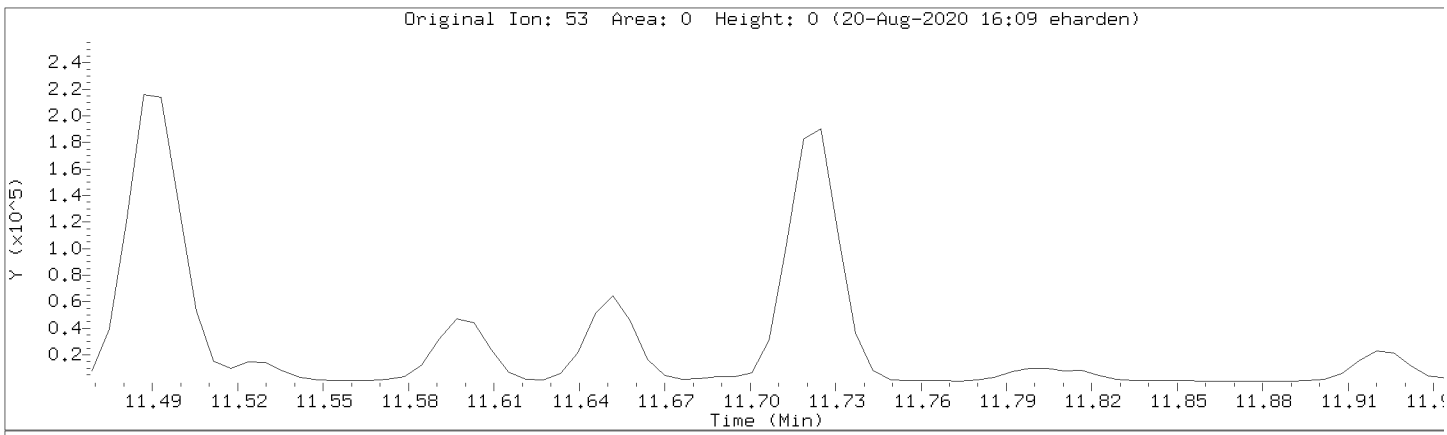
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

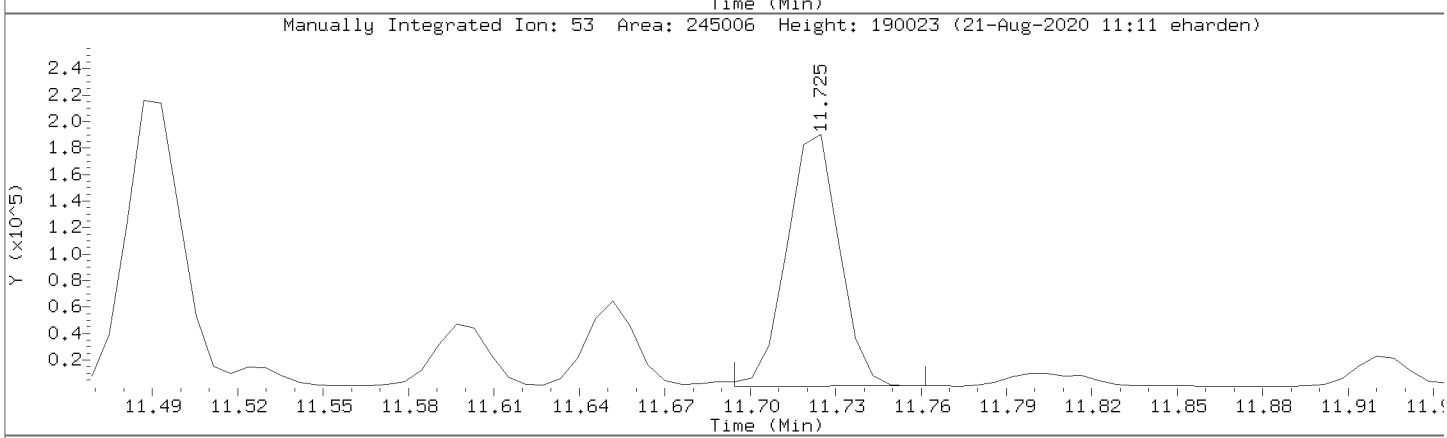


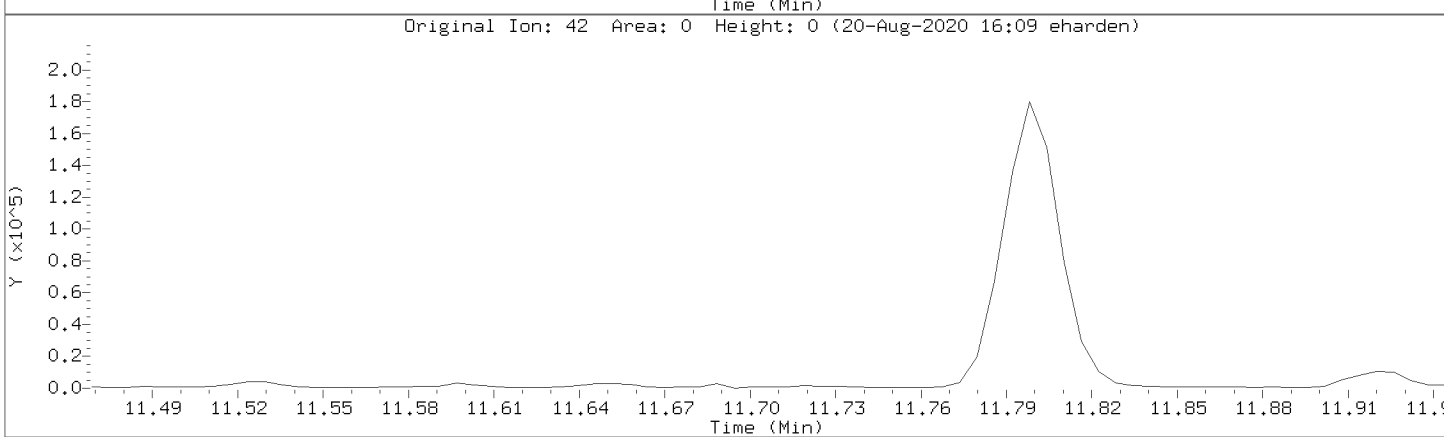


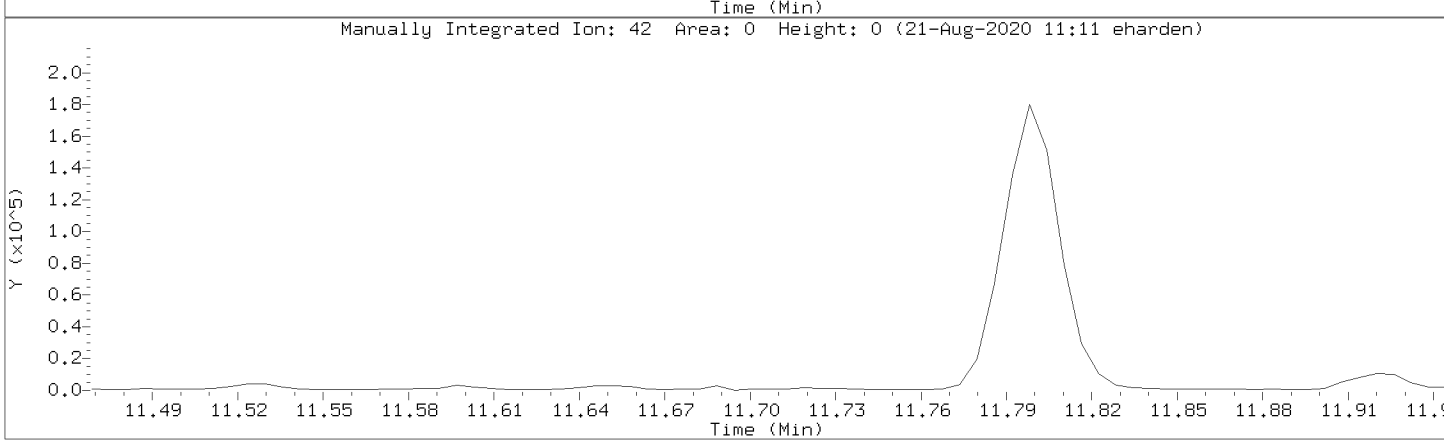
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_14.D
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6

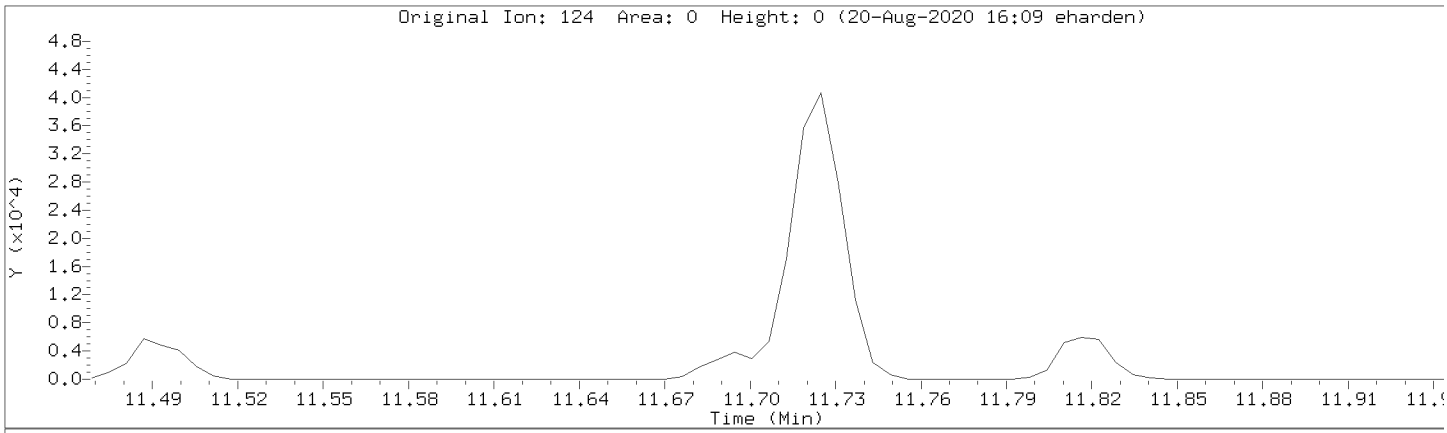


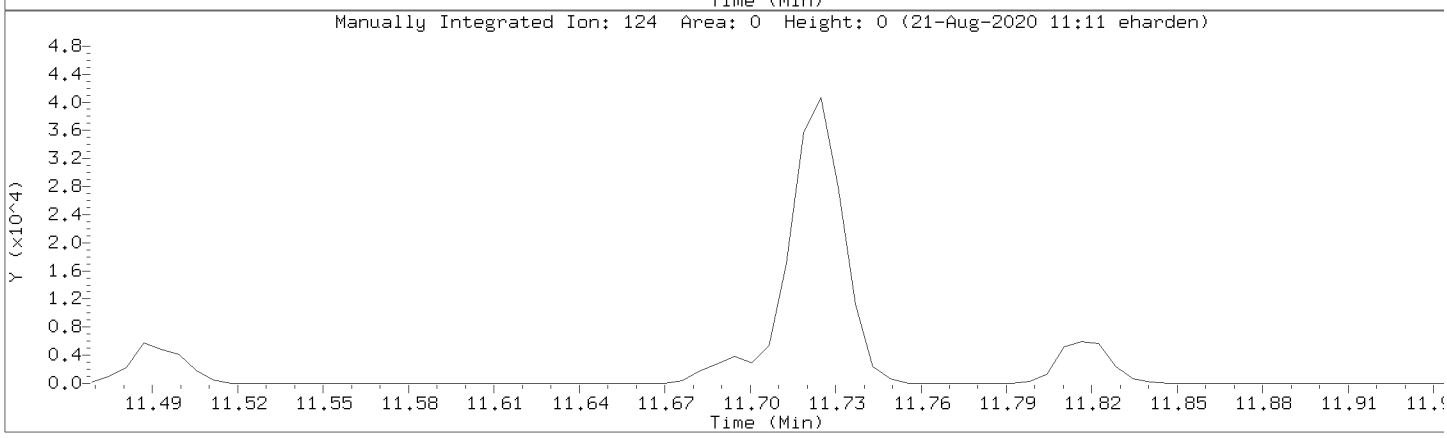






Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_14.D
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12





SAMPLE NO.

1419858ICV

MSV - FORM VII VOA-1
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/20/2020 Time: 17:06

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082020.B\082020_18.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249553

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Wt Linear	40	24.82310	0.0100	-37.9422	20.0000
Acetonitrile	Wt Linear	40	45.08252	0.0100	12.7063	20.0000
Acrolein	Averaged	0.06923	0.04113	0.0100	-40.5887	20.0000
Acrylonitrile	Averaged	0.19127	0.17352	0.0100	-9.2796	20.0000
Benzene	Averaged	1.27880	1.23471	0.0100	-3.4482	20.0000
Bromobenzene	Averaged	0.50590	0.52741	0.0100	4.2522	20.0000
Bromochloromethane	Averaged	0.28358	0.25650	0.0100	-9.5467	20.0000
Bromodichloromethane	Averaged	0.52427	0.53160	0.0100	1.3963	20.0000
Bromoform	Averaged	0.45179	0.43515	0.1000	-3.6837	20.0000
Bromomethane	Wt Linear	20	23.62960	0.0100	18.1480	20.0000
2-Butanone (MEK)	Averaged	0.42919	0.26923	0.0100	-37.2693	20.0000
n-Butylbenzene	Averaged	1.74233	1.59435	0.0100	-8.4931	20.0000
sec-Butylbenzene	Wt Linear	20	17.56000	0.0100	-12.2000	20.0000
tert-Butylbenzene	Wt Linear	20	16.89826	0.0100	-15.5087	20.0000
Carbon disulfide	Averaged	1.48423	1.27936	0.0100	-13.8029	20.0000
Carbon tetrachloride	Averaged	0.50339	0.50026	0.0100	-0.6221	20.0000
Chlorobenzene	Averaged	0.96465	0.93844	0.3000	-2.7167	20.0000
Chloroethane	Wt Linear	20	12.67107	0.0100	-36.6446	20.0000
Chloroform	Averaged	0.99545	0.88461	0.0100	-11.1349	20.0000
Chloromethane	Wt Linear	20	18.23379	0.1000	-8.8310	20.0000
2-Chlorotoluene	Wt Linear	20	19.57548	0.0100	-2.1226	20.0000
4-Chlorotoluene	Wt Linear	20	18.13182	0.0100	-9.3409	20.0000
1,2-Dibromo-3-chloropropane	Averaged	0.16352	0.13836	0.0100	-15.3871	20.0000
Dibromochloromethane	Averaged	0.47553	0.47473	0.0100	-0.1686	20.0000
1,2-Dibromoethane (EDB)	Averaged	0.40786	0.40623	0.0100	-0.3978	20.0000
Dibromomethane	Averaged	0.29781	0.28268	0.0100	-5.0799	20.0000
1,2-Dichlorobenzene	Averaged	1.45432	1.36425	0.0100	-6.1934	20.0000
1,3-Dichlorobenzene	Averaged	1.33091	1.33610	0.0100	0.3903	20.0000
1,4-Dichlorobenzene	Averaged	1.50164	1.35286	0.0100	-9.9078	20.0000
Dichlorodifluoromethane	Averaged	0.60278	0.50357	0.0100	-16.4588	20.0000
1,1-Dichloroethane	Averaged	0.88035	0.79945	0.1000	-9.1896	20.0000
1,2-Dichloroethane	Averaged	0.78154	0.68274	0.0100	-12.6415	20.0000
1,1-Dichloroethene	Averaged	0.67064	0.59964	0.0100	-10.5866	20.0000
cis-1,2-Dichloroethene	Averaged	0.64880	0.60018	0.0100	-7.4943	20.0000
trans-1,2-Dichloroethene	Averaged	0.45304	0.38891	0.0100	-14.1553	20.0000
1,2-Dichloropropane	Averaged	0.36511	0.36208	0.0100	-0.8301	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 9:52

SAMPLE NO.

1419858ICV

MSV - FORM VII VOA-2
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/20/2020 Time: 17:06

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082020.B\082020_18.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249553

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,3-Dichloropropane	Averaged	0.48194	0.48242	0.0100	0.0987	20.0000
2,2-Dichloropropane	Averaged	0.67907	0.53477	0.0100	-21.2485	20.0000
1,1-Dichloropropene	Averaged	0.39618	0.37313	0.0100	-5.8167	20.0000
cis-1,3-Dichloropropene	Averaged	0.50984	0.49638	0.0100	-2.6405	20.0000
trans-1,3-Dichloropropene	Averaged	0.50883	0.49514	0.0100	-2.6903	20.0000
Ethyl acetate	Averaged	0.56197	0.49122	0.0100	-12.5887	20.0000
Ethylbenzene	Averaged	1.30807	1.28682	0.0100	-1.6246	20.0000
2-Hexanone	Averaged	0.42211	0.28352	0.0100	-32.8334	20.0000
Isopropylbenzene (Cumene)	Wt Linear	20	17.85189	0.0100	-10.7405	20.0000
p-Isopropyltoluene	Wt Linear	20	16.89826	0.0100	-15.5087	20.0000
Methylene Chloride	Averaged	0.79672	0.68891	0.0100	-13.5314	20.0000
4-Methyl-2-pentanone (MIBK)	Averaged	0.03578	0.03144	0.0100	-12.1476	20.0000
Methyl-tert-butyl ether	Averaged	1.05644	1.01790	0.0100	-3.6480	20.0000
Naphthalene	Wt Linear	20	16.32090	0.0100	-18.3955	20.0000
n-Propylbenzene	Averaged	1.60388	1.60259	0.0100	-0.0803	20.0000
Styrene	Wt Linear	20	17.64204	0.0100	-11.7898	20.0000
1,1,1,2-Tetrachloroethane	Averaged	0.40743	0.38534	0.3000	-5.4218	20.0000
1,1,2,2-Tetrachloroethane	Averaged	0.53495	0.49291	0.3000	-7.8595	20.0000
Tetrachloroethene	Averaged	0.34315	0.35395	0.0100	3.1459	20.0000
Toluene	Averaged	1.24680	1.24992	0.0100	0.2497	20.0000
1,2,3-Trichlorobenzene	Averaged	0.91538	0.87148	0.0100	-4.7954	20.0000
1,2,4-Trichlorobenzene	Averaged	0.98474	0.93125	0.0100	-5.4317	20.0000
1,1,1-Trichloroethane	Averaged	0.57038	0.54382	0.0100	-4.6553	20.0000
1,1,2-Trichloroethane	Averaged	0.31598	0.29895	0.0100	-5.3888	20.0000
Trichloroethene	Averaged	0.34963	0.35653	0.0100	1.9739	20.0000
Trichlorofluoromethane	Averaged	0.37716	0.28883	0.0100	-23.4190	20.0000
1,2,3-Trichloropropane	Averaged	0.55922	0.53202	0.0100	-4.8654	20.0000
1,2,4-Trimethylbenzene	Wt Linear	20	17.70907	0.0100	-11.4546	20.0000
1,3,5-Trimethylbenzene	Averaged	1.65100	1.59405	0.0100	-3.4490	20.0000
Vinyl acetate	Averaged	0.87084	0.47990	0.0100	-44.8924	20.0000
Vinyl chloride	Averaged	0.59325	0.47996	0.0100	-19.0961	20.0000
m&p-Xylene	Wt Linear	40	36.62116	0.0100	-8.4471	20.0000
o-Xylene	Wt Linear	20	17.08013	0.0100	-14.5993	20.0000
4-Bromofluorobenzene (S)	Averaged	0.41034	0.41596	0.0100	1.3689	20.0000
Dibromofluoromethane (S)	Averaged	0.57568	0.52418	0.0100	-8.9462	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.10356	0.09167	0.0100	-11.4833	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 9:52

SAMPLE NO.

1419858ICV

MSV - FORM VII VOA-3
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/20/2020 Time: 17:06

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082020.B\082020_18.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249553

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Toluene-d8 (S)	Averaged	1.07633	1.07582	0.0100	-0.0475	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 9:52

SAMPLE NO.

1436636CCV

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/27/2020 Time: 11:34

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082720.B\082720_03.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249553

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Wt Linear	40	42.62617	0.0100	6.5654	20.0000
Acetonitrile	Wt Linear	40	49.62338	0.0100	24.0585	20.0000
Acrolein	Averaged	0.06923	0.05383	0.0100	-22.2480	20.0000
Acrylonitrile	Averaged	0.19127	0.17624	0.0100	-7.8567	20.0000
Benzene	Averaged	1.27880	1.33038	0.0100	4.0333	20.0000
Bromobenzene	Averaged	0.50590	0.55829	0.0100	10.3553	20.0000
Bromochloromethane	Averaged	0.28358	0.29762	0.0100	4.9530	20.0000
Bromodichloromethane	Averaged	0.52427	0.59696	0.0100	13.8647	20.0000
Bromoform	Averaged	0.45179	0.48263	0.1000	6.8263	20.0000
Bromomethane	Wt Linear	20	24.10004	0.0100	20.5002	20.0000
2-Butanone (MEK)	Averaged	0.42919	0.42084	0.0100	-1.9449	20.0000
n-Butylbenzene	Averaged	1.74233	1.68356	0.0100	-3.3730	20.0000
sec-Butylbenzene	Wt Linear	20	17.20355	0.0100	-13.9822	20.0000
tert-Butylbenzene	Wt Linear	20	16.50570	0.0100	-17.4715	20.0000
Carbon disulfide	Averaged	1.48423	1.43112	0.0100	-3.5779	20.0000
Carbon tetrachloride	Averaged	0.50339	0.57323	0.0100	13.8725	20.0000
Chlorobenzene	Averaged	0.96465	0.98223	0.3000	1.8227	20.0000
Chloroethane	Wt Linear	20	21.78174	0.0100	8.9087	20.0000
Chloroform	Averaged	0.99545	1.04713	0.0100	5.1914	20.0000
Chloromethane	Wt Linear	20	20.23744	0.1000	1.1872	20.0000
2-Chlorotoluene	Wt Linear	20	20.39592	0.0100	1.9796	20.0000
4-Chlorotoluene	Wt Linear	20	19.04062	0.0100	-4.7969	20.0000
1,2-Dibromo-3-chloropropane	Averaged	0.16352	0.15287	0.0100	-6.5099	20.0000
Dibromochloromethane	Averaged	0.47553	0.53569	0.0100	12.6505	20.0000
1,2-Dibromoethane (EDB)	Averaged	0.40786	0.43168	0.0100	5.8422	20.0000
Dibromomethane	Averaged	0.29781	0.32592	0.0100	9.4390	20.0000
1,2-Dichlorobenzene	Averaged	1.45432	1.35463	0.0100	-6.8550	20.0000
1,3-Dichlorobenzene	Averaged	1.33091	1.34499	0.0100	1.0583	20.0000
1,4-Dichlorobenzene	Averaged	1.50164	1.42446	0.0100	-5.1399	20.0000
Dichlorodifluoromethane	Averaged	0.60278	0.44379	0.0100	-26.3762	20.0000
1,1-Dichloroethane	Averaged	0.88035	0.90301	0.1000	2.5733	20.0000
1,2-Dichloroethane	Averaged	0.78154	0.79587	0.0100	1.8336	20.0000
1,1-Dichloroethene	Averaged	0.67064	0.66550	0.0100	-0.7673	20.0000
cis-1,2-Dichloroethene	Averaged	0.64880	0.62169	0.0100	-4.1786	20.0000
trans-1,2-Dichloroethene	Averaged	0.45304	0.42218	0.0100	-6.8116	20.0000
1,2-Dichloropropane	Averaged	0.36511	0.37048	0.0100	1.4726	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 9:53

SAMPLE NO.

1436636CCV

MSV - FORM VII VOA-2
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/27/2020 Time: 11:34

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082720.B\082720_03.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249553

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,3-Dichloropropane	Averaged	0.48194	0.48875	0.0100	1.4130	20.0000
2,2-Dichloropropane	Averaged	0.67907	0.71001	0.0100	4.5569	20.0000
1,1-Dichloropropene	Averaged	0.39618	0.39772	0.0100	0.3899	20.0000
cis-1,3-Dichloropropene	Averaged	0.50984	0.53402	0.0100	4.7417	20.0000
trans-1,3-Dichloropropene	Averaged	0.50883	0.53402	0.0100	4.9492	20.0000
Ethyl acetate	Averaged	0.56197	0.51135	0.0100	-9.0071	20.0000
Ethylbenzene	Averaged	1.30807	1.26872	0.0100	-3.0083	20.0000
2-Hexanone	Averaged	0.42211	0.46778	0.0100	10.8196	20.0000
Isopropylbenzene (Cumene)	Wt Linear	20	17.42111	0.0100	-12.8944	20.0000
p-Isopropyltoluene	Wt Linear	20	16.50570	0.0100	-17.4715	20.0000
Methylene Chloride	Averaged	0.79672	0.75080	0.0100	-5.7629	20.0000
4-Methyl-2-pentanone (MIBK)	Averaged	0.03578	0.03520	0.0100	-1.6152	20.0000
Methyl-tert-butyl ether	Averaged	1.05644	1.02279	0.0100	-3.1852	20.0000
Naphthalene	Wt Linear	20	14.58745	0.0100	-27.0627	20.0000
n-Propylbenzene	Averaged	1.60388	1.65736	0.0100	3.3343	20.0000
Styrene	Wt Linear	20	17.1098	0.0100	-14.4510	20.0000
1,1,1,2-Tetrachloroethane	Averaged	0.40743	0.44227	0.3000	8.5502	20.0000
1,1,2,2-Tetrachloroethane	Averaged	0.53495	0.55651	0.3000	4.0297	20.0000
Tetrachloroethene	Averaged	0.34315	0.39044	0.0100	13.7798	20.0000
Toluene	Averaged	1.24680	1.28216	0.0100	2.8357	20.0000
1,2,3-Trichlorobenzene	Averaged	0.91538	0.84515	0.0100	-7.6725	20.0000
1,2,4-Trichlorobenzene	Averaged	0.98474	0.88780	0.0100	-9.8435	20.0000
1,1,1-Trichloroethane	Averaged	0.57038	0.64096	0.0100	12.3753	20.0000
1,1,2-Trichloroethane	Averaged	0.31598	0.31288	0.0100	-0.9812	20.0000
Trichloroethene	Averaged	0.34963	0.37030	0.0100	5.9106	20.0000
Trichlorofluoromethane	Averaged	0.37716	0.42832	0.0100	13.5655	20.0000
1,2,3-Trichloropropane	Averaged	0.55922	0.58040	0.0100	3.7865	20.0000
1,2,4-Trimethylbenzene	Wt Linear	20	17.91869	0.0100	-10.4065	20.0000
1,3,5-Trimethylbenzene	Averaged	1.65100	1.64866	0.0100	-0.1414	20.0000
Vinyl acetate	Averaged	0.87084	0.74729	0.0100	-14.1872	20.0000
Vinyl chloride	Averaged	0.59325	0.52027	0.0100	-12.3025	20.0000
m&p-Xylene	Wt Linear	40	38.97202	0.0100	-2.5699	20.0000
o-Xylene	Wt Linear	20	16.88850	0.0100	-15.5575	20.0000
4-Bromofluorobenzene (S)	Averaged	0.41034	0.40947	0.0100	-0.2121	20.0000
Dibromofluoromethane (S)	Averaged	0.57568	0.56238	0.0100	-2.3106	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.10356	0.10145	0.0100	-2.0405	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 9:53

SAMPLE NO.

1436636CCV

MSV - FORM VII VOA-3
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Dayton

Calibration Date: 08/27/2020 Time: 11:34

Instrument ID: 52MV02 GC Column: Col 1

Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082720.B\082720_03.D

Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249553

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Toluene-d8 (S)	Averaged	1.07633	1.07729	0.0100	0.0890	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 9:53

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_18.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 20-AUG-2020 17:06
Operator : EAH Inst ID: 52mv02.i
Smp Info : icv, 27249:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 11:40 Cal File: 082020_05.D
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.411)	62218	20.0000	16.7(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	81833	20.0000	18.2	
3 Vinyl chloride	62	3.702	3.702	(0.471)	59301	20.0000	16.2	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	43356	20.0000	13.2	
5 Bromomethane	94	4.195	4.195	(0.534)	70375	20.0000	23.6	
6 Chloroethane	64	4.360	4.360	(0.555)	13606	20.0000	12.7	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	35686	20.0000	15.3	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	23334	20.0000	18.2	
9 1,1-Dichloroethene	61	5.226	5.226	(0.665)	74088	20.0000	17.9	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	46759	20.0000	17.1	
11 Carbon disulfide	76	5.293	5.293	(0.673)	158069	20.0000	17.2	
12 Iodomethane	142	5.439	5.439	(0.692)	24702	20.0000	15.5	
13 Acrolein	56	5.659	5.659	(0.720)	10164	40.0000	23.8	
14 Allyl chloride	76	5.787	5.787	(0.736)	22210	20.0000	17.4	
15 Methylene Chloride	49	5.902	5.902	(0.751)	85117	20.0000	17.3	
16 Acetone	43	5.976	5.976	(0.760)	62754	40.0000	24.8	
17 Methyl acetate	43	6.067	6.067	(0.772)	104303	40.0000	36.3	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	48051	20.0000	17.2	
19 n-Hexane	86	6.110	6.110	(0.777)	5754	20.0000	19.4	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	125765	20.0000	19.3	
21 Acetonitrile	41	6.463	6.463	(0.822)	11809	40.0000	45.1	
22 Chloroprene	53	6.640	6.640	(0.845)	65755	20.0000	16.8	
23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	98775	20.0000	18.2	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	24 Acrylonitrile	53	6.738	6.738	(0.857)	42878	40.0000	36.3	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	59293	20.0000	11.0(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	74154	20.0000	18.5	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	66073	20.0000	15.8	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	31692	20.0000	18.1	
	29 Cyclohexane	56	7.335	7.335	(0.882)	61163	20.0000	18.4	
	30 Chloroform	83	7.372	7.372	(0.938)	109296	20.0000	17.8	
	31 Ethyl acetate	43	7.433	7.433	(0.946)	121384	40.0000	35.0	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	78185	20.0000	19.9	
	33 Tetrahydrofuran	42	7.536	7.536	(0.959)	32607	40.0000	36.5	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	161909	50.0000	45.5	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	84993	20.0000	19.1	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	66529	40.0000	25.1	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	58316	20.0000	18.8	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	308883	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	192970	20.0000	19.3	
	40 Propionitrile	54	7.902	7.902	(1.005)	18605	40.0000	35.3	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	97332	40.0000	36.3	
	42 Isobutanol	43	7.987	7.987	(1.016)	3741	40.0000	47.8(M)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	28315	50.0000	44.2	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	84355	20.0000	17.5	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	100534	20.0000	17.5	
	46 Trichloroethene	130	8.317	8.317	(1.000)	55722	20.0000	20.4	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	390720	50.0000		
	48 Methylcyclohexane	98	8.317	8.317	(1.000)	25333	20.0000	19.6	
	49 n-Butanol	56	8.524	8.524	(1.025)	2306	40.0000	38.6	
	50 Dibromomethane	93	8.670	8.670	(1.043)	44180	20.0000	19.0	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	56588	20.0000	19.8	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	83082	20.0000	20.3	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	27754	20.0000	17.2	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	950	40.0000	39.5	
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	45831	40.0000	32.2	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	77578	20.0000	19.5	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	420345	50.0000	50.0	
	58 Toluene	91	9.414	9.414	(1.132)	195347	20.0000	20.0	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	16542	20.0000	16.7	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	9826	40.0000	35.1(MH)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	77385	20.0000	19.5	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	52492	20.0000	20.6	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	52298	20.0000	17.0	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	46722	20.0000	18.9	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	70404	20.0000	20.0	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	75396	20.0000	20.0	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	60246	20.0000	19.9	
	68 2-Hexanone	43	10.280	10.280	(1.236)	88620	40.0000	26.9	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	190840	20.0000	19.7	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	370760	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	139175	20.0000	19.4	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	57148	20.0000	18.9	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	308621	40.0000	36.6	
	74 o-Xylene	106	10.993	10.993	(1.041)	66780	20.0000	17.1	
	75 Styrene	104	11.029	11.029	(1.044)	120102	20.0000	17.6	
	76 Bromoform	173	11.103	11.103	(1.051)	64534	20.0000	19.3	
	77 n-amyl acetate	43	11.225	11.225	(1.063)	96056	20.0000	16.6	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	154222	50.0000	50.7	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	22484	20.0000	18.5	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	237671	20.0000	20.0	
81 Bromobenzene	156	11.578	11.578	(1.096)	78217	20.0000	20.8	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	73100	20.0000	18.4	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	152266	20.0000	19.3	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	54826	20.0000	19.6	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	51146	20.0000	18.1	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	178840	20.0000	17.8	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	78900	20.0000	19.0	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	19932	20.0000	20.9(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	152436	20.0000	16.9	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	161183	20.0000	17.7	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	189442	20.0000	17.6	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	152436	20.0000	16.9	
94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	127626	20.0000	20.1	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	238803	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	129227	20.0000	18.0	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	152294	20.0000	18.3	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	130315	20.0000	18.8	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	13216	20.0000	16.9	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	39516	20.0000	18.6	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	88954	20.0000	18.9	
102 Naphthalene	128	14.193	14.193	(1.150)	148785	20.0000	16.3	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	83245	20.0000	19.0	

QC Flag Legend

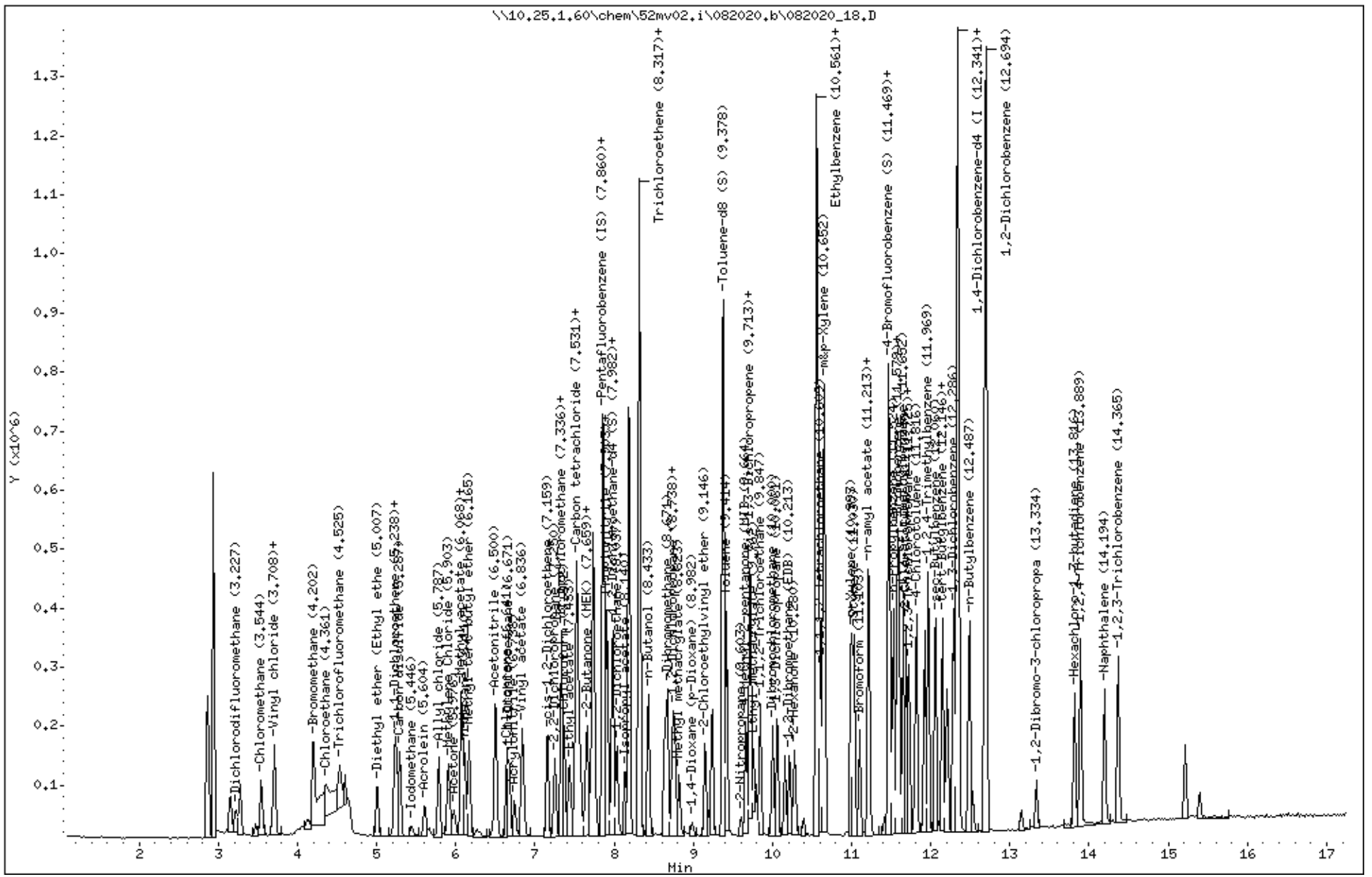
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_18.D
Date : 20-AUG-2020 17:06
Client ID: ICV
Sample Info: ICV, 27249:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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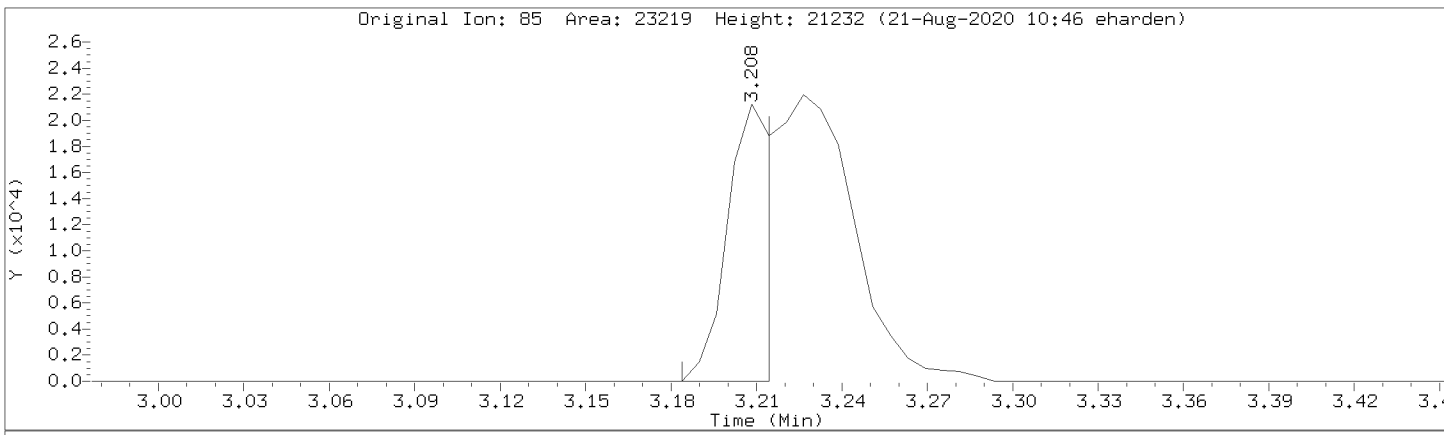
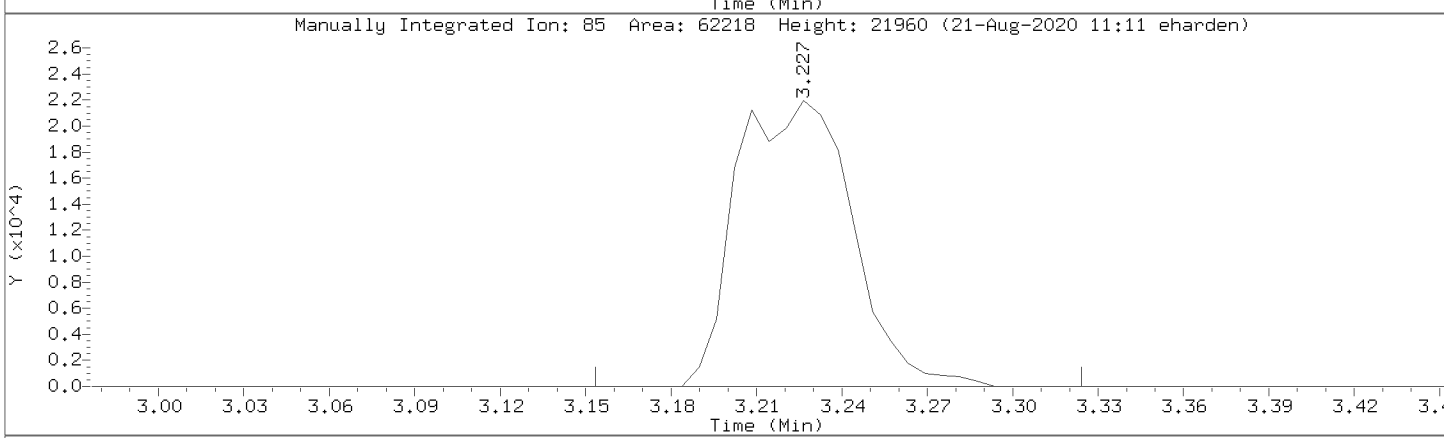
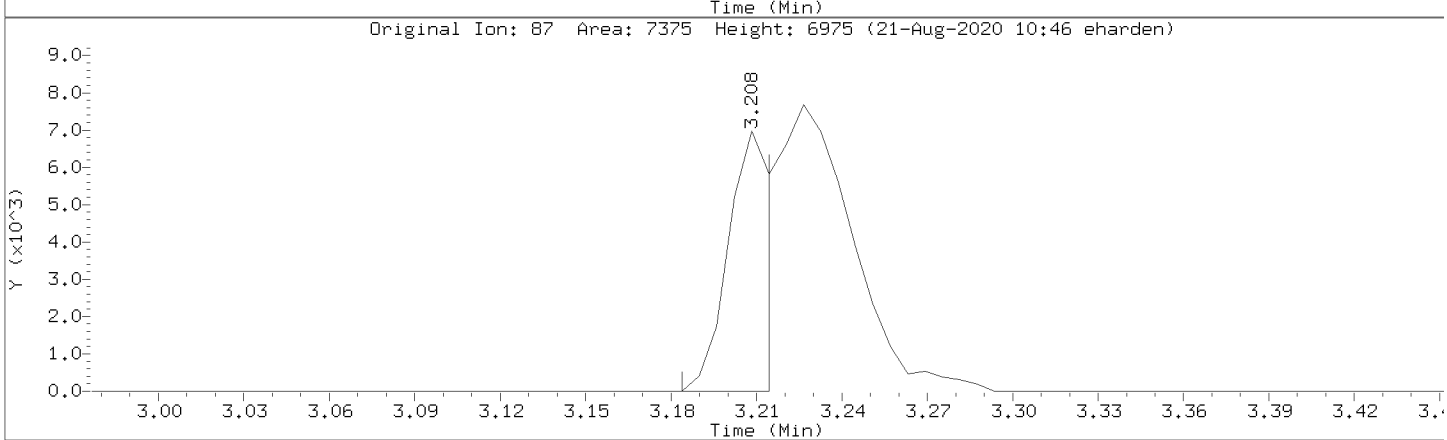
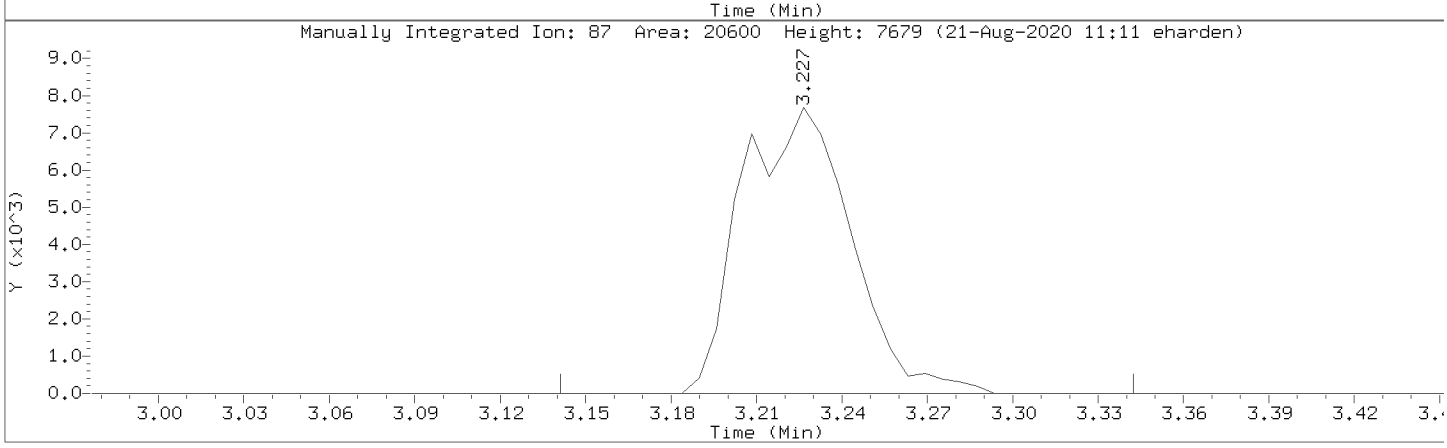
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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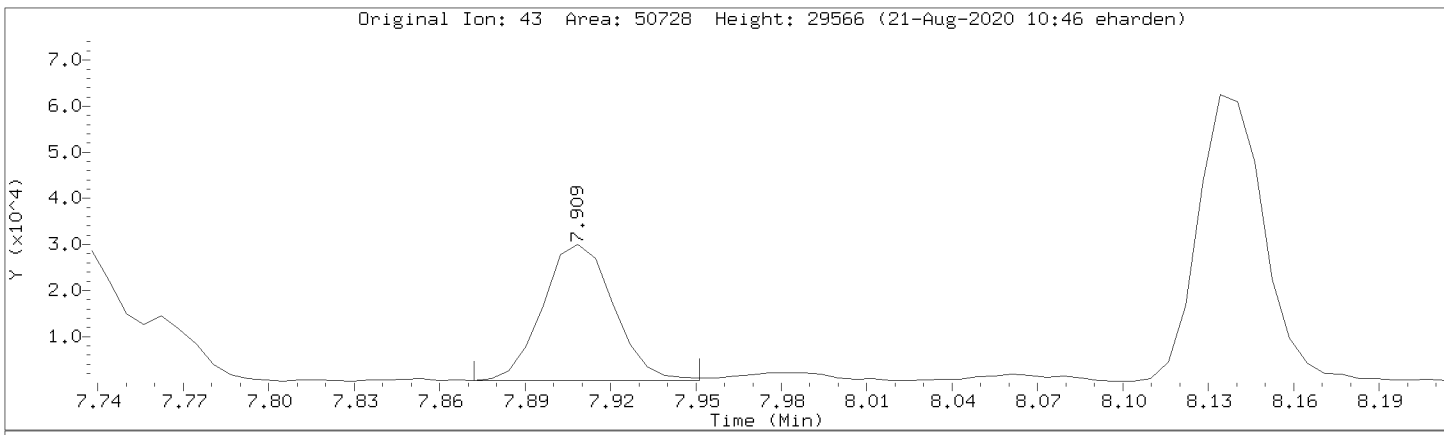
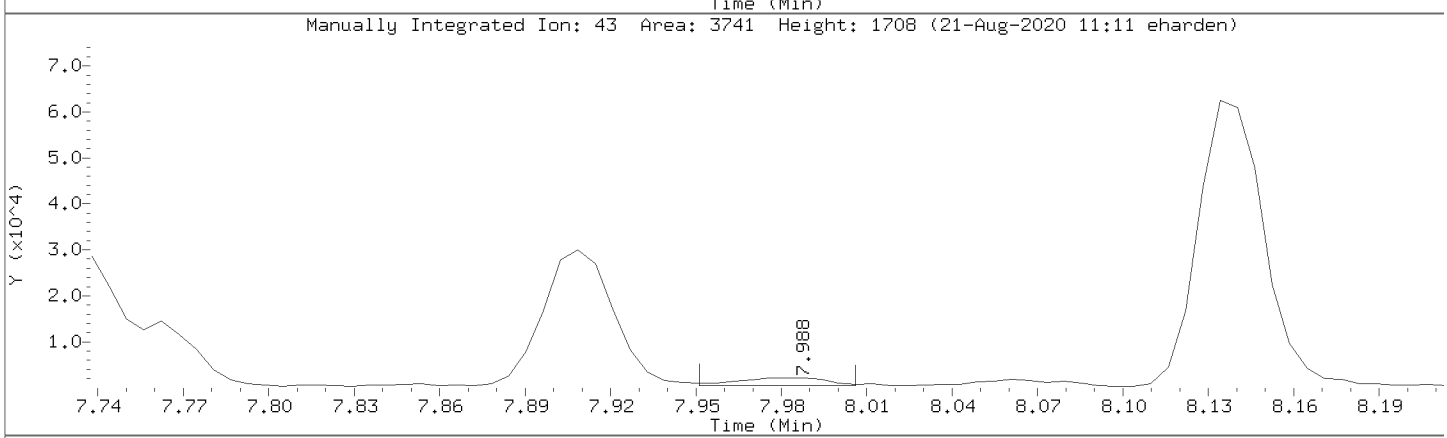
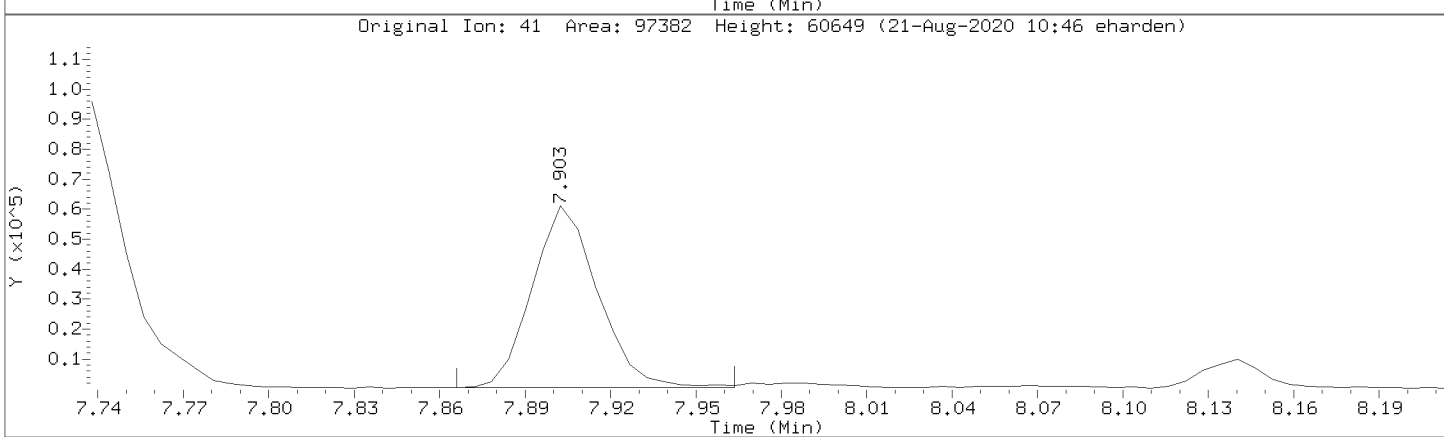
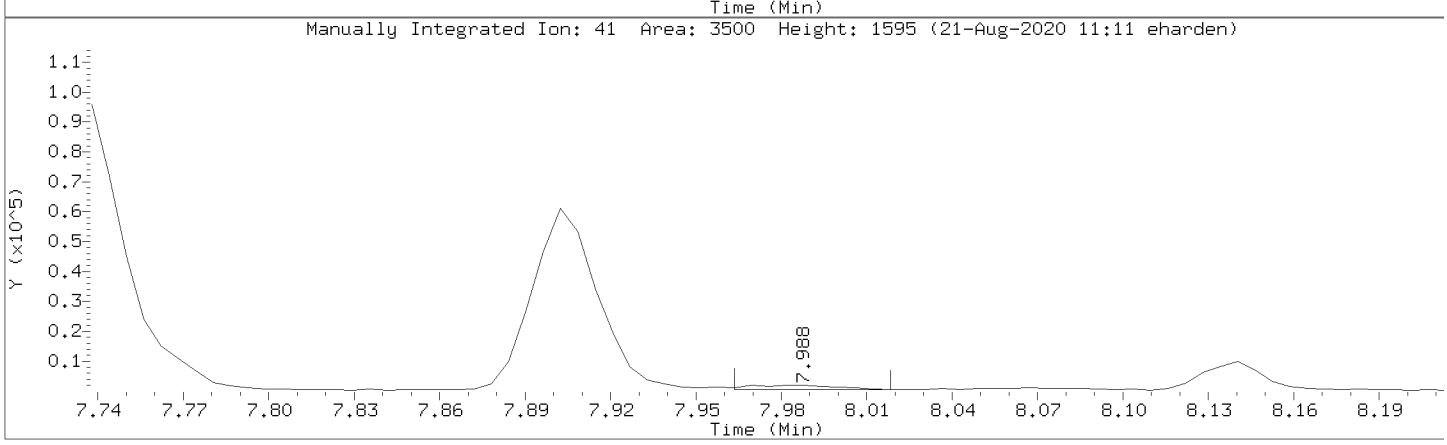
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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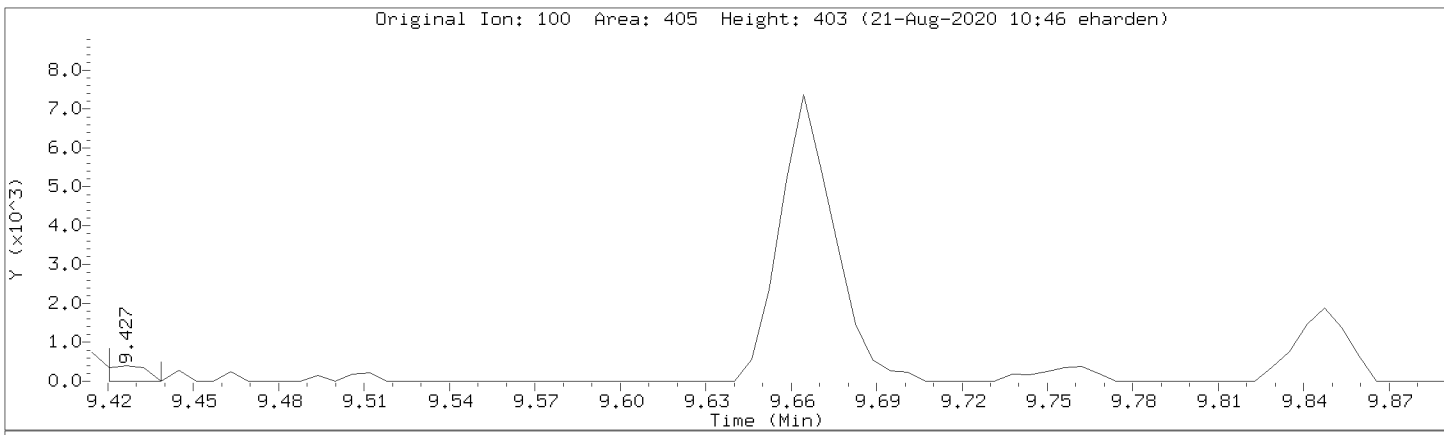
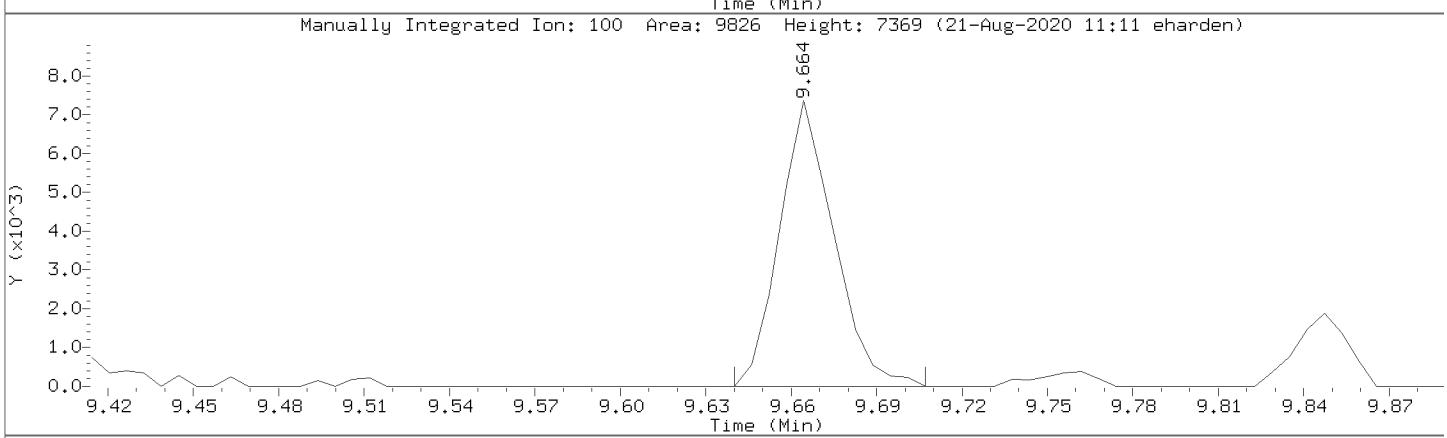
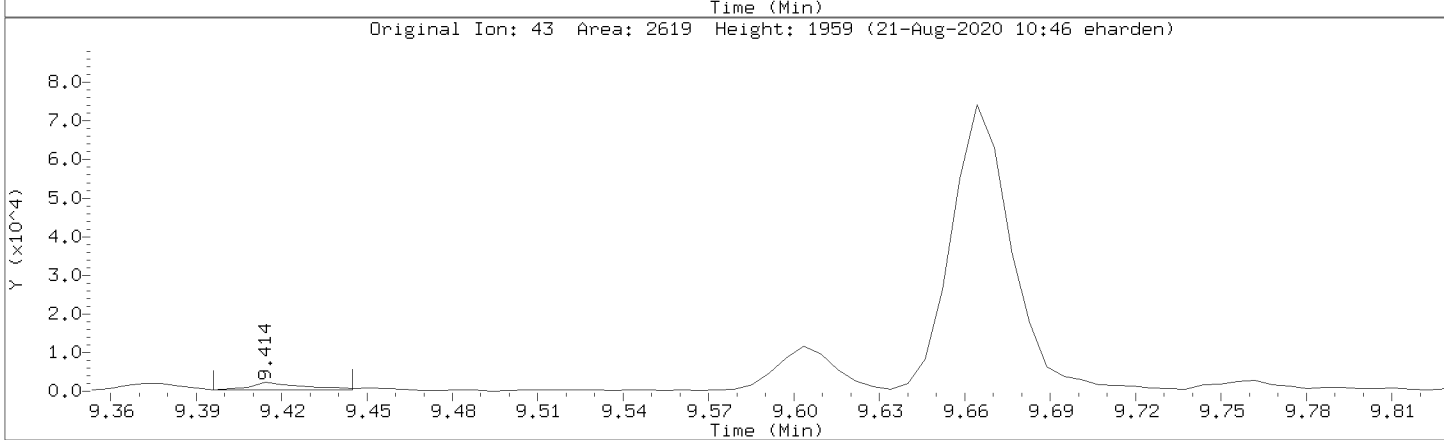
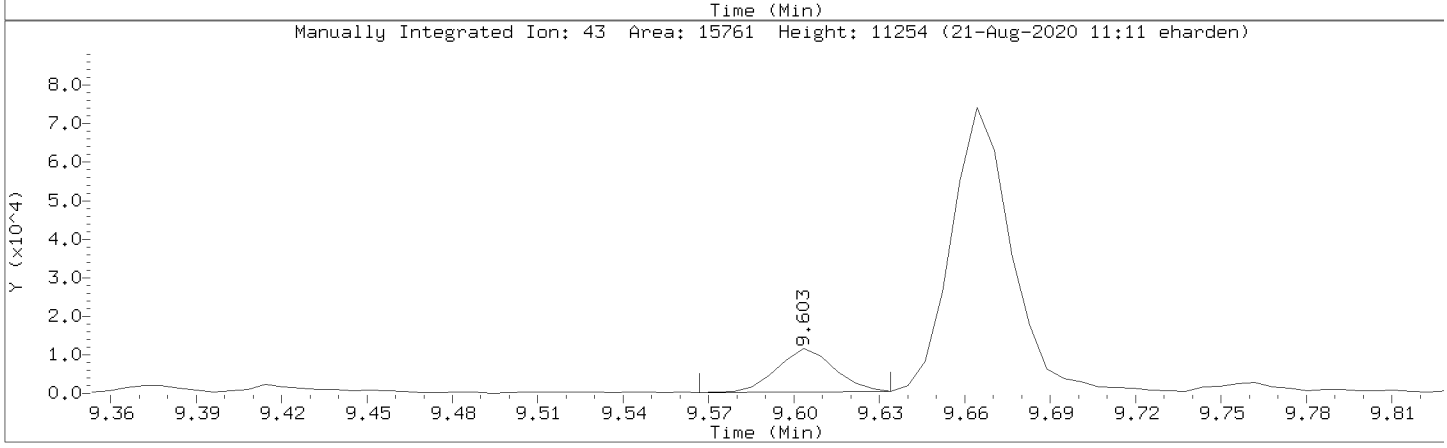
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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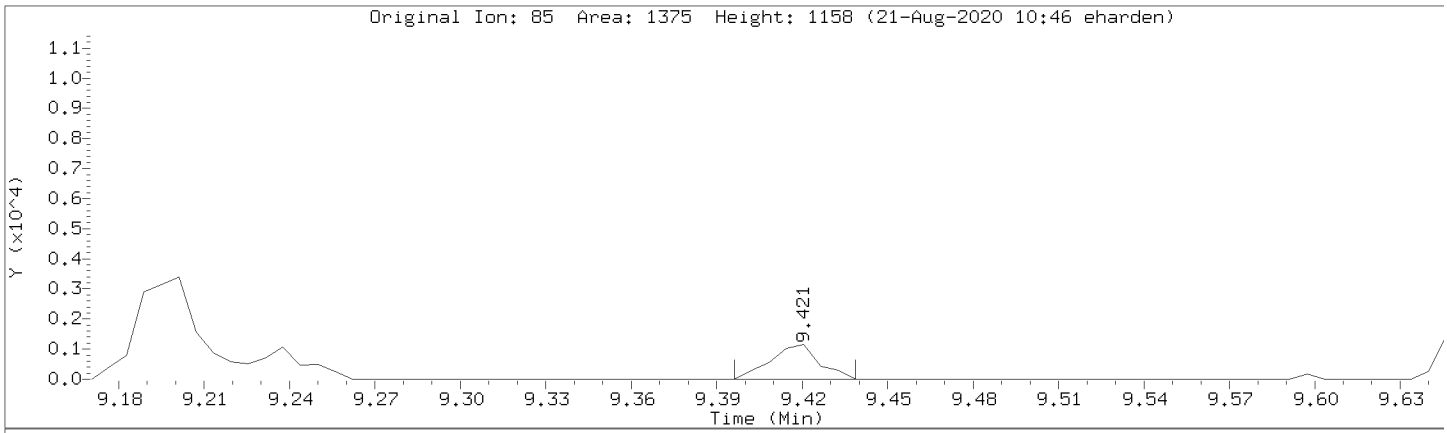
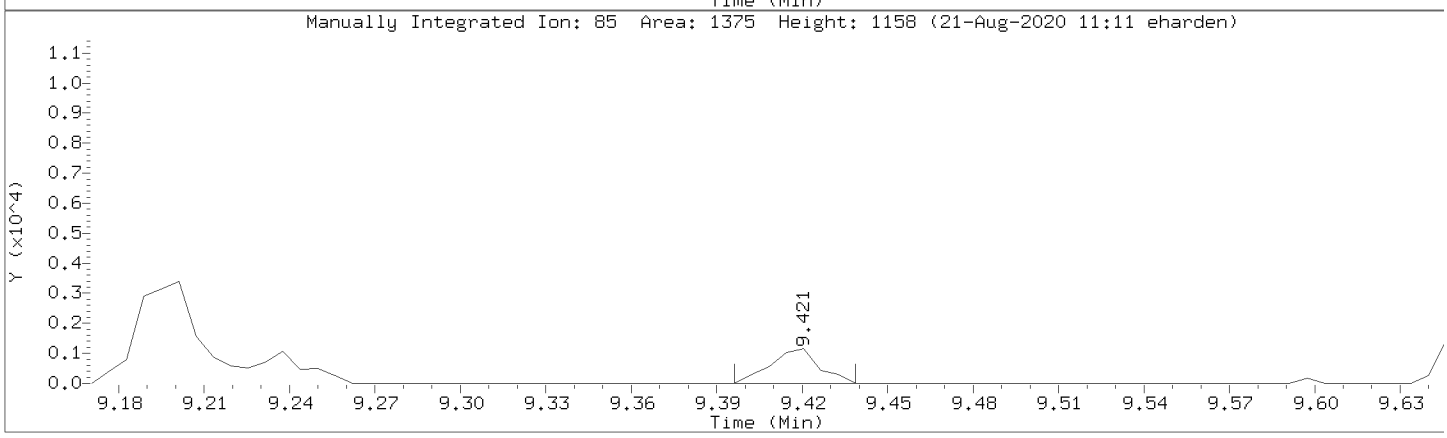
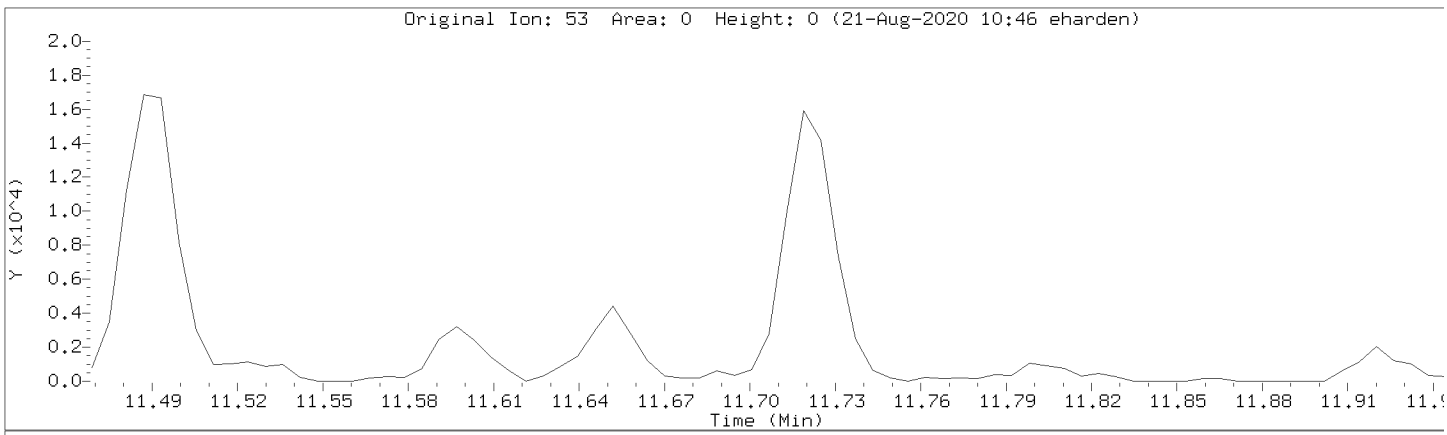
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

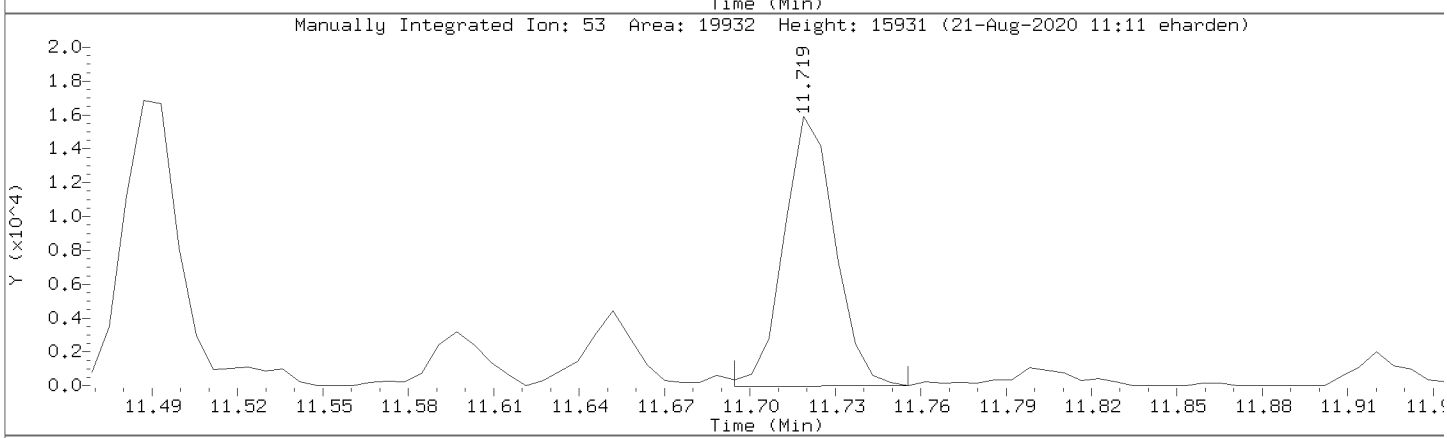


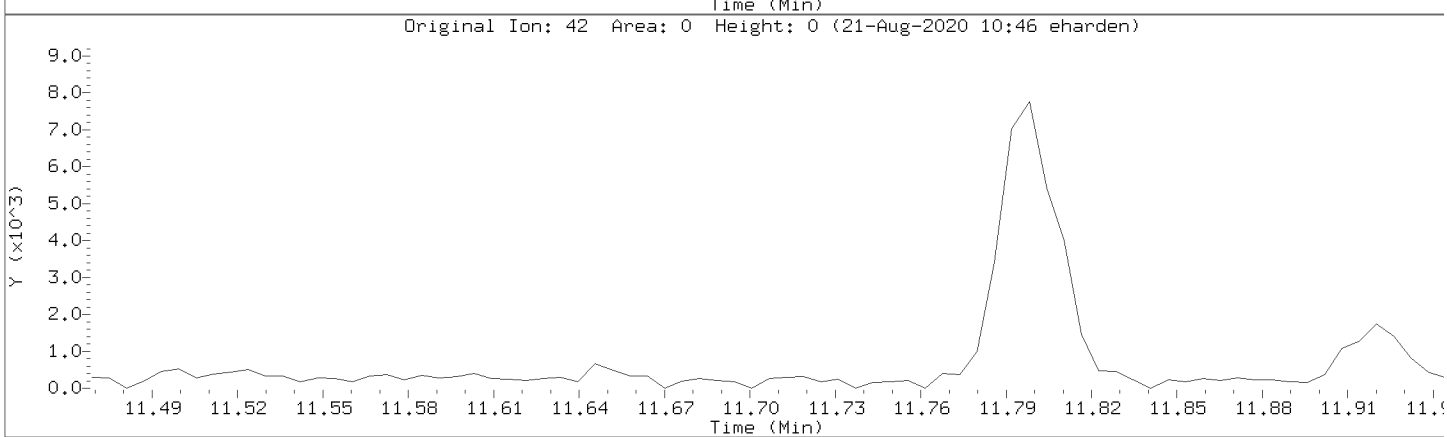


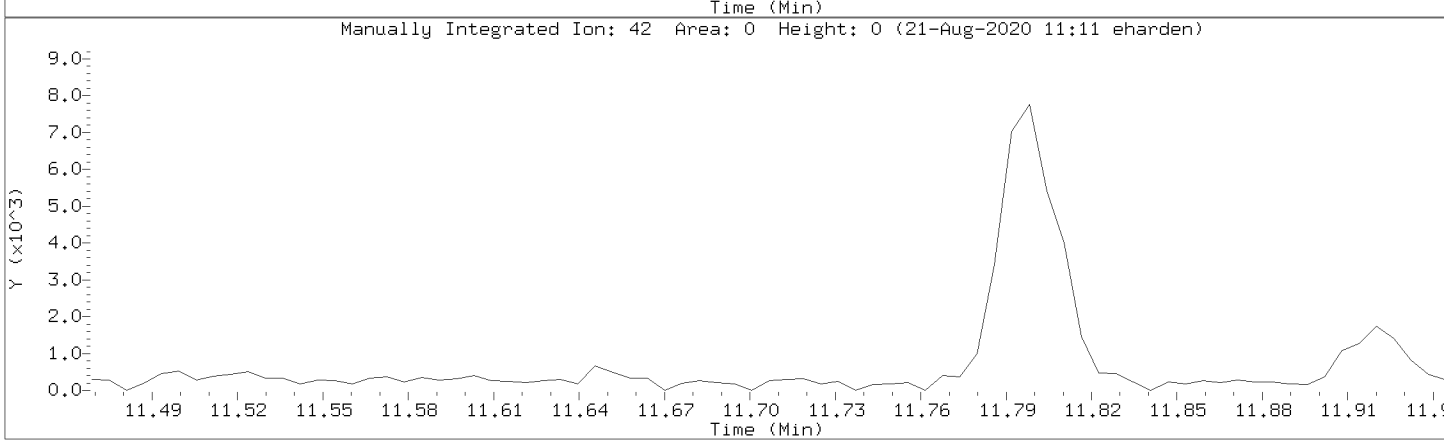
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_18.D
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6

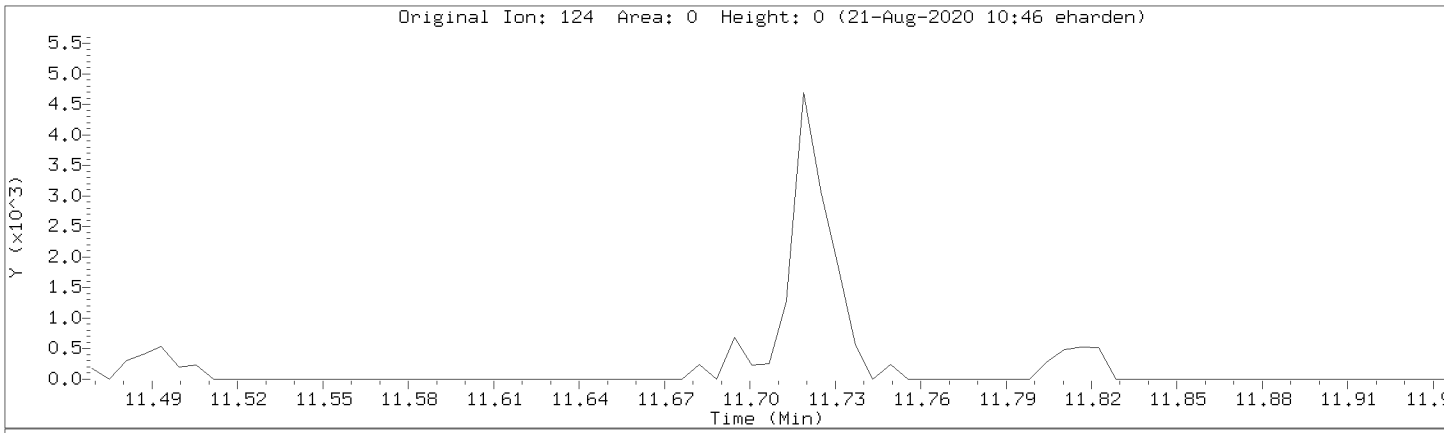


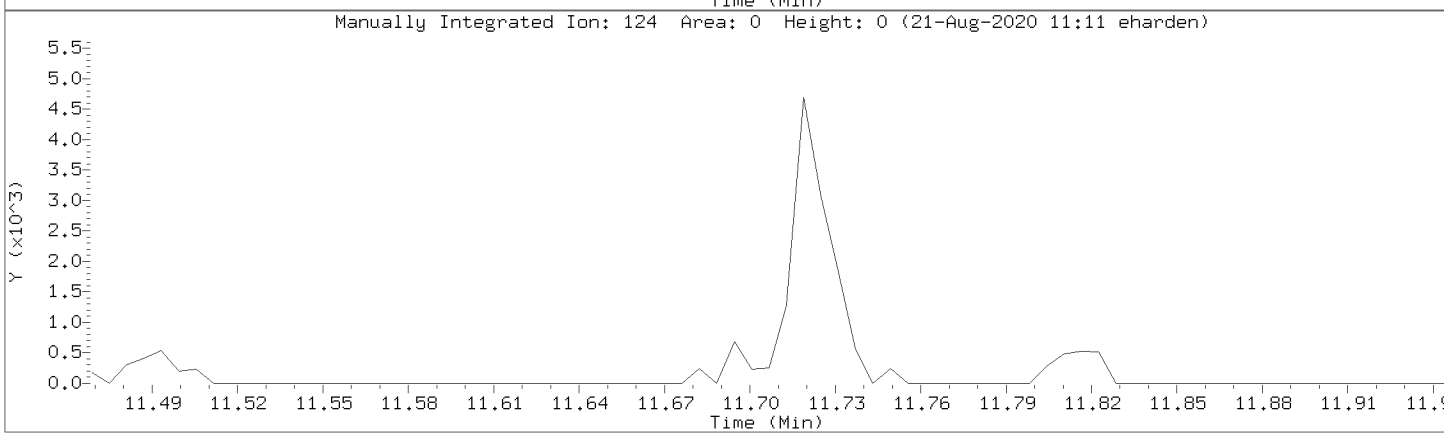






Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_18.D
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV





Pace Analytical Services, Inc.

SW846 8260

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Inj Date : 27-AUG-2020 11:34
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Smp Info : ccv,27136:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082720.b\8260BSM_082020.m
Meth Date : 27-Aug-2020 12:16 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.208	(0.408)	38295	20.0000	14.7	
2 Chloromethane	50	3.537	3.537	(0.450)	63161	20.0000	20.2	
3 Vinyl chloride	62	3.690	3.690	(0.469)	44894	20.0000	17.5	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	39530	20.0000	17.3	
5 Bromomethane	94	4.196	4.196	(0.534)	50012	20.0000	24.1	
6 Chloroethane	64	4.360	4.360	(0.555)	15886	20.0000	21.8	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	36960	20.0000	22.7	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	16569	20.0000	18.5	
9 1,1-Dichloroethene	61	5.232	5.232	(0.666)	57426	20.0000	19.8	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	39535	20.0000	20.7	
11 Carbon disulfide	76	5.293	5.293	(0.673)	123492	20.0000	19.3	
12 Iodomethane	142	5.439	5.439	(0.692)	15094	20.0000	14.2	
13 Acrolein	56	5.659	5.659	(0.720)	9290	40.0000	31.1	
14 Allyl chloride	76	5.787	5.787	(0.736)	16203	20.0000	18.2	
15 Methylene Chloride	49	5.903	5.903	(0.751)	64787	20.0000	18.8	
16 Acetone	43	5.970	5.970	(0.760)	73134	40.0000	42.6	
17 Methyl acetate	43	6.067	6.067	(0.772)	70187	40.0000	34.9	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	36430	20.0000	18.6	
19 n-Hexane	86	6.110	6.110	(0.777)	3950	20.0000	19.1	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	88257	20.0000	19.4	
21 Acetonitrile	41	6.457	6.457	(0.822)	9065	40.0000	49.6	
22 Chloroprene	53	6.640	6.640	(0.845)	52711	20.0000	19.3	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	77921	20.0000	20.5	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	30416	40.0000	36.8	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	64484	20.0000	17.2(TM)	CO
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	53646	20.0000	19.2	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	61267	20.0000	20.9	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	25682	20.0000	21.0	
	29 Cyclohexane	56	7.335	7.335	(0.882)	44347	20.0000	18.3	
	30 Chloroform	83	7.372	7.372	(0.938)	90357	20.0000	21.0	
	31 Ethyl acetate	43	7.427	7.427	(0.945)	88249	40.0000	36.4	
	32 Carbon tetrachloride	117	7.506	7.506	(0.902)	65156	20.0000	22.8	
	33 Tetrahydrofuran	42	7.524	7.524	(0.957)	23581	40.0000	37.9	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	121319	50.0000	48.8	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	72855	20.0000	22.5	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	72629	40.0000	39.2	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	45207	20.0000	20.1	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	215726	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	151218	20.0000	20.8	
	40 Propionitrile	54	7.896	7.896	(1.005)	14325	40.0000	39.0	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	72325	40.0000	38.7	
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21885	50.0000	49.0	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	68676	20.0000	20.4	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	75310	20.0000	18.8	
	46 Trichloroethene	130	8.317	8.317	(1.000)	42090	20.0000	21.2	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	284163	50.0000		
	48 Methylcyclohexane	98	8.317	8.317	(1.000)	19048	20.0000	20.2	
	49 n-Butanol	56	8.518	8.518	(1.024)	1805	40.0000	41.6(M)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	37046	20.0000	21.9	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	42111	20.0000	20.3	
	52 Bromodichloromethane	83	8.762	8.762	(1.054)	67854	20.0000	22.8	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	19333	20.0000	16.5	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						(D)
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	28631	40.0000	27.9	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	60699	20.0000	20.9	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	306126	50.0000	50.0	
	58 Toluene	91	9.414	9.414	(1.132)	145737	20.0000	20.6	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	12527	20.0000	17.5	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	8003	40.0000	39.4	
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	60699	20.0000	21.0	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	41085	20.0000	22.8	
	63 Ethyl methacrylate	69	9.755	9.755	(1.173)	38109	20.0000	17.1	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	35563	20.0000	19.8	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	56369	20.0000	22.5	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	55554	20.0000	20.3	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	45425	20.0000	21.2	
	68 2-Hexanone	43	10.274	10.274	(1.235)	106340	40.0000	44.3	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	133504	20.0000	19.4	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	263069	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	103358	20.0000	20.4	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	46539	20.0000	21.7	
	73 m&p-Xylene	91	10.652	10.652	(1.009)	233192	40.0000	39.0	
	74 o-Xylene	106	10.993	10.993	(1.041)	46836	20.0000	16.9	
	75 Styrene	104	11.030	11.030	(1.044)	82563	20.0000	17.1	
	76 Bromoform	173	11.097	11.097	(1.051)	50786	20.0000	21.4	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.219	11.219	(1.062)	74031	20.0000	17.9	
$ 78 4-Bromofluorobenzene (S)	95	11.469	11.469	(1.086)	107720	50.0000	49.9	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	17452	20.0000	20.2	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	174400	20.0000	20.7	
81 Bromobenzene	156	11.578	11.578	(1.096)	58747	20.0000	22.1	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	58560	20.0000	20.8	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	115287	20.0000	20.0	
84 2-Chlorotoluene	126	11.688	11.688	(1.107)	40563	20.0000	20.4	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	38147	20.0000	19.0	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	123733	20.0000	17.4	
87 1,2,3-Trichloropropane	75	11.718	11.718	(1.110)	61074	20.0000	20.8(M)	CO
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	14478	20.0000	21.4(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	108914	20.0000	16.5	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	119431	20.0000	17.9	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	135785	20.0000	17.2	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	108914	20.0000	16.5	
94 1,3-Dichlorobenzene	146	12.285	12.285	(0.996)	94052	20.0000	20.2	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	174819	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	99609	20.0000	19.0	
97 n-Butylbenzene	91	12.481	12.481	(1.011)	117727	20.0000	19.3	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	94726	20.0000	18.6	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	10690	20.0000	18.7	
100 Hexachloro-1,3-butadiene	225	13.816	13.816	(1.120)	29845	20.0000	19.1	
101 1,2,4-Trichlorobenzene	180	13.889	13.889	(1.125)	62082	20.0000	18.0	
102 Naphthalene	128	14.194	14.194	(1.150)	96960	20.0000	14.6	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	59099	20.0000	18.5	

QC Flag Legend

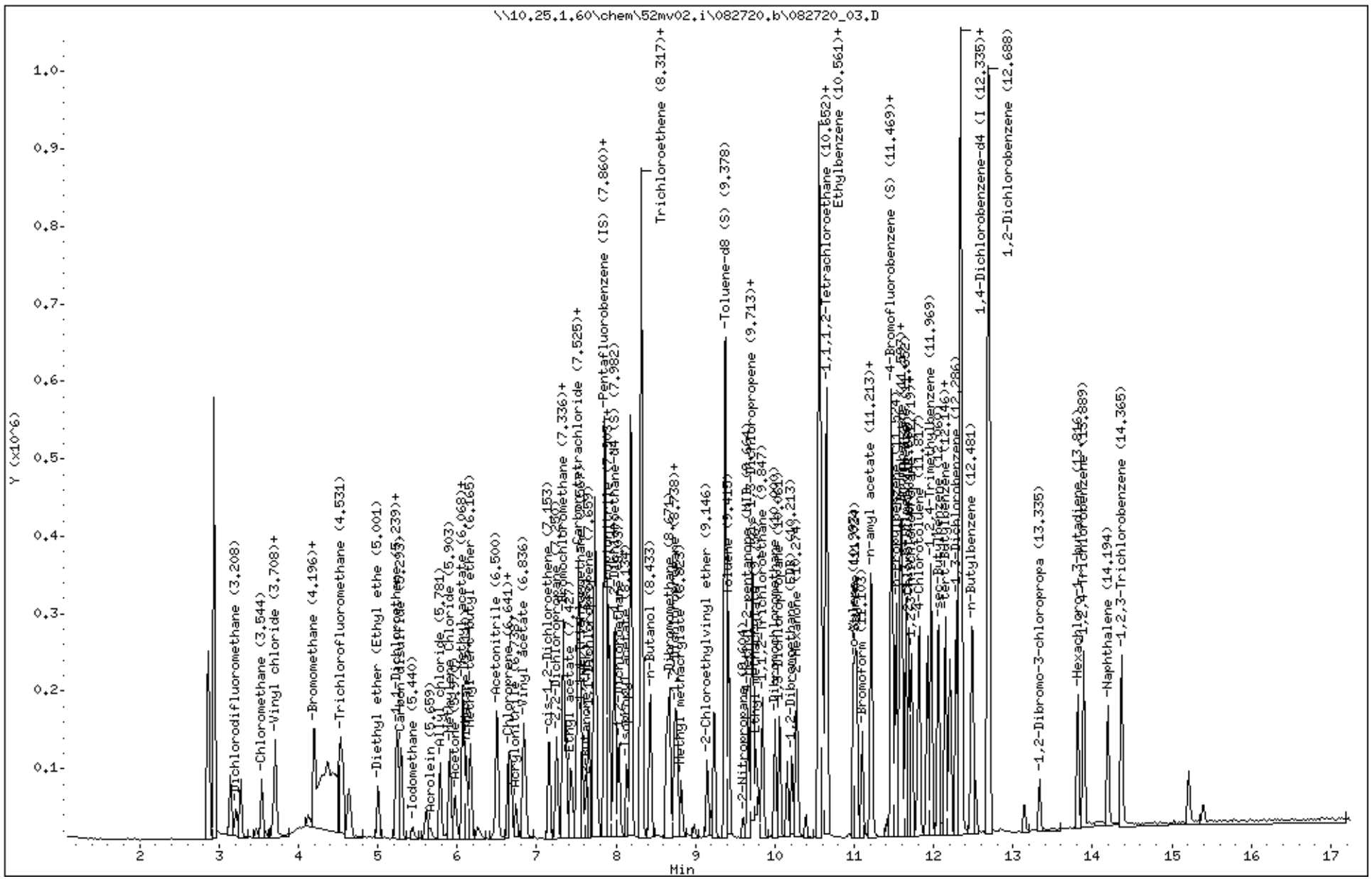
T - Target compound detected outside RT window.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_03.D
Date : 27-AUG-2020 11:34
Client ID: CCV
Sample Info: CCV,27136:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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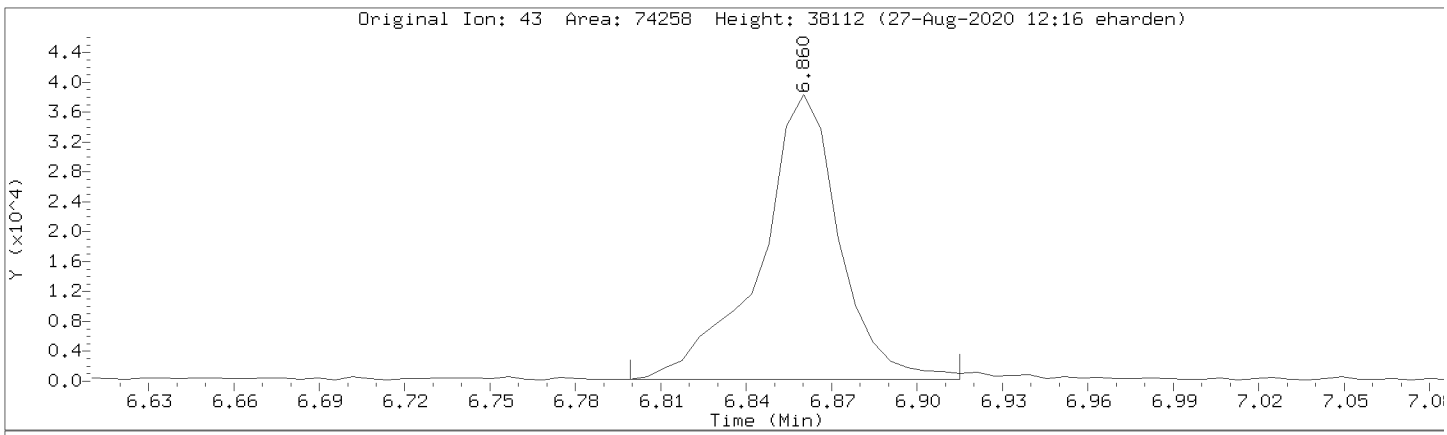
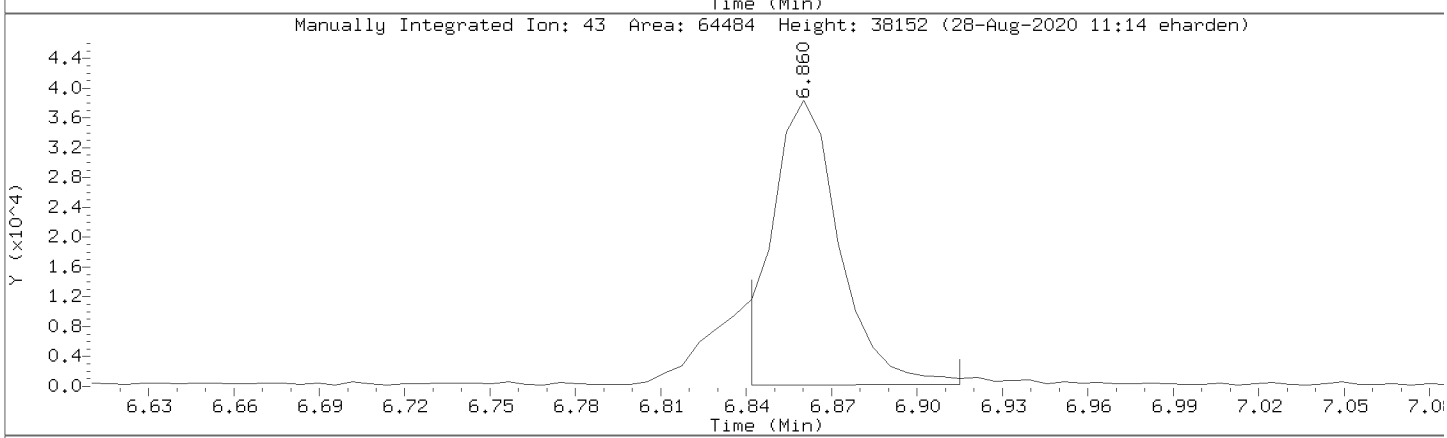
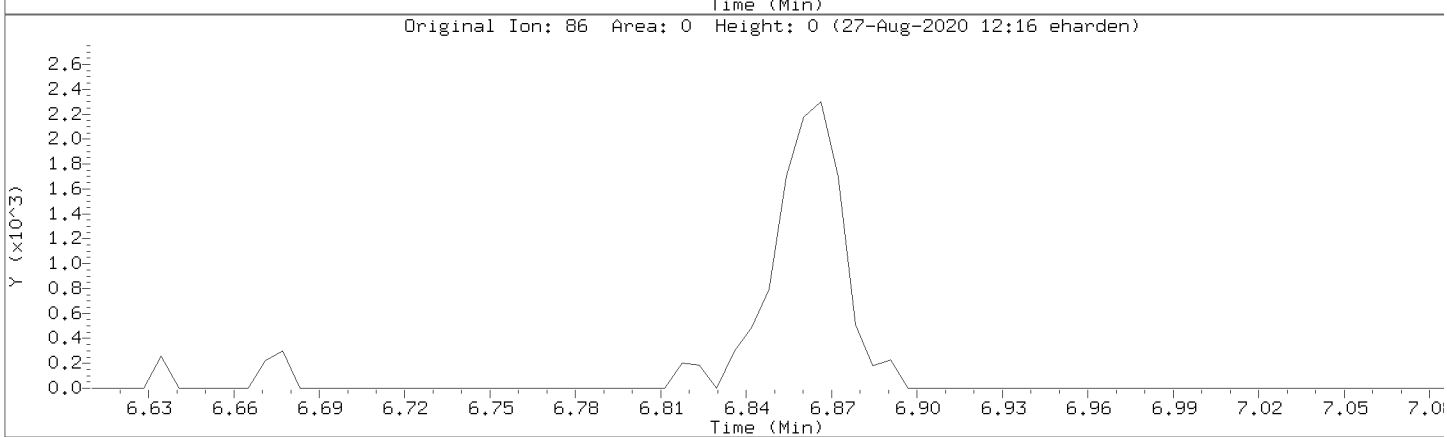
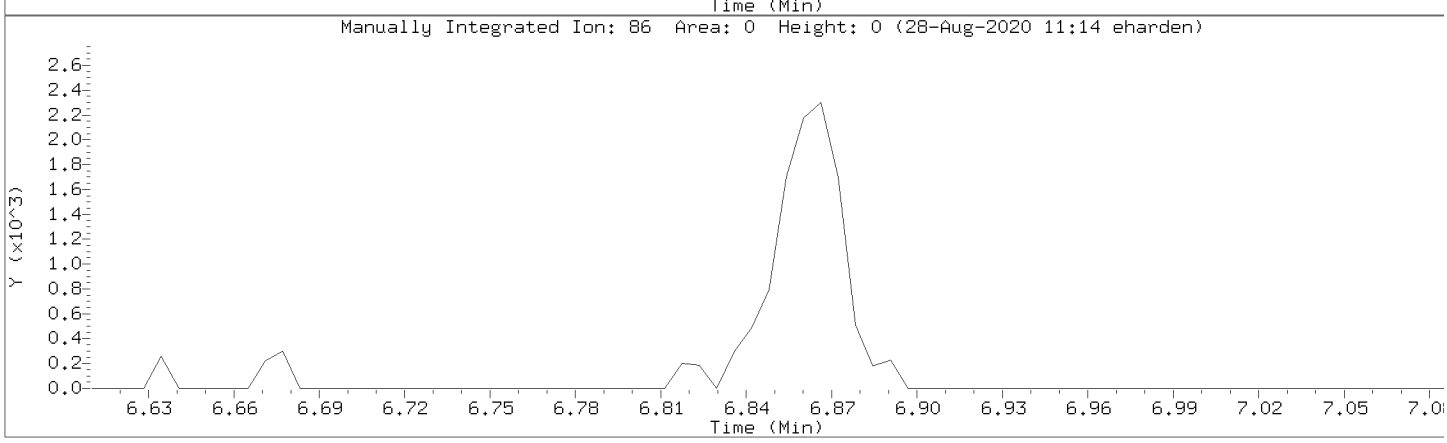
Injection Date: 27-AUG-2020 11:34
Instrument: 52mv02.i
Lab Sample ID: CCV

Compound: Vinyl acetate Review Code: CO
CAS Number: 108-05-4









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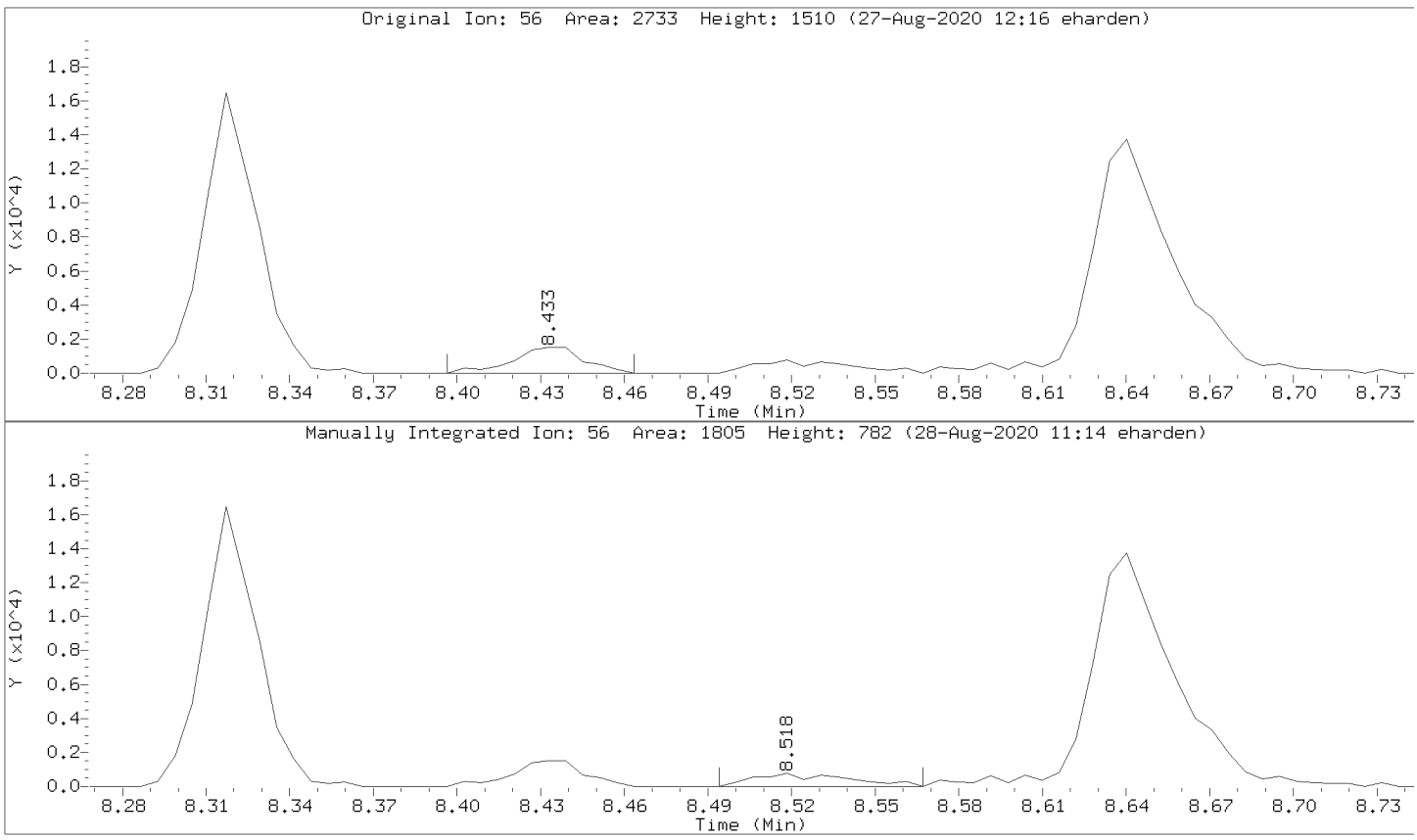
Injection Date: 27-AUG-2020 11:34
Instrument: 52mv02.i
Lab Sample ID: CCV

Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3



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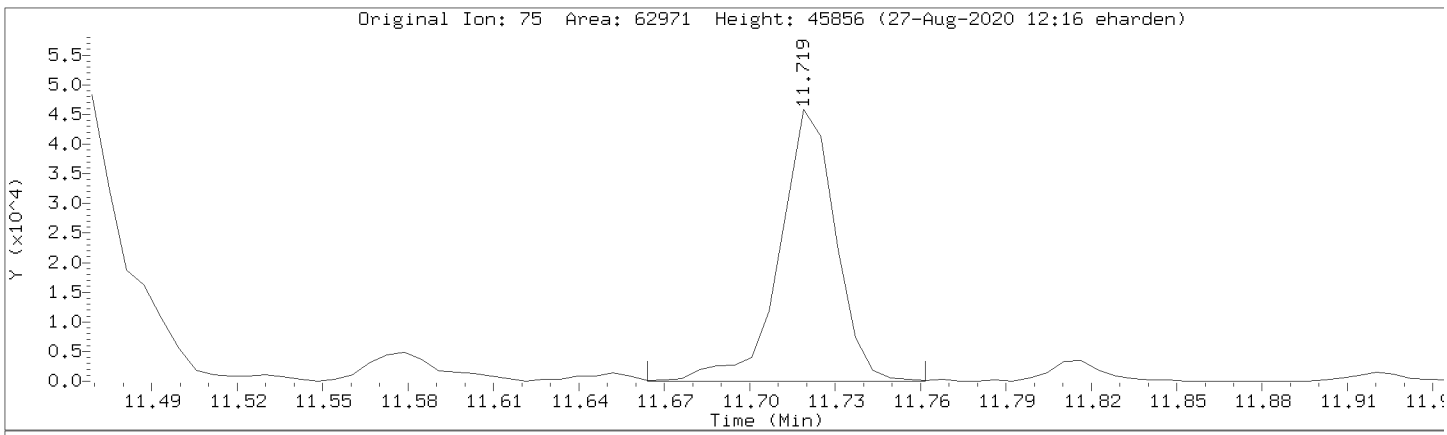
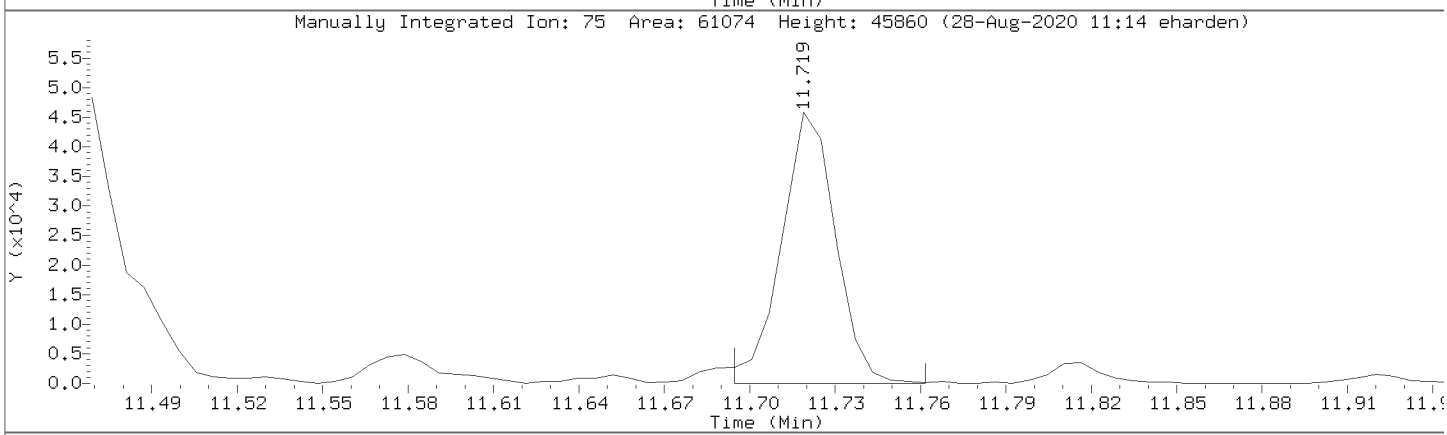
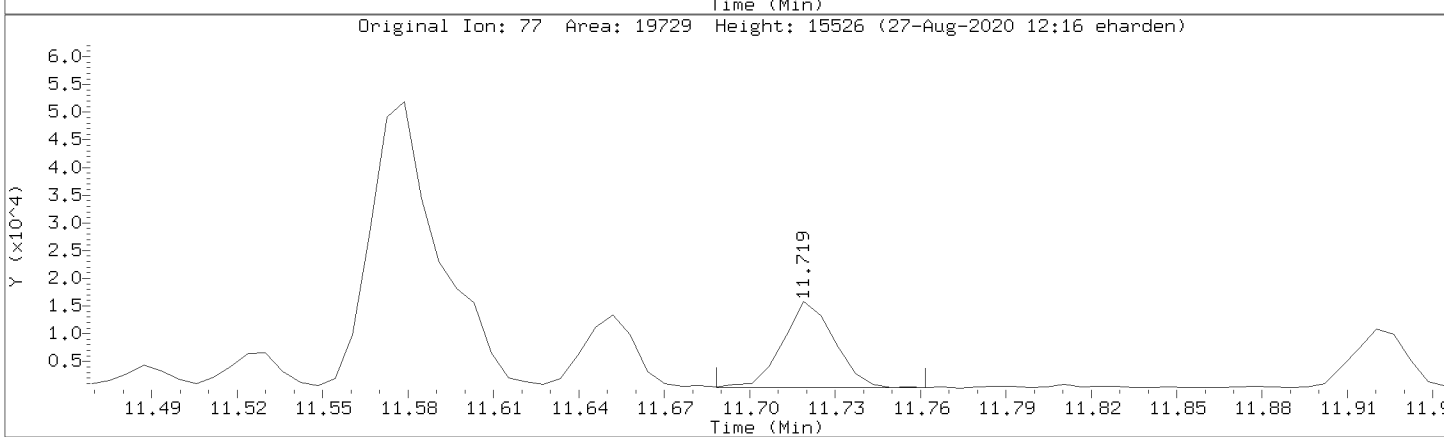
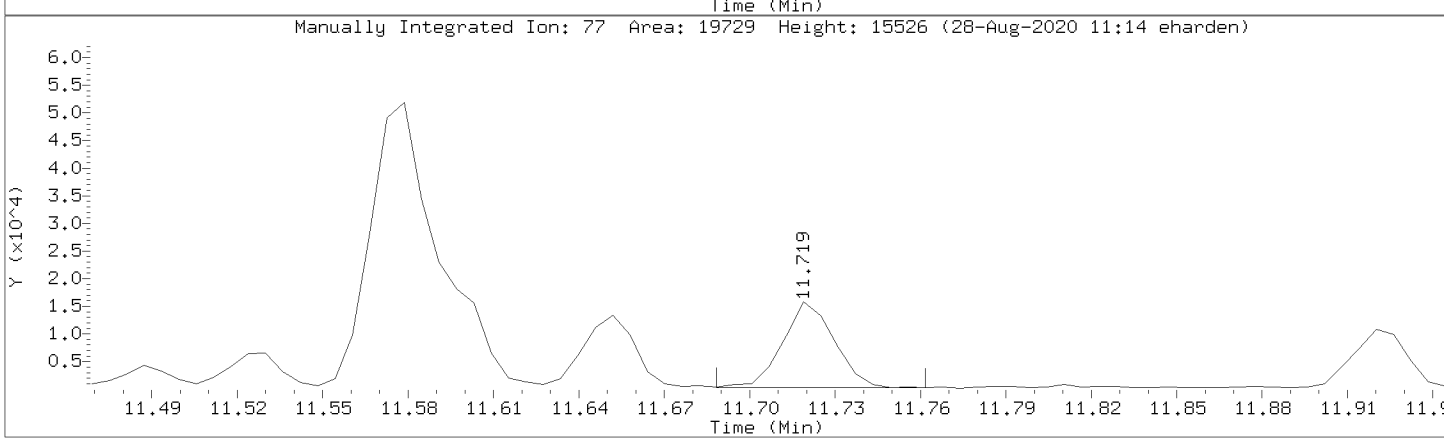
Injection Date: 27-AUG-2020 11:34
Instrument: 52mv02.i
Lab Sample ID: CCV

Compound: 1,2,3-Trichloropropane Review Code: CO
CAS Number: 96-18-4









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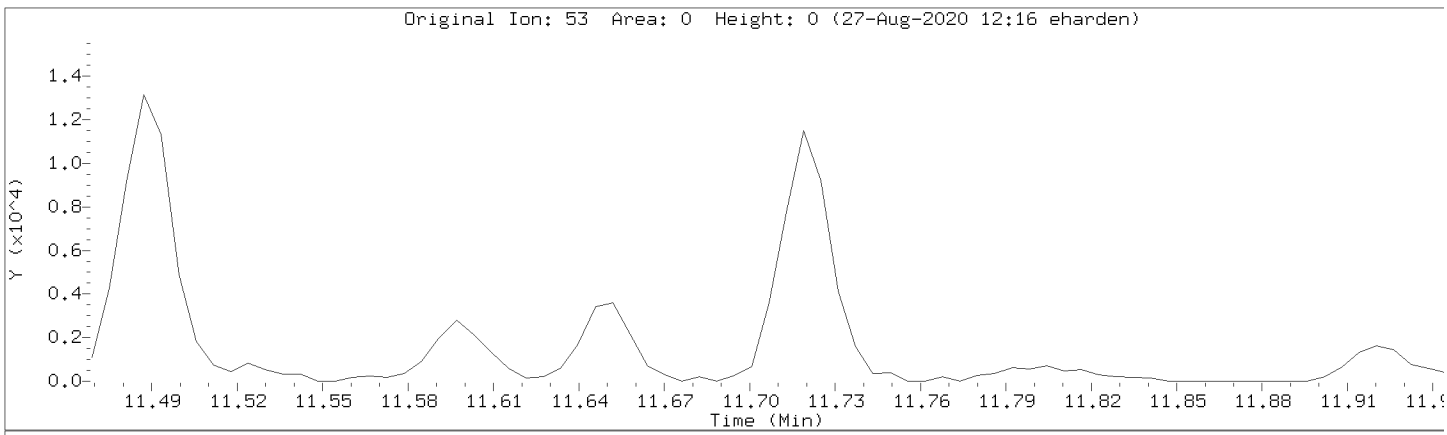
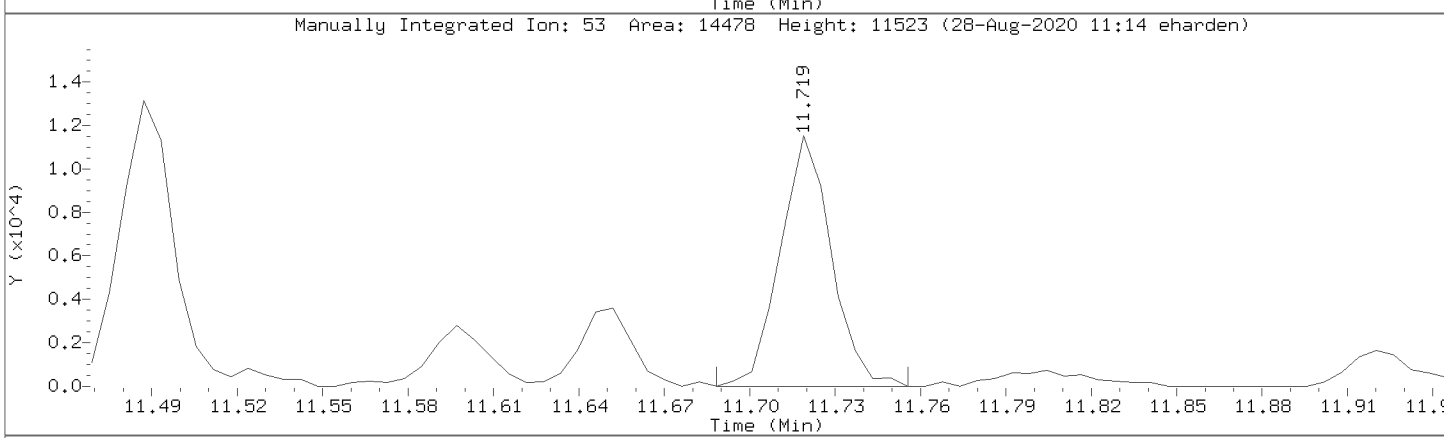
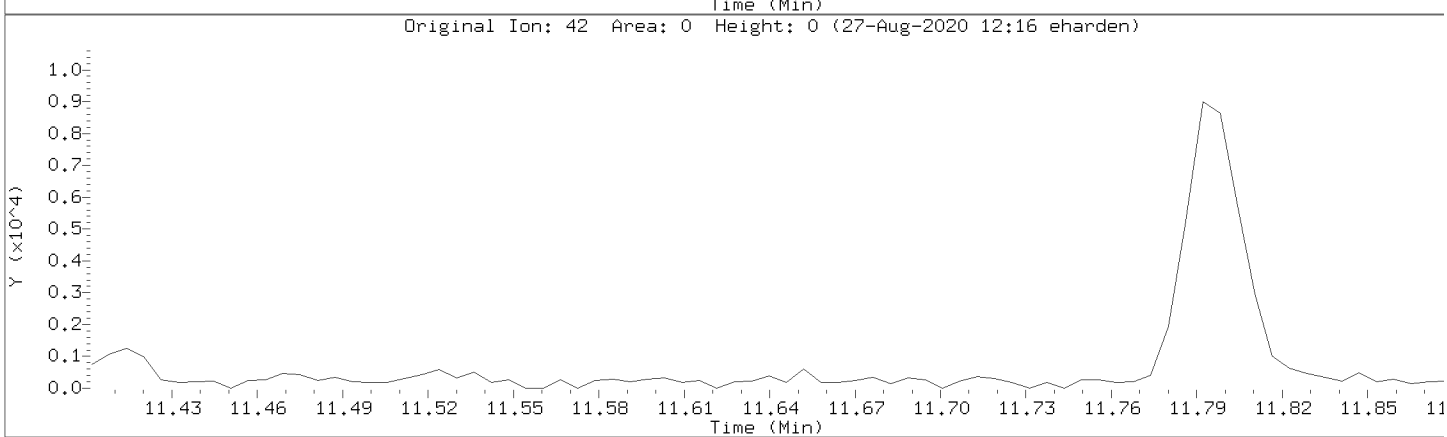
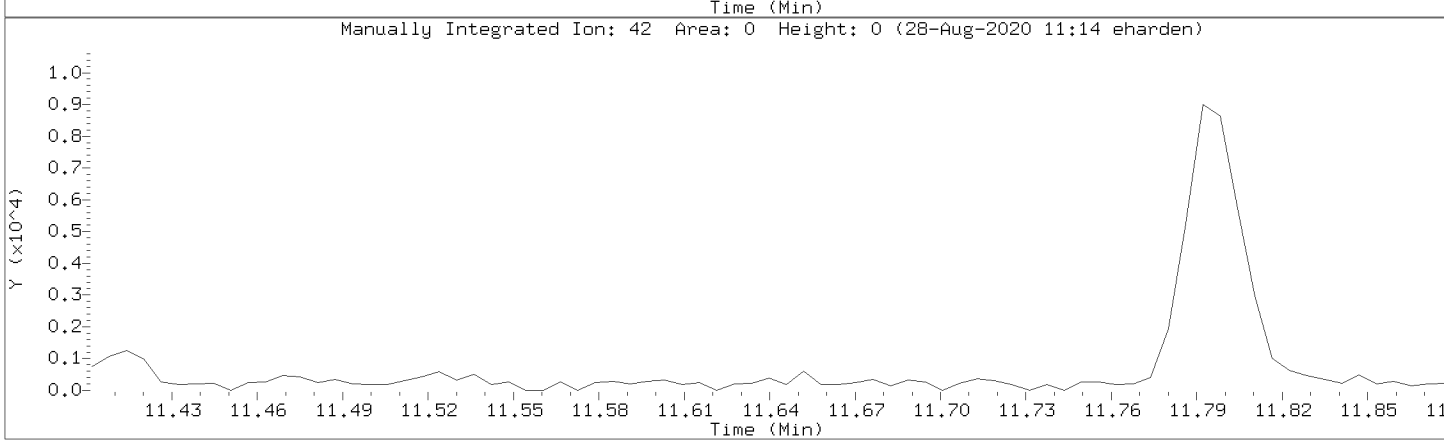
Injection Date: 27-AUG-2020 11:34
Instrument: 52mv02.i
Lab Sample ID: CCV

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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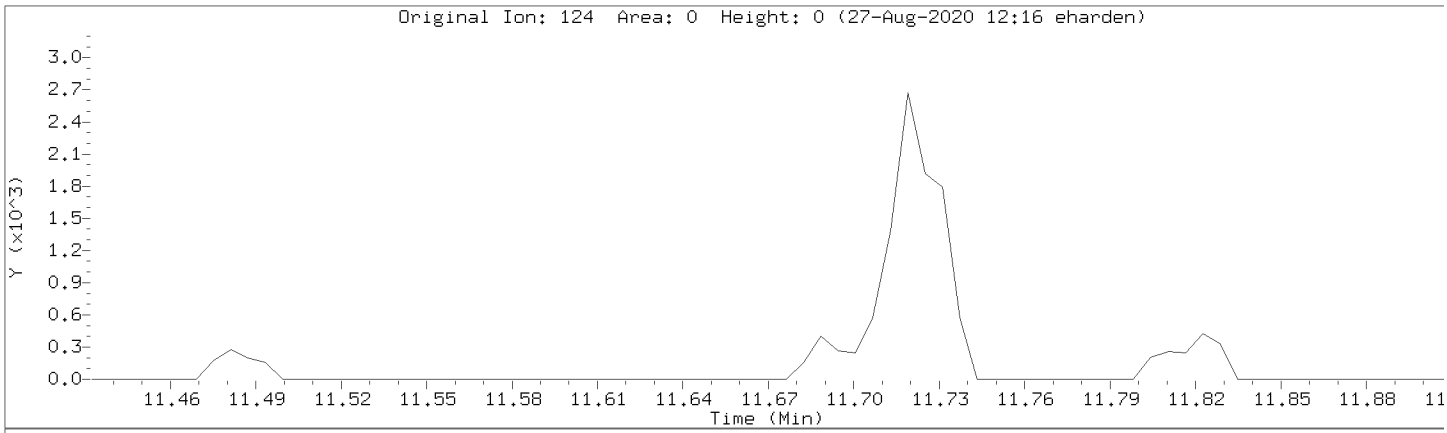
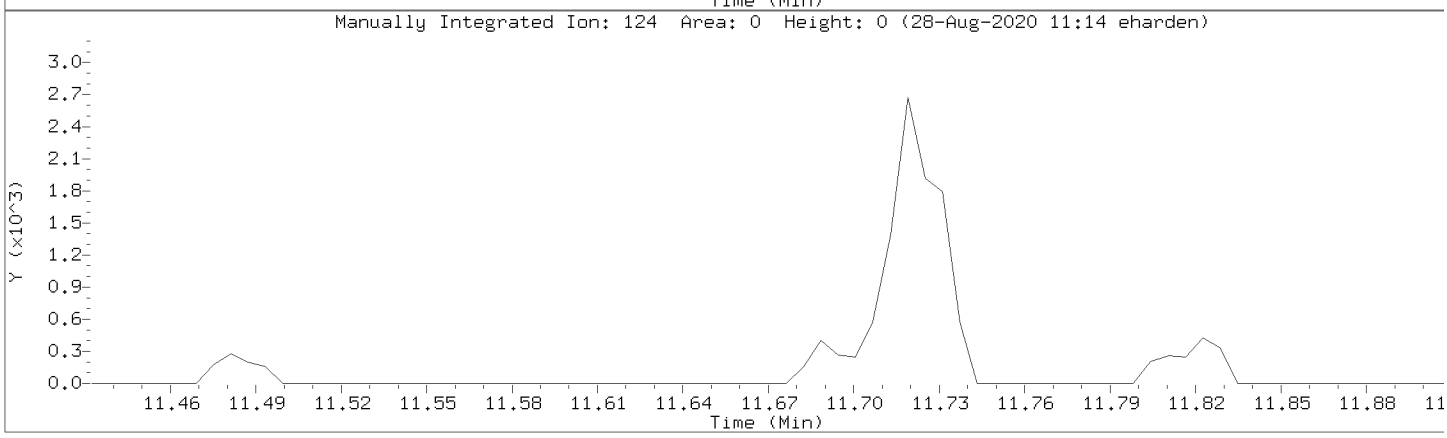
Injection Date: 27-AUG-2020 11:34
Instrument: 52mv02.i
Lab Sample ID: CCV





Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_01.D

Date : 20-AUG-2020 09:57

Client ID: BFB

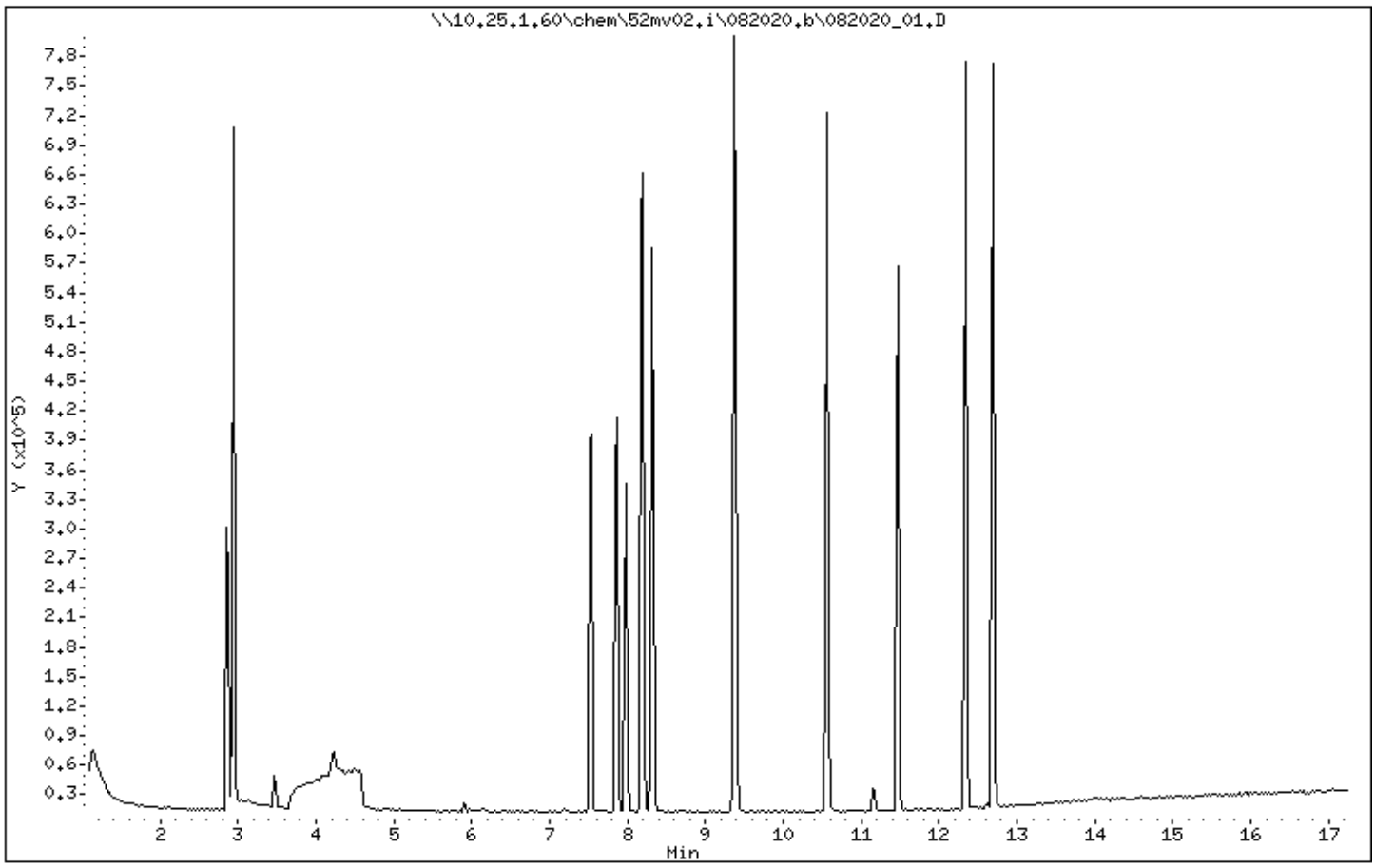
Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_01.D

Date : 20-AUG-2020 09:57

Client ID: BFB

Instrument: 52mv02.i

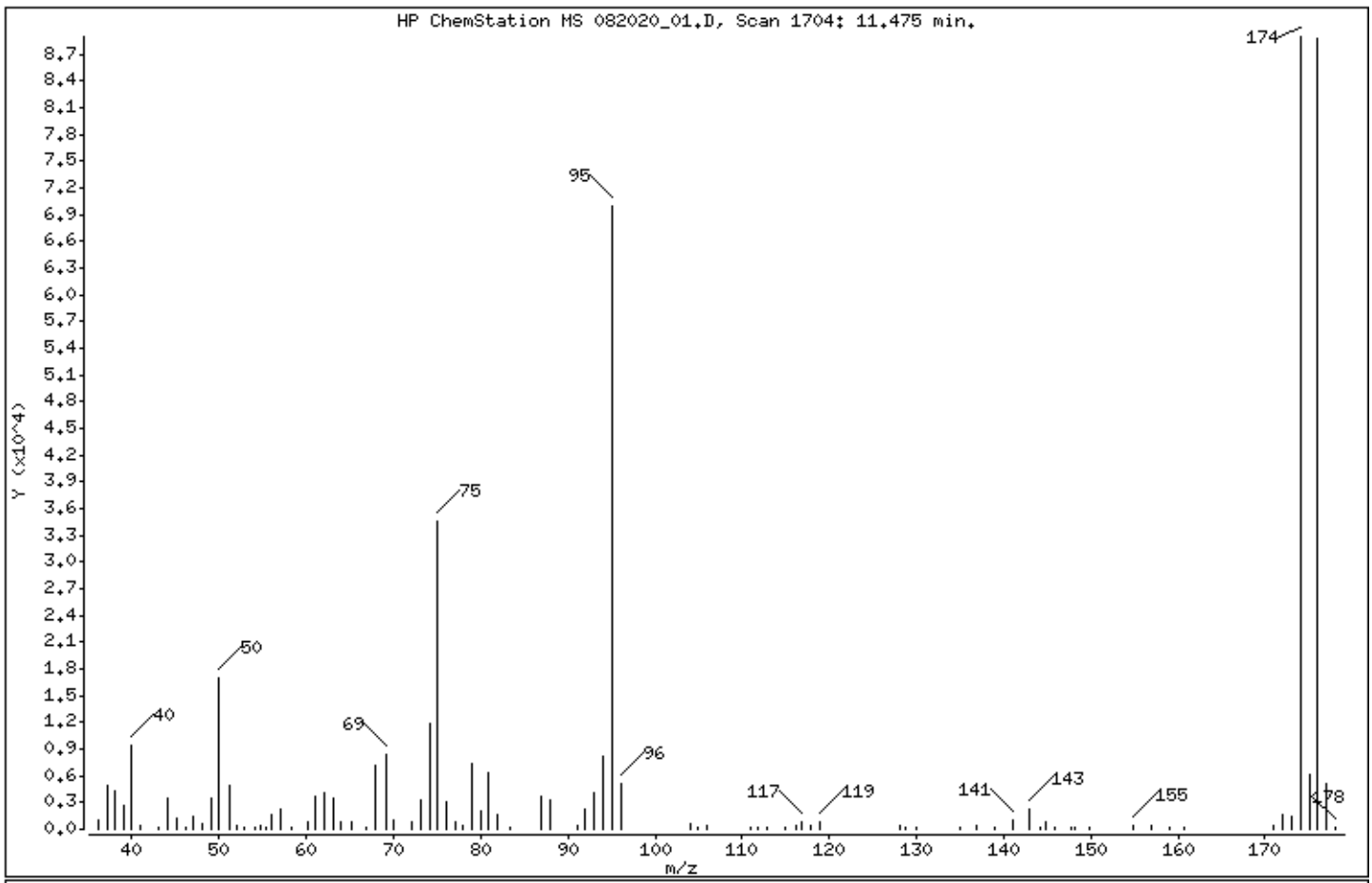
Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	24.30
75	30.00 - 60.00% of mass 95	49.31
96	5.00 - 9.00% of mass 95	7.36
173	Less than 2.00% of mass 174	2.18 (1.71)
174	Greater than 50.00% of mass 95	127.30
175	5.00 - 9.00% of mass 174	8.81 (6.92)
176	95.00 - 101.00% of mass 174	127.12 (99.86)
177	5.00 - 9.00% of mass 176	7.18 (5.65)

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_01.D

Date : 20-AUG-2020 09:57

Client ID: BFB

Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

Data File: 082020_01.D
Spectrum: HP ChemStation MS 082020_01.D, Scan 1704: 11.475 min.
Location of Maximum: 174.00
Number of points: 90

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	1098	60.10	905	87.90	3288	138.90	166
37.10	4897	61.10	3589	91.10	457	141.00	1123
38.10	4243	62.10	4175	92.00	2173	143.00	2215
39.00	2667	63.10	3523	93.00	4038	144.20	186
40.00	9368	63.90	778	94.10	8248	144.90	869
40.90	361	65.10	918	95.10	69920	145.90	188
43.00	292	66.90	193	96.10	5147	147.80	240
44.10	3452	68.00	7096	104.00	555	148.20	197
45.10	1204	69.10	8359	105.00	169	149.80	174
46.10	287	70.10	938	105.90	381	154.80	333
47.00	1467	72.00	732	110.90	175	156.90	307
48.00	627	73.10	3315	111.90	187	159.00	184
49.10	3548	74.10	11905	112.90	178	160.80	185
50.00	16992	75.10	34480	115.00	269	171.00	332
51.10	4943	76.00	3077	116.10	308	172.00	1687
52.00	318	77.10	845	116.90	765	173.00	1525
52.90	284	77.90	421	117.90	509	174.00	89008
54.10	194	78.90	7291	118.90	747	175.10	6163
54.80	315	80.00	1995	128.10	499	176.00	88880
55.30	249	80.90	6439	128.80	229	177.00	5023
56.10	1661	82.00	1621	130.00	283	178.10	199
57.10	2297	83.30	177	134.90	164		
58.20	201	87.00	3615	136.90	329		

Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_03TUNE.D

Date : 27-AUG-2020 11:34

Client ID: BFB

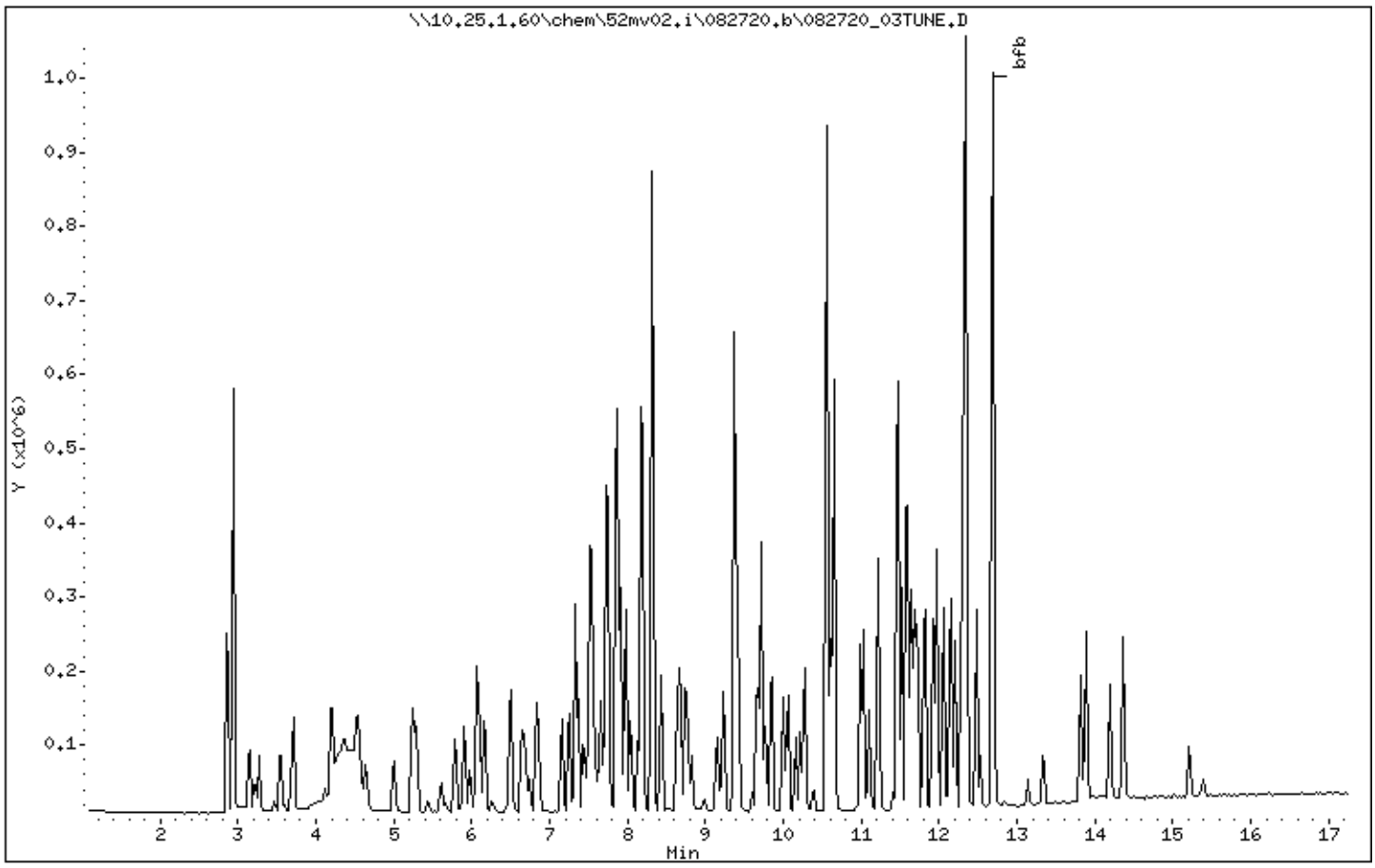
Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_03TUNE.D

Date : 27-AUG-2020 11:34

Client ID: BFB

Instrument: 52mv02.i

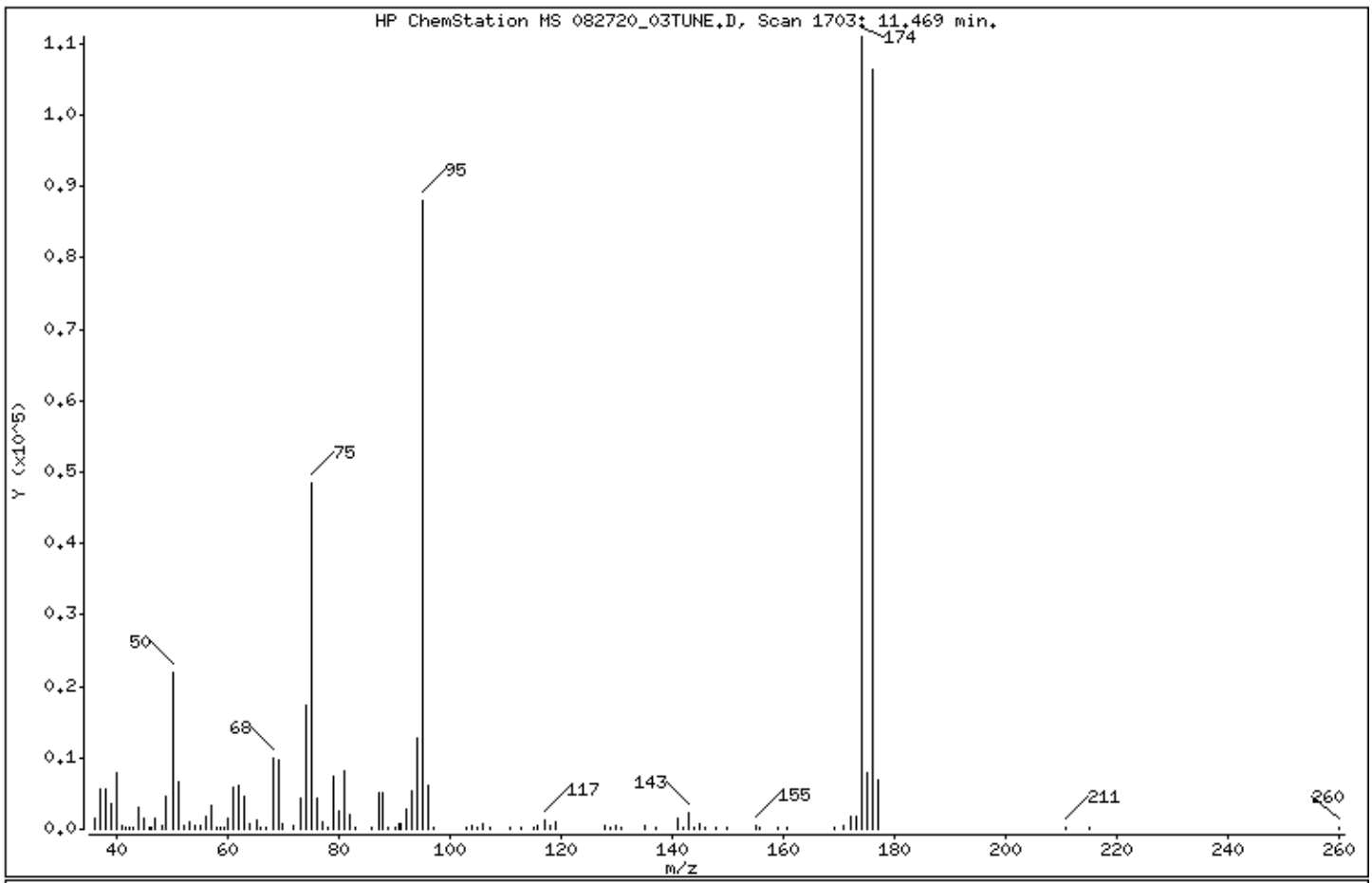
Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	24.90
75	30.00 - 60.00% of mass 95	54.94
96	5.00 - 9.00% of mass 95	7.06
173	Less than 2.00% of mass 174	1.92 (1.52)
174	Greater than 50.00% of mass 95	126.10
175	5.00 - 9.00% of mass 174	9.04 (7.17)
176	95.00 - 101.00% of mass 174	120.98 (95.94)
177	5.00 - 9.00% of mass 176	7.84 (6.48)

Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_03TUNE.D

Date : 27-AUG-2020 11:34

Client ID: BFB

Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

Data File: 082720_03TUNE.D
Spectrum: HP ChemStation MS 082720_03TUNE.D, Scan 1703: 11.469 min.
Location of Maximum: 174.00
Number of points: 105

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	1564	60.00	1473	90.10	248	137.20	257
37.10	5652	61.00	5808	90.90	662	141.00	1429
38.10	5540	62.10	6230	91.10	670	142.00	323
39.10	3540	63.10	4614	92.10	2783	142.90	2171
40.00	7964	64.10	847	93.10	5306	144.00	282
41.10	444	65.10	1308	94.10	12650	145.00	768
41.80	210	66.00	231	95.10	87984	145.80	328
42.20	263	66.90	318	96.10	6215	147.90	361
43.10	279	68.10	9849	97.20	245	150.00	163
44.00	2976	69.10	9803	103.00	213	155.00	457
45.00	1421	70.00	816	103.90	607	155.80	152
45.90	179	71.90	525	104.90	269	159.00	187
46.20	203	73.10	4245	105.90	760	160.80	192
47.00	1536	74.10	17224	107.10	219	169.10	193
48.20	593	75.10	48336	110.80	202	170.90	388
49.00	4498	76.00	4392	111.00	199	172.00	1844
50.10	21904	77.00	1022	112.90	238	173.00	1687
51.10	6580	78.10	325	115.00	182	174.00	110944
52.00	527	79.00	7381	115.90	448	175.00	7955
53.10	1077	80.00	2659	117.10	1202	176.00	106440
54.00	460	81.00	8047	118.10	561	177.00	6895
55.00	427	81.90	2094	118.90	1023	210.90	217
56.10	1787	83.00	281	128.00	410	215.00	152
57.10	3197	85.80	171	128.80	203	260.00	308
58.10	199	87.10	4985	129.80	458		
58.70	152	88.00	4979	130.80	224		
59.20	289	88.90	303	135.10	432		

SAMPLE NO.

BLANK

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 10:38
Lab Sample ID: 205215
Date Analyzed: 08/27/2020 12:50
Lab File ID: 082720.B\082720_06.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

BLANK

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 10:38
Lab Sample ID: 205215
Date Analyzed: 08/27/2020 12:50
Lab File ID: 082720.B\082720_06.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082720.b\082720_06.D
Lab Smp Id: 205215 Client Smp ID: MB
Inj Date : 27-AUG-2020 12:50
Operator : EAH Inst ID: 52mv02.i
Smp Info : 205215,
Misc Info : 2991,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082720.b\8260BSM_082020.m
Meth Date : 27-Aug-2020 12:16 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						
7 Trichlorofluoromethane	101	Compound Not Detected.						
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	117223	54.4730	54.5	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	186906	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21067	54.4192	54.4	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	260881	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	275613	49.0773	49.1	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	230629	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.469	(1.086)	86464	45.6817	45.7	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	126392	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

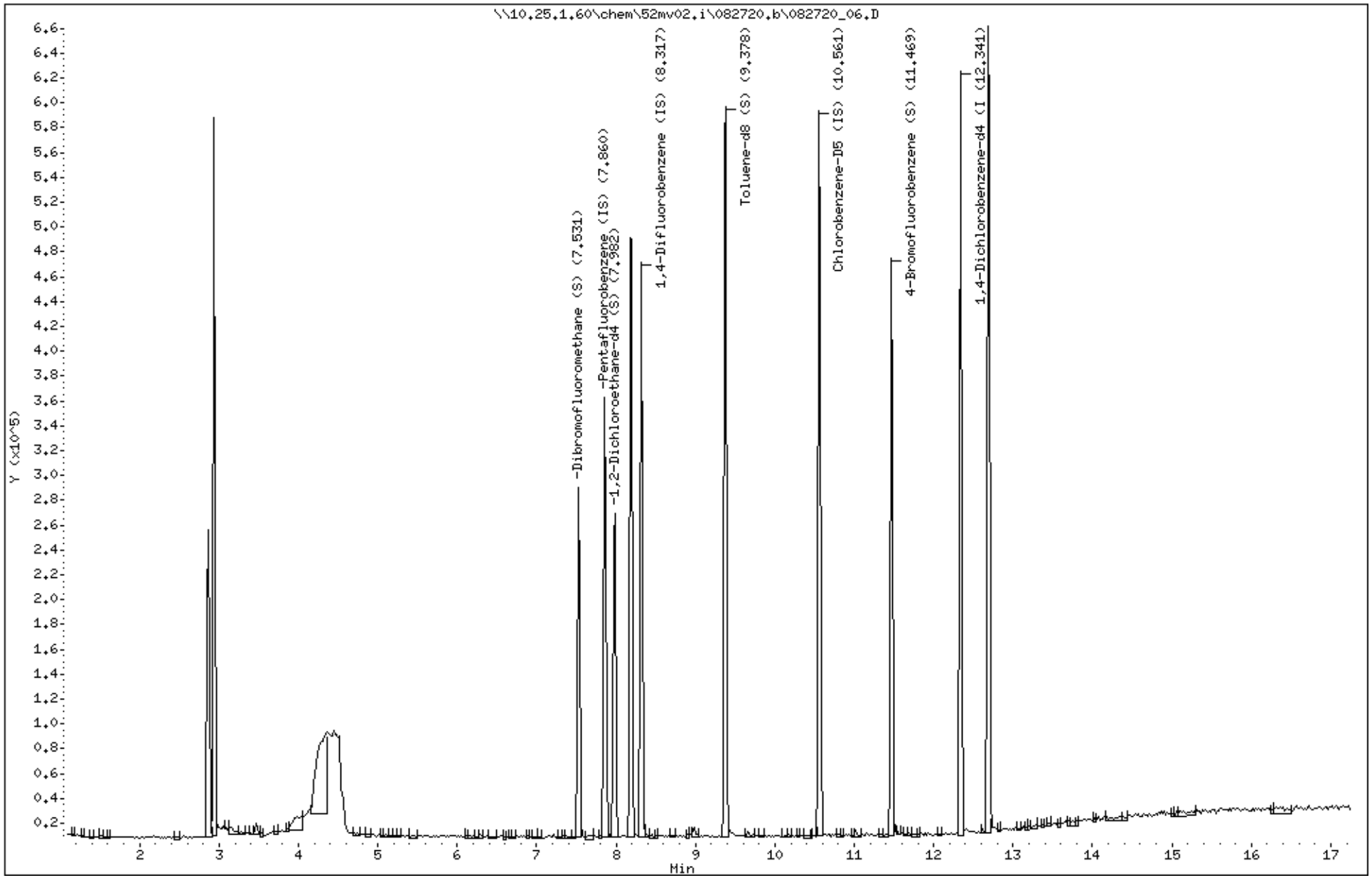
Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_06.D
Date : 27-AUG-2020 12:50
Client ID: MB
Sample Info: 205215,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082720.b/082720_06.D
Injection Date: 27-AUG-2020 12:50
Instrument: 52mv02.i
Lab Sample ID: 205215
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

LCS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 10:38
Lab Sample ID: 205216
Date Analyzed: 08/27/2020 11:34
Lab File ID: 082720.B\082720_03B2991.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	1070	
75-05-8	Acetonitrile	1240	
107-02-8	Acrolein	778	
107-13-1	Acrylonitrile	921	
71-43-2	Benzene	520	
108-86-1	Bromobenzene	552	
74-97-5	Bromochloromethane	525	
75-27-4	Bromodichloromethane	569	
75-25-2	Bromoform	534	
74-83-9	Bromomethane	603	
78-93-3	2-Butanone (MEK)	981	
104-51-8	n-Butylbenzene	483	
135-98-8	sec-Butylbenzene	430	
98-06-6	tert-Butylbenzene	413	
75-15-0	Carbon disulfide	482	
56-23-5	Carbon tetrachloride	569	
108-90-7	Chlorobenzene	509	
75-00-3	Chloroethane	545	
67-66-3	Chloroform	526	
74-87-3	Chloromethane	506	
95-49-8	2-Chlorotoluene	510	
106-43-4	4-Chlorotoluene	476	
96-12-8	1,2-Dibromo-3-chloropropane	467	
124-48-1	Dibromochloromethane	563	
106-93-4	1,2-Dibromoethane (EDB)	529	
74-95-3	Dibromomethane	547	
95-50-1	1,2-Dichlorobenzene	466	
541-73-1	1,3-Dichlorobenzene	505	
106-46-7	1,4-Dichlorobenzene	474	
75-71-8	Dichlorodifluoromethane	368	
75-34-3	1,1-Dichloroethane	513	
107-06-2	1,2-Dichloroethane	509	
75-35-4	1,1-Dichloroethene	496	
156-59-2	cis-1,2-Dichloroethene	479	
156-60-5	trans-1,2-Dichloroethene	466	
78-87-5	1,2-Dichloropropane	507	
142-28-9	1,3-Dichloropropane	507	

SAMPLE NO.

LCS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 10:38
Lab Sample ID: 205216
Date Analyzed: 08/27/2020 11:34
Lab File ID: 082720.B\082720_03B2991.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	523	
563-58-6	1,1-Dichloropropene	502	
10061-01-5	cis-1,3-Dichloropropene	524	
10061-02-6	trans-1,3-Dichloropropene	525	
141-78-6	Ethyl acetate	910	
100-41-4	Ethylbenzene	485	
591-78-6	2-Hexanone	1110	
98-82-8	Isopropylbenzene (Cumene)	436	
99-87-6	p-Isopropyltoluene	413	
75-09-2	Methylene Chloride	471	
108-10-1	4-Methyl-2-pentanone (MIBK)	984	
1634-04-4	Methyl-tert-butyl ether	484	
91-20-3	Naphthalene	365	
103-65-1	n-Propylbenzene	517	
100-42-5	Styrene	428	
630-20-6	1,1,1,2-Tetrachloroethane	543	
79-34-5	1,1,2,2-Tetrachloroethane	520	
127-18-4	Tetrachloroethene	569	
108-88-3	Toluene	514	
87-61-6	1,2,3-Trichlorobenzene	462	
120-82-1	1,2,4-Trichlorobenzene	451	
71-55-6	1,1,1-Trichloroethane	562	
79-00-5	1,1,2-Trichloroethane	495	
79-01-6	Trichloroethene	530	
75-69-4	Trichlorofluoromethane	568	
96-18-4	1,2,3-Trichloropropane	519	
95-63-6	1,2,4-Trimethylbenzene	448	
108-67-8	1,3,5-Trimethylbenzene	499	
108-05-4	Vinyl acetate	429	
75-01-4	Vinyl chloride	438	
1330-20-7	Xylene (Total)	1400	

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082720.b\082720_03B2991.D
Lab Smp Id: 205216 Client Smp ID: MBLCS
Inj Date : 27-AUG-2020 11:34
Operator : EAH Inst ID: 52mv02.i
Smp Info : 205216,
Misc Info : 2991,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082720.b\8260BSM_082020.m
Meth Date : 27-Aug-2020 12:16 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.208	(0.408)	38295	14.7248	14.7	
2 Chloromethane	50	3.537	3.537	(0.450)	63161	20.2374	20.2	
3 Vinyl chloride	62	3.690	3.690	(0.469)	44894	17.5395	17.5	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	39530	17.2718	17.3	
5 Bromomethane	94	4.196	4.196	(0.534)	50012	24.1000	24.1	
6 Chloroethane	64	4.360	4.360	(0.555)	15886	21.7817	21.8	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	36960	22.7131	22.7	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	16569	18.4773	18.5	
9 1,1-Dichloroethene	61	5.232	5.232	(0.666)	57426	19.8465	19.8	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	39535	20.7116	20.7	
11 Carbon disulfide	76	5.293	5.293	(0.673)	123492	19.2844	19.3	
12 Iodomethane	142	5.439	5.439	(0.692)	15094	14.1520	14.2	
13 Acrolein	56	5.659	5.659	(0.720)	9290	31.1008	31.1	
14 Allyl chloride	76	5.787	5.787	(0.736)	16203	18.2004	18.2	
15 Methylene Chloride	49	5.903	5.903	(0.751)	64787	18.8474	18.8	
16 Acetone	43	5.970	5.970	(0.760)	73134	42.6262	42.6	
17 Methyl acetate	43	6.067	6.067	(0.772)	70187	34.9140	34.9	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	36430	18.6377	18.6	
19 n-Hexane	86	6.110	6.110	(0.777)	3950	19.0705	19.1	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	88257	19.3630	19.4	
21 Acetonitrile	41	6.457	6.457	(0.822)	9065	49.6234	49.6	
22 Chloroprene	53	6.640	6.640	(0.845)	52711	19.3449	19.3	
23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	77921	20.5147	20.5	
24 Acrylonitrile	53	6.738	6.738	(0.857)	30416	36.8573	36.8	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
25 Vinyl acetate	43	6.860	6.860	(0.873)	64484	17.1626	17.2(TM)	CO
26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	53646	19.1643	19.2	
27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	61267	20.9114	20.9	
28 Bromochloromethane	128	7.335	7.335	(0.933)	25682	20.9906	21.0	
29 Cyclohexane	56	7.335	7.335	(0.882)	44347	18.3414	18.3	
30 Chloroform	83	7.372	7.372	(0.938)	90357	21.0383	21.0	
31 Ethyl acetate	43	7.427	7.427	(0.945)	88249	36.3972	36.4	
32 Carbon tetrachloride	117	7.506	7.506	(0.902)	65156	22.7745	22.8	
33 Tetrahydrofuran	42	7.524	7.524	(0.957)	23581	37.8684	37.9	
$ 34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	121319	48.8447	48.8(R)	
35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	72855	22.4751	22.5	
36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	72629	39.2221	39.2	
37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	45207	20.0780	20.1	
* 38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	215726	50.0000		
39 Benzene	78	7.872	7.872	(0.946)	151218	20.8067	20.8	
40 Propionitrile	54	7.896	7.896	(1.005)	14325	38.9648	39.0	
41 Methacrylonitrile	41	7.902	7.902	(1.005)	72325	38.6714	38.7	
42 Isobutanol	43	Compound Not Detected.						(D)
$ 43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21885	48.9798	49.0(R)	
44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	68676	20.3667	20.4	
45 Isopropyl acetate	43	8.134	8.134	(1.035)	75310	18.7514	18.8	
46 Trichloroethene	130	8.317	8.317	(1.000)	42090	21.1821	21.2	
* 47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	284163	50.0000		
48 Methylcyclohexane	98	8.317	8.317	(1.000)	19048	20.2257	20.2	
49 n-Butanol	56	8.518	8.518	(1.024)	1805	41.5587	41.6(M)	WP
50 Dibromomethane	93	8.670	8.670	(1.043)	37046	21.8878	21.9	
51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	42111	20.2945	20.3	
52 Bromodichloromethane	83	8.762	8.762	(1.054)	67854	22.7729	22.8	
53 Methyl methacrylate	69	8.823	8.823	(1.061)	19333	16.5321	16.5	
54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						(D)
55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	28631	27.9323	27.9	
56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	60699	20.9483	20.9	
$ 57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	306126	50.0445	50.0(R)	
58 Toluene	91	9.414	9.414	(1.132)	145737	20.5671	20.6	
59 2-Nitropropane	43	9.603	9.603	(1.155)	12527	17.4618	17.5	
60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	8003	39.3539	39.4	
61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	60699	20.9898	21.0	
62 Tetrachloroethene	164	9.719	9.719	(0.920)	41085	22.7560	22.8	
63 Ethyl methacrylate	69	9.755	9.755	(1.173)	38109	17.0843	17.1	
64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	35563	19.8038	19.8	
65 Dibromochloromethane	129	9.999	9.999	(0.947)	56369	22.5301	22.5	
66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	55554	20.2826	20.3	
67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	45425	21.1684	21.2	
68 2-Hexanone	43	10.274	10.274	(1.235)	106340	44.3278	44.3	
69 Ethylbenzene	91	10.554	10.554	(0.999)	133504	19.3983	19.4	
* 70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	263069	50.0000		
71 Chlorobenzene	112	10.578	10.578	(1.002)	103358	20.3645	20.4	
72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	46539	21.7100	21.7	
73 m&p-Xylene	91	10.652	10.652	(1.009)	233192	38.9720	39.0	
74 o-Xylene	106	10.993	10.993	(1.041)	46836	16.8885	16.9	
75 Styrene	104	11.030	11.030	(1.044)	82563	17.1098	17.1	
76 Bromoform	173	11.097	11.097	(1.051)	50786	21.3653	21.4	
77 n-amyl acetate	43	11.219	11.219	(1.062)	74031	17.9264	17.9	
$ 78 4-Bromofluorobenzene (S)	95	11.469	11.469	(1.086)	107720	49.8939	49.9(R)	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	17452	20.2040	20.2	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	174400	20.6669	20.7	
81 Bromobenzene	156	11.578	11.578	(1.096)	58747	22.0711	22.1	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	58560	20.8059	20.8	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	115287	19.9717	20.0	
84 2-Chlorotoluene	126	11.688	11.688	(1.107)	40563	20.3959	20.4	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	38147	19.0406	19.0	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	123733	17.4211	17.4	
87 1,2,3-Trichloropropane	75	11.718	11.718	(1.110)	61074	20.7573	20.8(M)	CO
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	14478	21.3726	21.4(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	108914	16.5057	16.5	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	119431	17.9187	17.9	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	135785	17.2036	17.2	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	108914	16.5057	16.5	
94 1,3-Dichlorobenzene	146	12.285	12.285	(0.996)	94052	20.2117	20.2	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	174819	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	99609	18.9720	19.0	
97 n-Butylbenzene	91	12.481	12.481	(1.011)	117727	19.3254	19.3	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	94726	18.6290	18.6	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	10690	18.6980	18.7	
100 Hexachloro-1,3-butadiene	225	13.816	13.816	(1.120)	29845	19.1487	19.1	
101 1,2,4-Trichlorobenzene	180	13.889	13.889	(1.125)	62082	18.0313	18.0	
102 Naphthalene	128	14.194	14.194	(1.150)	96960	14.5875	14.6	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	59099	18.4655	18.5	

QC Flag Legend

T - Target compound detected outside RT window.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

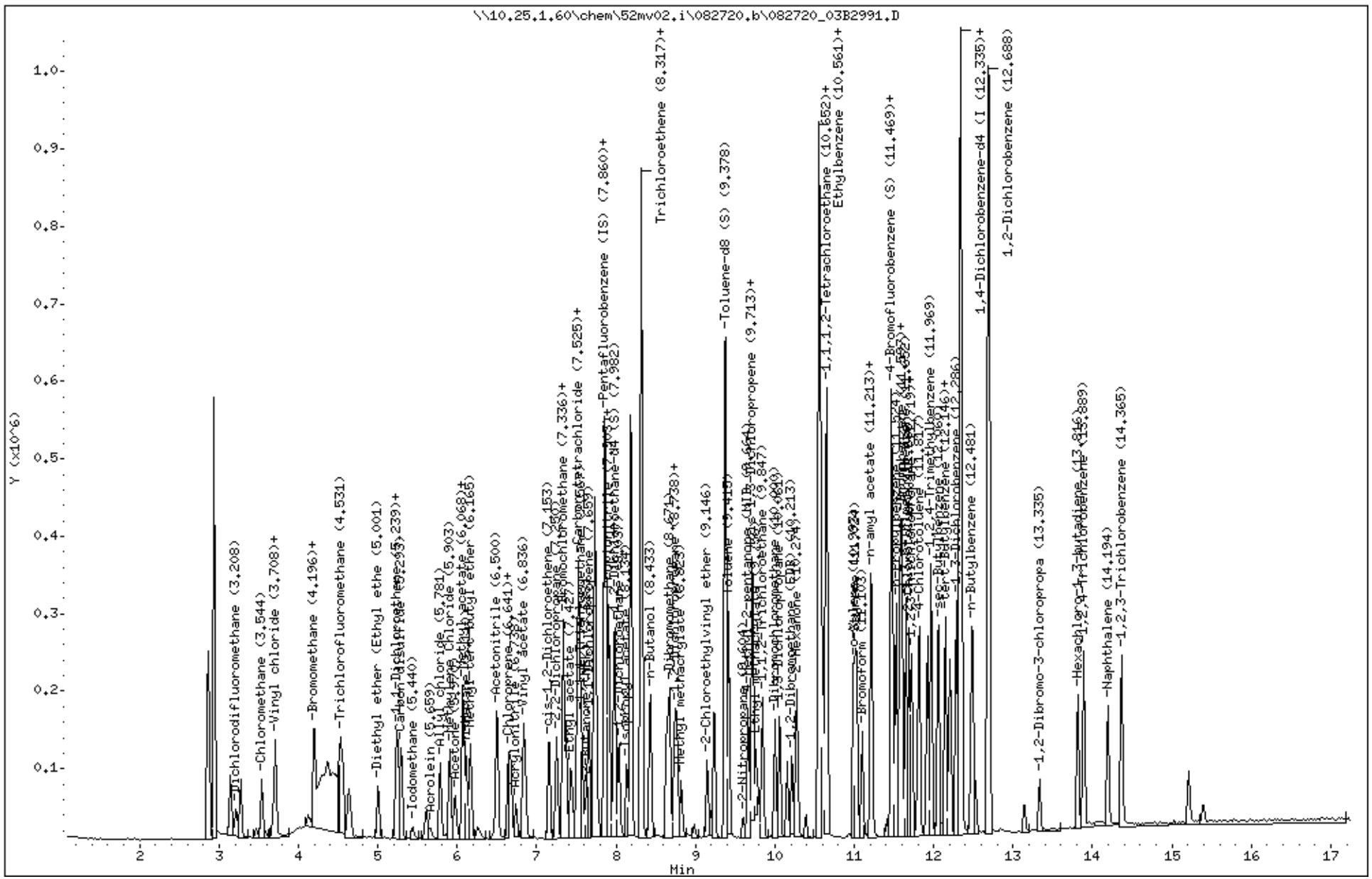
Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_03B2991.D
Date : 27-AUG-2020 11:34
Client ID: MBLCS
Sample Info: 205216,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



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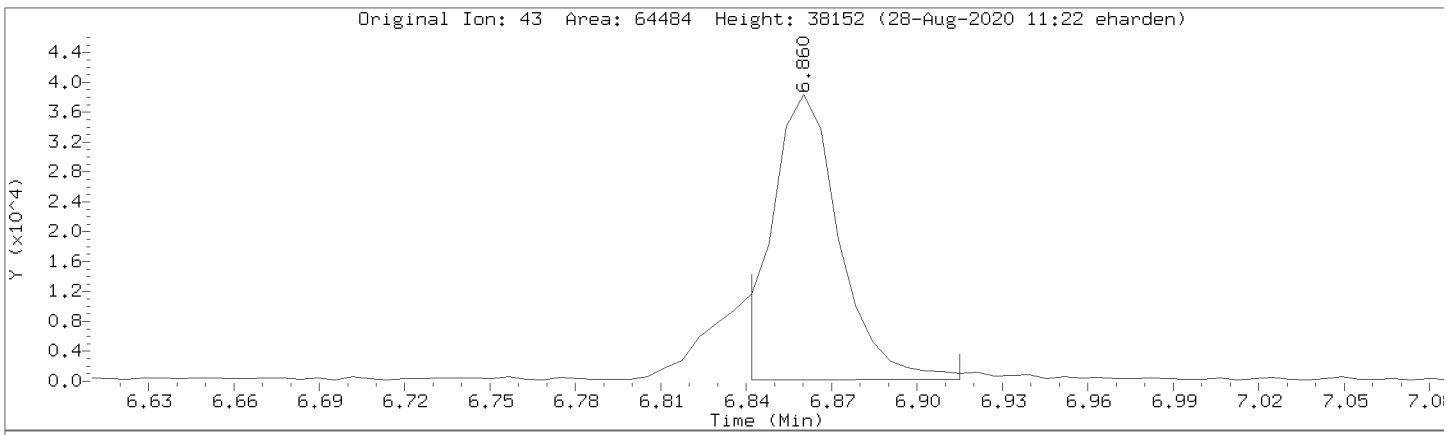
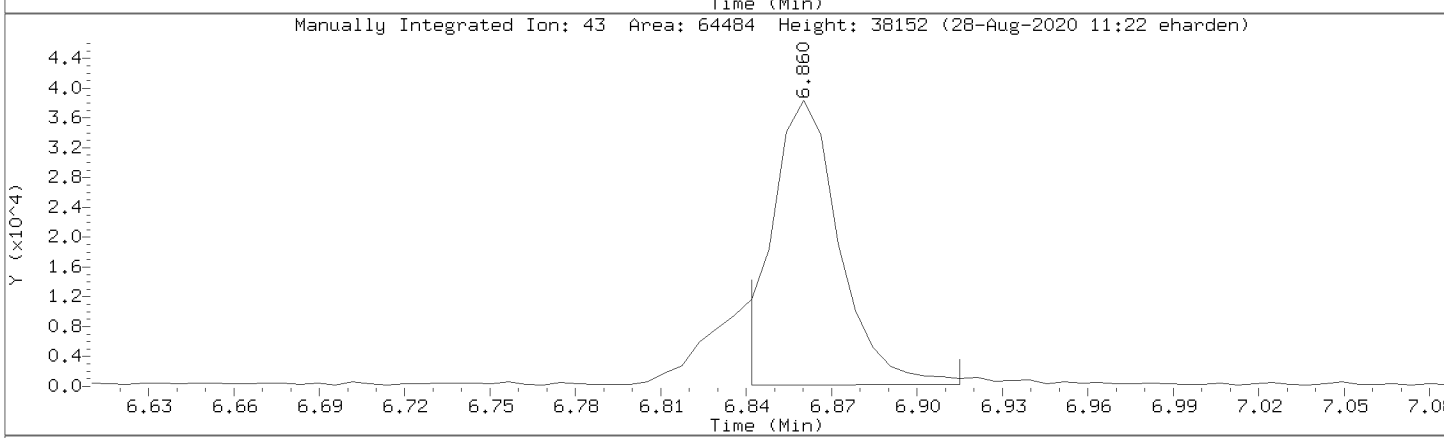
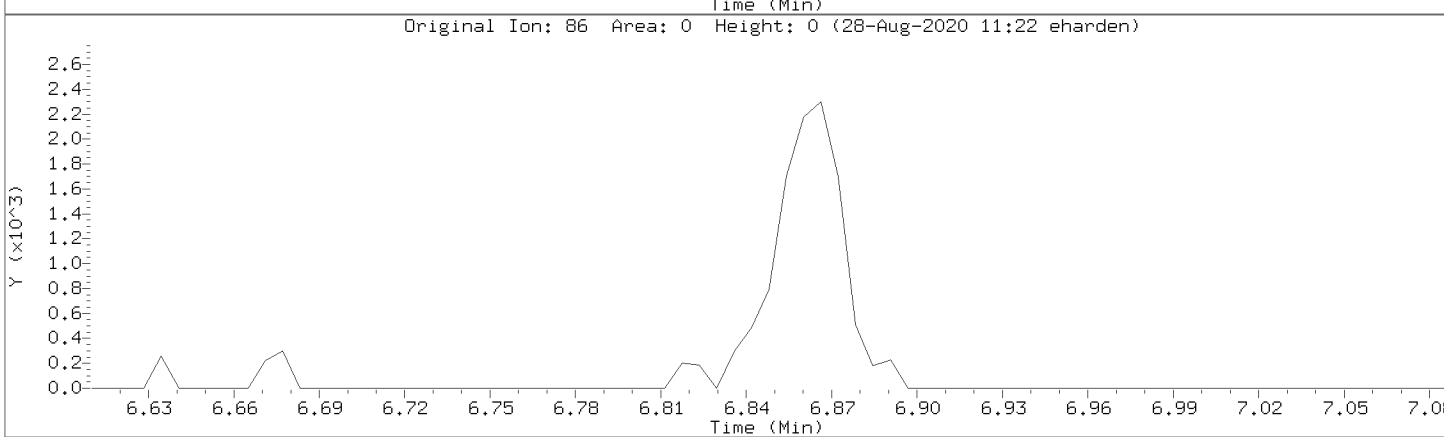
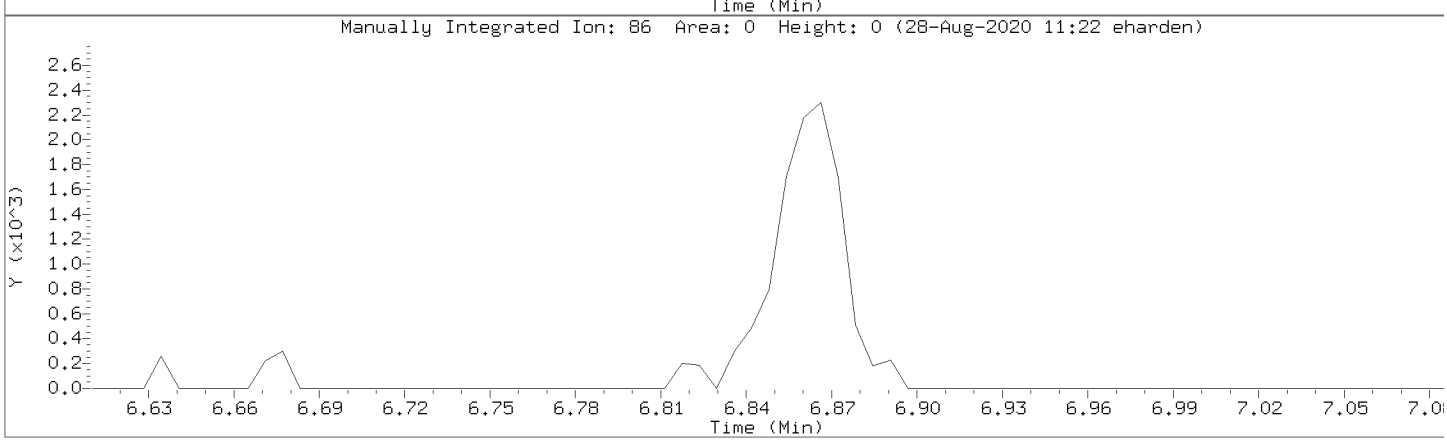
Injection Date: 27-AUG-2020 11:34
Instrument: 52mv02.i
Lab Sample ID: 205216

Compound: Vinyl acetate Review Code: CO
CAS Number: 108-05-4









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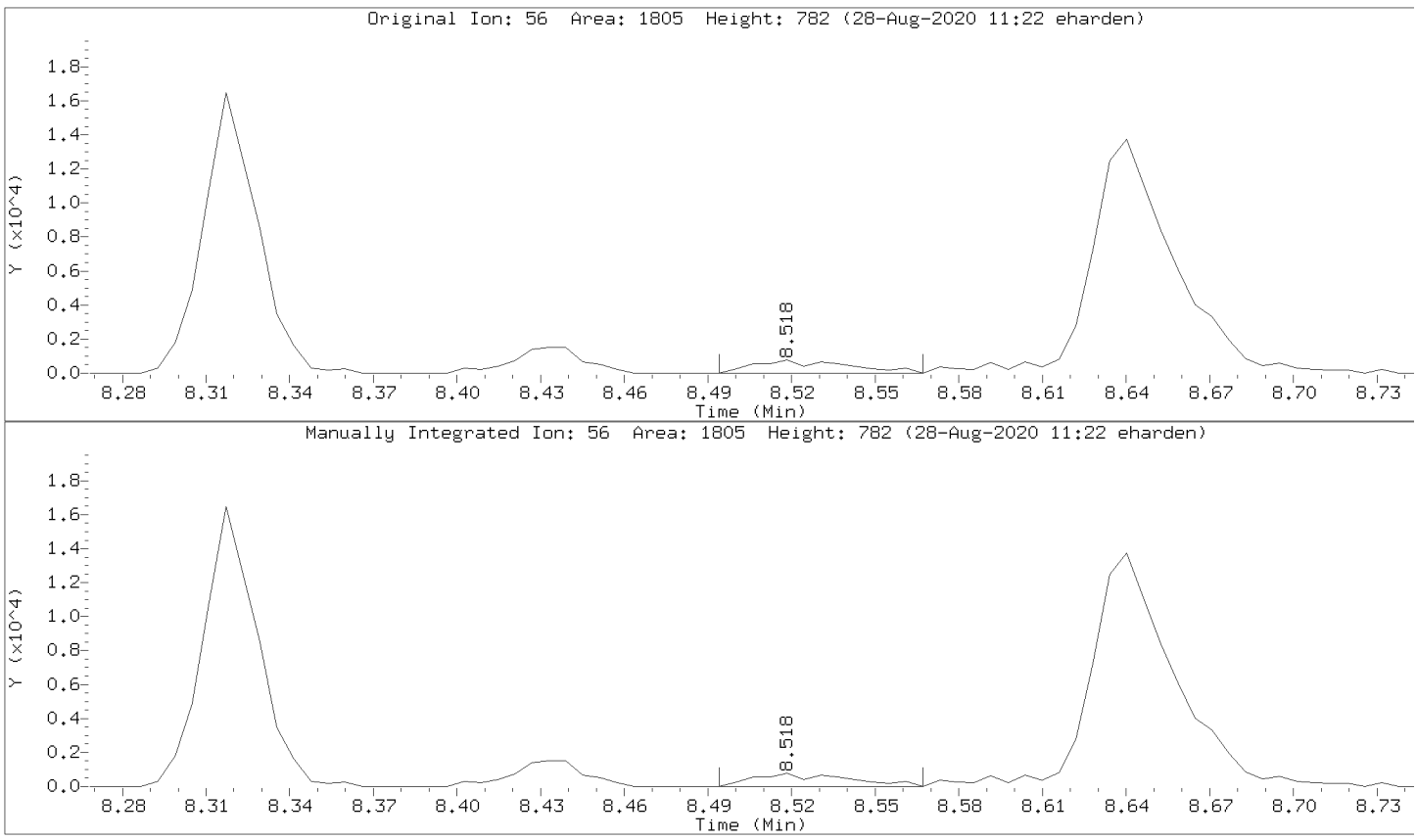
Injection Date: 27-AUG-2020 11:34
Instrument: 52mv02.i
Lab Sample ID: 205216

Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3



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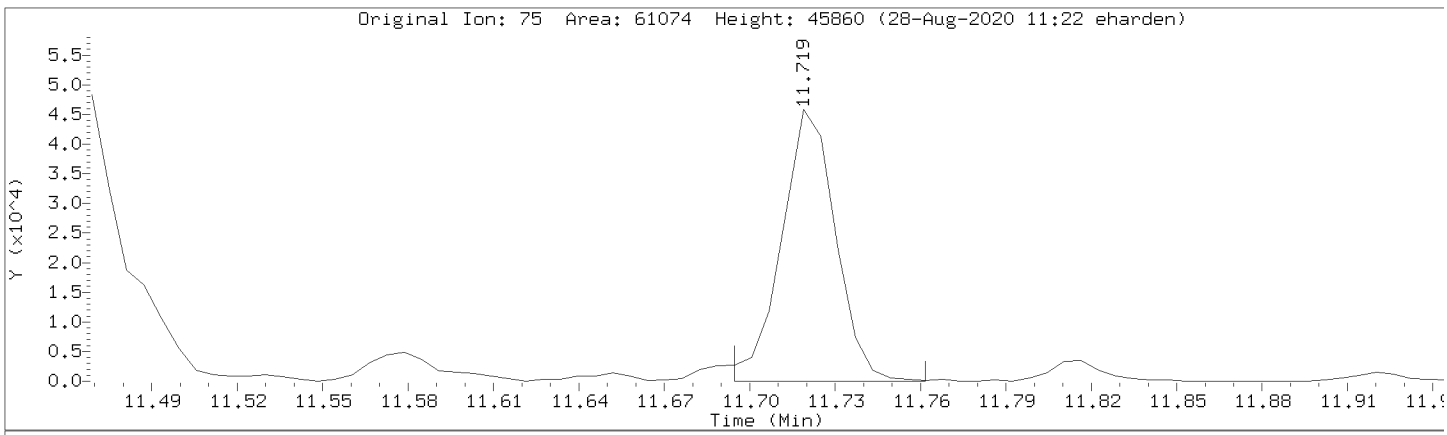
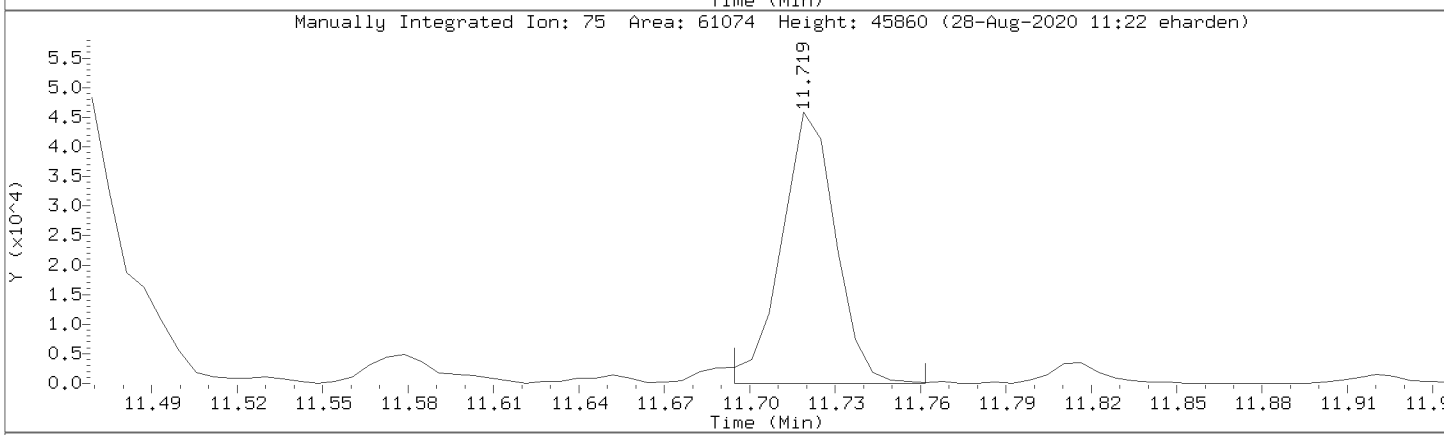
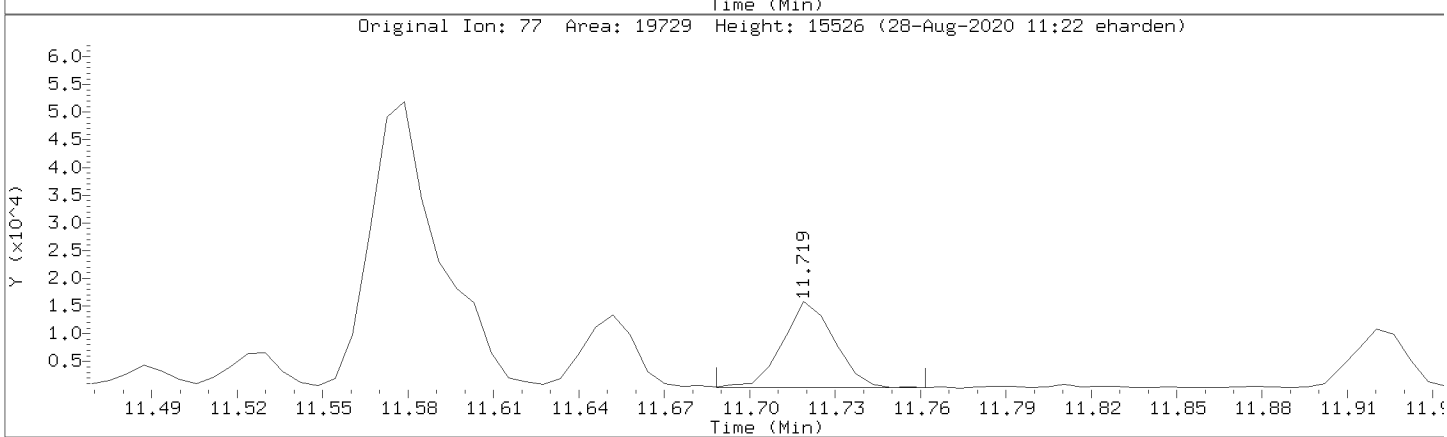
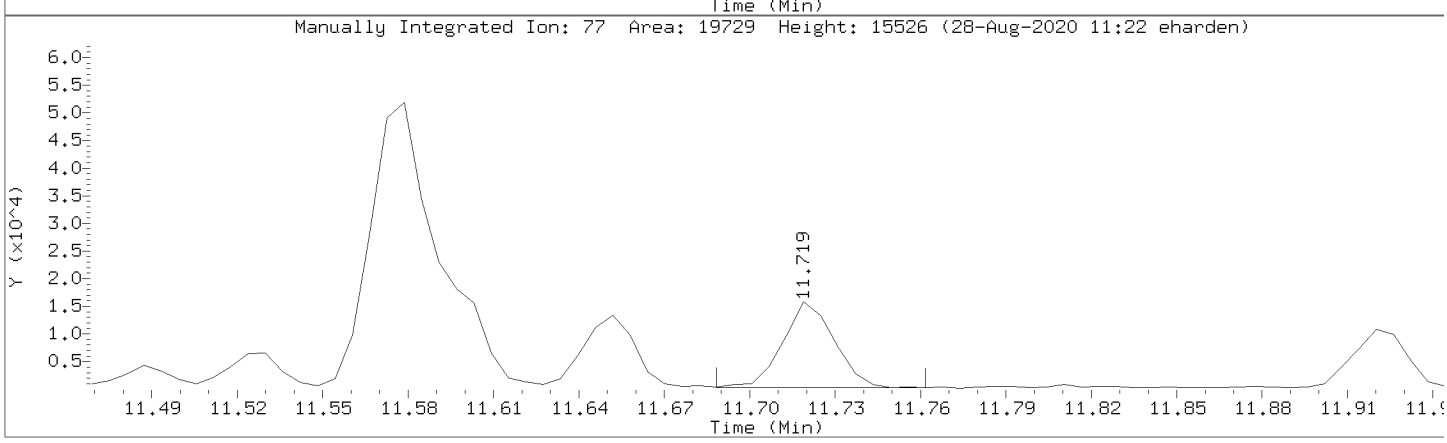
Injection Date: 27-AUG-2020 11:34
Instrument: 52mv02.i
Lab Sample ID: 205216

Compound: 1,2,3-Trichloropropane Review Code: CO
CAS Number: 96-18-4









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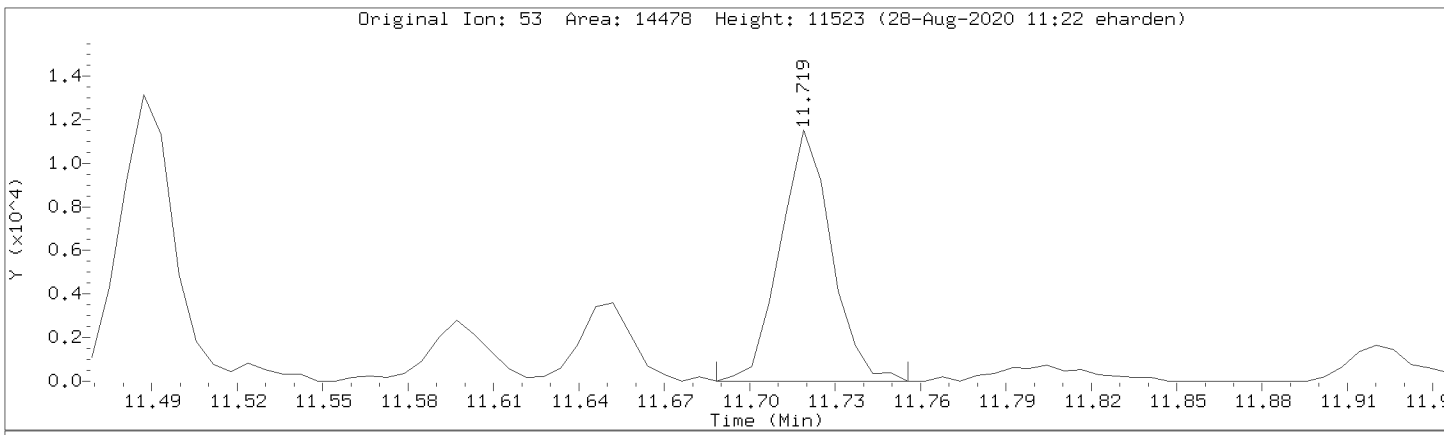
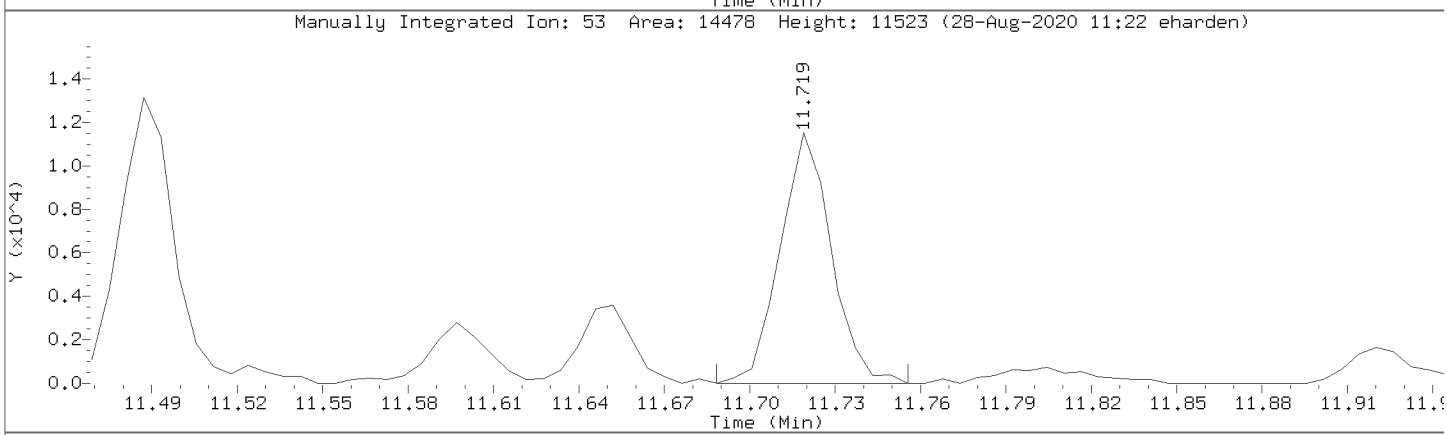
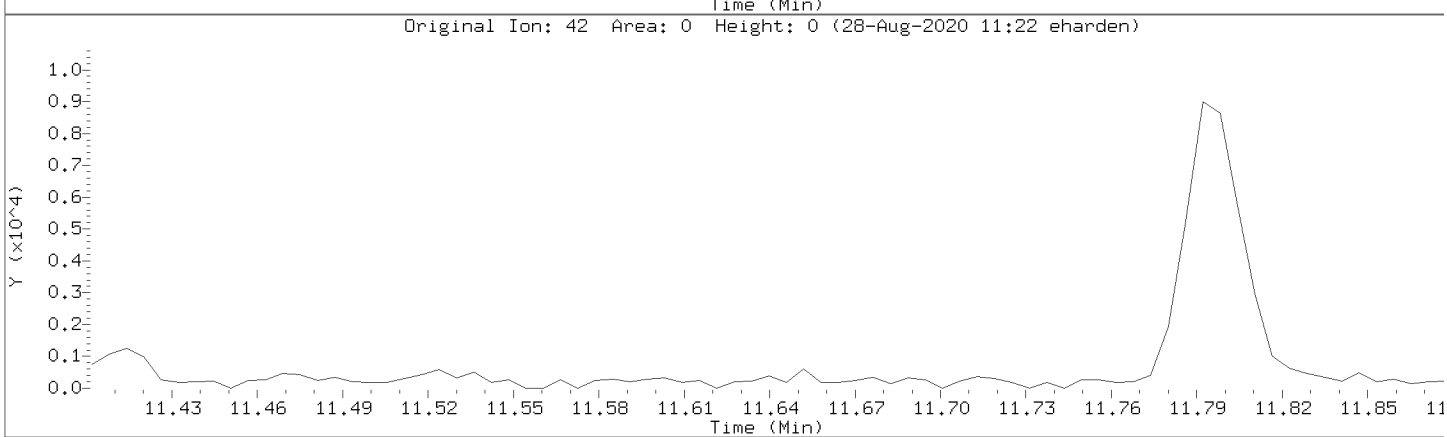
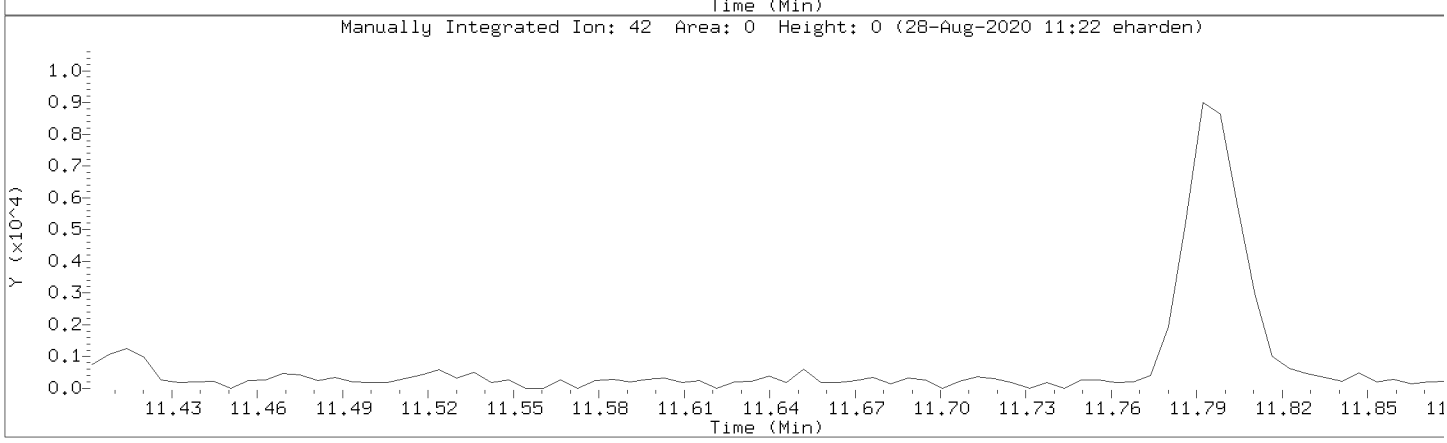
Injection Date: 27-AUG-2020 11:34
Instrument: 52mv02.i
Lab Sample ID: 205216

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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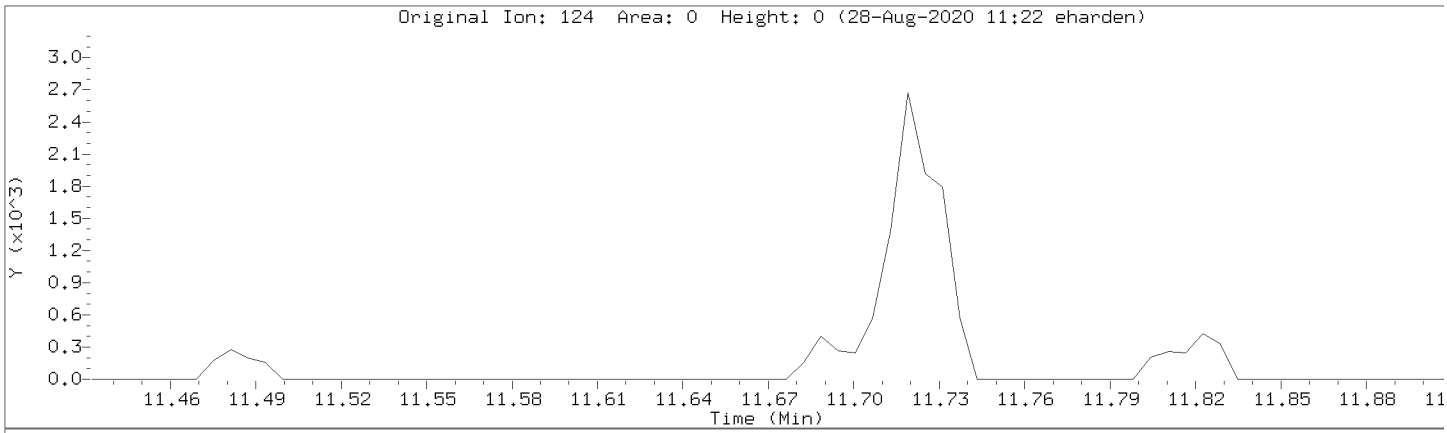
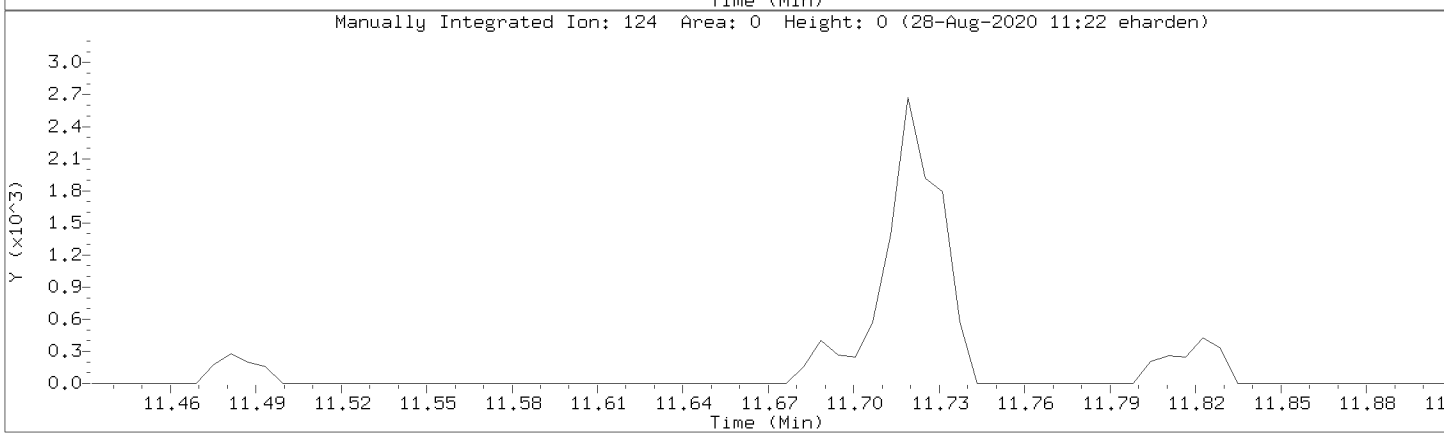
Injection Date: 27-AUG-2020 11:34
Instrument: 52mv02.i
Lab Sample ID: 205216





SAMPLE NO.

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

MS

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 205521
Date Analyzed: 08/27/2020 22:11
Lab File ID: 082720.B\082720_25.D
Initial wt/vol: 5.1 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 15.1%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	978	
75-05-8	Acetonitrile	1360	
107-02-8	Acrolein	858	
107-13-1	Acrylonitrile	997	
71-43-2	Benzene	600	
108-86-1	Bromobenzene	613	
74-97-5	Bromochloromethane	569	
75-27-4	Bromodichloromethane	650	
75-25-2	Bromoform	596	
74-83-9	Bromomethane	692	
78-93-3	2-Butanone (MEK)	905	
104-51-8	n-Butylbenzene	529	
135-98-8	sec-Butylbenzene	480	
98-06-6	tert-Butylbenzene	445	
75-15-0	Carbon disulfide	528	
56-23-5	Carbon tetrachloride	663	
108-90-7	Chlorobenzene	584	
75-00-3	Chloroethane	686	
67-66-3	Chloroform	569	
74-87-3	Chloromethane	581	
95-49-8	2-Chlorotoluene	559	
106-43-4	4-Chlorotoluene	498	
96-12-8	1,2-Dibromo-3-chloropropane	516	
124-48-1	Dibromochloromethane	639	
106-93-4	1,2-Dibromoethane (EDB)	565	
74-95-3	Dibromomethane	615	
95-50-1	1,2-Dichlorobenzene	533	
541-73-1	1,3-Dichlorobenzene	557	
106-46-7	1,4-Dichlorobenzene	558	
75-71-8	Dichlorodifluoromethane	441	
75-34-3	1,1-Dichloroethane	566	
107-06-2	1,2-Dichloroethane	561	
75-35-4	1,1-Dichloroethene	552	
156-59-2	cis-1,2-Dichloroethene	534	
156-60-5	trans-1,2-Dichloroethene	528	
78-87-5	1,2-Dichloropropane	590	
142-28-9	1,3-Dichloropropane	592	

SAMPLE NO.

MS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 205521
Date Analyzed: 08/27/2020 22:11
Lab File ID: 082720.B\082720_25.D
Initial wt/vol: 5.1 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 15.1%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	522	
563-58-6	1,1-Dichloropropene	561	
10061-01-5	cis-1,3-Dichloropropene	588	
10061-02-6	trans-1,3-Dichloropropene	589	
141-78-6	Ethyl acetate	977	
100-41-4	Ethylbenzene	542	
591-78-6	2-Hexanone	1080	
98-82-8	Isopropylbenzene (Cumene)	479	
99-87-6	p-Isopropyltoluene	445	
75-09-2	Methylene Chloride	548	
108-10-1	4-Methyl-2-pentanone (MIBK)	978	
1634-04-4	Methyl-tert-butyl ether	520	
91-20-3	Naphthalene	386	
103-65-1	n-Propylbenzene	571	
100-42-5	Styrene	482	
630-20-6	1,1,1,2-Tetrachloroethane	603	
79-34-5	1,1,2,2-Tetrachloroethane	571	
127-18-4	Tetrachloroethene	640	
108-88-3	Toluene	583	
87-61-6	1,2,3-Trichlorobenzene	507	
120-82-1	1,2,4-Trichlorobenzene	492	
71-55-6	1,1,1-Trichloroethane	648	
79-00-5	1,1,2-Trichloroethane	607	
79-01-6	Trichloroethene	661	
75-69-4	Trichlorofluoromethane	848	
96-18-4	1,2,3-Trichloropropane	572	
95-63-6	1,2,4-Trimethylbenzene	496	
108-67-8	1,3,5-Trimethylbenzene	553	
108-05-4	Vinyl acetate	377	
75-01-4	Vinyl chloride	502	
1330-20-7	Xylene (Total)	1500	

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082720.b\082720_25.D
Lab Smp Id: 205521 Client Smp ID: YL10PB2SSMS
Inj Date : 27-AUG-2020 22:11
Operator : EAH Inst ID: 52mv02.i
Smp Info : 205521,
Misc Info : 2991,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082720.b\8260BSM_082020.m
Meth Date : 27-Aug-2020 12:16 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 21 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.208	(0.408)	42683	15.2668	15.3	
2 Chloromethane	50	3.543	3.537	(0.451)	67508	20.1162	20.1	
3 Vinyl chloride	62	3.690	3.690	(0.469)	47841	17.3867	17.4	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	40649	16.5214	16.5	
5 Bromomethane	94	4.202	4.196	(0.535)	53537	23.9850	24.0	
6 Chloroethane	64	4.360	4.360	(0.555)	18570	23.7631	23.8	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	51419	29.3938	29.4(RM)	LT
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	16883	17.5138	17.5	
9 1,1-Dichloroethene	61	5.238	5.232	(0.666)	59495	19.1268	19.1	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	39515	19.2567	19.2	
11 Carbon disulfide	76	5.299	5.293	(0.674)	125829	18.2783	18.3	
12 Iodomethane	142	5.439	5.439	(0.692)	19416	15.9959	16.0	
13 Acrolein	56	5.659	5.659	(0.720)	9545	29.7248	29.7	
14 Allyl chloride	76	5.787	5.787	(0.736)	17095	17.8625	17.9	
15 Methylene Chloride	49	5.902	5.903	(0.751)	70123	18.9763	19.0	
16 Acetone	43	5.970	5.970	(0.760)	63138	33.8774	33.9	
17 Methyl acetate	43	6.067	6.067	(0.772)	76752	35.5296	35.5(R)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	38442	18.2947	18.3	
19 n-Hexane	86	6.110	6.110	(0.777)	4334	19.4644	19.5	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	88275	18.0155	18.0	
21 Acetonitrile	41	6.457	6.457	(0.822)	9278	47.2105	47.2(R)	
22 Chloroprene	53	6.646	6.640	(0.846)	53659	18.3187	18.3	
23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	79997	19.5916	19.6	
24 Acrylonitrile	53	6.732	6.738	(0.857)	30636	34.5335	34.5(R)	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
25 Vinyl acetate	43	6.860	6.860	(0.873)	52740	13.0574	13.0(RM)	CO
26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	55694	18.5076	18.5	
27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	56949	18.0813	18.1	
28 Bromochloromethane	128	7.335	7.335	(0.933)	25949	19.7289	19.7	
29 Cyclohexane	56	7.341	7.335	(0.883)	45428	18.1780	18.2	
30 Chloroform	83	7.372	7.372	(0.938)	91017	19.7132	19.7	
31 Ethyl acetate	43	7.427	7.427	(0.945)	88255	33.8598	33.8(R)	
32 Carbon tetrachloride	117	7.506	7.506	(0.902)	67912	22.9665	23.0	
33 Tetrahydrofuran	42	7.530	7.524	(0.958)	22265	32.9635	33.0(R)	
$ 34 Dibromofluoromethane (S)	113	7.524	7.530	(0.957)	125366	46.9521	47.0	
35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	75198	22.4441	22.4	
36 2-Butanone (MEK)	43	7.622	7.628	(0.970)	62426	31.3597	31.4	
37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	45211	19.4273	19.4	
* 38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	231908	50.0000		
39 Benzene	78	7.872	7.872	(0.946)	156213	20.7956	20.8	
40 Propionitrile	54	7.896	7.896	(1.005)	14784	37.4074	37.4(R)	
41 Methacrylonitrile	41	7.902	7.902	(1.005)	73596	36.6051	36.6(R)	
42 Isobutanol	43	Compound Not Detected.						(D)
$ 43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	23307	48.5225	48.5	
44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	70504	19.4499	19.4	
45 Isopropyl acetate	43	8.134	8.134	(1.035)	76901	17.8115	17.8	
46 Trichloroethene	130	8.317	8.317	(1.000)	47054	22.9109	22.9	
* 47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	293706	50.0000		
48 Methylcyclohexane	98	8.317	8.317	(1.000)	19243	19.7688	19.8	
49 n-Butanol	56	8.518	8.518	(1.024)	2134	47.5372	47.5(RM)	WP
50 Dibromomethane	93	8.670	8.670	(1.043)	37247	21.2915	21.3	
51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	43857	20.4492	20.4	
52 Bromodichloromethane	83	8.762	8.762	(1.054)	69374	22.5266	22.5	
53 Methyl methacrylate	69	8.823	8.823	(1.061)	19208	15.9208	15.9	
54 1,4-Dioxane (p-Dioxane)	58	8.932	8.939	(1.074)	485	26.8246	26.8(R)	
55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	35233	32.9194	32.9(R)	
56 cis-1,3-Dichloropropene	75	9.707	9.713	(1.167)	60994	20.3662	20.4	
$ 57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	315120	49.8410	49.8	
58 Toluene	91	9.414	9.414	(1.132)	147812	20.1822	20.2	
59 2-Nitropropane	43	9.603	9.603	(1.155)	12941	17.4525	17.4	
60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	7118	33.8647	33.9	
61 trans-1,3-Dichloropropene	75	9.707	9.713	(1.167)	60994	20.4065	20.4	
62 Tetrachloroethene	164	9.719	9.719	(0.920)	42836	22.1597	22.2	
63 Ethyl methacrylate	69	9.755	9.755	(1.173)	37887	16.4627	16.5	
64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	39015	21.0201	21.0	
65 Dibromochloromethane	129	9.999	9.999	(0.947)	59311	22.1412	22.1	
66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	58043	20.5028	20.5	
67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	44959	19.5683	19.6	
68 2-Hexanone	43	10.274	10.274	(1.235)	92656	37.3687	37.4	
69 Ethylbenzene	91	10.554	10.554	(0.999)	138431	18.7865	18.8	
* 70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	281661	50.0000		
71 Chlorobenzene	112	10.572	10.578	(1.001)	109957	20.2347	20.2	
72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	47980	20.9048	20.9	
73 m&p-Xylene	91	10.652	10.652	(1.009)	231417	36.1519	36.2	
74 o-Xylene	106	10.993	10.993	(1.041)	47012	15.8632	15.9	
75 Styrene	104	11.030	11.030	(1.044)	86212	16.7004	16.7	
76 Bromoform	173	11.103	11.097	(1.051)	52591	20.6642	20.7	
77 n-amyl acetate	43	11.219	11.219	(1.062)	76407	17.3057	17.3	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.469	(1.086)	109539	47.3874	47.4	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	16738	18.0983	18.1	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	178846	19.7948	19.8	
81 Bromobenzene	156	11.578	11.578	(1.096)	60471	21.2191	21.2	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	59601	19.7780	19.8	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	118006	19.1676	19.2	
84 2-Chlorotoluene	126	11.688	11.688	(1.107)	41198	19.3668	19.4	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	36908	17.2419	17.2	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	125858	16.5786	16.6	
87 1,2,3-Trichloropropane	75	11.718	11.718	(1.110)	62461	19.8274	19.8	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	15275	21.0607	21.1(TM)	NI
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	108307	15.4267	15.4	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	122064	17.1910	17.2	
92 sec-Butylbenzene	105	12.054	12.060	(0.977)	139749	16.6191	16.6	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	108307	15.4267	15.4	
94 1,3-Dichlorobenzene	146	12.285	12.285	(0.996)	95837	19.3106	19.3	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	186449	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	108240	19.3300	19.3	
97 n-Butylbenzene	91	12.487	12.481	(1.012)	119117	18.3339	18.3	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	100126	18.4627	18.5	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	10901	17.8777	17.9	
100 Hexachloro-1,3-butadiene	225	13.816	13.816	(1.120)	30772	18.5119	18.5	
101 1,2,4-Trichlorobenzene	180	13.889	13.889	(1.125)	62650	17.0613	17.1	
102 Naphthalene	128	14.194	14.194	(1.150)	94492	13.3755	13.4(R)	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	59900	17.5483	17.5	

QC Flag Legend

T - Target compound detected outside RT window.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

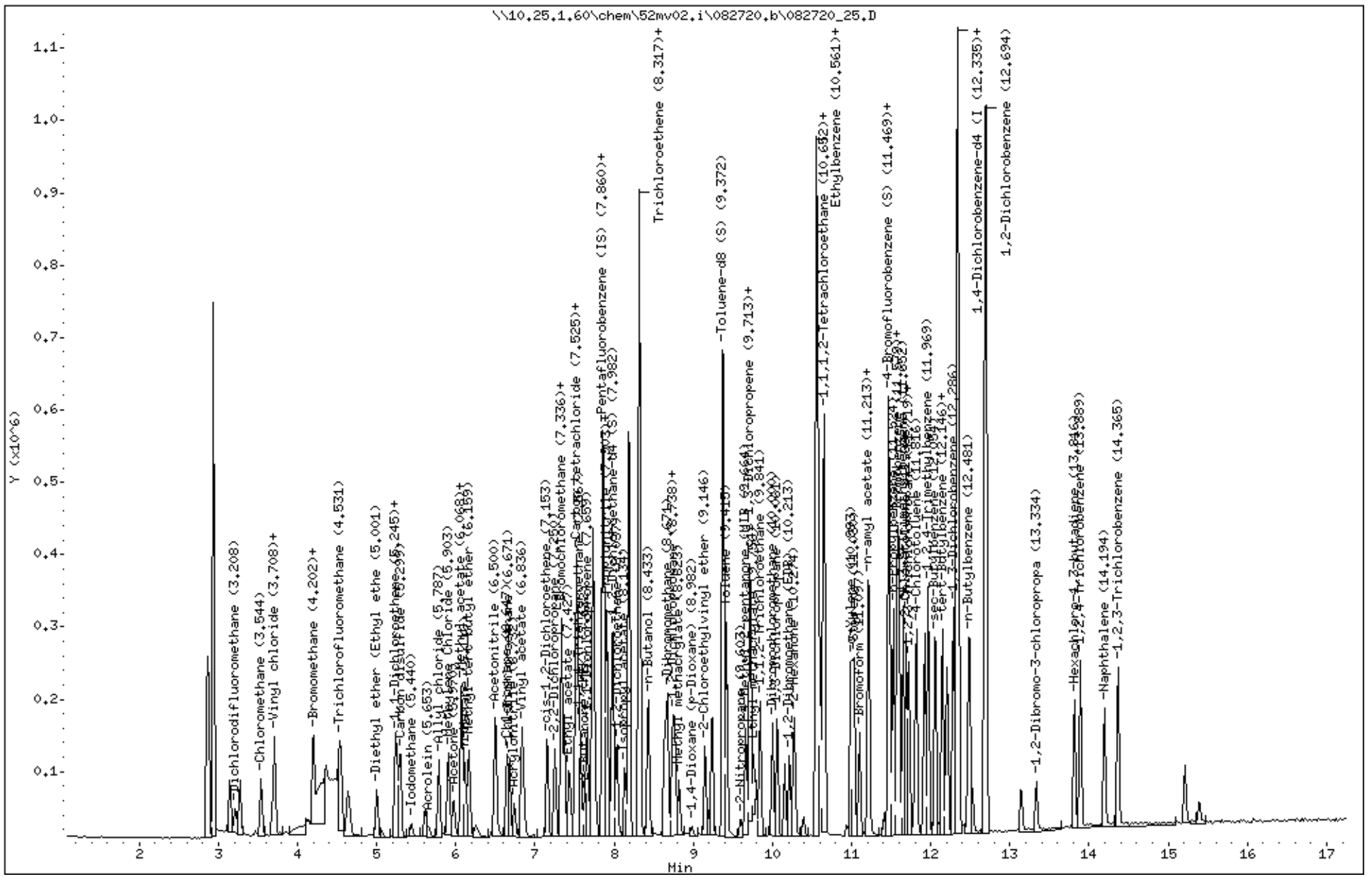
Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_25.D
Date : 27-AUG-2020 22:11
Client ID: YL10PB2SSMS
Sample Info: 205521,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



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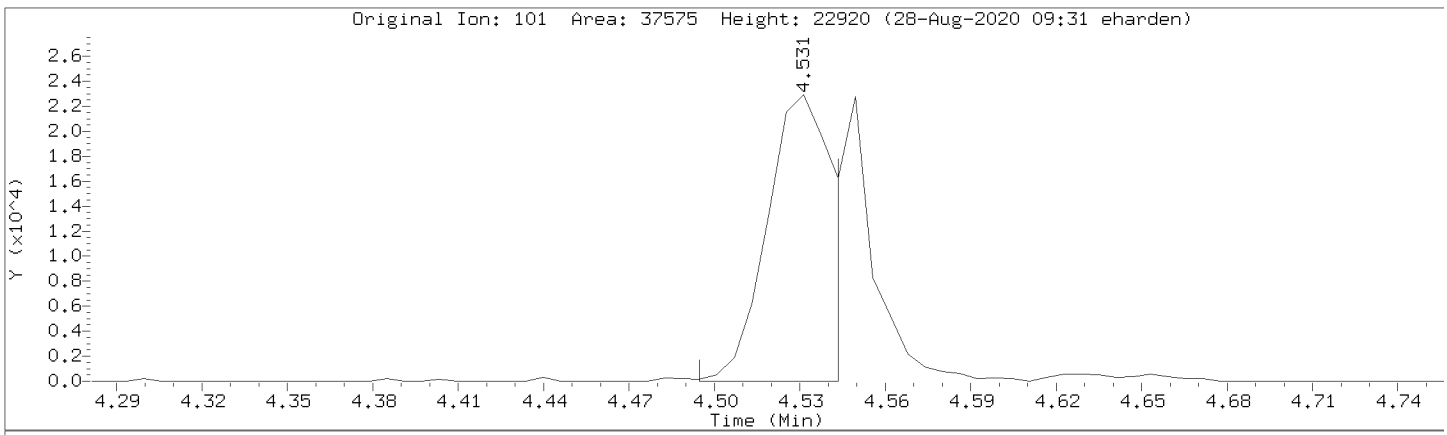
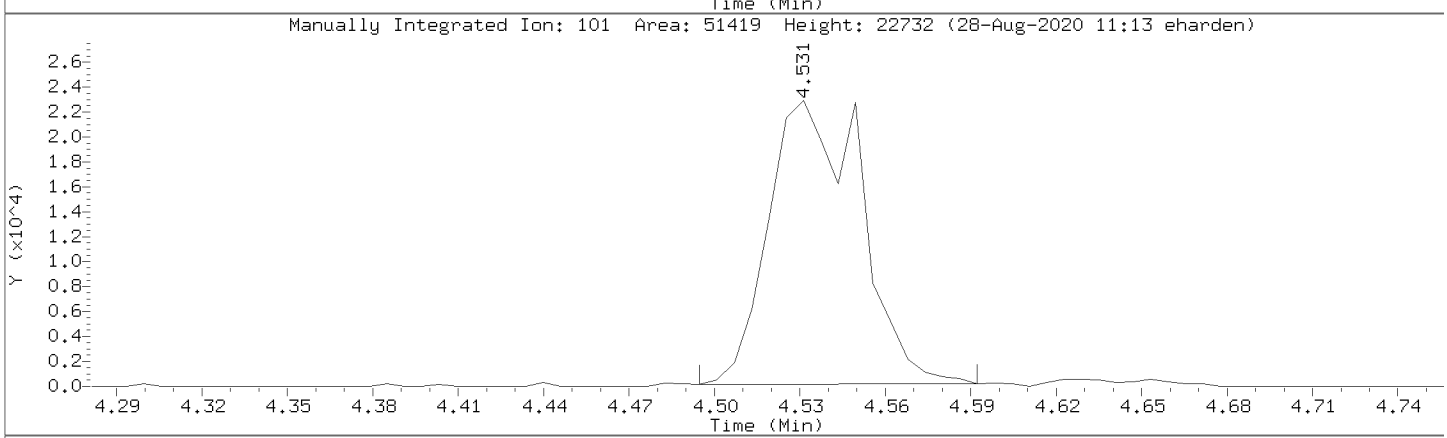
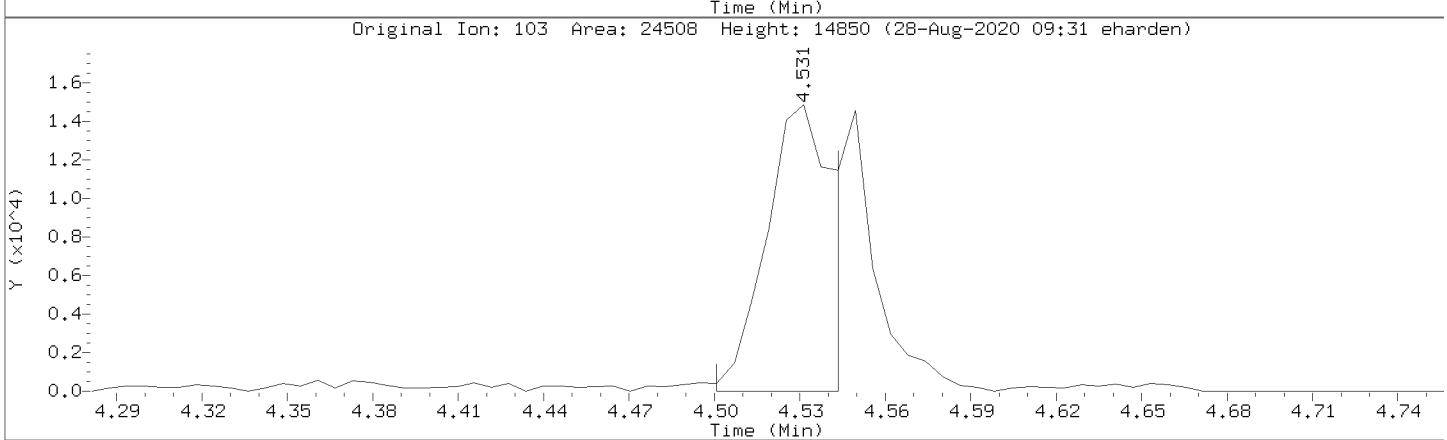
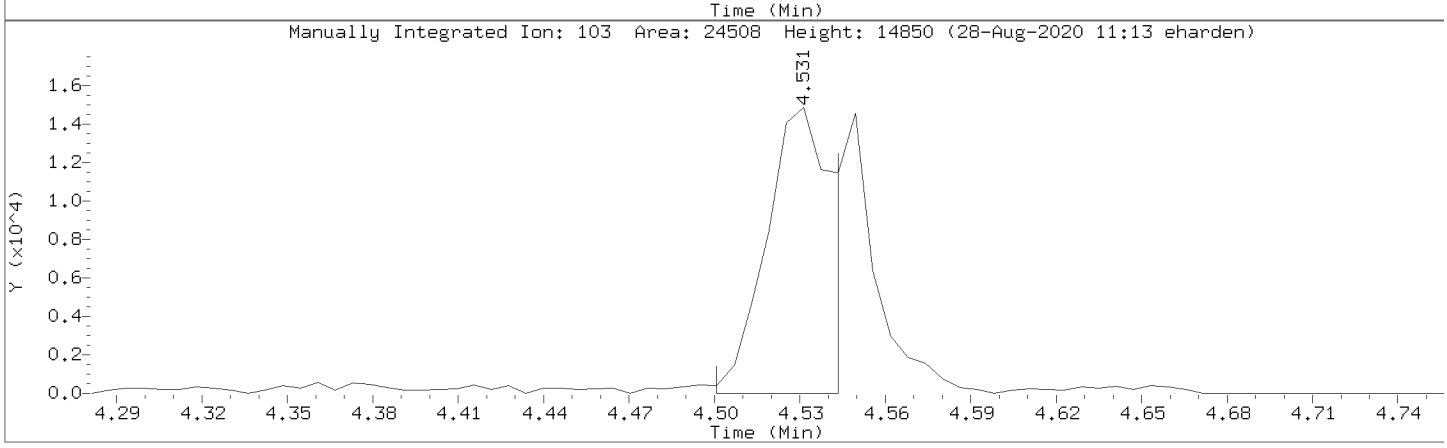
Injection Date: 27-AUG-2020 22:11
Instrument: 52mv02.i
Lab Sample ID: 205521

Compound: Trichlorofluoromethane Review Code: LT
CAS Number: 75-69-4









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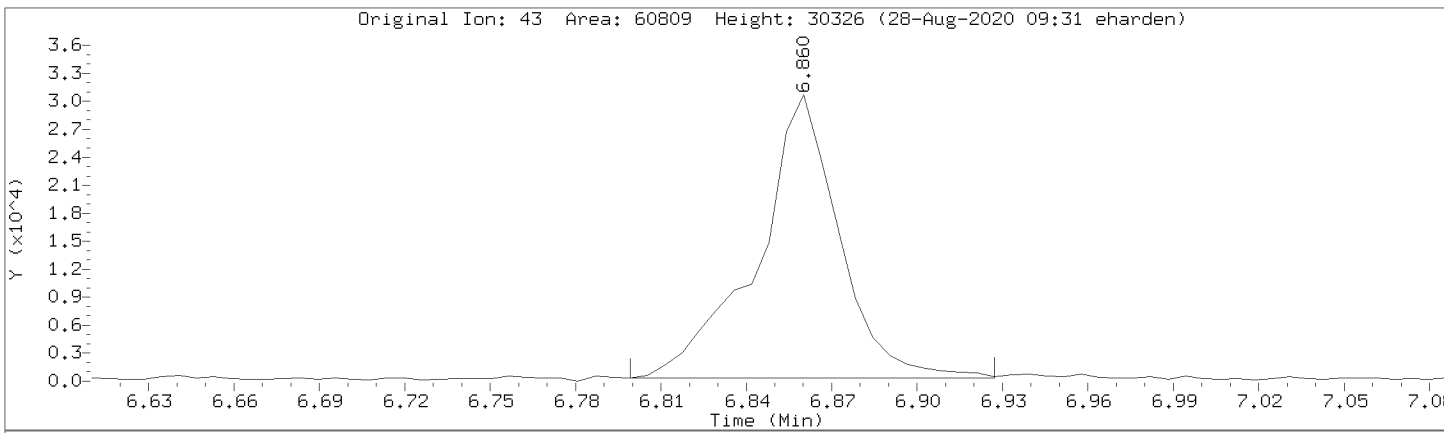
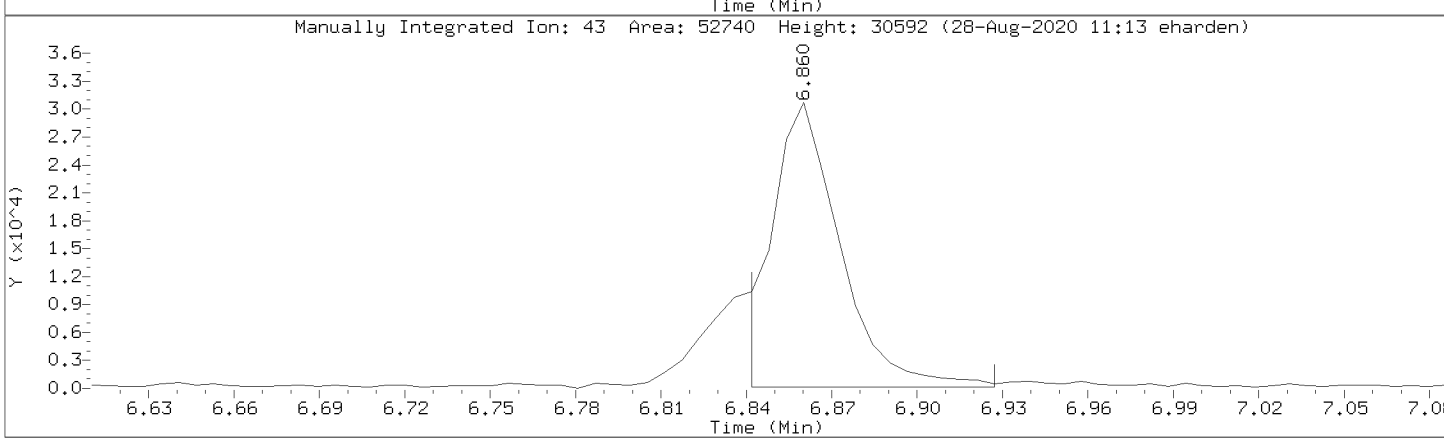
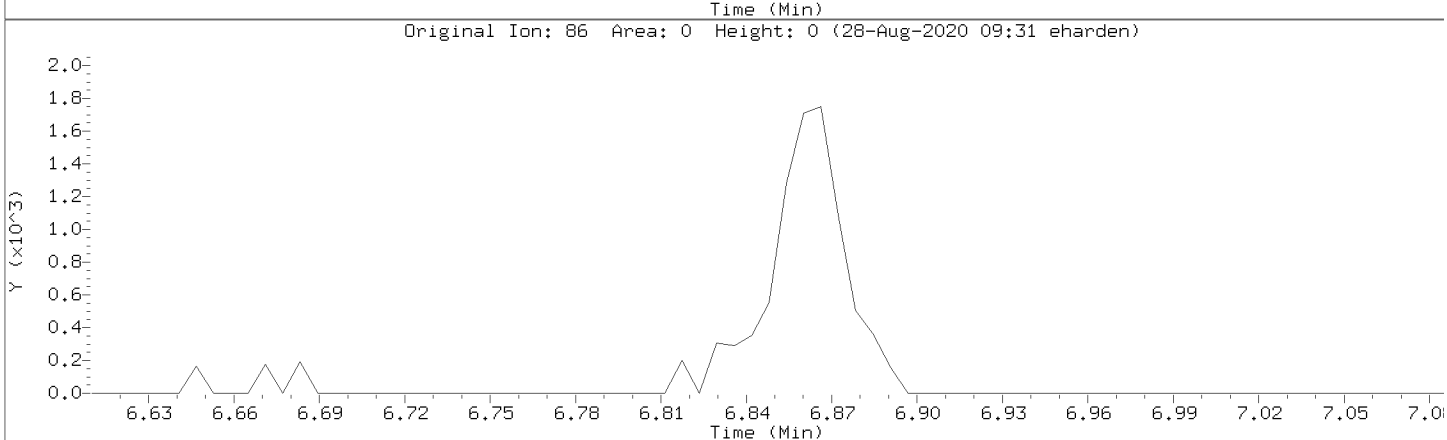
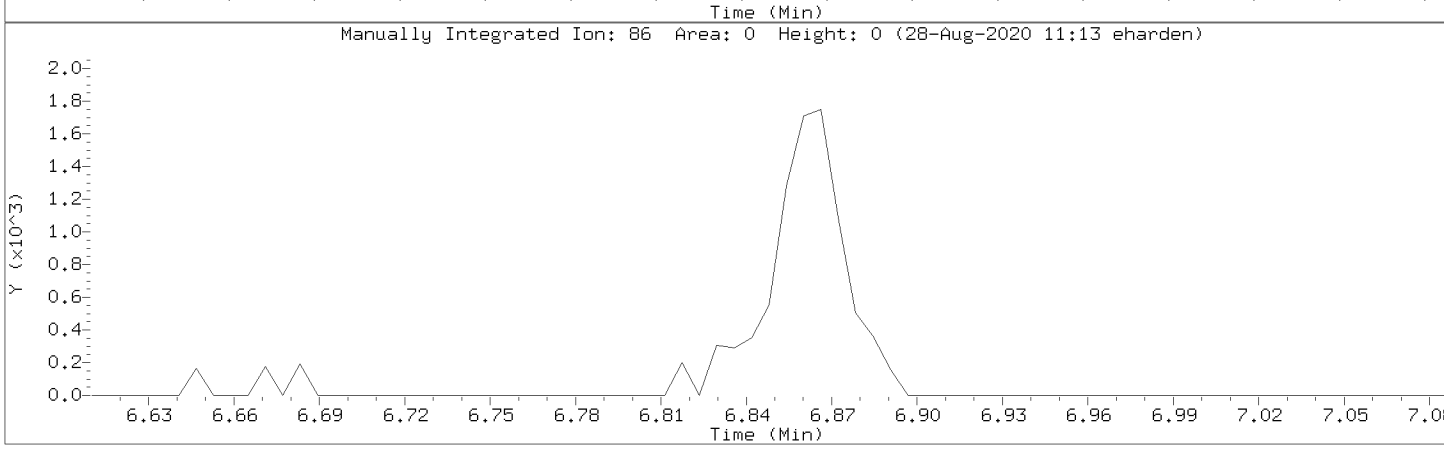
Injection Date: 27-AUG-2020 22:11
Instrument: 52mv02.i
Lab Sample ID: 205521

Compound: Vinyl acetate Review Code: CO
CAS Number: 108-05-4



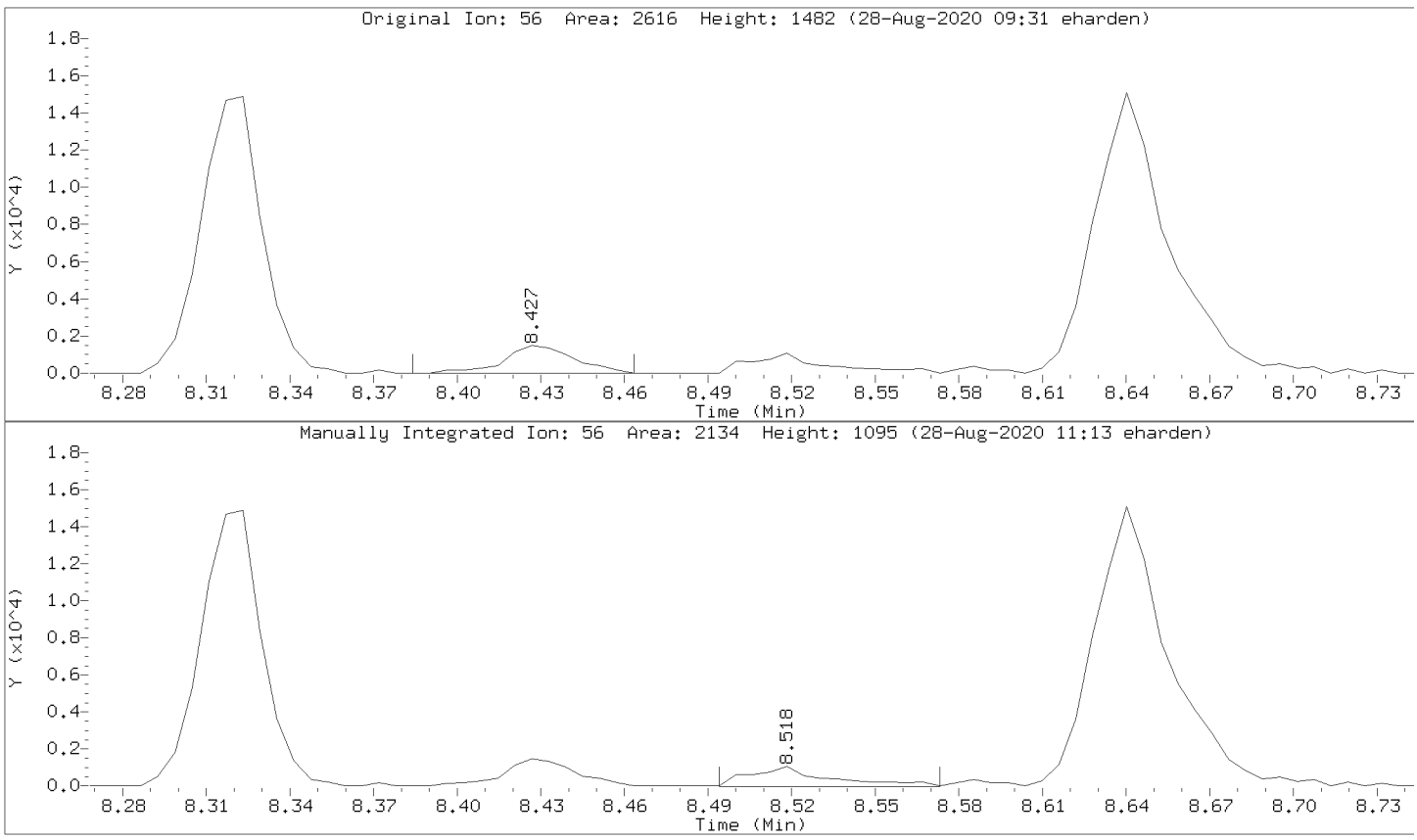






Data File: \\10.25.1.60\chem\52mv02.i\082720.b/082720_25.D
Injection Date: 27-AUG-2020 22:11
Instrument: 52mv02.i
Lab Sample ID: 205521

Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3



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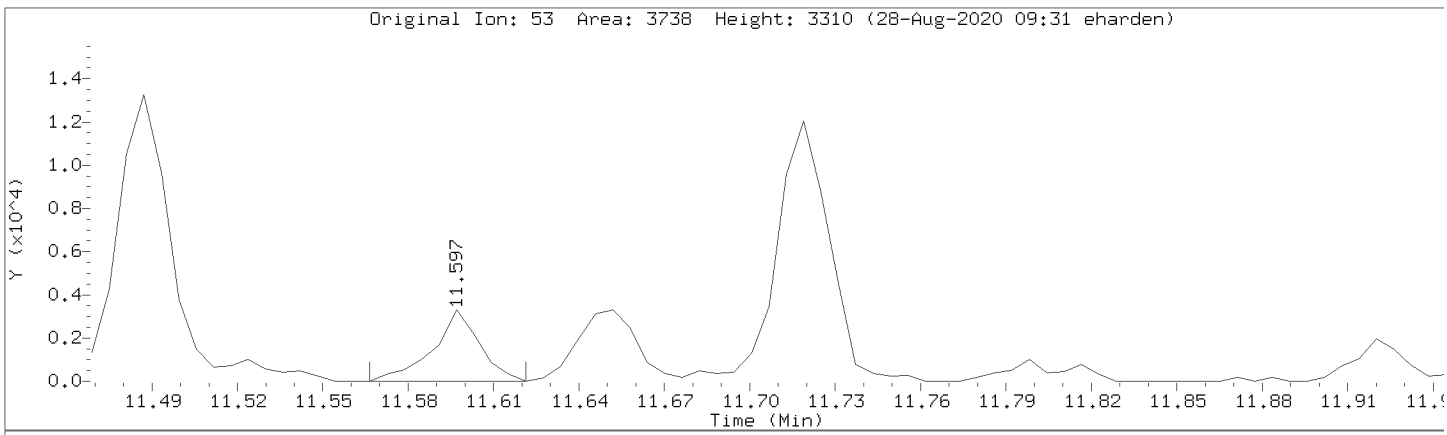
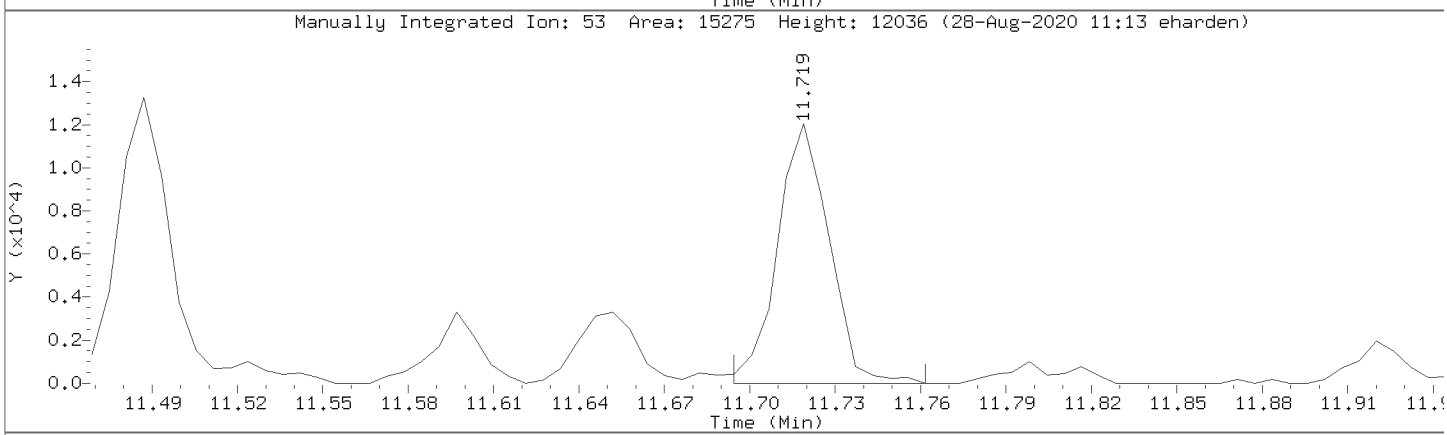
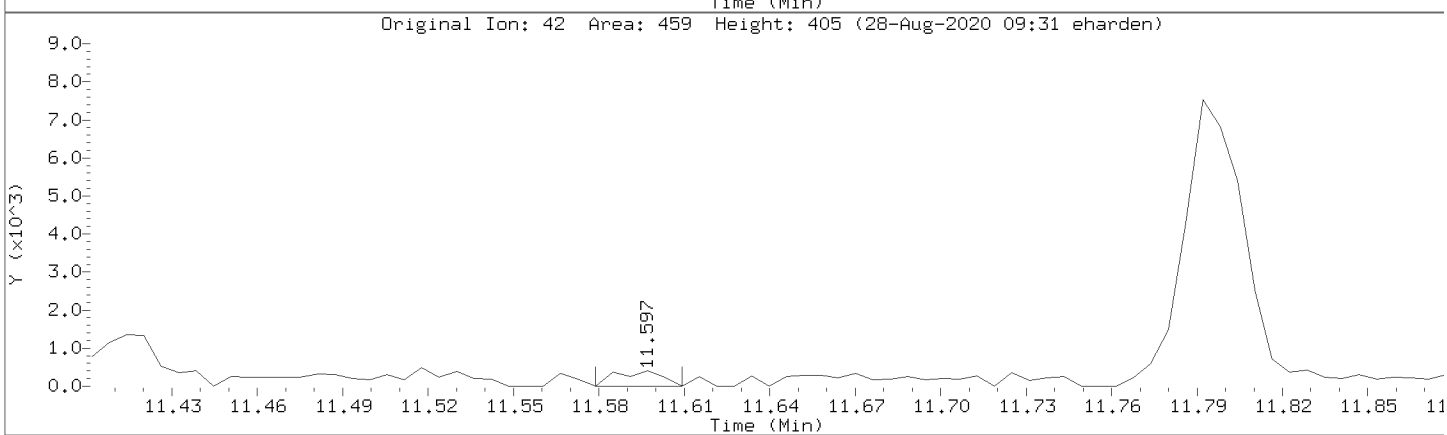
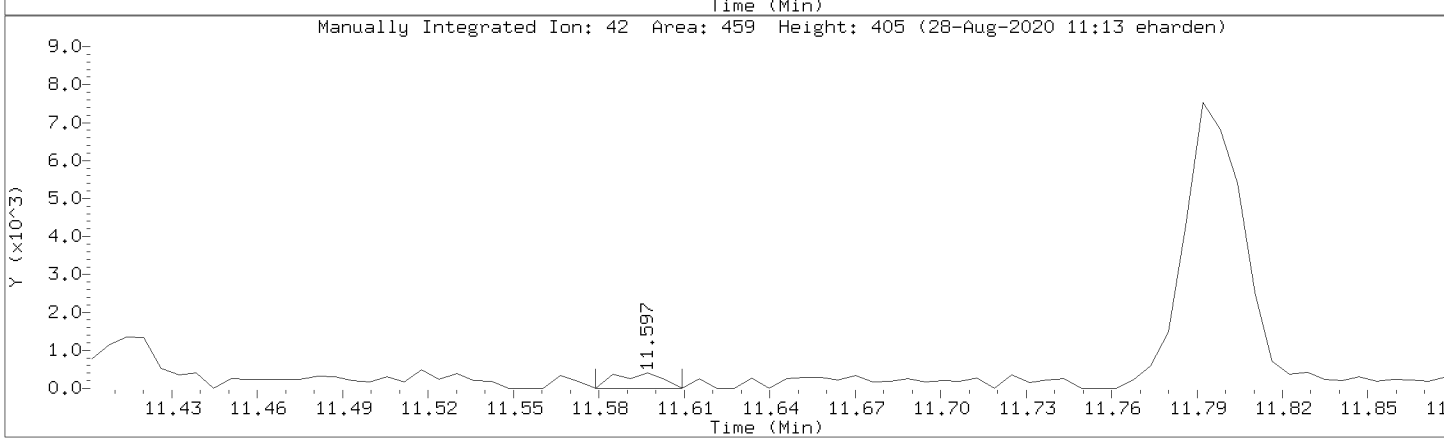
Injection Date: 27-AUG-2020 22:11
Instrument: 52mv02.i
Lab Sample ID: 205521

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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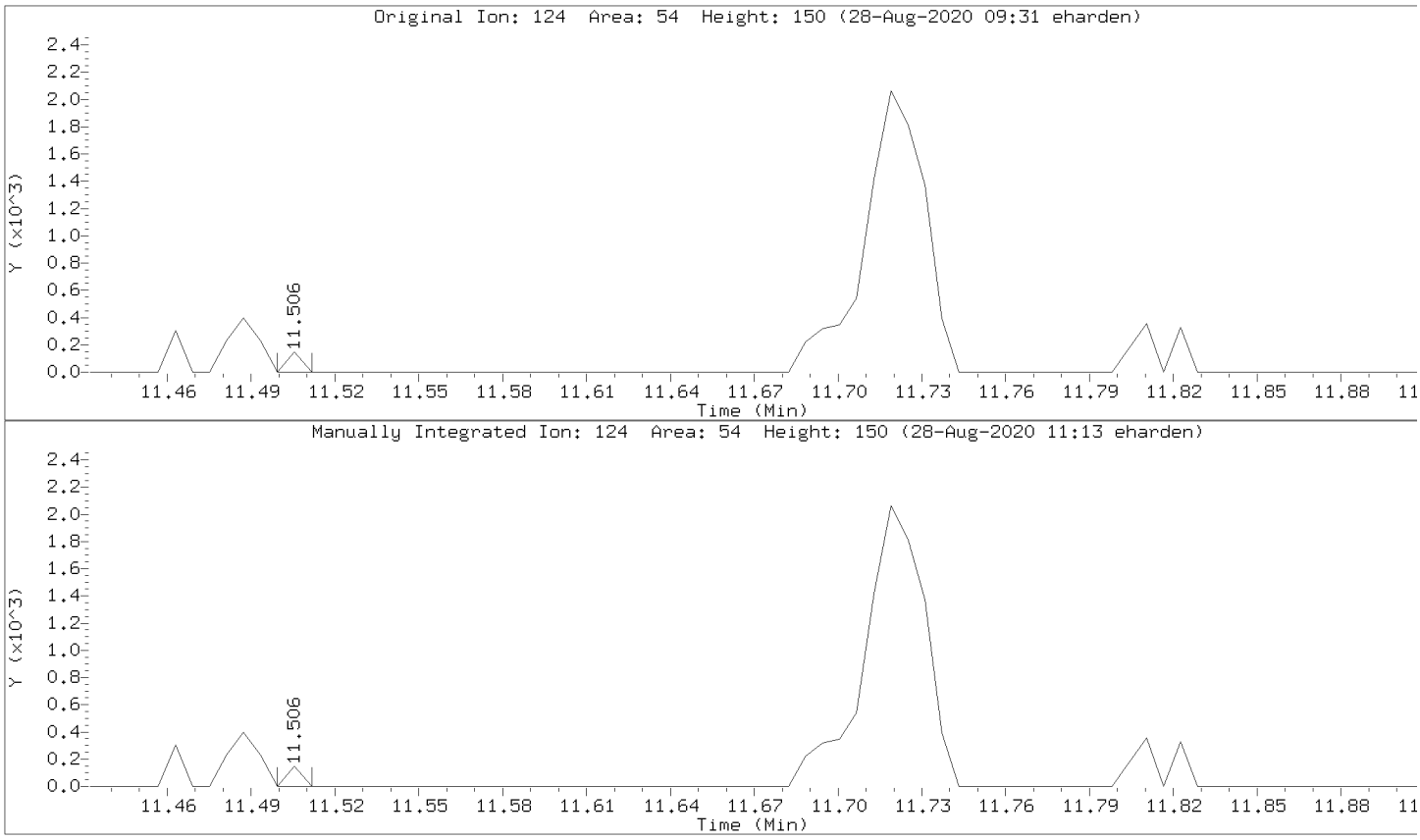
Injection Date: 27-AUG-2020 22:11
Instrument: 52mv02.i
Lab Sample ID: 205521



SAMPLE NO.

MSD

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 205522
Date Analyzed: 08/27/2020 22:36
Lab File ID: 082720.B\082720_26.D
Initial wt/vol: 5.23 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 15.1%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	993	
75-05-8	Acetonitrile	1500	
107-02-8	Acrolein	819	
107-13-1	Acrylonitrile	998	
71-43-2	Benzene	562	
108-86-1	Bromobenzene	598	
74-97-5	Bromochloromethane	523	
75-27-4	Bromodichloromethane	631	
75-25-2	Bromoform	559	
74-83-9	Bromomethane	629	
78-93-3	2-Butanone (MEK)	836	
104-51-8	n-Butylbenzene	497	
135-98-8	sec-Butylbenzene	448	
98-06-6	tert-Butylbenzene	435	
75-15-0	Carbon disulfide	499	
56-23-5	Carbon tetrachloride	625	
108-90-7	Chlorobenzene	555	
75-00-3	Chloroethane	583	
67-66-3	Chloroform	552	
74-87-3	Chloromethane	599	
95-49-8	2-Chlorotoluene	534	
106-43-4	4-Chlorotoluene	493	
96-12-8	1,2-Dibromo-3-chloropropane	439	
124-48-1	Dibromochloromethane	595	
106-93-4	1,2-Dibromoethane (EDB)	547	
74-95-3	Dibromomethane	597	
95-50-1	1,2-Dichlorobenzene	514	
541-73-1	1,3-Dichlorobenzene	544	
106-46-7	1,4-Dichlorobenzene	522	
75-71-8	Dichlorodifluoromethane	441	
75-34-3	1,1-Dichloroethane	538	
107-06-2	1,2-Dichloroethane	546	
75-35-4	1,1-Dichloroethene	533	
156-59-2	cis-1,2-Dichloroethene	495	
156-60-5	trans-1,2-Dichloroethene	504	
78-87-5	1,2-Dichloropropane	552	
142-28-9	1,3-Dichloropropane	572	

SAMPLE NO.

MSD

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/27/2020 15:15
Matrix: Solid SDG No.: 5249553
Date Extracted: 08/27/2020 16:25
Lab Sample ID: 205522
Date Analyzed: 08/27/2020 22:36
Lab File ID: 082720.B\082720_26.D
Initial wt/vol: 5.23 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 15.1%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	489	
563-58-6	1,1-Dichloropropene	564	
10061-01-5	cis-1,3-Dichloropropene	554	
10061-02-6	trans-1,3-Dichloropropene	553	
141-78-6	Ethyl acetate	916	
100-41-4	Ethylbenzene	520	
591-78-6	2-Hexanone	996	
98-82-8	Isopropylbenzene (Cumene)	462	
99-87-6	p-Isopropyltoluene	435	
75-09-2	Methylene Chloride	516	
108-10-1	4-Methyl-2-pentanone (MIBK)	922	
1634-04-4	Methyl-tert-butyl ether	513	
91-20-3	Naphthalene	384	
103-65-1	n-Propylbenzene	551	
100-42-5	Styrene	467	
630-20-6	1,1,1,2-Tetrachloroethane	563	
79-34-5	1,1,2,2-Tetrachloroethane	525	
127-18-4	Tetrachloroethene	587	
108-88-3	Toluene	563	
87-61-6	1,2,3-Trichlorobenzene	492	
120-82-1	1,2,4-Trichlorobenzene	474	
71-55-6	1,1,1-Trichloroethane	609	
79-00-5	1,1,2-Trichloroethane	529	
79-01-6	Trichloroethene	597	
75-69-4	Trichlorofluoromethane	616	
96-18-4	1,2,3-Trichloropropane	526	
95-63-6	1,2,4-Trimethylbenzene	475	
108-67-8	1,3,5-Trimethylbenzene	535	
108-05-4	Vinyl acetate	358	
75-01-4	Vinyl chloride	515	
1330-20-7	Xylene (Total)	1460	

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082720.b\082720_26.D
Lab Smp Id: 205522 Client Smp ID: YL10PB2SSMSD
Inj Date : 27-AUG-2020 22:36
Operator : EAH Inst ID: 52mv02.i
Smp Info : 205522,
Misc Info : 2991,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082720.b\8260BSM_082020.m
Meth Date : 27-Aug-2020 12:16 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 22 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.208	(0.408)	45409	15.6705	15.7	
2 Chloromethane	50	3.537	3.537	(0.450)	73886	21.2885	21.3	
3 Vinyl chloride	62	3.689	3.690	(0.469)	52197	18.3025	18.3	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	42087	16.5041	16.5	
5 Bromomethane	94	4.195	4.196	(0.534)	52148	22.3479	22.3	
6 Chloroethane	64	4.360	4.360	(0.555)	16875	20.7246	20.7	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	39696	21.8941	21.9	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	17318	17.3331	17.3	
9 1,1-Dichloroethene	61	5.232	5.232	(0.666)	61030	18.9302	18.9	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	41816	19.6612	19.7	
11 Carbon disulfide	76	5.293	5.293	(0.673)	126394	17.7145	17.7	
12 Iodomethane	142	5.439	5.439	(0.692)	21423	16.7173	16.7	
13 Acrolein	56	5.652	5.659	(0.719)	9682	29.0908	29.1	
14 Allyl chloride	76	5.780	5.787	(0.736)	17609	17.7524	17.8	
15 Methylene Chloride	49	5.902	5.903	(0.751)	70163	18.3192	18.3	
16 Acetone	43	5.969	5.970	(0.760)	67997	35.2716	35.3	
17 Methyl acetate	43	6.067	6.067	(0.772)	85026	38.0310	38.0(R)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	38978	17.8973	17.9	
19 n-Hexane	86	6.110	6.110	(0.777)	3230	13.9960	14.0(R)	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	92582	18.2299	18.2	
21 Acetonitrile	41	6.457	6.457	(0.822)	10844	53.3310	53.3(R)	
22 Chloroprene	53	6.640	6.640	(0.845)	56051	18.4622	18.5	
23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	80845	19.1028	19.1	
24 Acrylonitrile	53	6.738	6.738	(0.857)	32611	35.4667	35.5(R)	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	6.859	6.860	(0.873)	53300	12.7319	12.7(RM)	CO
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	54870	17.5924	17.6	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	56763	17.3883	17.4	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	25348	18.5941	18.6	
	29 Cyclohexane	56	7.335	7.335	(0.882)	46459	17.8523	17.8	
	30 Chloroform	83	7.372	7.372	(0.938)	93801	19.6016	19.6	
	31 Ethyl acetate	43	7.426	7.427	(0.945)	87889	32.5332	32.5(R)	
	32 Carbon tetrachloride	117	7.512	7.506	(0.903)	68376	22.2052	22.2	
	33 Tetrahydrofuran	42	7.530	7.524	(0.958)	22446	31.9959	32.0(R)	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	134913	48.7503	48.8	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	75482	21.6342	21.6	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	61298	29.7099	29.7	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	48544	20.0312	20.0	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	240363	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	156185	19.9662	20.0	
	40 Propionitrile	54	7.890	7.896	(1.004)	14551	35.5227	35.5(R)	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	73048	35.0545	35.0(R)	
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	23643	47.4906	47.5	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	72818	19.3816	19.4	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	73833	16.4993	16.5	
	46 Trichloroethene	130	8.316	8.317	(1.000)	45373	21.2150	21.2	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	305852	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	18878	18.6237	18.6	
	49 n-Butanol	56	8.512	8.518	(1.023)	1990	42.5690	42.6(RM)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	38640	21.2106	21.2	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	43762	19.5946	19.6	
	52 Bromodichloromethane	83	8.762	8.762	(1.054)	71888	22.4159	22.4	
	53 Methyl methacrylate	69	8.822	8.823	(1.061)	19436	15.4915	15.5	
	54 1,4-Dioxane (p-Dioxane)	58	8.926	8.939	(1.073)	482	25.6000	25.6(RM)	LT
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	37091	33.2599	33.2(R)	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	61390	19.6844	19.7	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	337015	51.1872	51.2	
	58 Toluene	91	9.414	9.414	(1.132)	152600	20.0085	20.0	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	12536	16.1983	16.2	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	7173	32.7712	32.8	
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	61203	19.6633	19.7	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	42092	20.8367	20.8	
	63 Ethyl methacrylate	69	9.755	9.755	(1.173)	39094	16.3198	16.3	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	36337	18.7999	18.8	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	59219	21.1544	21.2	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	59920	20.3253	20.3	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	46625	19.4191	19.4	
	68 2-Hexanone	43	10.273	10.274	(1.235)	91381	35.3909	35.4	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	142233	18.4709	18.5	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	294342	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	112064	19.7339	19.7	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	47984	20.0059	20.0	
	73 m&p-Xylene	91	10.651	10.652	(1.009)	242020	36.1791	36.2	
	74 o-Xylene	106	10.993	10.993	(1.041)	48896	15.7904	15.8	
	75 Styrene	104	11.029	11.030	(1.044)	89573	16.6071	16.6	
	76 Bromoform	173	11.103	11.097	(1.051)	52822	19.8608	19.9	
	77 n-amyl acetate	43	11.218	11.219	(1.062)	76677	16.6464	16.6	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.469	(1.086)	117115	48.4821	48.5	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	16876	17.4614	17.5	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	184769	19.5693	19.6	
81 Bromobenzene	156	11.578	11.578	(1.096)	63319	21.2613	21.3	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	58723	18.6471	18.6	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	120939	18.9955	19.0	
84 2-Chlorotoluene	126	11.694	11.688	(1.107)	42138	18.9631	19.0	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	39169	17.5040	17.5	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	130082	16.4029	16.4	
87 1,2,3-Trichloropropane	75	11.718	11.718	(1.110)	61529	18.6901	18.7	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	14894	19.6507	19.6(M)	WP
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	112180	15.4501	15.4	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	123825	16.8723	16.9	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	138358	15.9320	15.9	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	112180	15.4501	15.4	
94 1,3-Dichlorobenzene	146	12.285	12.285	(0.996)	99254	19.3389	19.3	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	192814	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	107443	18.5542	18.6	
97 n-Butylbenzene	91	12.486	12.481	(1.012)	118619	17.6545	17.6	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	102311	18.2429	18.2	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	9837	15.6002	15.6	
100 Hexachloro-1,3-butadiene	225	13.815	13.816	(1.120)	31334	18.2278	18.2	
101 1,2,4-Trichlorobenzene	180	13.889	13.889	(1.125)	63991	16.8512	16.8	
102 Naphthalene	128	14.193	14.194	(1.150)	99851	13.6558	13.6(R)	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	61650	17.4648	17.5	

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

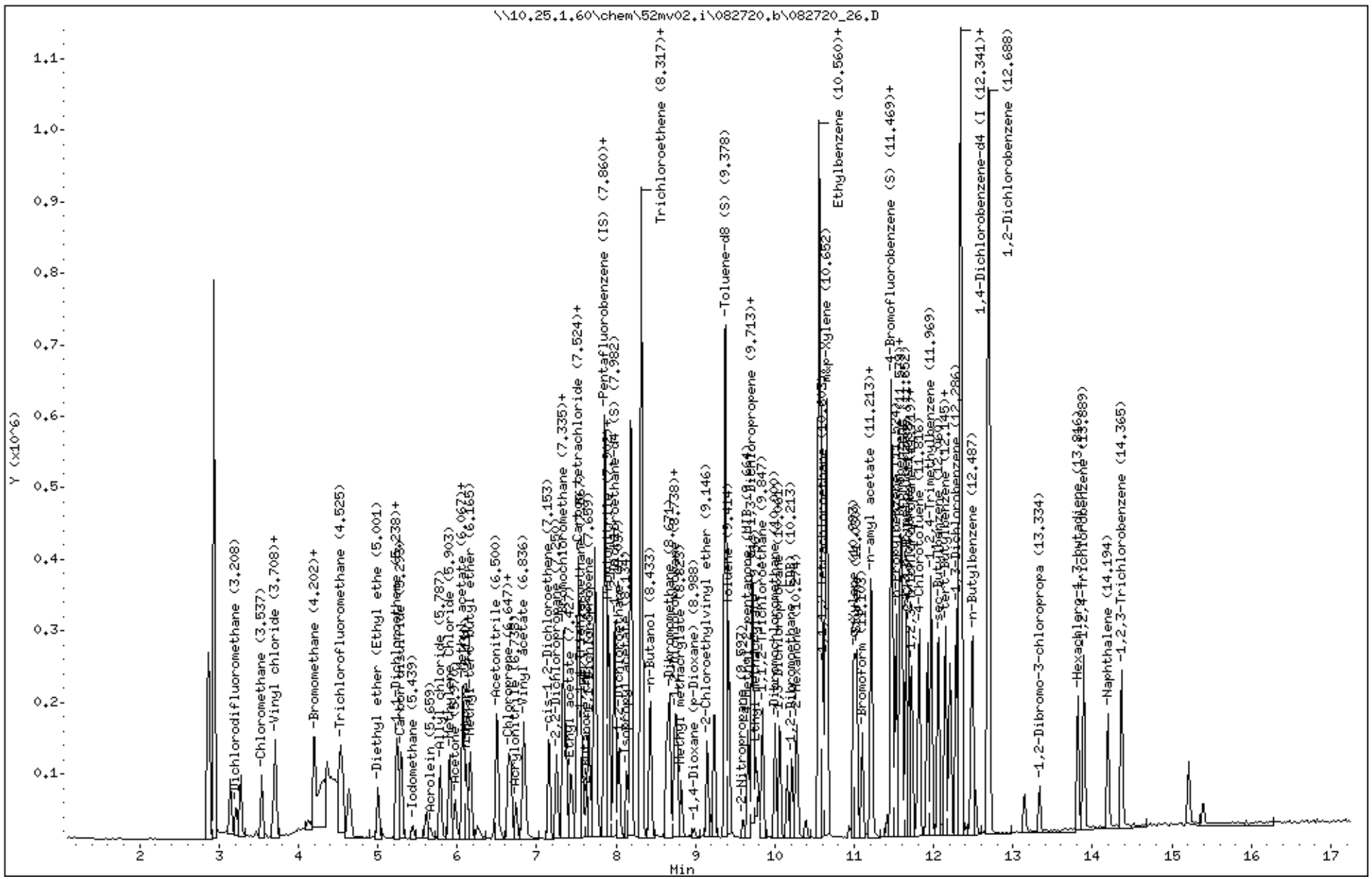
Data File: \\10.25.1.60\chem\52mv02.i\082720.b\082720_26.D
Date : 27-AUG-2020 22:36
Client ID: YL10PB2SSMSD
Sample Info: 205522,

Instrument: 52mv02.i

Operator: EAH

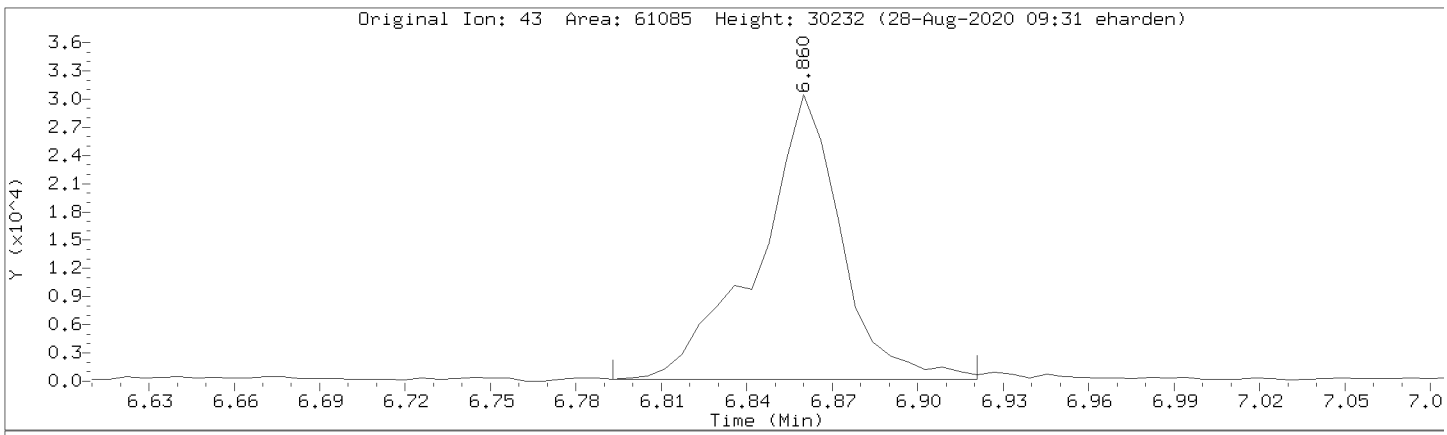
Column phase: RTX-VMS

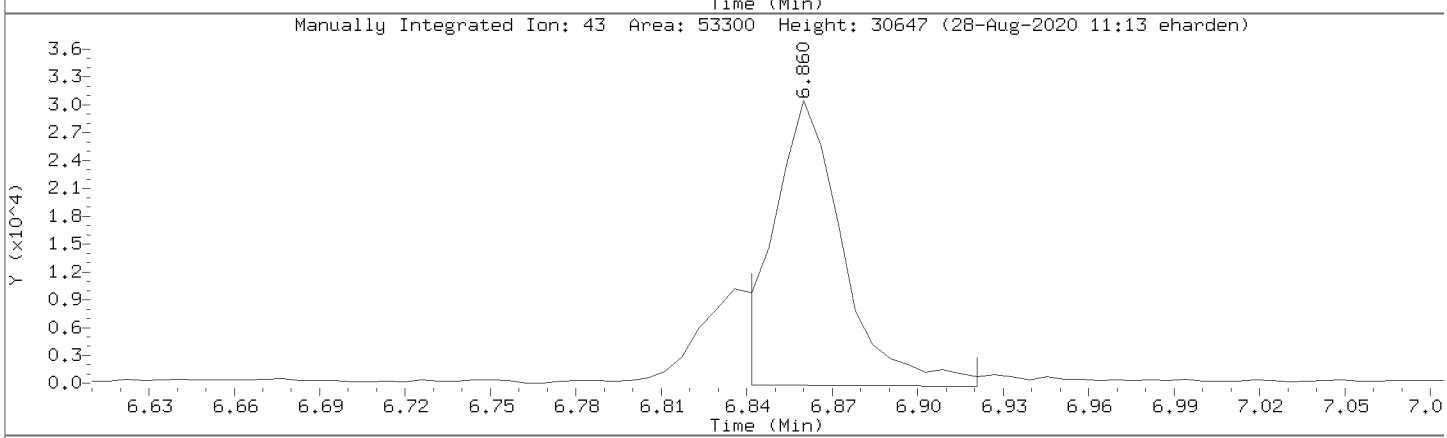
Column diameter: 0.18

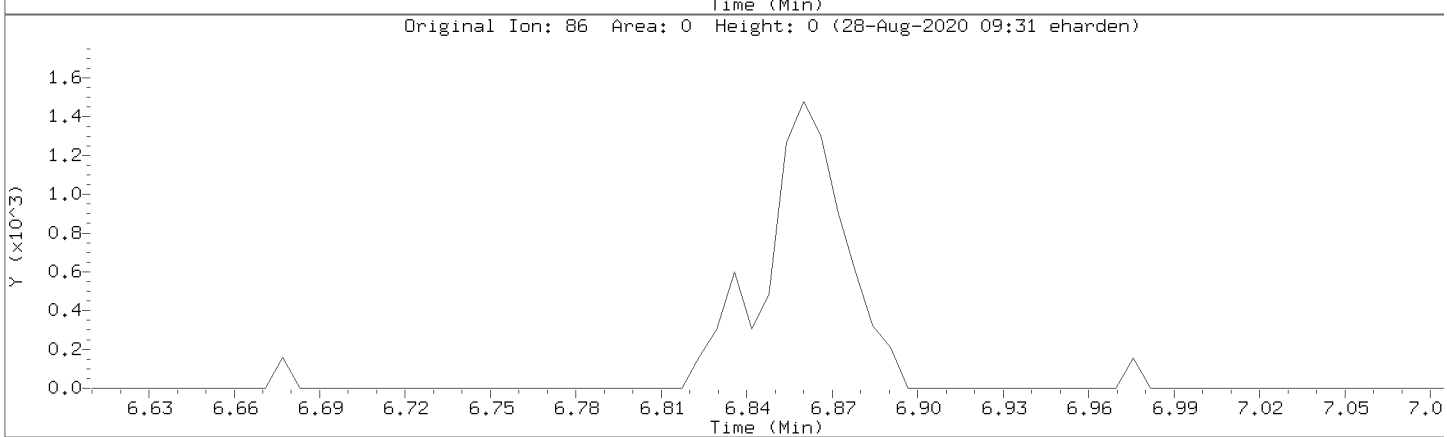


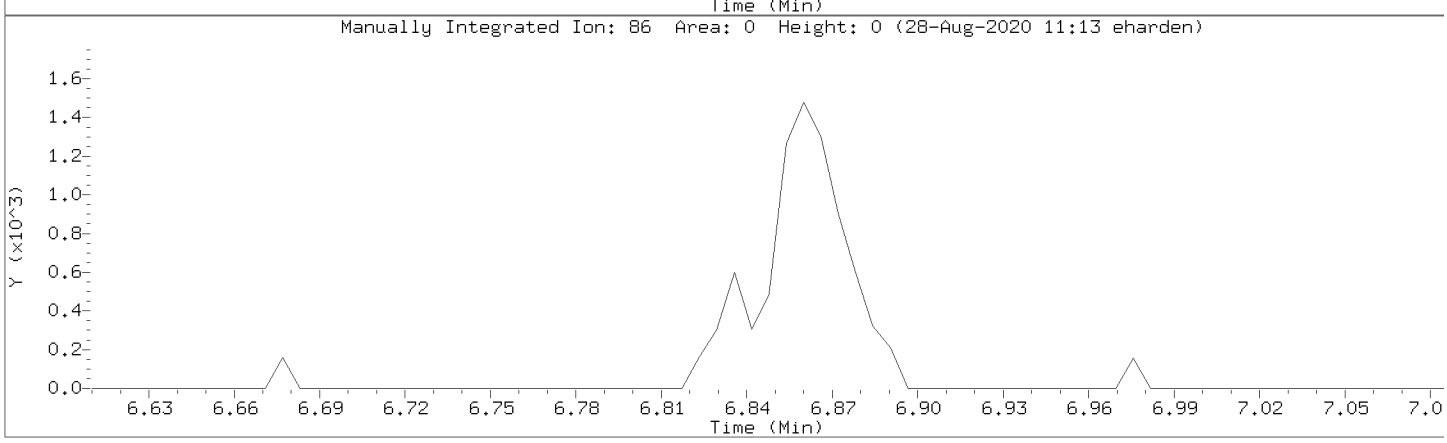
Data File: \\10.25.1.60\chem\52mv02.i\082720.b/082720_26.D
Injection Date: 27-AUG-2020 22:36
Instrument: 52mv02.i
Lab Sample ID: 205522

Compound: Vinyl acetate Review Code: CO
CAS Number: 108-05-4









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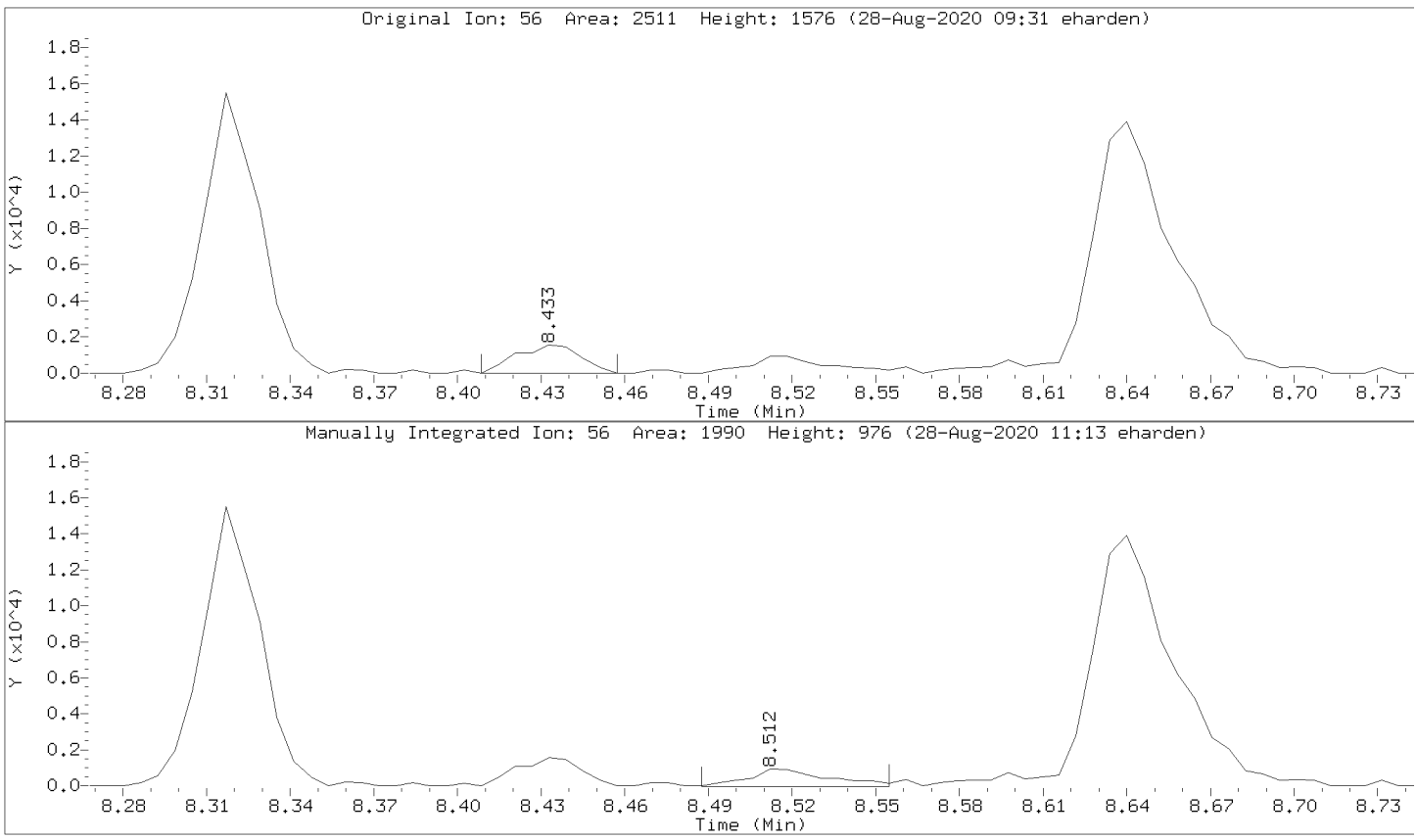
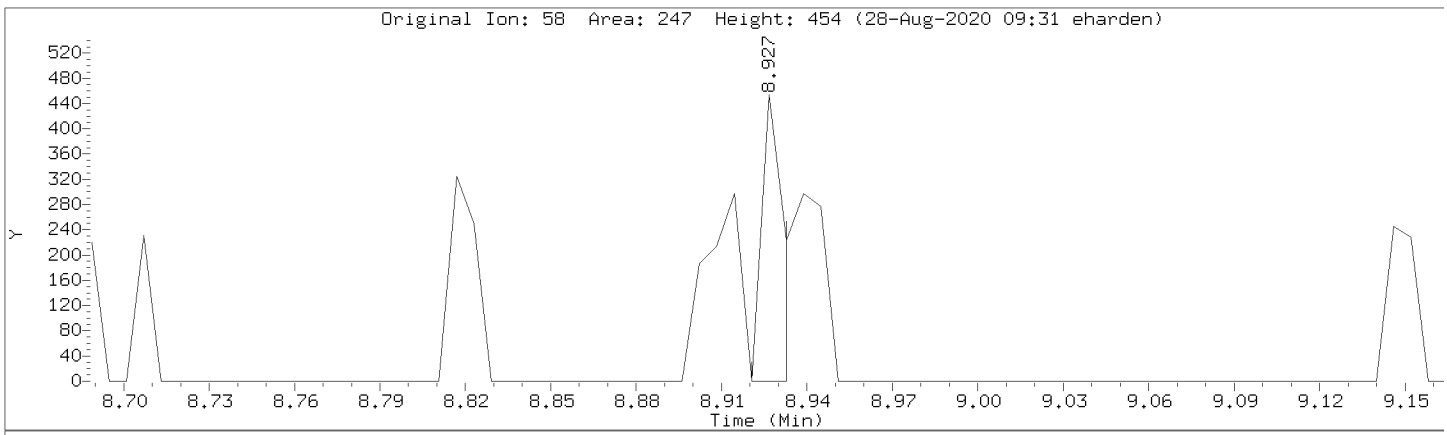
Injection Date: 27-AUG-2020 22:36
Instrument: 52mv02.i
Lab Sample ID: 205522

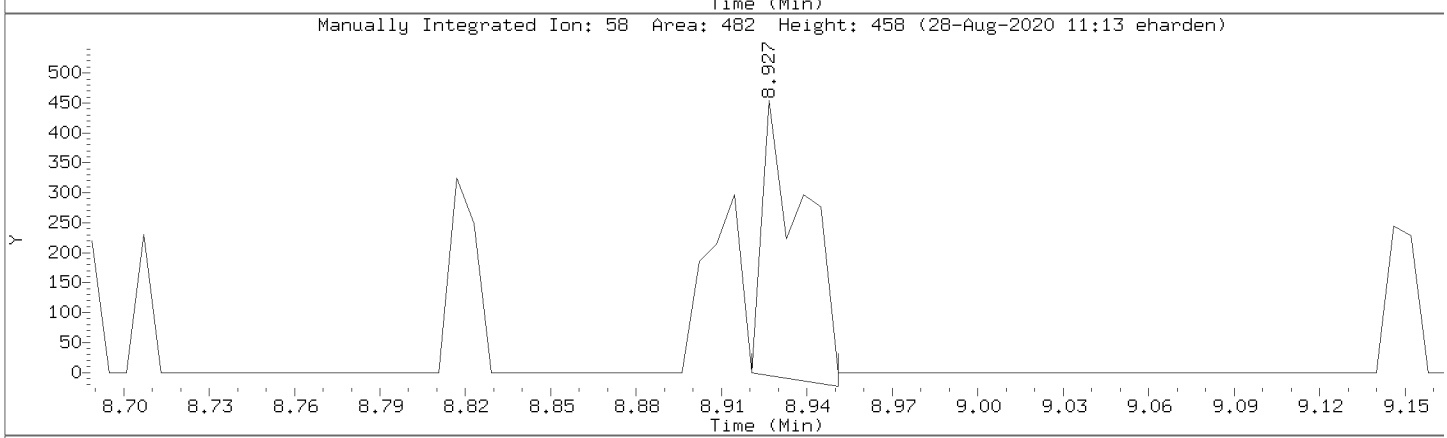
Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3

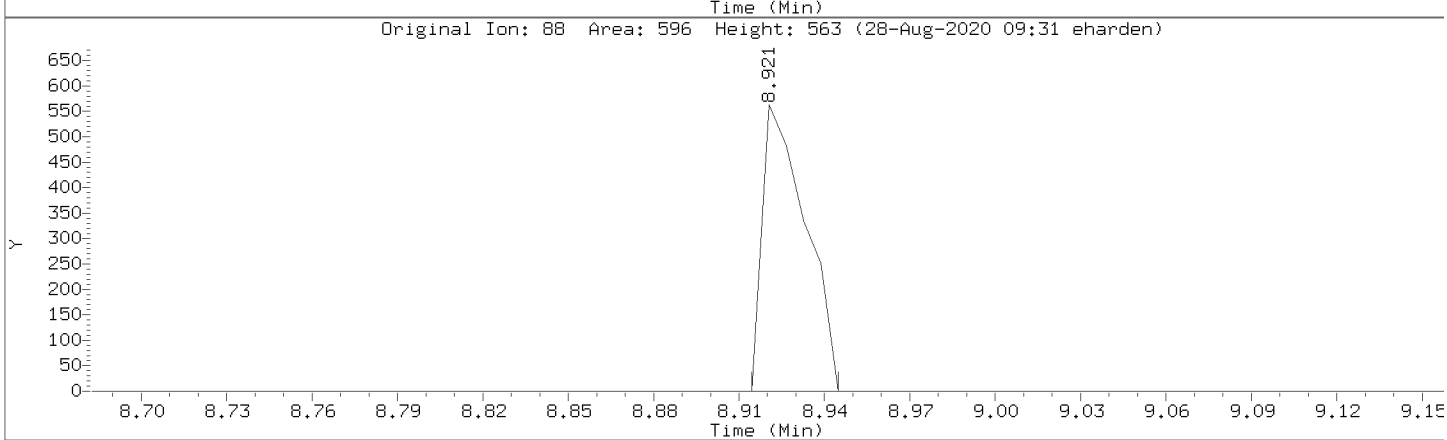


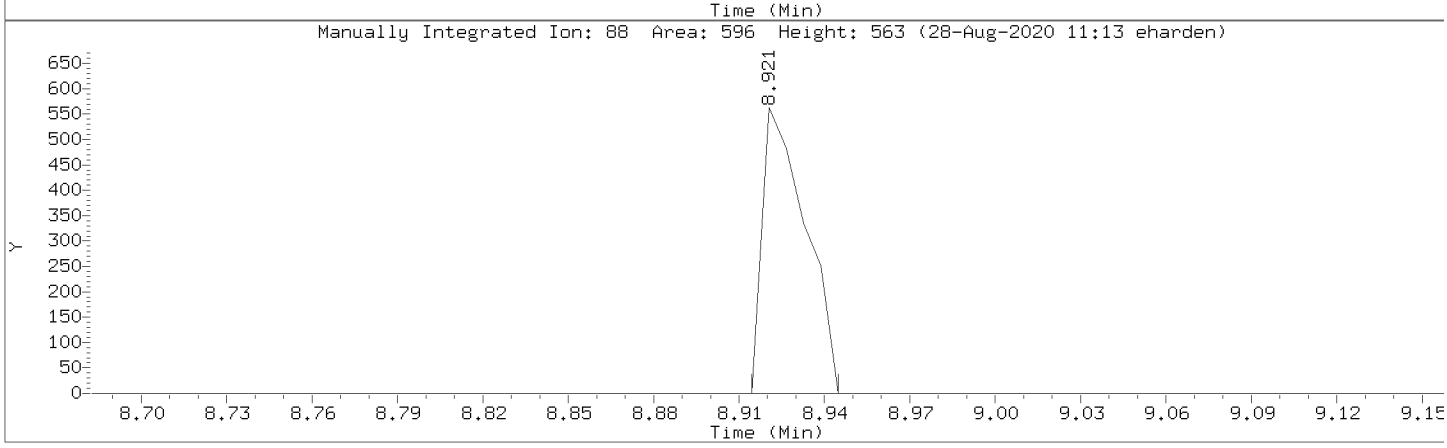
Data File: \\10.25.1.60\chem\52mv02.i\082720.b/082720_26.D
Injection Date: 27-AUG-2020 22:36
Instrument: 52mv02.i
Lab Sample ID: 205522

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1

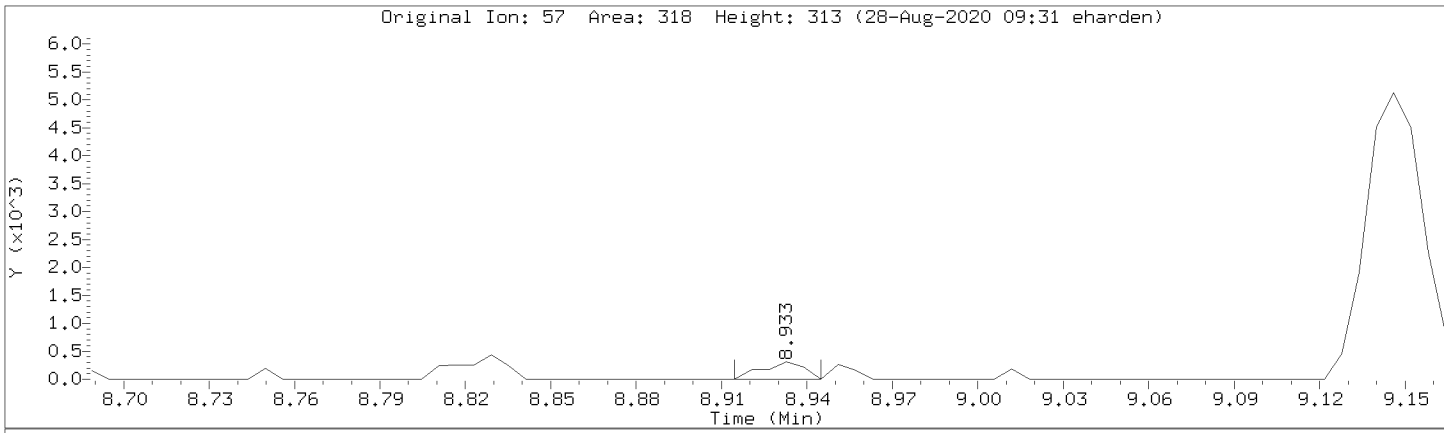


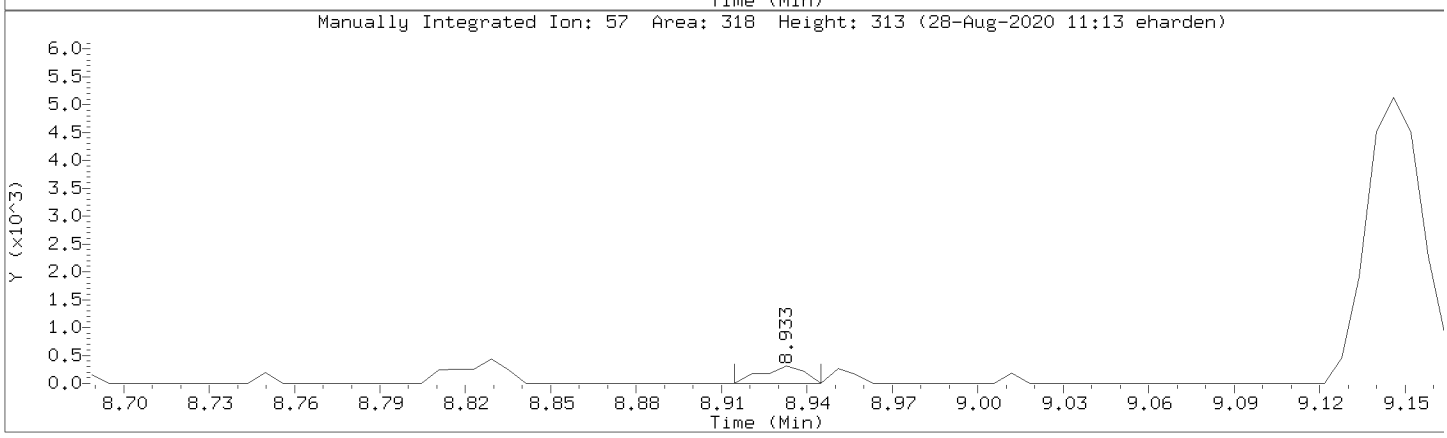






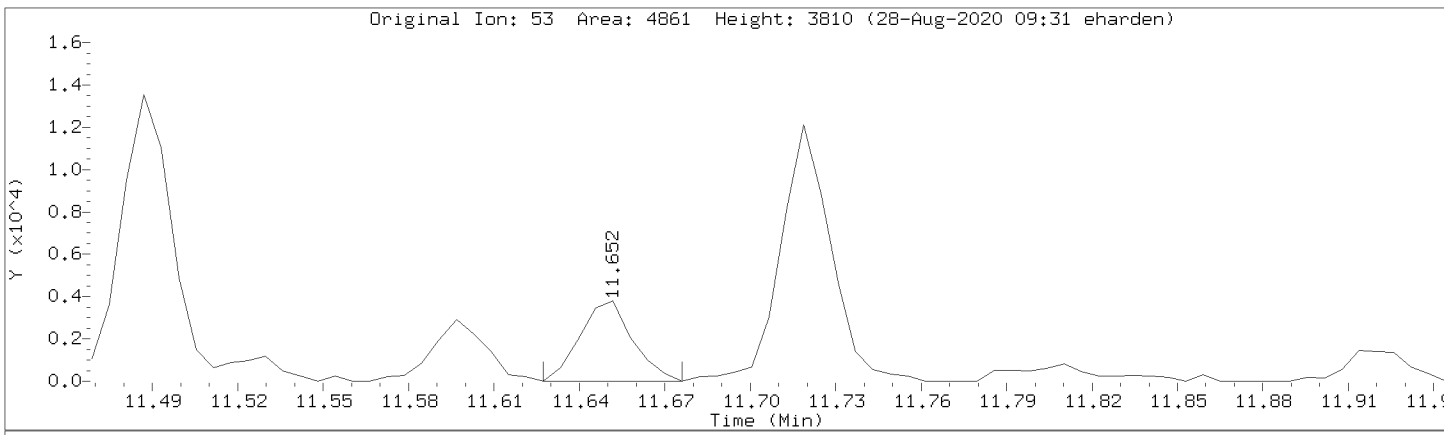
Data File: \\10.25.1.60\chem\52mv02.i\082720.b/082720_26.D
Injection Date: 27-AUG-2020 22:36
Instrument: 52mv02.i
Lab Sample ID: 205522

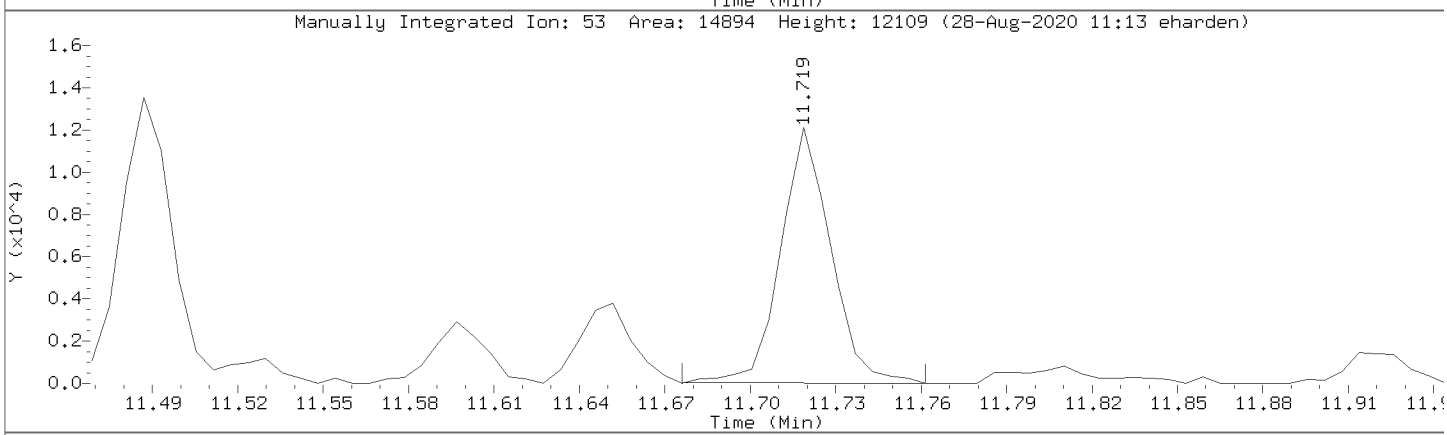


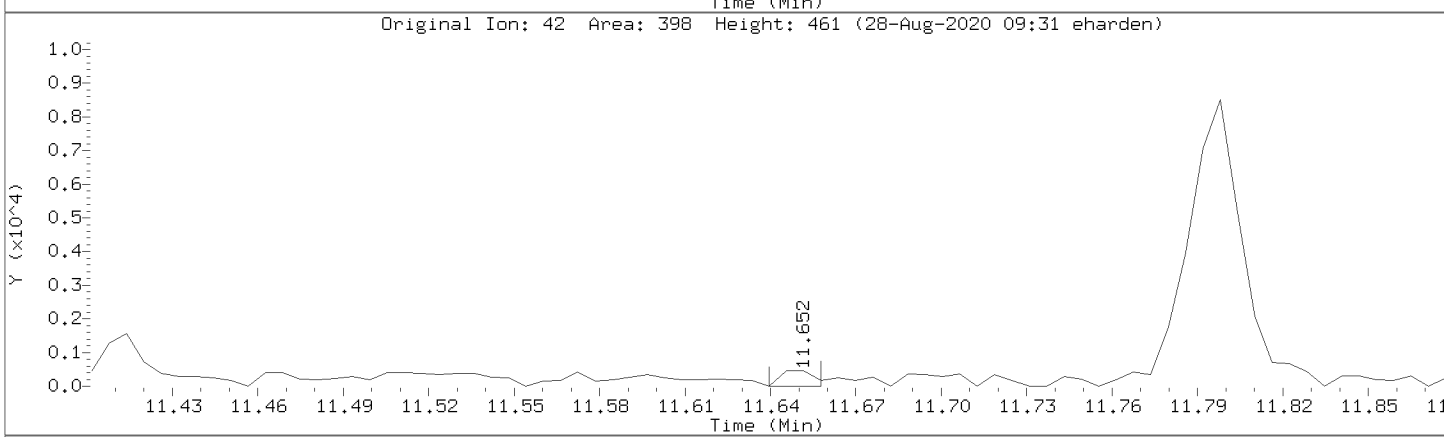


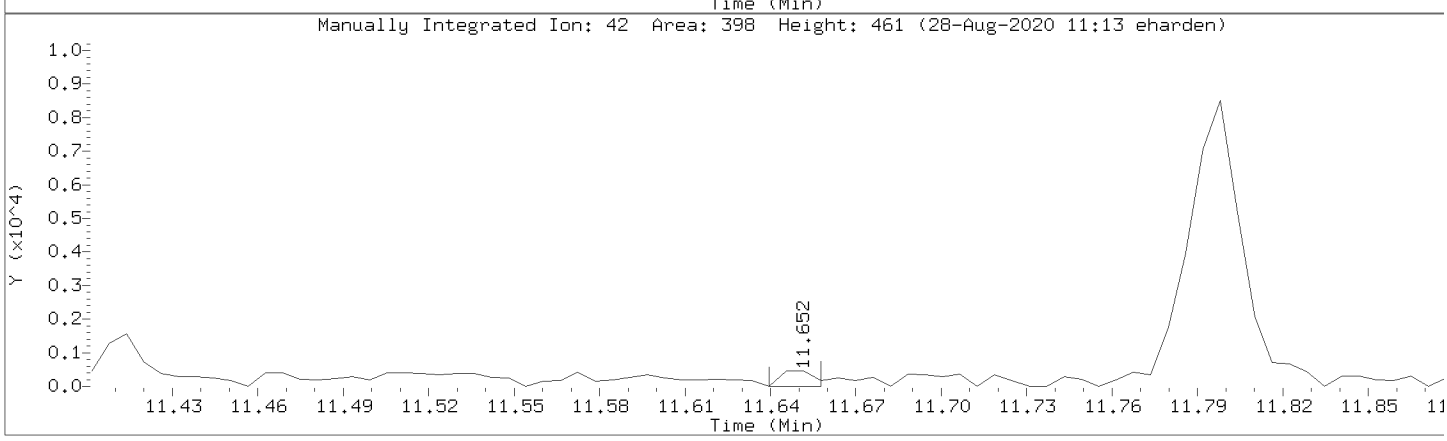
Data File: \\10.25.1.60\chem\52mv02.i\082720.b/082720_26.D
Injection Date: 27-AUG-2020 22:36
Instrument: 52mv02.i
Lab Sample ID: 205522

Compound: trans-1,4-Dichloro-2-butene Review Code: WP
CAS Number: 110-57-6

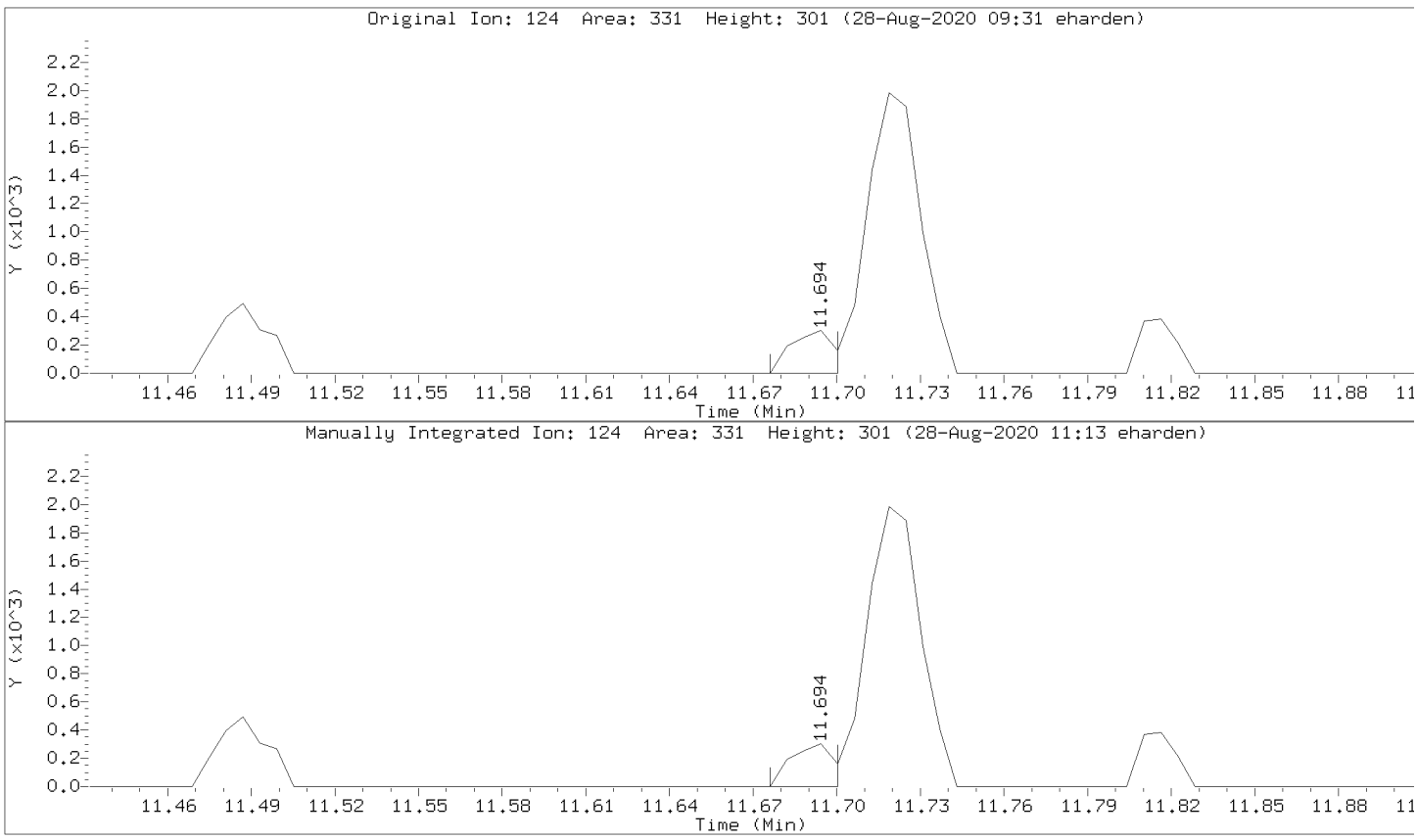








Data File: \\10.25.1.60\chem\52mv02.i\082720.b/082720_26.D
Injection Date: 27-AUG-2020 22:36
Instrument: 52mv02.i
Lab Sample ID: 205522



Prep Log Report

Batch Information: MSV 8260B SM_P 48787 **Template Version: EF-DAYT-O-001-Rev.00 (02Nov2018)**

Prep Method	EPA 5035A	Analysis Method	EPA 8260B	Prepared By	EAH	Extracted Date/Time	08/27/2020 10:38:40:964
Instrument	52BL11	Ottawa Sand	20490	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Tare Weight (g)	Total Weight (g)	Initial Weight (g)	Final Volume (mL)	Preservation	Sample Notes
8260B SM_P	BLANK	**205215**	0	5	5.0000	5		
8260B SM_P	LCS	**205216**	0	5	5.0000	5		
8260B SM_P	PS	**5249154001**	0	5.13	5.1300	5		
8260B SM_P	MS	**205217**	0	5.48	5.4800	5		
8260B SM_P	MSD	**205218**	0	5.27	5.2700	5		
8260B SM_P	PS	**5249452002**	0	5.12	5.1200	5		
8260B SM_P	PS	**5249454002**	0	5.26	5.2600	5		

Prep Log Report

Batch Information: MSV 8260B SM_P 48787 B

Template Version: EF-DAYT-O-001-Rev.00 (02Nov2018)

Prep Method	EPA 5035A	Analysis Method	EPA 8260B	Prepared By	EAH	Extracted Date/Time	08/27/2020 15:56:16:759
Instrument	52BL11	Ottawa Sand	8940	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Tare Weight (g)	Total Weight (g)	Initial Weight (g)	Final Volume (mL)	Preservation	Sample Notes
8260B SM_P	PS	**5249553001**	0	5.4	5.4000	5		

Prep Log Report

Batch Information: msv 8260b sm-p 48787 c **Template Version: EF-DAYT-O-001-Rev.00 (02Nov2018)**

Prep Method	EPA 5035A	Analysis Method	EPA 8260B	Prepared By	EAH	Extracted Date/Time	08/27/2020 16:25:48:104
Instrument	52BL11	Ottawa Sand	20490	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Tare Weight (g)	Total Weight (g)	Initial Weight (g)	Final Volume (mL)	Preservation	Sample Notes
8260B SM_P	PS	**5249553002**	0	5.15	5.1500	5		
8260B SM_P	PS	**5249553003**	0	5.13	5.1300	5		
8260B SM_P	PS	**5249553004**	0	5.26	5.2600	5		
8260B SM_P	PS	**5249553005**	0	5.15	5.1500	5		
8260B SM_P	PS	**5249553006**	0	5.22	5.2200	5		
8260B SM_P	PS	**5249553007**	0	5.4	5.4000	5		
8260B SM_P	PS	**5249553008**	0	5.37	5.3700	5		
8260B SM_P	PS	**5249553009**	0	5.22	5.2200	5		
8260B SM_P	PS	**5249553010**	0	5.07	5.0700	5		
8260B SM_P	PS	**5249553011**	0	5.3	5.3000	5		
8260B SM_P	PS	**5249553012**	0	5.01	5.0100	5		
8260B SM_P	PS	**5249553013**	0	5.45	5.4500	5		
8260B SM_P	PS	**5249553014**	0	5.16	5.1600	5		
8260B SM_P	MS	**205521**	0	5.1	5.1000	5		
8260B SM_P	MSD	**205522**	0	5.23	5.2300	5		

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
ISTD lot:
Lot:
Tune std: _____

Method: EPA 524.2
Surr. lot: 26400:1
Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/081920_02.D	TUNE,26558:1,	L/~~2919~~ 2933	BFB	1	7	BFB/all	8/19/20	09:34	EAH	
1/081920_03.D	CCV,27136:1	L/2860	CCALIB_7	1	7	8260BW_071720/	8/19/20	09:59	EAH	
1/081920_03TUNE.D	TUNE	L/2860	BFB	1	7	BFB/all	8/19/20	09:59	EAH	
1/081920_04.D	CCV,27137:1	L/2933	CCALIB_5	1	7	5242W_080720/a	8/19/20	10:24	EAH	
1/081920_04B2955.D	202255,	L/2955	LCS	1	7	5242W_080720/a	8/19/20	10:24	EAH	
1/081920_05.D	0.50 RLC	L/	RLC	1	<2	5242W_080720/a	8/19/20	10:49	EAH	
1/081920_06.D	0.40 RLC	L/	RLC	1	<2	5242W_080720/M	8/19/20	11:14	EAH	
1/081920_07.D	202254,	L/2955	BLANK	1	7	5242W_080720/a	8/19/20	11:39	EAH	
1/081920_08.D	5248591001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	12:06	EAH	
1/081920_09.D	5248591002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	12:32	EAH	
1/081920_10.D	5248591003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	12:57	EAH	
1/081920_11.D	5248591004,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	13:22	EAH	
1/081920_12.D	5248591005,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	13:47	EAH	
1/081920_13.D	5248713001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	14:12	EAH	
1/081920_14.D	5248713002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	14:37	EAH	
1/081920_15.D	5248713003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	15:02	EAH	
1/081920_16.D	5248588001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	15:27	EAH	
1/081920_17.D	5248588002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	15:52	EAH	
1/081920_18.D	5248588003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	16:17	EAH	
1/081920_19.D	5248590001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	16:42	EAH	
1/081920_20.D	5248590002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	17:07	EAH	
1/081920_21.D	5248590003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	17:32	EAH	
1/081920_22.D	5248650001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	17:57	EAH	
1/081920_23.D	5248650002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	18:22	EAH	
1/081920_24.D	5248792001,	L/~~2595~~ 2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	18:48	EAH	
1/081920_25.D	5248792002,	L/~~2595~~ 2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	19:13	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\081920.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 14:51 08/20/2020

Reviewed By/Date: _____ Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
ISTD lot:
Lot:
Tune std: _____

Method: SW846 8260
Surr. lot: 26400:5
Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/082020_01.D	TUNE,26400:1,	L/2957	BFB	1	7	BFB/all	8/20/20	09:57	EAH	
1/082020_02.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	10:23	EAH	
1/082020_03.D	CAL1,27237:1	L/2957	CALIB_1	1	<2	8260BSM_082020	8/20/20	10:50	EAH	
1/082020_04.D	CAL2,27238:1	L/2957	CALIB_2	1	<2	8260BSM_082020	8/20/20	11:15	EAH	
1/082020_05.D	CAL3,27239:1	L/2957	CALIB_3	1	<2	8260BSM_082020	8/20/20	11:40	EAH	
1/082020_06.D	CAL4,27240:1	L/2957	CALIB_4	1	<2	8260BSM_082020	8/20/20	12:05	EAH	
1/082020_07.D	CAL5,27241:1	L/2957	CALIB_5	1	<2	8260BSM_082020	8/20/20	12:30	EAH	
1/082020_08.D	CAL6,27242:1	L/2957	CALIB_6	1	<2	8260BSM_082020	8/20/20	12:55	EAH	
1/082020_09.D	CAL7,27243:1	L/2957	CALIB_7	1	<2	8260BSM_082020	8/20/20	13:20	EAH	
1/082020_10.D	CAL8,27244:1	L/2957	CALIB_8	1	<2	8260BSM_082020	8/20/20	13:45	EAH	
1/082020_11.D	CAL9,27245:1	L/2957	CALIB_9	1	<2	8260BSM_082020	8/20/20	14:11	EAH	
1/082020_12.D	CAL10,27246:1	L/2957	CALIB_10	1	<2	8260BSM_082020	8/20/20	14:36	EAH	
1/082020_13.D	CAL11,27247:1	L/2957	CALIB_11	1	<2	8260BSM_082020	8/20/20	15:01	EAH	
1/082020_14.D	CAL12,27248:1	L/2957	CALIB_12	1	<2	8260BSM_082020	8/20/20	15:26	EAH	
1/082020_15.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	15:51	EAH	
1/082020_16.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	16:16	EAH	
1/082020_17.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	16:41	EAH	
1/082020_18.D	ICV, 27249:1	L/2957	CCALIB_7	1	7	8260BSM_082020	8/20/20	17:06	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\082020.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 11:12 08/21/2020

Reviewed By/Date: _____ Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium — Method: SW846 8260
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot: — Surr. lot: 26400:5
Lot:
Tune std: _____ — Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/082620_01.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/26/20	10:35	EAH	
1/082620_02.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/26/20	11:00	EAH	
1/082620_03.D	CCV,27136:1	L/2957	CCALIB_7	1	7	8260BSM_082020	8/26/20	11:25	EAH	
1/082620_03B2983.D	204602,	S/2983	LCS	1		8260BSM_082020	8/26/20	11:25	EAH	
1/082620_03TUNE.D	TUNE,26400:1,	L/2957	BFB	1	7	BFB/all	8/26/20	11:25	EAH	
1/082620_04.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/26/20	11:50	EAH	
1/082620_05.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/26/20	12:15	EAH	
1/082620_06.D	204601,	S/2983	BLANK	1		8260BSM_082020	8/26/20	12:40	EAH	
1/082620_07.D	5249328001,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	13:05	EAH	
1/082620_08.D	204603,	S/2983	MS	1		8260BSM_082020	8/26/20	13:30	EAH	
1/082620_09.D	204604,	S/2983	MSD	1		8260BSM_082020	8/26/20	13:55	EAH	
1/082620_10.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/26/20	14:20	EAH	
1/082620_11.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/26/20	14:45	EAH	
1/082620_12.D	5249328002,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	15:11	EAH	
1/082620_13.D	5249328003,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	15:36	EAH	
1/082620_14.D	5249328004,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	16:01	EAH	
1/082620_15.D	5249328005,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	16:26	EAH	
1/082620_16.D	5249328006,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	16:51	EAH	
1/082620_17.D	5249328007,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	17:16	EAH	
1/082620_18.D	5249328008,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	17:41	EAH	
1/082620_19.D	5249417001,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	18:06	EAH	
1/082620_20.D	5249417002,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	18:31	EAH	
1/082620_21.D	5249417003,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	18:56	EAH	
1/082620_22.D	5249417004,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	19:21	EAH	
1/082620_23.D	5249417005,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	19:46	EAH	
1/082620_24.D	5249417006,	S/2983	SAMPLE	1		8260BSM_082020	8/26/20	20:11	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced, _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\082620.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:04 08/27/2020

Reviewed By/Date: _____ Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot:
Lot:
Tune std: _____

Method: SW846 8260

Surr. lot: 26400:5

Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/082720_01.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/27/20	10:44	EAH	
1/082720_02.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/27/20	11:09	EAH	
1/082720_03.D	CCV,27136:1	L/2957	CCALIB_7	1	7	8260BSM_082020	8/27/20	11:34	EAH	
1/082720_03B2991.D	205216,	S/2991	LCS	1		8260BSM_082020	8/27/20	11:34	EAH	
1/082720_03TUNE.D	TUNE,26400:1,	L/2957	BFB	1	7	BFB/all	8/27/20	11:34	EAH	
1/082720_04.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/27/20	11:59	EAH	
1/082720_05.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/27/20	12:25	EAH	
1/082720_06.D	205215,	S/2991	BLANK	1		8260BSM_082020	8/27/20	12:50	EAH	
1/082720_07.D	5249452002X2,	S/2991	SAMPLE	2		8260BSM_082020	8/27/20	13:15	EAH	
1/082720_08.D	5249454002X2,	S/2991	SAMPLE	2		8260BSM_082020	8/27/20	13:40	EAH	
1/082720_09.D	5249154001,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	14:05	EAH	
1/082720_10.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/27/20	14:30	EAH	
1/082720_11.D	5249553001,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	16:20	EAH	
1/082720_12.D	5249553002,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	16:45	EAH	
1/082720_13.D	5249553003,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	17:10	EAH	
1/082720_14.D	5249553004,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	17:35	EAH	
1/082720_15.D	5249553005,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	18:01	EAH	
1/082720_16.D	5249553006,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	18:26	EAH	
1/082720_17.D	5249553007,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	18:51	EAH	
1/082720_18.D	5249553008,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	19:16	EAH	
1/082720_19.D	5249553009,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	19:41	EAH	
1/082720_20.D	5249553010,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	20:06	EAH	
1/082720_21.D	5249553011,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	20:31	EAH	
1/082720_22.D	5249553012,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	20:56	EAH	
1/082720_23.D	5249553013,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	21:21	EAH	
1/082720_24.D	5249553014,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	21:46	EAH	
1/082720_25.D	205521,	S/2991	MS	1		8260BSM_082020	8/27/20	22:11	EAH	
1/082720_26.D	205522,	S/2991	MSD	1		8260BSM_082020	8/27/20	22:36	EAH	
1/082720_27.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/27/20	23:02	EAH	
1/082720_28.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/27/20	23:27	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\082720.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 11:24 08/28/2020

Reviewed By/Date: _____ Page: 1 of 1

Standard Log Report

Standards Log Information for Standard #27466

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/26/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/01/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CCV

Notes:

MSV 8260 CCV

Compound Name and Concentration for Standard #27466

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	20 ug/L	1,1,1-Trichloroethane	20 ug/L
1,1,2,2-Tetrachloroethane	20 ug/L	1,1,2-Trichloroethane	20 ug/L
1,1,2-	20 ug/L	1,1-Dichloroethane	20 ug/L
1,1-Dichloroethene	20 ug/L	1,1-Dichloropropene	20 ug/L
1,2,3-Trichlorobenzene	20 ug/L	1,2,3-Trichloropropane	20 ug/L
1,2,4-Trichlorobenzene	20 ug/L	1,2,4-Trimethylbenzene	20 ug/L
1,2-Dibromo-3-	20 ug/L	1,2-Dibromoethane (EDB)	20 ug/L
1,2-Dichlorobenzene	20 ug/L	1,2-Dichloroethane	20 ug/L
1,2-Dichloropropane	20 ug/L	1,3,5-Trimethylbenzene	20 ug/L
1,3-Butadiene	20 ug/L	1,3-Dichlorobenzene	20 ug/L
1,3-Dichloropropane	20 ug/L	1,4-Dichlorobenzene	20 ug/L
1,4-Dioxane (p-Dioxane)	40 ug/L	2,2-Dichloropropane	20 ug/L
2-Butanone (MEK)	40 ug/L	2-Chloroethylvinyl ether	40 ug/L
2-Chlorotoluene	20 ug/L	2-Hexanone	40 ug/L
2-Nitropropane	20 ug/L	4-Chlorotoluene	20 ug/L
4-Methyl-2-pentanone	40 ug/L	Acetone	40 ug/L
Acetonitrile	40 ug/L	Acrolein	40 ug/L
Acrylonitrile	40 ug/L	Allyl chloride	20 ug/L
Benzene	20 ug/L	Bromobenzene	20 ug/L
Bromochloromethane	20 ug/L	Bromodichloromethane	20 ug/L
Bromoform	20 ug/L	Bromomethane	20 ug/L
Carbon disulfide	20 ug/L	Carbon tetrachloride	20 ug/L
Chlorobenzene	20 ug/L	Chloroethane	20 ug/L
Chloroform	20 ug/L	Chloromethane	20 ug/L
Chloroprene	20 ug/L	Cyclohexane	20 ug/L
DI Water	ug/L	Dibromochloromethane	20 ug/L
Dibromomethane	20 ug/L	Dichlorodifluoromethane	20 ug/L
Diethyl ether (Ethyl ether)	20 ug/L	Ethyl acetate	40 ug/L
Ethyl methacrylate	20 ug/L	Ethylbenzene	20 ug/L
Hexachloro-1,3-butadiene	20 ug/L	Iodomethane	20 ug/L
Isobutanol	40 ug/L	Isopropyl acetate	20 ug/L
Isopropylbenzene	20 ug/L	Methacrylonitrile	40 ug/L
Methanol	ug/L	Methyl acetate	40 ug/L
Methyl acrylate	20 ug/L	Methyl methacrylate	20 ug/L
Methyl-tert-butyl ether	20 ug/L	Methylcyclohexane	20 ug/L
Methylene Chloride	20 ug/L	Naphthalene	20 ug/L
Propionitrile	40 ug/L	Styrene	20 ug/L
TOTAL BTEX	120 ug/L	Tetrachloroethene	20 ug/L
Tetrahydrofuran	40 ug/L	Toluene	20 ug/L
Total Trihalomethanes	80 ug/L	Trichloroethene	20 ug/L
Trichlorofluoromethane	20 ug/L	Vinyl acetate	20 ug/L
Vinyl chloride	20 ug/L	Xylene (Total)	60 ug/L
cis-1,2-Dichloroethene	20 ug/L	cis-1,3-Dichloropropene	20 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
cis-1,4-Dichloro-2-butene	20 ug/L	m&p-Xylene	40 ug/L
n-Butanol	40 ug/L	n-Butylbenzene	20 ug/L
n-Hexane	20 ug/L	n-Propylbenzene	20 ug/L
n-amyl acetate	20 ug/L	o-Xylene	20 ug/L
p-Isopropyltoluene	20 ug/L	sec-Butylbenzene	20 ug/L
tert-Butylbenzene	20 ug/L	trans-1,2-Dichloroethene	20 ug/L
trans-1,3-Dichloropropene	20 ug/L	trans-1,4-Dichloro-2-	20 ug/L

Composed of Information for Standard #27466

Composed of Standard Seq	Volume	Units
27432	0.02	mL
26717	0.02	mL
1	49.96	mL

Standard Log Report

Standards Log Information for Standard #27432

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/25/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/01/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260GAS-SPK

Notes:

MSV 8260 Phenova Primary Gas Spike MIX

Compound Name and Concentration for Standard #27432

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	100 ug/mL	Acrolein	100 ug/mL
Acrylonitrile	100 ug/mL	Bromomethane	50 ug/mL
Chloroethane	50 ug/mL	Chloromethane	50 ug/mL
Dichlorodifluoromethane	50 ug/mL	Methanol	ug/mL
Methyl acetate	100 ug/mL	Trichlorofluoromethane	50 ug/mL
Vinyl acetate	50 ug/mL	Vinyl chloride	50 ug/mL

Composed of Information for Standard #27432

Composed of Standard Seq	Volume	Units
27399	0.625	mL
27397	0.25	mL
27388	23.25	mL
27049	0.625	mL
26387	0.25	mL

Standard Log Report

Standards Log Information for Standard #27399

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522735
Create Date:	08/24/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180018
Expire Date:	09/16/2020	**Manufacturer Lot ID:**	CL15665	**Standard ID:**	ACETATEPSTK

Notes:

MSV Phenova Custom Acetate Mix-Primary Source

Compound Name and Concentration for Standard #27399

Compound Name	Concentration	Compound Name	Concentration
Vinyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #27397

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522733
Create Date:	08/24/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180017
Expire Date:	09/18/2020	**Manufacturer Lot ID:**	CL15670	**Standard ID:**	AcrolienPSTK

Notes:

MSV Phenova Acrolein Stock Standard - Primary

Compound Name and Concentration for Standard #27397

Compound Name	Concentration	Compound Name	Concentration
Acrolein	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #27388

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	522732
Create Date:	08/24/2020	**Manufacturer:**	Fisher Scientific	**Part ID:**	A453-500
Expire Date:	02/20/2021	**Manufacturer Lot ID:**	198331	**Standard ID:**	RGNT179

Notes:

MSV P/T Methanol

Compound Name and Concentration for Standard #27388

Compound Name	Concentration	Compound Name	Concentration
Methanol			

Standard Log Report

Standards Log Information for Standard #27249

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-ICV

Notes:

MSV 8260 ICV

Compound Name and Concentration for Standard #27249

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	20 ug/L	1,1,1-Trichloroethane	20 ug/L
1,1,2,2-Tetrachloroethane	20 ug/L	1,1,2-Trichloroethane	20 ug/L
1,1,2-	20 ug/L	1,1-Dichloroethane	20 ug/L
1,1-Dichloroethene	20 ug/L	1,1-Dichloropropene	20 ug/L
1,2,3-Trichlorobenzene	20 ug/L	1,2,3-Trichloropropane	20 ug/L
1,2,4-Trichlorobenzene	20 ug/L	1,2,4-Trimethylbenzene	20 ug/L
1,2-Dibromo-3-	20 ug/L	1,2-Dibromoethane (EDB)	20 ug/L
1,2-Dichlorobenzene	20 ug/L	1,2-Dichloroethane	20 ug/L
1,2-Dichloropropane	20 ug/L	1,3,5-Trimethylbenzene	20 ug/L
1,3-Butadiene	20 ug/L	1,3-Dichlorobenzene	20 ug/L
1,3-Dichloropropane	20 ug/L	1,4-Dichlorobenzene	20 ug/L
1,4-Dioxane (p-Dioxane)	40 ug/L	2,2-Dichloropropane	20 ug/L
2-Butanone (MEK)	40 ug/L	2-Chloroethylvinyl ether	40 ug/L
2-Chlorotoluene	20 ug/L	2-Hexanone	40 ug/L
2-Nitropropane	20 ug/L	4-Chlorotoluene	20 ug/L
4-Methyl-2-pentanone	40 ug/L	Acetone	40 ug/L
Acetonitrile	40 ug/L	Acrolein	40 ug/L
Acrylonitrile	40 ug/L	Allyl chloride	20 ug/L
Benzene	20 ug/L	Bromobenzene	20 ug/L
Bromochloromethane	20 ug/L	Bromodichloromethane	20 ug/L
Bromoform	20 ug/L	Bromomethane	20 ug/L
Carbon disulfide	20 ug/L	Carbon tetrachloride	20 ug/L
Chlorobenzene	20 ug/L	Chloroethane	20 ug/L
Chloroform	20 ug/L	Chloromethane	20 ug/L
Chloroprene	20 ug/L	Cyclohexane	20 ug/L
Dibromochloromethane	20 ug/L	Dibromomethane	20 ug/L
Dichlorodifluoromethane	20 ug/L	Diethyl ether (Ethyl ether)	20 ug/L
Ethyl acetate	40 ug/L	Ethyl methacrylate	20 ug/L
Ethylbenzene	20 ug/L	Hexachloro-1,3-butadiene	20 ug/L
Iodomethane	20 ug/L	Isobutanol	40 ug/L
Isopropyl acetate	20 ug/L	Isopropylbenzene	20 ug/L
Methacrylonitrile	40 ug/L	Methanol	ug/L
Methyl acetate	40 ug/L	Methyl acrylate	20 ug/L
Methyl methacrylate	20 ug/L	Methyl-tert-butyl ether	20 ug/L
Methylcyclohexane	20 ug/L	Methylene Chloride	20 ug/L
Naphthalene	20 ug/L	Propionitrile	40 ug/L
Styrene	20 ug/L	TOTAL BTEX	120 ug/L
Tetrachloroethene	20 ug/L	Tetrahydrofuran	40 ug/L
Toluene	20 ug/L	Total Trihalomethanes	80 ug/L
Trichloroethene	20 ug/L	Trichlorofluoromethane	20 ug/L
Vinyl acetate	20 ug/L	Vinyl chloride	20 ug/L
Xylene (Total)	60 ug/L	cis-1,2-Dichloroethene	20 ug/L
cis-1,3-Dichloropropene	20 ug/L	cis-1,4-Dichloro-2-butene	20 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	40 ug/L	n-Butanol	40 ug/L
n-Butylbenzene	20 ug/L	n-Hexane	20 ug/L
n-Propylbenzene	20 ug/L	n-amyl acetate	20 ug/L
o-Xylene	20 ug/L	p-Isopropyltoluene	20 ug/L
sec-Butylbenzene	20 ug/L	tert-Butylbenzene	20 ug/L
trans-1,2-Dichloroethene	20 ug/L	trans-1,3-Dichloropropene	20 ug/L
trans-1,4-Dichloro-2-	20 ug/L		

Composed of Information for Standard #27249

Composed of Standard Seq	Volume	Units
27116	0.02	mL
26718	0.02	mL
1	49.96	mL

Standard Log Report

Standards Log Information for Standard #27248

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL12

Notes:

MSV 8260 200PPB

Compound Name and Concentration for Standard #27248

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	200 ug/L	1,1,1-Trichloroethane	200 ug/L
1,1,2,2-Tetrachloroethane	200 ug/L	1,1,2-Trichloroethane	200 ug/L
1,1,2-	200 ug/L	1,1-Dichloroethane	200 ug/L
1,1-Dichloroethene	200 ug/L	1,1-Dichloropropene	200 ug/L
1,2,3-Trichlorobenzene	200 ug/L	1,2,3-Trichloropropane	200 ug/L
1,2,4-Trichlorobenzene	200 ug/L	1,2,4-Trimethylbenzene	200 ug/L
1,2-Dibromo-3-	200 ug/L	1,2-Dibromoethane (EDB)	200 ug/L
1,2-Dichlorobenzene	200 ug/L	1,2-Dichloroethane	200 ug/L
1,2-Dichloropropane	200 ug/L	1,3,5-Trimethylbenzene	200 ug/L
1,3-Butadiene	200 ug/L	1,3-Dichlorobenzene	200 ug/L
1,3-Dichloropropane	200 ug/L	1,4-Dichlorobenzene	200 ug/L
1,4-Dioxane (p-Dioxane)	400 ug/L	2,2-Dichloropropane	200 ug/L
2-Butanone (MEK)	400 ug/L	2-Chloroethylvinyl ether	400 ug/L
2-Chlorotoluene	200 ug/L	2-Hexanone	400 ug/L
2-Nitropropane	200 ug/L	4-Chlorotoluene	200 ug/L
4-Methyl-2-pentanone	400 ug/L	Acetone	400 ug/L
Acetonitrile	400 ug/L	Acrolein	400 ug/L
Acrylonitrile	400 ug/L	Allyl chloride	200 ug/L
Benzene	200 ug/L	Bromobenzene	200 ug/L
Bromochloromethane	200 ug/L	Bromodichloromethane	200 ug/L
Bromoform	200 ug/L	Bromomethane	200 ug/L
Carbon disulfide	200 ug/L	Carbon tetrachloride	200 ug/L
Chlorobenzene	200 ug/L	Chloroethane	200 ug/L
Chloroform	200 ug/L	Chloromethane	200 ug/L
Chloroprene	200 ug/L	Cyclohexane	200 ug/L
Dibromochloromethane	200 ug/L	Dibromomethane	200 ug/L
Dichlorodifluoromethane	200 ug/L	Diethyl ether (Ethyl ether)	200 ug/L
Ethyl acetate	400 ug/L	Ethyl methacrylate	200 ug/L
Ethylbenzene	200 ug/L	Hexachloro-1,3-butadiene	200 ug/L
Iodomethane	200 ug/L	Isobutanol	400 ug/L
Isopropyl acetate	200 ug/L	Isopropylbenzene	200 ug/L
Methacrylonitrile	400 ug/L	Methanol	ug/L
Methyl acetate	400 ug/L	Methyl acrylate	200 ug/L
Methyl methacrylate	200 ug/L	Methyl-tert-butyl ether	200 ug/L
Methylcyclohexane	200 ug/L	Methylene Chloride	200 ug/L
Naphthalene	200 ug/L	Propionitrile	400 ug/L
Styrene	200 ug/L	TOTAL BTEX	1200 ug/L
Tetrachloroethene	200 ug/L	Tetrahydrofuran	400 ug/L
Toluene	200 ug/L	Total Trihalomethanes	800 ug/L
Trichloroethene	200 ug/L	Trichlorofluoromethane	200 ug/L
Vinyl acetate	200 ug/L	Vinyl chloride	200 ug/L
Xylene (Total)	600 ug/L	cis-1,2-Dichloroethene	200 ug/L
cis-1,3-Dichloropropene	200 ug/L	cis-1,4-Dichloro-2-butene	200 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	400 ug/L	n-Butanol	400 ug/L
n-Butylbenzene	200 ug/L	n-Hexane	200 ug/L
n-Propylbenzene	200 ug/L	n-amyl acetate	200 ug/L
o-Xylene	200 ug/L	p-Isopropyltoluene	200 ug/L
sec-Butylbenzene	200 ug/L	tert-Butylbenzene	200 ug/L
trans-1,2-Dichloroethene	200 ug/L	trans-1,3-Dichloropropene	200 ug/L
trans-1,4-Dichloro-2-	200 ug/L		

Composed of Information for Standard #27248

Composed of Standard Seq	Volume	Units
27114	0.2	mL
26717	0.2	mL
1	49.3	mL

Standard Log Report

Standards Log Information for Standard #27247

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL11

Notes:

MSV 8260 150PPB

Compound Name and Concentration for Standard #27247

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	150 ug/L	1,1,1-Trichloroethane	150 ug/L
1,1,2,2-Tetrachloroethane	150 ug/L	1,1,2-Trichloroethane	150 ug/L
1,1,2-	150 ug/L	1,1-Dichloroethane	150 ug/L
1,1-Dichloroethene	150 ug/L	1,1-Dichloropropene	150 ug/L
1,2,3-Trichlorobenzene	150 ug/L	1,2,3-Trichloropropane	150 ug/L
1,2,4-Trichlorobenzene	150 ug/L	1,2,4-Trimethylbenzene	150 ug/L
1,2-Dibromo-3-	150 ug/L	1,2-Dibromoethane (EDB)	150 ug/L
1,2-Dichlorobenzene	150 ug/L	1,2-Dichloroethane	150 ug/L
1,2-Dichloropropane	150 ug/L	1,3,5-Trimethylbenzene	150 ug/L
1,3-Butadiene	150 ug/L	1,3-Dichlorobenzene	150 ug/L
1,3-Dichloropropane	150 ug/L	1,4-Dichlorobenzene	150 ug/L
1,4-Dioxane (p-Dioxane)	300 ug/L	2,2-Dichloropropane	150 ug/L
2-Butanone (MEK)	300 ug/L	2-Chloroethylvinyl ether	300 ug/L
2-Chlorotoluene	150 ug/L	2-Hexanone	300 ug/L
2-Nitropropane	150 ug/L	4-Chlorotoluene	150 ug/L
4-Methyl-2-pentanone	300 ug/L	Acetone	300 ug/L
Acetonitrile	300 ug/L	Acrolein	300 ug/L
Acrylonitrile	300 ug/L	Allyl chloride	150 ug/L
Benzene	150 ug/L	Bromobenzene	150 ug/L
Bromochloromethane	150 ug/L	Bromodichloromethane	150 ug/L
Bromoform	150 ug/L	Bromomethane	150 ug/L
Carbon disulfide	150 ug/L	Carbon tetrachloride	150 ug/L
Chlorobenzene	150 ug/L	Chloroethane	150 ug/L
Chloroform	150 ug/L	Chloromethane	150 ug/L
Chloroprene	150 ug/L	Cyclohexane	150 ug/L
Dibromochloromethane	150 ug/L	Dibromomethane	150 ug/L
Dichlorodifluoromethane	150 ug/L	Diethyl ether (Ethyl ether)	150 ug/L
Ethyl acetate	300 ug/L	Ethyl methacrylate	150 ug/L
Ethylbenzene	150 ug/L	Hexachloro-1,3-butadiene	150 ug/L
Iodomethane	150 ug/L	Isobutanol	300 ug/L
Isopropyl acetate	150 ug/L	Isopropylbenzene	150 ug/L
Methacrylonitrile	300 ug/L	Methanol	ug/L
Methyl acetate	300 ug/L	Methyl acrylate	150 ug/L
Methyl methacrylate	150 ug/L	Methyl-tert-butyl ether	150 ug/L
Methylcyclohexane	150 ug/L	Methylene Chloride	150 ug/L
Naphthalene	150 ug/L	Propionitrile	300 ug/L
Styrene	150 ug/L	TOTAL BTEX	900 ug/L
Tetrachloroethene	150 ug/L	Tetrahydrofuran	300 ug/L
Toluene	150 ug/L	Total Trihalomethanes	600 ug/L
Trichloroethene	150 ug/L	Trichlorofluoromethane	150 ug/L
Vinyl acetate	150 ug/L	Vinyl chloride	150 ug/L
Xylene (Total)	450 ug/L	cis-1,2-Dichloroethene	150 ug/L
cis-1,3-Dichloropropene	150 ug/L	cis-1,4-Dichloro-2-butene	150 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	300 ug/L	n-Butanol	300 ug/L
n-Butylbenzene	150 ug/L	n-Hexane	150 ug/L
n-Propylbenzene	150 ug/L	n-amyl acetate	150 ug/L
o-Xylene	150 ug/L	p-Isopropyltoluene	150 ug/L
sec-Butylbenzene	150 ug/L	tert-Butylbenzene	150 ug/L
trans-1,2-Dichloroethene	150 ug/L	trans-1,3-Dichloropropene	150 ug/L
trans-1,4-Dichloro-2-	150 ug/L		

Composed of Information for Standard #27247

Composed of Standard Seq	Volume	Units
27114	0.15	mL
26717	0.15	mL
1	49.7	mL

Standard Log Report

Standards Log Information for Standard #27246

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL10

Notes:

MSV 8260 100PPB

Compound Name and Concentration for Standard #27246

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	100 ug/L	1,1,1-Trichloroethane	100 ug/L
1,1,2,2-Tetrachloroethane	100 ug/L	1,1,2-Trichloroethane	100 ug/L
1,1,2-	100 ug/L	1,1-Dichloroethane	100 ug/L
1,1-Dichloroethene	100 ug/L	1,1-Dichloropropene	100 ug/L
1,2,3-Trichlorobenzene	100 ug/L	1,2,3-Trichloropropane	100 ug/L
1,2,4-Trichlorobenzene	100 ug/L	1,2,4-Trimethylbenzene	100 ug/L
1,2-Dibromo-3-	100 ug/L	1,2-Dibromoethane (EDB)	100 ug/L
1,2-Dichlorobenzene	100 ug/L	1,2-Dichloroethane	100 ug/L
1,2-Dichloropropane	100 ug/L	1,3,5-Trimethylbenzene	100 ug/L
1,3-Butadiene	100 ug/L	1,3-Dichlorobenzene	100 ug/L
1,3-Dichloropropane	100 ug/L	1,4-Dichlorobenzene	100 ug/L
1,4-Dioxane (p-Dioxane)	200 ug/L	2,2-Dichloropropane	100 ug/L
2-Butanone (MEK)	200 ug/L	2-Chloroethylvinyl ether	200 ug/L
2-Chlorotoluene	100 ug/L	2-Hexanone	200 ug/L
2-Nitropropane	100 ug/L	4-Chlorotoluene	100 ug/L
4-Methyl-2-pentanone	200 ug/L	Acetone	200 ug/L
Acetonitrile	200 ug/L	Acrolein	200 ug/L
Acrylonitrile	200 ug/L	Allyl chloride	100 ug/L
Benzene	100 ug/L	Bromobenzene	100 ug/L
Bromochloromethane	100 ug/L	Bromodichloromethane	100 ug/L
Bromoform	100 ug/L	Bromomethane	100 ug/L
Carbon disulfide	100 ug/L	Carbon tetrachloride	100 ug/L
Chlorobenzene	100 ug/L	Chloroethane	100 ug/L
Chloroform	100 ug/L	Chloromethane	100 ug/L
Chloroprene	100 ug/L	Cyclohexane	100 ug/L
Dibromochloromethane	100 ug/L	Dibromomethane	100 ug/L
Dichlorodifluoromethane	100 ug/L	Diethyl ether (Ethyl ether)	100 ug/L
Ethyl acetate	200 ug/L	Ethyl methacrylate	100 ug/L
Ethylbenzene	100 ug/L	Hexachloro-1,3-butadiene	100 ug/L
Iodomethane	100 ug/L	Isobutanol	200 ug/L
Isopropyl acetate	100 ug/L	Isopropylbenzene	100 ug/L
Methacrylonitrile	200 ug/L	Methanol	ug/L
Methyl acetate	200 ug/L	Methyl acrylate	100 ug/L
Methyl methacrylate	100 ug/L	Methyl-tert-butyl ether	100 ug/L
Methylcyclohexane	100 ug/L	Methylene Chloride	100 ug/L
Naphthalene	100 ug/L	Propionitrile	200 ug/L
Styrene	100 ug/L	TOTAL BTEX	600 ug/L
Tetrachloroethene	100 ug/L	Tetrahydrofuran	200 ug/L
Toluene	100 ug/L	Total Trihalomethanes	400 ug/L
Trichloroethene	100 ug/L	Trichlorofluoromethane	100 ug/L
Vinyl acetate	100 ug/L	Vinyl chloride	100 ug/L
Xylene (Total)	300 ug/L	cis-1,2-Dichloroethene	100 ug/L
cis-1,3-Dichloropropene	100 ug/L	cis-1,4-Dichloro-2-butene	100 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	200 ug/L	n-Butanol	200 ug/L
n-Butylbenzene	100 ug/L	n-Hexane	100 ug/L
n-Propylbenzene	100 ug/L	n-amyl acetate	100 ug/L
o-Xylene	100 ug/L	p-Isopropyltoluene	100 ug/L
sec-Butylbenzene	100 ug/L	tert-Butylbenzene	100 ug/L
trans-1,2-Dichloroethene	100 ug/L	trans-1,3-Dichloropropene	100 ug/L
trans-1,4-Dichloro-2-	100 ug/L		

Composed of Information for Standard #27246

Composed of Standard Seq	Volume	Units
27114	0.1	mL
26717	0.1	mL
1	49.8	mL

Standard Log Report

Standards Log Information for Standard #27245

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL9

Notes:

MSV 8260 75PPB

Compound Name and Concentration for Standard #27245

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	75 ug/L	1,1,1-Trichloroethane	75 ug/L
1,1,2,2-Tetrachloroethane	75 ug/L	1,1,2-Trichloroethane	75 ug/L
1,1,2-	75 ug/L	1,1-Dichloroethane	75 ug/L
1,1-Dichloroethene	75 ug/L	1,1-Dichloropropene	75 ug/L
1,2,3-Trichlorobenzene	75 ug/L	1,2,3-Trichloropropane	75 ug/L
1,2,4-Trichlorobenzene	75 ug/L	1,2,4-Trimethylbenzene	75 ug/L
1,2-Dibromo-3-	75 ug/L	1,2-Dibromoethane (EDB)	75 ug/L
1,2-Dichlorobenzene	75 ug/L	1,2-Dichloroethane	75 ug/L
1,2-Dichloropropane	75 ug/L	1,3,5-Trimethylbenzene	75 ug/L
1,3-Butadiene	75 ug/L	1,3-Dichlorobenzene	75 ug/L
1,3-Dichloropropane	75 ug/L	1,4-Dichlorobenzene	75 ug/L
1,4-Dioxane (p-Dioxane)	150 ug/L	2,2-Dichloropropane	75 ug/L
2-Butanone (MEK)	150 ug/L	2-Chloroethylvinyl ether	150 ug/L
2-Chlorotoluene	75 ug/L	2-Hexanone	150 ug/L
2-Nitropropane	75 ug/L	4-Chlorotoluene	75 ug/L
4-Methyl-2-pentanone	150 ug/L	Acetone	150 ug/L
Acetonitrile	150 ug/L	Acrolein	150 ug/L
Acrylonitrile	150 ug/L	Allyl chloride	75 ug/L
Benzene	75 ug/L	Bromobenzene	75 ug/L
Bromochloromethane	75 ug/L	Bromodichloromethane	75 ug/L
Bromoform	75 ug/L	Bromomethane	75 ug/L
Carbon disulfide	75 ug/L	Carbon tetrachloride	75 ug/L
Chlorobenzene	75 ug/L	Chloroethane	75 ug/L
Chloroform	75 ug/L	Chloromethane	75 ug/L
Chloroprene	75 ug/L	Cyclohexane	75 ug/L
Dibromochloromethane	75 ug/L	Dibromomethane	75 ug/L
Dichlorodifluoromethane	75 ug/L	Diethyl ether (Ethyl ether)	75 ug/L
Ethyl acetate	150 ug/L	Ethyl methacrylate	75 ug/L
Ethylbenzene	75 ug/L	Hexachloro-1,3-butadiene	75 ug/L
Iodomethane	75 ug/L	Isobutanol	150 ug/L
Isopropyl acetate	75 ug/L	Isopropylbenzene	75 ug/L
Methacrylonitrile	150 ug/L	Methanol	ug/L
Methyl acetate	150 ug/L	Methyl acrylate	75 ug/L
Methyl methacrylate	75 ug/L	Methyl-tert-butyl ether	75 ug/L
Methylcyclohexane	75 ug/L	Methylene Chloride	75 ug/L
Naphthalene	75 ug/L	Propionitrile	150 ug/L
Styrene	75 ug/L	TOTAL BTEX	450 ug/L
Tetrachloroethene	75 ug/L	Tetrahydrofuran	150 ug/L
Toluene	75 ug/L	Total Trihalomethanes	300 ug/L
Trichloroethene	75 ug/L	Trichlorofluoromethane	75 ug/L
Vinyl acetate	75 ug/L	Vinyl chloride	75 ug/L
Xylene (Total)	225 ug/L	cis-1,2-Dichloroethene	75 ug/L
cis-1,3-Dichloropropene	75 ug/L	cis-1,4-Dichloro-2-butene	75 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	150 ug/L	n-Butanol	150 ug/L
n-Butylbenzene	75 ug/L	n-Hexane	75 ug/L
n-Propylbenzene	75 ug/L	n-amyl acetate	75 ug/L
o-Xylene	75 ug/L	p-Isopropyltoluene	75 ug/L
sec-Butylbenzene	75 ug/L	tert-Butylbenzene	75 ug/L
trans-1,2-Dichloroethene	75 ug/L	trans-1,3-Dichloropropene	75 ug/L
trans-1,4-Dichloro-2-	75 ug/L		

Composed of Information for Standard #27245

Composed of Standard Seq	Volume	Units
27114	0.075	mL
26717	0.075	mL
1	49.85	mL

Standard Log Report

Standards Log Information for Standard #27244

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL8

Notes:

MSV 8260 50PPB

Compound Name and Concentration for Standard #27244

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	50 ug/L	1,1,1-Trichloroethane	50 ug/L
1,1,2,2-Tetrachloroethane	50 ug/L	1,1,2-Trichloroethane	50 ug/L
1,1,2-	50 ug/L	1,1-Dichloroethane	50 ug/L
1,1-Dichloroethene	50 ug/L	1,1-Dichloropropene	50 ug/L
1,2,3-Trichlorobenzene	50 ug/L	1,2,3-Trichloropropane	50 ug/L
1,2,4-Trichlorobenzene	50 ug/L	1,2,4-Trimethylbenzene	50 ug/L
1,2-Dibromo-3-	50 ug/L	1,2-Dibromoethane (EDB)	50 ug/L
1,2-Dichlorobenzene	50 ug/L	1,2-Dichloroethane	50 ug/L
1,2-Dichloropropane	50 ug/L	1,3,5-Trimethylbenzene	50 ug/L
1,3-Butadiene	50 ug/L	1,3-Dichlorobenzene	50 ug/L
1,3-Dichloropropane	50 ug/L	1,4-Dichlorobenzene	50 ug/L
1,4-Dioxane (p-Dioxane)	100 ug/L	2,2-Dichloropropane	50 ug/L
2-Butanone (MEK)	100 ug/L	2-Chloroethylvinyl ether	100 ug/L
2-Chlorotoluene	50 ug/L	2-Hexanone	100 ug/L
2-Nitropropane	50 ug/L	4-Chlorotoluene	50 ug/L
4-Methyl-2-pentanone	100 ug/L	Acetone	100 ug/L
Acetonitrile	100 ug/L	Acrolein	100 ug/L
Acrylonitrile	100 ug/L	Allyl chloride	50 ug/L
Benzene	50 ug/L	Bromobenzene	50 ug/L
Bromochloromethane	50 ug/L	Bromodichloromethane	50 ug/L
Bromoform	50 ug/L	Bromomethane	50 ug/L
Carbon disulfide	50 ug/L	Carbon tetrachloride	50 ug/L
Chlorobenzene	50 ug/L	Chloroethane	50 ug/L
Chloroform	50 ug/L	Chloromethane	50 ug/L
Chloroprene	50 ug/L	Cyclohexane	50 ug/L
Dibromochloromethane	50 ug/L	Dibromomethane	50 ug/L
Dichlorodifluoromethane	50 ug/L	Diethyl ether (Ethyl ether)	50 ug/L
Ethyl acetate	100 ug/L	Ethyl methacrylate	50 ug/L
Ethylbenzene	50 ug/L	Hexachloro-1,3-butadiene	50 ug/L
Iodomethane	50 ug/L	Isobutanol	100 ug/L
Isopropyl acetate	50 ug/L	Isopropylbenzene	50 ug/L
Methacrylonitrile	100 ug/L	Methanol	ug/L
Methyl acetate	100 ug/L	Methyl acrylate	50 ug/L
Methyl methacrylate	50 ug/L	Methyl-tert-butyl ether	50 ug/L
Methylcyclohexane	50 ug/L	Methylene Chloride	50 ug/L
Naphthalene	50 ug/L	Propionitrile	100 ug/L
Styrene	50 ug/L	TOTAL BTEX	300 ug/L
Tetrachloroethene	50 ug/L	Tetrahydrofuran	100 ug/L
Toluene	50 ug/L	Total Trihalomethanes	200 ug/L
Trichloroethene	50 ug/L	Trichlorofluoromethane	50 ug/L
Vinyl acetate	50 ug/L	Vinyl chloride	50 ug/L
Xylene (Total)	150 ug/L	cis-1,2-Dichloroethene	50 ug/L
cis-1,3-Dichloropropene	50 ug/L	cis-1,4-Dichloro-2-butene	50 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	100 ug/L	n-Butanol	100 ug/L
n-Butylbenzene	50 ug/L	n-Hexane	50 ug/L
n-Propylbenzene	50 ug/L	n-amyl acetate	50 ug/L
o-Xylene	50 ug/L	p-Isopropyltoluene	50 ug/L
sec-Butylbenzene	50 ug/L	tert-Butylbenzene	50 ug/L
trans-1,2-Dichloroethene	50 ug/L	trans-1,3-Dichloropropene	50 ug/L
trans-1,4-Dichloro-2-	50 ug/L		

Composed of Information for Standard #27244

Composed of Standard Seq	Volume	Units
27114	0.05	mL
26717	0.05	mL
1	49.9	mL

Standard Log Report

Standards Log Information for Standard #27243

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL7

Notes:

MSV 8260 20PPB

Compound Name and Concentration for Standard #27243

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	20 ug/L	1,1,1-Trichloroethane	20 ug/L
1,1,2,2-Tetrachloroethane	20 ug/L	1,1,2-Trichloroethane	20 ug/L
1,1,2-	20 ug/L	1,1-Dichloroethane	20 ug/L
1,1-Dichloroethene	20 ug/L	1,1-Dichloropropene	20 ug/L
1,2,3-Trichlorobenzene	20 ug/L	1,2,3-Trichloropropane	20 ug/L
1,2,4-Trichlorobenzene	20 ug/L	1,2,4-Trimethylbenzene	20 ug/L
1,2-Dibromo-3-	20 ug/L	1,2-Dibromoethane (EDB)	20 ug/L
1,2-Dichlorobenzene	20 ug/L	1,2-Dichloroethane	20 ug/L
1,2-Dichloropropane	20 ug/L	1,3,5-Trimethylbenzene	20 ug/L
1,3-Butadiene	20 ug/L	1,3-Dichlorobenzene	20 ug/L
1,3-Dichloropropane	20 ug/L	1,4-Dichlorobenzene	20 ug/L
1,4-Dioxane (p-Dioxane)	40 ug/L	2,2-Dichloropropane	20 ug/L
2-Butanone (MEK)	40 ug/L	2-Chloroethylvinyl ether	40 ug/L
2-Chlorotoluene	20 ug/L	2-Hexanone	40 ug/L
2-Nitropropane	20 ug/L	4-Chlorotoluene	20 ug/L
4-Methyl-2-pentanone	40 ug/L	Acetone	40 ug/L
Acetonitrile	40 ug/L	Acrolein	40 ug/L
Acrylonitrile	40 ug/L	Allyl chloride	20 ug/L
Benzene	20 ug/L	Bromobenzene	20 ug/L
Bromochloromethane	20 ug/L	Bromodichloromethane	20 ug/L
Bromoform	20 ug/L	Bromomethane	20 ug/L
Carbon disulfide	20 ug/L	Carbon tetrachloride	20 ug/L
Chlorobenzene	20 ug/L	Chloroethane	20 ug/L
Chloroform	20 ug/L	Chloromethane	20 ug/L
Chloroprene	20 ug/L	Cyclohexane	20 ug/L
Dibromochloromethane	20 ug/L	Dibromomethane	20 ug/L
Dichlorodifluoromethane	20 ug/L	Diethyl ether (Ethyl ether)	20 ug/L
Ethyl acetate	40 ug/L	Ethyl methacrylate	20 ug/L
Ethylbenzene	20 ug/L	Hexachloro-1,3-butadiene	20 ug/L
Iodomethane	20 ug/L	Isobutanol	40 ug/L
Isopropyl acetate	20 ug/L	Isopropylbenzene	20 ug/L
Methacrylonitrile	40 ug/L	Methanol	ug/L
Methyl acetate	40 ug/L	Methyl acrylate	20 ug/L
Methyl methacrylate	20 ug/L	Methyl-tert-butyl ether	20 ug/L
Methylcyclohexane	20 ug/L	Methylene Chloride	20 ug/L
Naphthalene	20 ug/L	Propionitrile	40 ug/L
Styrene	20 ug/L	TOTAL BTEX	120 ug/L
Tetrachloroethene	20 ug/L	Tetrahydrofuran	40 ug/L
Toluene	20 ug/L	Total Trihalomethanes	80 ug/L
Trichloroethene	20 ug/L	Trichlorofluoromethane	20 ug/L
Vinyl acetate	20 ug/L	Vinyl chloride	20 ug/L
Xylene (Total)	60 ug/L	cis-1,2-Dichloroethene	20 ug/L
cis-1,3-Dichloropropene	20 ug/L	cis-1,4-Dichloro-2-butene	20 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	40 ug/L	n-Butanol	40 ug/L
n-Butylbenzene	20 ug/L	n-Hexane	20 ug/L
n-Propylbenzene	20 ug/L	n-amyl acetate	20 ug/L
o-Xylene	20 ug/L	p-Isopropyltoluene	20 ug/L
sec-Butylbenzene	20 ug/L	tert-Butylbenzene	20 ug/L
trans-1,2-Dichloroethene	20 ug/L	trans-1,3-Dichloropropene	20 ug/L
trans-1,4-Dichloro-2-	20 ug/L		

Composed of Information for Standard #27243

Composed of Standard Seq	Volume	Units
27114	0.02	mL
26717	0.02	mL
1	49.96	mL

Standard Log Report

Standards Log Information for Standard #27242

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL6

Notes:

MSV 8260 10PPB

Compound Name and Concentration for Standard #27242

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	10 ug/L	1,1,1-Trichloroethane	10 ug/L
1,1,2,2-Tetrachloroethane	10 ug/L	1,1,2-Trichloroethane	10 ug/L
1,1,2-	10 ug/L	1,1-Dichloroethane	10 ug/L
1,1-Dichloroethene	10 ug/L	1,1-Dichloropropene	10 ug/L
1,2,3-Trichlorobenzene	10 ug/L	1,2,3-Trichloropropane	10 ug/L
1,2,4-Trichlorobenzene	10 ug/L	1,2,4-Trimethylbenzene	10 ug/L
1,2-Dibromo-3-	10 ug/L	1,2-Dibromoethane (EDB)	10 ug/L
1,2-Dichlorobenzene	10 ug/L	1,2-Dichloroethane	10 ug/L
1,2-Dichloropropane	10 ug/L	1,3,5-Trimethylbenzene	10 ug/L
1,3-Butadiene	10 ug/L	1,3-Dichlorobenzene	10 ug/L
1,3-Dichloropropane	10 ug/L	1,4-Dichlorobenzene	10 ug/L
1,4-Dioxane (p-Dioxane)	20 ug/L	2,2-Dichloropropane	10 ug/L
2-Butanone (MEK)	20 ug/L	2-Chloroethylvinyl ether	20 ug/L
2-Chlorotoluene	10 ug/L	2-Hexanone	20 ug/L
2-Nitropropane	10 ug/L	4-Chlorotoluene	10 ug/L
4-Methyl-2-pentanone	20 ug/L	Acetone	20 ug/L
Acetonitrile	20 ug/L	Acrolein	20 ug/L
Acrylonitrile	20 ug/L	Allyl chloride	10 ug/L
Benzene	10 ug/L	Bromobenzene	10 ug/L
Bromochloromethane	10 ug/L	Bromodichloromethane	10 ug/L
Bromoform	10 ug/L	Bromomethane	10 ug/L
Carbon disulfide	10 ug/L	Carbon tetrachloride	10 ug/L
Chlorobenzene	10 ug/L	Chloroethane	10 ug/L
Chloroform	10 ug/L	Chloromethane	10 ug/L
Chloroprene	10 ug/L	Cyclohexane	10 ug/L
Dibromochloromethane	10 ug/L	Dibromomethane	10 ug/L
Dichlorodifluoromethane	10 ug/L	Diethyl ether (Ethyl ether)	10 ug/L
Ethyl acetate	20 ug/L	Ethyl methacrylate	10 ug/L
Ethylbenzene	10 ug/L	Hexachloro-1,3-butadiene	10 ug/L
Iodomethane	10 ug/L	Isobutanol	20 ug/L
Isopropyl acetate	10 ug/L	Isopropylbenzene	10 ug/L
Methacrylonitrile	20 ug/L	Methanol	ug/L
Methyl acetate	20 ug/L	Methyl acrylate	10 ug/L
Methyl methacrylate	10 ug/L	Methyl-tert-butyl ether	10 ug/L
Methylcyclohexane	10 ug/L	Methylene Chloride	10 ug/L
Naphthalene	10 ug/L	Propionitrile	20 ug/L
Styrene	10 ug/L	TOTAL BTEX	60 ug/L
Tetrachloroethene	10 ug/L	Tetrahydrofuran	20 ug/L
Toluene	10 ug/L	Total Trihalomethanes	40 ug/L
Trichloroethene	10 ug/L	Trichlorofluoromethane	10 ug/L
Vinyl acetate	10 ug/L	Vinyl chloride	10 ug/L
Xylene (Total)	30 ug/L	cis-1,2-Dichloroethene	10 ug/L
cis-1,3-Dichloropropene	10 ug/L	cis-1,4-Dichloro-2-butene	10 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	20 ug/L	n-Butanol	20 ug/L
n-Butylbenzene	10 ug/L	n-Hexane	10 ug/L
n-Propylbenzene	10 ug/L	n-amyl acetate	10 ug/L
o-Xylene	10 ug/L	p-Isopropyltoluene	10 ug/L
sec-Butylbenzene	10 ug/L	tert-Butylbenzene	10 ug/L
trans-1,2-Dichloroethene	10 ug/L	trans-1,3-Dichloropropene	10 ug/L
trans-1,4-Dichloro-2-	10 ug/L		

Composed of Information for Standard #27242

Composed of Standard Seq	Volume	Units
27114	0.01	mL
26717	0.01	mL
1	49.98	mL

Standard Log Report

Standards Log Information for Standard #27241

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL5

Notes:

MSV 8260 5PPB

Compound Name and Concentration for Standard #27241

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	5 ug/L	1,1,1-Trichloroethane	5 ug/L
1,1,2,2-Tetrachloroethane	5 ug/L	1,1,2-Trichloroethane	5 ug/L
1,1,2-	5 ug/L	1,1-Dichloroethane	5 ug/L
1,1-Dichloroethene	5 ug/L	1,1-Dichloropropene	5 ug/L
1,2,3-Trichlorobenzene	5 ug/L	1,2,3-Trichloropropane	5 ug/L
1,2,4-Trichlorobenzene	5 ug/L	1,2,4-Trimethylbenzene	5 ug/L
1,2-Dibromo-3-	5 ug/L	1,2-Dibromoethane (EDB)	5 ug/L
1,2-Dichlorobenzene	5 ug/L	1,2-Dichloroethane	5 ug/L
1,2-Dichloropropane	5 ug/L	1,3,5-Trimethylbenzene	5 ug/L
1,3-Butadiene	5 ug/L	1,3-Dichlorobenzene	5 ug/L
1,3-Dichloropropane	5 ug/L	1,4-Dichlorobenzene	5 ug/L
1,4-Dioxane (p-Dioxane)	10 ug/L	2,2-Dichloropropane	5 ug/L
2-Butanone (MEK)	10 ug/L	2-Chloroethylvinyl ether	10 ug/L
2-Chlorotoluene	5 ug/L	2-Hexanone	10 ug/L
2-Nitropropane	5 ug/L	4-Chlorotoluene	5 ug/L
4-Methyl-2-pentanone	10 ug/L	Acetone	10 ug/L
Acetonitrile	10 ug/L	Acrolein	10 ug/L
Acrylonitrile	10 ug/L	Allyl chloride	5 ug/L
Benzene	5 ug/L	Bromobenzene	5 ug/L
Bromochloromethane	5 ug/L	Bromodichloromethane	5 ug/L
Bromoform	5 ug/L	Bromomethane	5 ug/L
Carbon disulfide	5 ug/L	Carbon tetrachloride	5 ug/L
Chlorobenzene	5 ug/L	Chloroethane	5 ug/L
Chloroform	5 ug/L	Chloromethane	5 ug/L
Chloroprene	5 ug/L	Cyclohexane	5 ug/L
Dibromochloromethane	5 ug/L	Dibromomethane	5 ug/L
Dichlorodifluoromethane	5 ug/L	Diethyl ether (Ethyl ether)	5 ug/L
Ethyl acetate	10 ug/L	Ethyl methacrylate	5 ug/L
Ethylbenzene	5 ug/L	Hexachloro-1,3-butadiene	5 ug/L
Iodomethane	5 ug/L	Isobutanol	10 ug/L
Isopropyl acetate	5 ug/L	Isopropylbenzene	5 ug/L
Methacrylonitrile	10 ug/L	Methanol	ug/L
Methyl acetate	10 ug/L	Methyl acrylate	5 ug/L
Methyl methacrylate	5 ug/L	Methyl-tert-butyl ether	5 ug/L
Methylcyclohexane	5 ug/L	Methylene Chloride	5 ug/L
Naphthalene	5 ug/L	Propionitrile	10 ug/L
Styrene	5 ug/L	TOTAL BTEX	30 ug/L
Tetrachloroethene	5 ug/L	Tetrahydrofuran	10 ug/L
Toluene	5 ug/L	Total Trihalomethanes	20 ug/L
Trichloroethene	5 ug/L	Trichlorofluoromethane	5 ug/L
Vinyl acetate	5 ug/L	Vinyl chloride	5 ug/L
Xylene (Total)	15 ug/L	cis-1,2-Dichloroethene	5 ug/L
cis-1,3-Dichloropropene	5 ug/L	cis-1,4-Dichloro-2-butene	5 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	10 ug/L	n-Butanol	10 ug/L
n-Butylbenzene	5 ug/L	n-Hexane	5 ug/L
n-Propylbenzene	5 ug/L	n-amyl acetate	5 ug/L
o-Xylene	5 ug/L	p-Isopropyltoluene	5 ug/L
sec-Butylbenzene	5 ug/L	tert-Butylbenzene	5 ug/L
trans-1,2-Dichloroethene	5 ug/L	trans-1,3-Dichloropropene	5 ug/L
trans-1,4-Dichloro-2-	5 ug/L		

Composed of Information for Standard #27241

Composed of Standard Seq	Volume	Units
27114	0.005	mL
26717	0.005	mL
1	49.99	mL

Standard Log Report

Standards Log Information for Standard #27240

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL4

Notes:

MSV 8260 2PPB

Compound Name and Concentration for Standard #27240

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	2 ug/L	1,1,1-Trichloroethane	2 ug/L
1,1,2,2-Tetrachloroethane	2 ug/L	1,1,2-Trichloroethane	2 ug/L
1,1,2-	2 ug/L	1,1-Dichloroethane	2 ug/L
1,1-Dichloroethene	2 ug/L	1,1-Dichloropropene	2 ug/L
1,2,3-Trichlorobenzene	2 ug/L	1,2,3-Trichloropropane	2 ug/L
1,2,4-Trichlorobenzene	2 ug/L	1,2,4-Trimethylbenzene	2 ug/L
1,2-Dibromo-3-	2 ug/L	1,2-Dibromoethane (EDB)	2 ug/L
1,2-Dichlorobenzene	2 ug/L	1,2-Dichloroethane	2 ug/L
1,2-Dichloropropane	2 ug/L	1,3,5-Trimethylbenzene	2 ug/L
1,3-Butadiene	2 ug/L	1,3-Dichlorobenzene	2 ug/L
1,3-Dichloropropane	2 ug/L	1,4-Dichlorobenzene	2 ug/L
1,4-Dioxane (p-Dioxane)	4 ug/L	2,2-Dichloropropane	2 ug/L
2-Butanone (MEK)	4 ug/L	2-Chloroethylvinyl ether	4 ug/L
2-Chlorotoluene	2 ug/L	2-Hexanone	4 ug/L
2-Nitropropane	2 ug/L	4-Chlorotoluene	2 ug/L
4-Methyl-2-pentanone	4 ug/L	Acetone	4 ug/L
Acetonitrile	4 ug/L	Acrolein	4 ug/L
Acrylonitrile	4 ug/L	Allyl chloride	2 ug/L
Benzene	2 ug/L	Bromobenzene	2 ug/L
Bromochloromethane	2 ug/L	Bromodichloromethane	2 ug/L
Bromoform	2 ug/L	Bromomethane	2 ug/L
Carbon disulfide	2 ug/L	Carbon tetrachloride	2 ug/L
Chlorobenzene	2 ug/L	Chloroethane	2 ug/L
Chloroform	2 ug/L	Chloromethane	2 ug/L
Chloroprene	2 ug/L	Cyclohexane	2 ug/L
Dibromochloromethane	2 ug/L	Dibromomethane	2 ug/L
Dichlorodifluoromethane	2 ug/L	Diethyl ether (Ethyl ether)	2 ug/L
Ethyl acetate	4 ug/L	Ethyl methacrylate	2 ug/L
Ethylbenzene	2 ug/L	Hexachloro-1,3-butadiene	2 ug/L
Iodomethane	2 ug/L	Isobutanol	4 ug/L
Isopropyl acetate	2 ug/L	Isopropylbenzene	2 ug/L
Methacrylonitrile	4 ug/L	Methanol	ug/L
Methyl acetate	4 ug/L	Methyl acrylate	2 ug/L
Methyl methacrylate	2 ug/L	Methyl-tert-butyl ether	2 ug/L
Methylcyclohexane	2 ug/L	Methylene Chloride	2 ug/L
Naphthalene	2 ug/L	Propionitrile	4 ug/L
Styrene	2 ug/L	TOTAL BTEX	12 ug/L
Tetrachloroethene	2 ug/L	Tetrahydrofuran	4 ug/L
Toluene	2 ug/L	Total Trihalomethanes	8 ug/L
Trichloroethene	2 ug/L	Trichlorofluoromethane	2 ug/L
Vinyl acetate	2 ug/L	Vinyl chloride	2 ug/L
Xylene (Total)	6 ug/L	cis-1,2-Dichloroethene	2 ug/L
cis-1,3-Dichloropropene	2 ug/L	cis-1,4-Dichloro-2-butene	2 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	4 ug/L	n-Butanol	4 ug/L
n-Butylbenzene	2 ug/L	n-Hexane	2 ug/L
n-Propylbenzene	2 ug/L	n-amyl acetate	2 ug/L
o-Xylene	2 ug/L	p-Isopropyltoluene	2 ug/L
sec-Butylbenzene	2 ug/L	tert-Butylbenzene	2 ug/L
trans-1,2-Dichloroethene	2 ug/L	trans-1,3-Dichloropropene	2 ug/L
trans-1,4-Dichloro-2-	2 ug/L		

Composed of Information for Standard #27240

Composed of Standard Seq	Volume	Units
27114	0.002	mL
26717	0.002	mL
1	49.996	mL

Standard Log Report

Standards Log Information for Standard #27239

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL3

Notes:

MSV 8260 1PPB

Compound Name and Concentration for Standard #27239

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	1 ug/L	1,1,1-Trichloroethane	1 ug/L
1,1,2,2-Tetrachloroethane	1 ug/L	1,1,2-Trichloroethane	1 ug/L
1,1,2-	1 ug/L	1,1-Dichloroethane	1 ug/L
1,1-Dichloroethene	1 ug/L	1,1-Dichloropropene	1 ug/L
1,2,3-Trichlorobenzene	1 ug/L	1,2,3-Trichloropropane	1 ug/L
1,2,4-Trichlorobenzene	1 ug/L	1,2,4-Trimethylbenzene	1 ug/L
1,2-Dibromo-3-	1 ug/L	1,2-Dibromoethane (EDB)	1 ug/L
1,2-Dichlorobenzene	1 ug/L	1,2-Dichloroethane	1 ug/L
1,2-Dichloropropane	1 ug/L	1,3,5-Trimethylbenzene	1 ug/L
1,3-Butadiene	1 ug/L	1,3-Dichlorobenzene	1 ug/L
1,3-Dichloropropane	1 ug/L	1,4-Dichlorobenzene	1 ug/L
1,4-Dioxane (p-Dioxane)	2 ug/L	2,2-Dichloropropane	1 ug/L
2-Butanone (MEK)	2 ug/L	2-Chloroethylvinyl ether	2 ug/L
2-Chlorotoluene	1 ug/L	2-Hexanone	2 ug/L
2-Nitropropane	1 ug/L	4-Chlorotoluene	1 ug/L
4-Methyl-2-pentanone	2 ug/L	Acetone	2 ug/L
Acetonitrile	2 ug/L	Acrolein	2 ug/L
Acrylonitrile	2 ug/L	Allyl chloride	1 ug/L
Benzene	1 ug/L	Bromobenzene	1 ug/L
Bromochloromethane	1 ug/L	Bromodichloromethane	1 ug/L
Bromoform	1 ug/L	Bromomethane	1 ug/L
Carbon disulfide	1 ug/L	Carbon tetrachloride	1 ug/L
Chlorobenzene	1 ug/L	Chloroethane	1 ug/L
Chloroform	1 ug/L	Chloromethane	1 ug/L
Chloroprene	1 ug/L	Cyclohexane	1 ug/L
Dibromochloromethane	1 ug/L	Dibromomethane	1 ug/L
Dichlorodifluoromethane	1 ug/L	Diethyl ether (Ethyl ether)	1 ug/L
Ethyl acetate	2 ug/L	Ethyl methacrylate	1 ug/L
Ethylbenzene	1 ug/L	Hexachloro-1,3-butadiene	1 ug/L
Iodomethane	1 ug/L	Isobutanol	2 ug/L
Isopropyl acetate	1 ug/L	Isopropylbenzene	1 ug/L
Methacrylonitrile	2 ug/L	Methanol	ug/L
Methyl acetate	2 ug/L	Methyl acrylate	1 ug/L
Methyl methacrylate	1 ug/L	Methyl-tert-butyl ether	1 ug/L
Methylcyclohexane	1 ug/L	Methylene Chloride	1 ug/L
Naphthalene	1 ug/L	Propionitrile	2 ug/L
Styrene	1 ug/L	TOTAL BTEX	6 ug/L
Tetrachloroethene	1 ug/L	Tetrahydrofuran	2 ug/L
Toluene	1 ug/L	Total Trihalomethanes	4 ug/L
Trichloroethene	1 ug/L	Trichlorofluoromethane	1 ug/L
Vinyl acetate	1 ug/L	Vinyl chloride	1 ug/L
Xylene (Total)	3 ug/L	cis-1,2-Dichloroethene	1 ug/L
cis-1,3-Dichloropropene	1 ug/L	cis-1,4-Dichloro-2-butene	1 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	2 ug/L	n-Butanol	2 ug/L
n-Butylbenzene	1 ug/L	n-Hexane	1 ug/L
n-Propylbenzene	1 ug/L	n-amyl acetate	1 ug/L
o-Xylene	1 ug/L	p-Isopropyltoluene	1 ug/L
sec-Butylbenzene	1 ug/L	tert-Butylbenzene	1 ug/L
trans-1,2-Dichloroethene	1 ug/L	trans-1,3-Dichloropropene	1 ug/L
trans-1,4-Dichloro-2-	1 ug/L		

Composed of Information for Standard #27239

Composed of Standard Seq	Volume	Units
27114	0.001	mL
26717	0.001	mL
1	49.998	mL

Standard Log Report

Standards Log Information for Standard #27238

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	100 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL2

Notes:

MSV 8260 0.5PPB

Compound Name and Concentration for Standard #27238

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	.5 ug/L	1,1,1-Trichloroethane	.5 ug/L
1,1,2,2-Tetrachloroethane	.5 ug/L	1,1,2-Trichloroethane	.5 ug/L
1,1,2-	.5 ug/L	1,1-Dichloroethane	.5 ug/L
1,1-Dichloroethene	.5 ug/L	1,1-Dichloropropene	.5 ug/L
1,2,3-Trichlorobenzene	.5 ug/L	1,2,3-Trichloropropane	.5 ug/L
1,2,4-Trichlorobenzene	.5 ug/L	1,2,4-Trimethylbenzene	.5 ug/L
1,2-Dibromo-3-	.5 ug/L	1,2-Dibromoethane (EDB)	.5 ug/L
1,2-Dichlorobenzene	.5 ug/L	1,2-Dichloroethane	.5 ug/L
1,2-Dichloropropane	.5 ug/L	1,3,5-Trimethylbenzene	.5 ug/L
1,3-Butadiene	.5 ug/L	1,3-Dichlorobenzene	.5 ug/L
1,3-Dichloropropane	.5 ug/L	1,4-Dichlorobenzene	.5 ug/L
1,4-Dioxane (p-Dioxane)	1 ug/L	2,2-Dichloropropane	.5 ug/L
2-Butanone (MEK)	1 ug/L	2-Chloroethylvinyl ether	1 ug/L
2-Chlorotoluene	.5 ug/L	2-Hexanone	1 ug/L
2-Nitropropane	.5 ug/L	4-Chlorotoluene	.5 ug/L
4-Methyl-2-pentanone	1 ug/L	Acetone	1 ug/L
Acetonitrile	1 ug/L	Acrolein	1 ug/L
Acrylonitrile	1 ug/L	Allyl chloride	.5 ug/L
Benzene	.5 ug/L	Bromobenzene	.5 ug/L
Bromochloromethane	.5 ug/L	Bromodichloromethane	.5 ug/L
Bromoform	.5 ug/L	Bromomethane	.5 ug/L
Carbon disulfide	.5 ug/L	Carbon tetrachloride	.5 ug/L
Chlorobenzene	.5 ug/L	Chloroethane	.5 ug/L
Chloroform	.5 ug/L	Chloromethane	.5 ug/L
Chloroprene	.5 ug/L	Cyclohexane	.5 ug/L
Dibromochloromethane	.5 ug/L	Dibromomethane	.5 ug/L
Dichlorodifluoromethane	.5 ug/L	Diethyl ether (Ethyl ether)	.5 ug/L
Ethyl acetate	1 ug/L	Ethyl methacrylate	.5 ug/L
Ethylbenzene	.5 ug/L	Hexachloro-1,3-butadiene	.5 ug/L
Iodomethane	.5 ug/L	Isobutanol	1 ug/L
Isopropyl acetate	.5 ug/L	Isopropylbenzene	.5 ug/L
Methacrylonitrile	1 ug/L	Methanol	ug/L
Methyl acetate	1 ug/L	Methyl acrylate	.5 ug/L
Methyl methacrylate	.5 ug/L	Methyl-tert-butyl ether	.5 ug/L
Methylcyclohexane	.5 ug/L	Methylene Chloride	.5 ug/L
Naphthalene	.5 ug/L	Propionitrile	1 ug/L
Styrene	.5 ug/L	TOTAL BTEX	3 ug/L
Tetrachloroethene	.5 ug/L	Tetrahydrofuran	1 ug/L
Toluene	.5 ug/L	Total Trihalomethanes	2 ug/L
Trichloroethene	.5 ug/L	Trichlorofluoromethane	.5 ug/L
Vinyl acetate	.5 ug/L	Vinyl chloride	.5 ug/L
Xylene (Total)	1.5 ug/L	cis-1,2-Dichloroethene	.5 ug/L
cis-1,3-Dichloropropene	.5 ug/L	cis-1,4-Dichloro-2-butene	.5 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	1 ug/L	n-Butanol	1 ug/L
n-Butylbenzene	.5 ug/L	n-Hexane	.5 ug/L
n-Propylbenzene	.5 ug/L	n-amyl acetate	.5 ug/L
o-Xylene	.5 ug/L	p-Isopropyltoluene	.5 ug/L
sec-Butylbenzene	.5 ug/L	tert-Butylbenzene	.5 ug/L
trans-1,2-Dichloroethene	.5 ug/L	trans-1,3-Dichloropropene	.5 ug/L
trans-1,4-Dichloro-2-	.5 ug/L		

Composed of Information for Standard #27238

Composed of Standard Seq	Volume	Units
27114	0.001	mL
26717	0.001	mL
1	99.998	mL

Standard Log Report

Standards Log Information for Standard #27237

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	100 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL1

Notes:

MSV 8260 0.2 PPB

Compound Name and Concentration for Standard #27237

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	.2 ug/L	1,1,1-Trichloroethane	.2 ug/L
1,1,2,2-Tetrachloroethane	.2 ug/L	1,1,2-Trichloroethane	.2 ug/L
1,1,2-	.2 ug/L	1,1-Dichloroethane	.2 ug/L
1,1-Dichloroethene	.2 ug/L	1,1-Dichloropropene	.2 ug/L
1,2,3-Trichlorobenzene	.2 ug/L	1,2,3-Trichloropropane	.2 ug/L
1,2,4-Trichlorobenzene	.2 ug/L	1,2,4-Trimethylbenzene	.2 ug/L
1,2-Dibromo-3-	.2 ug/L	1,2-Dibromoethane (EDB)	.2 ug/L
1,2-Dichlorobenzene	.2 ug/L	1,2-Dichloroethane	.2 ug/L
1,2-Dichloropropane	.2 ug/L	1,3,5-Trimethylbenzene	.2 ug/L
1,3-Butadiene	.2 ug/L	1,3-Dichlorobenzene	.2 ug/L
1,3-Dichloropropane	.2 ug/L	1,4-Dichlorobenzene	.2 ug/L
1,4-Dioxane (p-Dioxane)	.4 ug/L	2,2-Dichloropropane	.2 ug/L
2-Butanone (MEK)	.4 ug/L	2-Chloroethylvinyl ether	.4 ug/L
2-Chlorotoluene	.2 ug/L	2-Hexanone	.4 ug/L
2-Nitropropane	.2 ug/L	4-Chlorotoluene	.2 ug/L
4-Methyl-2-pentanone	.4 ug/L	Acetone	.4 ug/L
Acetonitrile	.4 ug/L	Acrolein	.4 ug/L
Acrylonitrile	.4 ug/L	Allyl chloride	.2 ug/L
Benzene	.2 ug/L	Bromobenzene	.2 ug/L
Bromochloromethane	.2 ug/L	Bromodichloromethane	.2 ug/L
Bromoform	.2 ug/L	Bromomethane	.2 ug/L
Carbon disulfide	.2 ug/L	Carbon tetrachloride	.2 ug/L
Chlorobenzene	.2 ug/L	Chloroethane	.2 ug/L
Chloroform	.2 ug/L	Chloromethane	.2 ug/L
Chloroprene	.2 ug/L	Cyclohexane	.2 ug/L
Dibromochloromethane	.2 ug/L	Dibromomethane	.2 ug/L
Dichlorodifluoromethane	.2 ug/L	Diethyl ether (Ethyl ether)	.2 ug/L
Ethyl acetate	.4 ug/L	Ethyl methacrylate	.2 ug/L
Ethylbenzene	.2 ug/L	Hexachloro-1,3-butadiene	.2 ug/L
Iodomethane	.2 ug/L	Isobutanol	.4 ug/L
Isopropyl acetate	.2 ug/L	Isopropylbenzene	.2 ug/L
Methacrylonitrile	.4 ug/L	Methanol	ug/L
Methyl acetate	.4 ug/L	Methyl acrylate	.2 ug/L
Methyl methacrylate	.2 ug/L	Methyl-tert-butyl ether	.2 ug/L
Methylcyclohexane	.2 ug/L	Methylene Chloride	.2 ug/L
Naphthalene	.2 ug/L	Propionitrile	.4 ug/L
Styrene	.2 ug/L	TOTAL BTEX	1.2 ug/L
Tetrachloroethene	.2 ug/L	Tetrahydrofuran	.4 ug/L
Toluene	.2 ug/L	Total Trihalomethanes	.8 ug/L
Trichloroethene	.2 ug/L	Trichlorofluoromethane	.2 ug/L
Vinyl acetate	.2 ug/L	Vinyl chloride	.2 ug/L
Xylene (Total)	.6 ug/L	cis-1,2-Dichloroethene	.2 ug/L
cis-1,3-Dichloropropene	.2 ug/L	cis-1,4-Dichloro-2-butene	.2 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	.4 ug/L	n-Butanol	.4 ug/L
n-Butylbenzene	.2 ug/L	n-Hexane	.2 ug/L
n-Propylbenzene	.2 ug/L	n-amyl acetate	.2 ug/L
o-Xylene	.2 ug/L	p-Isopropyltoluene	.2 ug/L
sec-Butylbenzene	.2 ug/L	tert-Butylbenzene	.2 ug/L
trans-1,2-Dichloroethene	.2 ug/L	trans-1,3-Dichloropropene	.2 ug/L
trans-1,4-Dichloro-2-	.2 ug/L		

Composed of Information for Standard #27237

Composed of Standard Seq	Volume	Units
27114	0.0004	mL
26717	0.0004	mL
1	99.9992	mL

Standard Log Report

Standards Log Information for Standard #27116

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/18/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260GAS-SPK

Notes:

MSV 8260 Agilent Secondary Gas Spike MIX

Compound Name and Concentration for Standard #27116

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	100 ug/mL	Acrolein	100 ug/mL
Acrylonitrile	100 ug/mL	Bromomethane	50 ug/mL
Chloroethane	50 ug/mL	Chloromethane	50 ug/mL
Dichlorodifluoromethane	50 ug/mL	Methanol	ug/mL
Methyl acetate	100 ug/mL	Trichlorofluoromethane	50 ug/mL
Vinyl acetate	50 ug/mL	Vinyl chloride	50 ug/mL

Composed of Information for Standard #27116

Composed of Standard Seq	Volume	Units
26774	23.5	mL
26712	0.625	mL
26711	0.25	mL
26710	0.625	mL

Standard Log Report

Standards Log Information for Standard #27114

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/18/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260GAS-SPK

Notes:

MSV 8260 Phenova Primary Gas Spike MIX

Compound Name and Concentration for Standard #27114

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	100 ug/mL	Acrolein	100 ug/mL
Acrylonitrile	100 ug/mL	Bromomethane	50 ug/mL
Chloroethane	50 ug/mL	Chloromethane	50 ug/mL
Dichlorodifluoromethane	50 ug/mL	Methanol	ug/mL
Methyl acetate	100 ug/mL	Trichlorofluoromethane	50 ug/mL
Vinyl acetate	50 ug/mL	Vinyl chloride	50 ug/mL

Composed of Information for Standard #27114

Composed of Standard Seq	Volume	Units
26774	23.25	mL
26387	0.25	mL
26386	0.625	mL
26385	0.25	mL
24913	0.625	mL

Standard Log Report

Standards Log Information for Standard #27049

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522700
Create Date:	08/17/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180002
Expire Date:	07/31/2025	**Manufacturer Lot ID:**	CL15196	**Standard ID:**	MSV-GAS-PS

Notes:

MSV 502.2 Cal Mix#1-Primary Source

Compound Name and Concentration for Standard #27049

Compound Name	Concentration	Compound Name	Concentration
Bromomethane	2000 ug/mL	Chloroethane	2000 ug/mL
Chloromethane	2000 ug/mL	Dichlorodifluoromethane	2000 ug/mL
Trichlorofluoromethane	2000 ug/mL	Vinyl chloride	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #26774

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	522674
Create Date:	08/07/2020	**Manufacturer:**	Fisher Scientific	**Part ID:**	A453-500
Expire Date:	02/03/2021	**Manufacturer Lot ID:**	198331	**Standard ID:**	RGNT179

Notes:

MSV P/T Methanol

Compound Name and Concentration for Standard #26774

Compound Name	Concentration	Compound Name	Concentration
Methanol			

Standard Log Report

Standards Log Information for Standard #26718

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/06/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/05/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-SPK

Notes:

MSV 8260 Agilent Secondary Mega Mix Spike

Compound Name and Concentration for Standard #26718

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	50 ug/mL	1,1,1-Trichloroethane	50 ug/mL
1,1,2,2-Tetrachloroethane	50 ug/mL	1,1,2-Trichloroethane	50 ug/mL
1,1,2-	50 ug/mL	1,1-Dichloroethane	50 ug/mL
1,1-Dichloroethene	50 ug/mL	1,1-Dichloropropene	50 ug/mL
1,2,3-Trichlorobenzene	50 ug/mL	1,2,3-Trichloropropane	50 ug/mL
1,2,4-Trichlorobenzene	50 ug/mL	1,2,4-Trimethylbenzene	50 ug/mL
1,2-Dibromo-3-	50 ug/mL	1,2-Dibromoethane (EDB)	50 ug/mL
1,2-Dichlorobenzene	50 ug/mL	1,2-Dichloroethane	50 ug/mL
1,2-Dichloropropane	50 ug/mL	1,3,5-Trimethylbenzene	50 ug/mL
1,3-Butadiene	50 ug/mL	1,3-Dichlorobenzene	50 ug/mL
1,3-Dichloropropane	50 ug/mL	1,4-Dichlorobenzene	50 ug/mL
1,4-Dioxane (p-Dioxane)	100 ug/mL	2,2-Dichloropropane	50 ug/mL
2-Butanone (MEK)	100 ug/mL	2-Chlorotoluene	50 ug/mL
2-Hexanone	100 ug/mL	2-Nitropropane	50 ug/mL
4-Chlorotoluene	50 ug/mL	4-Methyl-2-pentanone	100 ug/mL
Acetone	100 ug/mL	Acetonitrile	100 ug/mL
Allyl chloride	50 ug/mL	Benzene	50 ug/mL
Bromobenzene	50 ug/mL	Bromochloromethane	50 ug/mL
Bromodichloromethane	50 ug/mL	Bromoform	50 ug/mL
Carbon disulfide	50 ug/mL	Carbon tetrachloride	50 ug/mL
Chlorobenzene	50 ug/mL	Chloroform	50 ug/mL
Chloroprene	50 ug/mL	Cyclohexane	50 ug/mL
Dibromochloromethane	50 ug/mL	Dibromomethane	50 ug/mL
Diethyl ether (Ethyl ether)	50 ug/mL	Ethyl acetate	100 ug/mL
Ethyl methacrylate	50 ug/mL	Ethylbenzene	50 ug/mL
Hexachloro-1,3-butadiene	50 ug/mL	Iodomethane	50 ug/mL
Isobutanol	100 ug/mL	Isopropyl acetate	50 ug/mL
Isopropylbenzene	50 ug/mL	Methacrylonitrile	100 ug/mL
Methanol	ug/mL	Methyl acrylate	50 ug/mL
Methyl methacrylate	50 ug/mL	Methyl-tert-butyl ether	50 ug/mL
Methylcyclohexane	50 ug/mL	Methylene Chloride	50 ug/mL
Naphthalene	50 ug/mL	Propionitrile	100 ug/mL
Styrene	50 ug/mL	TOTAL BTEX	300 ug/mL
Tetrachloroethene	50 ug/mL	Tetrahydrofuran	100 ug/mL
Toluene	50 ug/mL	Total Trihalomethanes	200 ug/mL
Trichloroethene	50 ug/mL	Xylene (Total)	150 ug/mL
cis-1,2-Dichloroethene	50 ug/mL	cis-1,3-Dichloropropene	50 ug/mL
cis-1,4-Dichloro-2-butene	50 ug/mL	m&p-Xylene	100 ug/mL
n-Butanol	100 ug/mL	n-Butylbenzene	50 ug/mL
n-Hexane	50 ug/mL	n-Propylbenzene	50 ug/mL
n-amyl acetate	50 ug/mL	o-Xylene	50 ug/mL
p-Isopropyltoluene	50 ug/mL	sec-Butylbenzene	50 ug/mL
tert-Butylbenzene	50 ug/mL	trans-1,2-Dichloroethene	50 ug/mL

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
trans-1,3-Dichloropropene	50 ug/mL	trans-1,4-Dichloro-2-	50 ug/mL

Composed of Information for Standard #26718

Composed of Standard Seq	Volume	Units
26117	21.375	mL
25570	0.25	mL
25569	0.25	mL
25568	0.625	mL
25566	0.625	mL
25565	0.625	mL
25564	0.625	mL

Standard Log Report

Standards Log Information for Standard #26717

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/06/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/05/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-SPK

Notes:

MSV 8260 Phenova Primary Mega Mix Spike

Compound Name and Concentration for Standard #26717

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	50 ug/mL	1,1,1-Trichloroethane	50 ug/mL
1,1,2,2-Tetrachloroethane	50 ug/mL	1,1,2-Trichloroethane	50 ug/mL
1,1,2-	50 ug/mL	1,1-Dichloroethane	50 ug/mL
1,1-Dichloroethene	50 ug/mL	1,1-Dichloropropene	50 ug/mL
1,2,3-Trichlorobenzene	50 ug/mL	1,2,3-Trichloropropane	50 ug/mL
1,2,4-Trichlorobenzene	50 ug/mL	1,2,4-Trimethylbenzene	50 ug/mL
1,2-Dibromo-3-	50 ug/mL	1,2-Dibromoethane (EDB)	50 ug/mL
1,2-Dichlorobenzene	50 ug/mL	1,2-Dichloroethane	50 ug/mL
1,2-Dichloropropane	50 ug/mL	1,3,5-Trimethylbenzene	50 ug/mL
1,3-Butadiene	50 ug/mL	1,3-Dichlorobenzene	50 ug/mL
1,3-Dichloropropane	50 ug/mL	1,4-Dichlorobenzene	50 ug/mL
1,4-Dioxane (p-Dioxane)	100 ug/mL	2,2-Dichloropropane	50 ug/mL
2-Butanone (MEK)	100 ug/mL	2-Chlorotoluene	50 ug/mL
2-Hexanone	100 ug/mL	2-Nitropropane	50 ug/mL
4-Chlorotoluene	50 ug/mL	4-Methyl-2-pentanone	100 ug/mL
Acetone	100 ug/mL	Acetonitrile	100 ug/mL
Allyl chloride	50 ug/mL	Benzene	50 ug/mL
Bromobenzene	50 ug/mL	Bromochloromethane	50 ug/mL
Bromodichloromethane	50 ug/mL	Bromoform	50 ug/mL
Carbon disulfide	50 ug/mL	Carbon tetrachloride	50 ug/mL
Chlorobenzene	50 ug/mL	Chloroform	50 ug/mL
Chloroprene	50 ug/mL	Cyclohexane	50 ug/mL
Dibromochloromethane	50 ug/mL	Dibromomethane	50 ug/mL
Diethyl ether (Ethyl ether)	50 ug/mL	Ethyl acetate	100 ug/mL
Ethyl methacrylate	50 ug/mL	Ethylbenzene	50 ug/mL
Hexachloro-1,3-butadiene	50 ug/mL	Iodomethane	50 ug/mL
Isobutanol	100 ug/mL	Isopropyl acetate	50 ug/mL
Isopropylbenzene	50 ug/mL	Methacrylonitrile	100 ug/mL
Methanol	ug/mL	Methyl acrylate	50 ug/mL
Methyl methacrylate	50 ug/mL	Methyl-tert-butyl ether	50 ug/mL
Methylcyclohexane	50 ug/mL	Methylene Chloride	50 ug/mL
Naphthalene	50 ug/mL	Propionitrile	100 ug/mL
Styrene	50 ug/mL	TOTAL BTEX	300 ug/mL
Tetrachloroethene	50 ug/mL	Tetrahydrofuran	100 ug/mL
Toluene	50 ug/mL	Total Trihalomethanes	200 ug/mL
Trichloroethene	50 ug/mL	Xylene (Total)	150 ug/mL
cis-1,2-Dichloroethene	50 ug/mL	cis-1,3-Dichloropropene	50 ug/mL
cis-1,4-Dichloro-2-butene	50 ug/mL	m&p-Xylene	100 ug/mL
n-Butanol	100 ug/mL	n-Butylbenzene	50 ug/mL
n-Hexane	50 ug/mL	n-Propylbenzene	50 ug/mL
n-amyl acetate	50 ug/mL	o-Xylene	50 ug/mL
p-Isopropyltoluene	50 ug/mL	sec-Butylbenzene	50 ug/mL
tert-Butylbenzene	50 ug/mL	trans-1,2-Dichloroethene	50 ug/mL

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
trans-1,3-Dichloropropene	50 ug/mL	trans-1,4-Dichloro-2-	50 ug/mL

Composed of Information for Standard #26717

Composed of Standard Seq	Volume	Units
26117	22.625	mL
23770	0.625	mL
23769	0.625	mL
23768	0.625	mL
23767	0.25	mL
23766	0.25	mL

Standard Log Report

Standards Log Information for Standard #26712

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522672
Create Date:	08/06/2020	**Manufacturer:**	Agilent	**Part ID:**	3095185
Expire Date:	11/30/2020	**Manufacturer Lot ID:**	0006547794	**Standard ID:**	ACETATESTK

Notes:

MSV Custom Acetate Mix-Secondary Source

Compound Name and Concentration for Standard #26712

Compound Name	Concentration	Compound Name	Concentration
Vinyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26711

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522671
Create Date:	08/06/2020	**Manufacturer:**	Agilent	**Part ID:**	3059401
Expire Date:	11/30/2020	**Manufacturer Lot ID:**	0006547796	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #26711

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	10000 ug/mL	Acrolein	10000 ug/mL
Acrylonitrile	10000 ug/mL	Methyl acetate	10000 ug/mL

Standard Log Report

Standards Log Information for Standard #26710

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522670
Create Date:	08/06/2020	**Manufacturer:**	Agilent	**Part ID:**	3059400
Expire Date:	08/31/2022	**Manufacturer Lot ID:**	0006547006	**Standard ID:**	MSV-GAS-SS

Notes:

MSV 502.2 Cal Mix#1-Secondary Source

Compound Name and Concentration for Standard #26710

Compound Name	Concentration	Compound Name	Concentration
Bromomethane	2000 ug/mL	Chloroethane	2000 ug/mL
Chloromethane	2000 ug/mL	Dichlorodifluoromethane	2000 ug/mL
Trichlorofluoromethane	2000 ug/mL	Vinyl chloride	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #26400

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	10 mL	**Lot ID:**	PACE
Create Date:	07/30/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/29/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-ISSS

Notes:

MSV Working MV02 524/8260 IS/Surrogate

Compound Name and Concentration for Standard #26400

Compound Name	Concentration	Compound Name	Concentration
1,2-Dichlorobenzene-d4 (S)	50 mg/L	1,2-Dichloroethane-d4 (S)	50 mg/L
1,4-Dichlorobenzene-d4	50 mg/L	1,4-Difluorobenzene (IS)	50 mg/L
4-Bromofluorobenzene (S)	50 mg/L	Chlorobenzene-D5 (IS)	50 mg/L
Dibromofluoromethane (S)	50 mg/L	Fluorobenzene (IS)	50 mg/L
Methanol	mg/L	Pentafluorobenzene (IS)	50 mg/L
Toluene-d8 (S)	50 mg/L		

Composed of Information for Standard #26400

Composed of Standard Seq	Volume	Units
26117	9.1	mL
24910	0.25	mL
24909	0.25	mL
24908	0.2	mL
24907	0.2	mL

Standard Log Report

Standards Log Information for Standard #26387

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522645
Create Date:	07/29/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180007
Expire Date:	10/31/2020	**Manufacturer Lot ID:**	CL15234	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Reactives Std-Primary Source

Compound Name and Concentration for Standard #26387

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	10000 ug/mL	Acrylonitrile	10000 ug/mL
Methyl acetate	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26386

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522644
Create Date:	07/29/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180018
Expire Date:	08/27/2020	**Manufacturer Lot ID:**	CL15596	**Standard ID:**	ACETATEPSTK

Notes:

MSV Phenova Custom Acetate Mix-Primary Source

Compound Name and Concentration for Standard #26386

Compound Name	Concentration	Compound Name	Concentration
Vinyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26385

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522643
Create Date:	07/29/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180017
Expire Date:	08/27/2020	**Manufacturer Lot ID:**	CL15595	**Standard ID:**	AcrolienPSTK

Notes:

MSV Phenova Acrolein Stock Standard - Primary

Compound Name and Concentration for Standard #26385

Compound Name	Concentration	Compound Name	Concentration
Acrolein	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26117

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	522617
Create Date:	07/22/2020	**Manufacturer:**	Fisher Scientific	**Part ID:**	A453-500
Expire Date:	01/18/2021	**Manufacturer Lot ID:**	198331	**Standard ID:**	RGNT179

Notes:

MSV P/T Methanol

Compound Name and Concentration for Standard #26117

Compound Name	Concentration	Compound Name	Concentration
Methanol			

Standard Log Report

Standards Log Information for Standard #25570

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522580
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059390
Expire Date:	04/30/2021	**Manufacturer Lot ID:**	0006527178	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #25570

Compound Name	Concentration	Compound Name	Concentration
n-Butanol	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25569

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522579
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059399
Expire Date:	07/31/2022	**Manufacturer Lot ID:**	00006542413	**Standard ID:**	VOACALMX1

Notes:

MSV VOA Calibration Mix#1-Secondary Source

Compound Name and Concentration for Standard #25569

Compound Name	Concentration	Compound Name	Concentration
1,4-Dioxane (p-Dioxane)	10000 ug/mL	2-Butanone (MEK)	10000 ug/mL
2-Hexanone	10000 ug/mL	4-Methyl-2-pentanone	10000 ug/mL
Acetone	10000 ug/mL	Acetonitrile	10000 ug/mL
Ethyl acetate	10000 ug/mL	Isobutanol	10000 ug/mL
Methacrylonitrile	10000 ug/mL	Propionitrile	10000 ug/mL
Tetrahydrofuran	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25568

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522578
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059396
Expire Date:	04/30/2022	**Manufacturer Lot ID:**	0006527210	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #25568

Compound Name	Concentration	Compound Name	Concentration
Chloroprene	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25566

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522576
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3154935
Expire Date:	09/30/2020	**Manufacturer Lot ID:**	0006537291	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #25566

Compound Name	Concentration	Compound Name	Concentration
Isopropyl acetate	2000 ug/mL	Methyl acrylate	2000 ug/mL
n-amyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25565

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522575
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3083487
Expire Date:	04/30/2021	**Manufacturer Lot ID:**	0006527215	**Standard ID:**	ButadieneSTK

Notes:

MSV 1,3-Butadiene Stock-Secondary Source

Compound Name and Concentration for Standard #25565

Compound Name	Concentration	Compound Name	Concentration
1,3-Butadiene	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25564

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522574
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059393
Expire Date:	07/31/2022	**Manufacturer Lot ID:**	0006542412	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Mix-Agilent Secondary Source

Compound Name and Concentration for Standard #25564

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	2000 ug/mL	1,1,1-Trichloroethane	2000 ug/mL
1,1,2,2-Tetrachloroethane	2000 ug/mL	1,1,2-Trichloroethane	2000 ug/mL
1,1,2-	2000 ug/mL	1,1-Dichloroethane	2000 ug/mL
1,1-Dichloroethene	2000 ug/mL	1,1-Dichloropropene	2000 ug/mL
1,2,3-Trichlorobenzene	2000 ug/mL	1,2,3-Trichloropropane	2000 ug/mL
1,2,4-Trichlorobenzene	2000 ug/mL	1,2,4-Trimethylbenzene	2000 ug/mL
1,2-Dibromo-3-	2000 ug/mL	1,2-Dibromoethane (EDB)	2000 ug/mL
1,2-Dichlorobenzene	2000 ug/mL	1,2-Dichloroethane	2000 ug/mL
1,2-Dichloropropane	2000 ug/mL	1,3,5-Trimethylbenzene	2000 ug/mL
1,3-Dichlorobenzene	2000 ug/mL	1,3-Dichloropropane	2000 ug/mL
1,4-Dichlorobenzene	2000 ug/mL	2,2-Dichloropropane	2000 ug/mL
2-Chlorotoluene	2000 ug/mL	2-Nitropropane	2000 ug/mL
4-Chlorotoluene	2000 ug/mL	Allyl chloride	2000 ug/mL
Benzene	2000 ug/mL	Bromobenzene	2000 ug/mL
Bromochloromethane	2000 ug/mL	Bromodichloromethane	2000 ug/mL
Bromoform	2000 ug/mL	Carbon disulfide	2000 ug/mL
Carbon tetrachloride	2000 ug/mL	Chlorobenzene	2000 ug/mL
Chloroform	2000 ug/mL	Cyclohexane	2000 ug/mL
Dibromochloromethane	2000 ug/mL	Dibromomethane	2000 ug/mL
Diethyl ether (Ethyl ether)	2000 ug/mL	Ethyl methacrylate	2000 ug/mL
Ethylbenzene	2000 ug/mL	Hexachloro-1,3-butadiene	2000 ug/mL
Iodomethane	2000 ug/mL	Isopropylbenzene	2000 ug/mL
Methyl methacrylate	2000 ug/mL	Methyl-tert-butyl ether	2000 ug/mL
Methylcyclohexane	2000 ug/mL	Methylene Chloride	2000 ug/mL
Naphthalene	2000 ug/mL	Styrene	2000 ug/mL
TOTAL BTEX	12000 ug/mL	Tetrachloroethene	2000 ug/mL
Toluene	2000 ug/mL	Total Trihalomethanes	8000 ug/mL
Trichloroethene	2000 ug/mL	Xylene (Total)	6000 ug/mL
cis-1,2-Dichloroethene	2000 ug/mL	cis-1,3-Dichloropropene	2000 ug/mL
cis-1,4-Dichloro-2-butene	2000 ug/mL	m&p-Xylene	4000 ug/mL
n-Butylbenzene	2000 ug/mL	n-Hexane	2000 ug/mL
n-Propylbenzene	2000 ug/mL	o-Xylene	2000 ug/mL
p-Isopropyltoluene	2000 ug/mL	sec-Butylbenzene	2000 ug/mL
tert-Butylbenzene	2000 ug/mL	trans-1,2-Dichloroethene	2000 ug/mL
trans-1,3-Dichloropropene	2000 ug/mL	trans-1,4-Dichloro-2-	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #24913

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522539
Create Date:	06/23/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180002
Expire Date:	08/31/2024	**Manufacturer Lot ID:**	CL14053	**Standard ID:**	MSV-GAS-PS

Notes:

MSV 502.2 Cal Mix#1-Primary Source

Compound Name and Concentration for Standard #24913

Compound Name	Concentration	Compound Name	Concentration
Bromomethane	2000 ug/mL	Chloroethane	2000 ug/mL
Chloromethane	2000 ug/mL	Dichlorodifluoromethane	2000 ug/mL
Trichlorofluoromethane	2000 ug/mL	Vinyl chloride	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #24910

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522538
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30030
Expire Date:	02/28/2025	**Manufacturer Lot ID:**	A0158124	**Standard ID:**	524 IS STK

Notes:

MSV 524.2 Fluorobenzene IS Stock

Compound Name and Concentration for Standard #24910

Compound Name	Concentration	Compound Name	Concentration
Fluorobenzene (IS)	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #24909

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522537
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30049
Expire Date:	08/31/2028	**Manufacturer Lot ID:**	A0160880	**Standard ID:**	524 Surr STK

Notes:

MSV 524 Surrogate 1,2-Dichlorobenzene-d4

Compound Name and Concentration for Standard #24909

Compound Name	Concentration	Compound Name	Concentration
1,2-Dichlorobenzene-d4 (S)	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #24908

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522536
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30240
Expire Date:	01/31/2025	**Manufacturer Lot ID:**	A0156492	**Standard ID:**	8260 SUR STK

Notes:

MSV 8260 Surrogate Stock

Compound Name and Concentration for Standard #24908

Compound Name	Concentration	Compound Name	Concentration
1,2-Dichloroethane-d4 (S)	2500 ug/mL	4-Bromofluorobenzene (S)	2500 ug/mL
Dibromofluoromethane (S)	2500 ug/mL	Toluene-d8 (S)	2500 ug/mL

Standard Log Report

Standards Log Information for Standard #24907

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522535
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30074
Expire Date:	04/30/2025	**Manufacturer Lot ID:**	A0159786	**Standard ID:**	8260 IS

Notes:

MSV 8260 IS Stock

Compound Name and Concentration for Standard #24907

Compound Name	Concentration	Compound Name	Concentration
1,4-Dichlorobenzene-d4	2500 ug/mL	1,4-Difluorobenzene (IS)	2500 ug/mL
Chlorobenzene-D5 (IS)	2500 ug/mL	Pentafluorobenzene (IS)	2500 ug/mL

Standard Log Report

Standards Log Information for Standard #23770

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522451
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180001
Expire Date:	12/31/2021	**Manufacturer Lot ID:**	CL14606	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Mix-Primary Source

Compound Name and Concentration for Standard #23770

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	2000 ug/mL	1,1,1-Trichloroethane	2000 ug/mL
1,1,2,2-Tetrachloroethane	2000 ug/mL	1,1,2-Trichloroethane	2000 ug/mL
1,1,2-	2000 ug/mL	1,1-Dichloroethane	2000 ug/mL
1,1-Dichloroethene	2000 ug/mL	1,1-Dichloropropene	2000 ug/mL
1,2,3-Trichlorobenzene	2000 ug/mL	1,2,3-Trichloropropane	2000 ug/mL
1,2,4-Trichlorobenzene	2000 ug/mL	1,2,4-Trimethylbenzene	2000 ug/mL
1,2-Dibromo-3-	2000 ug/mL	1,2-Dibromoethane (EDB)	2000 ug/mL
1,2-Dichlorobenzene	2000 ug/mL	1,2-Dichloroethane	2000 ug/mL
1,2-Dichloropropane	2000 ug/mL	1,3,5-Trimethylbenzene	2000 ug/mL
1,3-Dichlorobenzene	2000 ug/mL	1,3-Dichloropropane	2000 ug/mL
1,4-Dichlorobenzene	2000 ug/mL	2,2-Dichloropropane	2000 ug/mL
2-Chlorotoluene	2000 ug/mL	2-Nitropropane	2000 ug/mL
4-Chlorotoluene	2000 ug/mL	Allyl chloride	2000 ug/mL
Benzene	2000 ug/mL	Bromobenzene	2000 ug/mL
Bromochloromethane	2000 ug/mL	Bromodichloromethane	2000 ug/mL
Bromoform	2000 ug/mL	Carbon disulfide	2000 ug/mL
Carbon tetrachloride	2000 ug/mL	Chlorobenzene	2000 ug/mL
Chloroform	2000 ug/mL	Chloroprene	2000 ug/mL
Cyclohexane	2000 ug/mL	Dibromochloromethane	2000 ug/mL
Dibromomethane	2000 ug/mL	Diethyl ether (Ethyl ether)	2000 ug/mL
Ethyl methacrylate	2000 ug/mL	Ethylbenzene	2000 ug/mL
Hexachloro-1,3-butadiene	2000 ug/mL	Iodomethane	2000 ug/mL
Isopropylbenzene	2000 ug/mL	Methyl methacrylate	2000 ug/mL
Methyl-tert-butyl ether	2000 ug/mL	Methylcyclohexane	2000 ug/mL
Methylene Chloride	2000 ug/mL	Naphthalene	2000 ug/mL
Styrene	2000 ug/mL	TOTAL BTEX	12000 ug/mL
Tetrachloroethene	2000 ug/mL	Toluene	2000 ug/mL
Total Trihalomethanes	8000 ug/mL	Trichloroethene	2000 ug/mL
Xylene (Total)	6000 ug/mL	cis-1,2-Dichloroethene	2000 ug/mL
cis-1,3-Dichloropropene	2000 ug/mL	cis-1,4-Dichloro-2-butene	2000 ug/mL
m&p-Xylene	4000 ug/mL	n-Butylbenzene	2000 ug/mL
n-Hexane	2000 ug/mL	n-Propylbenzene	2000 ug/mL
o-Xylene	2000 ug/mL	p-Isopropyltoluene	2000 ug/mL
sec-Butylbenzene	2000 ug/mL	tert-Butylbenzene	2000 ug/mL
trans-1,2-Dichloroethene	2000 ug/mL	trans-1,3-Dichloropropene	2000 ug/mL
trans-1,4-Dichloro-2-	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23769

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522450
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180006
Expire Date:	11/30/2020	**Manufacturer Lot ID:**	CL14585	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Supplemental Std-Primary Source

Compound Name and Concentration for Standard #23769

Compound Name	Concentration	Compound Name	Concentration
Isopropyl acetate	2000 ug/mL	Methyl acrylate	2000 ug/mL
n-amyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23768

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522449
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180004
Expire Date:	11/30/2021	**Manufacturer Lot ID:**	CL14652	**Standard ID:**	ButadieneSTK

Notes:

MSV 1,3-Butadiene Stock-Primary Source

Compound Name and Concentration for Standard #23768

Compound Name	Concentration	Compound Name	Concentration
1,3-Butadiene	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23767

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522448
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180003
Expire Date:	11/30/2022	**Manufacturer Lot ID:**	CL14587	**Standard ID:**	VOACALMX1

Notes:

MSV VOA Calibration Mix#1-Primary Source

Compound Name and Concentration for Standard #23767

Compound Name	Concentration	Compound Name	Concentration
1,4-Dioxane (p-Dioxane)	10000 ug/mL	2-Butanone (MEK)	10000 ug/mL
2-Hexanone	10000 ug/mL	4-Methyl-2-pentanone	10000 ug/mL
Acetone	10000 ug/mL	Acetonitrile	10000 ug/mL
Ethyl acetate	10000 ug/mL	Isobutanol	10000 ug/mL
Methacrylonitrile	10000 ug/mL	Propionitrile	10000 ug/mL
Tetrahydrofuran	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23766

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522447
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180005
Expire Date:	12/31/2020	**Manufacturer Lot ID:**	CL14607	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Supplemental Std-Primary Source

Compound Name and Concentration for Standard #23766

Compound Name	Concentration	Compound Name	Concentration
n-Butanol	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #20490

STOCK STANDARD

Created By:	TCC	**Volume of Standard:**	3000 g	**Lot ID:**	522217
Create Date:	03/02/2020	**Manufacturer:**	Fisher Scientific	**Part ID:**	S23
Expire Date:	08/29/2023	**Manufacturer Lot ID:**	1185572	**Standard ID:**	RGNT210

Notes:

OEXT Sand

Compound Name and Concentration for Standard #20490

Compound Name	Concentration	Compound Name	Concentration
Ottawa Sand	mg/kg		

Standard Log Report

Standards Log Information for Standard #8940

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	521408
Create Date:	05/09/2019	**Manufacturer:**	Fisher Scientific	**Part ID:**	S23-3
Expire Date:	09/01/2022	**Manufacturer Lot ID:**	175767	**Standard ID:**	RGNT210

Notes:

MSV Ottowa Sand

Compound Name and Concentration for Standard #8940

Compound Name	Concentration	Compound Name	Concentration
Ottawa Sand	mg/kg		

Standard Log Report

Standards Log Information for Standard #1

STOCK STANDARD

Created By:	GR1	**Volume of Standard:**	1000 mL	**Lot ID:**	PACE
Create Date:	01/01/2018	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	01/01/2025	**Manufacturer Lot ID:**	PACE	**Standard ID:**	RGNT389

Notes:

DI Water

Compound Name and Concentration for Standard #1

Compound Name	Concentration	Compound Name	Concentration
DI Water			

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Certificate of Analysis

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Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A453	Quality Test / Release Date	02/19/2020
Lot Number	198331		
Description	METHANOL, PURGE & TRAP GRADE		
Country of Origin	Venezuela	Suggested Retest Date	Feb/2025
Chemical Origin	Organic - synthetic		
BSE/TSE Comment	This product is derived from petroleum products. It does not contain any materials that are of human or animal origin, nor does it come into contact with such materials during the manufacturing process. Therefore, to the best of our knowledge, there is no potential for BSE or TSE to be present in this product.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear colorless liquid free of suspended matter.
2-BUTANONE	ppb	<= 50	<25
ACETONE	ppb	<= 50	<25
AROMATIC COMPOUNDS	ppb	<= 10	<10
ASSAY	%	>= 99.9	>99.99
CARBON TETRACHLORIDE	ppb	<= 10	<10
CHLOROFORM	ppb	<= 10	<10
EVAPORATION RESIDUE	ppm	<= 1	0.22
HEPTANE	ppb	<= 50	<10
HEXANE	ppb	<= 50	<10
ISO-OCTANE	ppb	<= 50	<10
METHYL ISO-AMYL KETONE	ppb	<= 50	<25
METHYLENE CHLORIDE	ppb	<= 10	<10
OTHER DETECTABLE ALKANES	ppb	<= 50	<10
OTHER DETECTABLE CHLOROHYDROCARBONS	ppb	<= 10	<10
OTHER DETECTABLE KETONES	ppb	<= 50	<25
OTHER DETECTABLE PEAKS AS HEXANE	ppb	<= 50	<10
PENTANE	ppb	<= 50	<10
TITRATABLE ACID	MEQ/G	<= 0.0003	0.0003
TITRATABLE BASE	MEQ/G	<= 0.0002	<0.0002
VOLATILE ORGANIC CMPDS (EPA8260B OR EQUIV)	PASS/FAIL	= PASS TEST	PASS TEST

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

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Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

WATER (KARL FISCHER)	%	<= 0.2	<0.01

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
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522538
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STO# 24910

ACCREDITED
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Reference Material Producer
Certificate #3222.01

ilac-MRA

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30030 **Lot No.:** A0158124

Description : Fluorobenzene Mixture

Fluorobenzene 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Fluorobenzene CAS # 462-06-6 Purity 99% (Lot BCBZ5549)	2,006.0 µg/mL	+/- 11.7723	µg/mL	Gravimetric
			+/- 112.4858	µg/mL	Unstressed
			+/- 115.1173	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30049 **Lot No.:** A0160880

Description : 1,2-Dichlorobenzene-d4 Mix

1, 2-Dichlorobenzene-d4 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,2-Dichlorobenzene-d4 **CAS #** 2199-69-1 (Lot M-2097) **Purity** 99%	2,000.0 µg/mL	+/- 11.8794	µg/mL	Gravimetric
			+/- 112.1643	µg/mL	Unstressed
			+/- 114.7876	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30240 **Lot No.:** A0156492

Description : 8260A Surrogate Mix

8260A Surrogate Mix 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dibromofluoromethane CAS # 1868-53-7 Purity 99%	(Lot 0012016)	2,501.9 µg/mL	+/- 14.5463 µg/mL +/- 140.2790 µg/mL +/- 143.5614 µg/mL	Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 CAS # 17060-07-0 Purity 99%	(Lot PR-29377)	2,500.9 µg/mL	+/- 14.5404 µg/mL +/- 140.2230 µg/mL +/- 143.5040 µg/mL	Gravimetric Unstressed Stressed
3	Toluene-d8 CAS # 2037-26-5 Purity 99%	(Lot I-21928)	2,500.5 µg/mL	+/- 14.5381 µg/mL +/- 140.2006 µg/mL +/- 143.4811 µg/mL	Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) CAS # 460-00-4 Purity 99%	(Lot 20401KO)	2,501.2 µg/mL	+/- 14.5422 µg/mL +/- 140.2398 µg/mL +/- 143.5212 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30074 **Lot No.:** A0159786

Description : 8260 Internal Standard Mix

8260 Internal Standard Mix 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Pentafluorobenzene **CAS #** 363-72-4 **Purity** 99%	(Lot MKCH1850)	2,507.0 µg/mL	+/- 14.5759 µg/mL +/- 140.5650 µg/mL +/- 143.8540 µg/mL		Gravimetric Unstressed Stressed
2	1,4-Difluorobenzene **CAS #** 540-36-3 **Purity** 99%	(Lot MKBN8571V)	2,506.6 µg/mL	+/- 14.5736 µg/mL +/- 140.5426 µg/mL +/- 143.8311 µg/mL		Gravimetric Unstressed Stressed
3	Chlorobenzene-d5 **CAS #** 3114-55-4 **Purity** 99%	(Lot PR-29571)	2,504.8 µg/mL	+/- 14.5631 µg/mL +/- 140.4416 µg/mL +/- 143.7278 µg/mL		Gravimetric Unstressed Stressed
4	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 **Purity** 99%	(Lot PR-30447)	2,508.0 µg/mL	+/- 14.5817 µg/mL +/- 140.6211 µg/mL +/- 143.9114 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Certificate of Analysis
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Catalog Number	A453	Quality Test / Release Date	02/19/2020
Lot Number	198331		
Description	METHANOL, PURGE & TRAP GRADE		
Country of Origin	Venezuela	Suggested Retest Date	Feb/2025
Chemical Origin	Organic - synthetic		
BSE/TSE Comment	This product is derived from petroleum products. It does not contain any materials that are of human or animal origin, nor does it come into contact with such materials during the manufacturing process. Therefore, to the best of our knowledge, there is no potential for BSE or TSE to be present in this product.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear colorless liquid free of suspended matter.
2-BUTANONE	ppb	<= 50	<25
ACETONE	ppb	<= 50	<25
AROMATIC COMPOUNDS	ppb	<= 10	<10
ASSAY	%	>= 99.9	>99.99
CARBON TETRACHLORIDE	ppb	<= 10	<10
CHLOROFORM	ppb	<= 10	<10
EVAPORATION RESIDUE	ppm	<= 1	0.22
HEPTANE	ppb	<= 50	<10
HEXANE	ppb	<= 50	<10
ISO-OCTANE	ppb	<= 50	<10
METHYL ISO-AMYL KETONE	ppb	<= 50	<25
METHYLENE CHLORIDE	ppb	<= 10	<10
OTHER DETECTABLE ALKANES	ppb	<= 50	<10
OTHER DETECTABLE CHLOROHYDROCARBONS	ppb	<= 10	<10
OTHER DETECTABLE KETONES	ppb	<= 50	<25
OTHER DETECTABLE PEAKS AS HEXANE	ppb	<= 50	<10
PENTANE	ppb	<= 50	<10
TITRATABLE ACID	MEQ/G	<= 0.0003	0.0003
TITRATABLE BASE	MEQ/G	<= 0.0002	<0.0002
VOLATILE ORGANIC CMPDS (EPA8260B OR EQUIV)	PASS/FAIL	= PASS TEST	PASS TEST

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

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Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

WATER (KARL FISCHER)	%	<= 0.2	<0.01

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
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Certificate of Analysis

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Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180001
Description: Custom VOA Cal Mix
Storage: Freeze (-18 - 0 °C)
Provided As: > 1 mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14606
Certification Date: March 3, 2020
Expiration Date: December 31, 2021

Andrea L Gill

522451
REC. 05/22/20 BY EF
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Open __/__/__ By

STOCK 23770

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Allyl Chloride	107-05-1	2000	0.492%
tert-Amyl Ethyl Ether (TAEE)	919-94-8	2000	0.215%
tert-Amyl Methyl Ether (TAME)	994-05-8	2000	0.632%
Benzene	71-43-2	2000	0.519%
Bromobenzene	108-86-1	2000	0.479%
Bromoform	75-25-2	2000	0.487%
Bromochloromethane	74-97-5	2000	0.545%
Bromodichloromethane	75-27-4	2000	0.481%
n-Butylbenzene	104-51-8	2000	0.480%
sec-Butylbenzene	135-98-8	2000	0.478%
tert-Butylbenzene	98-06-6	2000	0.481%
Ethyl-tert Butyl Ether (ETBE)	637-92-3	2000	0.635%
Carbon disulfide	75-15-0	2000	0.480%
Carbon tetrachloride	56-23-5	2000	0.519%
Chlorobenzene	108-90-7	2000	0.519%
Chloroform	67-66-3	2000	0.519%
Chloroprene	126-99-8	2000	1.518%
2-Chlorotoluene	95-49-8	2000	0.478%
4-Chlorotoluene	106-43-4	2000	0.479%
Cyclohexane	110-82-7	2000	0.507%
Dibromochloromethane	124-48-1	2000	0.480%
1,2-Dibromo-3-Chloropropane	96-12-8	2000	0.479%
Dibromomethane	74-95-3	2000	0.508%
Dibromomethane	106-93-4	2000	0.508%
1,2-Dichlorobenzene	95-50-1	2000	0.478%
1,3-Dichlorobenzene	541-73-1	2000	0.479%

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Catalog Number: AL0-180001
Description: Custom VOA Cal Mix
Storage: Freeze (-18 - 0 °C)
Provided As: > 1 mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14606
Certification Date: March 3, 2020
Expiration Date: December 31, 2021

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
1,4-Dichlorobenzene	106-46-7	2001	0.215%
cis-1,4-Dichloro-2-butene	1476-11-5	2000	0.480%
trans-1,4-Dichloro-2-butene	110-57-6	2000	0.492%
1,1-Dichloroethane	75-34-3	2000	0.546%
1,2-Dichloroethane	107-06-2	2000	0.545%
1,1-Dichloroethene	75-35-4	2000	0.507%
cis-1,2-Dichloroethene	156-59-2	2000	0.545%
trans-1,2-Dichloroethene	156-60-5	2000	0.558%
1,2-Dichloropropane	78-87-5	2000	0.524%
1,3-Dichloropropane	142-28-9	2000	0.478%
2,2-Dichloropropane	594-20-7	2000	0.519%
1,1-Dichloropropene	563-58-6	2000	0.218%
cis-1,3-Dichloropropene	10061-01-5	2001	0.507%
trans-1,3-Dichloropropene	10061-02-6	2000	0.507%
Ethyl Ether	60-29-7	2000	0.624%
Diisopropyl ether (DIPE)	108-20-3	2000	0.622%
Ethylbenzene	100-41-4	2000	0.519%
Ethyl methacrylate	97-63-2	2000	0.500%
Hexachlorobutadiene	87-68-3	2000	0.479%
n-Hexane	110-54-3	2000	0.507%
Iodomethane (methyl iodide)	74-88-4	1999	0.216%
Isopropylbenzene	98-82-8	2000	0.507%
p-isopropyltoluene	99-87-6	2000	0.507%
Methyl-tert-butyl ether (MTBE)	1634-04-4	2000	0.649%
Methylcyclohexane	108-87-2	2000	0.479%
Methyl methacrylate	80-62-6	2000	0.479%

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Catalog Number: AL0-180001
Description: Custom VOA Cal Mix
Storage: Freeze (-18 - 0 °C)
Provided As: > 1 mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14606
Certification Date: March 3, 2020
Expiration Date: December 31, 2021

Andrea L Gill
Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Methylene Chloride	75-09-2	2000	0.479%
2-Methylnaphthalene	91-57-6	2000	0.479%
Naphthalene	91-20-3	2000	0.217%
2-Nitropropane	79-46-9	2000	0.509%
N-Propylbenzene	103-65-1	2000	0.519%
Styrene	100-42-5	2000	0.501%
1,1,1,2-Tetrachloroethane	630-20-6	2000	0.505%
1,1,2,2-Tetrachloroethane	79-34-5	2000	0.480%
Tetrachloroethene	127-18-4	2000	0.519%
Toluene	108-88-3	2000	0.519%
1,2,3-Trichlorobenzene	87-61-6	2000	0.293%
1,2,4-Trichlorobenzene	120-82-1	2000	0.478%
1,1,1-Trichloroethane	71-55-6	2001	1.009%
1,1,2-Trichloroethane	79-00-5	2000	0.479%
Trichloroethene	79-01-6	2000	0.479%
1,2,3-Trichloropropane	96-18-4	2000	0.479%
1,1,2-Trichlorotrifluoroethane	76-13-1	2000	0.644%
1,2,3-Trimethylbenzene	526-73-8	2000	0.215%
1,2,4-Trimethylbenzene	95-63-6	2000	0.507%
1,3,5-Trimethylbenzene	108-67-8	2000	0.507%
m-Xylene	108-38-3	2000	0.478%
o-Xylene	95-47-6	2000	0.479%
p-Xylene	106-42-3	2000	0.478%

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Certified Reference Material

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Catalog Number: AL0-180006
Description: Additions Mix 2
Storage: Freeze (-18 - 0 °C)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14585
Certification Date: January 12, 2020
Expiration Date: November 30, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522450
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STO# 23769

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Methyl acrylate	96-33-3	2000	4.712%
n-Amyl acetate	628-63-7	2000	3.289%
Ethyl acrylate	140-88-5	2000	5.106%
Butyl Acetate	123-86-4	2000	4.627%
tert-Butyl Acetate	540-88-5	2000	5.102%
tert-Butyl Formate	762-75-4	10000	4.021%
Isopropyl acetate	108-21-4	2000	4.640%

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Catalog Number: AL0-180004
Description: Custom 8260 Additions Mix
Storage: Freeze (-18 - 0 °C)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14652
Certification Date: January 21, 2020
Expiration Date: November 30, 2021

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522449
REC. 05/22/20 BY
Exp. __/__/__ By
Open __/__/__ By

STO#23768

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
1,3-Butadiene	106-99-0	2005	5.367%
Dicyclopentadiene	77-73-6	2000	13.563%
4-Ethyltoluene	622-96-8	2000	13.560%
Propene	115-07-1	1981	8.812%

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Catalog Number: AL0-180003
Description: Elevated VOA Mix
Storage: Freeze (-18 - 0 °C)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14587
Certification Date: January 12, 2020
Expiration Date: November 30, 2022

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522448
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STO# 23767

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Acetone	67-64-1	10000	3.527%
Acetonitrile	75-05-8	10000	0.225%
tert-Amyl alcohol	75-85-4	10002	0.104%
tert-Butanol	75-65-0	10000	0.105%
2-Butanone	78-93-3	10000	0.225%
Cyclohexanone	108-94-1	10000	0.225%
1,4-Dioxane	123-91-1	10001	0.225%
Ethanol	64-17-5	10000	0.225%
Ethyl acetate	141-78-6	10000	0.225%
Isobutanol (2-methyl-1-propanol)	78-83-1	10000	0.225%
2-Hexanone	591-78-6	10000	0.105%
Methacrylonitrile	126-98-7	10000	0.105%
4-Methyl-2-pentanone	108-10-1	10000	0.225%
Propionitrile	107-12-0	10000	0.225%
Tetrahydrofuran	109-99-9	10000	0.225%

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Certified Reference Material

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Catalog Number: AL0-180005
Description: Additions Mix 1
Storage: Freeze (-18-0 °C)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14607
Certification Date: January 22, 2020
Expiration Date: December 31, 2020

Andrea L Gill

522447
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STO#23766

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
n-Decane	124-18-5	2001	0.230%
n-Dodecane	112-40-3	2000	0.115%
n-Undecane	1120-21-4	1999	0.115%
n-Octane	111-65-9	2000	0.115%
n-Nonane	111-84-2	2001	0.167%
3,3-dimethyl-1-butanol	624-95-3	10002	0.157%
1-Chlorobutane	109-69-3	2000	0.230%
1-Propanol	71-23-8	10000	0.226%
2-Bromo-1-chloropropane	3017-95-6	2000	1.042%
2-Butanol	78-92-2	2000	0.230%
2-Methylpentane	107-83-5	2000	0.115%
4-Methyl-2-pentanol	108-11-2	1999	0.230%
Benzyl chloride	100-44-7	1999	0.140%
Butylcyclohexane	1678-93-9	2001	0.230%
Hexachloroethane	67-72-1	2001	0.230%
2-Chloroethanol	107-07-3	2000	0.230%
Nitrobenzene	98-95-3	2000	0.230%
1-Methylnaphthalene	90-12-0	2000	0.115%
Isooctane	540-84-1	2000	0.115%
1-Butanol	71-36-3	10000	0.226%
n-Heptane	142-82-5	2000	0.204%
Isopropanol (2-Propanol)	67-63-0	10000	0.105%

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Certified Reference Material

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Catalog Number: AL0-180018
Description: Vinyl Acetate
Storage: Freeze (-18 - 0 °C)
Provided As: 1 mL in 2 mL Ampoule in P&T Methanol

Lot Number: CL15665
Certification Date: August 17, 2020
Expiration Date: September 16, 2020

522735
REC. 08/20/20 BY EE
Exp. __/__/__ By _
Open __/__/__ By _

5704 27399

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Vinyl Acetate	108-05-4	2000	0.352%

Notes: Due to the nature of Vinyl Acetate in solution, long term storage is not recommended. Please use immediately.

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Catalog Number: AL0-180017
Description: Acrolein
Storage: Freeze (-18 - 0°C)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL15670
Certification Date: August 19, 2020
Expiration Date: September 18, 2020

Andrea L Gill

522733
REC. 08/21/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STOA# 27397

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Acrolein	107-02-8	10000	0.571%

Notes: Due to the nature of acrolein in solution, long term storage is not recommended. Please use immediately.

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Certificate of Analysis
ThermoFisher SCIENTIFIC

622732
REC. 06/24/20 BY EC
Exp. __/__/__ By
Open __/__/__ By

STD# 27388

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A453	Quality Test / Release Date	02/19/2020
Lot Number	198331		
Description	METHANOL, PURGE & TRAP GRADE		
Country of Origin	Venezuela	Suggested Retest Date	Feb/2025
Chemical Origin	Organic - synthetic		
BSE/TSE Comment	This product is derived from petroleum products. It does not contain any materials that are of human or animal origin, nor does it come into contact with such materials during the manufacturing process. Therefore, to the best of our knowledge, there is no potential for BSE or TSE to be present in this product.		

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear colorless liquid free of suspended matter.
2-BUTANONE	ppb	<= 50	<25
ACETONE	ppb	<= 50	<25
AROMATIC COMPOUNDS	ppb	<= 10	<10
ASSAY	%	>= 99.9	>99.99
CARBON TETRACHLORIDE	ppb	<= 10	<10
CHLOROFORM	ppb	<= 10	<10
EVAPORATION RESIDUE	ppm	<= 1	0.22
HEPTANE	ppb	<= 50	<10
HEXANE	ppb	<= 50	<10
ISO-OCTANE	ppb	<= 50	<10
METHYL ISO-AMYL KETONE	ppb	<= 50	<25
METHYLENE CHLORIDE	ppb	<= 10	<10
OTHER DETECTABLE ALKANES	ppb	<= 50	<10
OTHER DETECTABLE CHLOROHYDROCARBONS	ppb	<= 10	<10
OTHER DETECTABLE KETONES	ppb	<= 50	<25
OTHER DETECTABLE PEAKS AS HEXANE	ppb	<= 50	<10
PENTANE	ppb	<= 50	<10
TITRATABLE ACID	MEQ/G	<= 0.0003	0.0003
TITRATABLE BASE	MEQ/G	<= 0.0002	<0.0002
VOLATILE ORGANIC CMPDS (EPA8260B OR EQUIV)	PASS/FAIL	= PASS TEST	PASS TEST

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

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1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

WATER (KARL FISCHER)	%	<= 0.2	<0.01

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
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Catalog Number: AL0-180002
Description: 8260 Gases Mix
Storage: Freeze (-18 - 0 °C)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL15196
Certification Date: July 16, 2020
Expiration Date: July 31, 2025

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522700
REC. 08/18/20 BY EF
Exp. --/--/-- BY :
Open --/--/-- BY :

STD # 27049

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Bromomethane	74-83-9	2003	5.904%
Chloroethane	75-00-3	2007	9.993%
Chloromethane	74-87-3	2005	3.509%
Chlorodifluoromethane	75-45-6	2001	0.865%
Dichlorodifluoromethane	75-71-8	2009	5.442%
Dichlorofluoromethane	75-43-4	2002	15.893%
Trichlorofluoromethane	75-69-4	1986	5.494%
Vinyl chloride	75-01-4	1997	5.851%

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522646
REC 07/29/20 BY EF
Exp __/__/__ By
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Catalog Number: AL0-180007
Description: Reactives Mix
Storage: Freeze (-18-0 °C)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL15234
Certification Date: April 28, 2020
Expiration Date: October 31, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
2-Chloroethyl vinyl ether	110-75-8	10001	0.106%
Methyl acetate	79-20-9	10001	0.225%
Acrylonitrile	107-13-1	10000	0.115%

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SAMPLE NO.

YL10PB2SS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249553 Contract: RUSH VOC Soils

Lab Sample ID: 5249553001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	15.1		%	1	08/27/2020 20:29

SAMPLE NO.

YL10PB2SD

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249553 Contract: RUSH VOC Soils

Lab Sample ID: 5249553002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	16.1		%	1	08/27/2020 20:30

SAMPLE NO.

YL10WS1SS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249553 Contract: RUSH VOC Soils

Lab Sample ID: 5249553003 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	18.6		%	1	08/27/2020 20:31

SAMPLE NO.

YL10WS2SS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249553 Contract: RUSH VOC Soils

Lab Sample ID: 5249553004 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	18.2		%	1	08/27/2020 20:32

SAMPLE NO.

YL10PB1SM

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249553 Contract: RUSH VOC Soils

Lab Sample ID: 5249553005 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	18.9		%	1	08/27/2020 20:32

SAMPLE NO.

YL10PB1SS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249553 Contract: RUSH VOC Soils

Lab Sample ID: 5249553006 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	18.4		%	1	08/27/2020 20:34

SAMPLE NO.

YL10WESS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249553 Contract: RUSH VOC Soils

Lab Sample ID: 5249553007 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	19.7		%	1	08/27/2020 20:35

SAMPLE NO.

YL10WESD

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249553 Contract: RUSH VOC Soils

Lab Sample ID: 5249553008 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	19.2		%	1	08/27/2020 20:36

SAMPLE NO.

RD8PB1SS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249553 Contract: RUSH VOC Soils

Lab Sample ID: 5249553009 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	17.1		%	1	08/27/2020 20:37

SAMPLE NO.

RD8PB2SS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249553 Contract: RUSH VOC Soils

Lab Sample ID: 5249553010 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	17.3		%	1	08/27/2020 20:37

SAMPLE NO.

RD8WESS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249553 Contract: RUSH VOC Soils

Lab Sample ID: 5249553011 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	17.0		%	1	08/27/2020 20:38

SAMPLE NO.

082720R14

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249553 Contract: RUSH VOC Soils

Lab Sample ID: 5249553012 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	21.5		%	1	08/27/2020 20:39

SAMPLE NO.

RD8WSSS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249553 Contract: RUSH VOC Soils

Lab Sample ID: 5249553013 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	21.0		%	1	08/27/2020 20:40

SAMPLE NO.

RD8WWSS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249553 Contract: RUSH VOC Soils

Lab Sample ID: 5249553014 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	17.4		%	1	08/27/2020 20:40

FORM XII INORGANIC-1

PREPARATION LOG

Lab Name: Pace Analytical - Dayton SDG No. : 5249553 Contract: RUSH VOC Soils

Preparation Method: ASTM D2216 Batch: PMST 1484

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
5249553001	YL10PB2SS	08/27/2020	1	1
5249553002	YL10PB2SD	08/27/2020	1	1
5249553003	YL10WS1SS	08/27/2020	1	1
5249553004	YL10WS2SS	08/27/2020	1	1
5249553005	YL10PB1SM	08/27/2020	1	1
5249553006	YL10PB1SS	08/27/2020	1	1
5249553007	YL10WESS	08/27/2020	1	1
5249553008	YL10WESD	08/27/2020	1	1
5249553009	RD8PB1SS	08/27/2020	1	1
5249553010	RD8PB2SS	08/27/2020	1	1
5249553011	RD8WESS	08/27/2020	1	1
5249553012	082720R14	08/27/2020	1	1
5249553013	RD8WSSS	08/27/2020	1	1
5249553014	RD8WWSS	08/27/2020	1	1

FORM XIII INORGANIC-1

ANALYSIS RUN LOG

Lab Name: Pace Analytical - Dayton SDG No. : 5249553 Contract: RUSH VOC Soils

Instrument ID: 52BL03 Analysis Method: ASTM D2216

Start Date: 08/27/2020 20:29 End Date: 08/27/2020 20:40

Sample Name	Lab Sample ID	D/F	Date	Time	MOIST
YL10PB2SS	5249553001	1	08/27/2020	20:29	X
YL10PB2SD	5249553002	1	08/27/2020	20:30	X
YL10WS1SS	5249553003	1	08/27/2020	20:31	X
YL10WS2SS	5249553004	1	08/27/2020	20:32	X
YL10PB1SM	5249553005	1	08/27/2020	20:32	X
YL10PB1SS	5249553006	1	08/27/2020	20:34	X
YL10WESS	5249553007	1	08/27/2020	20:35	X
YL10WESD	5249553008	1	08/27/2020	20:36	X
RD8PB1SS	5249553009	1	08/27/2020	20:37	X
RD8PB2SS	5249553010	1	08/27/2020	20:37	X
RD8WESS	5249553011	1	08/27/2020	20:38	X
082720R14	5249553012	1	08/27/2020	20:39	X
RD8WSSS	5249553013	1	08/27/2020	20:40	X
RD8WWSS	5249553014	1	08/27/2020	20:40	X

Prep Log Report

Batch Information: PMST 48863 **Template Version: EF-DAYT-I-038-Rev.00 (02Nov2018)**

Analysis Method	ASTM D2216	Analyzed By	SEP	Instrument	52BL03	Oven ID	52OV01
Thermometer ID	52TC01	Oven Temp Correction Factor	0	Oven Temp In1 (C) | Corr | Date/Time | Init	104.8 | 104.8 | 08/27/2020 20:45 | SEP	Oven Temp Out1 (C) | Corr | Date/Time | Init	104.8 | 104.8 | 08/28/2020 09:09 | SEP
Desic. In 1 ID | Date/Time | Init	52DS12 | 08/28/2020 09:09 | SEP	Desic. Out 1 Date/Time | Init	08/28/2020 13:01 | SEP	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**5249553001**	Y		84.91	15.09	08/27/2020 20:29:02	9.9357	1.0146	11.5213	9.9357	M	
DRY WEIGHT	PS	**5249553002**	Y		83.91	16.09	08/27/2020 20:30:20	14.8851	1.0151	17.5451	14.8851	M	
DRY WEIGHT	PS	**5249553003**	Y		81.40	18.60	08/27/2020 20:31:06	11.0124	1.0119	13.2971	11.0124	M	
DRY WEIGHT	PS	**5249553004**	Y		81.79	18.21	08/27/2020 20:32:00	9.5853	1.0187	11.4921	9.5853	M	
DRY WEIGHT	PS	**5249553005**	Y		81.13	18.87	08/27/2020 20:32:50	10.5826	1.0161	12.8083	10.5826	M	
DRY WEIGHT	PS	**5249553006**	Y		81.63	18.37	08/27/2020 20:34:00	11.3659	1.0075	13.6974	11.3659	M	
DRY WEIGHT	PS	**5249553007**	Y		80.32	19.68	08/27/2020 20:35:19	9.3654	1.0073	11.4128	9.3654	M	
DRY WEIGHT	PS	**5249553008**	Y		80.78	19.22	08/27/2020 20:36:10	10.5276	1.0068	12.7935	10.5276	M	
DRY WEIGHT	PS	**5249553009**	Y		82.86	17.14	08/27/2020 20:37:03	15.0029	1.0061	17.8978	15.0029	M	
DRY WEIGHT	PS	**5249553010**	Y		82.73	17.27	08/27/2020 20:37:55	9.5312	1.0062	11.3112	9.5312	M	
DRY WEIGHT	PS	**5249553011**	Y		82.97	17.03	08/27/2020 20:38:46	11.8638	1.0102	14.0909	11.8638	M	
DRY WEIGHT	PS	**5249553012**	Y		78.52	21.48	08/27/2020 20:39:28	10.2064	1.0099	12.7223	10.2064	M	
DRY WEIGHT	PS	**5249553013**	Y		79.00	21.00	08/27/2020 20:40:16	9.4598	1.0118	11.7053	9.4598	M	
DRY WEIGHT	PS	**5249553014**	Y		82.61	17.39	08/27/2020 20:40:53	11.3933	1.0076	13.5794	11.3933	M	

Prep Log Report

Batch Information: PMST 48863

Template Version: EF-DAYT-I-038-Rev.00 (02Nov2018)

Analysis Method	ASTM D2216	Analyzed By	SEP	Instrument	52BL03	Oven ID	52OV01
Thermometer ID	52TC01	Oven Temp Correction Factor	0	Oven Temp In1 (C) | Corr | Date/Time | Init	104.8 | 104.8 | 08/27/2020 20:45 | SEP	Oven Temp Out1 (C) | Corr | Date/Time | Init	104.8 | 104.8 | 08/28/2020 09:09 | SEP
Desic. In 1 ID | Date/Time | Init	52DS12 | 08/28/2020 09:09 | SEP	Desic. Out 1 Date/Time | Init	08/28/2020 13:01 | SEP	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	Client Sample ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
DRY WEIGHT	PS	**5249553001**	Y		YL10PB2SS	84.91	15.09	08/27/2020 20:29:02	9.9357	1.0146	11.5213	9.9357	M	
DRY WEIGHT	PS	**5249553002**	Y		YL10PB2SD	83.91	16.09	08/27/2020 20:30:20	14.8851	1.0151	17.5451	14.8851	M	
DRY WEIGHT	PS	**5249553003**	Y		YL10WS1SS	81.40	18.60	08/27/2020 20:31:06	11.0124	1.0119	13.2971	11.0124	M	
DRY WEIGHT	PS	**5249553004**	Y		YL10WS2SS	81.79	18.21	08/27/2020 20:32:00	9.5853	1.0187	11.4921	9.5853	M	
DRY WEIGHT	PS	**5249553005**	Y		YL10PB1SM	81.13	18.87	08/27/2020 20:32:50	10.5826	1.0161	12.8083	10.5826	M	
DRY WEIGHT	PS	**5249553006**	Y		YL10PB1SS	81.63	18.37	08/27/2020 20:34:00	11.3659	1.0075	13.6974	11.3659	M	
DRY WEIGHT	PS	**5249553007**	Y		YL10WESS	80.32	19.68	08/27/2020 20:35:19	9.3654	1.0073	11.4128	9.3654	M	
DRY WEIGHT	PS	**5249553008**	Y		YL10WESD	80.78	19.22	08/27/2020 20:36:10	10.5276	1.0068	12.7935	10.5276	M	
DRY WEIGHT	PS	**5249553009**	Y		RD8PB1SS	82.86	17.14	08/27/2020 20:37:03	15.0029	1.0061	17.8978	15.0029	M	
DRY WEIGHT	PS	**5249553010**	Y		RD8PB2SS	82.73	17.27	08/27/2020 20:37:55	9.5312	1.0062	11.3112	9.5312	M	
DRY WEIGHT	PS	**5249553011**	Y		RD8WESS	82.97	17.03	08/27/2020 20:38:46	11.8638	1.0102	14.0909	11.8638	M	
DRY WEIGHT	PS	**5249553012**	Y		082720R14	78.52	21.48	08/27/2020 20:39:28	10.2064	1.0099	12.7223	10.2064	M	
DRY WEIGHT	PS	**5249553013**	Y		RD8WSSS	79.00	21.00	08/27/2020 20:40:16	9.4598	1.0118	11.7053	9.4598	M	
DRY WEIGHT	PS	**5249553014**	Y		RD8WWSS	82.61	17.39	08/27/2020 20:40:53	11.3933	1.0076	13.5794	11.3933	M	

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 5249616

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

August 31, 2020

John Bowen
MAKSolve, LLC
261 Regency Dr
Dayton, OH 45459

RE: Project: RUSH VOC Soils
Pace Project No.: 5249616

Dear John Bowen:

Enclosed are the analytical results for sample(s) received by the laboratory on August 28, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Dayton

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christina Schneider
christina.schneider@pacelabs.com
(937)832-8242
Project Manager

Enclosures

cc: Barbara McGavern, MAKSolve, LLC

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

CERTIFICATIONS

Project:	RUSH VOC Soils
Pace Project No.:	5249616

Pace Analytical Services Dayton
25 Holiday Drive, Englewood, OH 45322
Florida Certification #: E871136
Ohio VAP Certification #: CL0032
Kentucky UST Certification #: 123049
Kentucky Wastewater Certification #: KY98039
Ohio EPA Drinking Water Lab #872

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Englewood, OH 45322
(937)832-8242

SAMPLE SUMMARY

Project: RUSH VOC Soils
Pace Project No.: 5249616

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5249616001	**082820R2**	Solid	08/28/20 10:03	08/28/20 11:40

REPORT OF LABORATORY ANALYSIS

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Englewood, OH 45322
(937)832-8242

SAMPLE ANALYTE COUNT

Project: RUSH VOC Soils
Pace Project No.: 5249616

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5249616001	**082820R2**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1

PASI-DAY = Pace Analytical Services - Dayton

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ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249616

Sample: 082820R2 **Lab ID: 5249616001** Collected: 08/28/20 10:03 Received: 08/28/20 11:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	289	15.7	1	08/28/20 12:10	08/28/20 15:00	67-64-1	
Acetonitrile	ND	ug/kg	231	11.4	1	08/28/20 12:10	08/28/20 15:00	75-05-8	
Acrolein	ND	ug/kg	289	8.5	1	08/28/20 12:10	08/28/20 15:00	107-02-8	
Acrylonitrile	ND	ug/kg	116	1.3	1	08/28/20 12:10	08/28/20 15:00	107-13-1	
Benzene	ND	ug/kg	5.8	0.93	1	08/28/20 12:10	08/28/20 15:00	71-43-2	
Bromobenzene	ND	ug/kg	28.9	0.90	1	08/28/20 12:10	08/28/20 15:00	108-86-1	
Bromochloromethane	ND	ug/kg	28.9	0.71	1	08/28/20 12:10	08/28/20 15:00	74-97-5	
Bromodichloromethane	ND	ug/kg	28.9	0.91	1	08/28/20 12:10	08/28/20 15:00	75-27-4	
Bromoform	ND	ug/kg	28.9	0.70	1	08/28/20 12:10	08/28/20 15:00	75-25-2	
Bromomethane	ND	ug/kg	144	0.90	1	08/28/20 12:10	08/28/20 15:00	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	116	1.6	1	08/28/20 12:10	08/28/20 15:00	78-93-3	
n-Butylbenzene	ND	ug/kg	28.9	1.9	1	08/28/20 12:10	08/28/20 15:00	104-51-8	
sec-Butylbenzene	ND	ug/kg	28.9	1.6	1	08/28/20 12:10	08/28/20 15:00	135-98-8	
tert-Butylbenzene	ND	ug/kg	28.9	1.4	1	08/28/20 12:10	08/28/20 15:00	98-06-6	
Carbon disulfide	ND	ug/kg	116	1.8	1	08/28/20 12:10	08/28/20 15:00	75-15-0	
Carbon tetrachloride	ND	ug/kg	28.9	1.7	1	08/28/20 12:10	08/28/20 15:00	56-23-5	
Chlorobenzene	ND	ug/kg	28.9	0.88	1	08/28/20 12:10	08/28/20 15:00	108-90-7	
Chloroethane	ND	ug/kg	28.9	1.7	1	08/28/20 12:10	08/28/20 15:00	75-00-3	
Chloroform	ND	ug/kg	28.9	1.2	1	08/28/20 12:10	08/28/20 15:00	67-66-3	
Chloromethane	ND	ug/kg	28.9	0.90	1	08/28/20 12:10	08/28/20 15:00	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	28.9	0.94	1	08/28/20 12:10	08/28/20 15:00	95-49-8	
4-Chlorotoluene	ND	ug/kg	28.9	0.94	1	08/28/20 12:10	08/28/20 15:00	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	57.8	0.93	1	08/28/20 12:10	08/28/20 15:00	96-12-8	
Dibromochloromethane	ND	ug/kg	28.9	0.71	1	08/28/20 12:10	08/28/20 15:00	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	28.9	0.65	1	08/28/20 12:10	08/28/20 15:00	106-93-4	
Dibromomethane	ND	ug/kg	28.9	0.90	1	08/28/20 12:10	08/28/20 15:00	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	28.9	0.80	1	08/28/20 12:10	08/28/20 15:00	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	28.9	0.80	1	08/28/20 12:10	08/28/20 15:00	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	28.9	0.66	1	08/28/20 12:10	08/28/20 15:00	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	28.9	2.5	1	08/28/20 12:10	08/28/20 15:00	75-71-8	
1,1-Dichloroethane	ND	ug/kg	28.9	1.2	1	08/28/20 12:10	08/28/20 15:00	75-34-3	
1,2-Dichloroethane	ND	ug/kg	28.9	1.2	1	08/28/20 12:10	08/28/20 15:00	107-06-2	
1,1-Dichloroethene	ND	ug/kg	28.9	2.0	1	08/28/20 12:10	08/28/20 15:00	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	28.9	1.1	1	08/28/20 12:10	08/28/20 15:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	28.9	1.4	1	08/28/20 12:10	08/28/20 15:00	156-60-5	
1,2-Dichloropropane	ND	ug/kg	28.9	0.82	1	08/28/20 12:10	08/28/20 15:00	78-87-5	
1,3-Dichloropropane	ND	ug/kg	28.9	0.73	1	08/28/20 12:10	08/28/20 15:00	142-28-9	
2,2-Dichloropropane	ND	ug/kg	28.9	1.7	1	08/28/20 12:10	08/28/20 15:00	594-20-7	
1,1-Dichloropropene	ND	ug/kg	28.9	1.5	1	08/28/20 12:10	08/28/20 15:00	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	28.9	0.75	1	08/28/20 12:10	08/28/20 15:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	28.9	0.99	1	08/28/20 12:10	08/28/20 15:00	10061-02-6	
Ethyl acetate	ND	ug/kg	57.8	2.0	1	08/28/20 12:10	08/28/20 15:00	141-78-6	
Ethylbenzene	ND	ug/kg	28.9	1.3	1	08/28/20 12:10	08/28/20 15:00	100-41-4	
2-Hexanone	ND	ug/kg	116	5.2	1	08/28/20 12:10	08/28/20 15:00	591-78-6	N2

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Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: RUSH VOC Soils
Pace Project No.: 5249616

Sample: 082820R2 **Lab ID: 5249616001** Collected: 08/28/20 10:03 Received: 08/28/20 11:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	28.9	1.2	1	08/28/20 12:10	08/28/20 15:00	98-82-8	
p-Isopropyltoluene	ND	ug/kg	28.9	5.8	1	08/28/20 12:10	08/28/20 15:00	99-87-6	
Methylene Chloride	ND	ug/kg	144	1.9	1	08/28/20 12:10	08/28/20 15:00	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	116	3.3	1	08/28/20 12:10	08/28/20 15:00	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	57.8	1.3	1	08/28/20 12:10	08/28/20 15:00	1634-04-4	
Naphthalene	ND	ug/kg	28.9	0.72	1	08/28/20 12:10	08/28/20 15:00	91-20-3	
n-Propylbenzene	ND	ug/kg	28.9	1.2	1	08/28/20 12:10	08/28/20 15:00	103-65-1	
Styrene	ND	ug/kg	28.9	1.1	1	08/28/20 12:10	08/28/20 15:00	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	28.9	0.70	1	08/28/20 12:10	08/28/20 15:00	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	28.9	0.64	1	08/28/20 12:10	08/28/20 15:00	79-34-5	
Tetrachloroethene	**25.1J**	ug/kg	28.9	1.7	1	08/28/20 12:10	08/28/20 15:00	127-18-4	
Toluene	ND	ug/kg	28.9	1.0	1	08/28/20 12:10	08/28/20 15:00	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	28.9	0.67	1	08/28/20 12:10	08/28/20 15:00	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	28.9	0.77	1	08/28/20 12:10	08/28/20 15:00	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	28.9	1.4	1	08/28/20 12:10	08/28/20 15:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	28.9	0.92	1	08/28/20 12:10	08/28/20 15:00	79-00-5	
Trichloroethene	**14.7J**	ug/kg	28.9	1.3	1	08/28/20 12:10	08/28/20 15:00	79-01-6	
Trichlorofluoromethane	ND	ug/kg	28.9	2.1	1	08/28/20 12:10	08/28/20 15:00	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	28.9	1.5	1	08/28/20 12:10	08/28/20 15:00	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	28.9	0.96	1	08/28/20 12:10	08/28/20 15:00	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	28.9	1.1	1	08/28/20 12:10	08/28/20 15:00	108-67-8	
Vinyl acetate	ND	ug/kg	57.8	2.2	1	08/28/20 12:10	08/28/20 15:00	108-05-4	
Vinyl chloride	ND	ug/kg	28.9	2.1	1	08/28/20 12:10	08/28/20 15:00	75-01-4	
Xylene (Total)	ND	ug/kg	57.8	3.0	1	08/28/20 12:10	08/28/20 15:00	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	106	%.	78-126		1	08/28/20 12:10	08/28/20 15:00	1868-53-7	
Toluene-d8 (S)	100	%.	80-120		1	08/28/20 12:10	08/28/20 15:00	2037-26-5	
4-Bromofluorobenzene (S)	95	%.	80-120		1	08/28/20 12:10	08/28/20 15:00	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%.	76-127		1	08/28/20 12:10	08/28/20 15:00	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**17.2**	%	0.10	0.10	1		08/31/20 09:52		N2

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249616

QC Batch: 48914
QC Batch Method: EPA 5035A
Analysis Method: EPA 8260B
Analysis Description: 8260B MSV 5035A Med Level
Laboratory: Pace Analytical Services - Dayton

Associated Lab Samples: 5249616001

METHOD BLANK: 205794
Matrix: Solid
Associated Lab Samples: 5249616001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	25.0	0.60	08/28/20 14:32	
1,1,1-Trichloroethane	ug/kg	ND	25.0	1.2	08/28/20 14:32	
1,1,2,2-Tetrachloroethane	ug/kg	ND	25.0	0.56	08/28/20 14:32	
1,1,2-Trichloroethane	ug/kg	ND	25.0	0.80	08/28/20 14:32	
1,1-Dichloroethane	ug/kg	ND	25.0	1.1	08/28/20 14:32	
1,1-Dichloroethene	ug/kg	ND	25.0	1.7	08/28/20 14:32	N2
1,1-Dichloropropene	ug/kg	ND	25.0	1.3	08/28/20 14:32	
1,2,3-Trichlorobenzene	ug/kg	ND	25.0	0.58	08/28/20 14:32	N2
1,2,3-Trichloropropane	ug/kg	ND	25.0	1.3	08/28/20 14:32	
1,2,4-Trichlorobenzene	ug/kg	ND	25.0	0.67	08/28/20 14:32	
1,2,4-Trimethylbenzene	ug/kg	ND	25.0	0.83	08/28/20 14:32	
1,2-Dibromo-3-chloropropane	ug/kg	ND	50.0	0.80	08/28/20 14:32	
1,2-Dibromoethane (EDB)	ug/kg	ND	25.0	0.57	08/28/20 14:32	
1,2-Dichlorobenzene	ug/kg	ND	25.0	0.69	08/28/20 14:32	
1,2-Dichloroethane	ug/kg	2.7J	25.0	1.0	08/28/20 14:32	
1,2-Dichloropropane	ug/kg	ND	25.0	0.71	08/28/20 14:32	
1,3,5-Trimethylbenzene	ug/kg	ND	25.0	0.92	08/28/20 14:32	
1,3-Dichlorobenzene	ug/kg	ND	25.0	0.69	08/28/20 14:32	
1,3-Dichloropropane	ug/kg	ND	25.0	0.63	08/28/20 14:32	
1,4-Dichlorobenzene	ug/kg	ND	25.0	0.57	08/28/20 14:32	
2,2-Dichloropropane	ug/kg	ND	25.0	1.5	08/28/20 14:32	
2-Butanone (MEK)	ug/kg	ND	100	1.4	08/28/20 14:32	
2-Chlorotoluene	ug/kg	ND	25.0	0.81	08/28/20 14:32	
2-Hexanone	ug/kg	ND	100	4.5	08/28/20 14:32	N2
4-Chlorotoluene	ug/kg	ND	25.0	0.81	08/28/20 14:32	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	100	2.9	08/28/20 14:32	N2
Acetone	ug/kg	ND	250	13.6	08/28/20 14:32	
Acetonitrile	ug/kg	ND	200	9.9	08/28/20 14:32	
Acrolein	ug/kg	ND	250	7.4	08/28/20 14:32	
Acrylonitrile	ug/kg	ND	100	1.1	08/28/20 14:32	
Benzene	ug/kg	ND	5.0	0.81	08/28/20 14:32	
Bromobenzene	ug/kg	ND	25.0	0.78	08/28/20 14:32	
Bromochloromethane	ug/kg	ND	25.0	0.61	08/28/20 14:32	
Bromodichloromethane	ug/kg	ND	25.0	0.79	08/28/20 14:32	
Bromoform	ug/kg	ND	25.0	0.60	08/28/20 14:32	
Bromomethane	ug/kg	ND	125	0.78	08/28/20 14:32	N2
Carbon disulfide	ug/kg	ND	100	1.6	08/28/20 14:32	
Carbon tetrachloride	ug/kg	ND	25.0	1.4	08/28/20 14:32	
Chlorobenzene	ug/kg	ND	25.0	0.76	08/28/20 14:32	
Chloroethane	ug/kg	ND	25.0	1.4	08/28/20 14:32	

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REPORT OF LABORATORY ANALYSIS

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25 Holiday Drive
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(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249616

METHOD BLANK: 205794 Matrix: Solid
Associated Lab Samples: 5249616001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloroform	ug/kg	ND	25.0	1.0	08/28/20 14:32	
Chloromethane	ug/kg	ND	25.0	0.78	08/28/20 14:32	N2
cis-1,2-Dichloroethene	ug/kg	ND	25.0	0.91	08/28/20 14:32	
cis-1,3-Dichloropropene	ug/kg	ND	25.0	0.65	08/28/20 14:32	
Dibromochloromethane	ug/kg	ND	25.0	0.61	08/28/20 14:32	
Dibromomethane	ug/kg	ND	25.0	0.78	08/28/20 14:32	
Dichlorodifluoromethane	ug/kg	ND	25.0	2.1	08/28/20 14:32	
Ethyl acetate	ug/kg	ND	50.0	1.7	08/28/20 14:32	
Ethylbenzene	ug/kg	ND	25.0	1.2	08/28/20 14:32	
Isopropylbenzene (Cumene)	ug/kg	ND	25.0	1.0	08/28/20 14:32	
Methyl-tert-butyl ether	ug/kg	ND	50.0	1.2	08/28/20 14:32	
Methylene Chloride	ug/kg	ND	125	1.6	08/28/20 14:32	
n-Butylbenzene	ug/kg	ND	25.0	1.6	08/28/20 14:32	
n-Propylbenzene	ug/kg	ND	25.0	1.1	08/28/20 14:32	
Naphthalene	ug/kg	ND	25.0	0.63	08/28/20 14:32	
p-Isopropyltoluene	ug/kg	ND	25.0	5.0	08/28/20 14:32	
sec-Butylbenzene	ug/kg	ND	25.0	1.4	08/28/20 14:32	
Styrene	ug/kg	ND	25.0	0.96	08/28/20 14:32	
tert-Butylbenzene	ug/kg	ND	25.0	1.2	08/28/20 14:32	
Tetrachloroethene	ug/kg	ND	25.0	1.4	08/28/20 14:32	
Toluene	ug/kg	2.6J	25.0	0.87	08/28/20 14:32	
trans-1,2-Dichloroethene	ug/kg	ND	25.0	1.2	08/28/20 14:32	
trans-1,3-Dichloropropene	ug/kg	ND	25.0	0.86	08/28/20 14:32	
Trichloroethene	ug/kg	ND	25.0	1.1	08/28/20 14:32	
Trichlorofluoromethane	ug/kg	ND	25.0	1.8	08/28/20 14:32	
Vinyl acetate	ug/kg	ND	50.0	1.9	08/28/20 14:32	
Vinyl chloride	ug/kg	ND	25.0	1.8	08/28/20 14:32	
Xylene (Total)	ug/kg	ND	50.0	2.6	08/28/20 14:32	
1,2-Dichloroethane-d4 (S)	%.	101	76-127		08/28/20 14:32	
4-Bromofluorobenzene (S)	%.	95	80-120		08/28/20 14:32	
Dibromofluoromethane (S)	%.	104	78-126		08/28/20 14:32	
Toluene-d8 (S)	%.	98	80-120		08/28/20 14:32	

LABORATORY CONTROL SAMPLE: 205795

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	500	525	105	70-130	
1,1,1-Trichloroethane	ug/kg	500	565	113	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	500	509	102	70-130	
1,1,2-Trichloroethane	ug/kg	500	502	100	70-130	
1,1-Dichloroethane	ug/kg	500	517	103	70-130	
1,1-Dichloroethene	ug/kg	500	502	100	70-130	N2
1,1-Dichloropropene	ug/kg	500	521	104	70-130	
1,2,3-Trichlorobenzene	ug/kg	500	448	90	70-130	N2

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(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249616

LABORATORY CONTROL SAMPLE: 205795

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichloropropane	ug/kg	500	498	100	70-130	
1,2,4-Trichlorobenzene	ug/kg	500	435	87	70-130	
1,2,4-Trimethylbenzene	ug/kg	500	451	90	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	500	427	85	70-130	
1,2-Dibromoethane (EDB)	ug/kg	500	502	100	70-130	
1,2-Dichlorobenzene	ug/kg	500	485	97	70-130	
1,2-Dichloroethane	ug/kg	500	521	104	70-130	
1,2-Dichloropropane	ug/kg	500	529	106	70-130	
1,3,5-Trimethylbenzene	ug/kg	500	491	98	70-130	
1,3-Dichlorobenzene	ug/kg	500	513	103	50-150	
1,3-Dichloropropane	ug/kg	500	544	109	70-130	
1,4-Dichlorobenzene	ug/kg	500	491	98	50-150	
2,2-Dichloropropane	ug/kg	500	534	107	70-130	
2-Butanone (MEK)	ug/kg	1000	847	85	50-150	
2-Chlorotoluene	ug/kg	500	502	100	70-130	
2-Hexanone	ug/kg	1000	1030	103	50-150	N2
4-Chlorotoluene	ug/kg	500	474	95	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	1000	1040	104	70-130	N2
Acetone	ug/kg	1000	1010	101	50-150	
Acetonitrile	ug/kg	1000	1230	123	70-130	
Acrolein	ug/kg	1000	808	81	70-130	
Acrylonitrile	ug/kg	1000	939	94	70-130	
Benzene	ug/kg	500	531	106	70-130	
Bromobenzene	ug/kg	500	535	107	70-130	
Bromochloromethane	ug/kg	500	523	105	70-130	
Bromodichloromethane	ug/kg	500	580	116	70-130	
Bromoform	ug/kg	500	534	107	70-130	
Bromomethane	ug/kg	500	602	120	50-150	N2
Carbon disulfide	ug/kg	500	490	98	70-130	
Carbon tetrachloride	ug/kg	500	590	118	70-130	
Chlorobenzene	ug/kg	500	520	104	70-130	
Chloroethane	ug/kg	500	586	117	50-150	
Chloroform	ug/kg	500	517	103	70-130	
Chloromethane	ug/kg	500	522	104	50-150	N2
cis-1,2-Dichloroethene	ug/kg	500	485	97	70-130	
cis-1,3-Dichloropropene	ug/kg	500	538	108	70-130	
Dibromochloromethane	ug/kg	500	567	113	70-130	
Dibromomethane	ug/kg	500	523	105	70-130	
Dichlorodifluoromethane	ug/kg	500	362	72	50-150	
Ethyl acetate	ug/kg	1000	917	92	70-130	
Ethylbenzene	ug/kg	500	494	99	70-130	
Isopropylbenzene (Cumene)	ug/kg	500	429	86	70-130	
Methyl-tert-butyl ether	ug/kg	500	487	97	70-130	
Methylene Chloride	ug/kg	500	484	97	70-130	
n-Butylbenzene	ug/kg	500	485	97	70-130	
n-Propylbenzene	ug/kg	500	509	102	70-130	
Naphthalene	ug/kg	500	349	70	50-150	

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QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249616

LABORATORY CONTROL SAMPLE: 205795

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/kg	500	412	82	70-130	
sec-Butylbenzene	ug/kg	500	441	88	70-130	
Styrene	ug/kg	500	444	89	70-130	
tert-Butylbenzene	ug/kg	500	412	82	70-130	
Tetrachloroethene	ug/kg	500	550	110	70-130	
Toluene	ug/kg	500	536	107	70-130	
trans-1,2-Dichloroethene	ug/kg	500	493	99	70-130	
trans-1,3-Dichloropropene	ug/kg	500	539	108	70-130	
Trichloroethene	ug/kg	500	536	107	70-130	
Trichlorofluoromethane	ug/kg	500	655	131	50-150	
Vinyl acetate	ug/kg	500	437	87	70-130	
Vinyl chloride	ug/kg	500	458	92	50-150	
Xylene (Total)	ug/kg	1500	1370	91	70-130	
1,2-Dichloroethane-d4 (S)	%.			94	76-127	
4-Bromofluorobenzene (S)	%.			101	80-120	
Dibromofluoromethane (S)	%.			98	78-126	
Toluene-d8 (S)	%.			100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 205796 205797

Parameter	Units	5249616001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/kg	ND	593	597	606	603	102	101	48-135	0	20	
1,1,1-Trichloroethane	ug/kg	ND	593	597	648	649	109	109	49-123	0	23	
1,1,2,2-Tetrachloroethane	ug/kg	ND	593	597	589	569	99	95	43-135	3	26	
1,1,2-Trichloroethane	ug/kg	ND	593	597	560	569	94	95	52-138	2	21	
1,1-Dichloroethane	ug/kg	ND	593	597	576	567	97	95	61-129	2	20	
1,1-Dichloroethene	ug/kg	ND	593	597	553	588	93	98	41-127	6	28	N2
1,1-Dichloropropene	ug/kg	ND	593	597	594	595	100	100	44-119	0	25	
1,2,3-Trichlorobenzene	ug/kg	ND	593	597	522	540	88	90	10-110	3	30	N2
1,2,3-Trichloropropane	ug/kg	ND	593	597	570	568	96	95	46-128	0	24	
1,2,4-Trichlorobenzene	ug/kg	ND	593	597	508	517	86	87	11-130	2	38	
1,2,4-Trimethylbenzene	ug/kg	ND	593	597	503	507	85	85	24-153	1	25	
1,2-Dibromo-3-chloropropane	ug/kg	ND	593	597	495	491	83	82	30-146	1	26	
1,2-Dibromoethane (EDB)	ug/kg	ND	593	597	586	572	99	96	51-136	2	20	
1,2-Dichlorobenzene	ug/kg	ND	593	597	525	540	88	90	31-137	3	25	
1,2-Dichloroethane	ug/kg	ND	593	597	562	555	95	93	65-124	1	20	
1,2-Dichloropropane	ug/kg	ND	593	597	593	573	100	96	64-124	3	20	
1,3,5-Trimethylbenzene	ug/kg	ND	593	597	567	569	95	95	31-140	1	24	
1,3-Dichlorobenzene	ug/kg	ND	593	597	560	580	94	97	30-136	4	25	
1,3-Dichloropropane	ug/kg	ND	593	597	595	584	100	98	57-127	2	21	
1,4-Dichlorobenzene	ug/kg	ND	593	597	533	556	90	93	36-131	4	24	
2,2-Dichloropropane	ug/kg	ND	593	597	575	568	97	95	45-124	1	17	
2-Butanone (MEK)	ug/kg	ND	1190	1190	946	932	80	78	35-149	2	22	

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(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249616

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 205796 205797

Parameter	Units	5249616001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2-Chlorotoluene	ug/kg	ND	593	597	578	561	97	94	37-129	3	24	
2-Hexanone	ug/kg	ND	1190	1190	1170	1150	98	97	34-134	1	23	N2
4-Chlorotoluene	ug/kg	ND	593	597	529	513	89	86	32-131	3	23	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	1190	1190	1010	1040	85	87	49-137	3	24	N2
Acetone	ug/kg	ND	1190	1190	1150	1130	97	95	12-177	1	34	
Acetonitrile	ug/kg	ND	1190	1190	1410	1250	119	105	41-152	12	38	
Acrolein	ug/kg	ND	1190	1190	954	975	80	82	10-200	2	48	
Acrylonitrile	ug/kg	ND	1190	1190	1070	1020	90	85	54-136	5	26	
Benzene	ug/kg	ND	593	597	598	583	101	98	61-122	2	20	
Bromobenzene	ug/kg	ND	593	597	624	617	105	103	38-133	1	21	
Bromochloromethane	ug/kg	ND	593	597	575	553	97	93	70-130	4	19	
Bromodichloromethane	ug/kg	ND	593	597	669	655	113	110	53-131	2	21	
Bromoform	ug/kg	ND	593	597	605	615	102	103	49-127	2	22	
Bromomethane	ug/kg	ND	593	597	690	611	116	102	15-168	12	22	N2
Carbon disulfide	ug/kg	ND	593	597	564	547	95	92	43-118	3	33	
Carbon tetrachloride	ug/kg	ND	593	597	663	669	112	112	39-121	1	23	
Chlorobenzene	ug/kg	ND	593	597	600	586	101	98	46-130	2	21	
Chloroethane	ug/kg	ND	593	597	704	638	119	107	6-154	10	86	
Chloroform	ug/kg	ND	593	597	583	566	98	95	62-128	3	19	
Chloromethane	ug/kg	ND	593	597	594	578	100	97	50-132	3	25	N2
cis-1,2-Dichloroethene	ug/kg	ND	593	597	539	533	91	89	61-127	1	20	
cis-1,3-Dichloropropene	ug/kg	ND	593	597	616	606	104	102	55-125	2	21	
Dibromochloromethane	ug/kg	ND	593	597	628	622	106	104	53-133	1	21	
Dibromomethane	ug/kg	ND	593	597	632	608	107	102	64-127	4	20	
Dichlorodifluoromethane	ug/kg	ND	593	597	431	402	73	67	10-184	7	69	
Ethyl acetate	ug/kg	ND	1190	1190	1000	961	85	81	10-155	4	40	
Ethylbenzene	ug/kg	ND	593	597	560	572	94	96	40-129	2	23	
Isopropylbenzene (Cumene)	ug/kg	ND	593	597	491	500	83	84	42-121	2	24	
Methyl-tert-butyl ether	ug/kg	ND	593	597	534	527	90	88	60-132	1	27	
Methylene Chloride	ug/kg	ND	593	597	553	528	93	88	46-146	5	39	
n-Butylbenzene	ug/kg	ND	593	597	538	536	91	90	20-127	0	29	
n-Propylbenzene	ug/kg	ND	593	597	596	584	100	98	33-126	2	25	
Naphthalene	ug/kg	ND	593	597	392	412	66	69	8-150	5	31	
p-Isopropyltoluene	ug/kg	ND	593	597	459	471	77	79	27-131	3	26	
sec-Butylbenzene	ug/kg	ND	593	597	489	496	82	83	27-130	1	26	
Styrene	ug/kg	ND	593	597	505	501	85	84	41-132	1	22	
tert-Butylbenzene	ug/kg	ND	593	597	459	471	77	79	36-129	3	25	
Tetrachloroethene	ug/kg	25.1J	593	597	665	668	108	108	36-128	0	23	
Toluene	ug/kg	ND	593	597	593	585	100	98	50-125	1	20	
trans-1,2-Dichloroethene	ug/kg	ND	593	597	525	535	88	90	51-127	2	31	
trans-1,3-Dichloropropene	ug/kg	ND	593	597	617	607	104	102	55-126	2	21	
Trichloroethene	ug/kg	14.7J	593	597	644	627	106	103	47-132	3	20	
Trichlorofluoromethane	ug/kg	ND	593	597	693	614	117	103	14-140	12	24	
Vinyl acetate	ug/kg	ND	593	597	450	423	76	71	10-127	6	50	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA

Project: RUSH VOC Soils
Pace Project No.: 5249616

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 205796 205797

Parameter	Units	5249616001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Vinyl chloride	ug/kg	ND	593	597	516	510	87	85	35-130	1	54	
Xylene (Total)	ug/kg	ND	1780	1790	1590	1560	89	87	70-130	2	32	
1,2-Dichloroethane-d4 (S)	%.						95	92	76-127			
4-Bromofluorobenzene (S)	%.						100	100	80-120			
Dibromofluoromethane (S)	%.						95	95	78-126			
Toluene-d8 (S)	%.						102	103	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALIFIERS

Project: RUSH VOC Soils
Pace Project No.: 5249616

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RUSH VOC Soils
Pace Project No.: 5249616

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
5249616001	**082820R2**	EPA 5035A	48914	EPA 8260B	48953
5249616001	**082820R2**	ASTM D2216	48994		

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Pace Analytical®

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Numbers

WO# : 5249616

5249616

ALL SHAD

Container Preservative Ty

U U

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Company: MAKSolve

Billing Information: Bill to MAKSolve

Address: 261 Resency Ridge Dayton OH 45459

Report To: Barb@maksolve.com

Email To: Barb@maksolve.com

Copy To: John@maksolve.com

Site Collection Info/Address: 518 E Water Street

Customer Project Name/Number: Sp. maker 084-20

State: OH County/City: Troy Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET

Phone: Email: 307 251 6465

Site/Facility ID #:

Compliance Monitoring? [ ] Yes [X] No

Collected By (print): Barb McGavern

Purchase Order #: Quote #: 00076550

DW PWS ID #: DW Location Code:

Collected By (signature): Barb McG

Turnaround Date Required: Rush for 8/29/20

Immediately Packed on Ice: [ ] Yes [X] No

Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [X] Hold: 30 days

Rush: [ ] Same Day [X] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis: _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	PCE (8260)	TCE (8260)								Lab Profile/Line:
082820R2	SL	Grab	8/28	1003					X	X								

Analyses

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips: _____	
Sample pH Acceptable	Y N NA
pH Strips: _____	
Sulfide Present	Y N NA
Lead Acetate Strips: _____	

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:
Level 4 data pkg.
1 jar per sample.

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2554483

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: _____
Cooler 1 Temp Upon Receipt: 23.9 oC
Cooler 1 Therm Corr. Factor: _____ oC
Cooler 1 Corrected Temp: _____ oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Barbara McGavern / MAKSolve	8/28/20 1106	[illegible] / MAKSolve	8/28/20 1106
[illegible] / MAKSolve	8/28/20 1140	[illegible]	8/28/ 1140
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: 1 of: 1

MSV - FORM II VOA-1
SOLID VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Dayton SDG No.: 5249616 Contract: RUSH VOC Soils

Instrument ID: 52MV02

LAB SAMPLE ID	SAMPLE NAME	12D4	BFB	DIBF	TOL8
205794	205794BLANK	101	95	104	98
205795	205795LCS	94	101	98	100
205796	205796MS	95	100	95	102
205797	205797MSD	92	100	95	103
5249616001	082820R2	106	95	106	100

	QC LIMITS
(12D4) = 1,2-Dichloroethane-d4 (S)	(76-127)
(BFB) = 4-Bromofluorobenzene (S)	(80-120)
(DIBF) = Dibromofluoromethane (S)	(78-126)
(TOL8) = Toluene-d8 (S)	(80-120)

* Values outside of QC Limits

MSV - FORM III VOA-1

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Dayton

Lab Sample ID: 205795LCS

Date Extracted: 08/28/2020

Date Analyzed (1): 08/28/2020

Instrument: 52MV02

LCS Lot No:

Lab File ID: 082820.B\082820_03B3000.D

SDG No.: 5249616

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
Acetone	1000	1010	101	50-150
Acetonitrile	1000	1230	123	70-130
Acrolein	1000	808	81	70-130
Acrylonitrile	1000	939	94	70-130
Benzene	500	531	106	70-130
Bromobenzene	500	535	107	70-130
Bromochloromethane	500	523	105	70-130
Bromodichloromethane	500	580	116	70-130
Bromoform	500	534	107	70-130
Bromomethane	500	602	120	50-150
2-Butanone (MEK)	1000	847	85	50-150
n-Butylbenzene	500	485	97	70-130
sec-Butylbenzene	500	441	88	70-130
tert-Butylbenzene	500	412	82	70-130
Carbon disulfide	500	490	98	70-130
Carbon tetrachloride	500	590	118	70-130
Chlorobenzene	500	520	104	70-130
Chloroethane	500	586	117	50-150
Chloroform	500	517	103	70-130
Chloromethane	500	522	104	50-150
2-Chlorotoluene	500	502	100	70-130
4-Chlorotoluene	500	474	95	70-130
1,2-Dibromo-3-chloropropane	500	427	85	70-130
Dibromochloromethane	500	567	113	70-130
1,2-Dibromoethane (EDB)	500	502	100	70-130
Dibromomethane	500	523	105	70-130
1,2-Dichlorobenzene	500	485	97	70-130
1,3-Dichlorobenzene	500	513	103	50-150
1,4-Dichlorobenzene	500	491	98	50-150
Dichlorodifluoromethane	500	362	72	50-150
1,1-Dichloroethane	500	517	103	70-130
1,2-Dichloroethane	500	521	104	70-130
1,1-Dichloroethene	500	502	100	70-130
cis-1,2-Dichloroethene	500	485	97	70-130
trans-1,2-Dichloroethene	500	493	99	70-130
1,2-Dichloropropane	500	529	106	70-130
1,3-Dichloropropane	500	544	109	70-130
2,2-Dichloropropane	500	534	107	70-130
1,1-Dichloropropene	500	521	104	70-130
cis-1,3-Dichloropropene	500	538	108	70-130
trans-1,3-Dichloropropene	500	539	108	70-130
Ethyl acetate	1000	917	92	70-130
Ethylbenzene	500	494	99	70-130
2-Hexanone	1000	1030	103	50-150
Isopropylbenzene (Cumene)	500	429	86	70-130
p-Isopropyltoluene	500	412	82	70-130
Methylene Chloride	500	484	97	70-130

MSV - FORM III VOA-2

SOLID LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Dayton

Lab Sample ID: 205795LCS

Date Extracted: 08/28/2020

Date Analyzed (1): 08/28/2020

Instrument: 52MV02

LCS Lot No:

Lab File ID: 082820.B\082820_03B3000.D

SDG No.: 5249616

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
4-Methyl-2-pentanone (MIBK)	1000	1040	104	70-130
Methyl-tert-butyl ether	500	487	97	70-130
Naphthalene	500	349	70	50-150
n-Propylbenzene	500	509	102	70-130
Styrene	500	444	89	70-130
1,1,1,2-Tetrachloroethane	500	525	105	70-130
1,1,2,2-Tetrachloroethane	500	509	102	70-130
Tetrachloroethene	500	550	110	70-130
Toluene	500	536	107	70-130
1,2,3-Trichlorobenzene	500	448	90	70-130
1,2,4-Trichlorobenzene	500	435	87	70-130
1,1,1-Trichloroethane	500	565	113	70-130
1,1,2-Trichloroethane	500	502	100	70-130
Trichloroethene	500	536	107	70-130
Trichlorofluoromethane	500	655	131	50-150
1,2,3-Trichloropropane	500	498	100	70-130
1,2,4-Trimethylbenzene	500	451	90	70-130
1,3,5-Trimethylbenzene	500	491	98	70-130
Vinyl acetate	500	437	87	70-130
Vinyl chloride	500	458	92	50-150
Xylene (Total)	1500	1370	91	70-130

Spike Recovery: 0 out of 68 outside limits.

09/03/2020 1:41

MSV - FORM III VOA-1

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Dayton

Matrix Spike - Sample No: 205796MS

Date Extracted: 08/28/2020

Date Analyzed (1): 08/28/2020

Instrument: 52MV02

Lab File ID: 082820.B\082820_08.D

Parent Sample ID: 082820R2

SDG No.: 5249616

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	593	ND	606	102	48-135
1,1,1-Trichloroethane	593	ND	648	109	49-123
1,1,2,2-Tetrachloroethane	593	ND	589	99	43-135
1,1,2-Trichloroethane	593	ND	560	94	52-138
1,1-Dichloroethane	593	ND	576	97	61-129
1,1-Dichloroethene	593	ND	553	93	41-127
1,1-Dichloropropene	593	ND	594	100	44-119
1,2,3-Trichlorobenzene	593	ND	522	88	10-110
1,2,3-Trichloropropane	593	ND	570	96	46-128
1,2,4-Trichlorobenzene	593	ND	508	86	11-130
1,2,4-Trimethylbenzene	593	ND	503	85	24-153
1,2-Dibromo-3-chloropropane	593	ND	495	83	30-146
1,2-Dibromoethane (EDB)	593	ND	586	99	51-136
1,2-Dichlorobenzene	593	ND	525	88	31-137
1,2-Dichloroethane	593	ND	562	95	65-124
1,2-Dichloropropane	593	ND	593	100	64-124
1,3,5-Trimethylbenzene	593	ND	567	95	31-140
1,3-Dichlorobenzene	593	ND	560	94	30-136
1,3-Dichloropropane	593	ND	595	100	57-127
1,4-Dichlorobenzene	593	ND	533	90	36-131
2,2-Dichloropropane	593	ND	575	97	45-124
2-Butanone (MEK)	1190	ND	946	80	35-149
2-Chlorotoluene	593	ND	578	97	37-129
2-Hexanone	1190	ND	1170	98	34-134
4-Chlorotoluene	593	ND	529	89	32-131
4-Methyl-2-pentanone (MIBK)	1190	ND	1010	85	49-137
Acetone	1190	ND	1150	97	12-177
Acetonitrile	1190	ND	1410	119	41-152
Acrolein	1190	ND	954	80	10-200
Acrylonitrile	1190	ND	1070	90	54-136
Benzene	593	ND	598	101	61-122
Bromobenzene	593	ND	624	105	38-133
Bromochloromethane	593	ND	575	97	70-130
Bromodichloromethane	593	ND	669	113	53-131
Bromoform	593	ND	605	102	49-127
Bromomethane	593	ND	690	116	15-168
Carbon disulfide	593	ND	564	95	43-118
Carbon tetrachloride	593	ND	663	112	39-121
Chlorobenzene	593	ND	600	101	46-130
Chloroethane	593	ND	704	119	6-154
Chloroform	593	ND	583	98	62-128
Chloromethane	593	ND	594	100	50-132
Dibromochloromethane	593	ND	628	106	53-133
Dibromomethane	593	ND	632	107	64-127
Dichlorodifluoromethane	593	ND	431	73	10-184
Ethyl acetate	1190	ND	1000	85	10-155
Ethylbenzene	593	ND	560	94	40-129

09/03/2020 1:41

MSV - FORM III VOA-2

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Dayton

Matrix Spike - Sample No: 205796MS

Date Extracted: 08/28/2020

Date Analyzed (1): 08/28/2020

Instrument: 52MV02

Lab File ID: 082820.B\082820_08.D

Parent Sample ID: 082820R2

SDG No.: 5249616

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
Isopropylbenzene (Cumene)	593	ND	491	83	42-121
Methyl-tert-butyl ether	593	ND	534	90	60-132
Methylene Chloride	593	ND	553	93	46-146
Naphthalene	593	ND	392	66	8-150
Styrene	593	ND	505	85	41-132
Tetrachloroethene	593	25.1J	665	108	36-128
Toluene	593	ND	593	100	50-125
Trichloroethene	593	14.7J	644	106	47-132
Trichlorofluoromethane	593	ND	693	117	14-140
Vinyl acetate	593	ND	450	76	10-127
Vinyl chloride	593	ND	516	87	35-130
Xylene (Total)	1780	ND	1590	89	70-130
cis-1,2-Dichloroethene	593	ND	539	91	61-127
cis-1,3-Dichloropropene	593	ND	616	104	55-125
n-Butylbenzene	593	ND	538	91	20-127
n-Propylbenzene	593	ND	596	100	33-126
p-Isopropyltoluene	593	ND	459	77	27-131
sec-Butylbenzene	593	ND	489	82	27-130
tert-Butylbenzene	593	ND	459	77	36-129
trans-1,2-Dichloroethene	593	ND	525	88	51-127
trans-1,3-Dichloropropene	593	ND	617	104	55-126

Spike Recovery: 0 out of 68 outside limits.

09/03/2020 1:41

MSV - FORM III VOA-3

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 52MV02 Matrix Spike Duplicate - Sample No: 205797MSD

Lab File ID (2): 082820.B\082820_09.D Date Analyzed (2): 08/28/2020

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
1,1,1,2-Tetrachloroethane	597	603	101	0	0-20	48-135
1,1,1-Trichloroethane	597	649	109	0	0-23	49-123
1,1,2,2-Tetrachloroethane	597	569	95	3	0-26	43-135
1,1,2-Trichloroethane	597	569	95	2	0-21	52-138
1,1-Dichloroethane	597	567	95	2	0-20	61-129
1,1-Dichloroethene	597	588	98	6	0-28	41-127
1,1-Dichloropropene	597	595	100	0	0-25	44-119
1,2,3-Trichlorobenzene	597	540	90	3	0-30	10-110
1,2,3-Trichloropropane	597	568	95	0	0-24	46-128
1,2,4-Trichlorobenzene	597	517	87	2	0-38	11-130
1,2,4-Trimethylbenzene	597	507	85	1	0-25	24-153
1,2-Dibromo-3-chloropropane	597	491	82	1	0-26	30-146
1,2-Dibromoethane (EDB)	597	572	96	2	0-20	51-136
1,2-Dichlorobenzene	597	540	90	3	0-25	31-137
1,2-Dichloroethane	597	555	93	1	0-20	65-124
1,2-Dichloropropane	597	573	96	3	0-20	64-124
1,3,5-Trimethylbenzene	597	569	95	1	0-24	31-140
1,3-Dichlorobenzene	597	580	97	4	0-25	30-136
1,3-Dichloropropane	597	584	98	2	0-21	57-127
1,4-Dichlorobenzene	597	556	93	4	0-24	36-131
2,2-Dichloropropane	597	568	95	1	0-17	45-124
2-Butanone (MEK)	1190	932	78	2	0-22	35-149
2-Chlorotoluene	597	561	94	3	0-24	37-129
2-Hexanone	1190	1150	97	1	0-23	34-134
4-Chlorotoluene	597	513	86	3	0-23	32-131
4-Methyl-2-pentanone (MIBK)	1190	1040	87	3	0-24	49-137
Acetone	1190	1130	95	1	0-34	12-177
Acetonitrile	1190	1250	105	12	0-38	41-152
Acrolein	1190	975	82	2	0-48	10-200
Acrylonitrile	1190	1020	85	5	0-26	54-136
Benzene	597	583	98	2	0-20	61-122
Bromobenzene	597	617	103	1	0-21	38-133
Bromochloromethane	597	553	93	4	0-19	70-130
Bromodichloromethane	597	655	110	2	0-21	53-131
Bromoform	597	615	103	2	0-22	49-127
Bromomethane	597	611	102	12	0-22	15-168
Carbon disulfide	597	547	92	3	0-33	43-118
Carbon tetrachloride	597	669	112	1	0-23	39-121
Chlorobenzene	597	586	98	2	0-21	46-130
Chloroethane	597	638	107	10	0-86	6-154
Chloroform	597	566	95	3	0-19	62-128
Chloromethane	597	578	97	3	0-25	50-132
Dibromochloromethane	597	622	104	1	0-21	53-133
Dibromomethane	597	608	102	4	0-20	64-127
Dichlorodifluoromethane	597	402	67	7	0-69	10-184
Ethyl acetate	1190	961	81	4	0-40	10-155
Ethylbenzene	597	572	96	2	0-23	40-129
Isopropylbenzene (Cumene)	597	500	84	2	0-24	42-121
Methyl-tert-butyl ether	597	527	88	1	0-27	60-132

MSV - FORM III VOA-4

SOLID VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 52MV02 Matrix Spike Duplicate - Sample No: 205797MSD

Lab File ID (2): 082820.B\082820_09.D Date Analyzed (2): 08/28/2020

COMPOUND	SPIKE ADDED (ug/kg)	MSD CONCENTRATION (ug/kg)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Methylene Chloride	597	528	88	5	0-39	46-146
Naphthalene	597	412	69	5	0-31	8-150
Styrene	597	501	84	1	0-22	41-132
Tetrachloroethene	597	668	108	0	0-23	36-128
Toluene	597	585	98	1	0-20	50-125
Trichloroethene	597	627	103	3	0-20	47-132
Trichlorofluoromethane	597	614	103	12	0-24	14-140
Vinyl acetate	597	423	71	6	0-50	10-127
Vinyl chloride	597	510	85	1	0-54	35-130
Xylene (Total)	1790	1560	87	2	0-32	70-130
cis-1,2-Dichloroethene	597	533	89	1	0-20	61-127
cis-1,3-Dichloropropene	597	606	102	2	0-21	55-125
n-Butylbenzene	597	536	90	0	0-29	20-127
n-Propylbenzene	597	584	98	2	0-25	33-126
p-Isopropyltoluene	597	471	79	3	0-26	27-131
sec-Butylbenzene	597	496	83	1	0-26	27-130
tert-Butylbenzene	597	471	79	3	0-25	36-129
trans-1,2-Dichloroethene	597	535	90	2	0-31	51-127
trans-1,3-Dichloropropene	597	607	102	2	0-21	55-126

RPD: 0 out of 68 outside limits.

Spike Recovery: 0 out of 68 outside limits.

09/03/2020 1:41

SAMPLE NO.

205794BLANK

MSV - FORM IV VOA-1
VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Dayton SDG No.: 5249616 Contract: RUSH VOC Soils

Instrument ID: 52MV02 Matrix: Solid Lab Sample ID: 205794

Lab File ID: 082820.B\082820_06.D Date Analyzed: 08/28/2020 Time:14:32

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
205795LCS	205795	082820.B\082820_03B3000.	08/28/2020 13:17
082820R2	5249616001	082820.B\082820_07.D	08/28/2020 15:00
205796MS	205796	082820.B\082820_08.D	08/28/2020 15:25
205797MSD	205797	082820.B\082820_09.D	08/28/2020 15:50

MSV - FORM V VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Dayton SDG No.: 5249616 Contract: RUSH VOC Soils

Lab File ID: 082020.B\082020_01.D BFB Injection Date 08/20/2020

Instrument ID: 52MV02 BFB Injection Time 09:57

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	24.30	
75	30.00 - 60.00% of mass 95	49.31	
95	Mass 95 relative abundance	100.00	
96	5.00 - 9.00% of mass 95	7.36	
173	Less than 2.00% of mass 174	2.18	(1.71)[1]
174	Greater than 50.00% of mass 95	127.30	
175	5.00 - 9.00% of mass 174	8.81	(6.92)[1]
176	95.00 - 101.00% of mass 174	127.12	(99.86)[1]
177	5.00 - 9.00% of mass 176	7.18	(5.65)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1419846CAL1	1419846CAL1	082020.B\082020_03.D	08/20/2020	10:50
1419847CAL2	1419847CAL2	082020.B\082020_04.D	08/20/2020	11:15
1419848CAL3	1419848CAL3	082020.B\082020_05.D	08/20/2020	11:40
1419849CAL4	1419849CAL4	082020.B\082020_06.D	08/20/2020	12:05
1419850CAL5	1419850CAL5	082020.B\082020_07.D	08/20/2020	12:30
1419851CAL6	1419851CAL6	082020.B\082020_08.D	08/20/2020	12:55
1419852CAL7	1419852CAL7	082020.B\082020_09.D	08/20/2020	13:20
1419853CAL8	1419853CAL8	082020.B\082020_10.D	08/20/2020	13:45
1419854CAL9	1419854CAL9	082020.B\082020_11.D	08/20/2020	14:11
1419855CAL10	1419855CAL10	082020.B\082020_12.D	08/20/2020	14:36
1419856CAL11	1419856CAL11	082020.B\082020_13.D	08/20/2020	15:01
1419857CAL12	1419857CAL12	082020.B\082020_14.D	08/20/2020	15:26
1419858ICV	1419858ICV	082020.B\082020_18.D	08/20/2020	17:06

MSV - FORM V VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Dayton SDG No.: 5249616 Contract: RUSH VOC Soils

Lab File ID: 082820.B\082820_03TUNE.D BFB Injection Date 08/28/2020

Instrument ID: 52MV02 BFB Injection Time 13:17

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	22.21	
75	30.00 - 60.00% of mass 95	49.33	
95	Mass 95 relative abundance	100.00	
96	5.00 - 9.00% of mass 95	6.64	
173	Less than 2.00% of mass 174	1.84	(1.52)[1]
174	Greater than 50.00% of mass 95	120.99	
175	5.00 - 9.00% of mass 174	8.94	(7.39)[1]
176	95.00 - 101.00% of mass 174	116.38	(96.19)[1]
177	5.00 - 9.00% of mass 176	8.33	(7.16)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
205795LCS	205795LCS	082820.B\082820_03B3000.D	08/28/2020	13:17
1438005CCV	1438005CCV	082820.B\082820_03.D	08/28/2020	13:17
205794BLANK	205794BLANK	082820.B\082820_06.D	08/28/2020	14:32
082820R2	5249616001	082820.B\082820_07.D	08/28/2020	15:00
205796MS	205796MS	082820.B\082820_08.D	08/28/2020	15:25
205797MSD	205797MSD	082820.B\082820_09.D	08/28/2020	15:50

MSV - FORM VIII VOA-1
MSV INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Dayton SDG No.: 5249616 Contract: RUSH VOC Soils

Sample ID : 1438005CCV Date Analyzed: 08/28/2020

Instrument ID: 52MV02 GC Column: Col 1 Time Analyzed: 13:17

Lab File ID: 082820.B\082820_03.D

		AREA CBZ	RT	AREA DCB	RT	AREA DFB	RT	AREA PFB	RT
12 HOUR STD		274556	10.561	181616	12.341	283966	8.317	218660	7.86
UPPER LIMIT		549112	11.061	363232	12.841	567932	8.817	437320	8.36
LOWER LIMIT		137278	10.061	90808	11.841	141983	7.817	109330	7.36
LAB SAMPLE ID	SAMPLE NO.								
205794	205794BLANK	239099	10.561	133337	12.341	276399	8.317	200970	7.86
205795	205795LCS	274556	10.561	181616	12.341	283966	8.317	218660	7.86
205796	205796MS	271452	10.561	181890	12.341	285544	8.317	226180	7.86
205797	205797MSD	286395	10.561	189126	12.341	300863	8.317	239239	7.86
5249616001	082820R2	237481	10.56	134857	12.341	268121	8.317	197869	7.86

CBZ = Chlorobenzene-D5 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
DFB = 1,4-Difluorobenzene (IS)
PFB = Pentafluorobenzene (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

082820R2

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/28/2020 11:40
Matrix: Solid SDG No.: 5249616
Date Extracted: 08/28/2020 12:10
Lab Sample ID: 5249616001
Date Analyzed: 08/28/2020 15:00
Lab File ID: 082820.B\082820_07.D
Initial wt/vol: 5.23 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 17.2%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

082820R2

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/28/2020 11:40
Matrix: Solid SDG No.: 5249616
Date Extracted: 08/28/2020 12:10
Lab Sample ID: 5249616001
Date Analyzed: 08/28/2020 15:00
Lab File ID: 082820.B\082820_07.D
Initial wt/vol: 5.23 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 17.2%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	25.1	J
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	14.7	J
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082820.b\082820_07.D
Lab Smp Id: 5249616001 Client Smp ID: 082820R2
Inj Date : 28-AUG-2020 15:00
Operator : EAH Inst ID: 52mv02.i
Smp Info : 5249616001,
Misc Info : 3000,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082820.b\8260BSM_082020.m
Meth Date : 28-Aug-2020 13:40 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.524	(0.958)	121176	53.1900	53.2	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.860	(1.000)	197869	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21632	52.7827	52.8	
	44 1,2-Dichloroethane	62	Compound Not Detected.						(D)
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.323	8.317	(1.001)	957	0.51043	0.510	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	268121	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.377	9.371	(1.128)	287353	49.7861	49.8	
	58 Toluene	91	Compound Not Detected.						
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	1416	0.86879	0.869	
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	237481	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	Compound Not Detected.						(D)
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.468	11.469	(1.086)	92295	47.3555	47.4	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	134857	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

D - User disabled compound identification.

Review Codes Legend

:

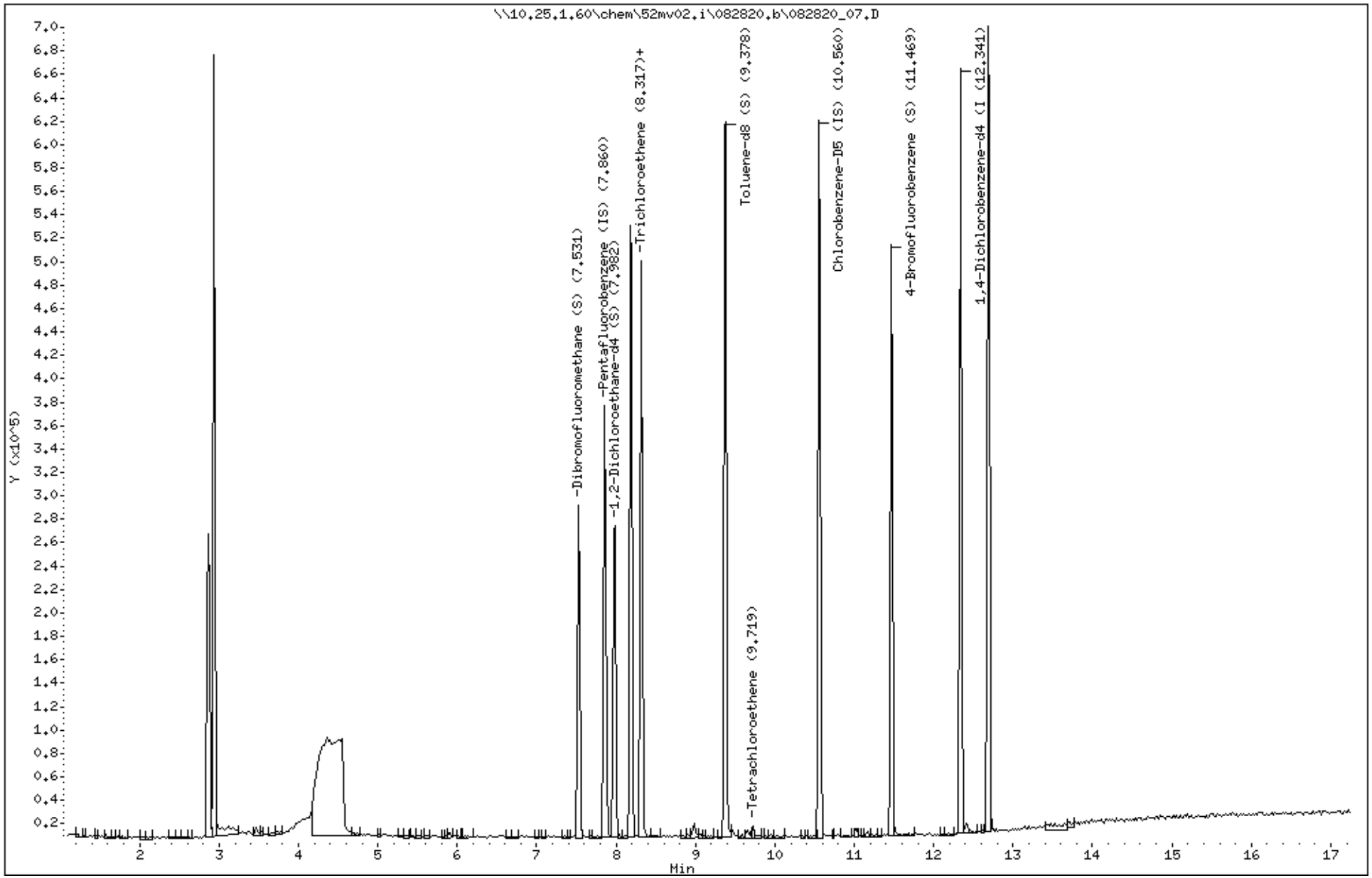
Data File: \\10.25.1.60\chem\52mv02.i\082820.b\082820_07.D
Date : 28-AUG-2020 15:00
Client ID: 082820R2
Sample Info: 5249616001,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082820.b/082820_07.D
Injection Date: 28-AUG-2020 15:00
Instrument: 52mv02.i
Lab Sample ID: 5249616001
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

MSV - FORM VI VOA-1

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249616

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Acetone	Wt Linear			0.62900	0.55994	0.50057	0.45567
Acetonitrile	Wt Linear				0.06914	0.02812	0.03538
Acrolein	Averaged				0.08416	0.06550	0.06663
Acrylonitrile	Averaged			0.21923	0.20463	0.19660	0.17821
Benzene	Averaged	1.47226	1.17470	1.10627	1.43668	1.30598	1.38283
Bromobenzene	Averaged		0.44187	0.42245	0.49777	0.46884	0.54542
Bromochloromethane	Averaged		0.31597	0.30786	0.31639	0.29311	0.30419
Bromodichloromethane	Averaged		0.37292	0.40712	0.57953	0.49521	0.61500
Bromoform	Averaged		0.43514	0.43198	0.48641	0.42825	0.47385
Bromomethane	Wt Linear			1.52273	1.15152	0.76564	0.66086
2-Butanone (MEK)	Averaged			0.50647	0.40123	0.44364	0.43519
n-Butylbenzene	Averaged			1.39216	1.45958	1.44353	1.59712
sec-Butylbenzene	Wt Linear		1.18759	1.24368	1.67899	1.52562	1.84820
tert-Butylbenzene	Wt Linear		1.05533	1.23614	1.25134	1.14366	1.44555
Carbon disulfide	Averaged		1.57701	1.57013	1.73228	1.48016	1.64695
Carbon tetrachloride	Averaged			0.40579	0.50689	0.49562	0.54603
Chlorobenzene	Averaged		1.00310	0.91983	1.08642	0.90944	1.03666
Chloroethane	Wt Linear			0.21117	0.31149	0.17587	0.20642
Chloroform	Averaged		0.91551	1.14590	1.17564	1.07349	1.06717
Chloromethane	Wt Linear		1.70187	1.21534	1.00675	0.83064	0.79315
2-Chlorotoluene	Wt Linear		0.20503	0.23617	0.27463	0.30975	0.37215
4-Chlorotoluene	Wt Linear		0.30194	0.21412	0.30492	0.29219	0.31811
1,2-Dibromo-3-chloropropane	Averaged				0.21563	0.16898	0.14356
Dibromochloromethane	Averaged		0.39061	0.41330	0.50471	0.47639	0.52153
1,2-Dibromoethane (EDB)	Averaged		0.39922	0.39891	0.44521	0.38546	0.43818
Dibromomethane	Averaged		0.30841	0.27910	0.31794	0.30634	0.32971
1,2-Dichlorobenzene	Averaged	1.62186	1.64056	1.43913	1.59814	1.34139	1.48556
1,3-Dichlorobenzene	Averaged	1.46004	1.15332	1.12127	1.39100	1.22471	1.36866
1,4-Dichlorobenzene	Averaged	1.92711	1.64810	1.47102	1.57896	1.41215	1.52701
Dichlorodifluoromethane	Averaged		0.59716	0.66099	0.60136	0.62199	0.59348
1,1-Dichloroethane	Averaged		0.89883	0.86932	1.02064	0.92741	0.97039
1,2-Dichloroethane	Averaged			0.94445	0.99469	0.81825	0.81708
1,1-Dichloroethene	Averaged		0.62480	0.59321	0.74340	0.67088	0.75046
cis-1,2-Dichloroethene	Averaged		0.61860	0.67545	0.71938	0.63203	0.67887

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 1:41

MSV - FORM VI VOA-2

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249616

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
trans-1,2-Dichloroethene	Averaged		0.55331	0.47234	0.48357	0.41487	0.49134
1,2-Dichloropropane	Averaged		0.34955	0.36433	0.39290	0.35841	0.38826
1,3-Dichloropropane	Averaged		0.31663	0.43033	0.53682	0.46817	0.51113
2,2-Dichloropropane	Averaged		0.79065	0.80509	0.78585	0.68606	0.73428
1,1-Dichloropropene	Averaged		0.33046	0.35306	0.39409	0.34712	0.40174
cis-1,3-Dichloropropene	Averaged			0.40994	0.46953	0.45855	0.51880
trans-1,3-Dichloropropene	Averaged			0.40977	0.46953	0.45855	0.51319
Ethyl acetate	Averaged		0.62504	0.56797	0.61081	0.52501	0.56996
Ethylbenzene	Averaged		1.16922	1.07603	1.16044	1.13282	1.26091
2-Hexanone	Averaged			0.32992	0.32976	0.36720	0.41358
Isopropylbenzene (Cumene)	Wt Linear		0.73184	0.72215	0.88627	0.85802	1.07692
p-Isopropyltoluene	Wt Linear		1.05533	1.23614	1.25134	1.14366	1.44555
Methylene Chloride	Averaged			0.95867	0.99674	0.81915	0.85680
4-Methyl-2-pentanone (MIBK)	Averaged					0.03167	0.03396
Methyl-tert-butyl ether	Averaged		1.04371	0.98592	1.12170	0.97810	1.03498
Naphthalene	Wt Linear		1.29997	1.18745	1.36631	1.29132	1.36736
n-Propylbenzene	Averaged		1.17895	1.25876	1.48439	1.43680	1.65273
Styrene	Wt Linear		0.51595	0.49065	0.60308	0.57764	0.71624
1,1,1,2-Tetrachloroethane	Averaged		0.39735	0.45216	0.48731	0.40596	0.42534
1,1,2,2-Tetrachloroethane	Averaged			0.55212	0.57143	0.54413	0.58617
Tetrachloroethene	Averaged		0.28810	0.33725	0.33197	0.34833	0.35819
Toluene	Averaged		1.09209	1.19764	1.30569	1.22009	1.30131
1,2,3-Trichlorobenzene	Averaged		0.85249	0.82329	0.83816	0.81429	0.82024
1,2,4-Trichlorobenzene	Averaged			0.89496	0.87936	0.88914	0.92716
1,1,1-Trichloroethane	Averaged		0.51511	0.55802	0.63628	0.56094	0.61942
1,1,2-Trichloroethane	Averaged		0.37160	0.30364	0.37829	0.29572	0.32933
Trichloroethene	Averaged	0.28552	0.31598	0.34344	0.39369	0.32979	0.38287
Trichlorofluoromethane	Averaged			0.48751	0.40869	0.39167	0.37503
1,2,3-Trichloropropane	Averaged	0.67083	0.55786	0.50074	0.60209	0.54758	0.55729
1,2,4-Trimethylbenzene	Wt Linear		1.28216	1.05543	1.25794	1.29529	1.61333
1,3,5-Trimethylbenzene	Averaged			1.28003	1.37323	1.37049	1.59529
Vinyl acetate	Averaged					0.58340	0.90658
Vinyl chloride	Averaged		0.71725	0.64891	0.61115	0.59900	0.56828
4-Bromofluorobenzene (S)	Averaged	0.37583	0.38941	0.39051	0.38275	0.39379	0.40003

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 1:41

MSV - FORM VI VOA-3

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249616

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Dibromofluoromethane (S)	Averaged	0.62769	0.63739	0.63657	0.62879	0.60966	0.59270
1,2-Dichloroethane-d4 (S)	Averaged	0.11531	0.11871	0.12158	0.11740	0.10453	0.10269
Toluene-d8 (S)	Averaged	1.07880	1.06882	1.06855	1.06786	1.07640	1.08438

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 1:41

MSV - FORM VI VOA-4

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249616

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10	CAL11	CAL12
Acetone	Wt Linear	0.41297	0.37566	0.38708	0.38211		
Acetonitrile	Wt Linear	0.03841	0.04679	0.04704	0.04491	0.03970	0.03979
Acrolein	Averaged	0.06891	0.06557	0.07027	0.07036	0.06357	0.06812
Acrylonitrile	Averaged	0.19915	0.17729	0.19776	0.19478	0.15804	0.18702
Benzene	Averaged	1.31989	1.27390	1.26059	1.22497	1.19823	1.18934
Bromobenzene	Averaged	0.53532	0.51542	0.53131	0.52655	0.53912	0.54081
Bromochloromethane	Averaged	0.29998	0.27204	0.26235	0.25826	0.23994	0.24926
Bromodichloromethane	Averaged	0.57885	0.55715	0.54332	0.54171	0.54086	0.53536
Bromoform	Averaged	0.45373	0.43426	0.44389	0.44328	0.46996	0.46892
Bromomethane	Wt Linear	0.57307	0.44908	0.42634	0.42378		
2-Butanone (MEK)	Averaged	0.45432	0.40986	0.43930	0.44055	0.37212	0.38920
n-Butylbenzene	Averaged	1.64990	1.87691	1.98741	1.98878	1.98038	2.04750
sec-Butylbenzene	Wt Linear	2.02276	2.15907	2.27908	2.29075	2.34314	2.41368
tert-Butylbenzene	Wt Linear	1.56217	1.76643	1.88637	1.94028	1.98006	2.04581
Carbon disulfide	Averaged	1.55020	1.42898	1.38821	1.36729	1.28575	1.29953
Carbon tetrachloride	Averaged	0.54343	0.52196	0.51532	0.50192	0.49242	0.50459
Chlorobenzene	Averaged	0.97199	0.93701	0.94485	0.92345	0.94437	0.93402
Chloroethane	Wt Linear	0.17297	0.17535	0.16509	0.15481		
Chloroform	Averaged	1.02572	0.96877	0.93921	0.91532	0.85890	0.86431
Chloromethane	Wt Linear	0.77949	0.73419	0.74763	0.73348	0.67654	0.66670
2-Chlorotoluene	Wt Linear	0.37818	0.37125	0.37579	0.37739	0.38782	0.39117
4-Chlorotoluene	Wt Linear	0.34412	0.37138	0.38926	0.38621	0.39446	0.39306
1,2-Dibromo-3-chloropropane	Averaged	0.14501	0.14799	0.15810	0.15828	0.16380	0.17031
Dibromochloromethane	Averaged	0.49970	0.47857	0.47752	0.47753	0.50069	0.49027
1,2-Dibromoethane (EDB)	Averaged	0.41880	0.39767	0.39462	0.39355	0.40951	0.40529
Dibromomethane	Averaged	0.31359	0.30014	0.28875	0.28214	0.27687	0.27295
1,2-Dichlorobenzene	Averaged	1.38076	1.36447	1.37412	1.37990	1.39095	1.43503
1,3-Dichlorobenzene	Averaged	1.32401	1.33959	1.38908	1.38767	1.38402	1.42750
1,4-Dichlorobenzene	Averaged	1.40109	1.37817	1.41490	1.41231	1.40741	1.44148
Dichlorodifluoromethane	Averaged	0.63941	0.59785	0.61150	0.61837	0.54554	0.54297
1,1-Dichloroethane	Averaged	0.91623	0.87020	0.84971	0.81510	0.77035	0.77571
1,2-Dichloroethane	Averaged	0.78755	0.72382	0.70860	0.69974	0.66582	0.65542
1,1-Dichloroethene	Averaged	0.69997	0.66374	0.66212	0.67660	0.64092	0.65097
cis-1,2-Dichloroethene	Averaged	0.64084	0.63911	0.63898	0.63619	0.61855	0.63882

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 1:41

MSV - FORM VI VOA-5

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249616

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10	CAL11	CAL12
trans-1,2-Dichloroethene	Averaged	0.45350	0.42924	0.43177	0.42614	0.40870	0.41864
1,2-Dichloropropane	Averaged	0.38813	0.36744	0.35842	0.34791	0.35389	0.34693
1,3-Dichloropropane	Averaged	0.50225	0.50220	0.50732	0.51074	0.51045	0.50531
2,2-Dichloropropane	Averaged	0.66678	0.63008	0.59855	0.60546	0.58521	0.58171
1,1-Dichloropropene	Averaged	0.41853	0.42140	0.42293	0.42298	0.42154	0.42409
cis-1,3-Dichloropropene	Averaged	0.52492	0.53191	0.54225	0.54657	0.54771	0.54824
trans-1,3-Dichloropropene	Averaged	0.52492	0.53127	0.54126	0.54522	0.54708	0.54754
Ethyl acetate	Averaged	0.56493	0.55790	0.55626	0.54125	0.53408	0.52840
Ethylbenzene	Averaged	1.24337	1.35695	1.44133	1.46916	1.53813	1.54037
2-Hexanone	Averaged	0.43312	0.46856	0.46295	0.47817	0.46940	0.46841
Isopropylbenzene (Cumene)	Wt Linear	1.13672	1.27637	1.35788	1.37491	1.42487	1.44774
p-Isopropyltoluene	Wt Linear	1.56217	1.76643	1.88637	1.94028	1.98006	2.04581
Methylene Chloride	Averaged	0.80589	0.74727	0.73858	0.70291	0.66532	0.67584
4-Methyl-2-pentanone (MIBK)	Averaged	0.03057	0.03726	0.03590	0.03857	0.03908	0.03925
Methyl-tert-butyl ether	Averaged	1.06283	1.08682	1.09285	1.09333	1.03414	1.08647
Naphthalene	Wt Linear	1.41816	1.68396	1.89011	1.96265	2.01139	2.11026
n-Propylbenzene	Averaged	1.60570	1.73759	1.79225	1.79662	1.85505	1.84384
Styrene	Wt Linear	0.77986	0.88210	0.93092	0.93426	0.97298	0.97405
1,1,1,2-Tetrachloroethane	Averaged	0.41282	0.38406	0.38418	0.37132	0.38050	0.38077
1,1,2,2-Tetrachloroethane	Averaged	0.55539	0.51874	0.51464	0.49827	0.50770	0.50090
Tetrachloroethene	Averaged	0.35335	0.34404	0.35038	0.34843	0.35950	0.35515
Toluene	Averaged	1.25999	1.25926	1.26706	1.26351	1.28160	1.26660
1,2,3-Trichlorobenzene	Averaged	0.87483	0.92204	0.98164	0.99100	1.05707	1.09411
1,2,4-Trichlorobenzene	Averaged	0.86786	0.96199	1.06119	1.06390	1.11694	1.18487
1,1,1-Trichloroethane	Averaged	0.60969	0.57373	0.56212	0.55376	0.54652	0.53855
1,1,2-Trichloroethane	Averaged	0.32889	0.30035	0.29535	0.29349	0.29206	0.28701
Trichloroethene	Averaged	0.37458	0.35481	0.34975	0.35403	0.35714	0.35398
Trichlorofluoromethane	Averaged	0.37535	0.34595	0.32841	0.30466		
1,2,3-Trichloropropane	Averaged	0.57805	0.55752	0.54325	0.53642	0.54134	0.51772
1,2,4-Trimethylbenzene	Wt Linear	1.71069	1.86363	1.94154	1.94909	1.94934	2.01891
1,3,5-Trimethylbenzene	Averaged	1.68023	1.75448	1.84643	1.84471	1.84227	1.92279
Vinyl acetate	Averaged	0.90400	0.97338	0.94500	0.89650	0.87287	0.88498
Vinyl chloride	Averaged	0.58640	0.57381	0.57350	0.58579	0.52769	0.53398
4-Bromofluorobenzene (S)	Averaged	0.41167	0.42397	0.42542	0.43138	0.44972	0.44967

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 1:41

MSV - FORM VI VOA-6

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249616

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 = 082020.B\082020_03.D CAL2 = 082020.B\082020_04.D CAL3 = 082020.B\082020_05.D

CAL4 = 082020.B\082020_06.D CAL5 = 082020.B\082020_07.D CAL6 = 082020.B\082020_08.D

CAL7 = 082020.B\082020_09.D CAL8 = 082020.B\082020_10.D CAL9 = 082020.B\082020_11.D

CAL10 = 082020.B\082020_12.D CAL11 = 082020.B\082020_13.D CAL12 = 082020.B\082020_14.D

COMPOUND	CURVE TYPE	CAL7	CAL8	CAL9	CAL10	CAL11	CAL12
Dibromofluoromethane (S)	Averaged	0.57485	0.54985	0.54466	0.52424	0.47680	0.50490
1,2-Dichloroethane-d4 (S)	Averaged	0.10484	0.09552	0.09525	0.09239	0.08563	0.08890
Toluene-d8 (S)	Averaged	1.08337	1.07913	1.08743	1.07610	1.07934	1.06580

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 1:41

MSV - FORM VI VOA-7

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249616

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Acetone	Wt Linear		0.99848	0.01374774	0.38153	
Acetonitrile	Wt Linear		0.99061	0.00060749	0.04173	
Acrolein	Averaged	8.73847			0.06923	
Acrylonitrile	Averaged	8.87425			0.19127	
Benzene	Averaged	8.62942			1.27880	
Bromobenzene	Averaged	8.48252			0.50590	
Bromochloromethane	Averaged	9.85318			0.28358	
Bromodichloromethane	Averaged	14.00186			0.52427	
Bromoform	Averaged	4.41496			0.45179	
Bromomethane	Wt Linear		0.99117	0.02722209	0.42450	
2-Butanone (MEK)	Averaged	8.88630			0.42919	
n-Butylbenzene	Averaged	14.94450			1.74233	
sec-Butylbenzene	Wt Linear		0.99752	-0.0235130	2.32577	
tert-Butylbenzene	Wt Linear		0.99539	-0.0212852	1.95174	
Carbon disulfide	Averaged	9.71280			1.48423	
Carbon tetrachloride	Averaged	7.73071			0.50339	
Chlorobenzene	Averaged	5.75373			0.96465	
Chloroethane	Wt Linear		0.99271	0.00289449	0.16240	
Chloroform	Averaged	10.99465			0.99545	
Chloromethane	Wt Linear		0.99766	0.01147544	0.69502	
2-Chlorotoluene	Wt Linear		0.99948	-0.0028441	0.38497	
4-Chlorotoluene	Wt Linear		0.99856	-0.0028784	0.38834	
1,2-Dibromo-3-chloropropane	Averaged	13.38306			0.16352	
Dibromochloromethane	Averaged	8.28025			0.47553	
1,2-Dibromoethane (EDB)	Averaged	4.64138			0.40786	
Dibromomethane	Averaged	6.36753			0.29781	
1,2-Dichlorobenzene	Averaged	7.39530			1.45432	
1,3-Dichlorobenzene	Averaged	8.08472			1.33091	
1,4-Dichlorobenzene	Averaged	10.46018			1.50164	
Dichlorodifluoromethane	Averaged	5.84563			0.60278	
1,1-Dichloroethane	Averaged	8.80603			0.88035	
1,2-Dichloroethane	Averaged	14.72899			0.78154	
1,1-Dichloroethene	Averaged	7.00161			0.67064	
cis-1,2-Dichloroethene	Averaged	4.67942			0.64880	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 1:41

MSV - FORM VI VOA-8

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249616

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
trans-1,2-Dichloroethene	Averaged	9.66545			0.45304	
1,2-Dichloropropane	Averaged	4.68693			0.36511	
1,3-Dichloropropane	Averaged	12.73991			0.48194	
2,2-Dichloropropane	Averaged	12.80164			0.67907	
1,1-Dichloropropene	Averaged	8.96428			0.39618	
cis-1,3-Dichloropropene	Averaged	9.32428			0.50984	
trans-1,3-Dichloropropene	Averaged	9.26560			0.50883	
Ethyl acetate	Averaged	5.68883			0.56197	
Ethylbenzene	Averaged	12.90669			1.30807	
2-Hexanone	Averaged	14.03454			0.42211	
Isopropylbenzene (Cumene)	Wt Linear		0.99637	-0.0156127	1.39474	
p-Isopropyltoluene	Wt Linear		0.99539	-0.0212852	1.95174	
Methylene Chloride	Averaged	14.30697			0.79672	
4-Methyl-2-pentanone (MIBK)	Averaged	9.46365			0.03578	
Methyl-tert-butyl ether	Averaged	4.34204			1.05644	
Naphthalene	Wt Linear		0.99209	-0.0210899	1.97334	
n-Propylbenzene	Averaged	14.69415			1.60388	
Styrene	Wt Linear		0.99669	-0.0104898	0.94781	
1,1,1,2-Tetrachloroethane	Averaged	8.73379			0.40743	
1,1,2,2-Tetrachloroethane	Averaged	5.80301			0.53495	
Tetrachloroethene	Averaged	5.85748			0.34315	
Toluene	Averaged	4.82081			1.24680	
1,2,3-Trichlorobenzene	Averaged	11.00536			0.91538	
1,2,4-Trichlorobenzene	Averaged	11.50100			0.98474	
1,1,1-Trichloroethane	Averaged	6.44871			0.57038	
1,1,2-Trichloroethane	Averaged	10.24085			0.31598	
Trichloroethene	Averaged	8.38981			0.34963	
Trichlorofluoromethane	Averaged	14.86295			0.37716	
1,2,3-Trichloropropane	Averaged	7.81870			0.55922	
1,2,4-Trimethylbenzene	Wt Linear		0.99797	-0.0184252	1.95772	
1,3,5-Trimethylbenzene	Averaged	14.19477			1.65100	
Vinyl acetate	Averaged	13.85329			0.87084	
Vinyl chloride	Averaged	8.94064			0.59325	
4-Bromofluorobenzene (S)	Averaged	6.19963			0.41034	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 1:41

MSV - FORM VI VOA-9

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton Instrument ID: 52MV02 GC Column: Col 1 SDG No.: 5249616

Calibration Date(s): 08/20/2020 08/20/2020 Calibration Time(s): 10:50 15:26

LAB FILE ID

CAL1 =	082020.B\082020_03.D	CAL2 =	082020.B\082020_04.D	CAL3 =	082020.B\082020_05.D
CAL4 =	082020.B\082020_06.D	CAL5 =	082020.B\082020_07.D	CAL6 =	082020.B\082020_08.D
CAL7 =	082020.B\082020_09.D	CAL8 =	082020.B\082020_10.D	CAL9 =	082020.B\082020_11.D
CAL10 =	082020.B\082020_12.D	CAL11 =	082020.B\082020_13.D	CAL12 =	082020.B\082020_14.D

COMPOUND	CURVE TYPE	%RSD	R2	A1	A2	A3
Dibromofluoromethane (S)	Averaged	9.59315			0.57568	
1,2-Dichloroethane-d4 (S)	Averaged	11.94143			0.10356	
Toluene-d8 (S)	Averaged	0.66305			1.07633	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 1:41

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_03.D
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 20-AUG-2020 10:50
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal1,27237:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 10:50 Cal File: 082020_03.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						(D)
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						(D)
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						(D)
9 1,1-Dichloroethene	61	5.238	5.226	(0.666)	569	0.20000	0.208	
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						(D)
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						(D)
17 Methyl acetate	43	Compound Not Detected.						(D)
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						(D)
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						(D)
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	863	0.20000	0.240	
	24 Acrylonitrile	53	Compound Not Detected.						
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	737	0.20000	0.278(T)	
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						(D)
	29 Cyclohexane	56	Compound Not Detected.						(D)
	30 Chloroform	83	7.372	7.372	(0.938)	932	0.20000	0.236(M)	NI
	31 Ethyl acetate	43	Compound Not Detected.						(D)
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	576	0.20000	0.202	
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	128324	50.0000	54.5	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						(D)
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	204440	50.0000		
	39 Benzene	78	7.878	7.872	(0.947)	1748	0.20000	0.230	
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	23574	50.0000	55.7	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	1197	0.20000	0.364	
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	8.323	8.317	(1.001)	339	0.20000	0.163	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	296822	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.676	8.670	(1.043)	169	0.20000	0.0956	
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						(D)
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	9.719	9.713	(1.169)	492	0.20000	0.162	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	320213	50.0000	50.1	
	58 Toluene	91	9.420	9.414	(1.133)	1693	0.20000	0.229	
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						(D)
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	10.066	10.060	(1.210)	722	0.20000	0.252	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	477	0.20000	0.225	
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	10.560	10.554	(1.000)	1806	0.20000	0.266	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	259753	50.0000		
	71 Chlorobenzene	112	10.584	10.578	(1.002)	1258	0.20000	0.251	
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	10.657	10.651	(1.009)	1678	0.40000	0.330	
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						(D)
	76 Bromoform	173	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	Compound Not Detected.						(D)
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	97623	50.0000	45.8	
79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)
80 n-Propylbenzene	91	11.529	11.523	(1.092)	1365	0.20000	0.164	
81 Bromobenzene	156	11.584	11.578	(1.097)	395	0.20000	0.148	
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	11.657	11.651	(0.945)	1019	0.20000	0.227	
84 2-Chlorotoluene	126	Compound Not Detected.						(D)
85 4-Chlorotoluene	126	Compound Not Detected.						(D)
86 Isopropylbenzene (Cumene)	105	11.218	11.212	(1.062)	845	0.20000	0.141	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	697	0.20000	0.243	
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						(D)
91 1,2,4-Trimethylbenzene	105	11.974	11.968	(0.970)	588	0.20000	0.130	
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	12.151	12.145	(0.985)	466	0.20000	0.105	
94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	794	0.20000	0.221	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	135955	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	1048	0.20000	0.263	
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	882	0.20000	0.225	
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

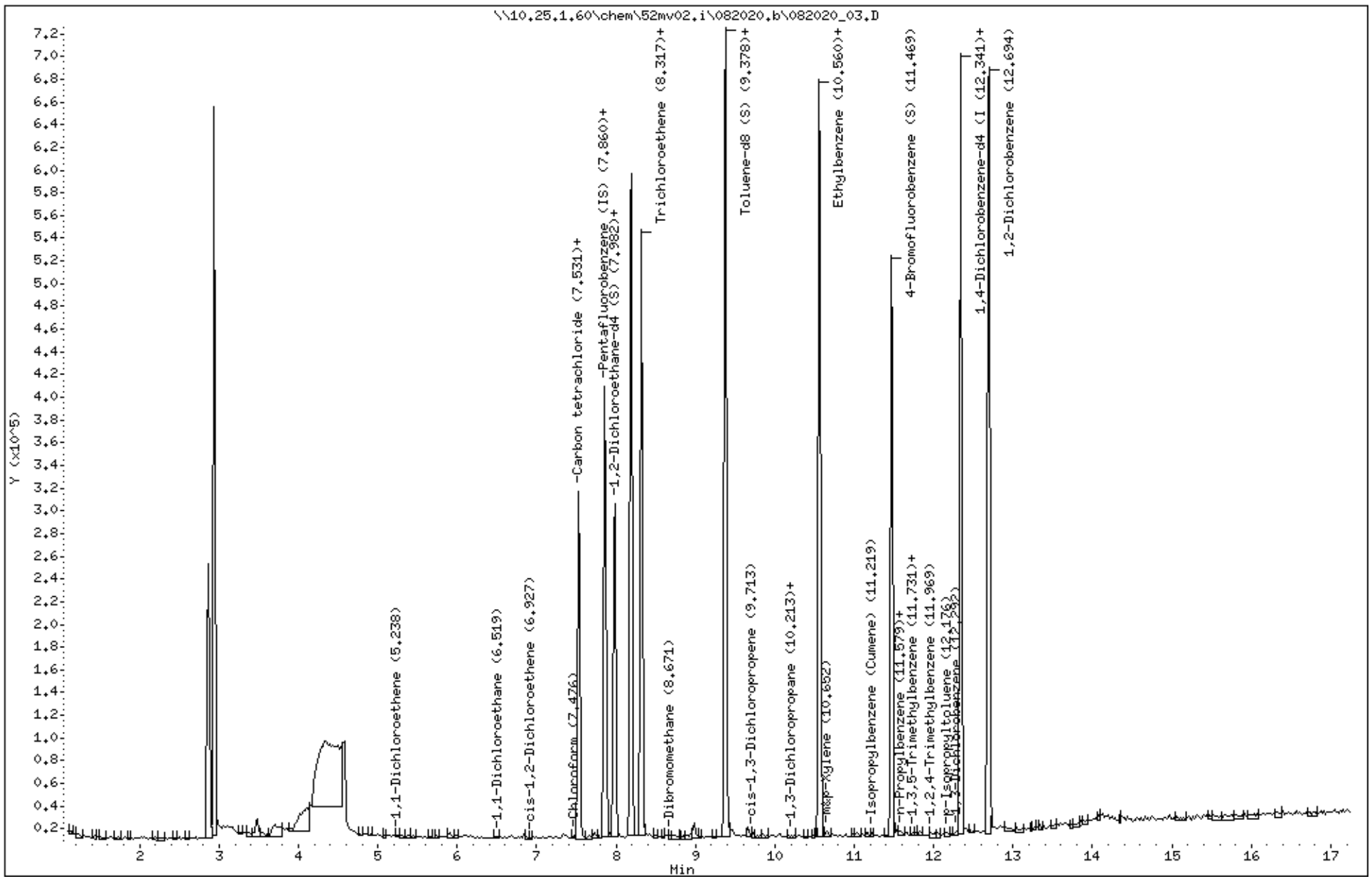
T - Target compound detected outside RT window.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
NI: Indicates that the peak was not integrated at all by the computer software.

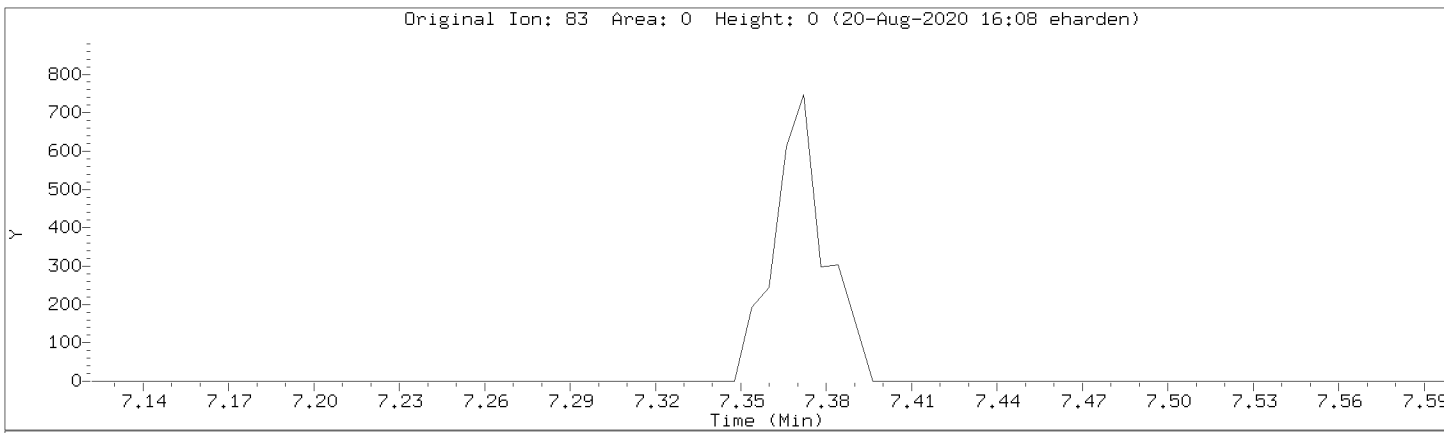
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_03.D
Date : 20-AUG-2020 10:50
Client ID: CAL1
Sample Info: CAL1,27237:1
Purge Volume: 5.0
Column phase: RTX-VMS

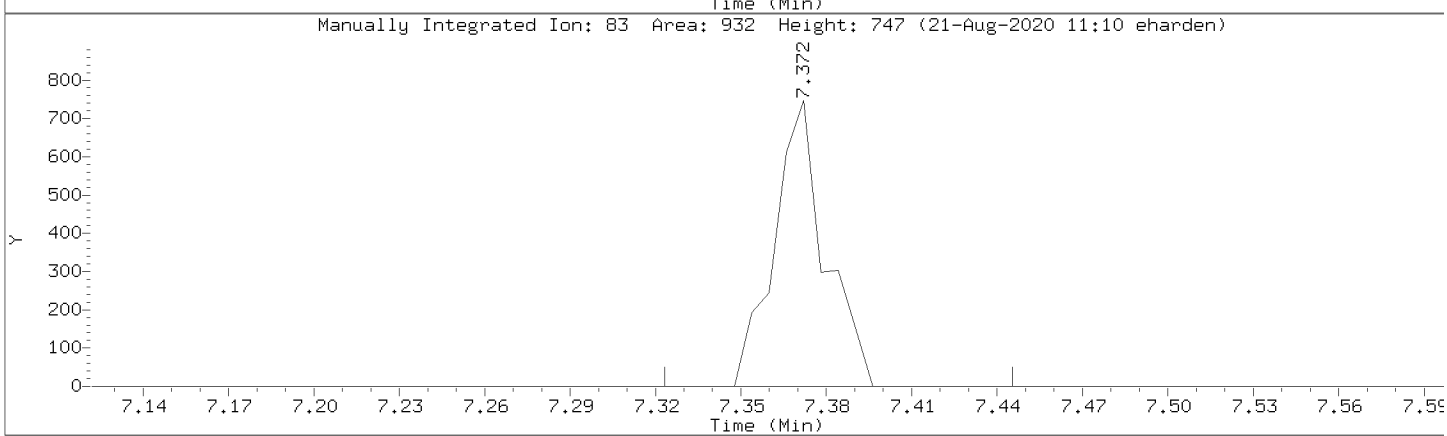
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

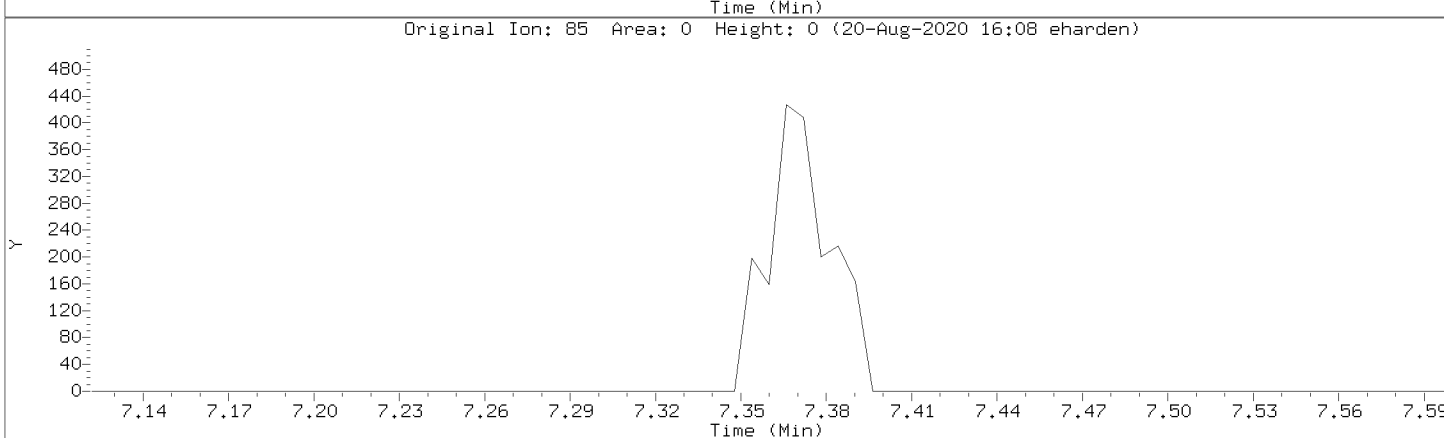


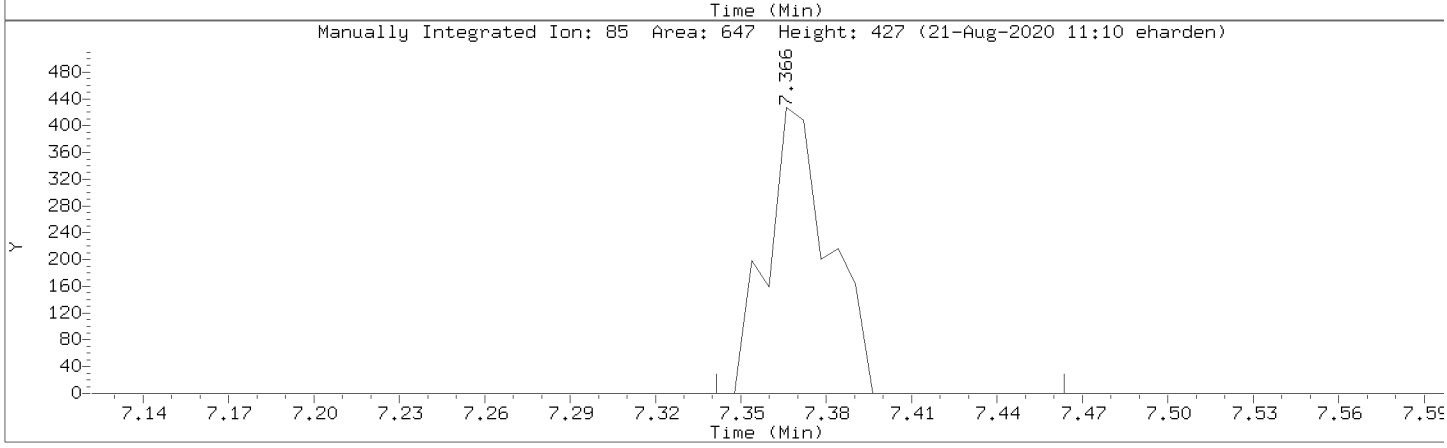
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_03.D
Injection Date: 20-AUG-2020 10:50
Instrument: 52mv02.i
Lab Sample ID: CAL1

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3









Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_04.D
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 20-AUG-2020 11:15
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal2,27238:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 11:15 Cal File: 082020_04.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.226	(0.408)	1253	0.50000	0.745(MH)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	3571	0.50000	1.04	
3 Vinyl chloride	62	3.708	3.702	(0.472)	1505	0.50000	0.604(M)	LT
4 1,3-Butadiene	39	3.708	3.708	(0.472)	1520	0.50000	0.683	
5 Bromomethane	94	4.195	4.195	(0.534)	5381	0.50000	1.82	
6 Chloroethane	64	Compound Not Detected.						(D)
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						(D)
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	1311	0.50000	0.466	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	1053	0.50000	0.567(M)	LT
11 Carbon disulfide	76	5.293	5.293	(0.673)	3309	0.50000	0.531	
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						(D)
14 Allyl chloride	76	5.780	5.787	(0.736)	303	0.50000	0.350	
15 Methylene Chloride	49	5.908	5.902	(0.752)	2179	0.50000	0.634(M)	NI
16 Acetone	43	5.988	5.976	(0.762)	5178	1.00000	2.84	
17 Methyl acetate	43	6.073	6.067	(0.773)	3562	1.00000	1.60	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	1161	0.50000	0.611	
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	6.171	6.165	(0.785)	2190	0.50000	0.493(T)	
21 Acetonitrile	41	Compound Not Detected.						
22 Chloroprene	53	6.646	6.640	(0.846)	1072	0.50000	0.397	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	1886	0.50000	0.510	
	24 Acrylonitrile	53	Compound Not Detected.						(D)
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	1298	0.50000	0.477	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	1659	0.50000	0.592(T)	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	663	0.50000	0.557	
	29 Cyclohexane	56	7.335	7.335	(0.882)	767	0.50000	0.308	
	30 Chloroform	83	7.372	7.372	(0.938)	1921	0.50000	0.460(M)	NI
	31 Ethyl acetate	43	7.433	7.433	(0.946)	2623	1.00000	1.11(T)	
	32 Carbon tetrachloride	117	7.518	7.512	(0.904)	765	0.50000	0.262	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	1518	1.00000	2.16	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	133742	50.0000	55.4	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	1565	0.50000	0.452	
	36 2-Butanone (MEK)	43	Compound Not Detected.						(D)
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	1004	0.50000	0.417(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	209828	50.0000		
	39 Benzene	78	7.865	7.872	(0.946)	3569	0.50000	0.459	
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	2101	1.00000	1.15	
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	24908	50.0000	57.3	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	2134	0.50000	0.633	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	1482	0.50000	0.370	
	46 Trichloroethene	130	8.317	8.317	(1.000)	960	0.50000	0.452	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	303821	50.0000		
	48 Methylcyclohexane	98	8.329	8.317	(1.001)	565	0.50000	0.561(M)	LT
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.676	8.670	(1.043)	937	0.50000	0.518	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	1062	0.50000	0.479	
	52 Bromodichloromethane	83	8.774	8.768	(1.055)	1133	0.50000	0.356	
	53 Methyl methacrylate	69	8.835	8.823	(1.062)	345	0.50000	0.308(TH)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	996	0.50000	0.321	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	324729	50.0000	49.6	
	58 Toluene	91	9.420	9.414	(1.133)	3318	0.50000	0.438	
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	996	0.50000	0.315(M)	NI
	62 Tetrachloroethene	164	9.713	9.719	(0.920)	770	0.50000	0.420	
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	1129	0.50000	0.588	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	1044	0.50000	0.411(M)	NI
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	962	0.50000	0.328	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	1067	0.50000	0.489	
	68 2-Hexanone	43	Compound Not Detected.						(D)
	69 Ethylbenzene	91	10.560	10.554	(1.000)	3125	0.50000	0.447	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	267272	50.0000		
	71 Chlorobenzene	112	10.572	10.578	(1.001)	2681	0.50000	0.520	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	1062	0.50000	0.488	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	3816	1.00000	0.730	
	74 o-Xylene	106	10.993	10.993	(1.041)	984	0.50000	0.402	
	75 Styrene	104	11.029	11.029	(1.044)	1379	0.50000	0.337	
	76 Bromoform	173	11.103	11.103	(1.051)	1163	0.50000	0.482(M)	NI

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.231	11.225	(1.063)	1438	0.50000	0.387	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	104078	50.0000	47.4	
79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)
80 n-Propylbenzene	91	11.529	11.523	(1.092)	3151	0.50000	0.368	
81 Bromobenzene	156	11.584	11.578	(1.097)	1181	0.50000	0.431	
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						(D)
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	1752	0.50000	0.364(H)	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	548	0.50000	0.295	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	807	0.50000	0.443	
86 Isopropylbenzene (Cumene)	105	11.206	11.212	(1.061)	1956	0.50000	0.316	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	1491	0.50000	0.508	
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	1540	0.50000	0.324	
91 1,2,4-Trimethylbenzene	105	11.974	11.968	(0.970)	1871	0.50000	0.385	
92 sec-Butylbenzene	105	12.066	12.060	(0.978)	1733	0.50000	0.300	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	1540	0.50000	0.324	
94 1,3-Dichlorobenzene	146	12.297	12.291	(0.997)	1683	0.50000	0.437	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	145926	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	2405	0.50000	0.563	
97 n-Butylbenzene	91	12.480	12.486	(1.011)	1826	0.50000	0.359	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	2394	0.50000	0.570	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	415	0.50000	0.870	
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						(D)
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	852	0.50000	0.308	
102 Naphthalene	128	14.206	14.193	(1.151)	1897	0.50000	0.399(M)	NI
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	1244	0.50000	0.466	

QC Flag Legend

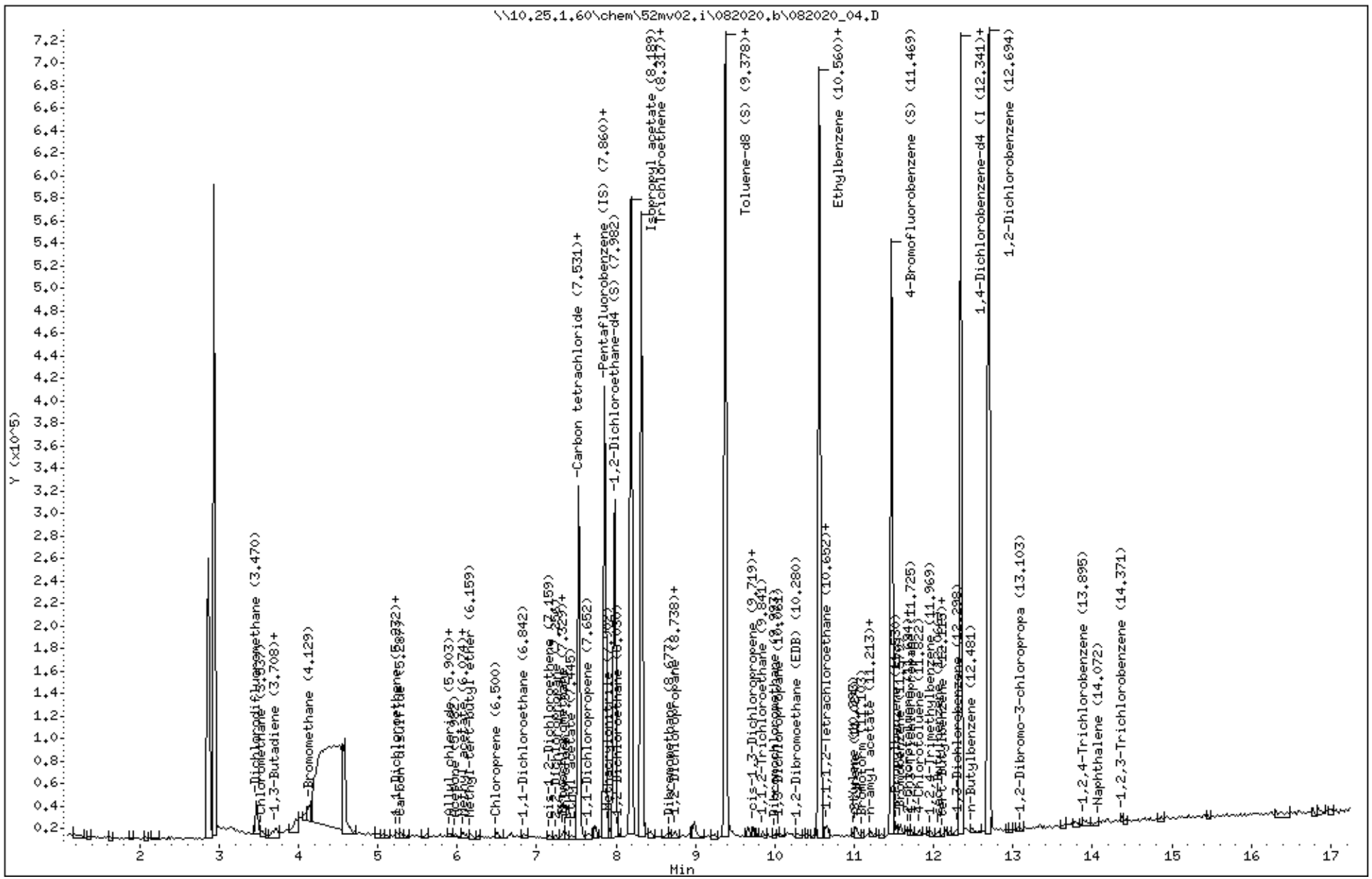
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_04.D
Date : 20-AUG-2020 11:15
Client ID: CAL2
Sample Info: CAL2,27238:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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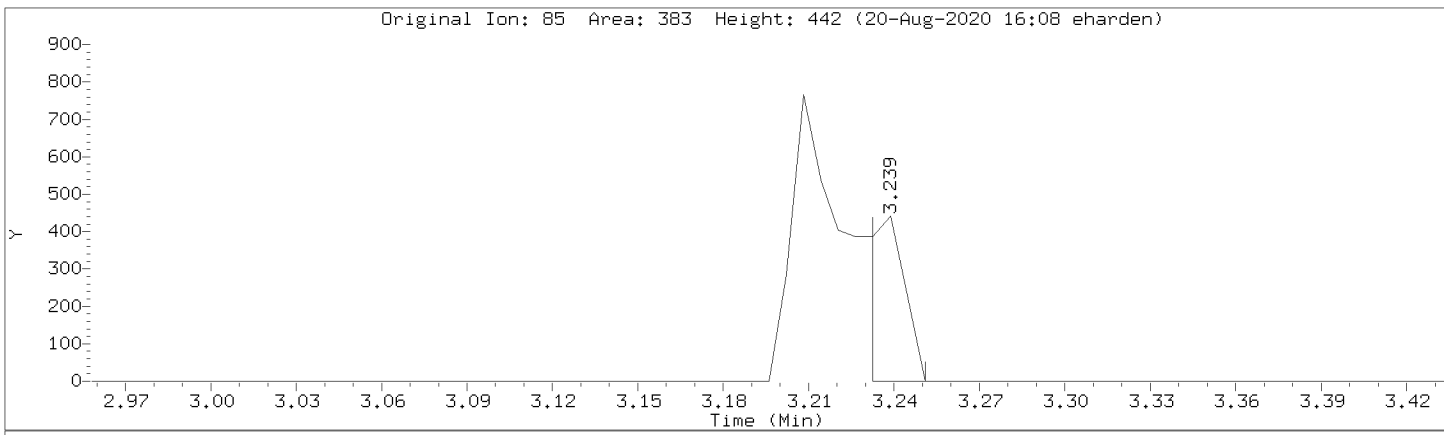
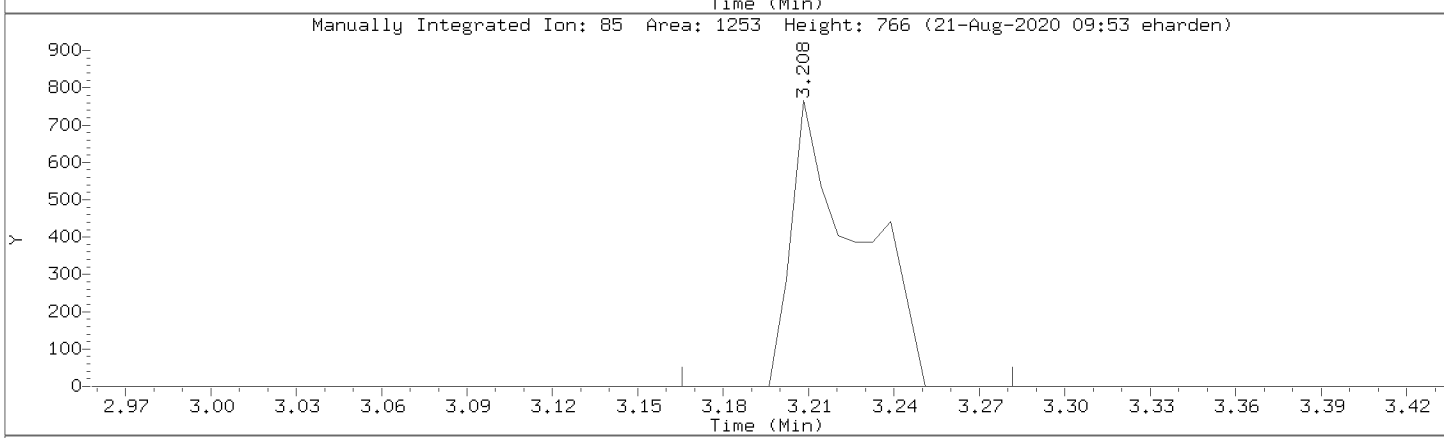
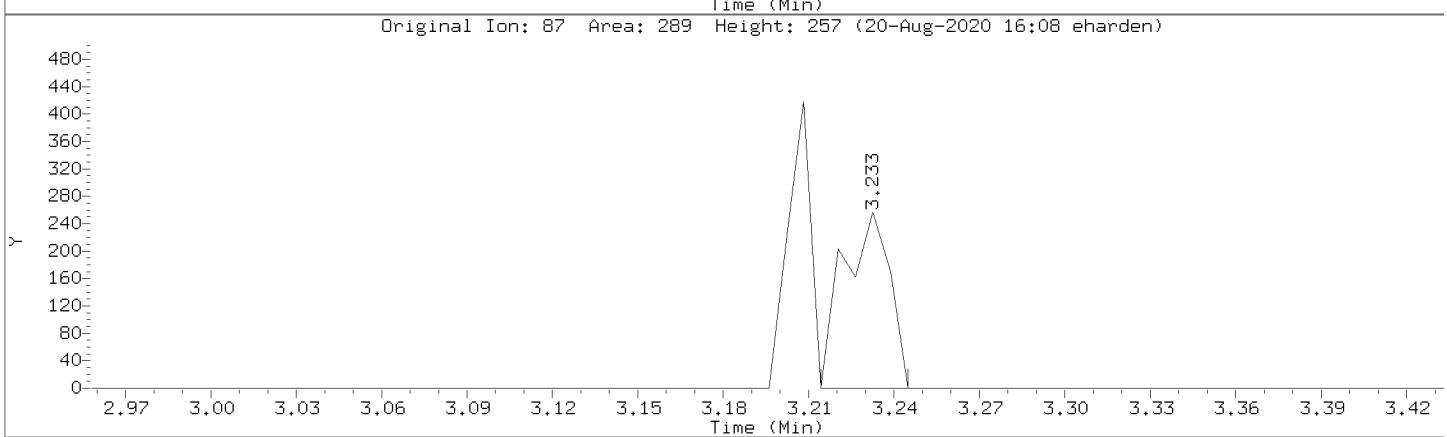
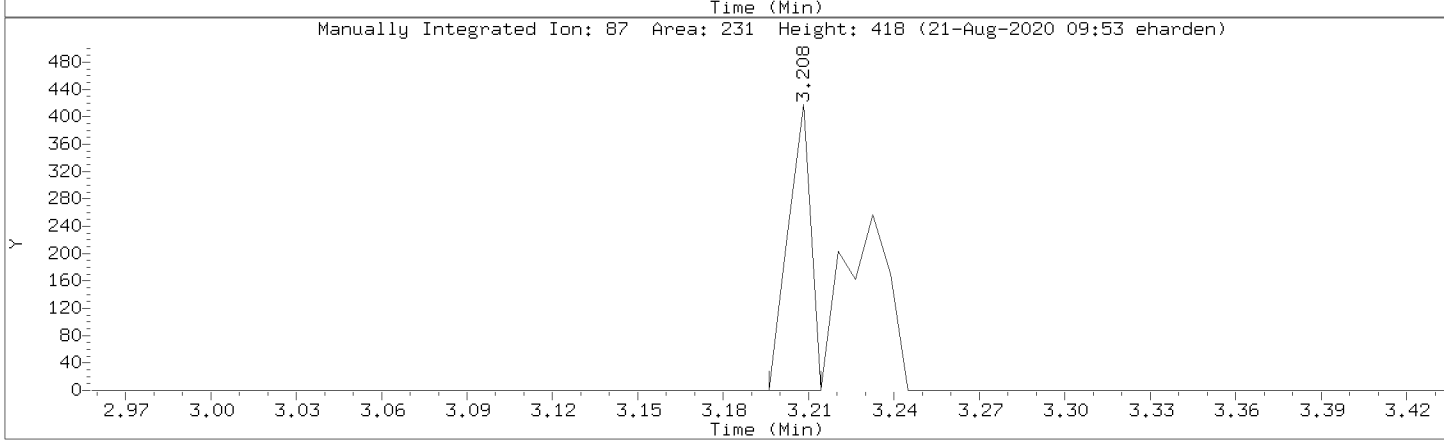
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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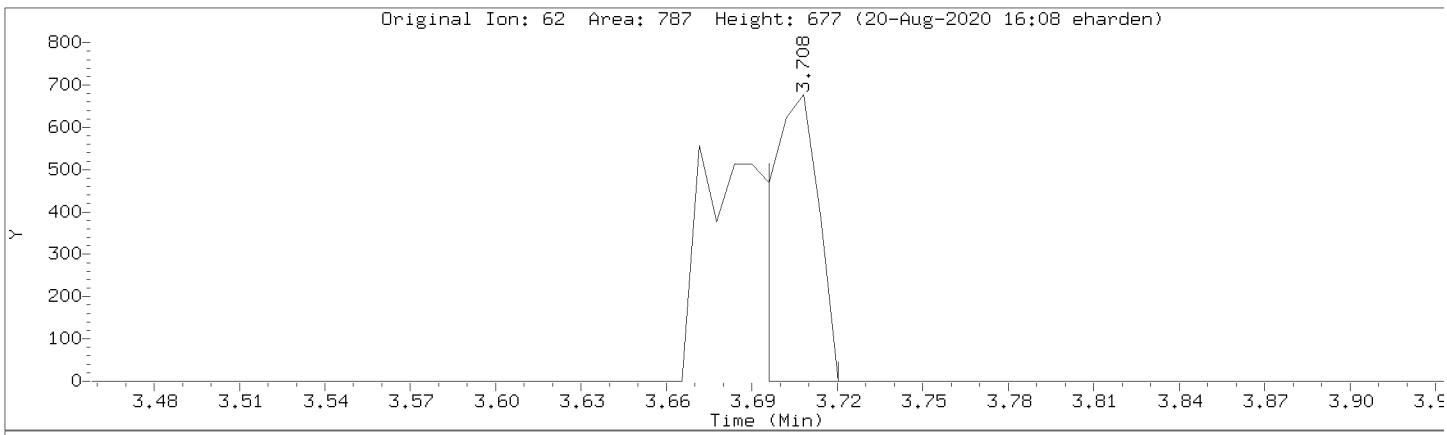
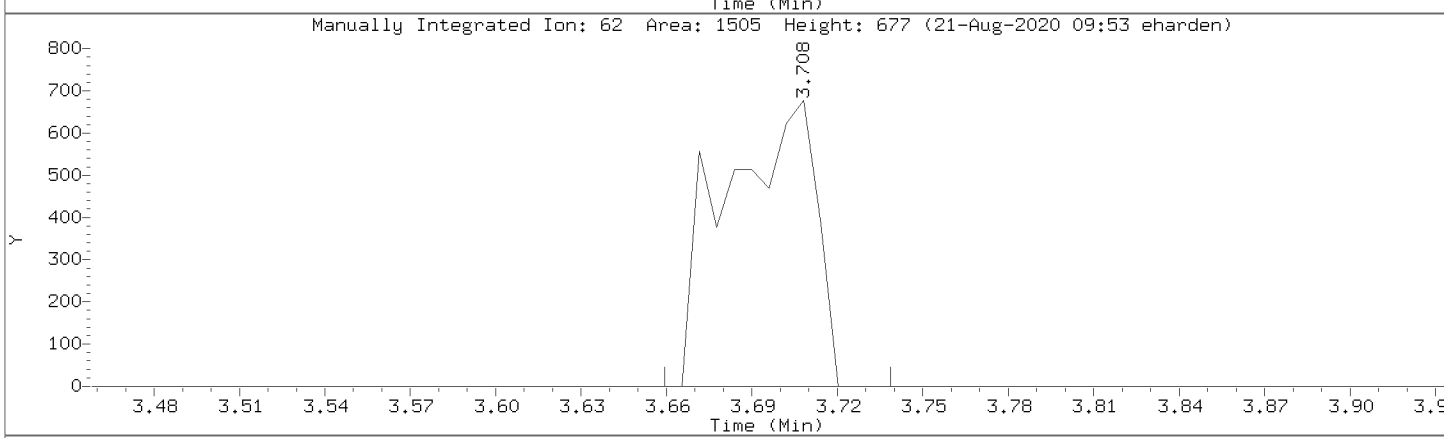
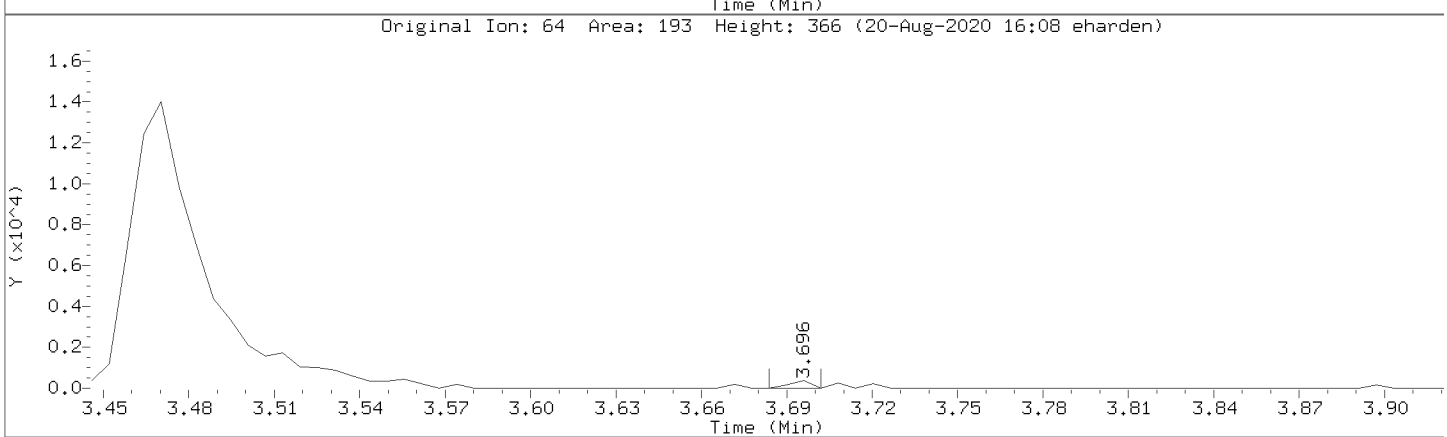
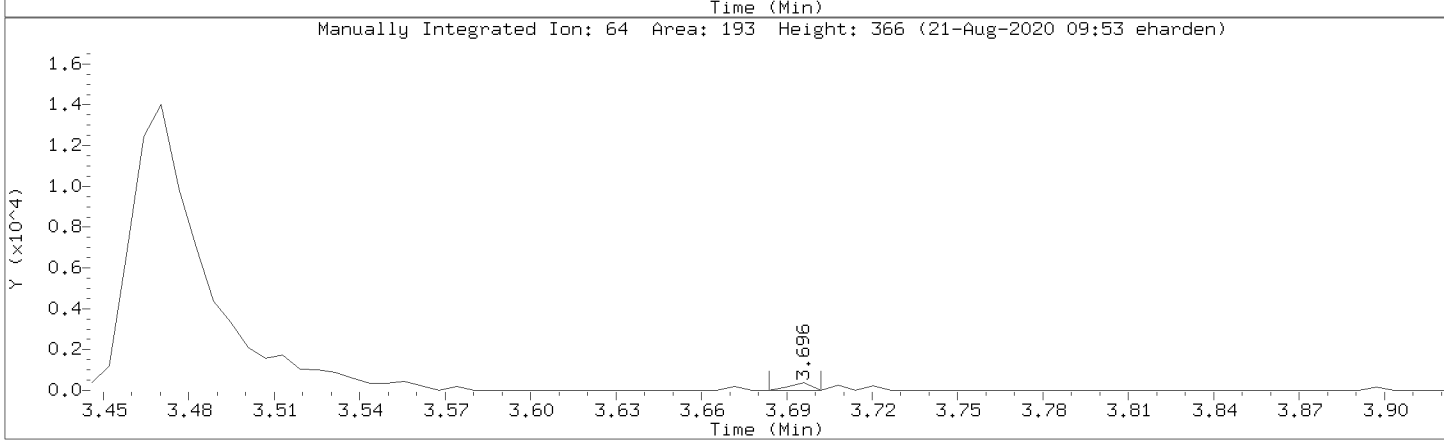
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Vinyl chloride Review Code: LT
CAS Number: 75-01-4









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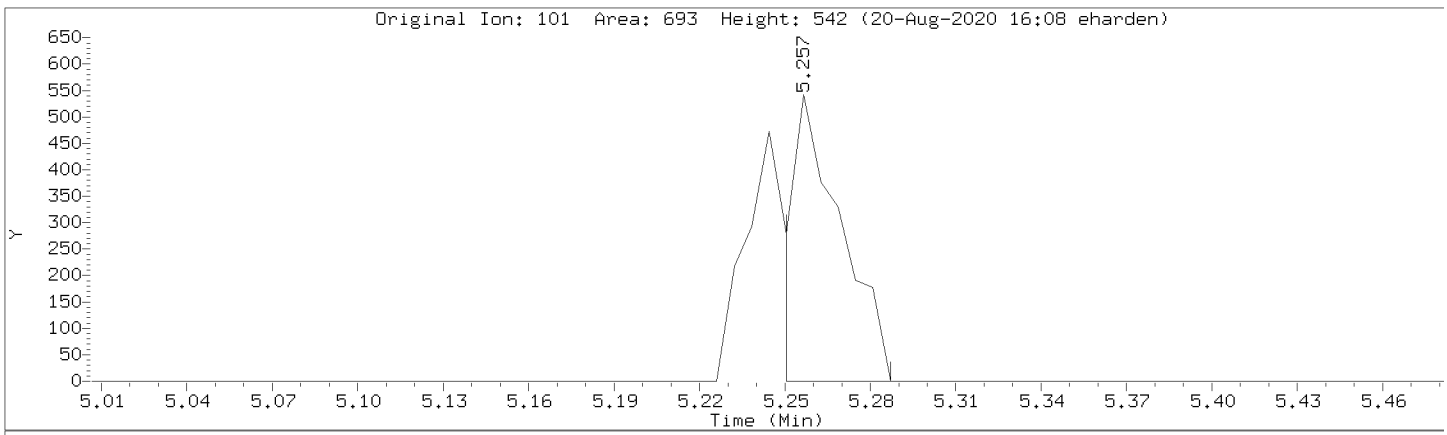
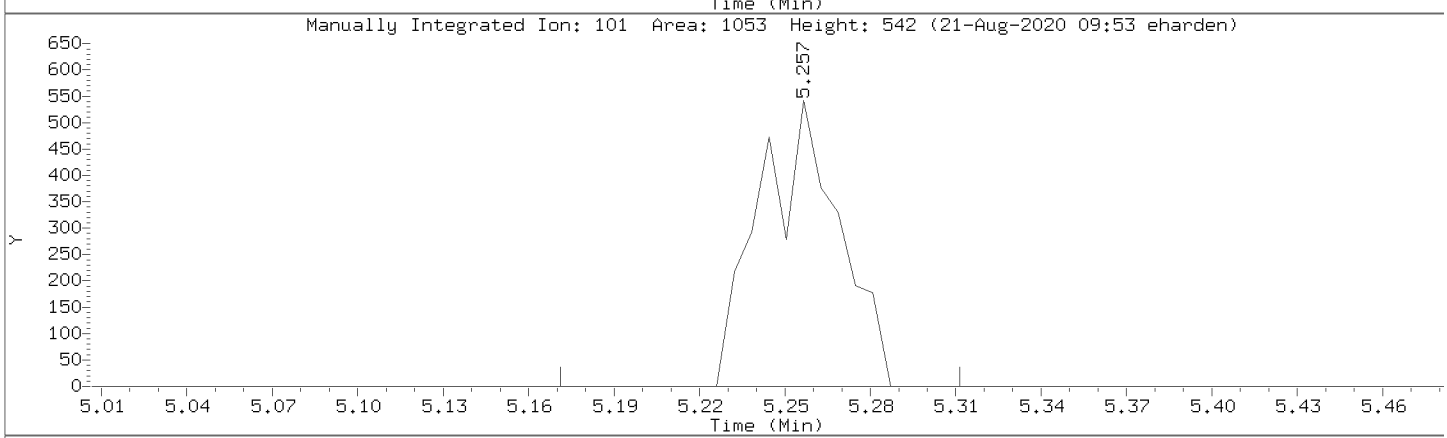
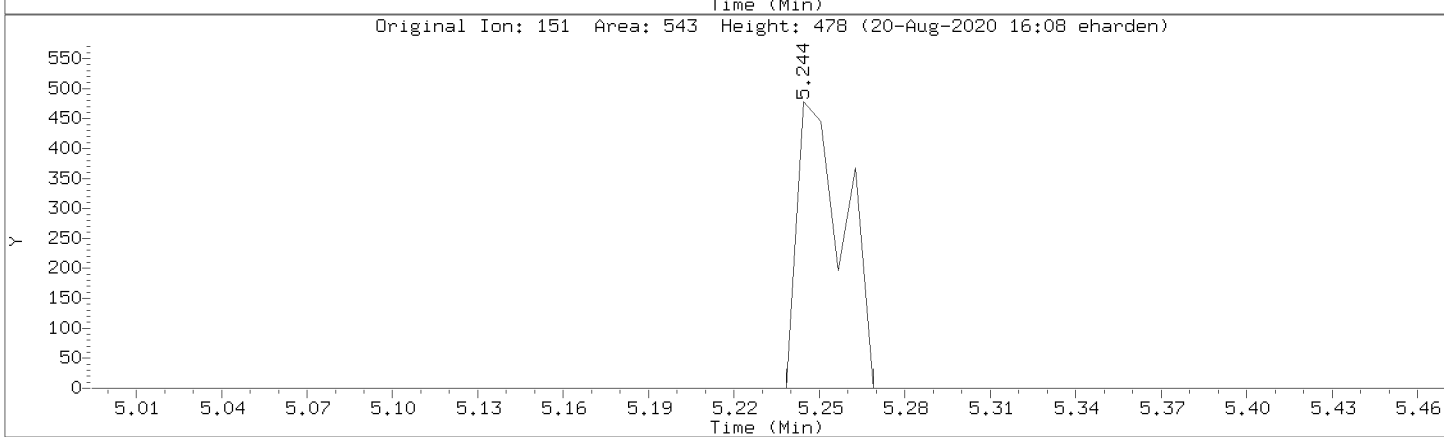
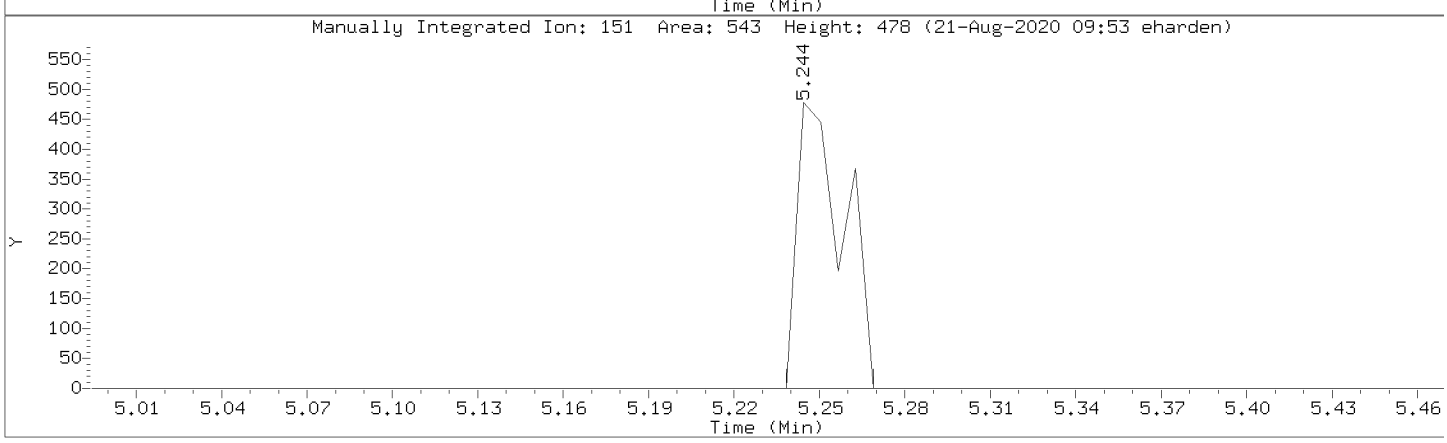
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: 1,1,2-Trichlorotrifluoroethane Review Code: LT
CAS Number: 76-13-1









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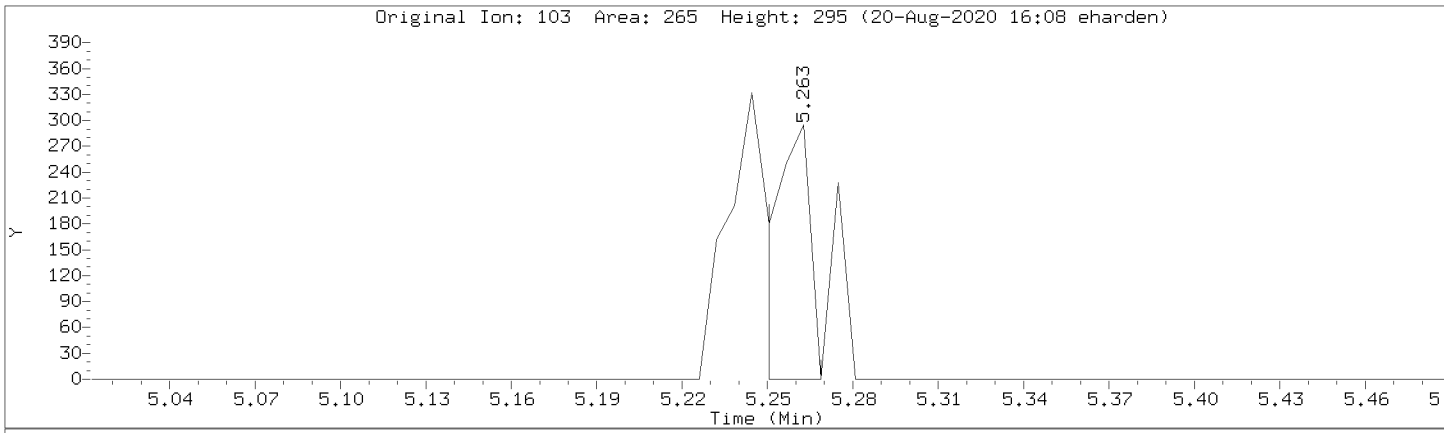
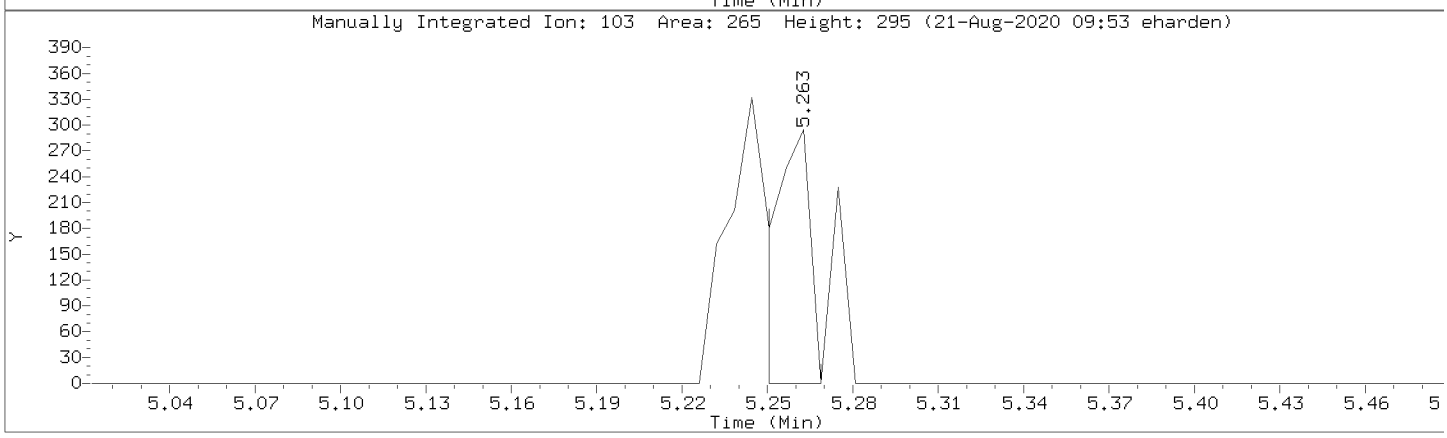
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2





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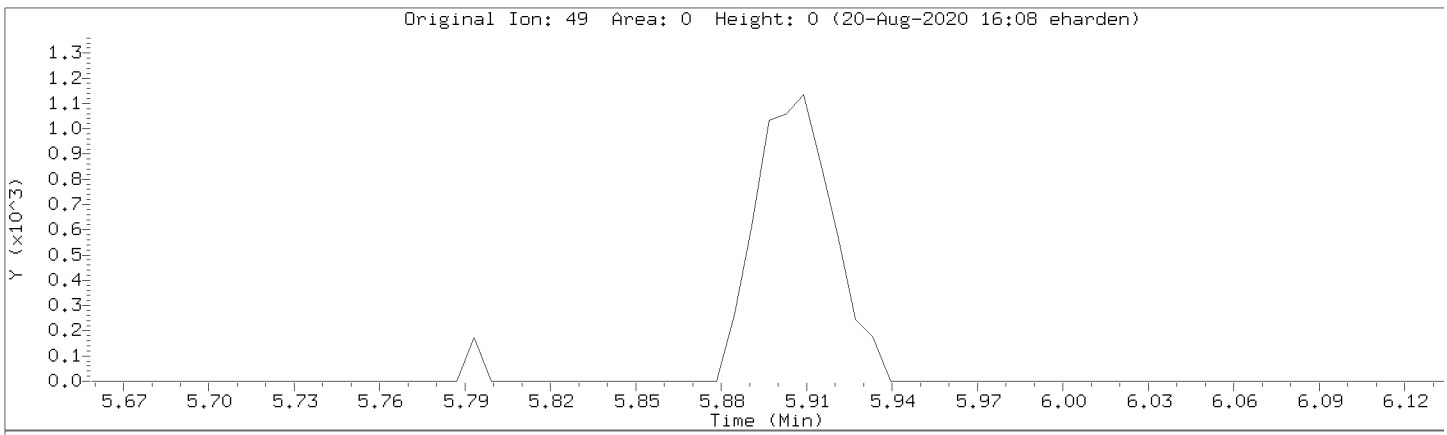
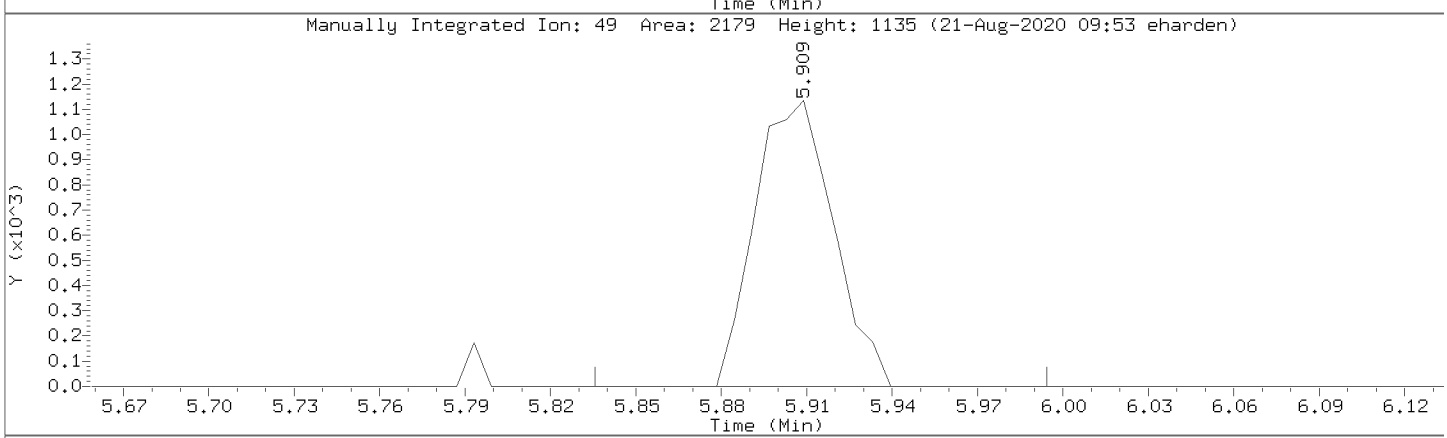
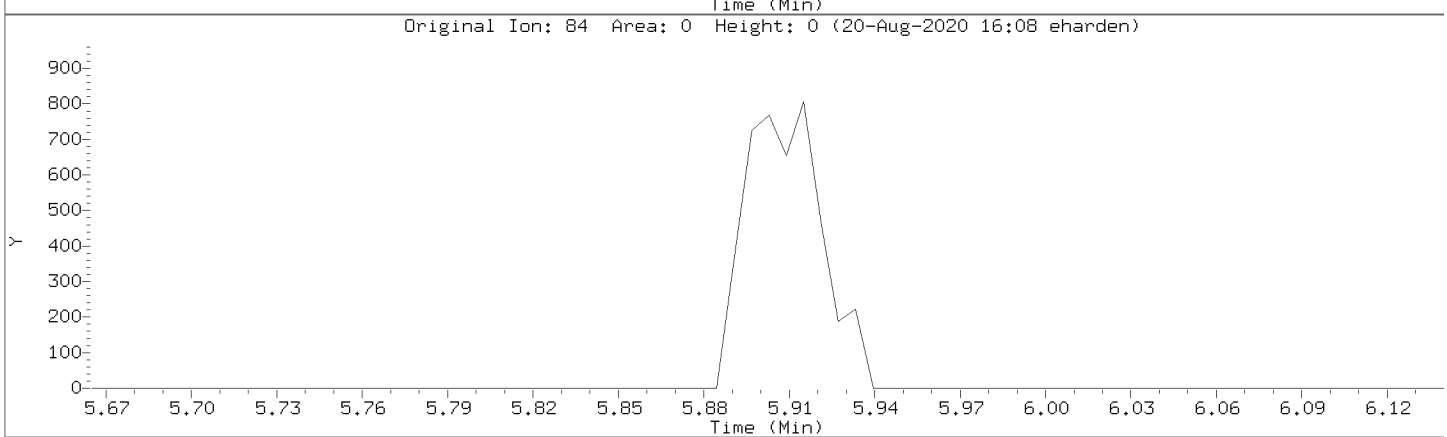
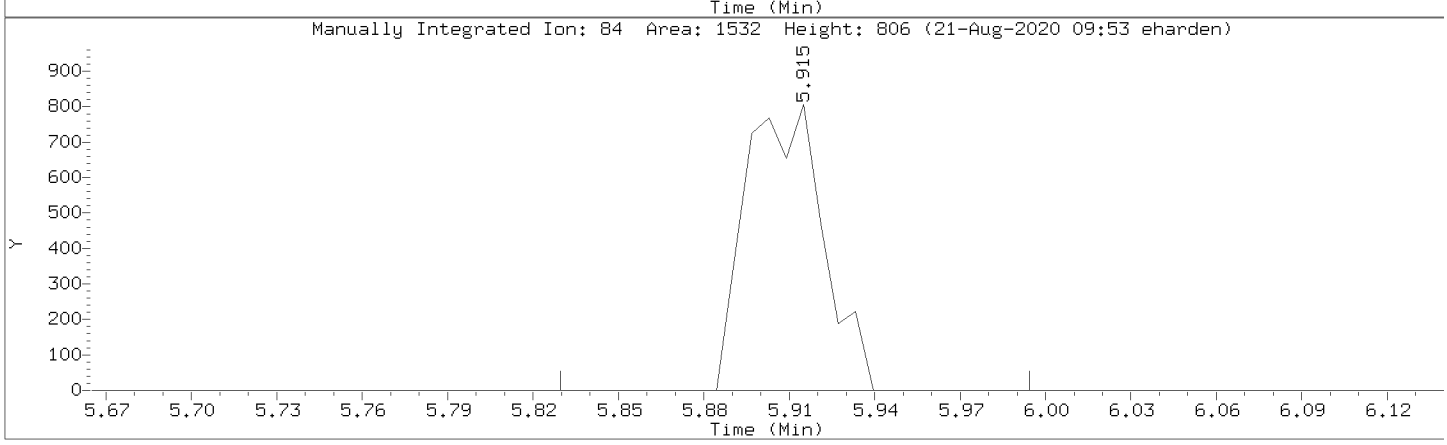
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2









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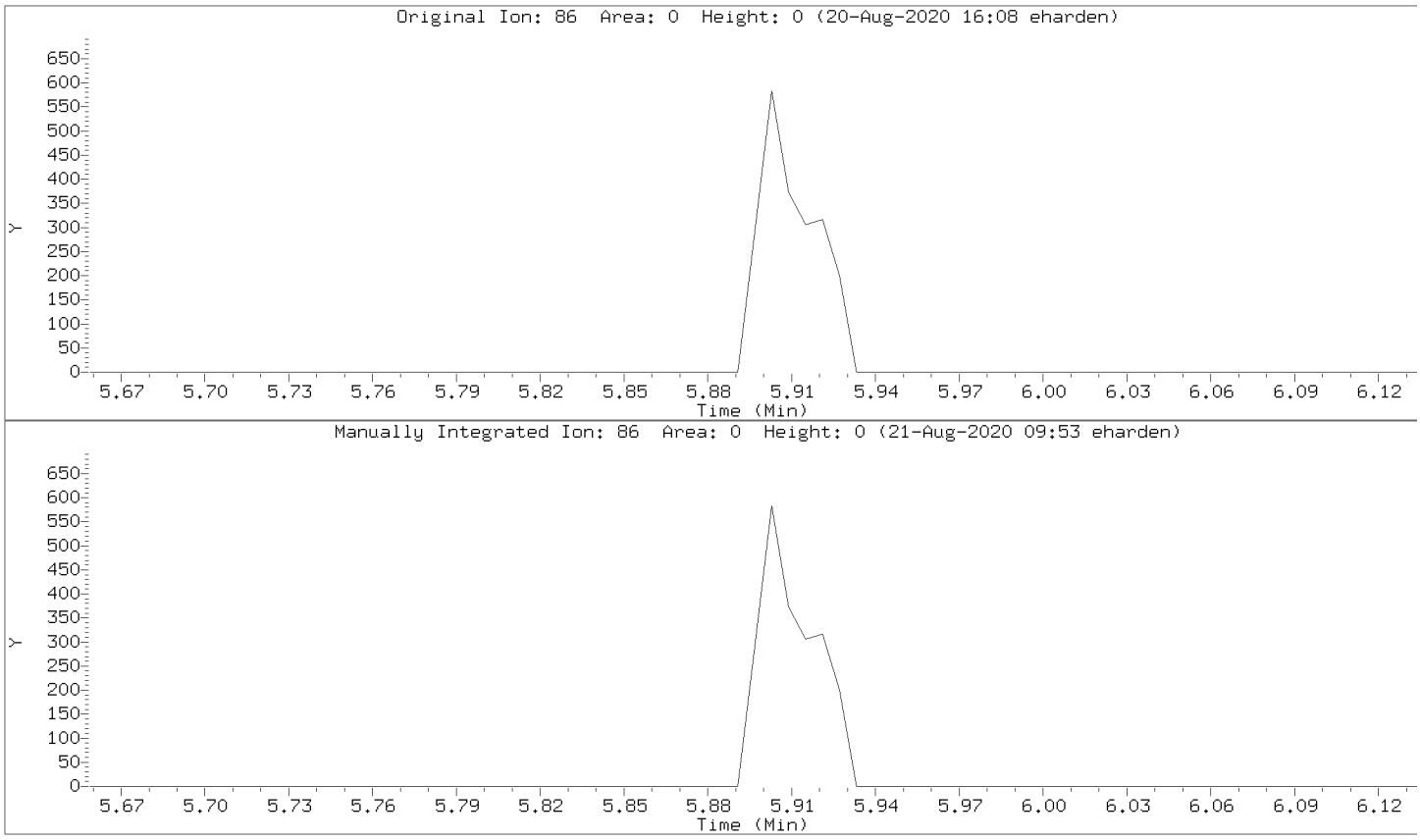
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2



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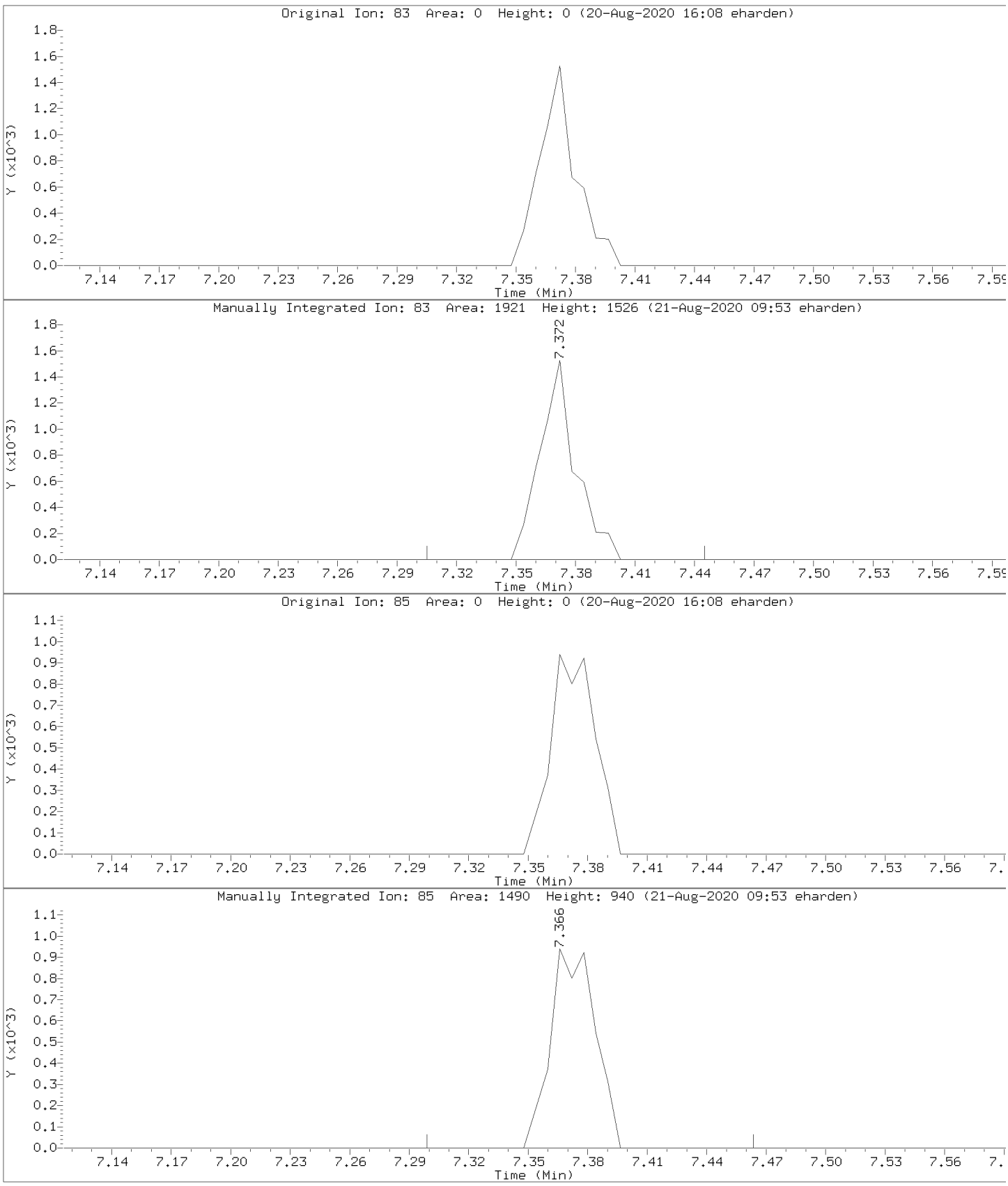
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3



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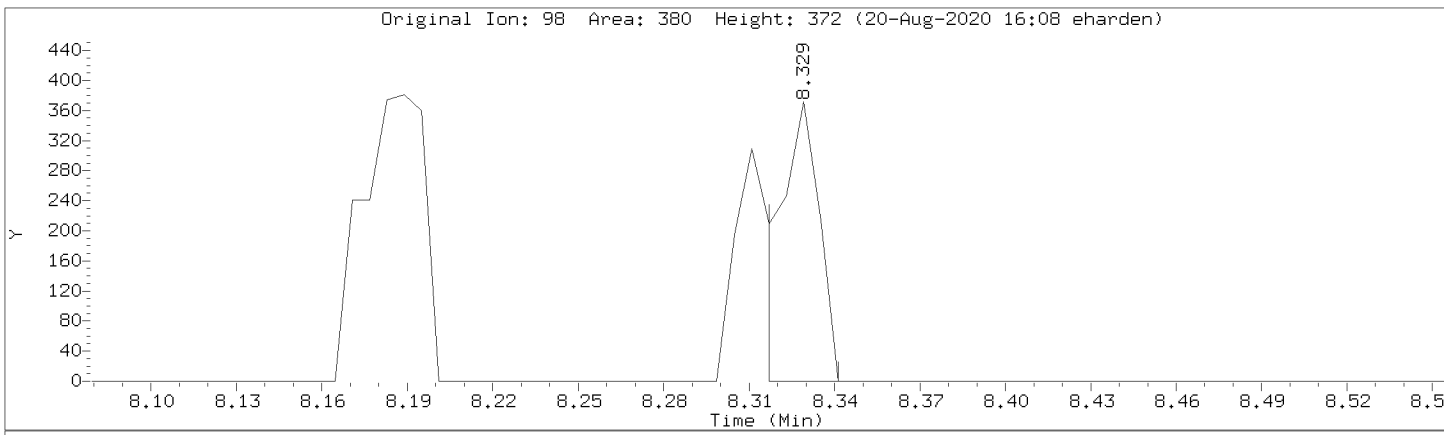
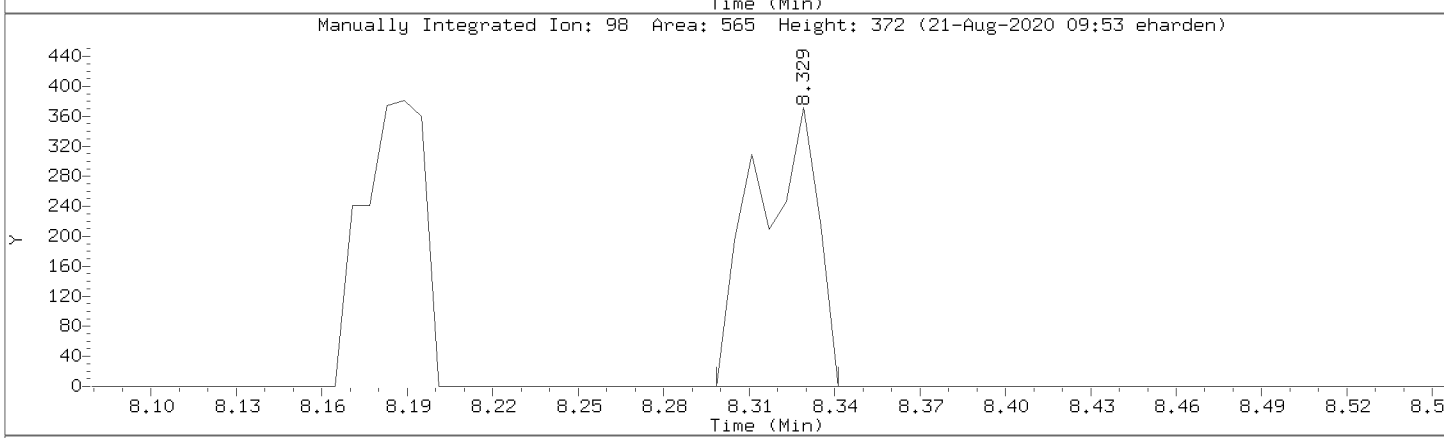
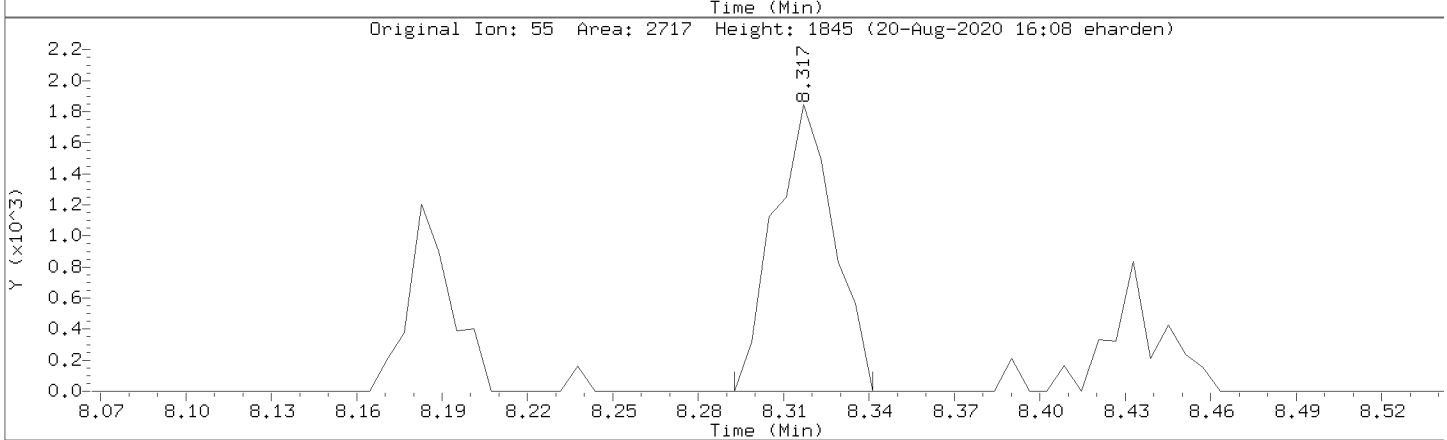
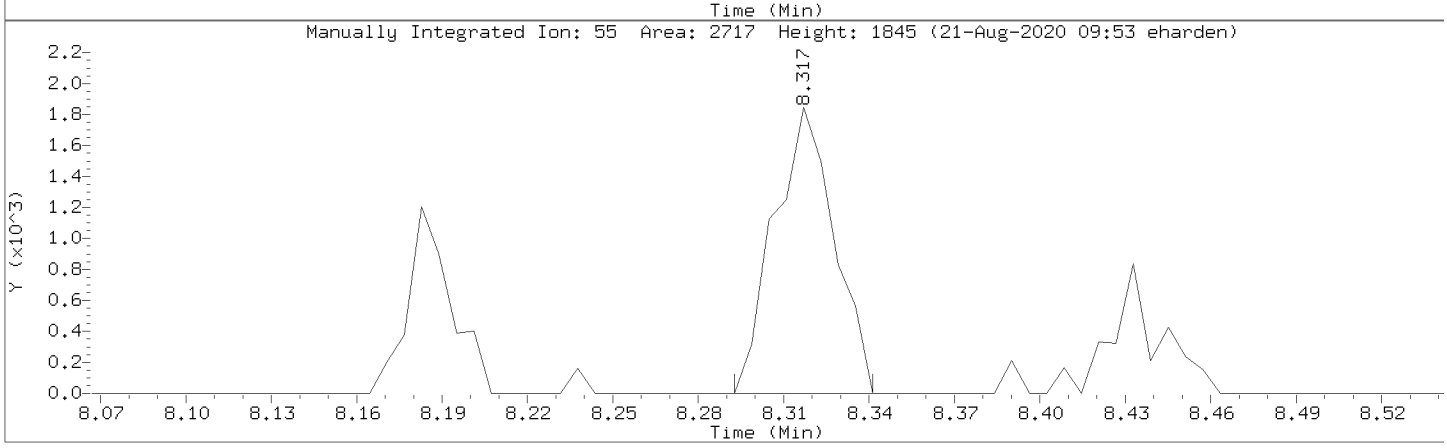
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Methylcyclohexane Review Code: LT
CAS Number: 108-87-2

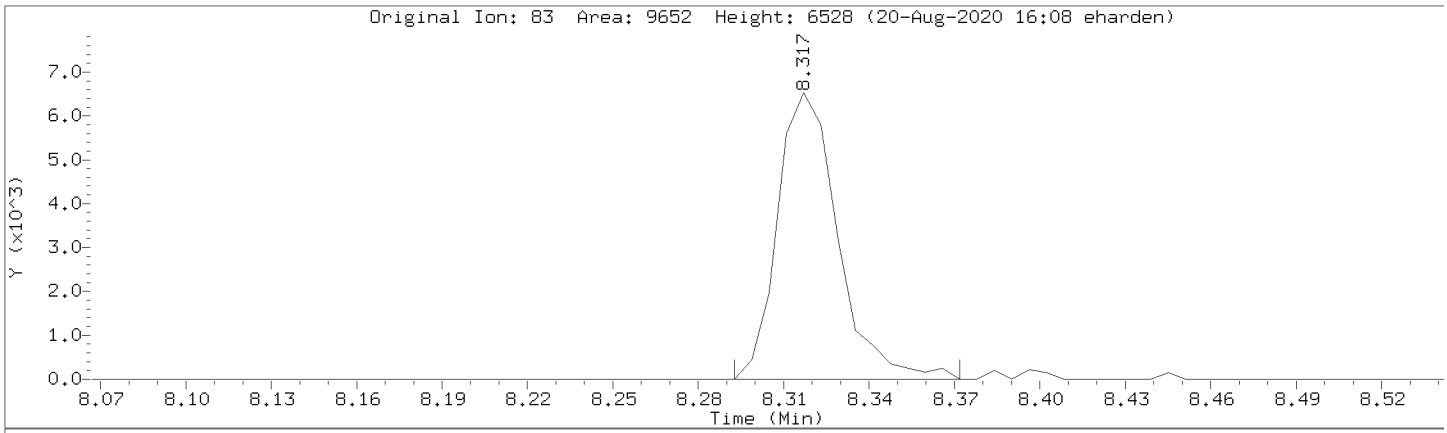


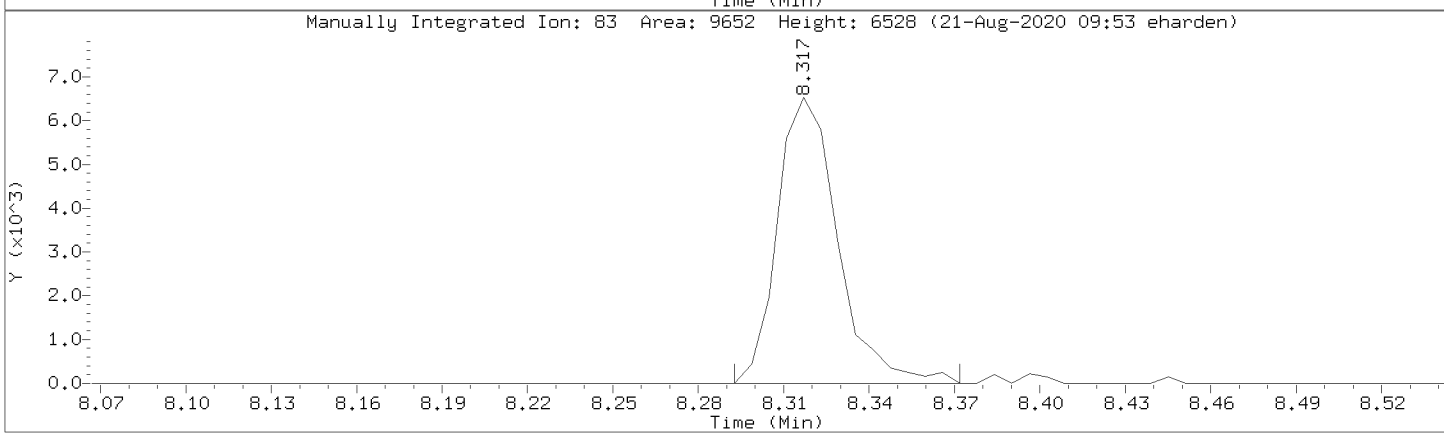






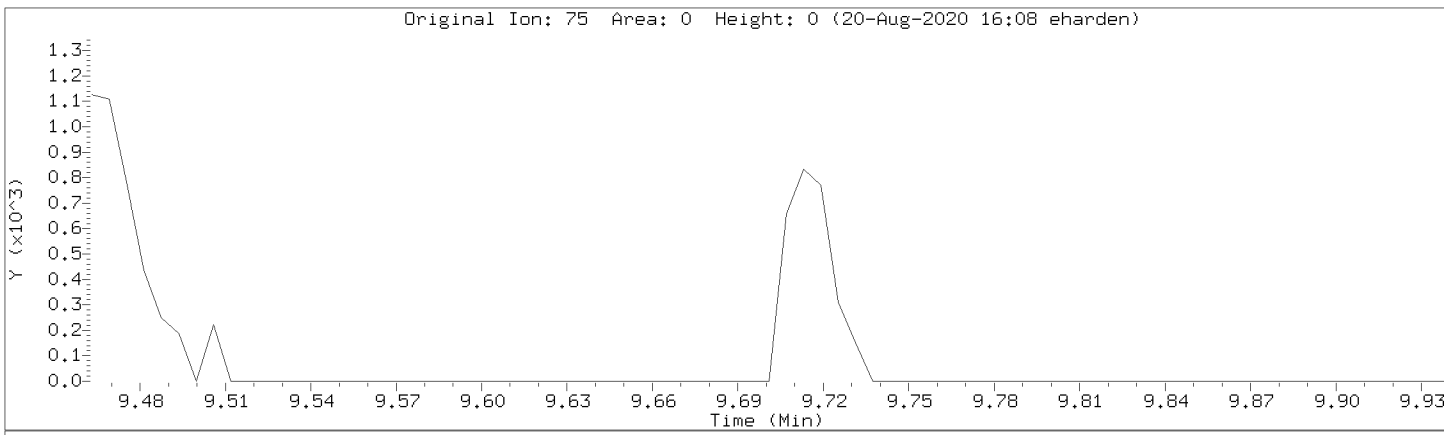
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

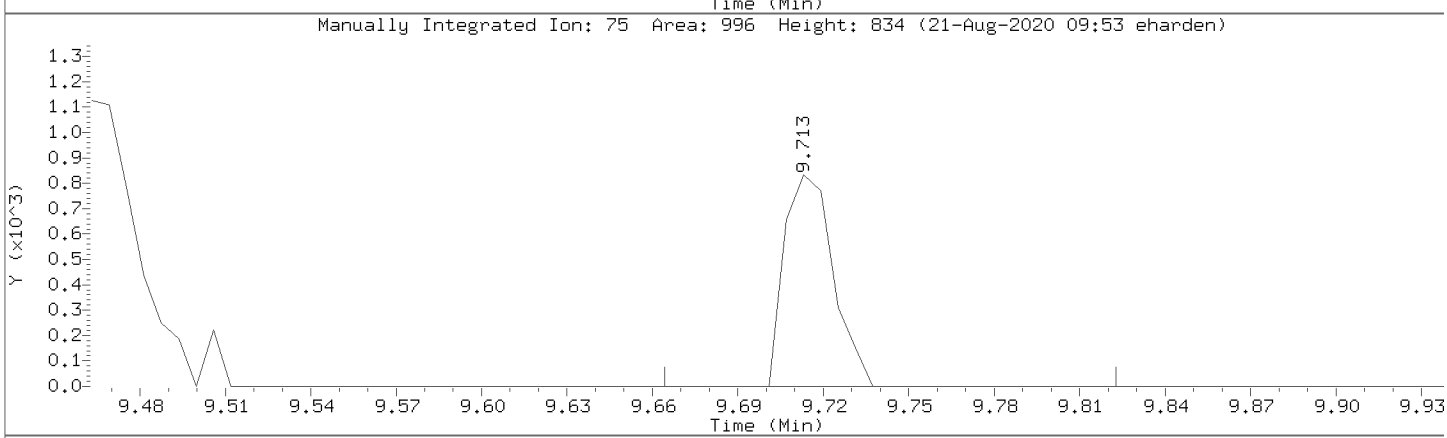


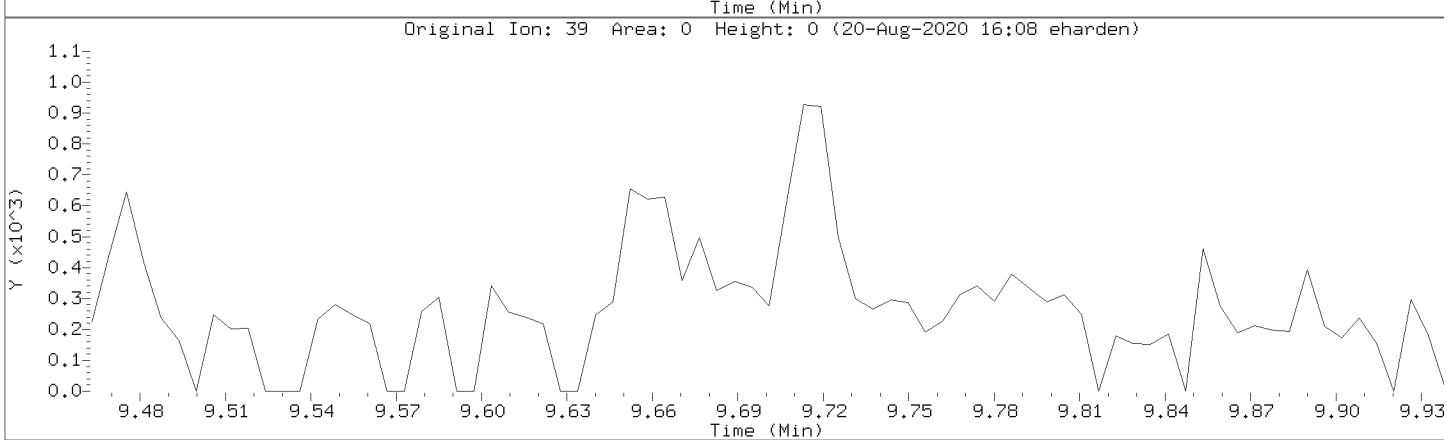


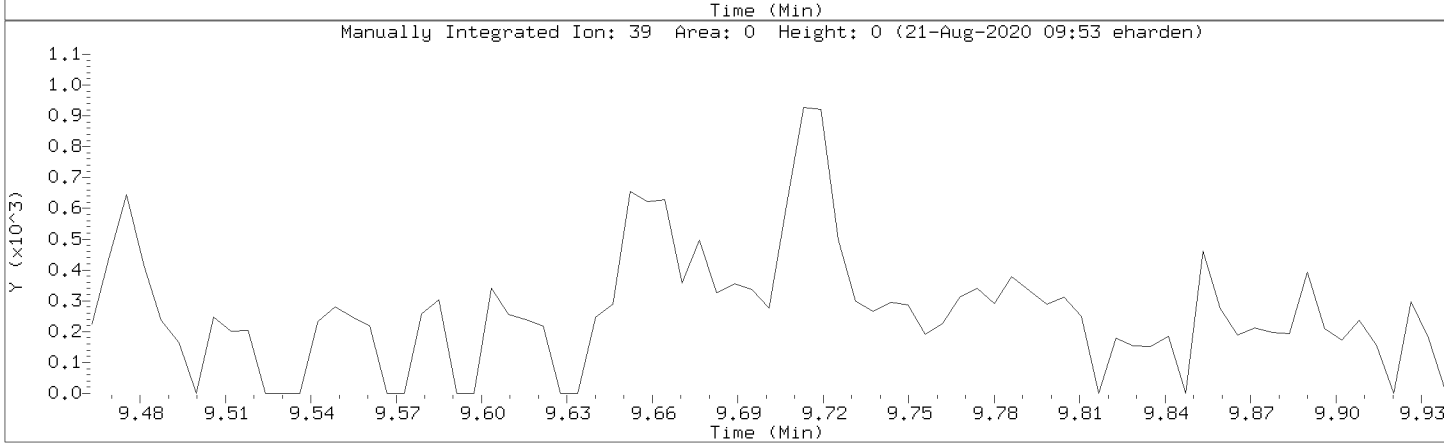
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_04.D
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: trans-1,3-Dichloropropene Review Code: NI
CAS Number: 10061-02-6









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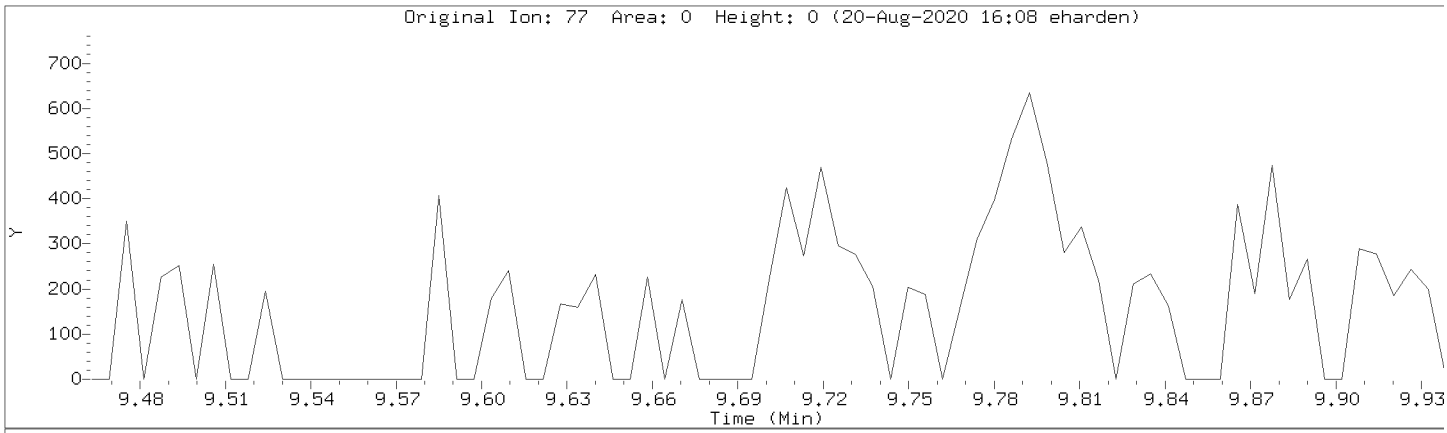
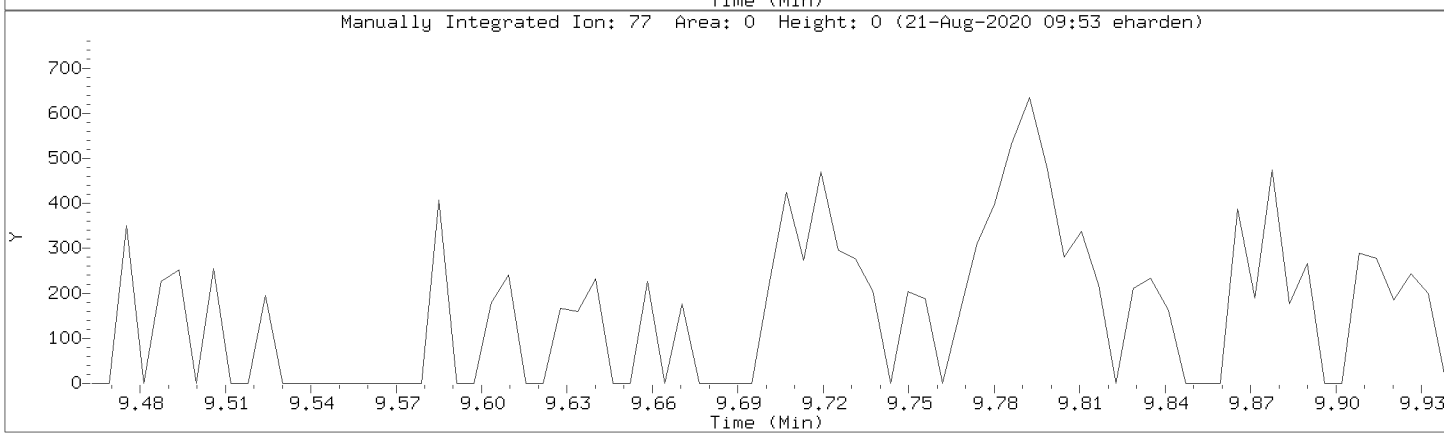
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2





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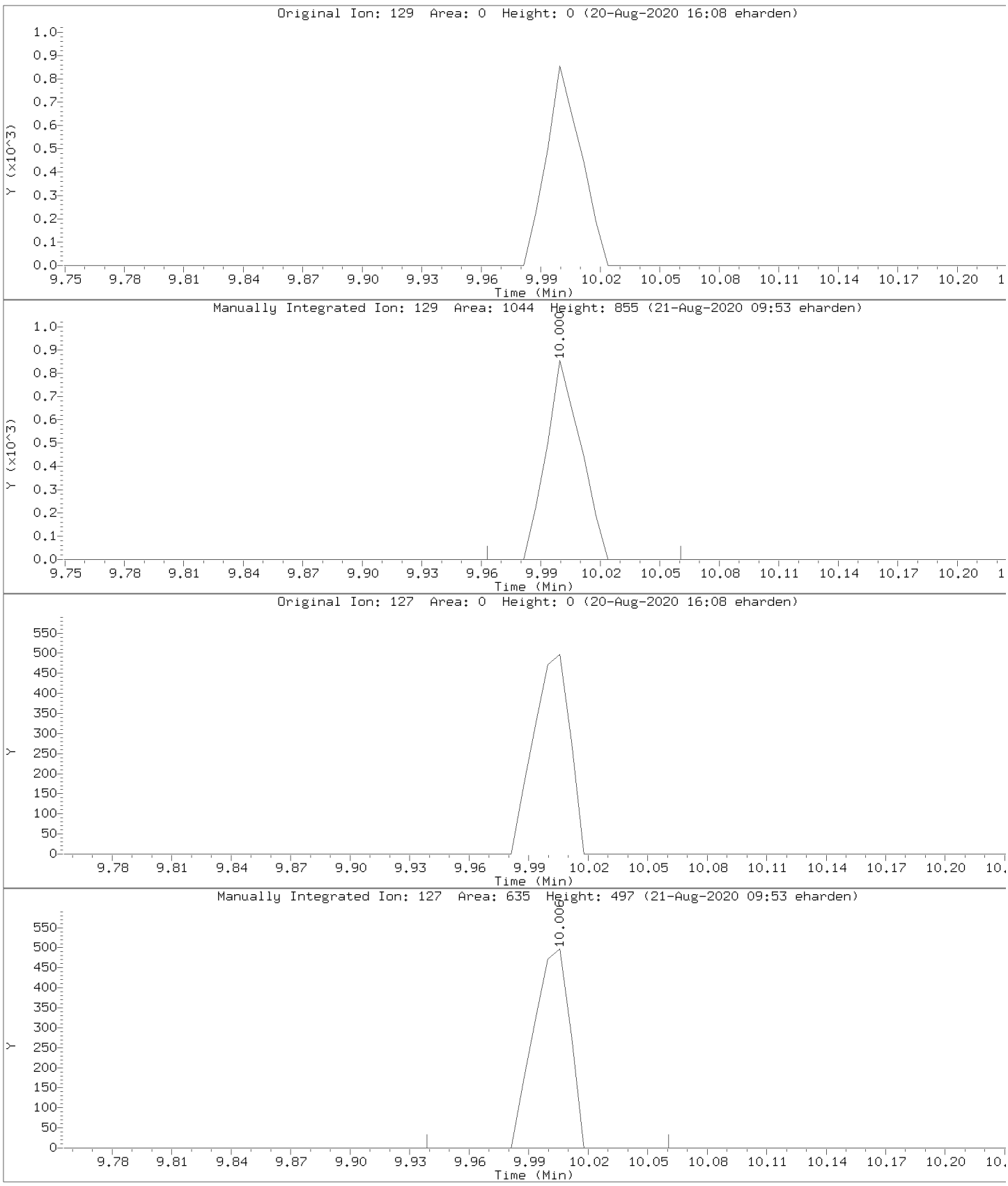
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Dibromochloromethane Review Code: NI
CAS Number: 124-48-1



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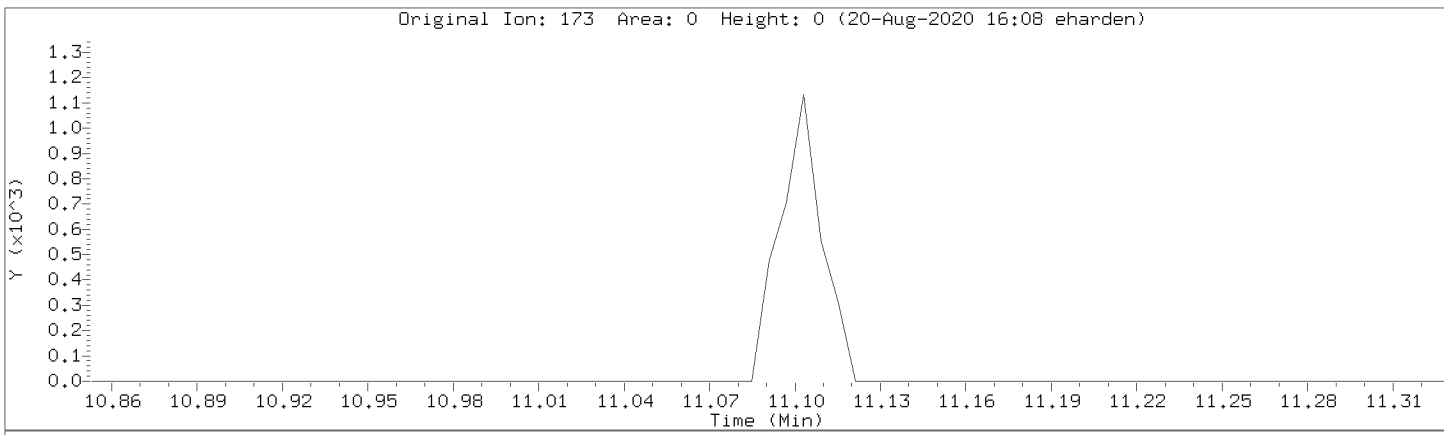
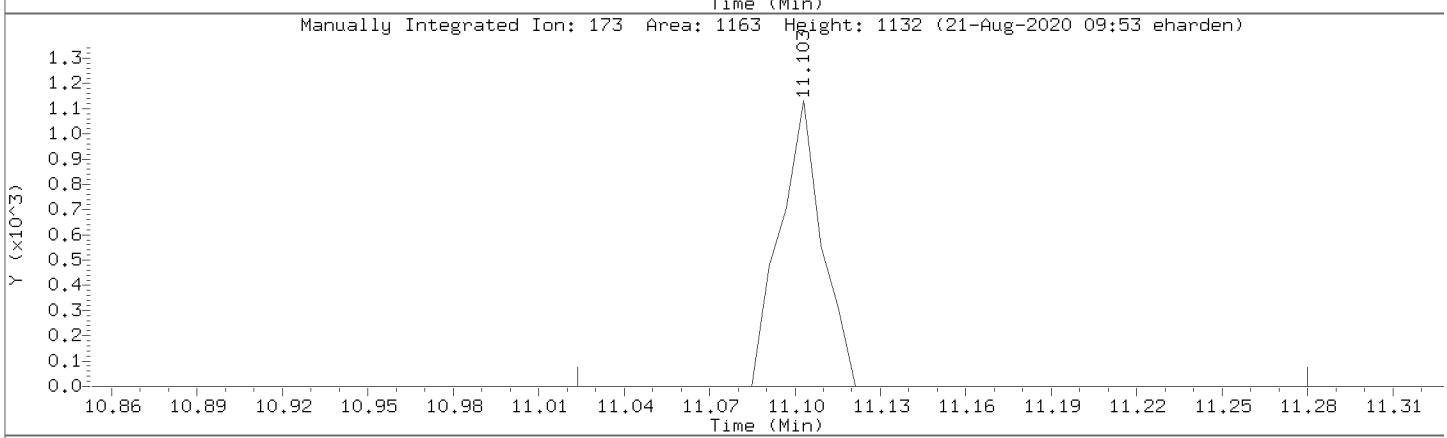
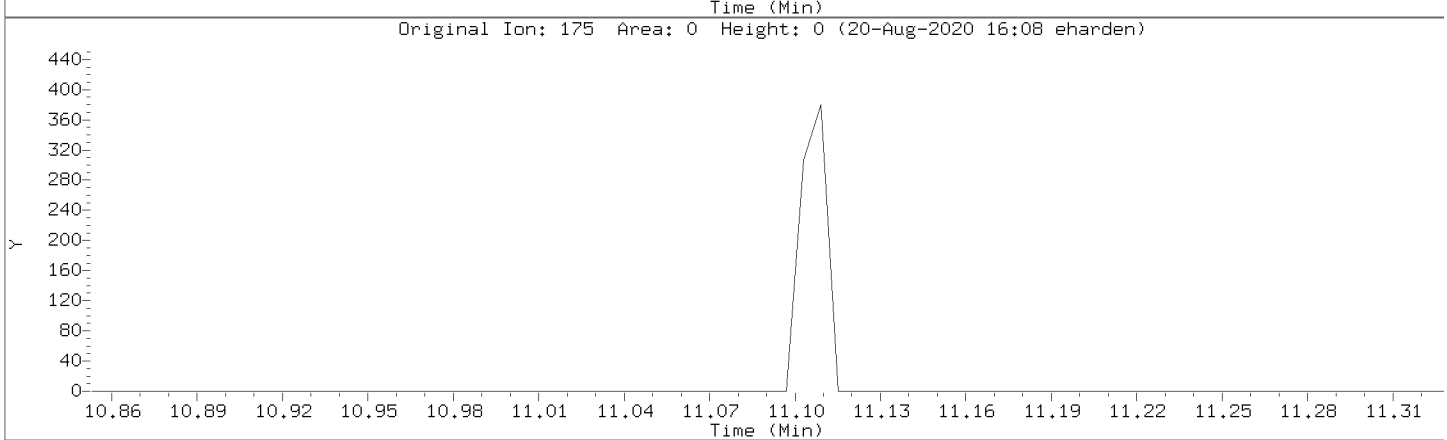
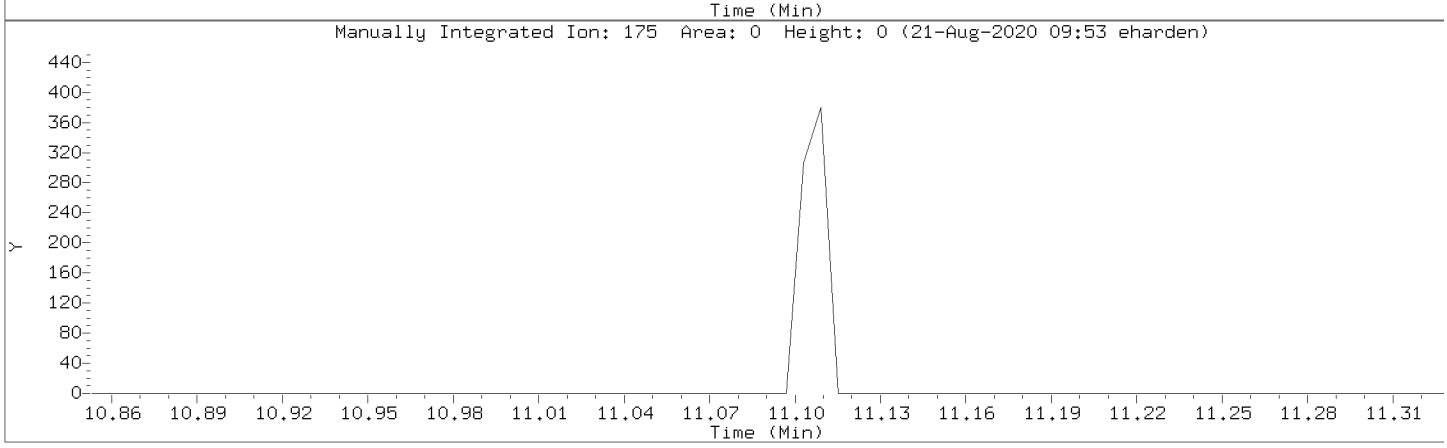
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2









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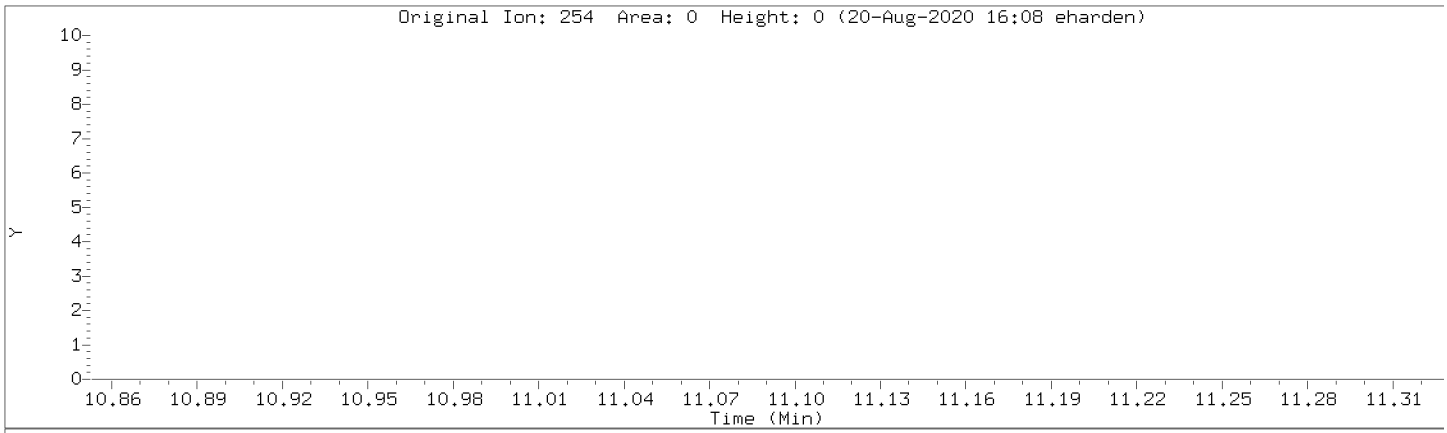
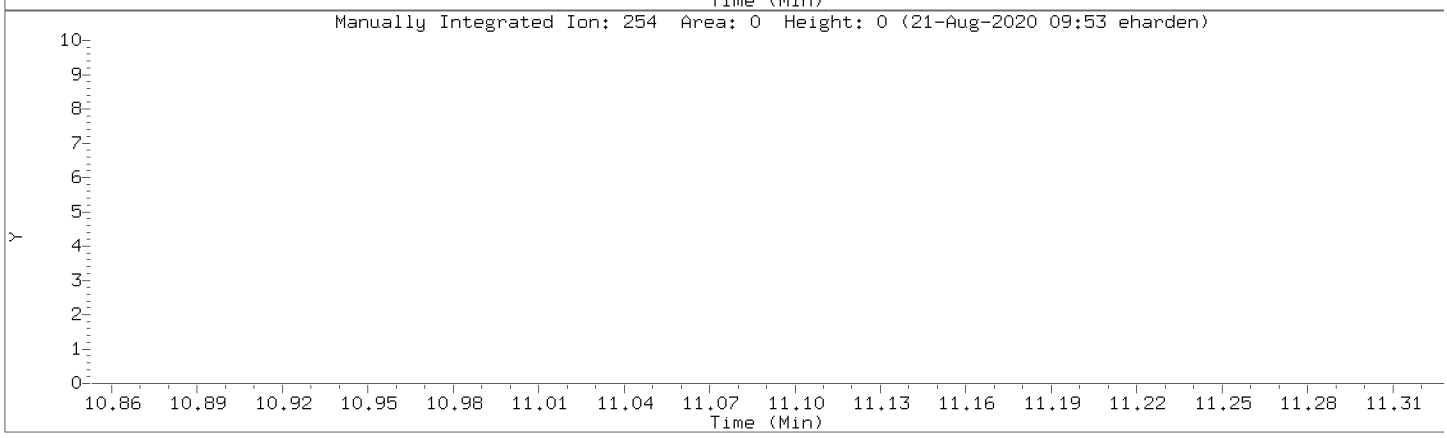
Lab Sample ID: CAL2





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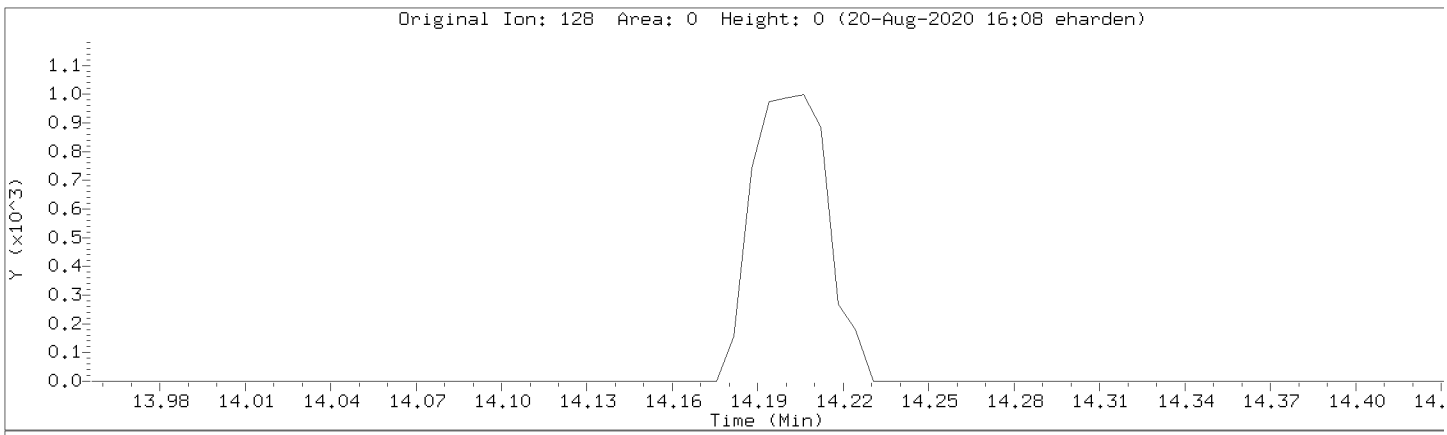
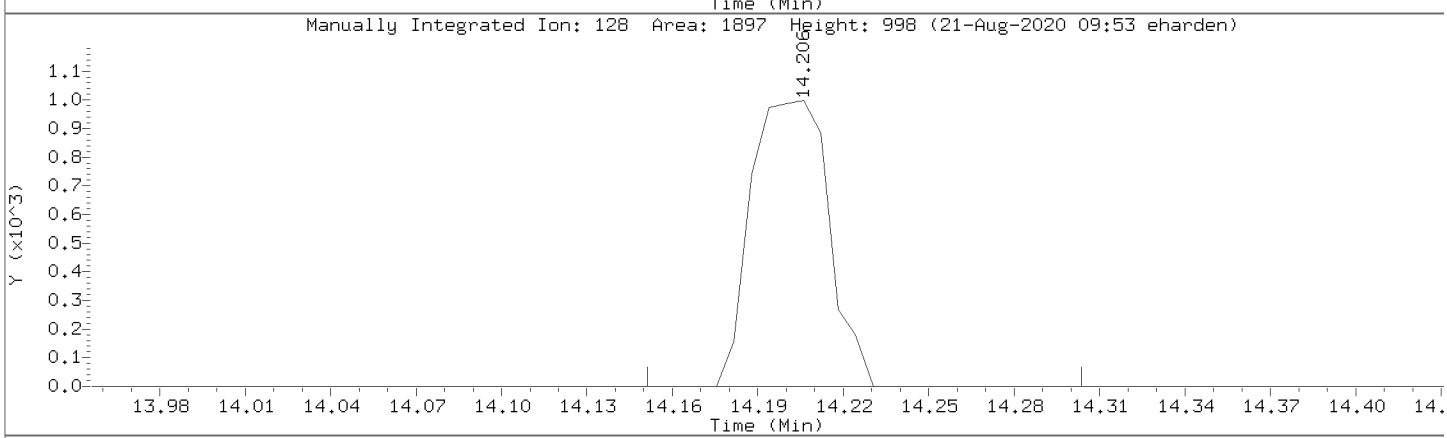
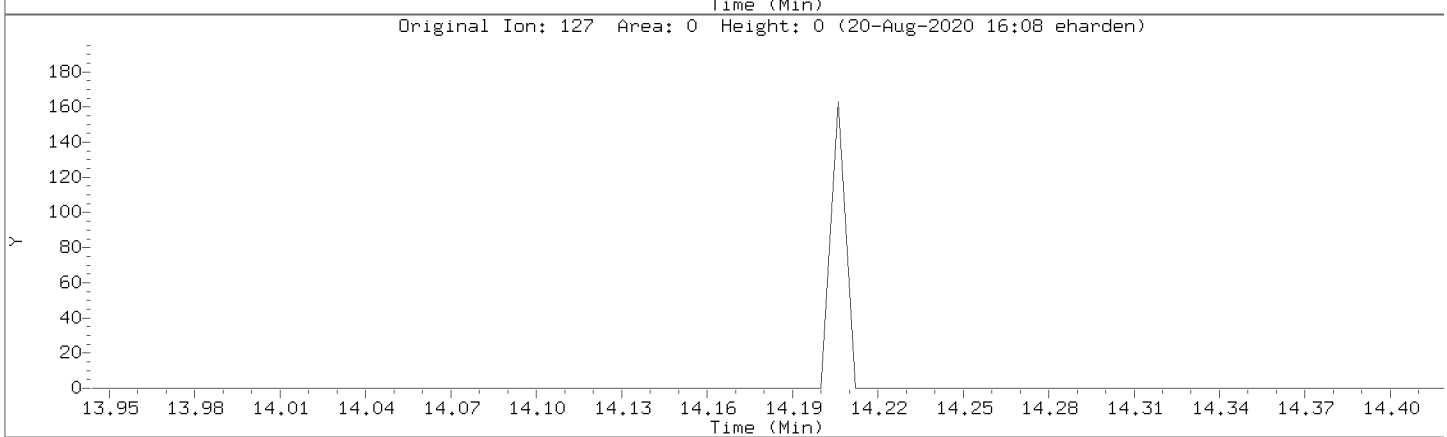
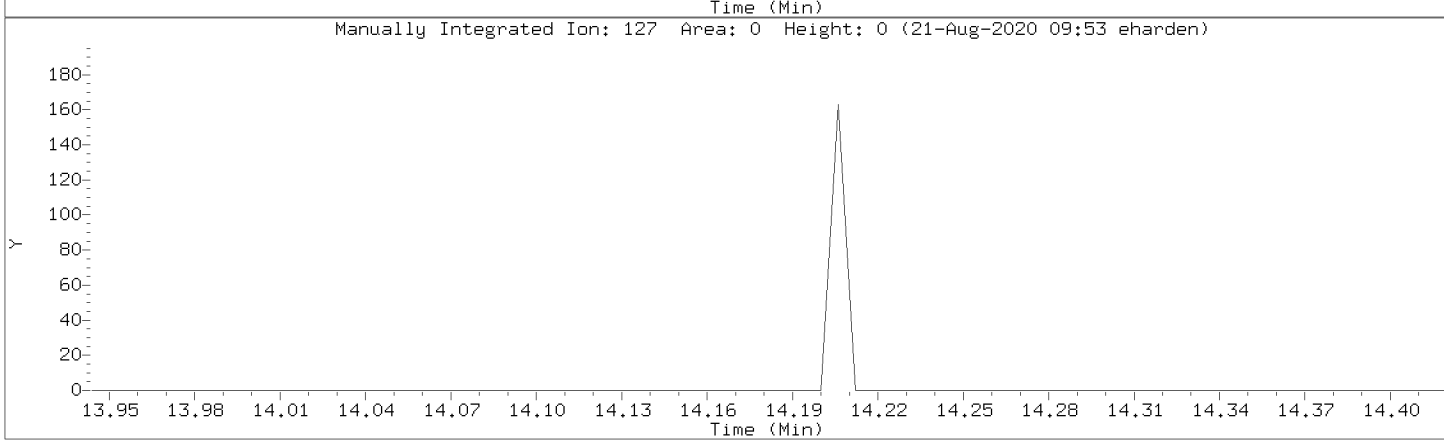
Injection Date: 20-AUG-2020 11:15
Instrument: 52mv02.i
Lab Sample ID: CAL2

Compound: Naphthalene Review Code: NI
CAS Number: 91-20-3









Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_05.D
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 20-AUG-2020 11:40
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal3,27239:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 11:40 Cal File: 082020_05.D
Als bottle: 3 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.226	(0.409)	2789	1.00000	1.10(M)	LT
2 Chloromethane	50	3.537	3.543	(0.450)	5128	1.00000	0.923	
3 Vinyl chloride	62	3.696	3.702	(0.470)	2738	1.00000	1.09	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	2410	1.00000	1.08	
5 Bromomethane	94	4.195	4.195	(0.534)	6425	1.00000	0.381	
6 Chloroethane	64	4.360	4.360	(0.555)	891	1.00000	0.409(H)	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	2057	1.00000	1.29	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	810	1.00000	0.924	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	2503	1.00000	0.884	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	1938	1.00000	1.04	
11 Carbon disulfide	76	5.293	5.293	(0.673)	6625	1.00000	1.06	
12 Iodomethane	142	5.433	5.439	(0.691)	1071	1.00000	5.29(M)	NI
13 Acrolein	56	5.671	5.659	(0.722)	662	2.00000	2.27	
14 Allyl chloride	76	5.780	5.787	(0.736)	1021	1.00000	1.17	
15 Methylene Chloride	49	5.908	5.902	(0.752)	4045	1.00000	1.20(M)	NI
16 Acetone	43	5.982	5.976	(0.761)	5308	2.00000	1.50	
17 Methyl acetate	43	6.073	6.067	(0.773)	4622	2.00000	1.59	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	1993	1.00000	1.04	
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	6.158	6.165	(0.784)	4160	1.00000	0.933(T)	
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	6.640	6.640	(0.845)	2223	1.00000	0.834	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	3668	1.00000	0.987	
	24 Acrylonitrile	53	6.744	6.738	(0.858)	1850	2.00000	2.29	
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	2850	1.00000	1.04	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	3397	1.00000	1.18	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	1299	1.00000	1.08	
	29 Cyclohexane	56	7.335	7.335	(0.882)	1942	1.00000	0.757	
	30 Chloroform	83	7.378	7.372	(0.939)	4835	1.00000	1.15(M)	NI
	31 Ethyl acetate	43	7.439	7.433	(0.946)	4793	2.00000	2.02	
	32 Carbon tetrachloride	117	7.506	7.512	(0.902)	2447	1.00000	0.806	
	33 Tetrahydrofuran	42	7.536	7.536	(0.959)	2431	2.00000	1.81	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	134298	50.0000	55.3	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	3365	1.00000	0.978	
	36 2-Butanone (MEK)	43	7.634	7.628	(0.971)	4274	2.00000	2.36	
	37 1,1-Dichloropropene	75	7.664	7.658	(0.922)	2129	1.00000	0.891(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	210970	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	6671	1.00000	0.865	
	40 Propionitrile	54	Compound Not Detected.						(D)
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	3260	2.00000	1.78	
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25649	50.0000	58.7	
	44 1,2-Dichloroethane	62	8.042	8.036	(1.023)	3985	1.00000	1.21	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	3749	1.00000	0.954	
	46 Trichloroethene	130	8.317	8.317	(1.000)	2071	1.00000	0.982	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	301510	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	802	1.00000	0.802	
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.670	8.670	(1.043)	1683	1.00000	0.937	
	51 1,2-Dichloropropane	63	8.743	8.737	(1.051)	2197	1.00000	0.998	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	2455	1.00000	0.776	
	53 Methyl methacrylate	69	8.829	8.823	(1.062)	871	1.00000	1.43(TH)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	1689	2.00000	3.22	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	2472	1.00000	0.804	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	322180	50.0000	49.6	
	58 Toluene	91	9.414	9.414	(1.132)	7222	1.00000	0.960	
	59 2-Nitropropane	43	9.609	9.603	(1.155)	1386	1.00000	1.35(MH)	LT
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	2471	1.00000	0.805(M)	NI
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	1805	1.00000	0.983	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	1570	1.00000	0.810(M)	WP
	64 1,1,2-Trichloroethane	83	9.841	9.847	(1.183)	1831	1.00000	0.961	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	2212	1.00000	0.869	
	66 1,3-Dichloropropane	76	10.066	10.060	(1.210)	2595	1.00000	0.893	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	2135	1.00000	0.978	
	68 2-Hexanone	43	10.280	10.280	(1.236)	3979	2.00000	1.56	
	69 Ethylbenzene	91	10.560	10.554	(1.000)	5759	1.00000	0.823	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	267604	50.0000		
	71 Chlorobenzene	112	10.572	10.578	(1.001)	4923	1.00000	0.954	
	72 1,1,1,2-Tetrachloroethane	131	10.603	10.609	(1.004)	2420	1.00000	1.11	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	7396	2.00000	1.41	
	74 o-Xylene	106	10.987	10.993	(1.040)	1785	1.00000	0.729	
	75 Styrene	104	11.036	11.029	(1.045)	2626	1.00000	0.641	
	76 Bromoform	173	11.103	11.103	(1.051)	2312	1.00000	0.956(M)	NI

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.231	11.225	(1.063)	2647	1.00000	0.712	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	104502	50.0000	47.6	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	1137	1.00000	1.29	
80 n-Propylbenzene	91	11.529	11.523	(1.092)	6737	1.00000	0.785	
81 Bromobenzene	156	11.584	11.578	(1.097)	2261	1.00000	0.825	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	2955	1.00000	1.03(H)	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	3733	1.00000	0.775	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	1264	1.00000	0.680	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	1146	1.00000	0.628	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	3865	1.00000	0.624	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	2680	1.00000	0.912	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	456	1.00000	0.662(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	3605	1.00000	0.760	
91 1,2,4-Trimethylbenzene	105	11.974	11.968	(0.970)	3078	1.00000	0.634	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	3627	1.00000	0.628	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	3605	1.00000	0.760	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	3270	1.00000	0.850	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	145817	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	4290	1.00000	1.00	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	4060	1.00000	0.799	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	4197	1.00000	1.00	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	659	1.00000	1.38	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	1405	1.00000	1.08	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	2610	1.00000	0.944	
102 Naphthalene	128	14.200	14.193	(1.151)	3463	1.00000	0.729	
103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	2401	1.00000	0.899	

QC Flag Legend

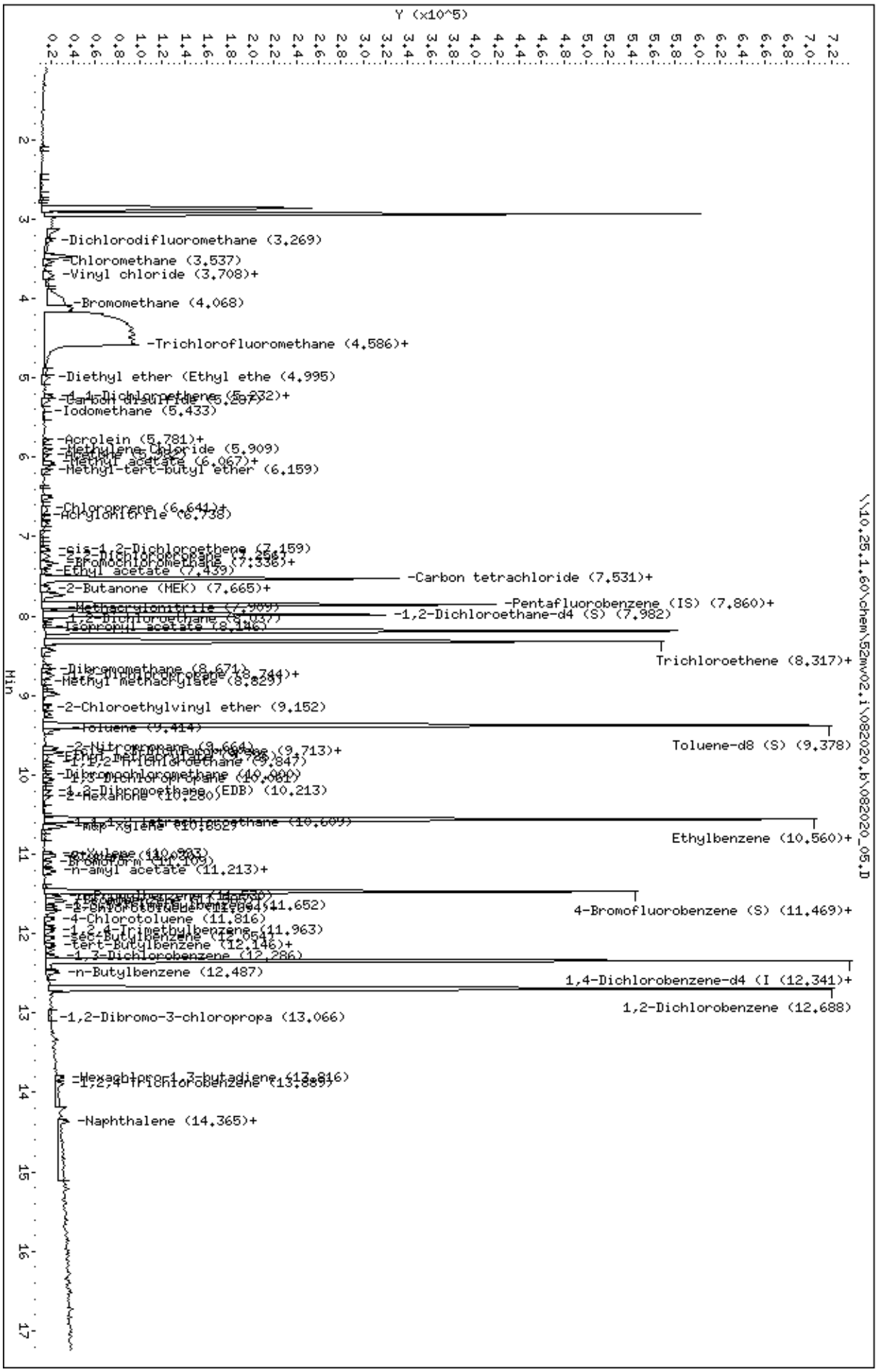
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_05.D
Date : 20-AUG-2020 11:40
Client ID: CAL3
Sample Info: CAL3,27239:1
Purge Volume: 5.0
Column phase: RTX-VMS

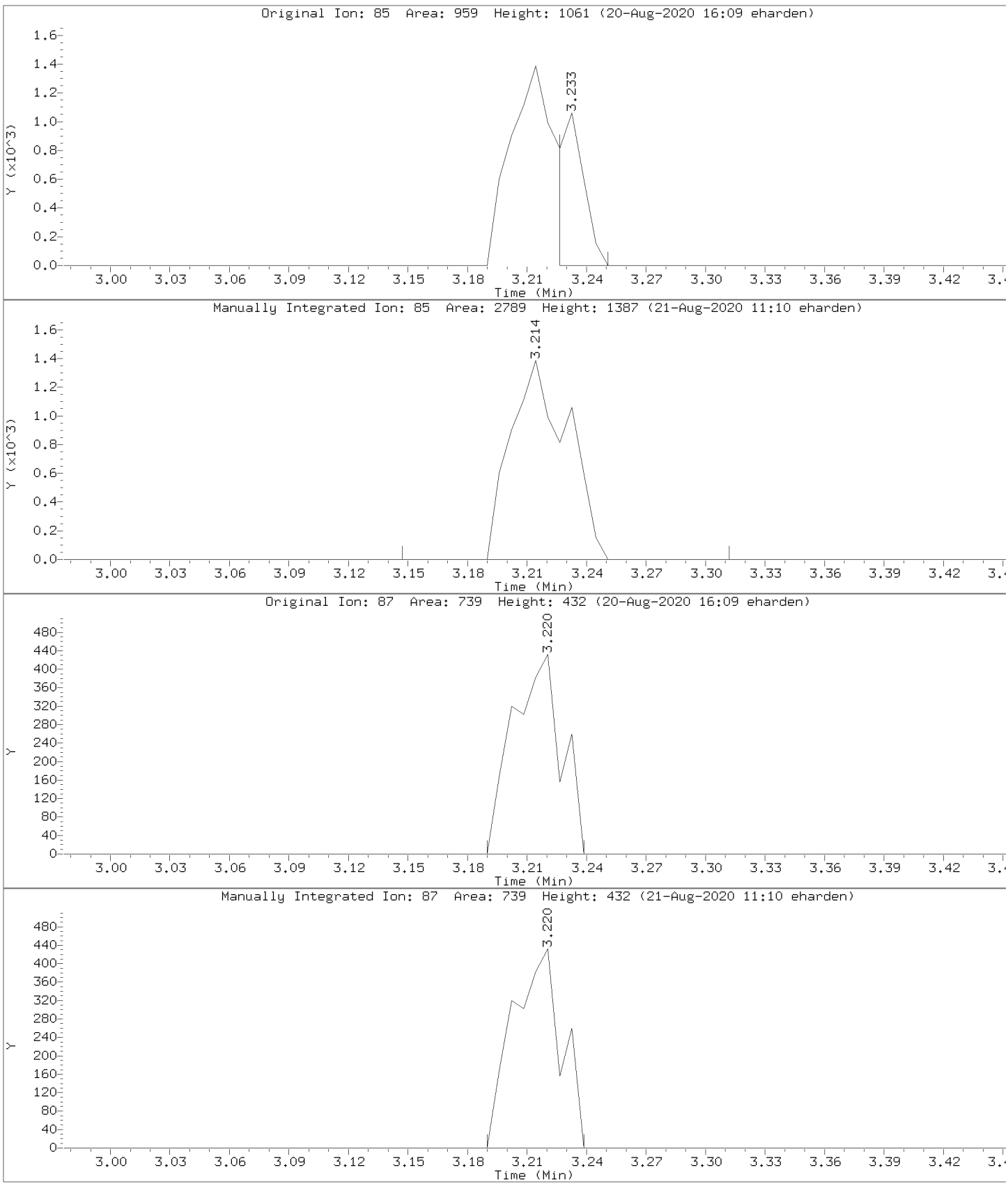
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Page 4

Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_05.D
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



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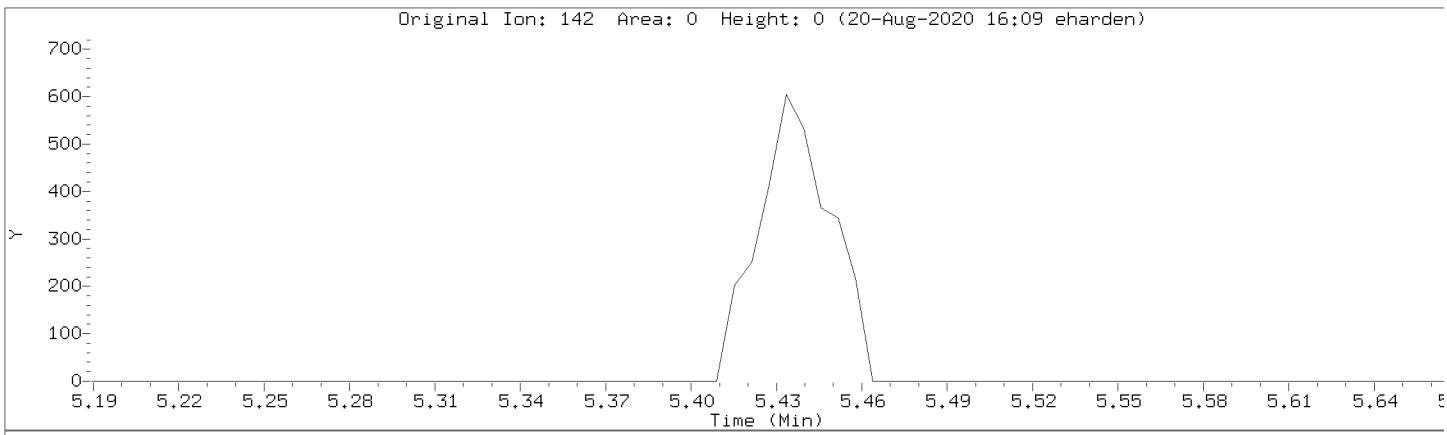
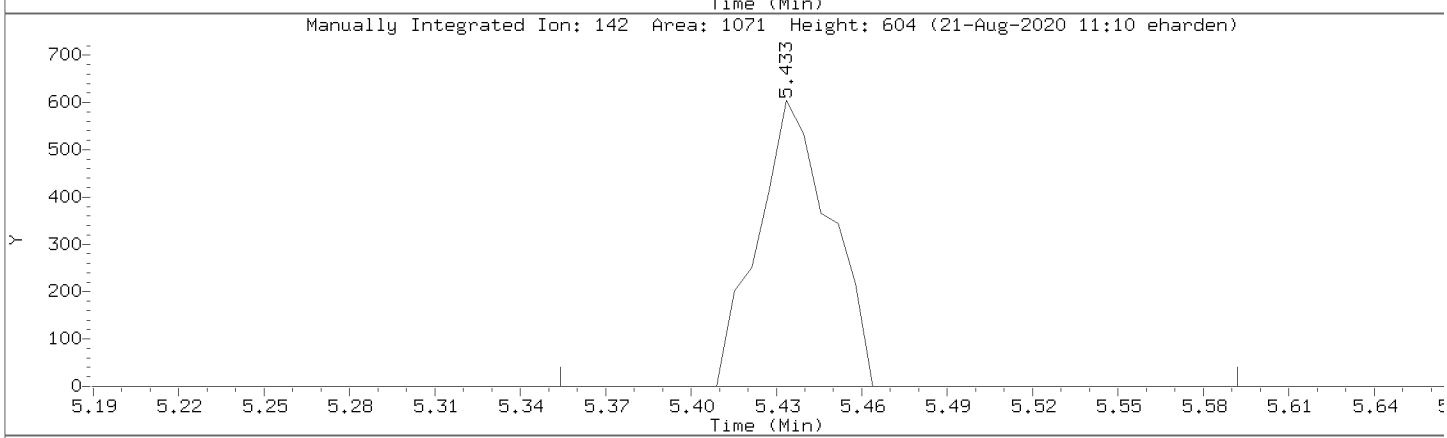
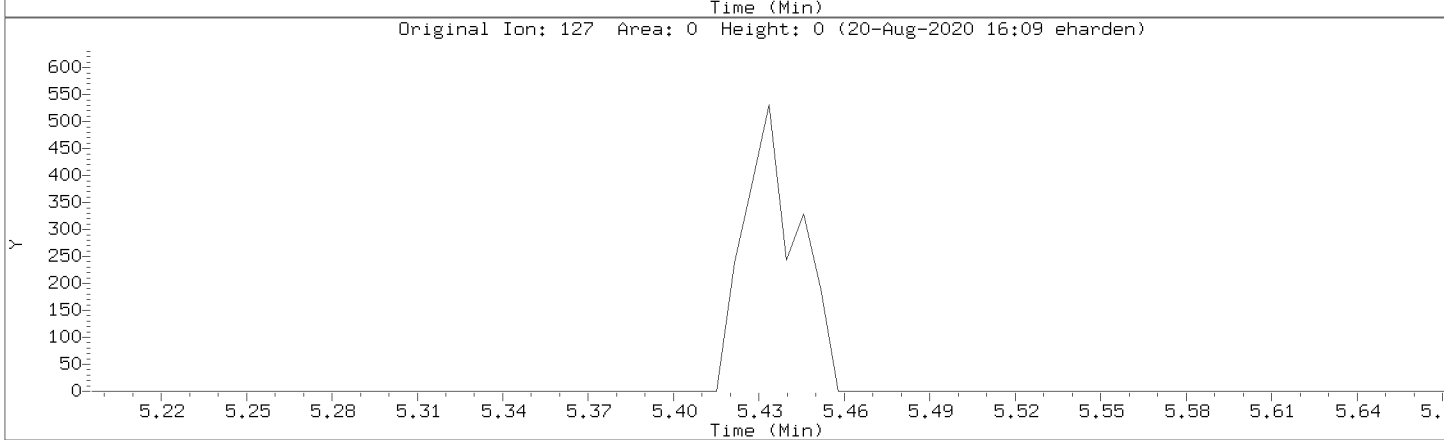
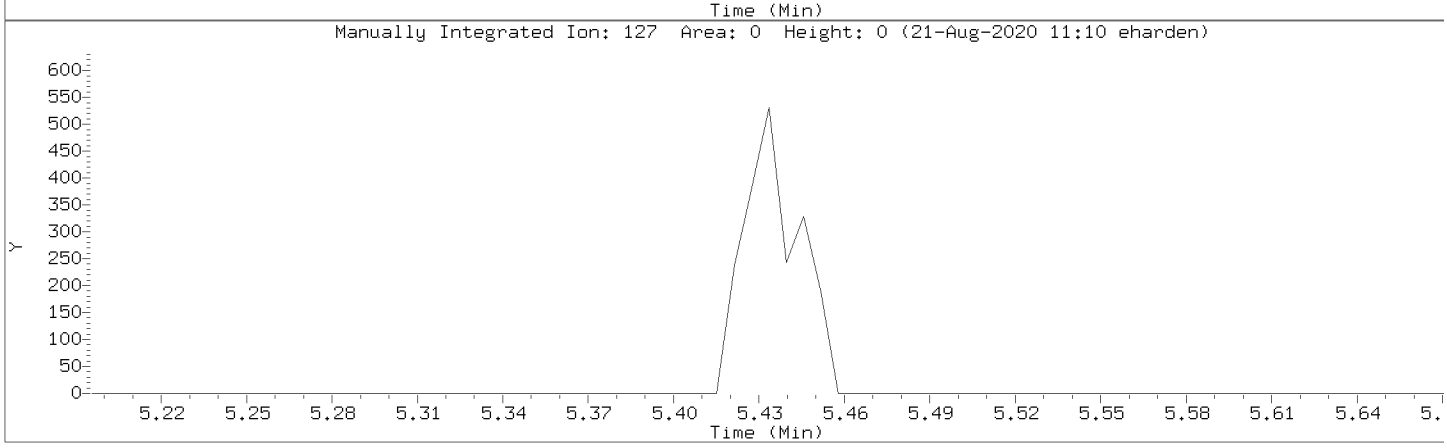
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4

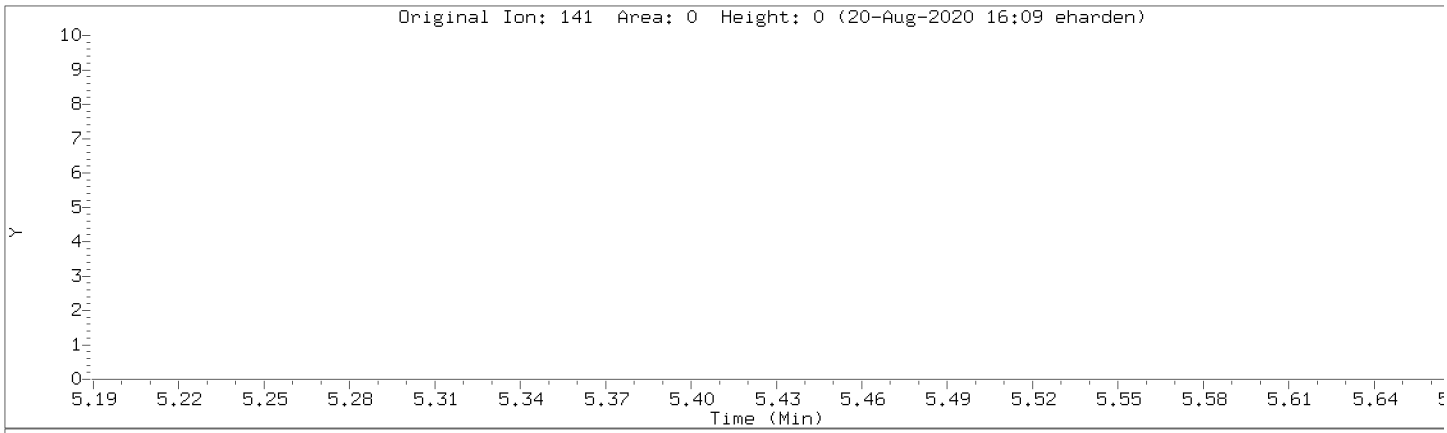


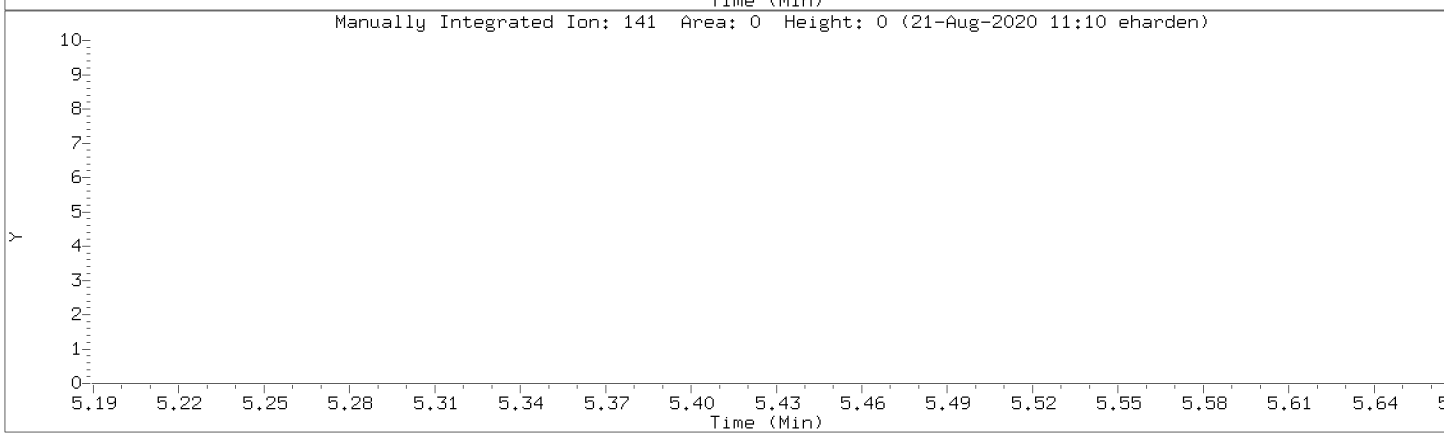






Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_05.D
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3





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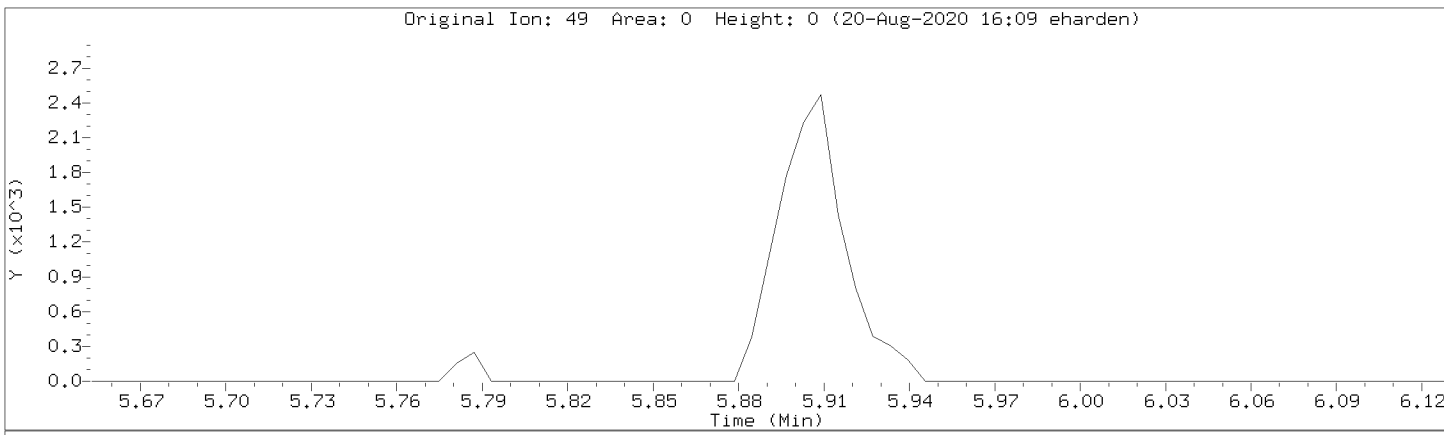
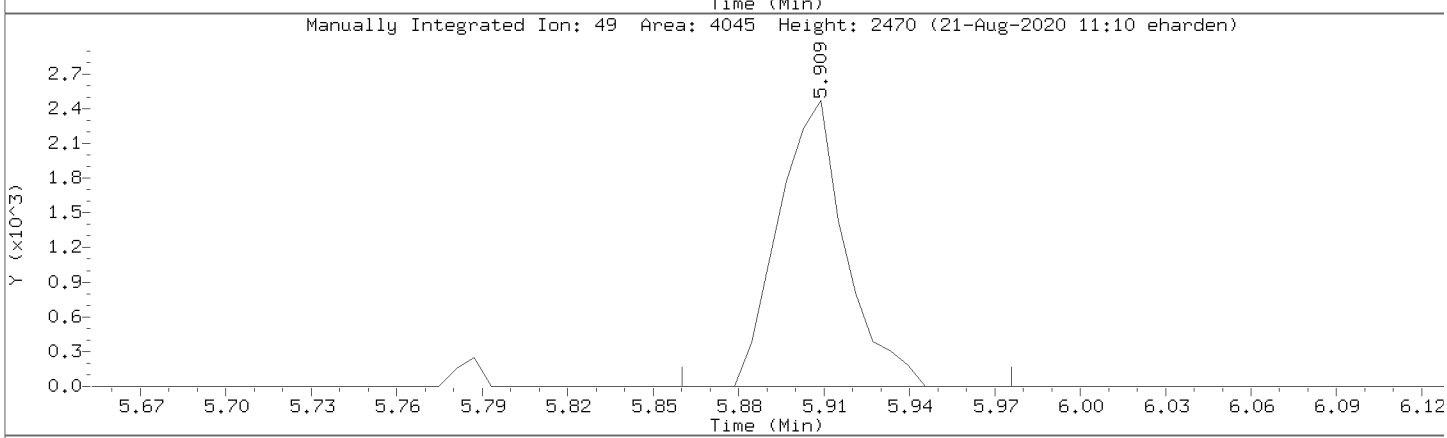
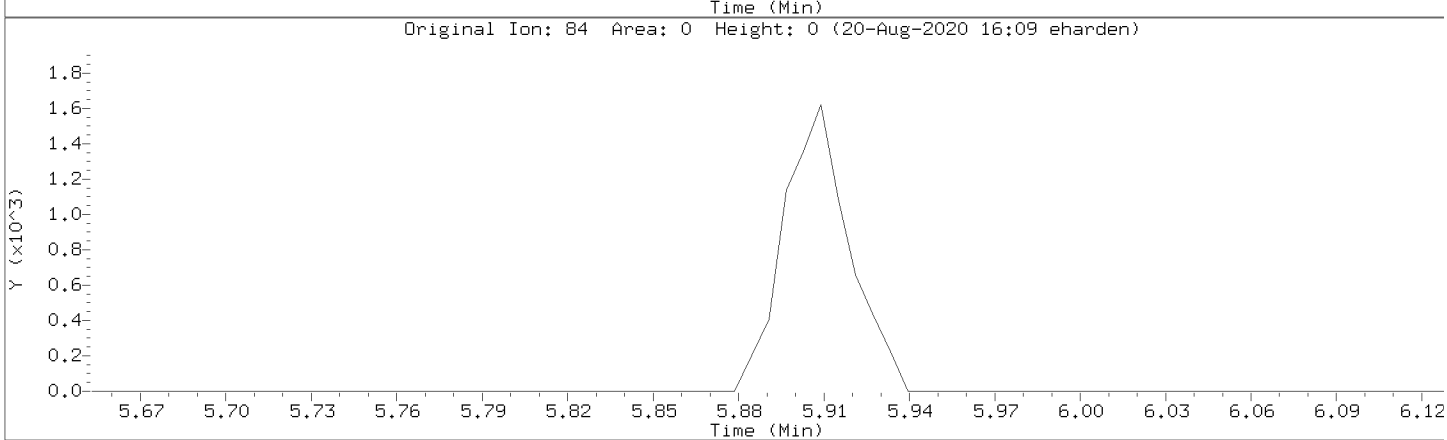
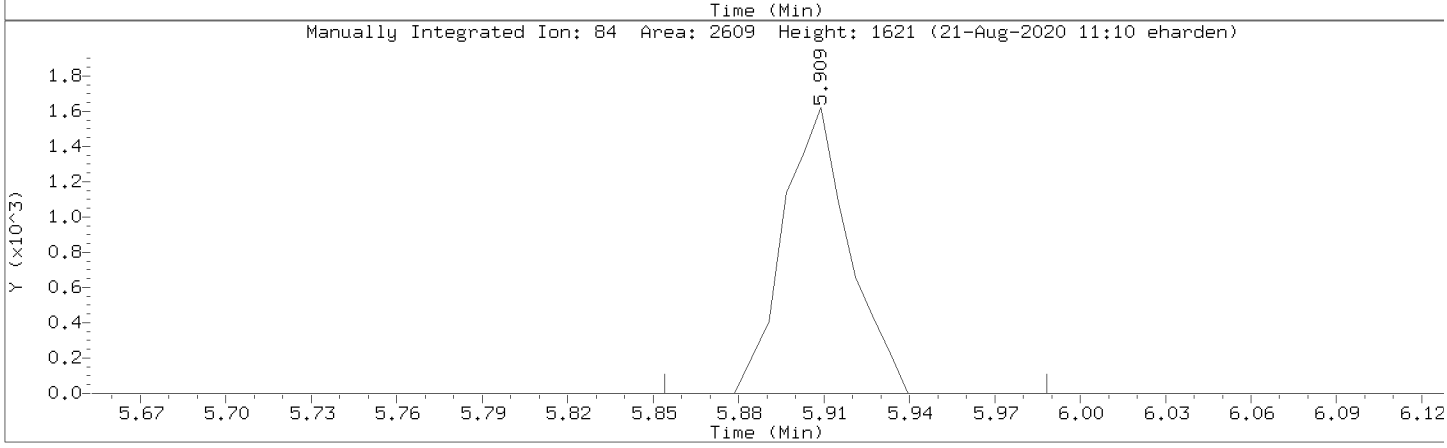
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2









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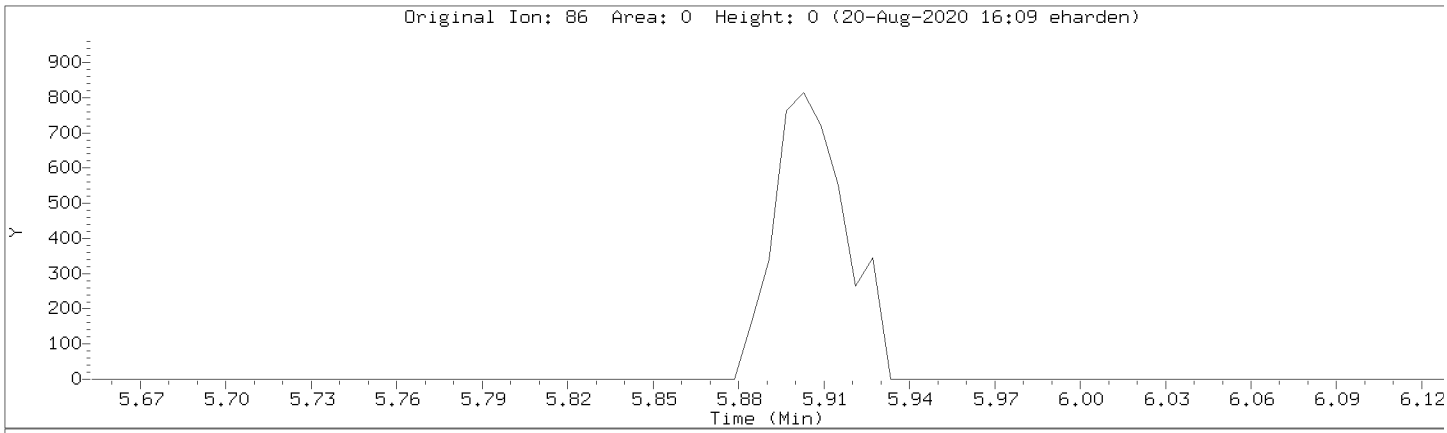
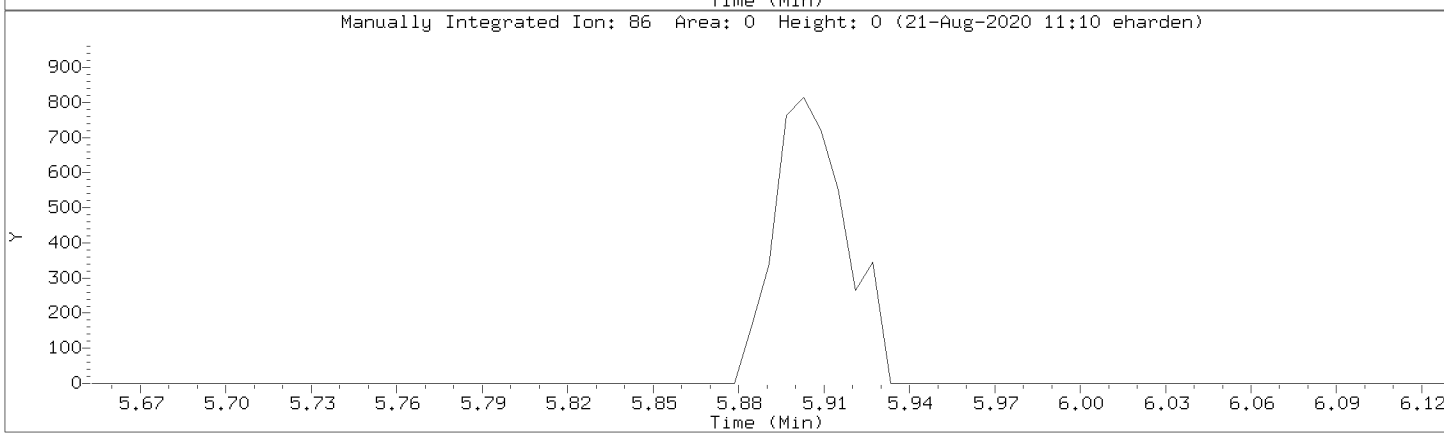
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3





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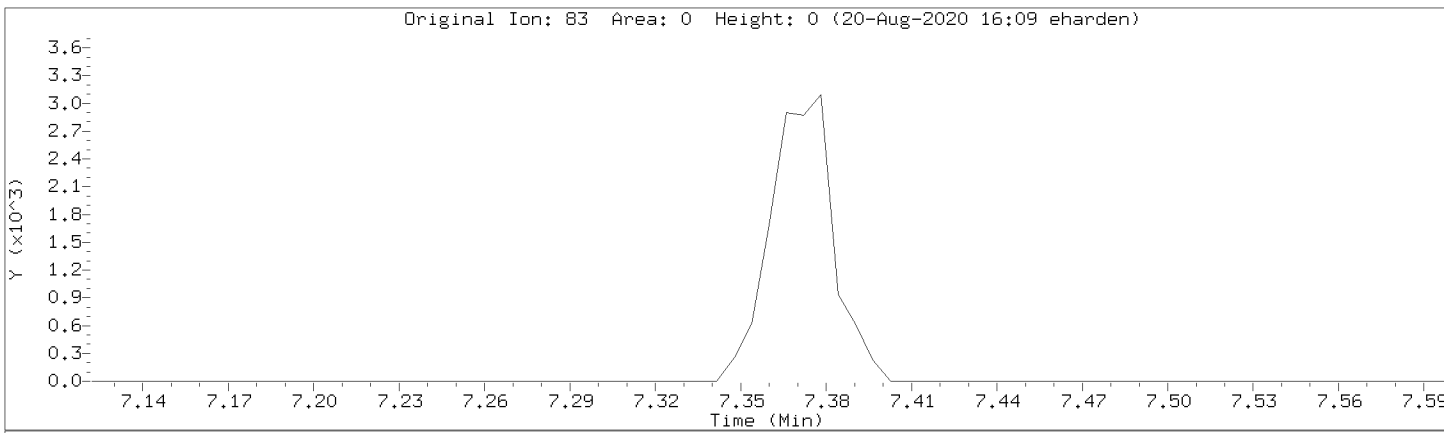
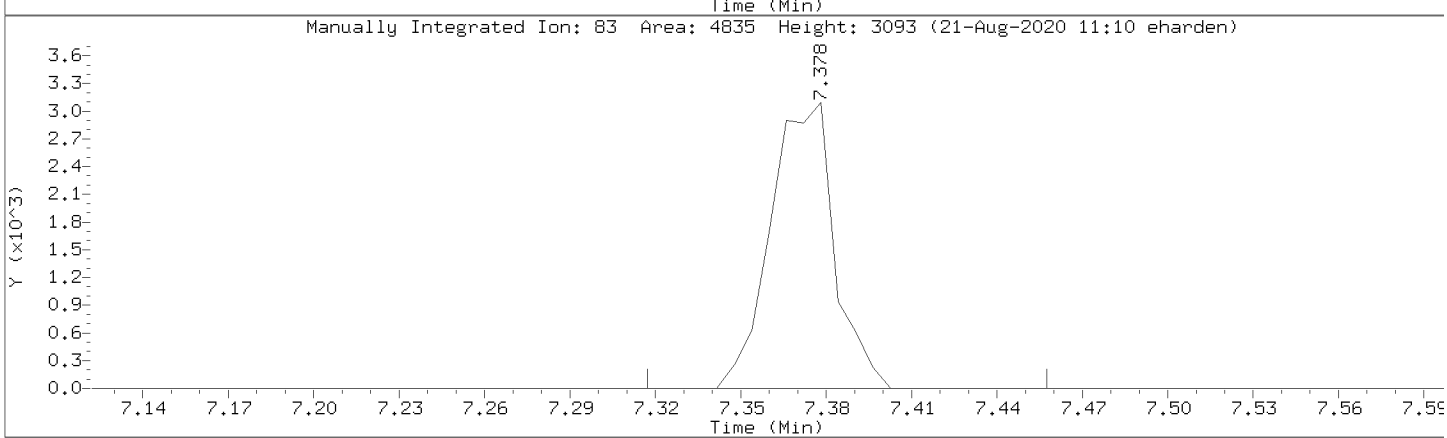
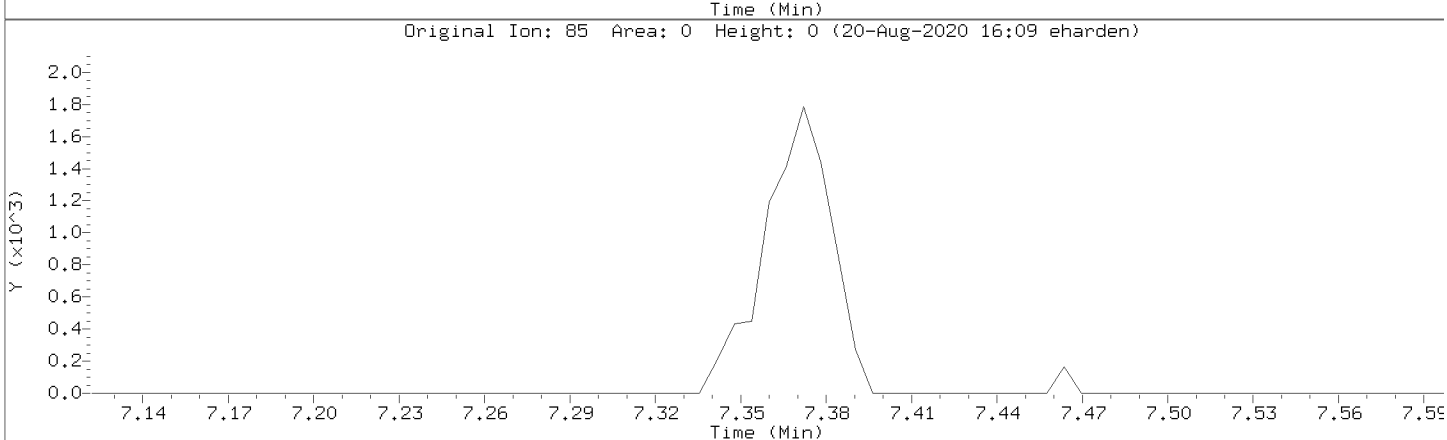
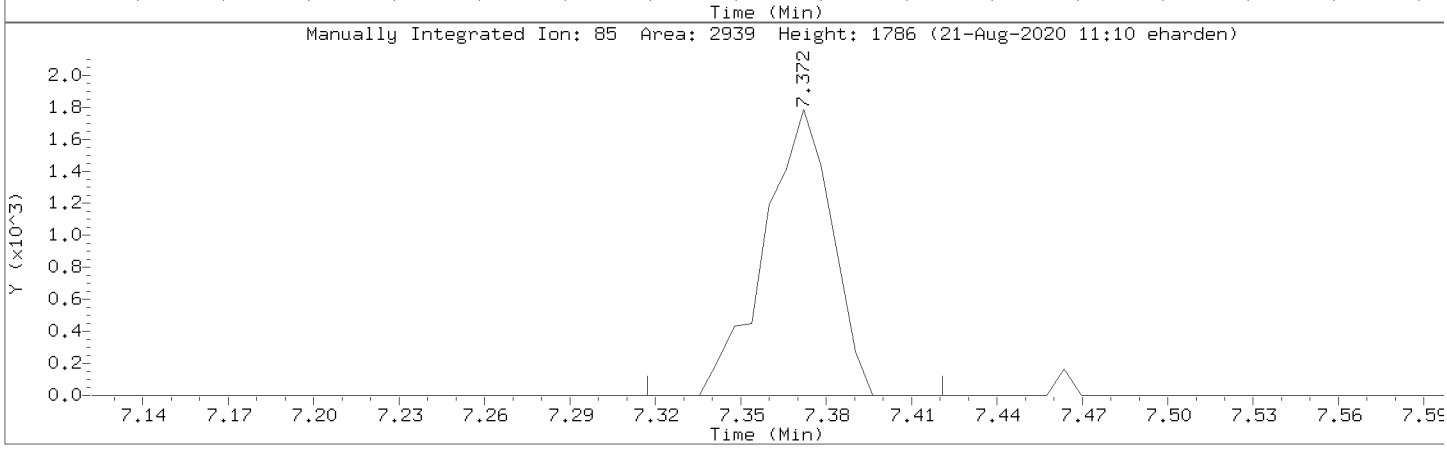
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3



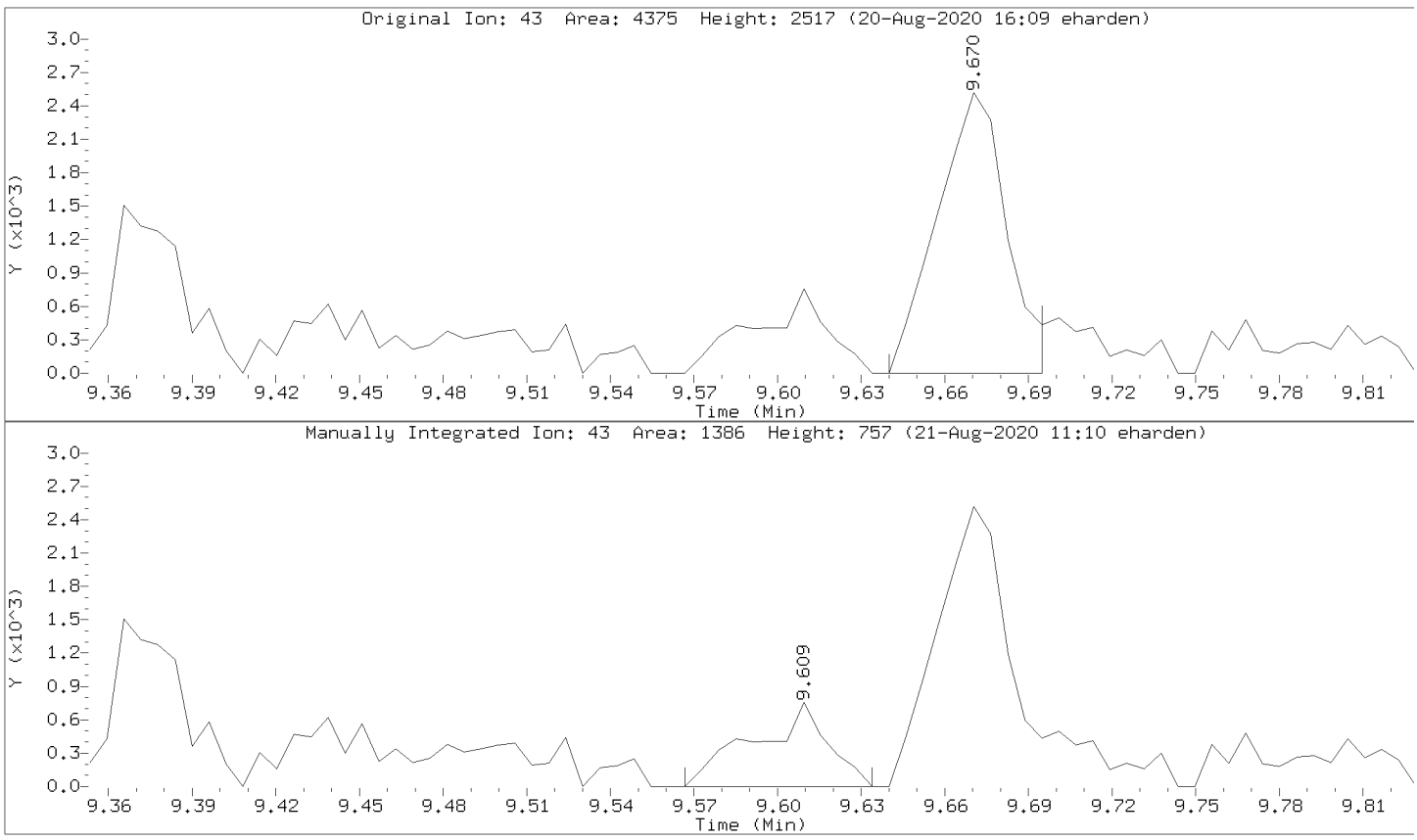






Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_05.D
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: 2-Nitropropane Review Code: LT
CAS Number: 79-46-9



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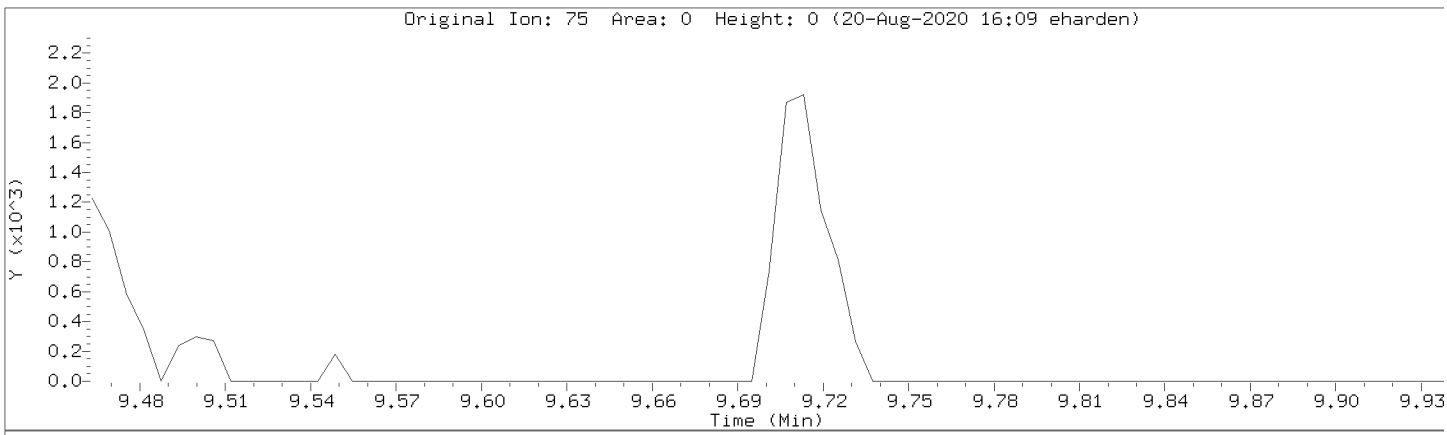
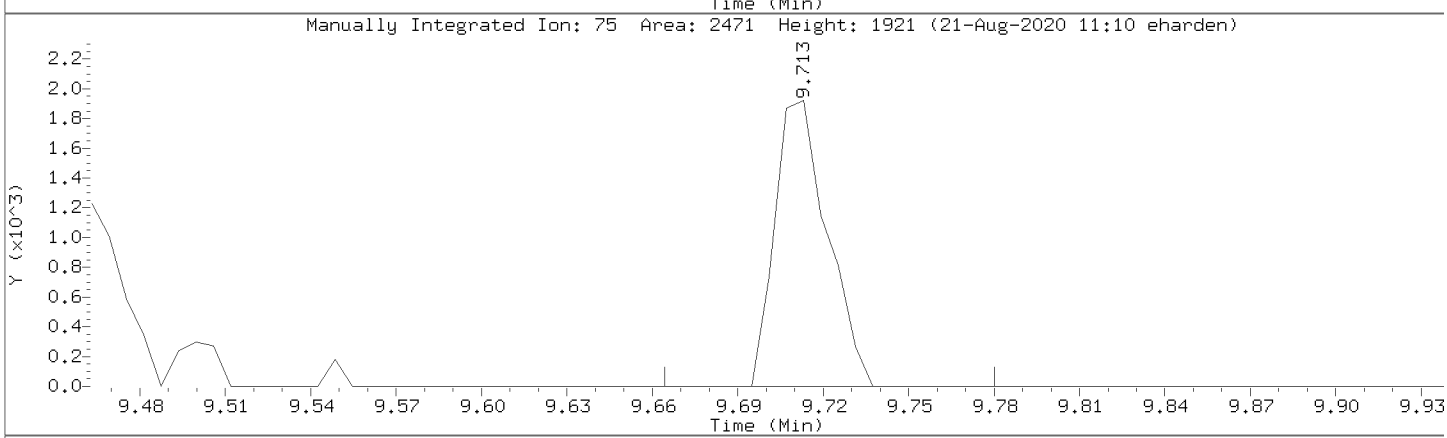
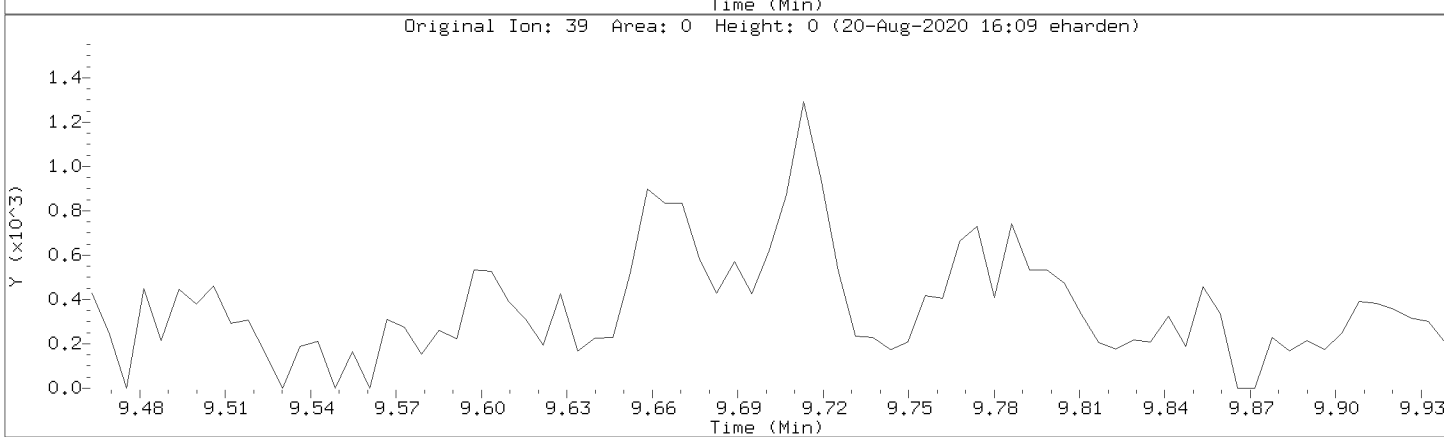
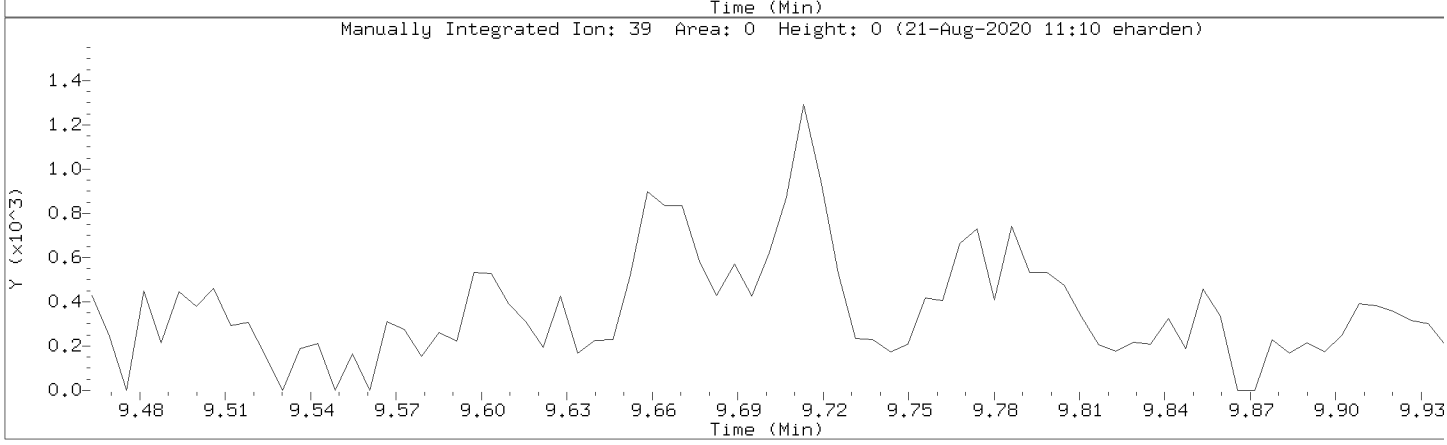
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: trans-1,3-Dichloropropene Review Code: NI
CAS Number: 10061-02-6









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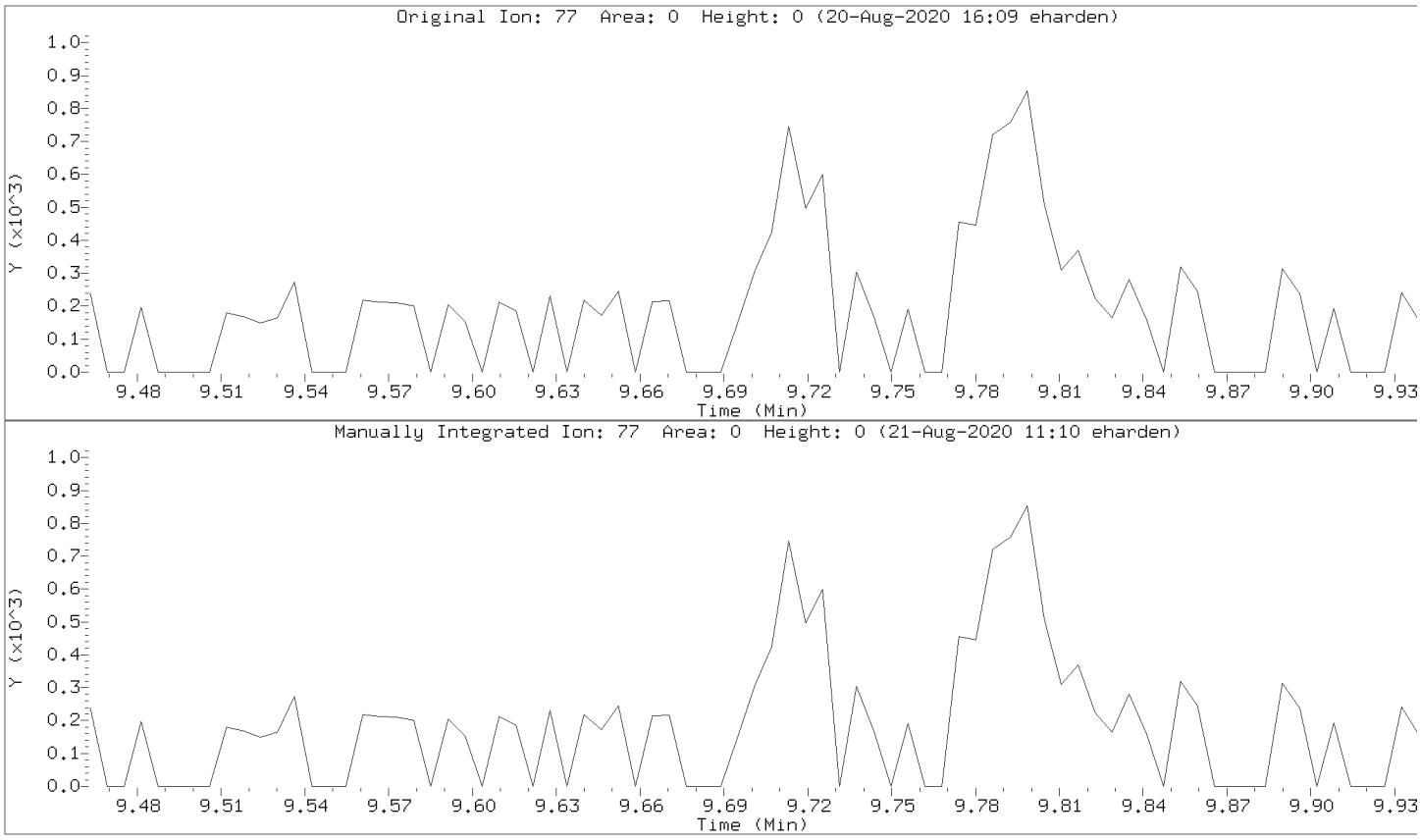
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3



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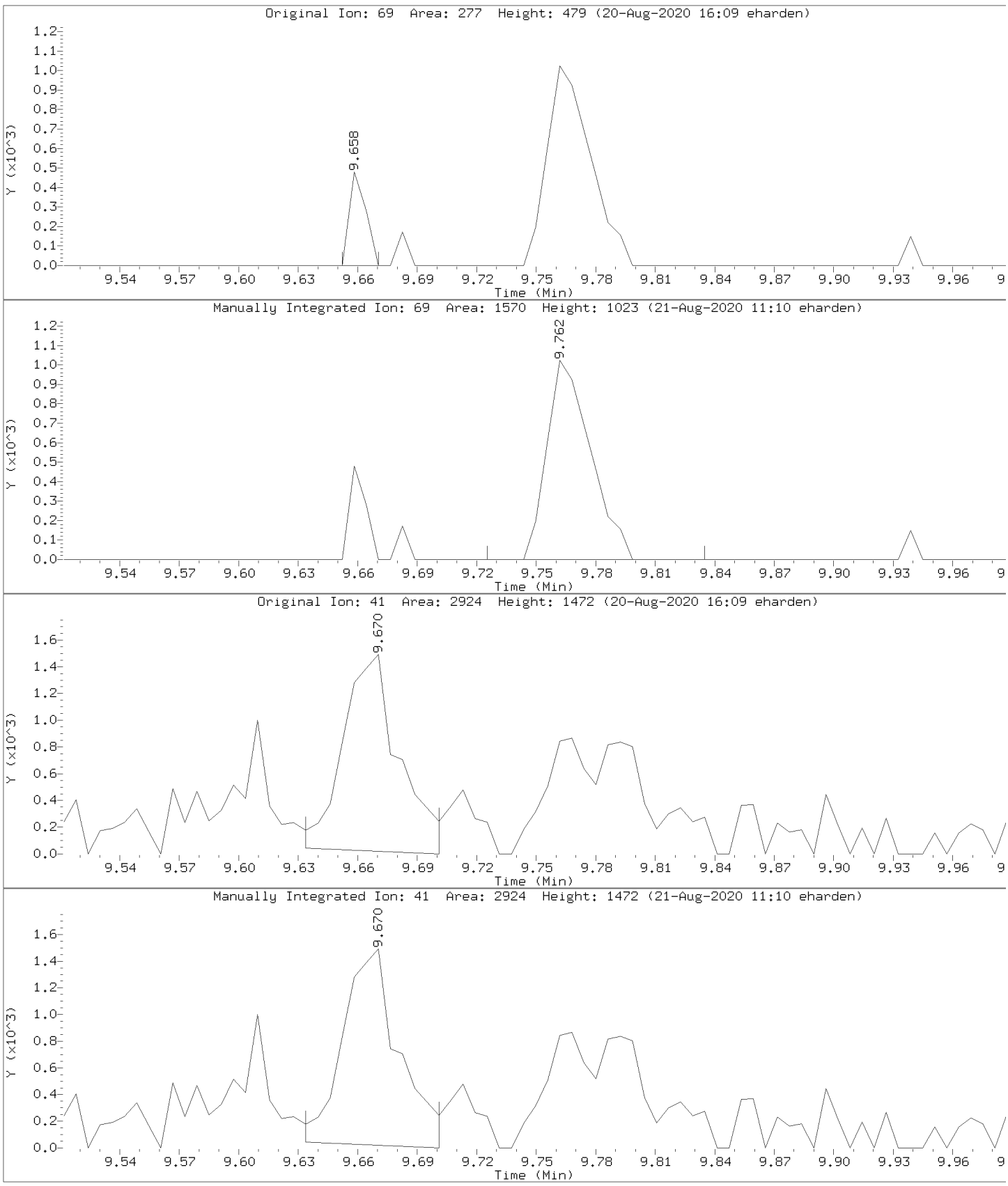
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Ethyl methacrylate Review Code: WP
CAS Number: 97-63-2



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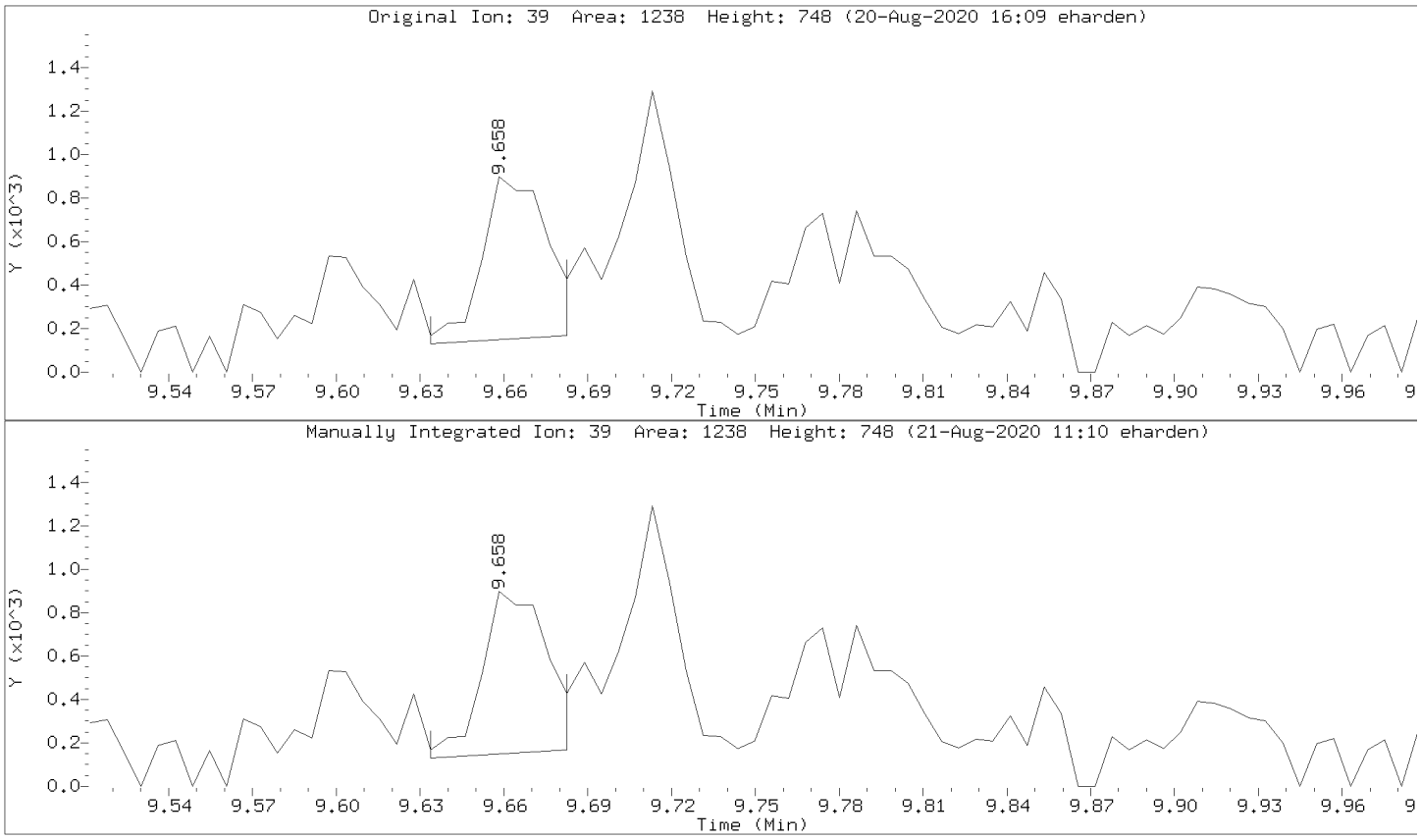
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3



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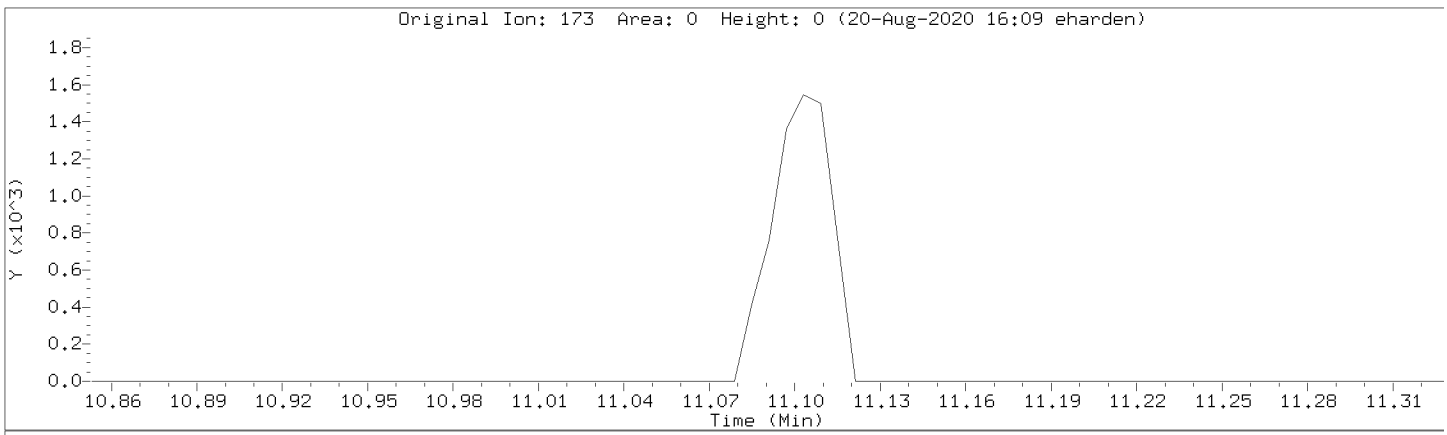
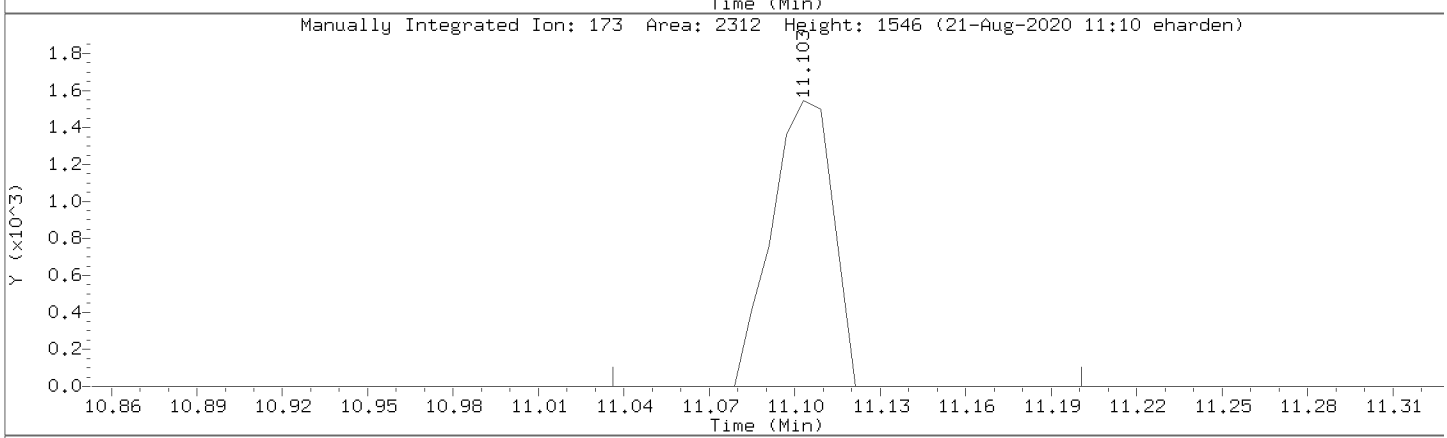
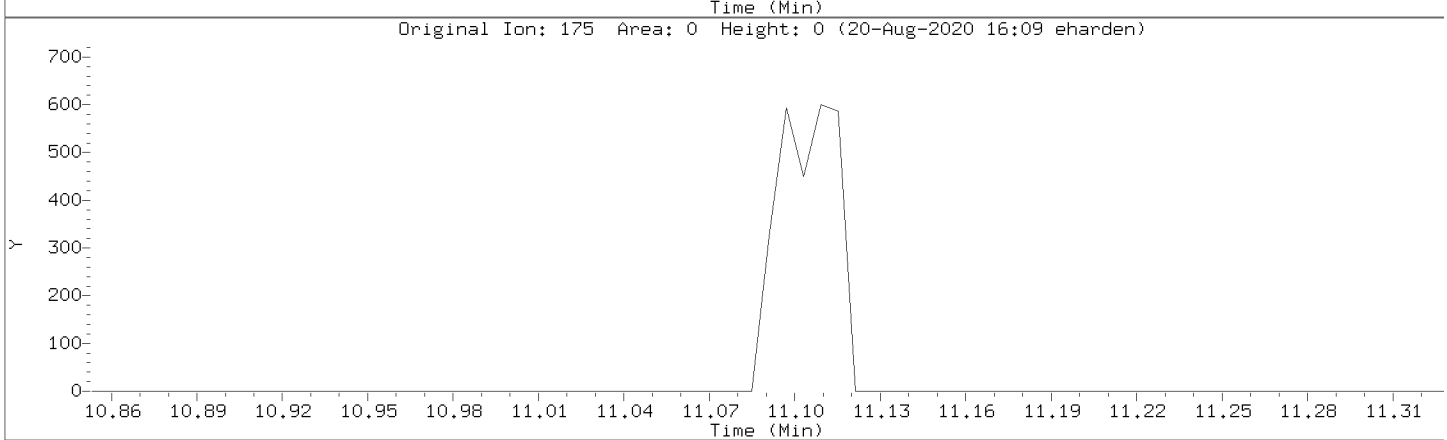
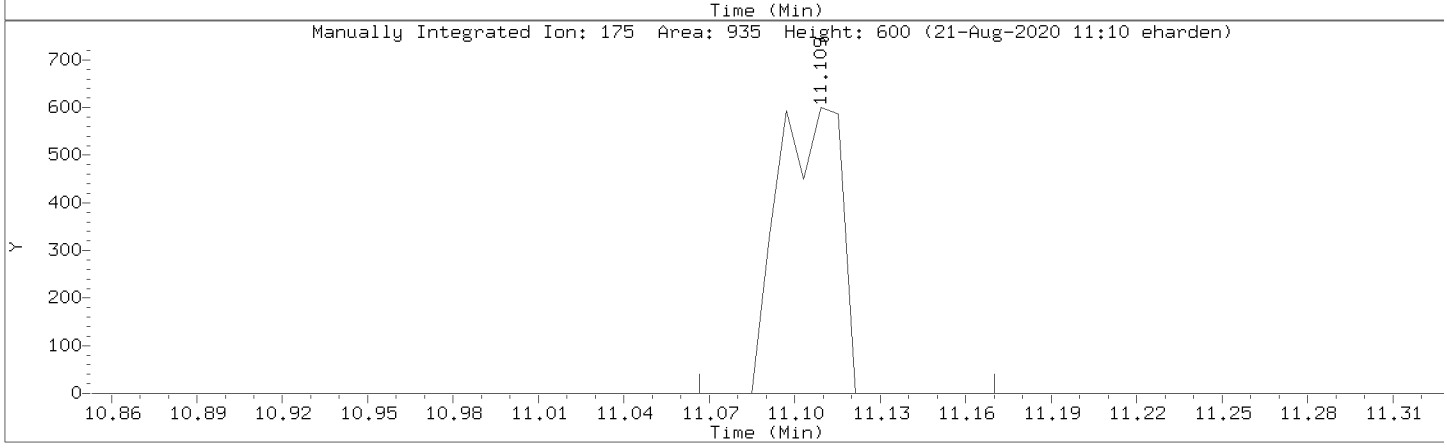
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2

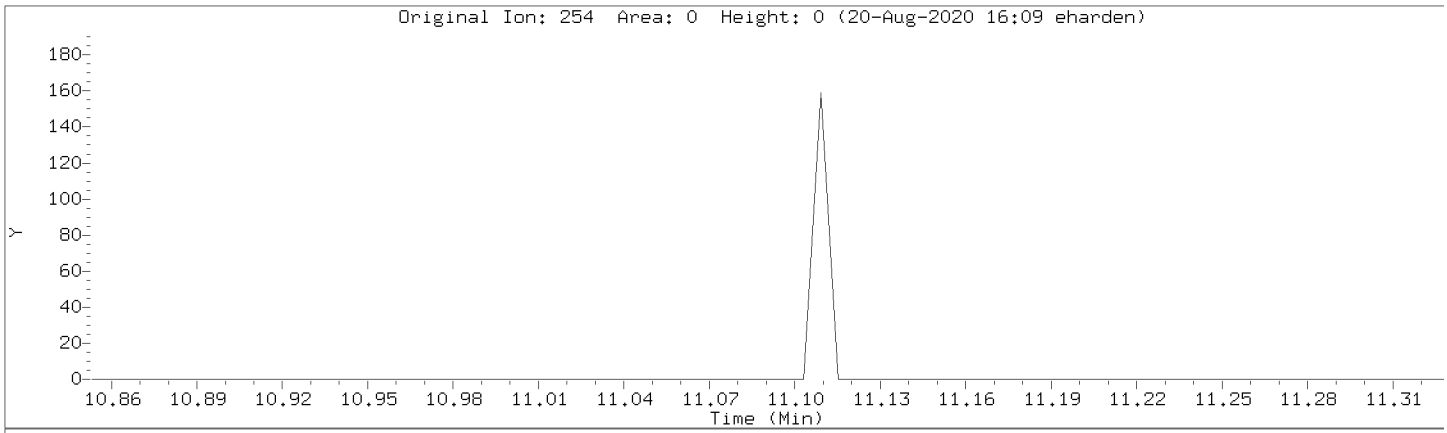


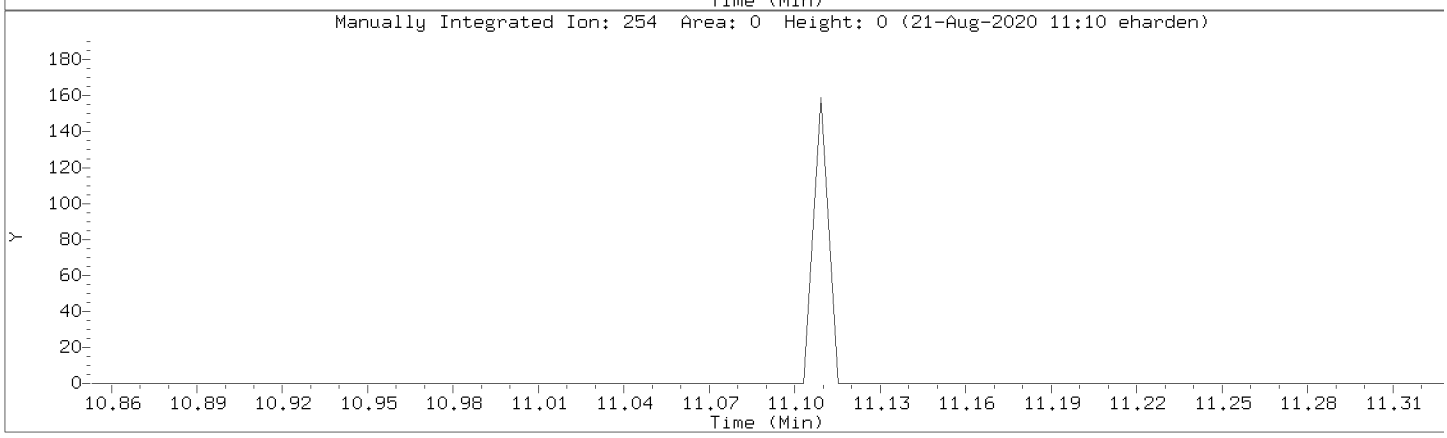






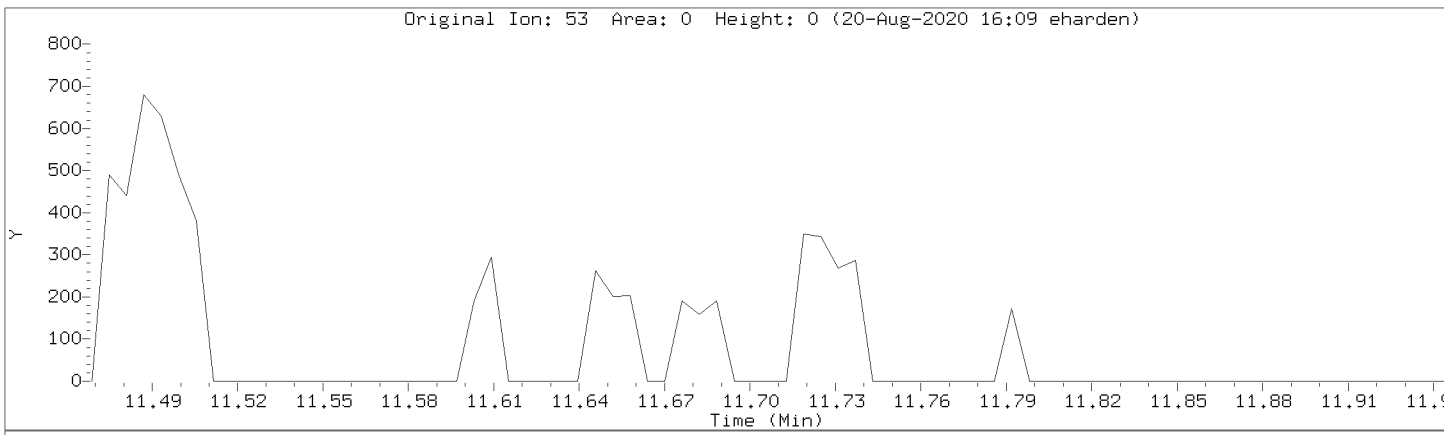
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_05.D
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

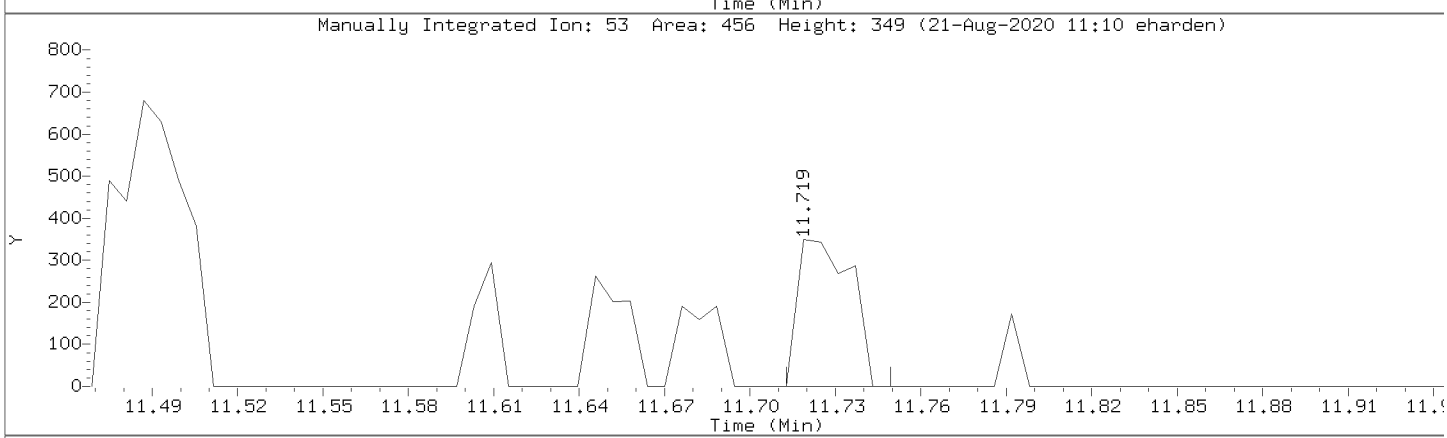


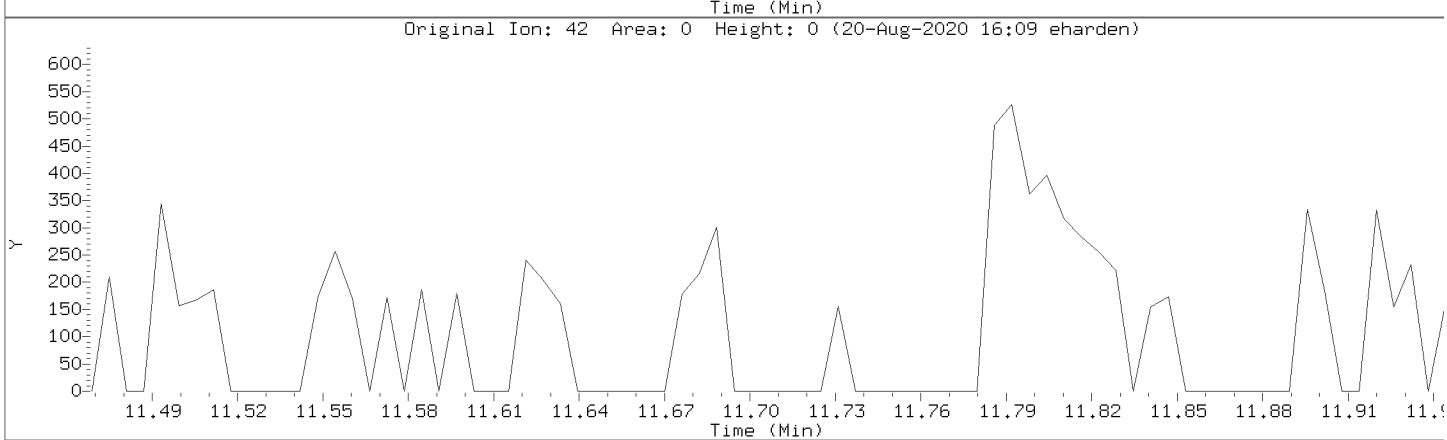


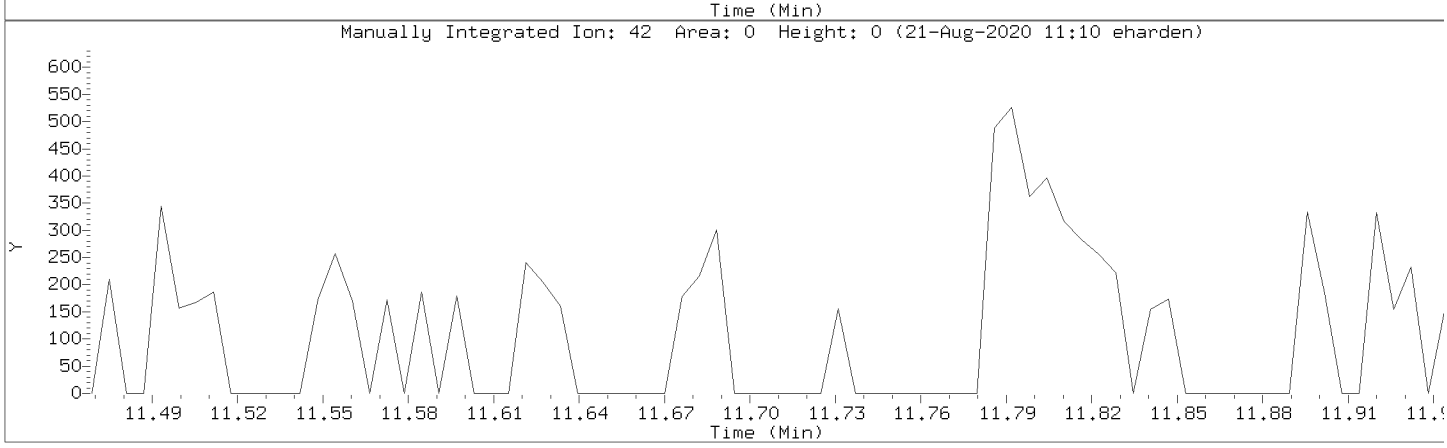
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_05.D
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6

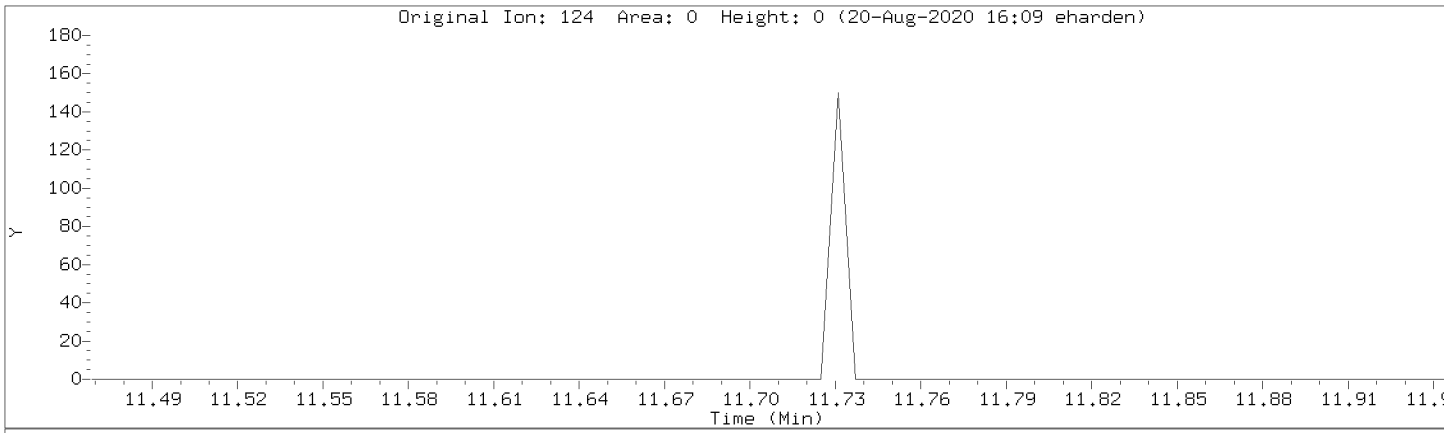


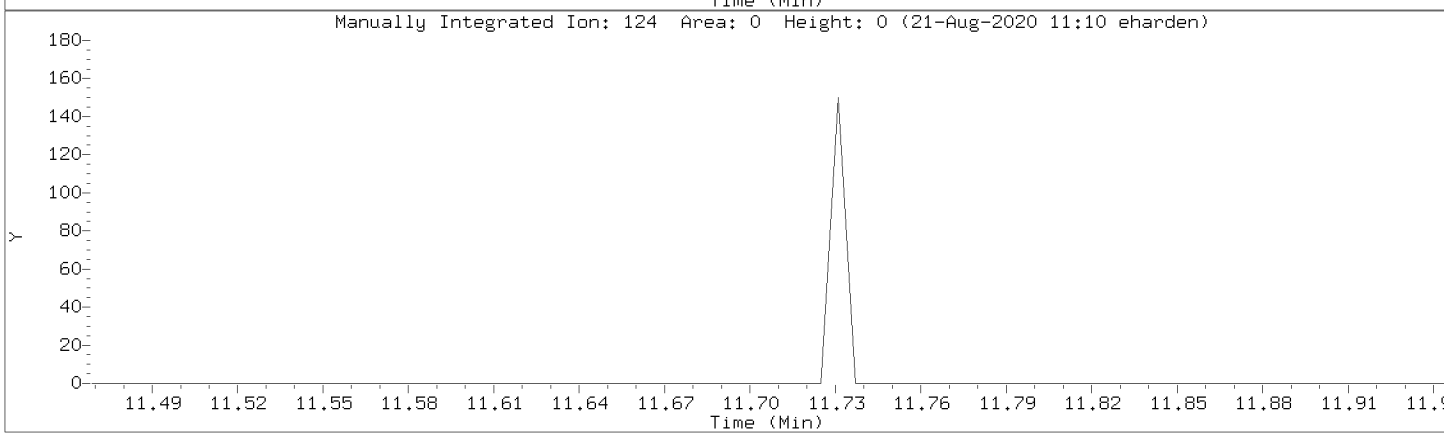






Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_05.D
Injection Date: 20-AUG-2020 11:40
Instrument: 52mv02.i
Lab Sample ID: CAL3





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_06.D
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 20-AUG-2020 12:05
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal4,27240:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 12:05 Cal File: 082020_06.D
Als bottle: 4 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.226	(0.408)	5284	2.00000	2.00	
2 Chloromethane	50	3.537	3.543	(0.450)	8846	2.00000	2.07	
3 Vinyl chloride	62	3.690	3.702	(0.469)	5370	2.00000	2.06	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	4686	2.00000	2.01	
5 Bromomethane	94	4.196	4.195	(0.534)	10118	2.00000	2.22	
6 Chloroethane	64	4.360	4.360	(0.555)	2737	2.00000	2.94	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	3591	2.00000	2.17	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	1948	2.00000	2.13	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	6532	2.00000	2.22	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	4079	2.00000	2.10	
11 Carbon disulfide	76	5.293	5.293	(0.673)	15221	2.00000	2.33	
12 Iodomethane	142	5.433	5.439	(0.691)	1612	2.00000	5.60(M)	NI
13 Acrolein	56	5.671	5.659	(0.722)	1479	4.00000	4.86	
14 Allyl chloride	76	5.787	5.787	(0.736)	2084	2.00000	2.30	
15 Methylene Chloride	49	5.902	5.902	(0.751)	8758	2.00000	2.50(M)	NI
16 Acetone	43	5.976	5.976	(0.760)	9840	4.00000	4.07	
17 Methyl acetate	43	6.073	6.067	(0.773)	8873	4.00000	3.62	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	4249	2.00000	2.13	
19 n-Hexane	86	6.128	6.110	(0.780)	343	2.00000	1.63(M)	LT
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	9856	2.00000	2.12	
21 Acetonitrile	41	6.463	6.463	(0.822)	1215	4.00000	6.91(H)	WP
22 Chloroprene	53	6.640	6.640	(0.845)	5232	2.00000	1.85	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	8968	2.00000	2.32	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	3596	4.00000	4.28	
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	7.158	7.152	(0.911)	6321	2.00000	2.22	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	6905	2.00000	2.35	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	2780	2.00000	2.23	
	29 Cyclohexane	56	7.341	7.335	(0.883)	4834	2.00000	1.88	
	30 Chloroform	83	7.372	7.372	(0.938)	10330	2.00000	2.36(M)	NI
	31 Ethyl acetate	43	7.439	7.433	(0.946)	10734	4.00000	4.35	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	6350	2.00000	2.11	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	4093	4.00000	5.58	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	138125	50.0000	54.6	
	35 1,1,1-Trichloroethane	97	7.573	7.567	(0.911)	7971	2.00000	2.23	
	36 2-Butanone (MEK)	43	7.634	7.628	(0.971)	7051	4.00000	3.74(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	4937	2.00000	1.99(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	219667	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	17998	2.00000	2.25	
	40 Propionitrile	54	7.896	7.902	(1.005)	1674	4.00000	4.47	
	41 Methacrylonitrile	41	7.908	7.902	(1.006)	8204	4.00000	4.31	
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25790	50.0000	56.7	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	8740	2.00000	2.48	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	8630	2.00000	2.06	
	46 Trichloroethene	130	8.323	8.317	(1.001)	4932	2.00000	2.25	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	313187	50.0000		
	48 Methylcyclohexane	98	8.329	8.317	(1.001)	1819	2.00000	1.75	
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.670	8.670	(1.043)	3983	2.00000	2.14	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	4922	2.00000	2.15	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	7260	2.00000	2.21	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	1992	2.00000	1.72(H)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	9.152	9.146	(1.100)	3154	4.00000	3.14	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	5882	2.00000	1.84	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	334441	50.0000	49.6	
	58 Toluene	91	9.414	9.414	(1.132)	16357	2.00000	2.09	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	1870	2.00000	2.21(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	5882	2.00000	1.81	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	3682	2.00000	1.93	
	63 Ethyl methacrylate	69	9.762	9.761	(1.174)	3660	2.00000	1.82(H)	
	64 1,1,2-Trichloroethane	83	9.841	9.847	(1.183)	4739	2.00000	2.39	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	5598	2.00000	2.12	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	6725	2.00000	2.23	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	4938	2.00000	2.18	
	68 2-Hexanone	43	10.280	10.280	(1.236)	8262	4.00000	3.12	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	12871	2.00000	1.77	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	277286	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	12050	2.00000	2.25	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	5405	2.00000	2.39	
	73 m&p-Xylene	91	10.652	10.651	(1.009)	19281	4.00000	3.56	
	74 o-Xylene	106	10.993	10.993	(1.041)	4165	2.00000	1.64	
	75 Styrene	104	11.030	11.029	(1.044)	6689	2.00000	1.58	
	76 Bromoform	173	11.103	11.103	(1.051)	5395	2.00000	2.15(M)	NI

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.225	11.225	(1.063)	7161	2.00000	1.86	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	106130	50.0000	46.6	
	79 cis-1,4-Dichloro-2-butene	53	11.493	11.487	(1.088)	2265	2.00000	2.49	
	80 n-Propylbenzene	91	11.523	11.523	(1.091)	16464	2.00000	1.85	
	81 Bromobenzene	156	11.578	11.578	(1.096)	5521	2.00000	1.94	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	6338	2.00000	2.14	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	8731	2.00000	1.66	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	3046	2.00000	1.58	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	3382	2.00000	1.79	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	9830	2.00000	1.53	
	87 1,2,3-Trichloropropane	75	11.725	11.724	(1.110)	6678	2.00000	2.19	
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	1815	2.00000	2.54	
	89 Cyclohexanone	98	Compound Not Detected.						(D)
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	7956	2.00000	1.54	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	7998	2.00000	1.51	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	10675	2.00000	1.70	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	7956	2.00000	1.54	
	94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	8844	2.00000	2.11	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	158950	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	10039	2.00000	2.16	
	97 n-Butylbenzene	91	12.487	12.486	(1.012)	9280	2.00000	1.68	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	10161	2.00000	2.22	
	99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	1371	2.00000	2.64	
	100 Hexachloro-1,3-butadiene	225	13.816	13.822	(1.120)	2915	2.00000	2.06	
	101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	5591	2.00000	1.85	
	102 Naphthalene	128	14.194	14.193	(1.150)	8687	2.00000	1.68	
	103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	5329	2.00000	1.83	

QC Flag Legend

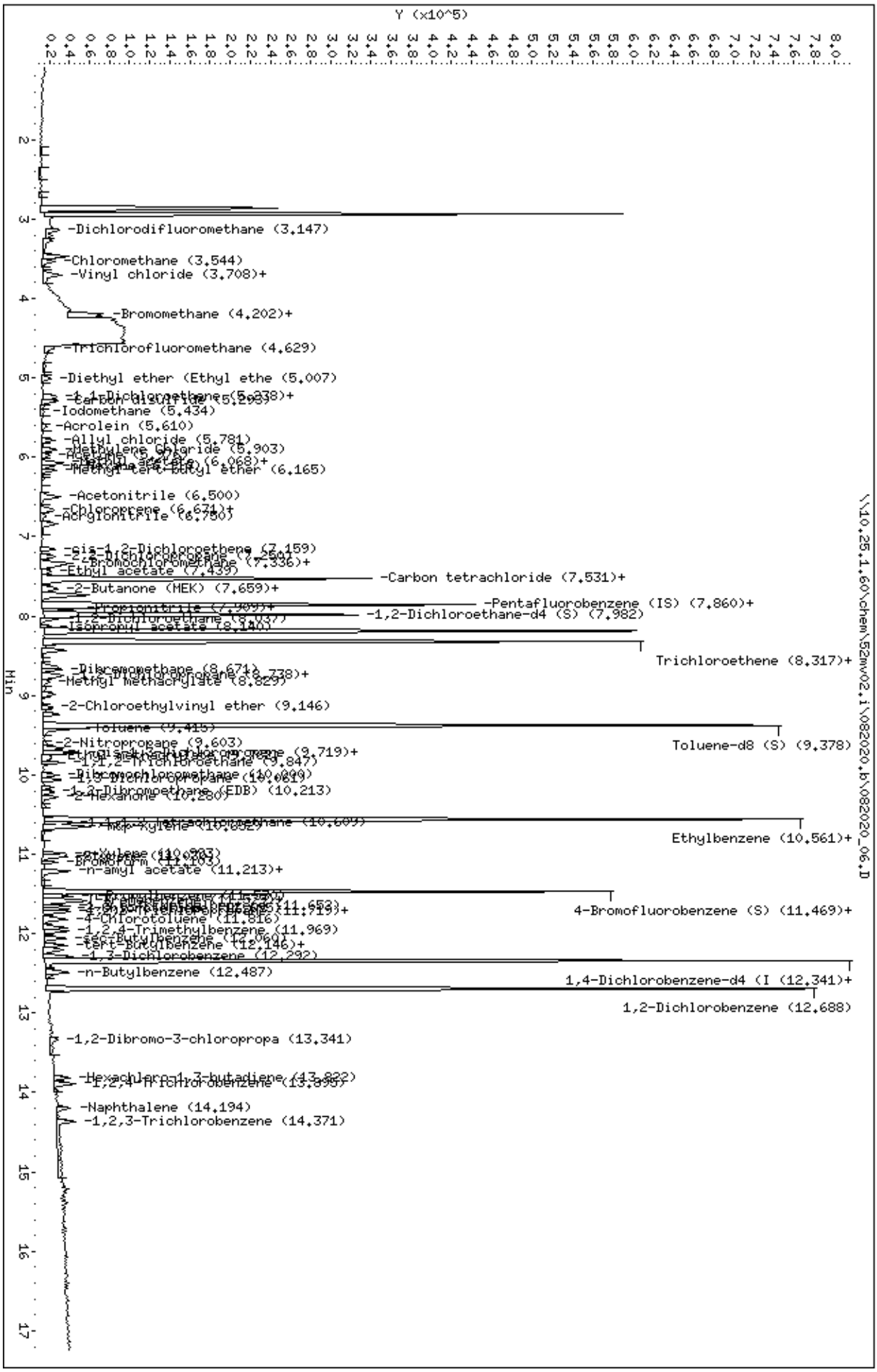
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
NI: Indicates that the peak was not integrated at all by the computer software.
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_06.D
Date : 20-AUG-2020 12:05
Client ID: CAL4
Sample Info: CAL4,27240:1
Purge Volume: 5.0
Column phase: RTX-VMS

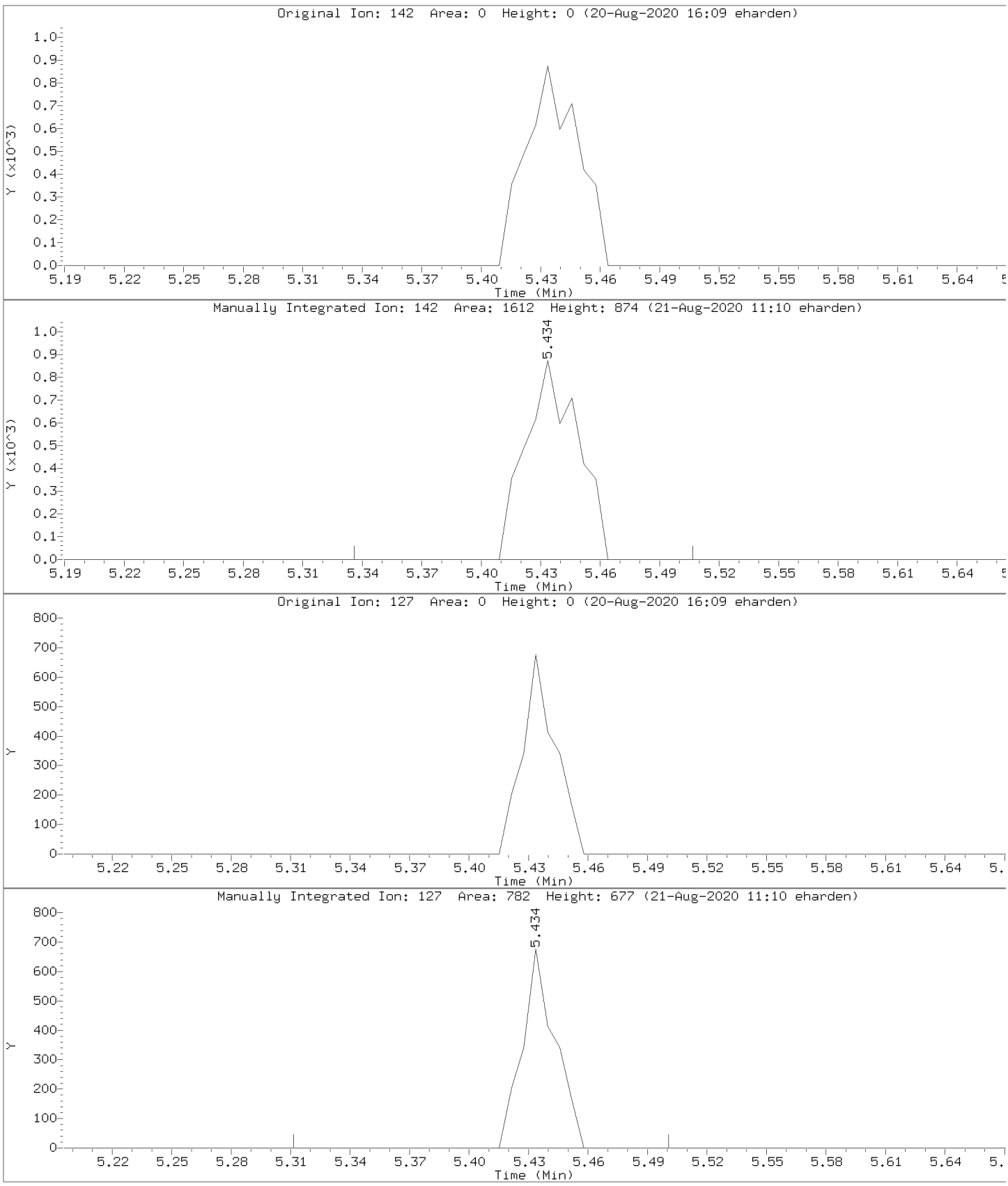
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Page 4

Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_06.D
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4



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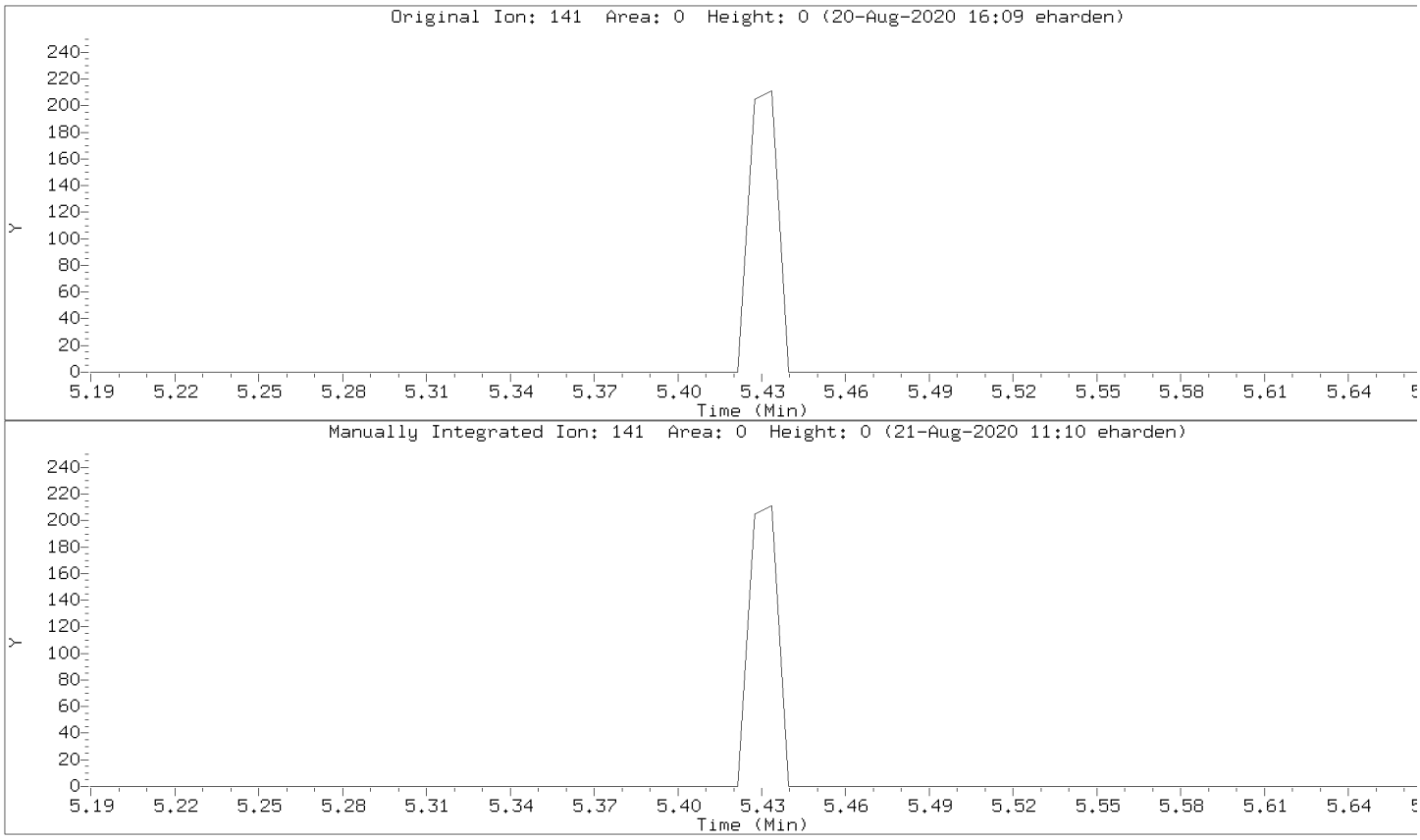
Instrument: 52mv02.i
Lab Sample ID: CAL4



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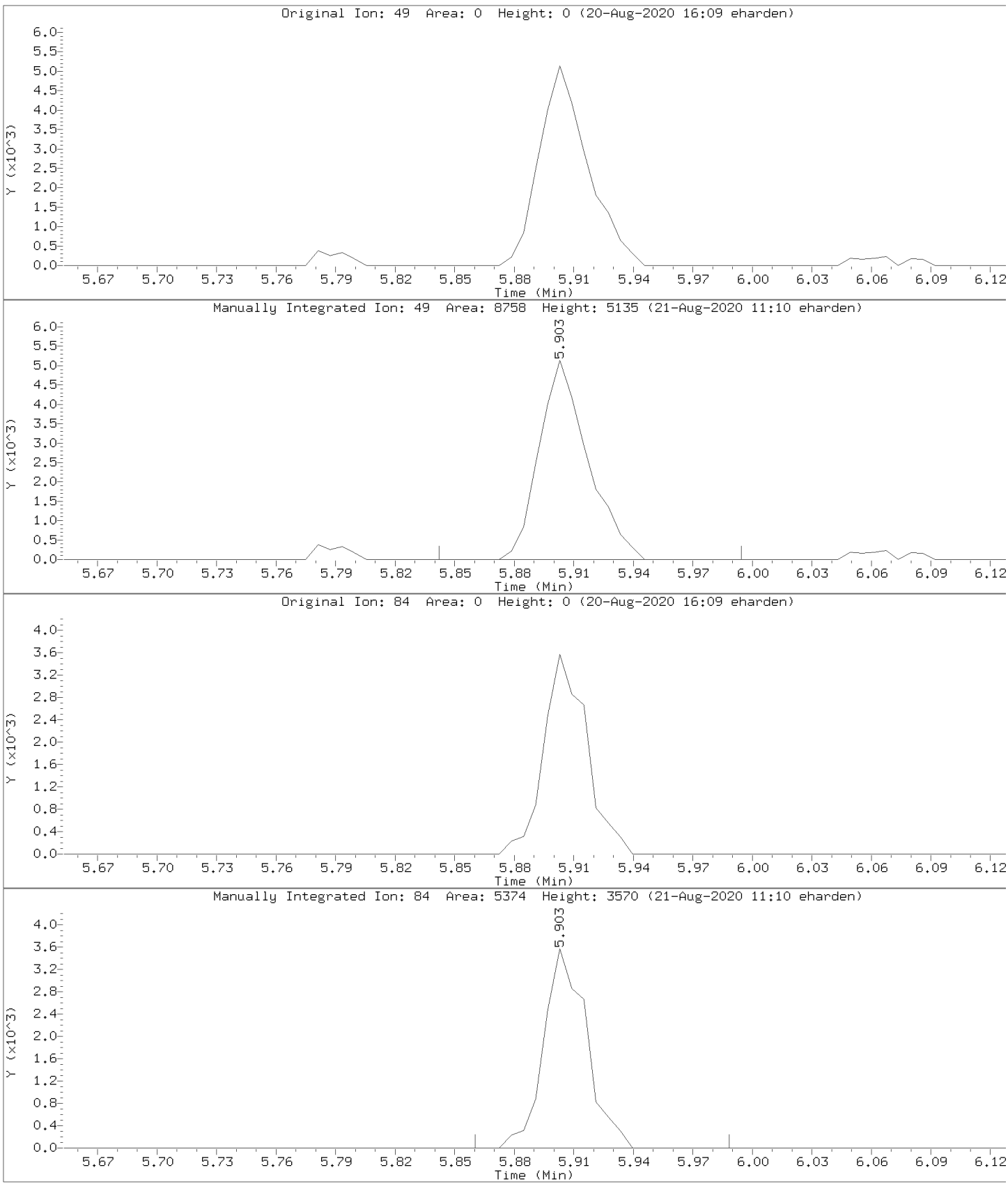
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2



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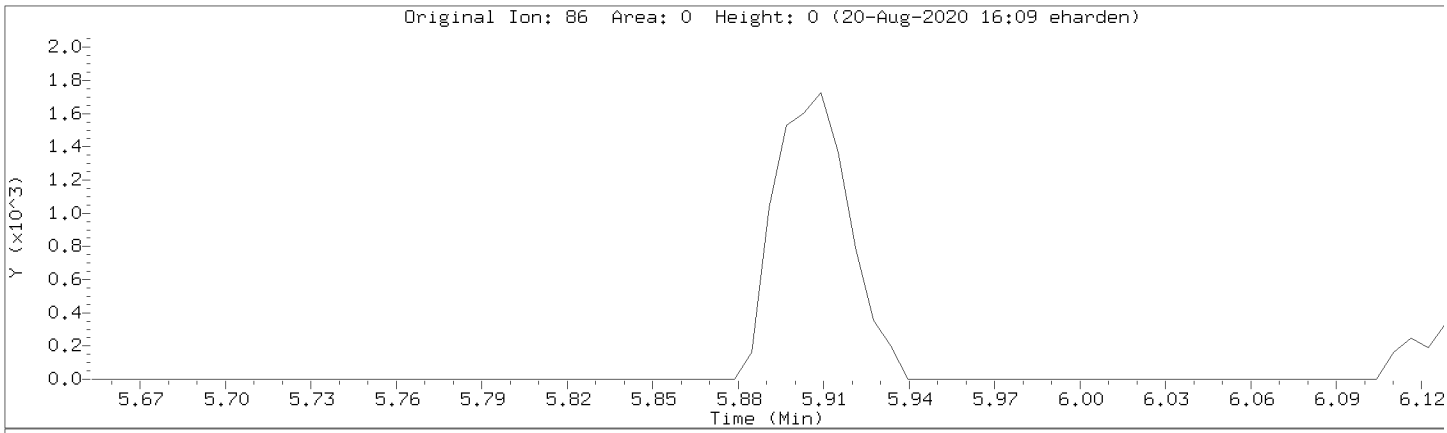
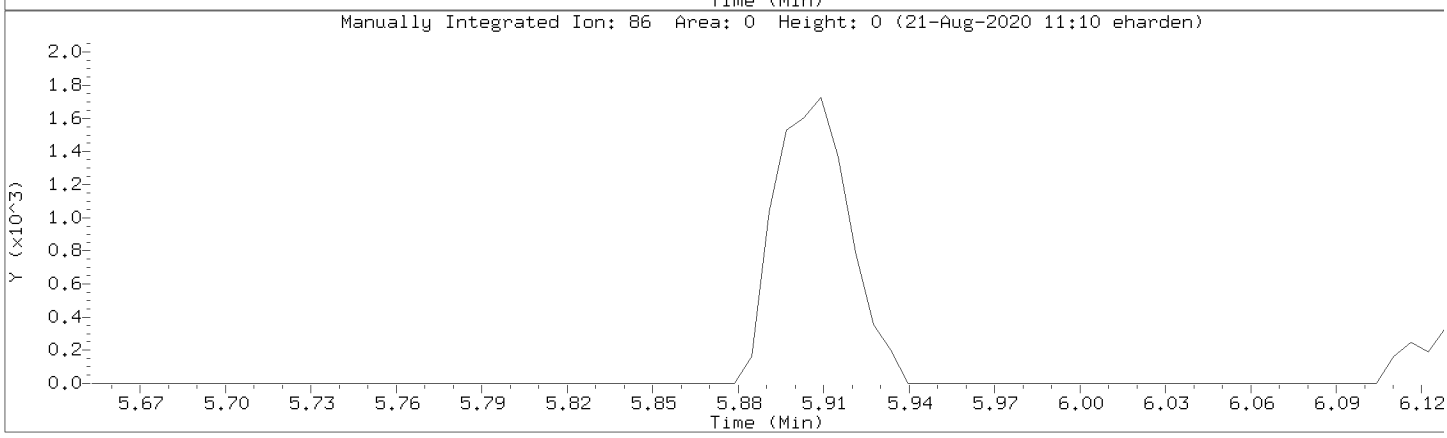
Instrument: 52mv02.i
Lab Sample ID: CAL4





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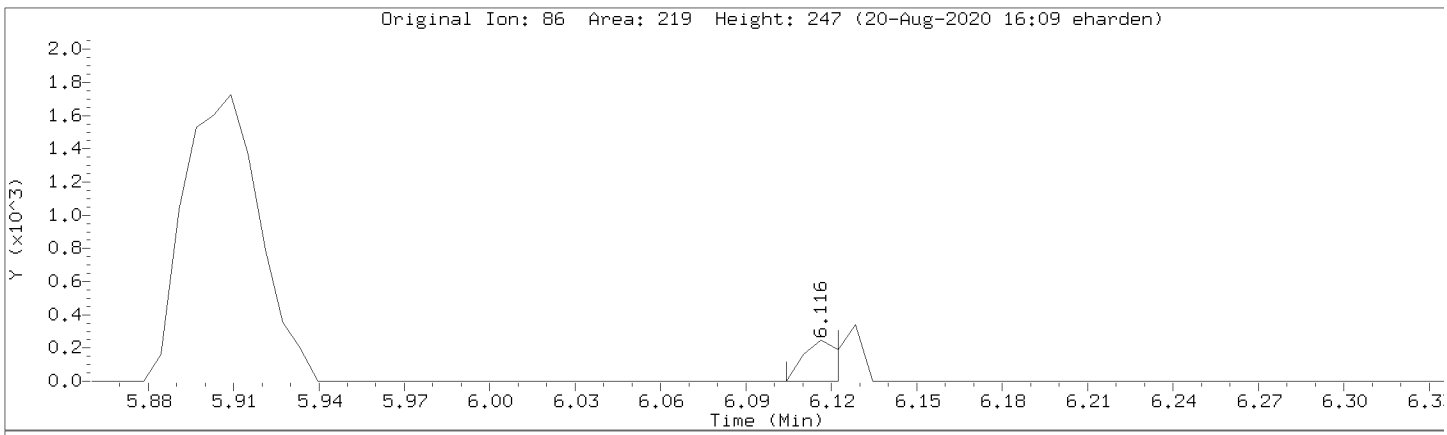
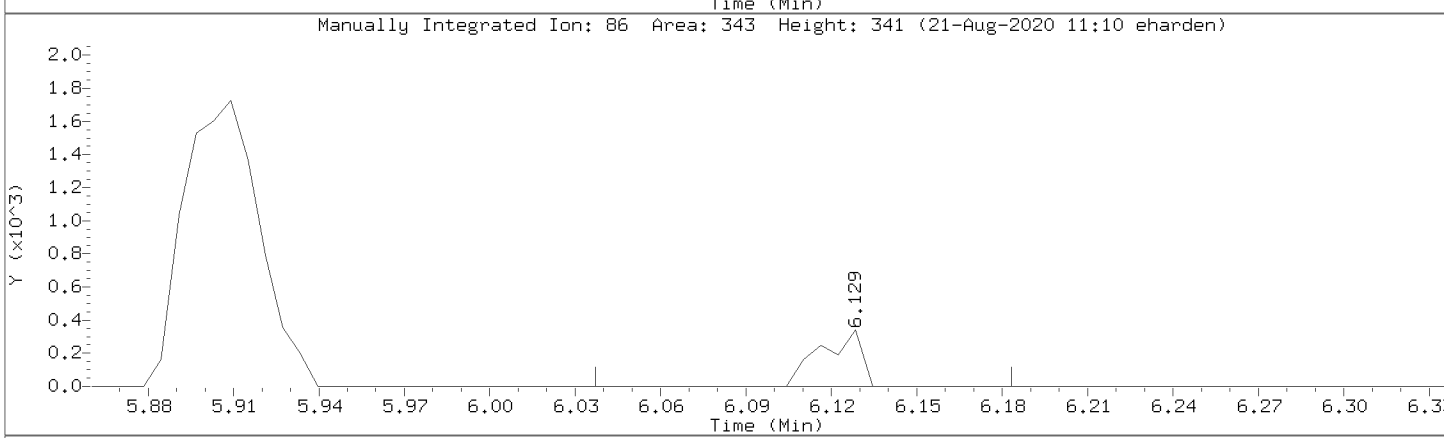
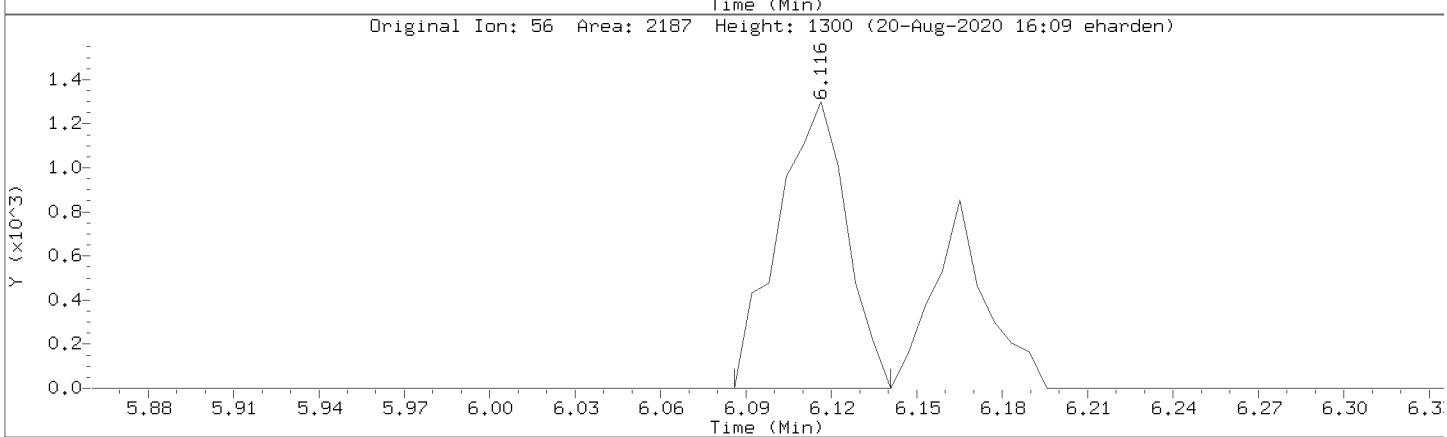
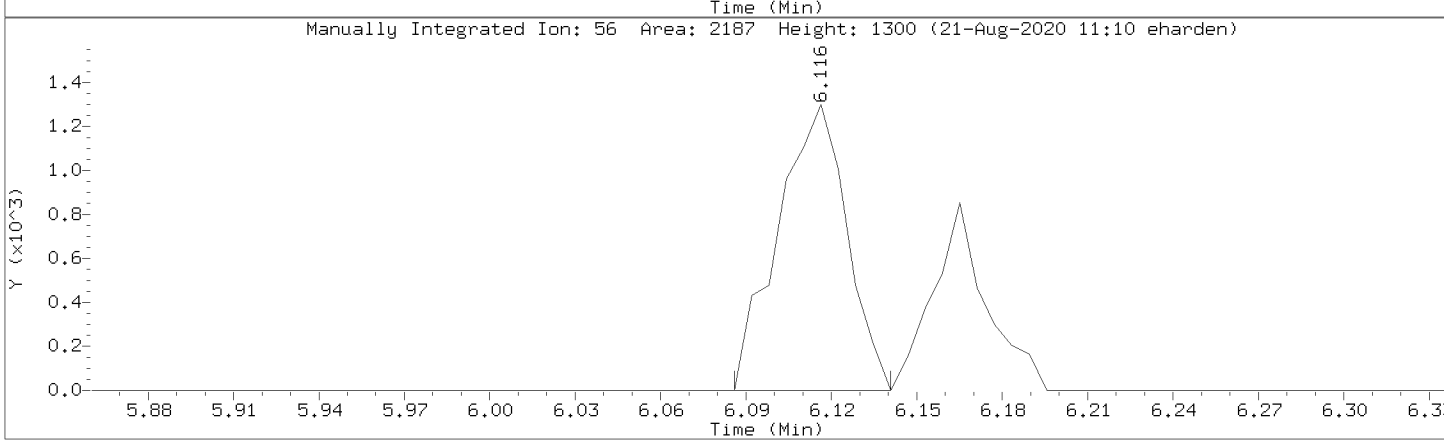
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: n-Hexane Review Code: LT
CAS Number: 110-54-03









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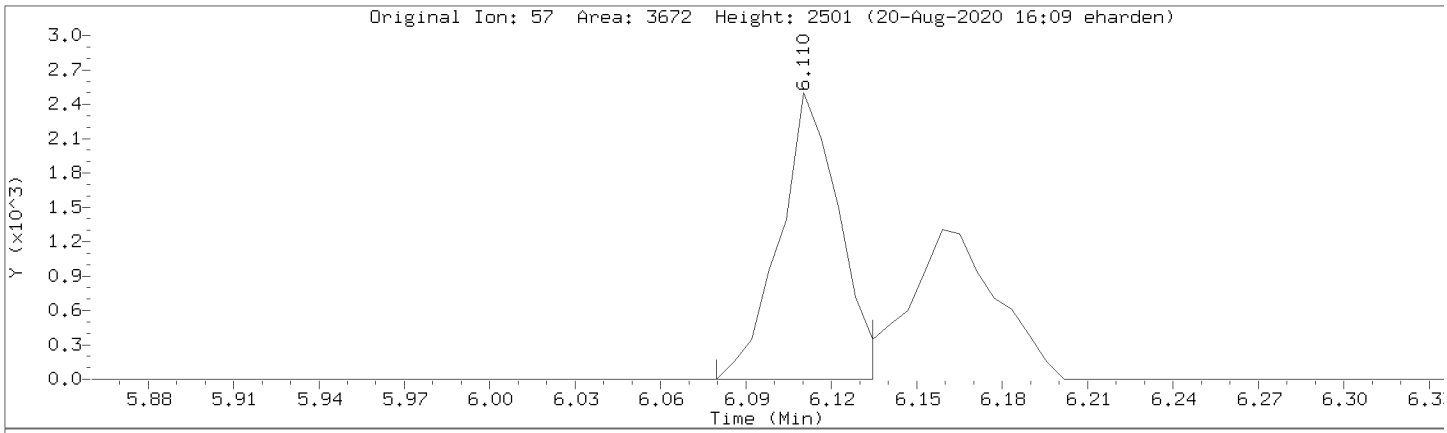
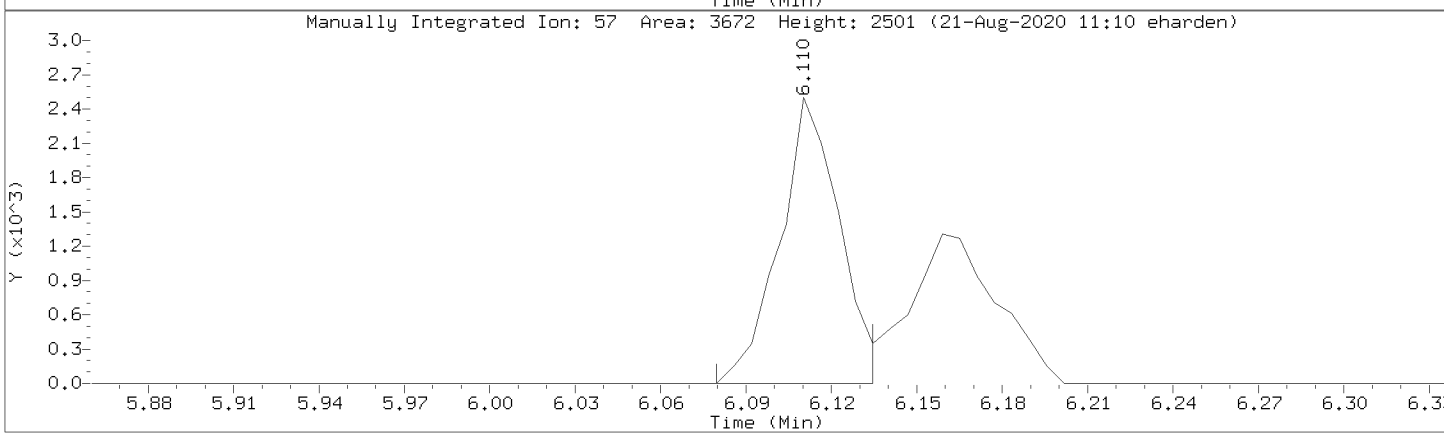
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4





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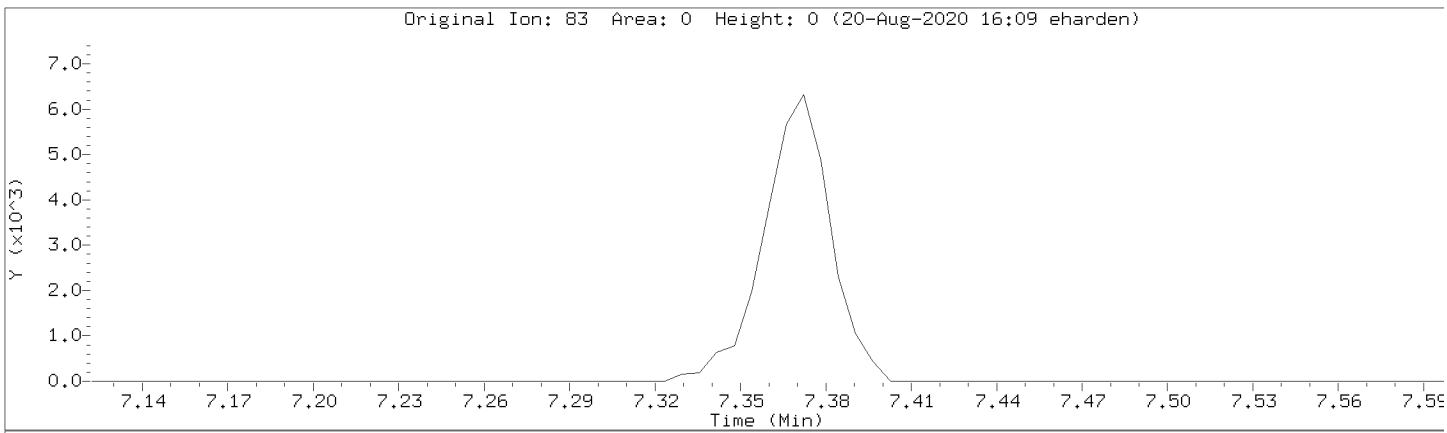
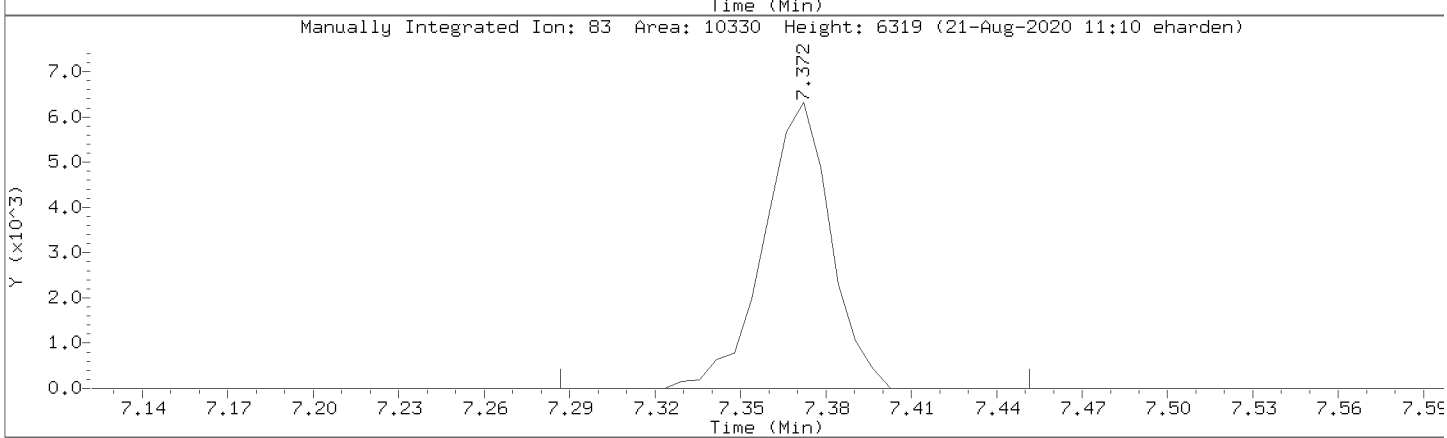
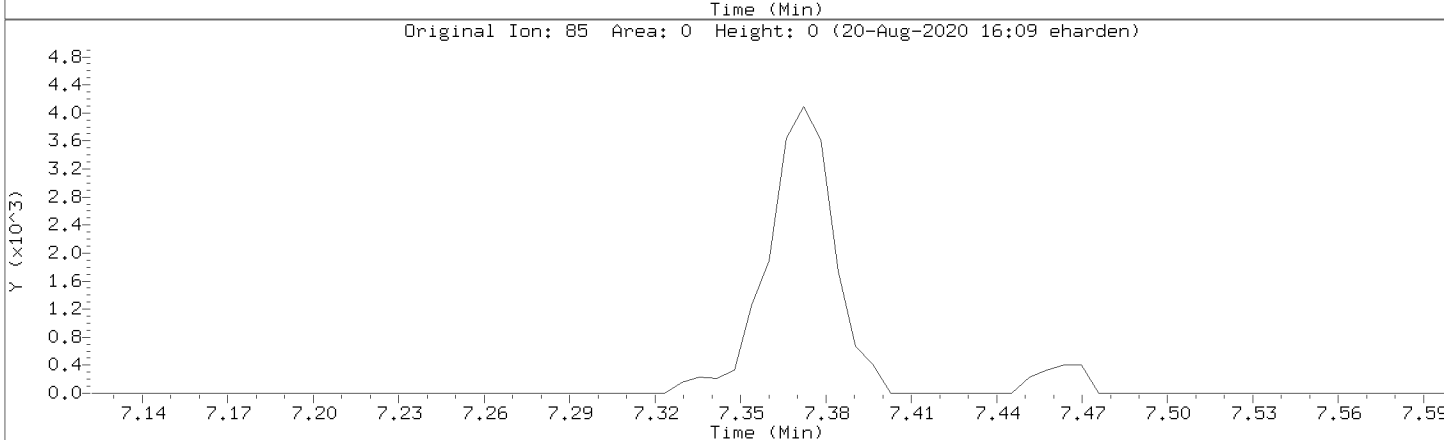
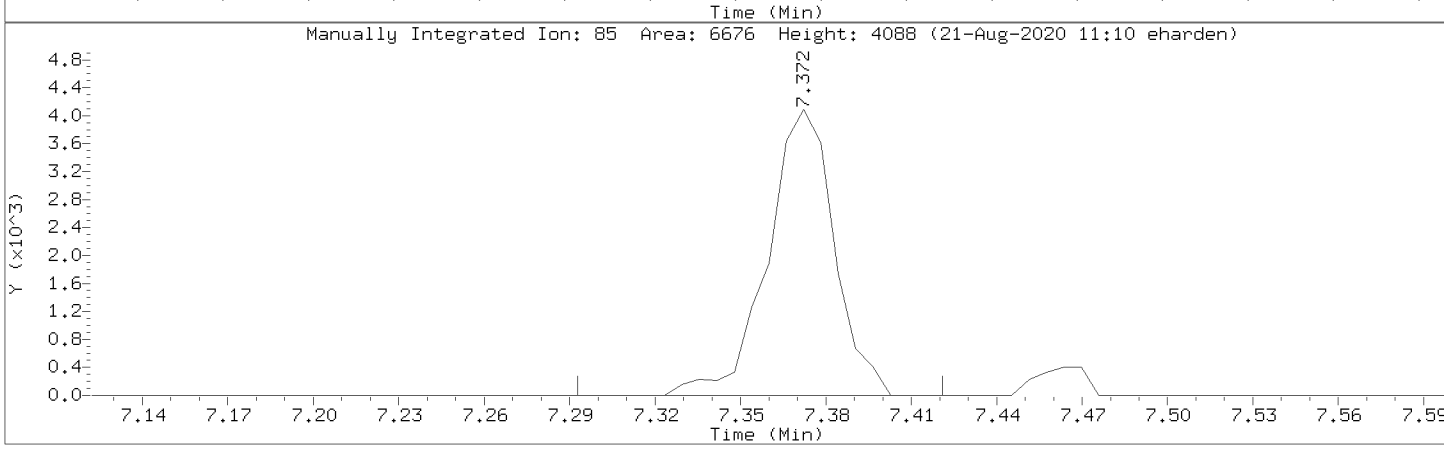
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Chloroform Review Code: NI
CAS Number: 67-66-3









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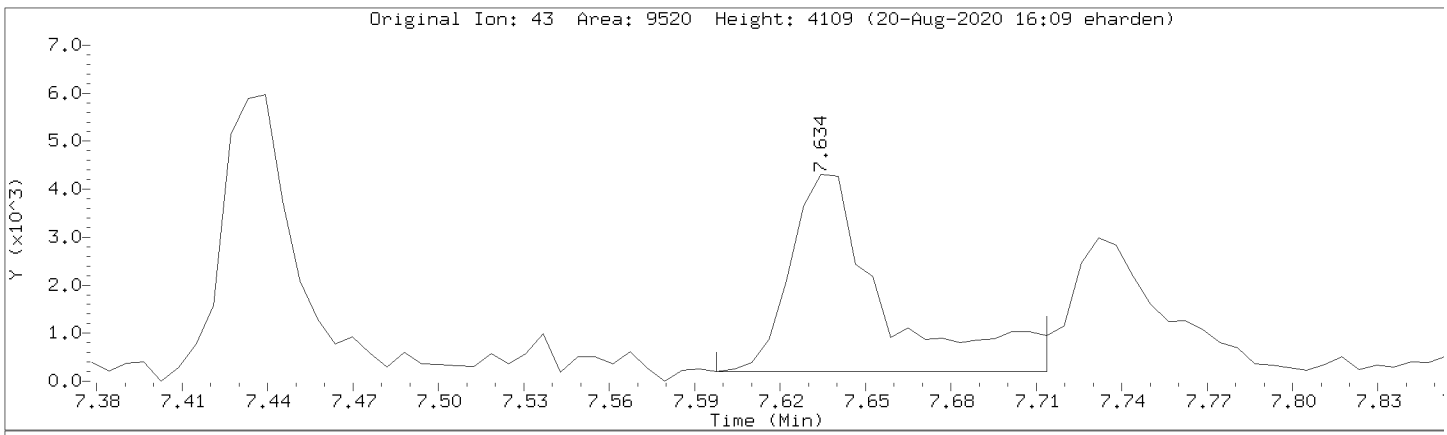
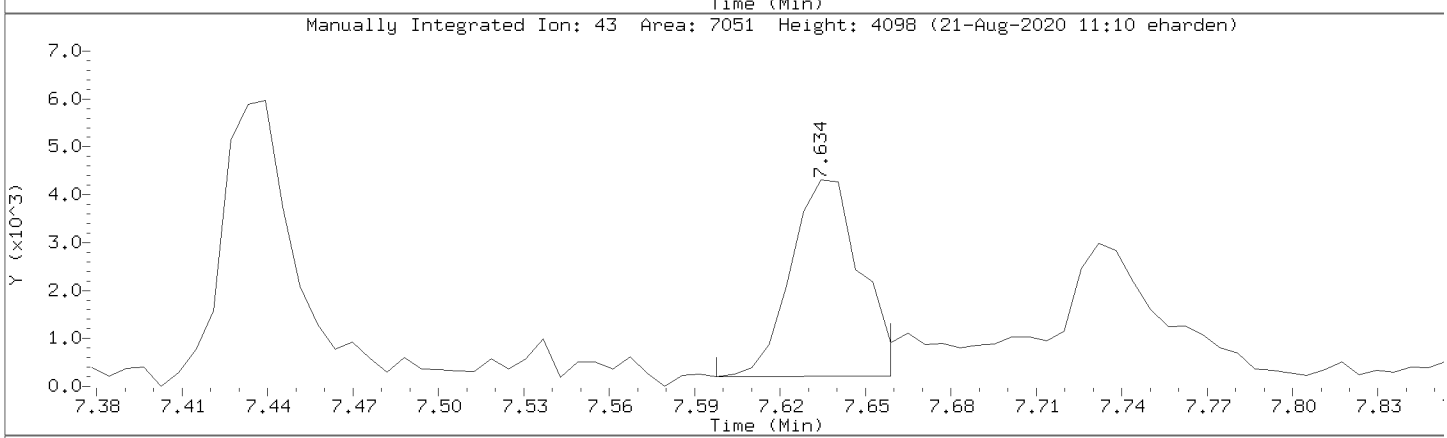
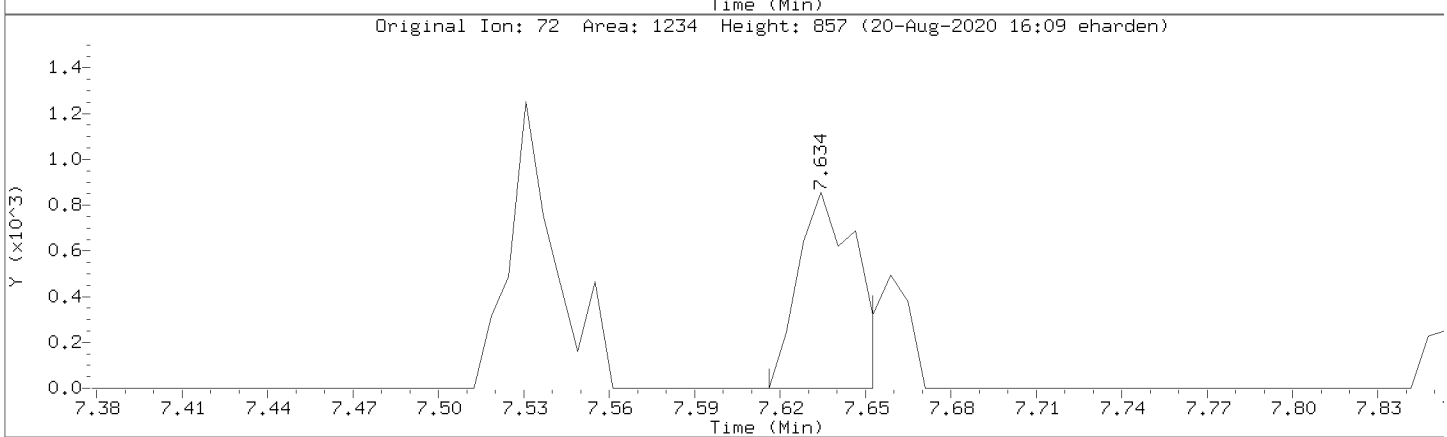
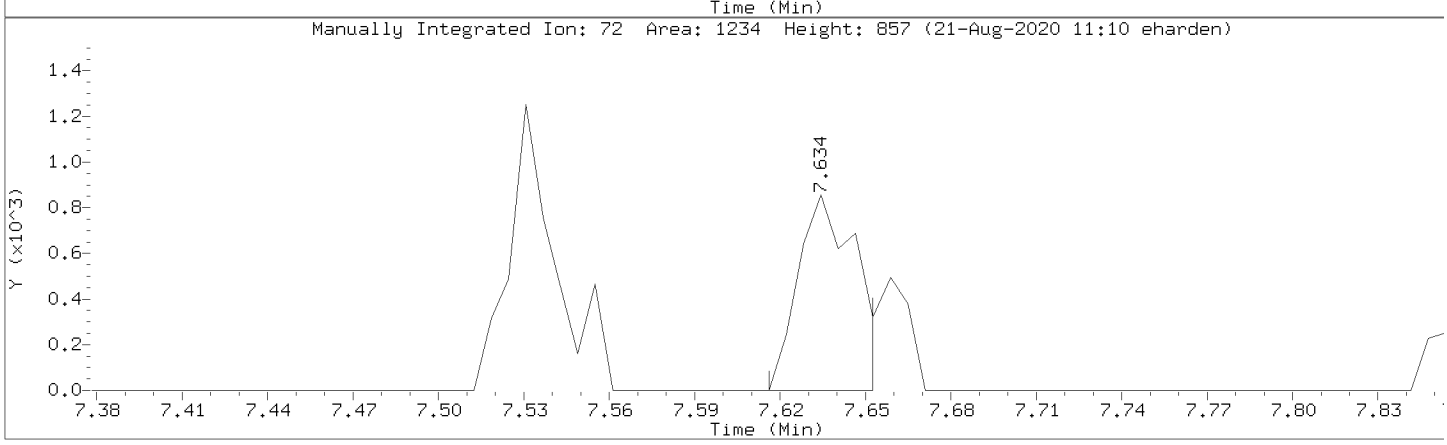
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3









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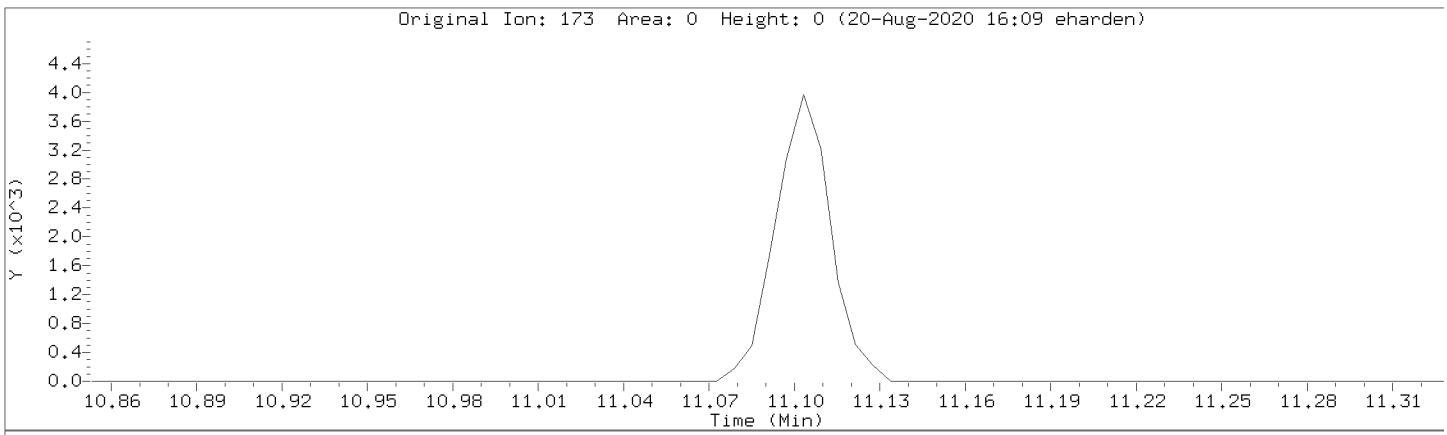
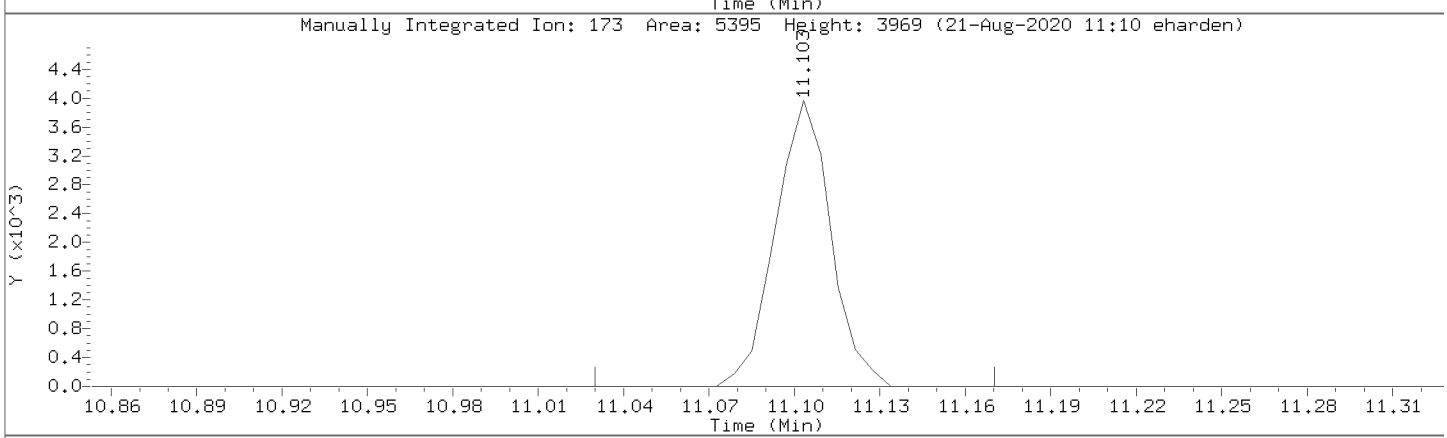
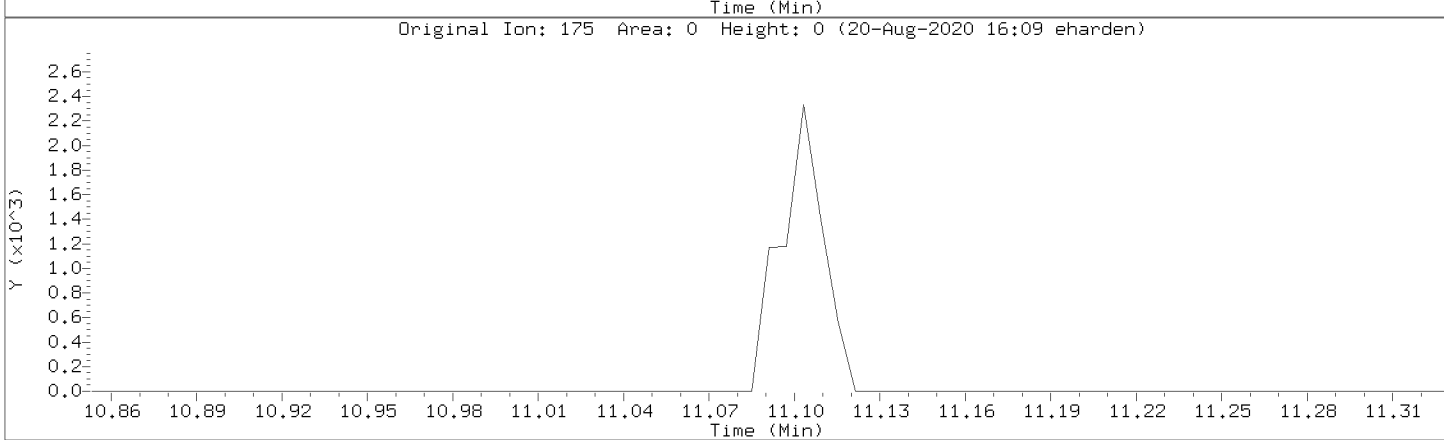
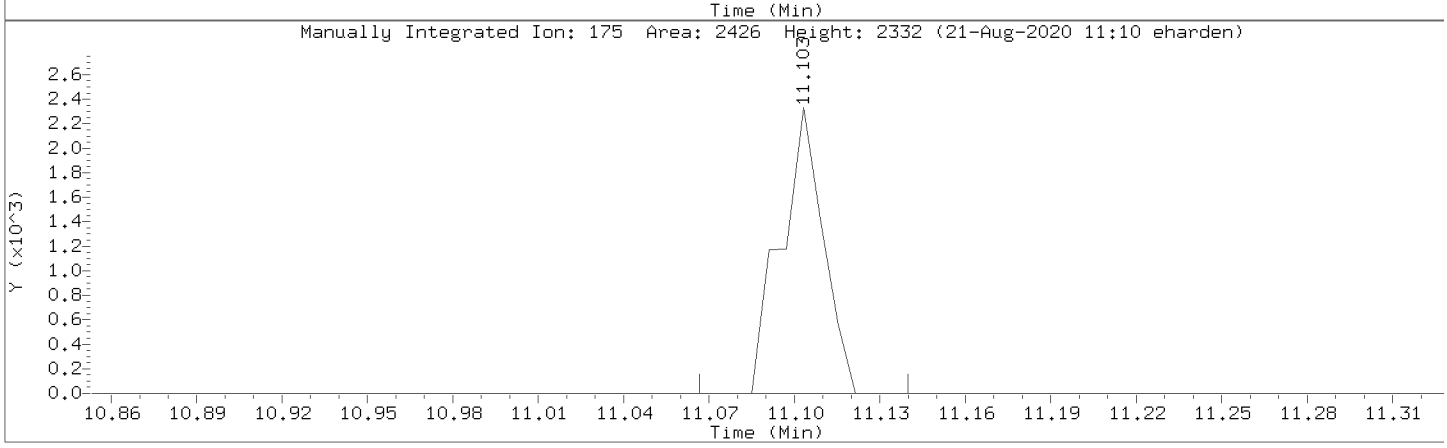
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2









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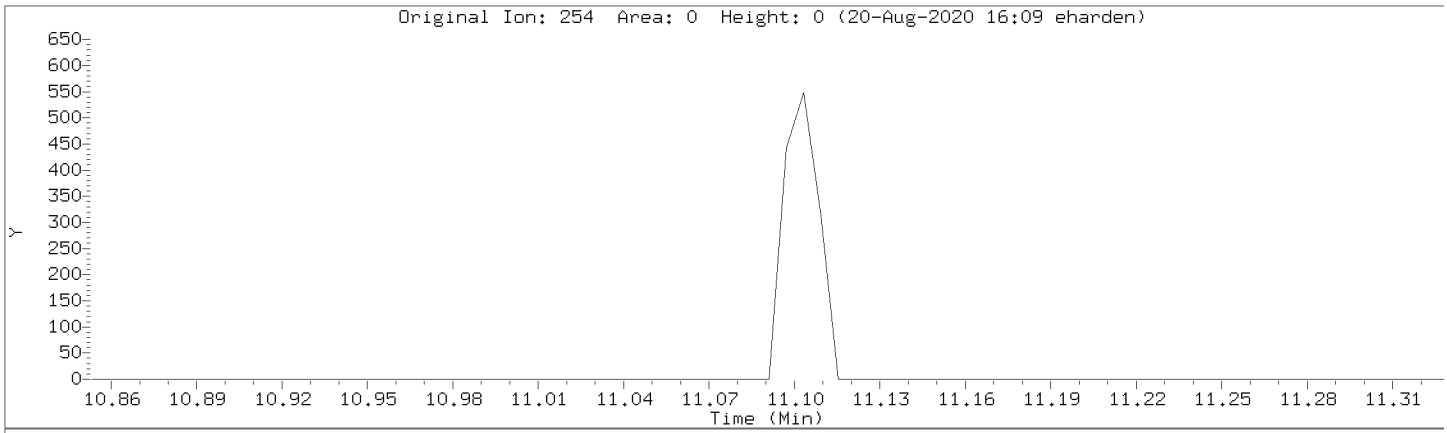
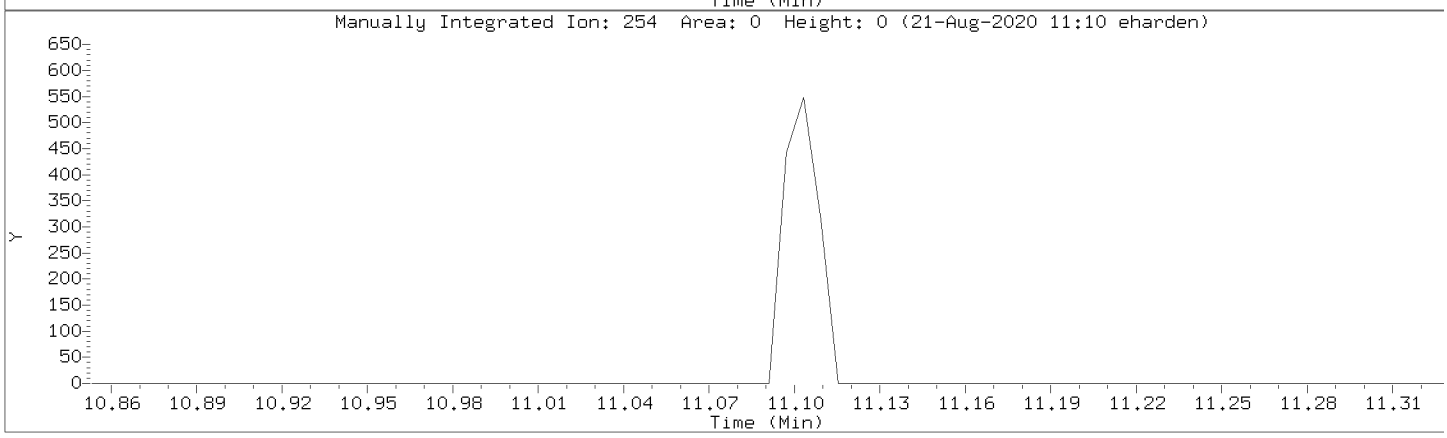
Injection Date: 20-AUG-2020 12:05
Instrument: 52mv02.i
Lab Sample ID: CAL4





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_07.D
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 20-AUG-2020 12:30
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal5,27241:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 12:30 Cal File: 082020_07.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.226	(0.408)	14553	5.00000	6.57(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	19435	5.00000	5.07	
3 Vinyl chloride	62	3.702	3.702	(0.471)	14015	5.00000	5.05	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	11700	5.00000	4.71	
5 Bromomethane	94	4.195	4.195	(0.534)	17914	5.00000	5.43	
6 Chloroethane	64	4.366	4.360	(0.556)	4115	5.00000	4.60	
7 Trichlorofluoromethane	101	4.525	4.531	(0.576)	9164	5.00000	5.38	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	5183	5.00000	5.33	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	15697	5.00000	5.00	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	11299	5.00000	5.46	
11 Carbon disulfide	76	5.287	5.293	(0.673)	34632	5.00000	4.99	
12 Iodomethane	142	5.433	5.439	(0.691)	3620	5.00000	2.40(M)	NI
13 Acrolein	56	5.665	5.659	(0.721)	3065	10.0000	9.72	
14 Allyl chloride	76	5.787	5.787	(0.736)	4947	5.00000	5.12	
15 Methylene Chloride	49	5.902	5.902	(0.751)	19166	5.00000	5.00(M)	NI
16 Acetone	43	5.976	5.976	(0.760)	23424	10.0000	11.5	
17 Methyl acetate	43	6.073	6.067	(0.773)	24665	10.0000	9.97	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	9707	5.00000	4.58	
19 n-Hexane	86	6.110	6.110	(0.777)	987	5.00000	4.39	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	22885	5.00000	4.62	
21 Acetonitrile	41	6.457	6.463	(0.822)	1316	10.0000	7.03(H)	
22 Chloroprene	53	6.646	6.640	(0.846)	13100	5.00000	4.35	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	21699	5.00000	5.27	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	9200	10.0000	10.3	
	25 Vinyl acetate	43	6.866	6.860	(0.874)	13650	5.00000	3.35(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	14788	5.00000	4.87	
	27 2,2-Dichloropropane	77	7.256	7.250	(0.923)	16052	5.00000	5.14	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	6858	5.00000	5.17	
	29 Cyclohexane	56	7.335	7.335	(0.882)	11423	5.00000	4.31	
	30 Chloroform	83	7.372	7.372	(0.938)	25117	5.00000	5.39	
	31 Ethyl acetate	43	7.433	7.433	(0.946)	24568	10.0000	9.34	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	16017	5.00000	5.16	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	7403	10.0000	9.47	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	142646	50.0000	53.0	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	18128	5.00000	4.92	
	36 2-Butanone (MEK)	43	7.634	7.628	(0.971)	20760	10.0000	10.3(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	11218	5.00000	4.38(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	233975	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	42206	5.00000	5.11	
	40 Propionitrile	54	7.908	7.902	(1.006)	4081	10.0000	10.2	
	41 Methacrylonitrile	41	7.908	7.902	(1.006)	19063	10.0000	9.40	
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	24458	50.0000	50.5	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	19145	5.00000	5.10	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	20765	5.00000	4.65	
	46 Trichloroethene	130	8.323	8.317	(1.001)	10658	5.00000	4.72	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	323174	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	4857	5.00000	4.53	
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	8.670	8.670	(1.043)	9900	5.00000	5.14	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	11583	5.00000	4.91	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	16004	5.00000	4.72	
	53 Methyl methacrylate	69	8.829	8.823	(1.062)	4271	5.00000	3.58(H)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	7311	10.0000	7.06	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	14819	5.00000	4.50	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	347863	50.0000	50.0	
	58 Toluene	91	9.414	9.414	(1.132)	39430	5.00000	4.89	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	3643	5.00000	4.18(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	2047	10.0000	8.85(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	14819	5.00000	4.41	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	10094	5.00000	5.08	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	8601	5.00000	4.14(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	9557	5.00000	4.68	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	13805	5.00000	5.01	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	15130	5.00000	4.86	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	11170	5.00000	4.72	
	68 2-Hexanone	43	10.280	10.280	(1.236)	23734	10.0000	8.70	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	32827	5.00000	4.33	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	289782	50.0000		
	71 Chlorobenzene	112	10.572	10.578	(1.001)	26354	5.00000	4.71	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	11764	5.00000	4.98	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	49356	10.0000	8.71	
	74 o-Xylene	106	10.993	10.993	(1.041)	10438	5.00000	3.93	
	75 Styrene	104	11.029	11.029	(1.044)	16739	5.00000	3.77	
	76 Bromoform	173	11.103	11.103	(1.051)	12410	5.00000	4.74(M)	NI

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.224	11.225	(1.063)	15978	5.00000	3.97	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	114113	50.0000	48.0	
	79 cis-1,4-Dichloro-2-butene	53	11.493	11.487	(1.088)	4646	5.00000	4.88	
	80 n-Propylbenzene	91	11.529	11.523	(1.092)	41636	5.00000	4.48	
	81 Bromobenzene	156	11.578	11.578	(1.096)	13586	5.00000	4.58	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	15768	5.00000	5.08	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	23455	5.00000	4.15	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	8976	5.00000	4.46	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	8467	5.00000	4.29	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	24864	5.00000	3.71	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	15868	5.00000	4.99	
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	3621	5.00000	4.85(M)	NI
	89 Cyclohexanone	98	Compound Not Detected.						(D)
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	19573	5.00000	3.52	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	22168	5.00000	3.89	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	26110	5.00000	3.85	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	19573	5.00000	3.52	
	94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	20960	5.00000	4.64	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	171143	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	24168	5.00000	4.83	
	97 n-Butylbenzene	91	12.486	12.486	(1.012)	24705	5.00000	4.14	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	22957	5.00000	4.66	
	99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	2892	5.00000	5.17	
	100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	6852	5.00000	4.49	
	101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	15217	5.00000	4.69	
	102 Naphthalene	128	14.200	14.193	(1.151)	22100	5.00000	3.96	
	103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	13936	5.00000	4.45	

QC Flag Legend

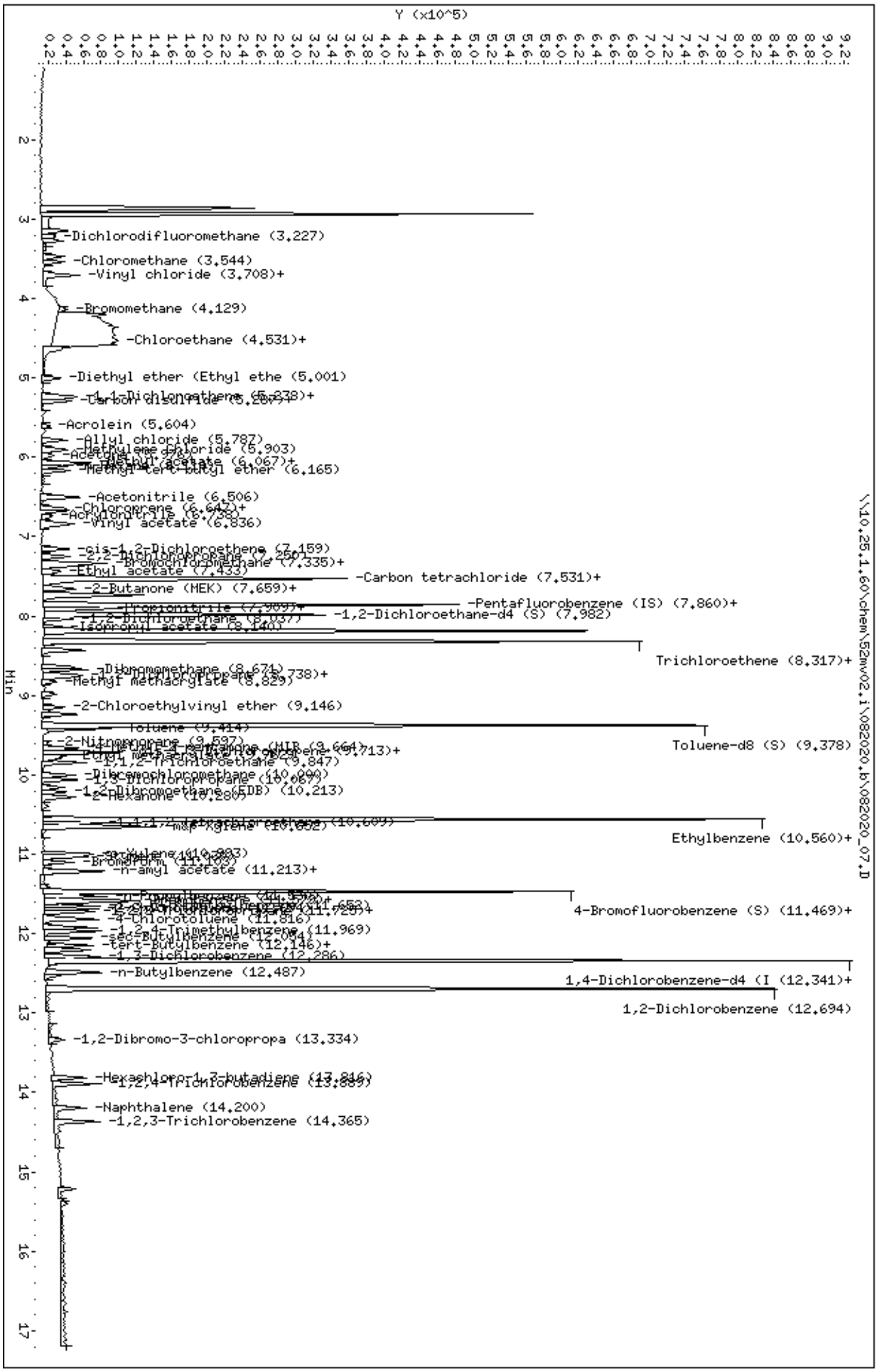
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
NI: Indicates that the peak was not integrated at all by the computer software.
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_07.D
Date : 20-AUG-2020 12:30
Client ID: CAL5
Sample Info: CAL5,27241:1
Purge Volume: 5.0
Column phase: RTX-VMS

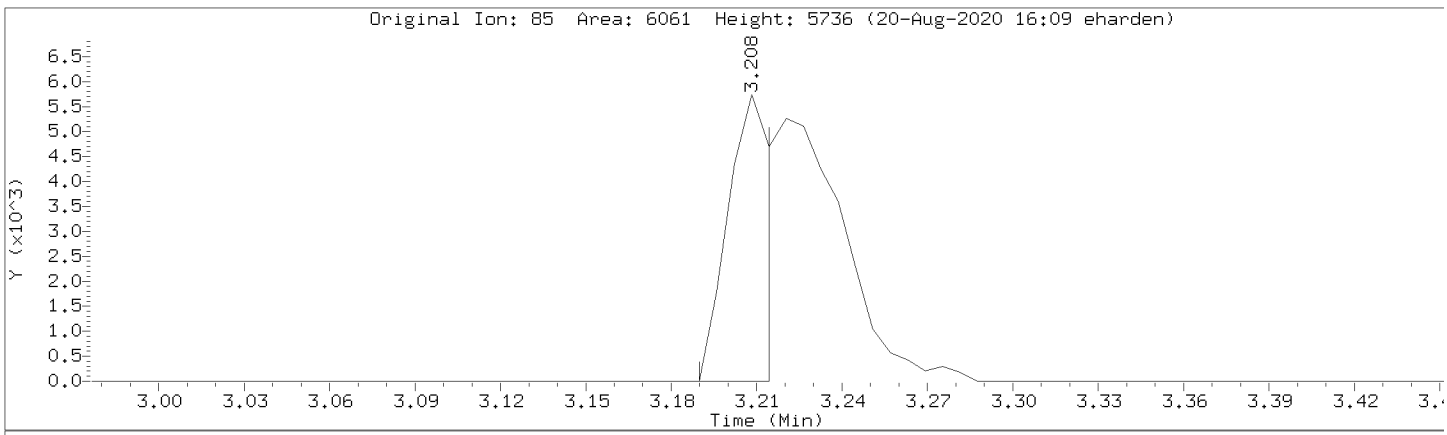
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

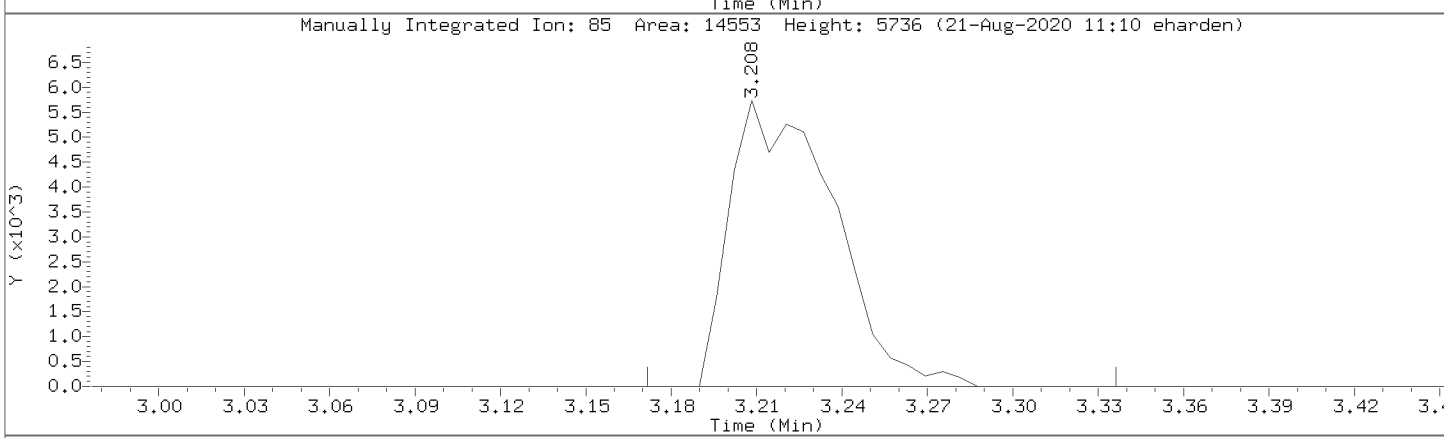


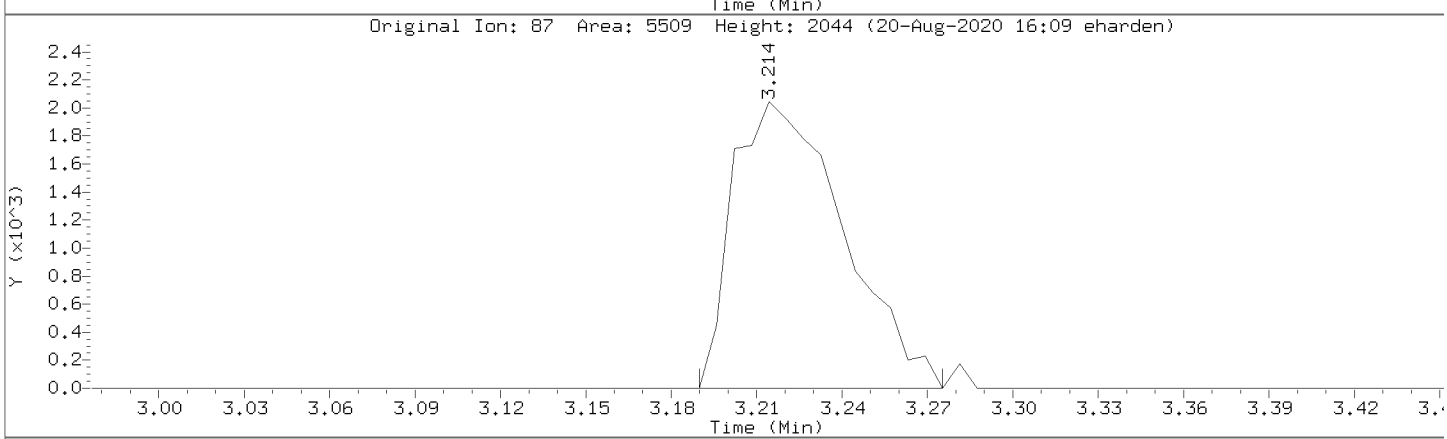
Page 4

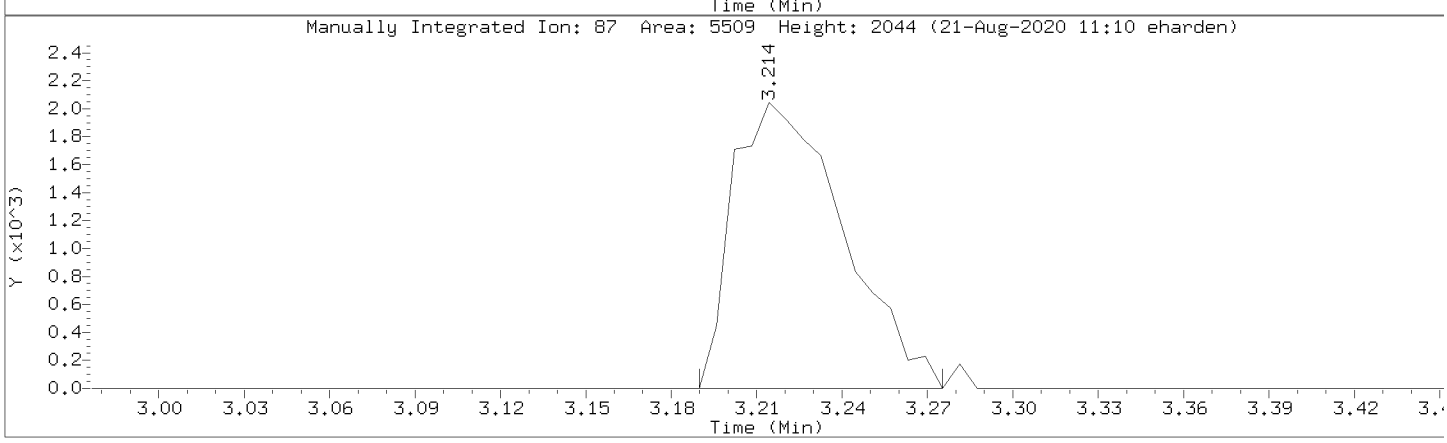
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_07.D
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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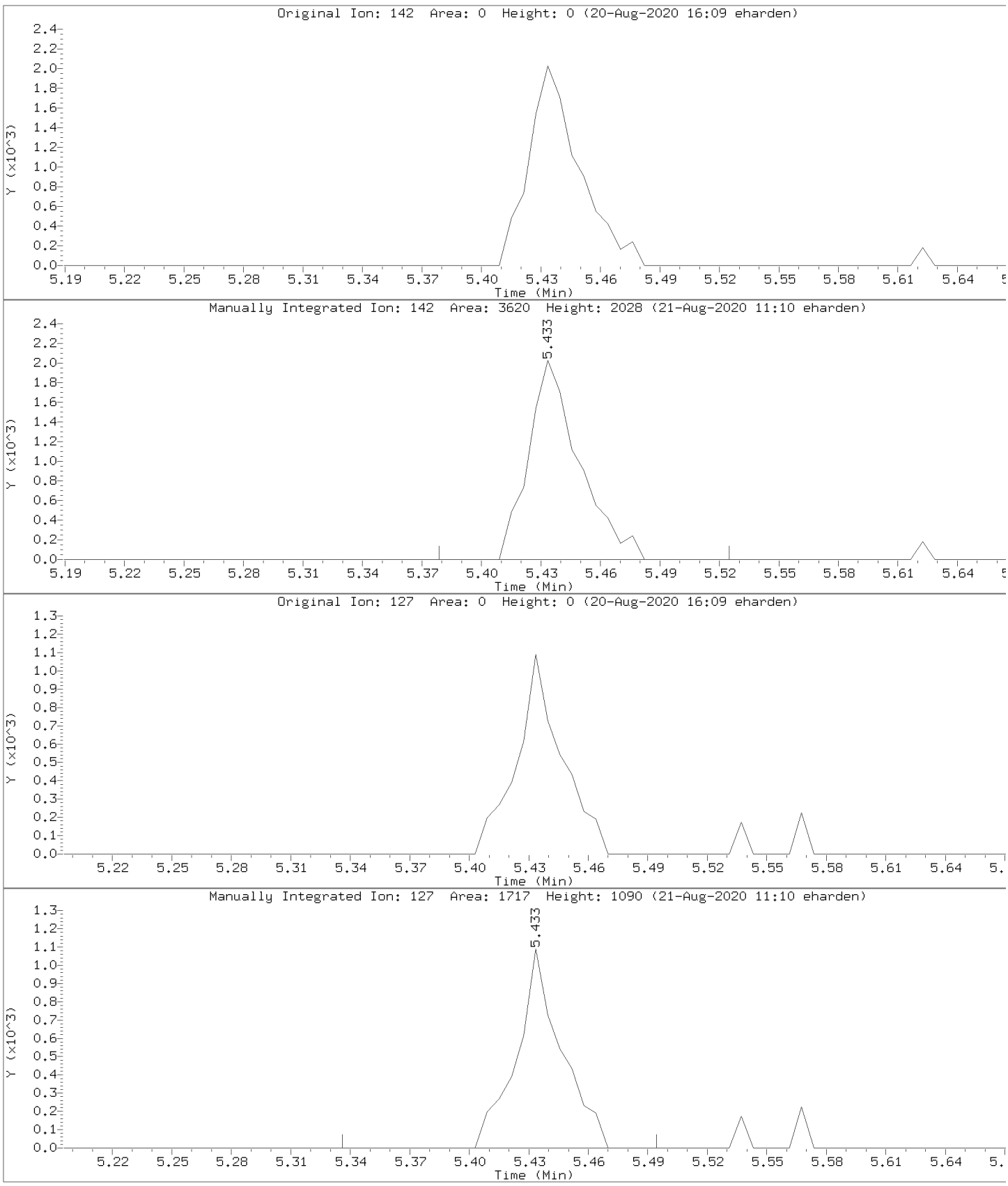
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4



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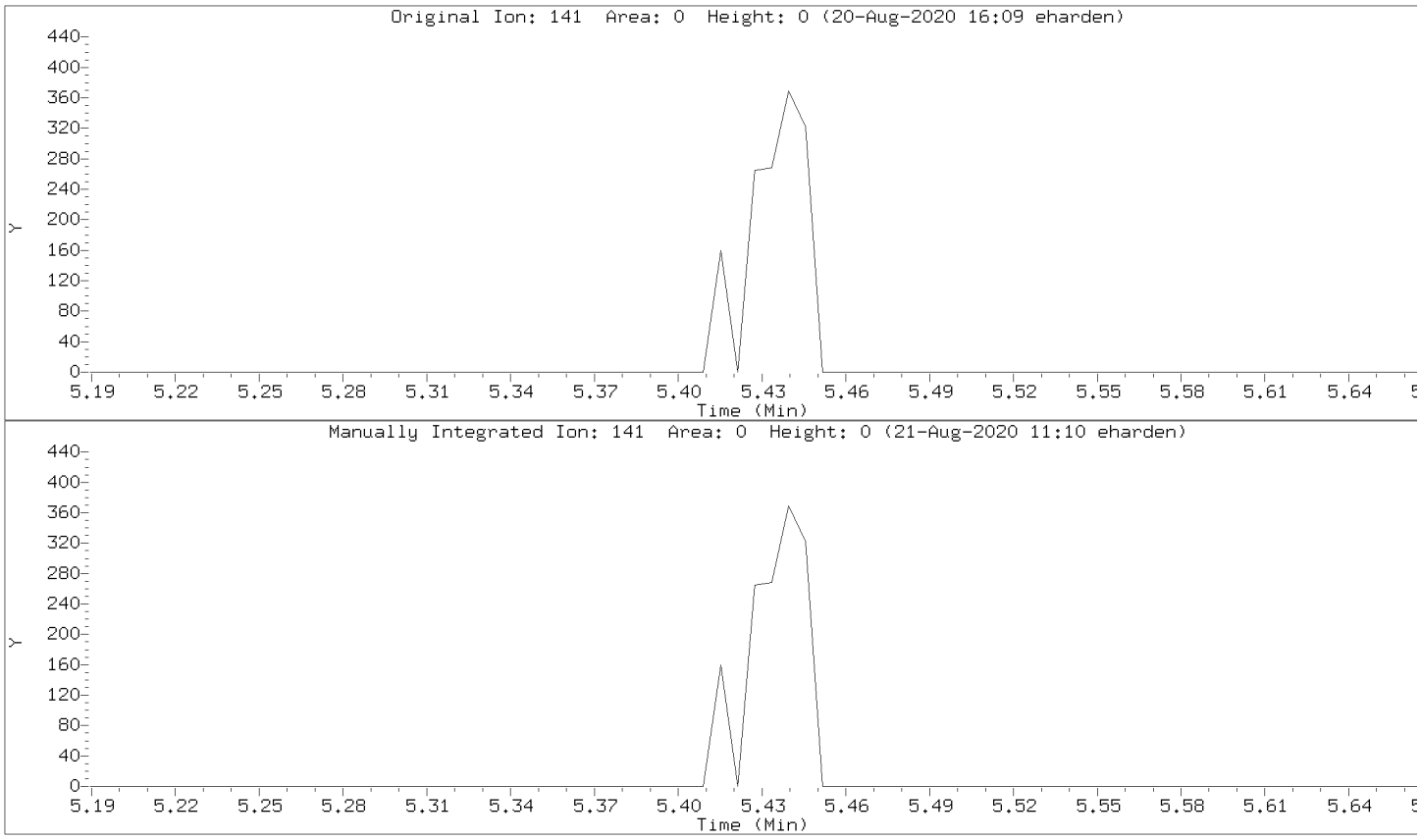
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5



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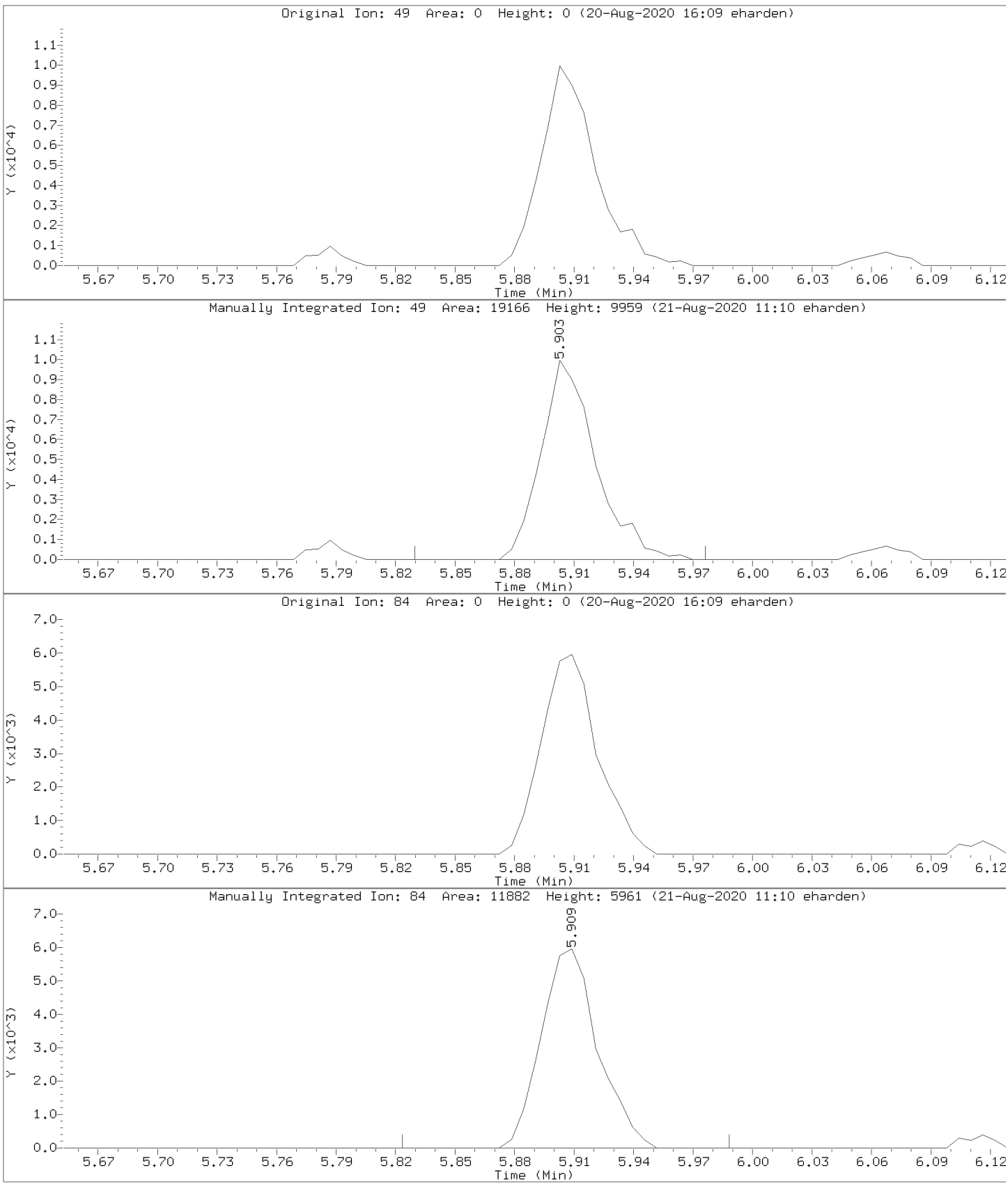
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Methylene Chloride Review Code: NI
CAS Number: 75-09-2



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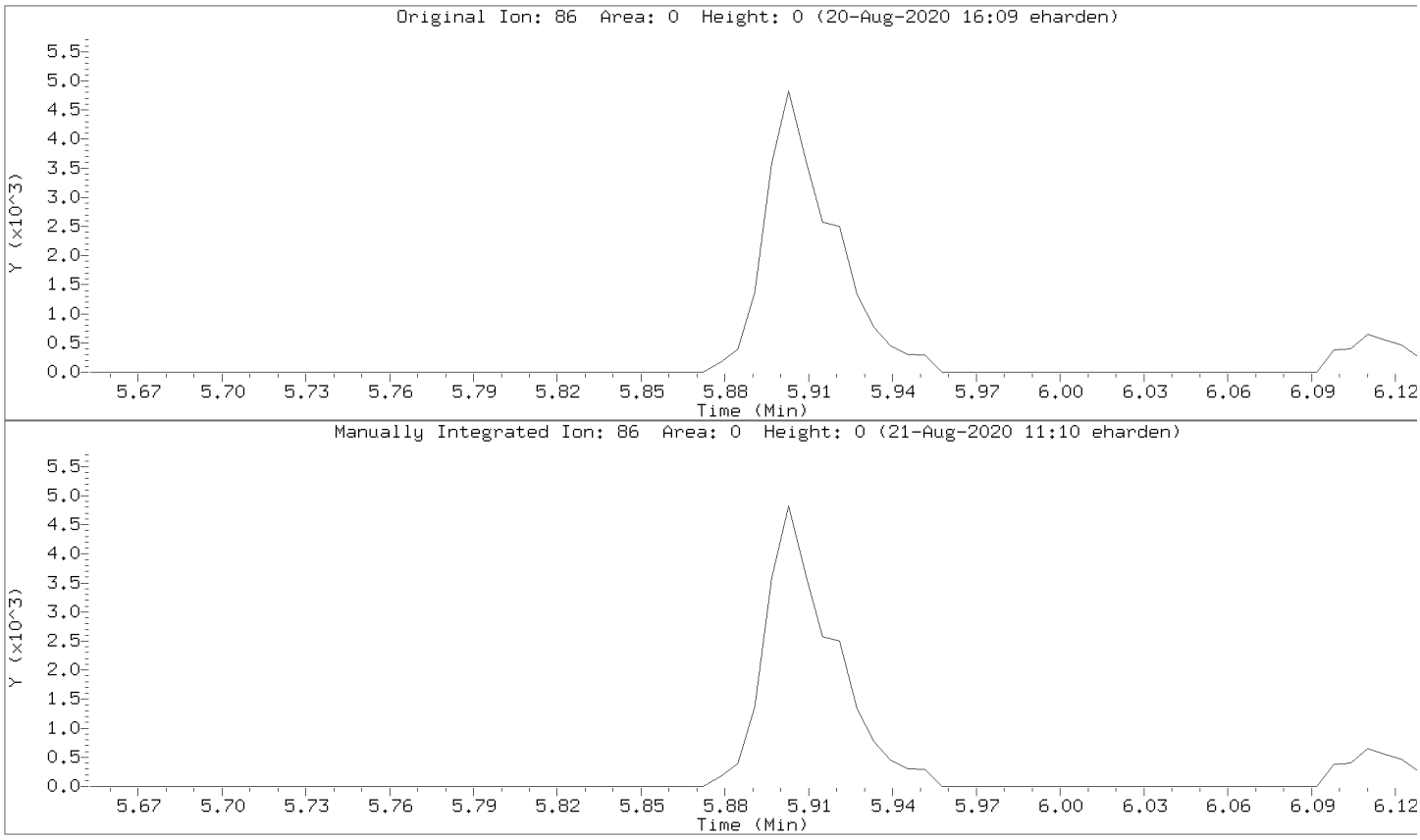
Lab Sample ID: CAL5



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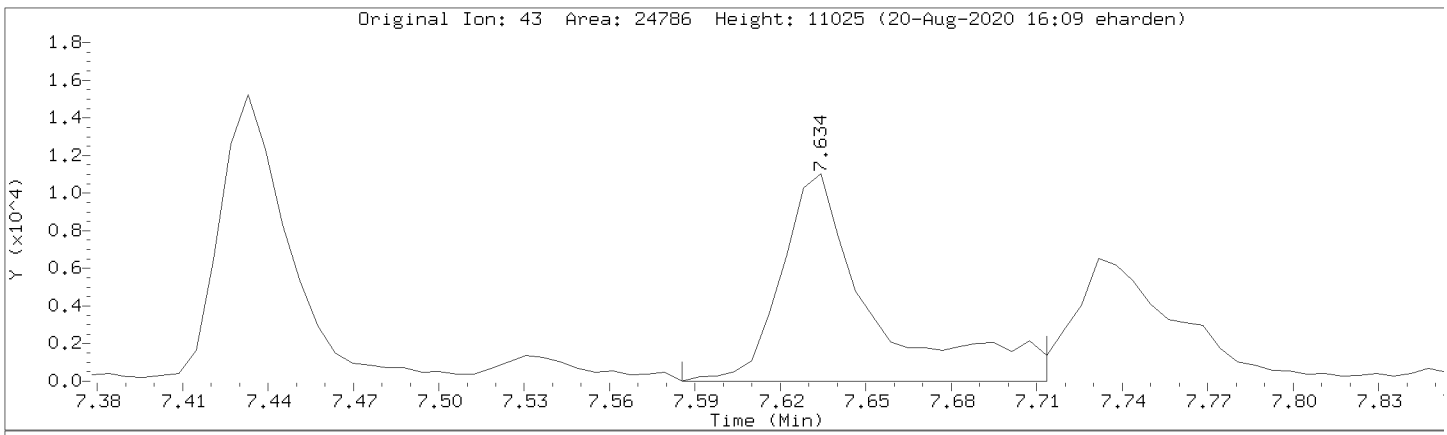
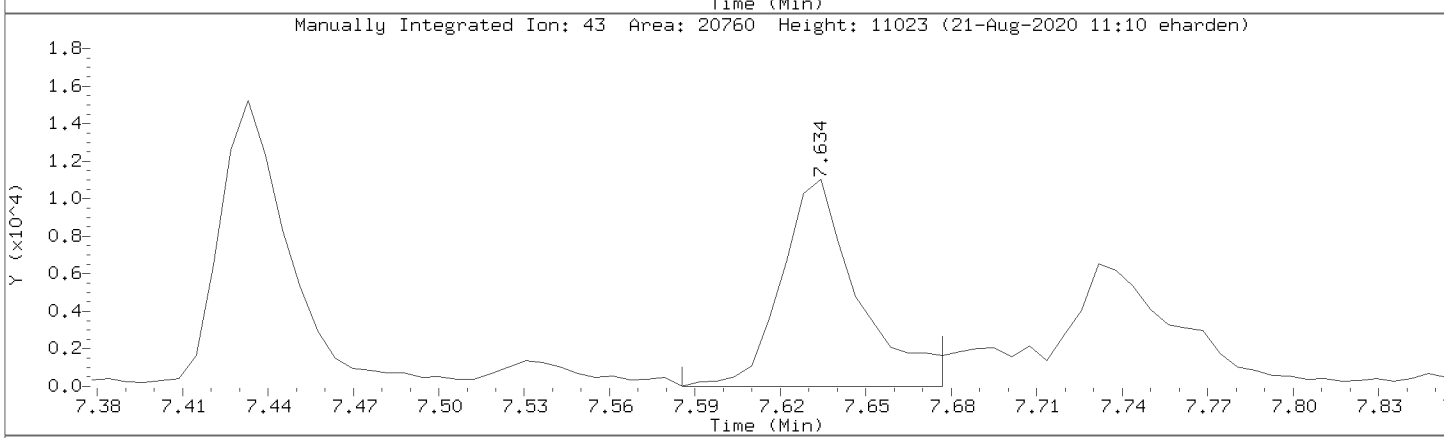
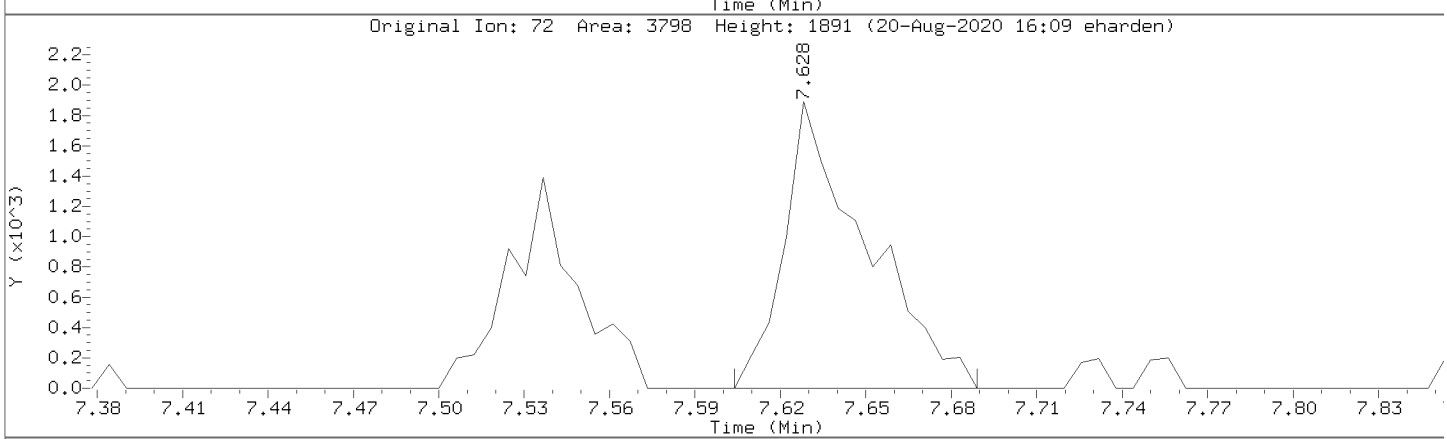
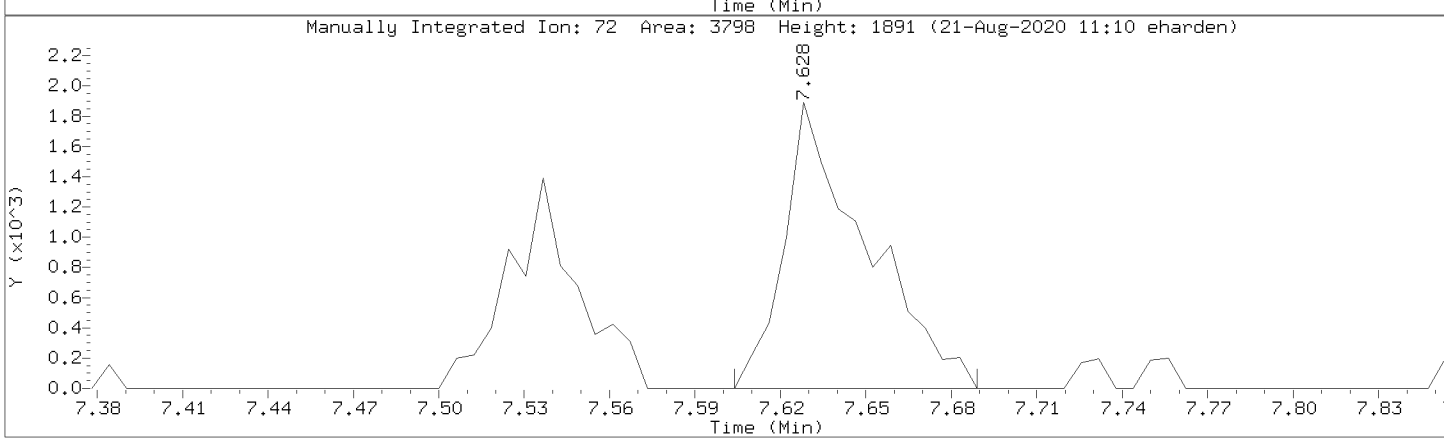
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3









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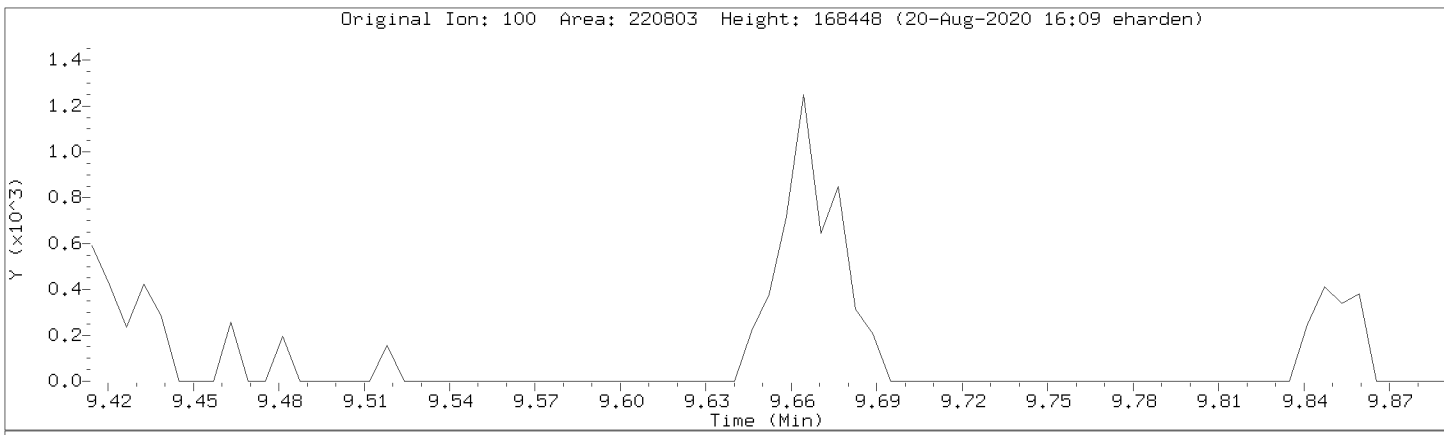
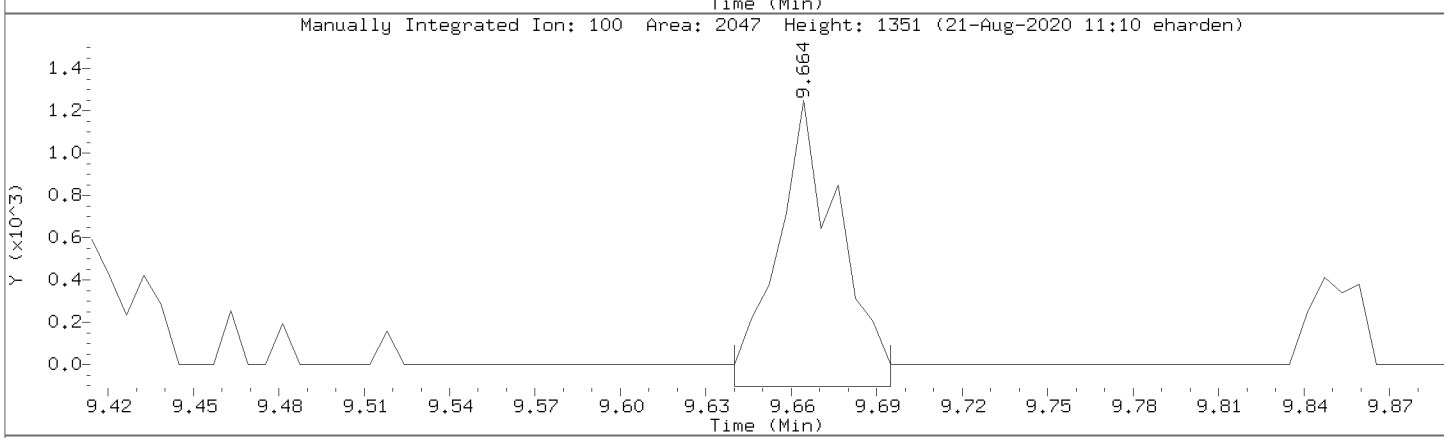
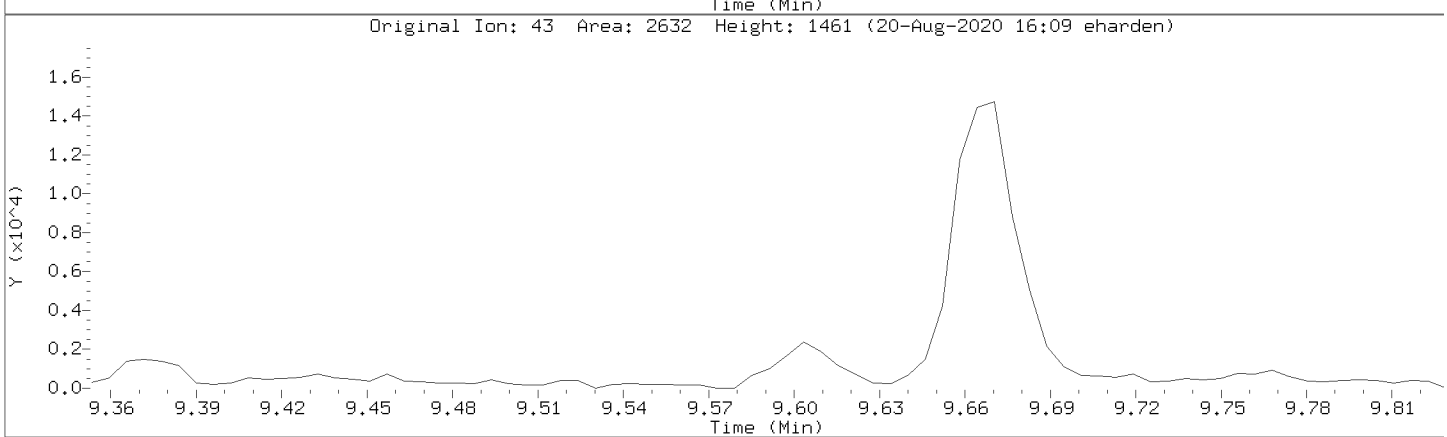
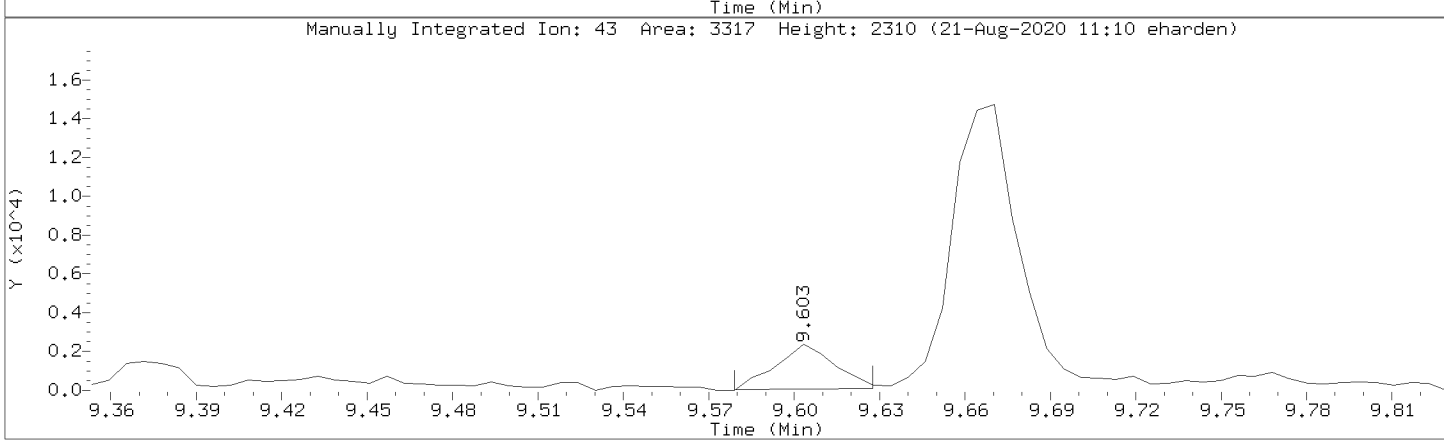
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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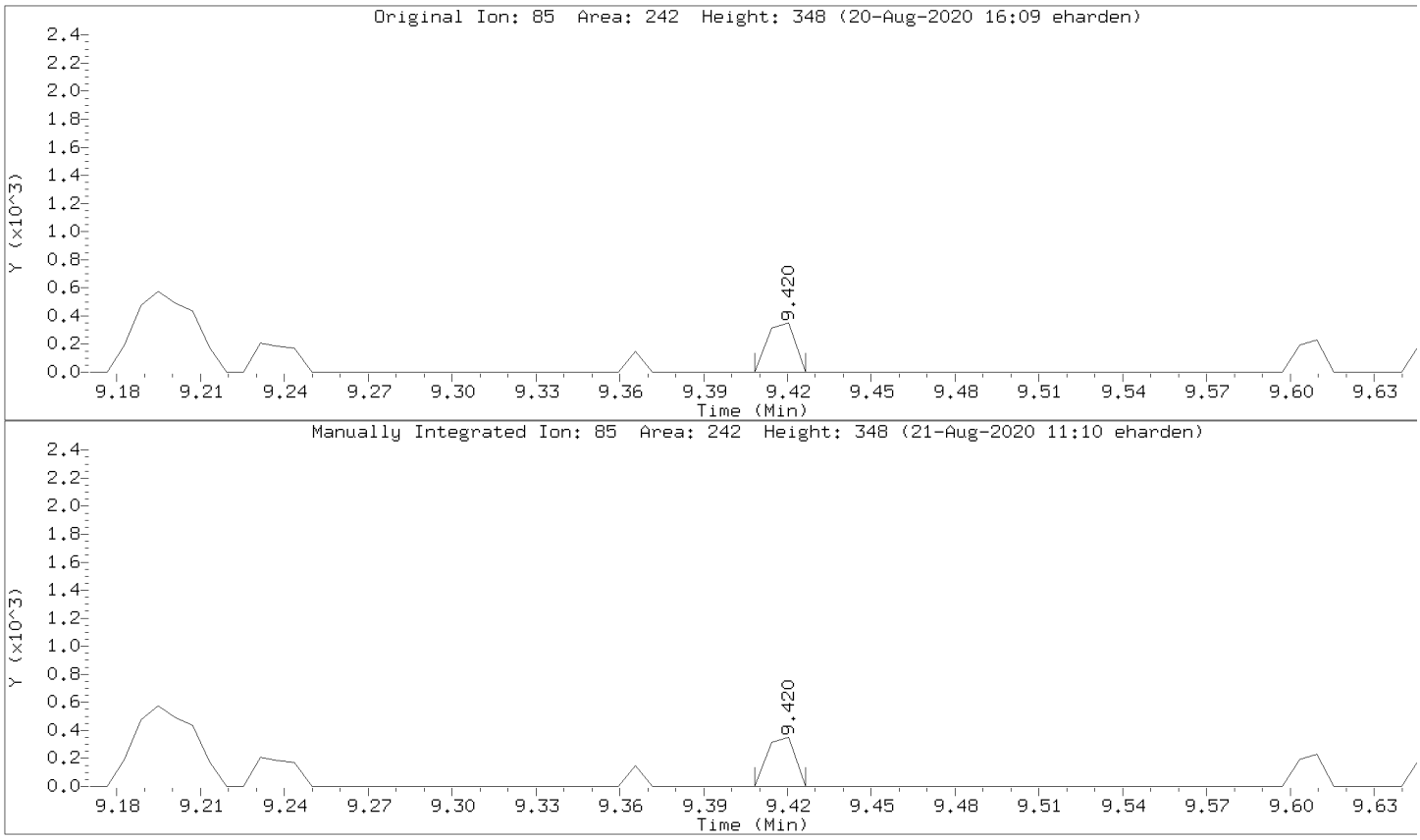
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5



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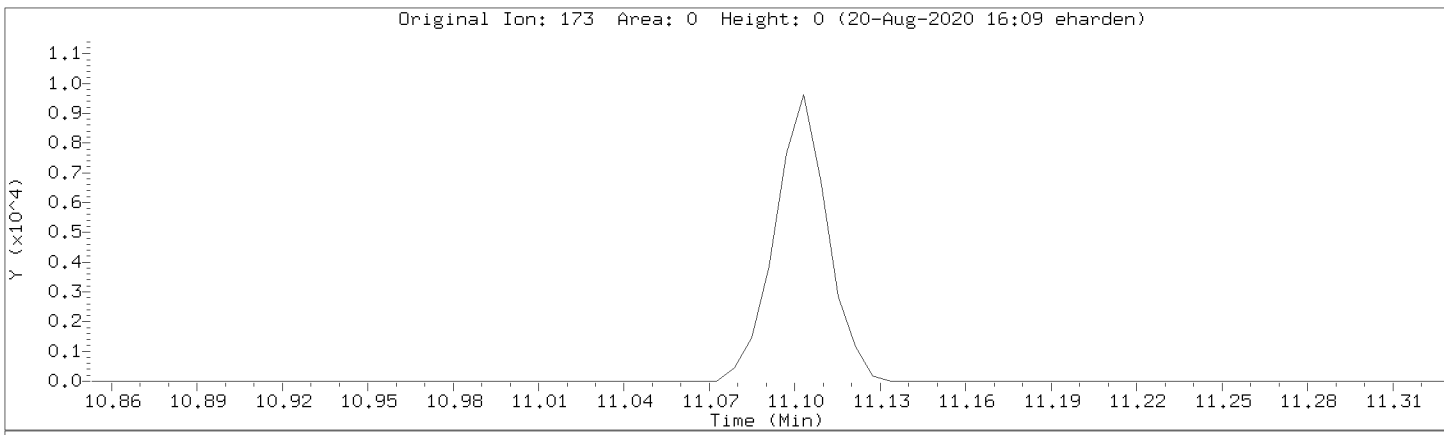
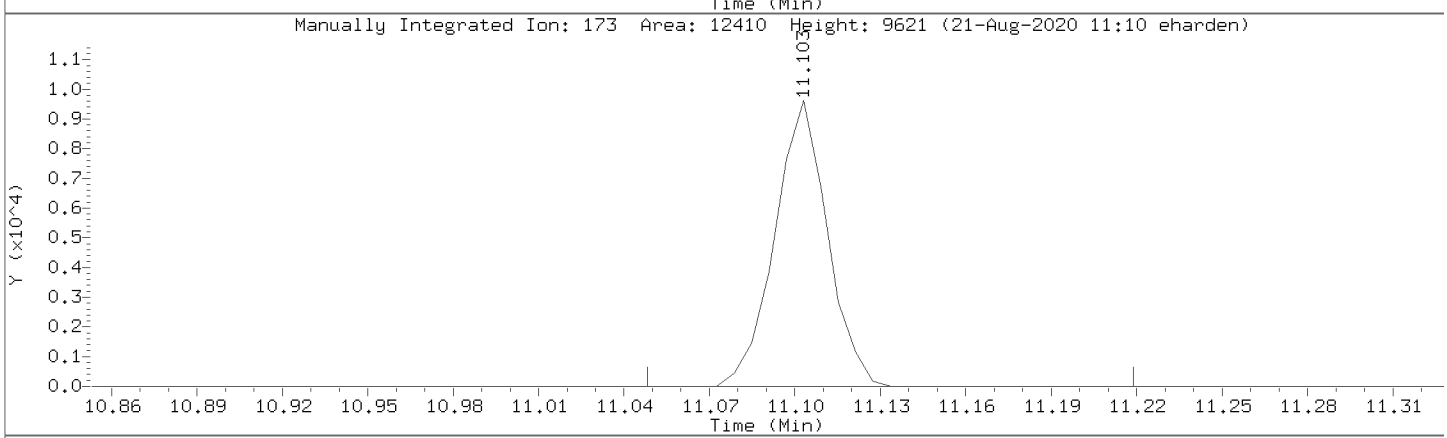
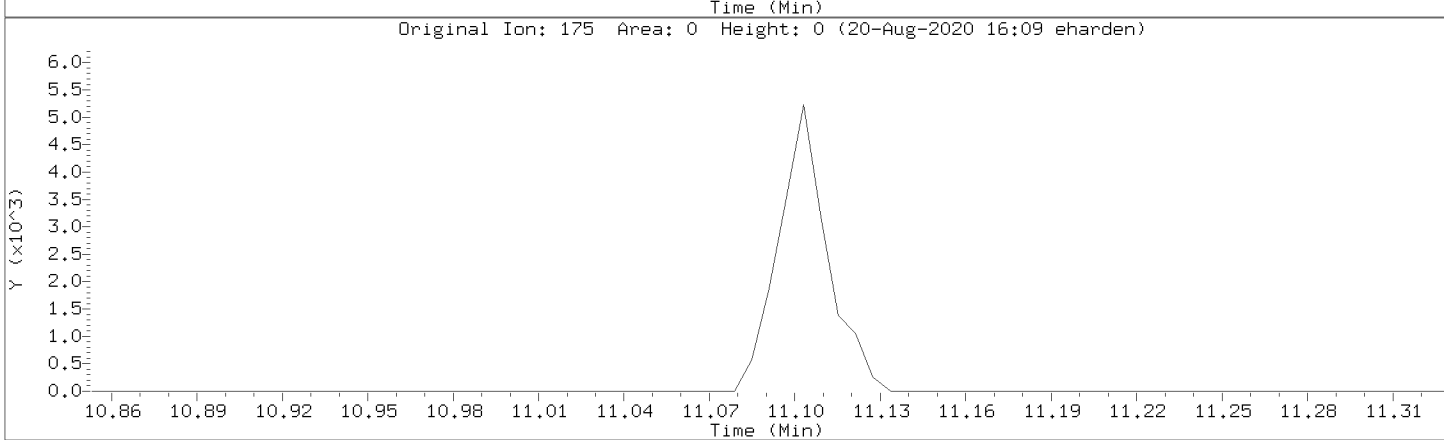
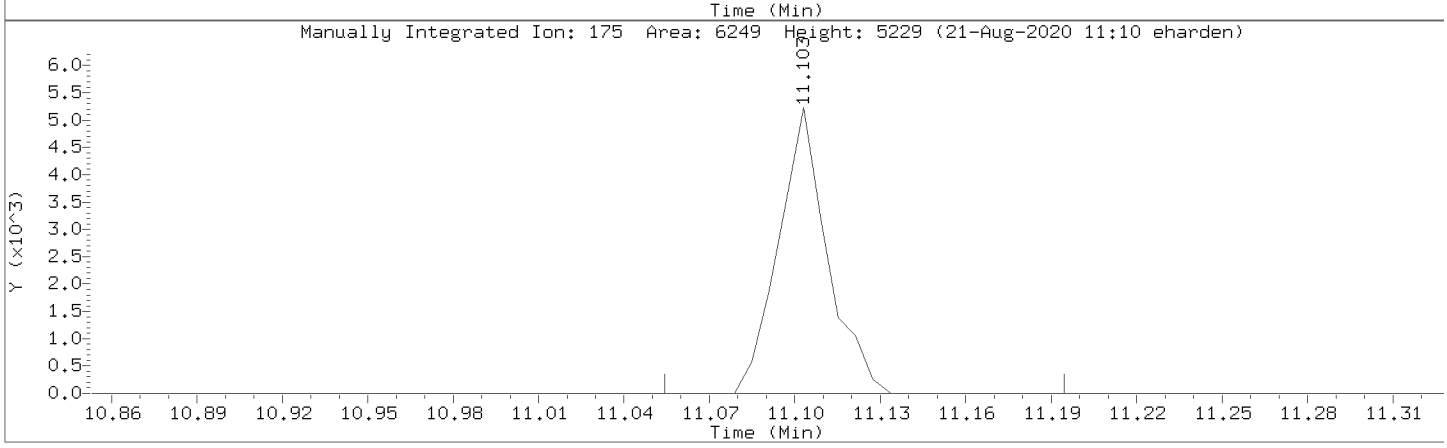
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: Bromoform Review Code: NI
CAS Number: 75-25-2









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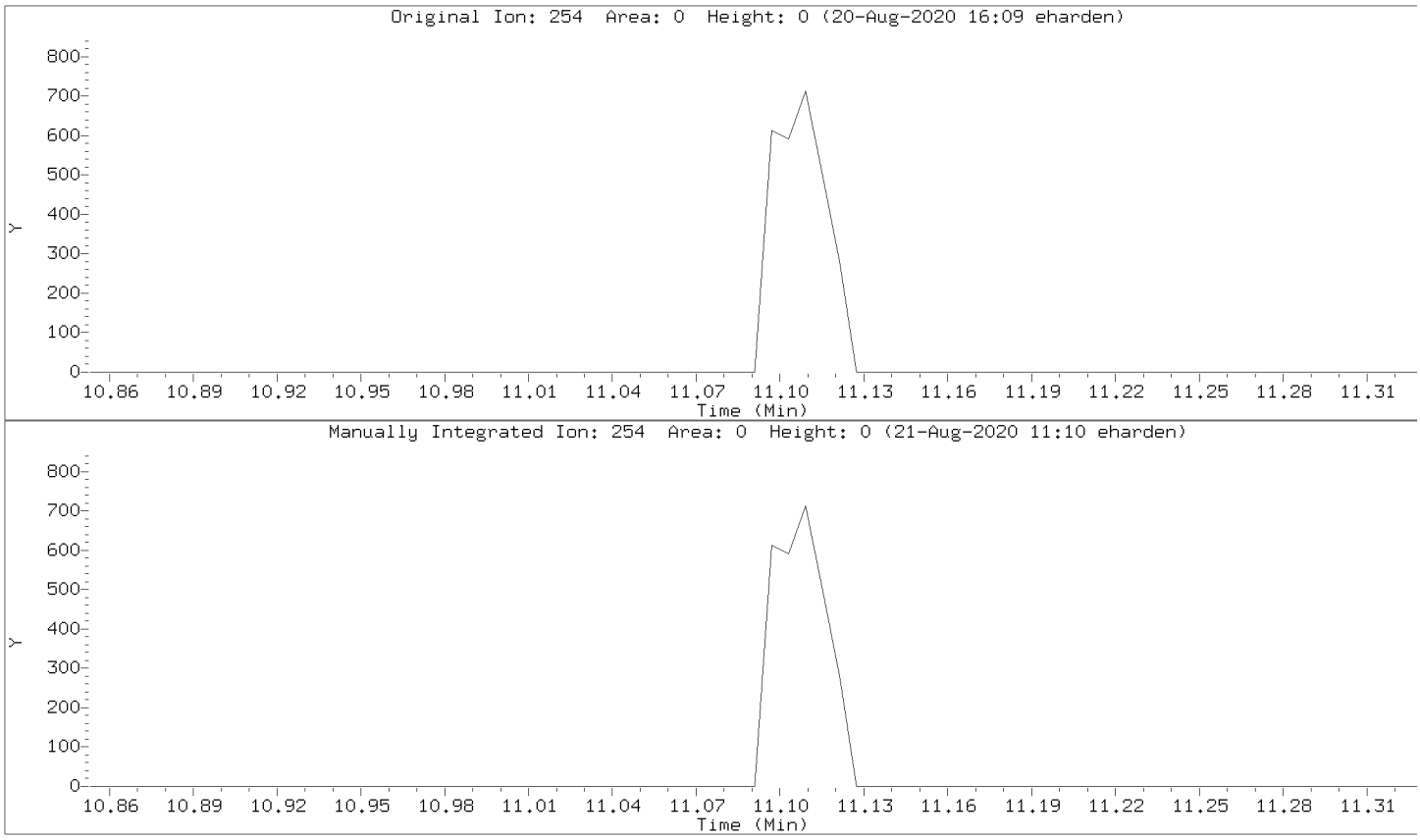
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5



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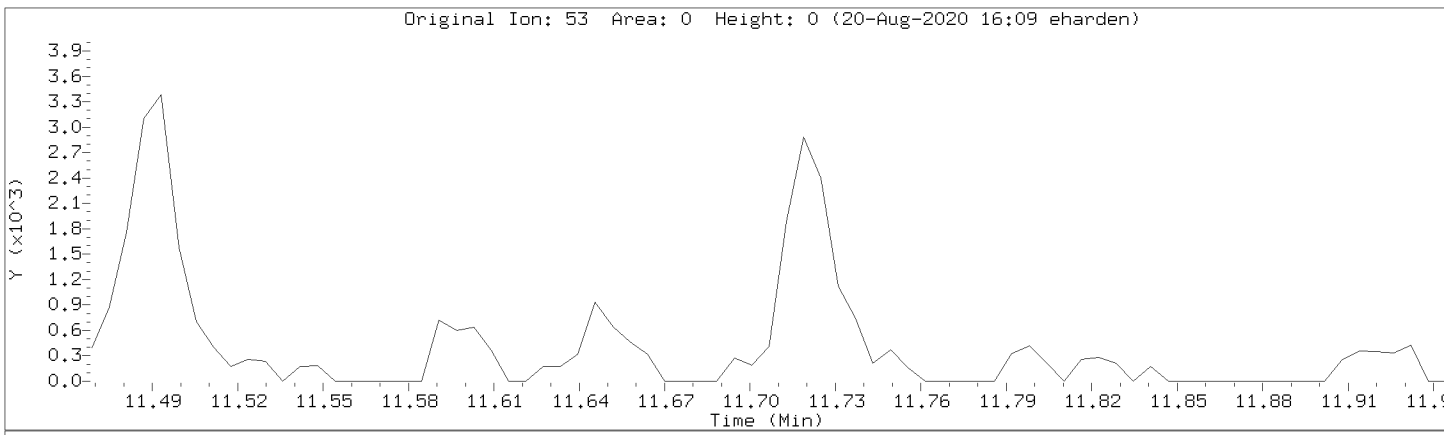
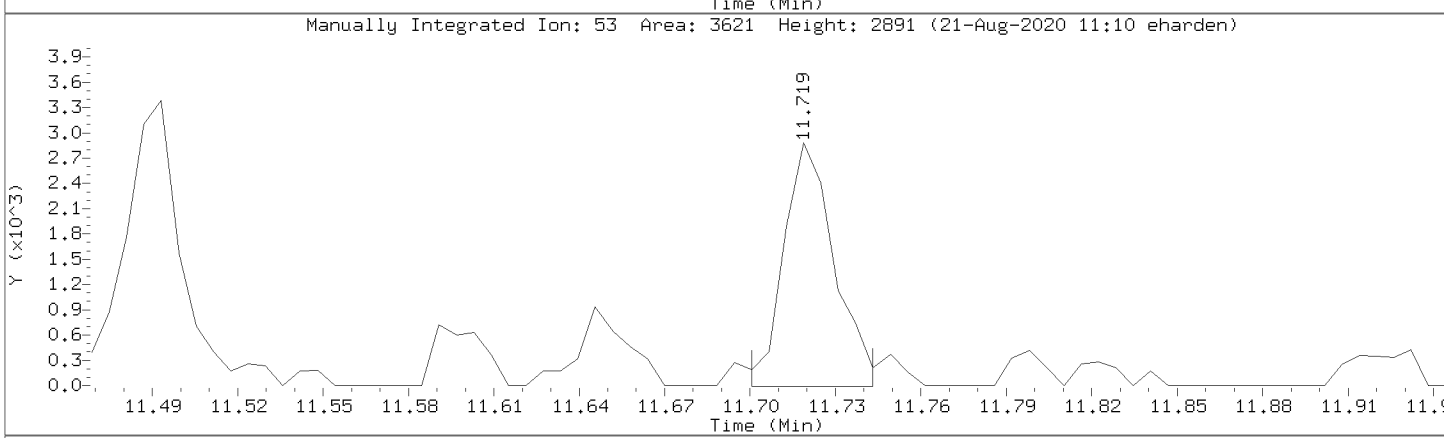
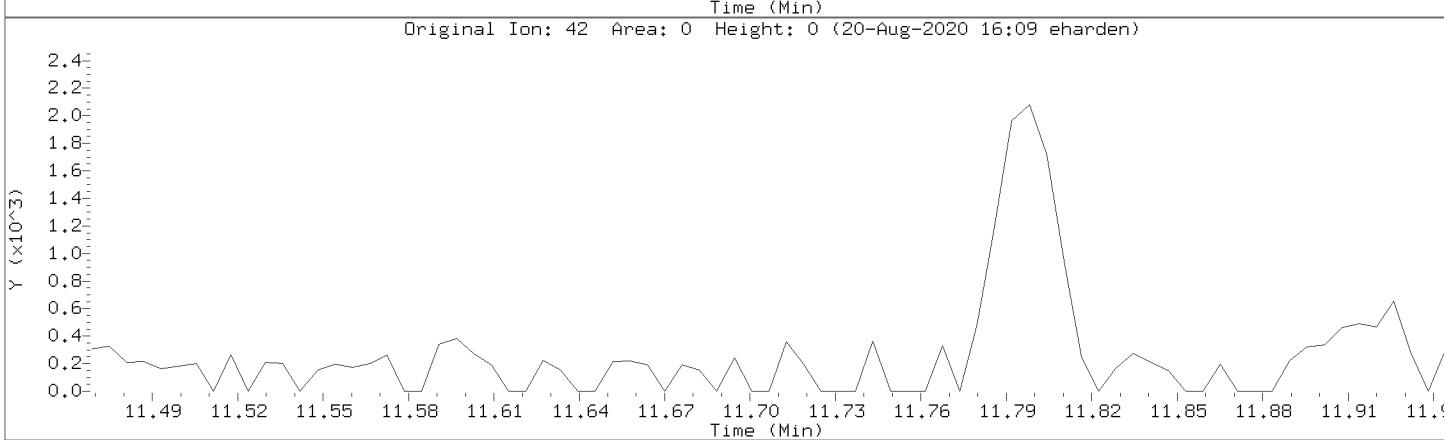
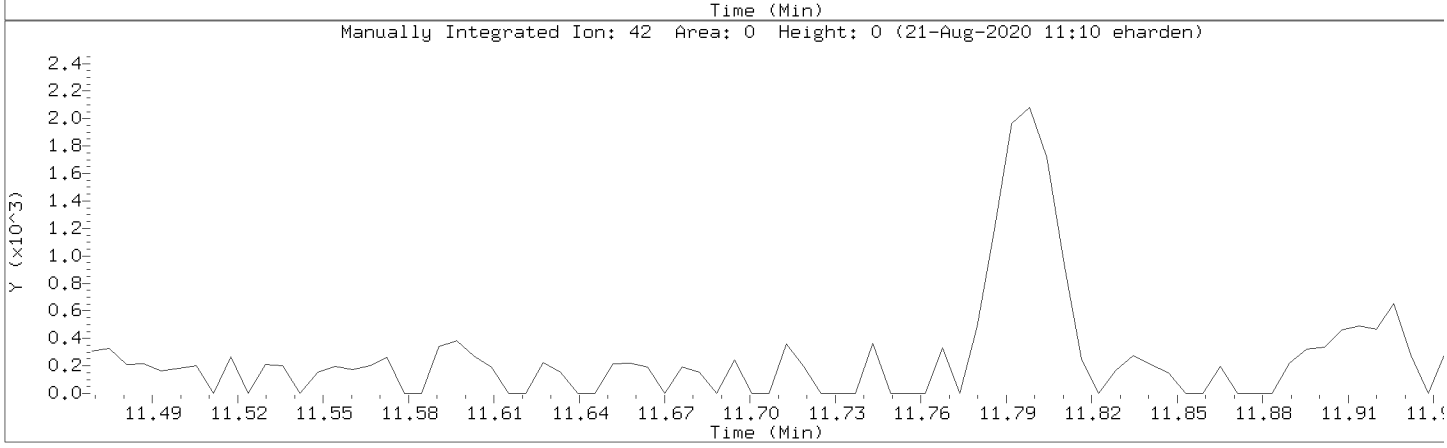
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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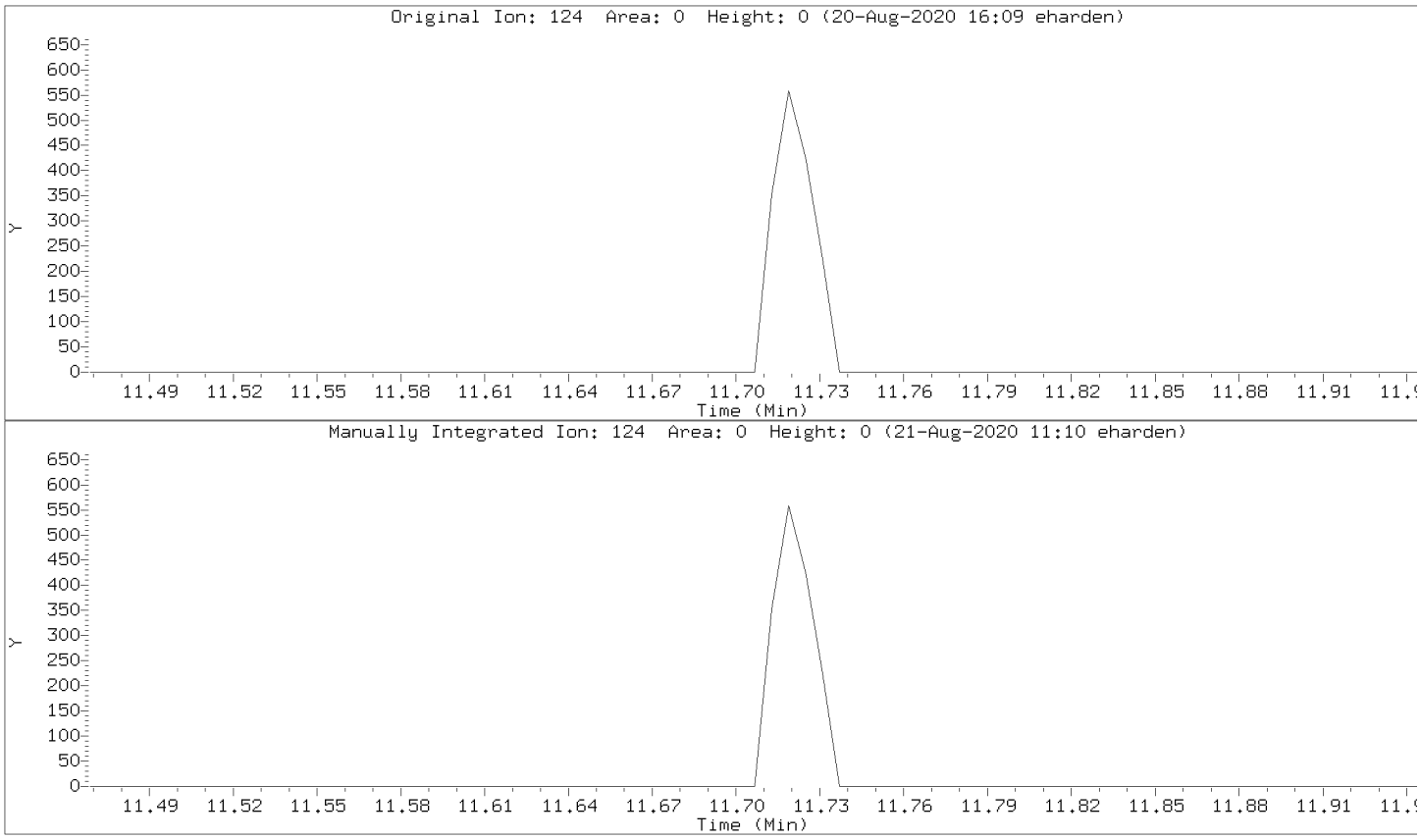
Injection Date: 20-AUG-2020 12:30
Instrument: 52mv02.i
Lab Sample ID: CAL5



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_08.D
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Inj Date : 20-AUG-2020 12:55
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal6,27242:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 12:55 Cal File: 082020_08.D
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.226	(0.409)	29295	10.0000	9.84	
2 Chloromethane	50	3.543	3.543	(0.451)	39151	10.0000	10.6	
3 Vinyl chloride	62	3.689	3.702	(0.469)	28051	10.0000	9.58	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	27387	10.0000	10.4	
5 Bromomethane	94	4.195	4.195	(0.534)	32621	10.0000	12.4	
6 Chloroethane	64	4.360	4.360	(0.555)	10189	10.0000	11.8	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	18512	10.0000	9.94	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	11455	10.0000	11.2	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	37044	10.0000	11.2	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	23374	10.0000	10.7	
11 Carbon disulfide	76	5.293	5.293	(0.673)	81296	10.0000	11.1	
12 Iodomethane	142	5.433	5.439	(0.691)	8958	10.0000	9.59(T)	
13 Acrolein	56	5.659	5.659	(0.720)	6578	20.0000	19.2	
14 Allyl chloride	76	5.780	5.787	(0.736)	10499	10.0000	10.3	
15 Methylene Chloride	49	5.902	5.902	(0.751)	42293	10.0000	10.8(T)	
16 Acetone	43	5.969	5.976	(0.760)	44985	20.0000	22.1	
17 Methyl acetate	43	6.073	6.067	(0.773)	48220	20.0000	20.6	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	24253	10.0000	10.8	
19 n-Hexane	86	6.110	6.110	(0.777)	2234	10.0000	9.43	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	51088	10.0000	9.80	
21 Acetonitrile	41	6.457	6.463	(0.822)	3493	20.0000	16.2(H)	
22 Chloroprene	53	6.640	6.640	(0.845)	30445	10.0000	9.77	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.677	6.671	(0.850)	47900	10.0000	11.0	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	17593	20.0000	18.6	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	44750	10.0000	10.4(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	33510	10.0000	10.5	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	36245	10.0000	10.8	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	15015	10.0000	10.7	
	29 Cyclohexane	56	7.335	7.335	(0.882)	26642	10.0000	9.35	
	30 Chloroform	83	7.372	7.372	(0.938)	52677	10.0000	10.7	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	56268	20.0000	20.3	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	36580	10.0000	10.8	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	14388	20.0000	19.0	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	146283	50.0000	51.5	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	41497	10.0000	10.8	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	42963	20.0000	20.3	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	26914	10.0000	10.1(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	246807	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	92640	10.0000	10.8	
	40 Propionitrile	54	7.890	7.902	(1.004)	9386	20.0000	22.3	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	44057	20.0000	20.6	
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	25345	50.0000	49.6	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	40332	10.0000	10.4	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	46853	10.0000	10.2	
	46 Trichloroethene	130	8.323	8.317	(1.001)	25650	10.0000	11.0	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	334966	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	10846	10.0000	9.77	
	49 n-Butanol	56	8.518	8.524	(1.024)	718	20.0000	14.0(MH)	LT
	50 Dibromomethane	93	8.670	8.670	(1.043)	22088	10.0000	11.1	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	26011	10.0000	10.6	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	41201	10.0000	11.7	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	11241	10.0000	8.54(H)	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						(D)
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	17674	20.0000	15.5	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	34756	10.0000	10.2	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	363232	50.0000	50.4	
	58 Toluene	91	9.414	9.414	(1.132)	87179	10.0000	10.4	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	8683	10.0000	10.0(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.670	9.664	(1.163)	4550	20.0000	19.0(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	34380	10.0000	10.1	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	22100	10.0000	10.4	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	20969	10.0000	8.39(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	22063	10.0000	10.4	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	32178	10.0000	11.0	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	34242	10.0000	10.6	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	27035	10.0000	10.7	
	68 2-Hexanone	43	10.273	10.280	(1.235)	55414	20.0000	19.6	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	77797	10.0000	9.64	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	308495	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	63961	10.0000	10.7	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	26243	10.0000	10.4	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	122019	20.0000	17.6	
	74 o-Xylene	106	10.993	10.993	(1.041)	25872	10.0000	8.21	
	75 Styrene	104	11.029	11.029	(1.044)	44191	10.0000	8.11	
	76 Bromoform	173	11.103	11.103	(1.051)	29236	10.0000	10.5	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.225	11.225	(1.063)	38823	10.0000	8.40	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	123406	50.0000	48.7	
	79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	9323	10.0000	9.20	
	80 n-Propylbenzene	91	11.523	11.523	(1.091)	101972	10.0000	10.3	
	81 Bromobenzene	156	11.578	11.578	(1.096)	33652	10.0000	10.8	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	36166	10.0000	11.0	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	61206	10.0000	9.66	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	22961	10.0000	10.0	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	19627	10.0000	8.56	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	66445	10.0000	8.28	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	34384	10.0000	9.96(M)	CO
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	7978	10.0000	10.0(M)	NI
	89 Cyclohexanone	98	Compound Not Detected.						
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	55461	10.0000	7.95	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	61898	10.0000	8.71	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	70909	10.0000	8.45	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	55461	10.0000	7.95	
	94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	52511	10.0000	10.3	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	191833	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	58586	10.0000	10.2	
	97 n-Butylbenzene	91	12.486	12.486	(1.012)	61276	10.0000	9.17	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	56996	10.0000	10.2	
	99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	5508	10.0000	8.78	
	100 Hexachloro-1,3-butadiene	225	13.815	13.822	(1.120)	17340	10.0000	10.1	
	101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	35572	10.0000	9.42	
	102 Naphthalene	128	14.193	14.193	(1.150)	52461	10.0000	7.46	
	103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	31470	10.0000	8.96	

QC Flag Legend

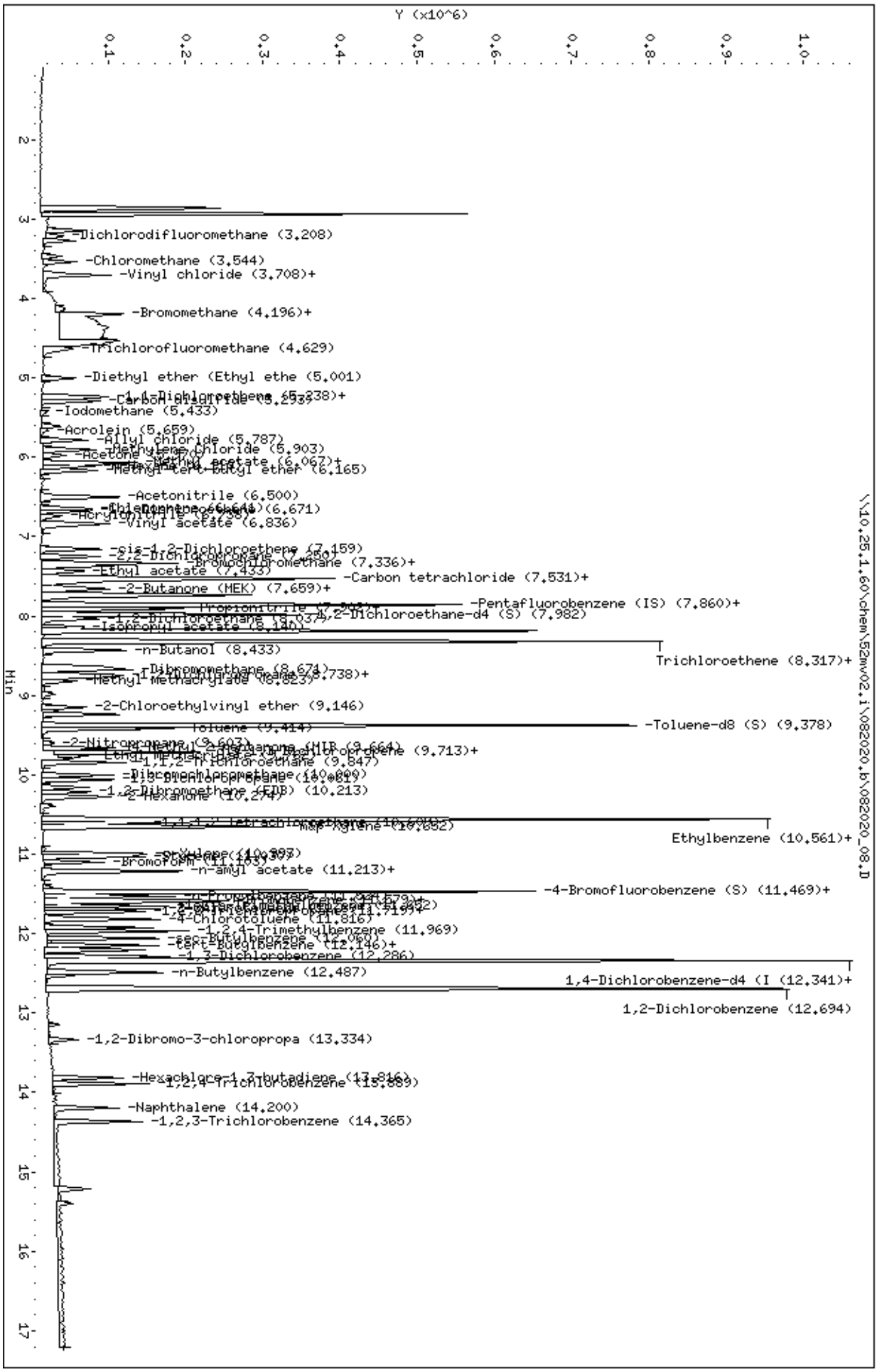
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_08.D
Date : 20-AUG-2020 12:55
Client ID: CAL6
Sample Info: CAL6,27242:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



Page 4

Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_08.D
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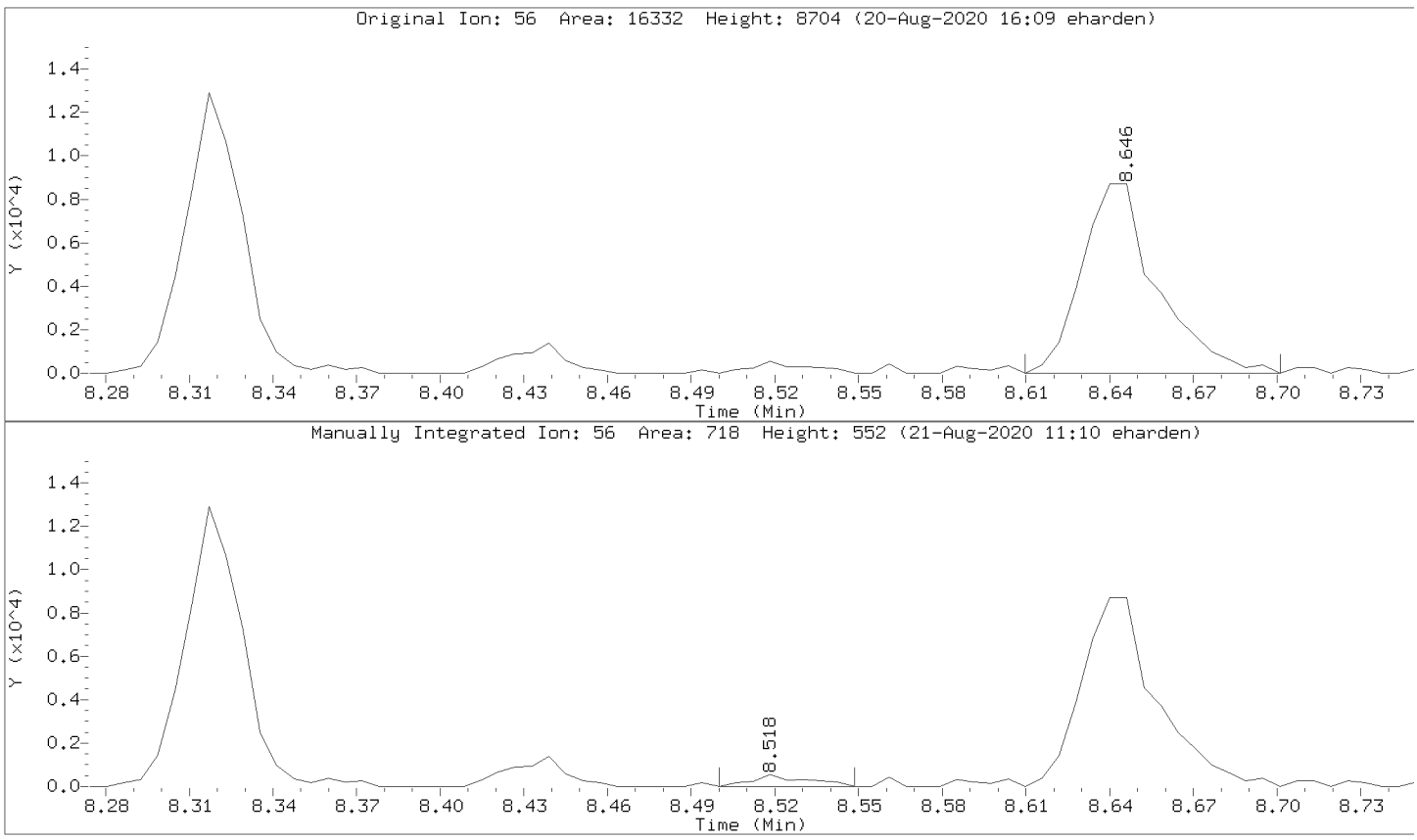
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: n-Butanol Review Code: LT
CAS Number: 71-36-3



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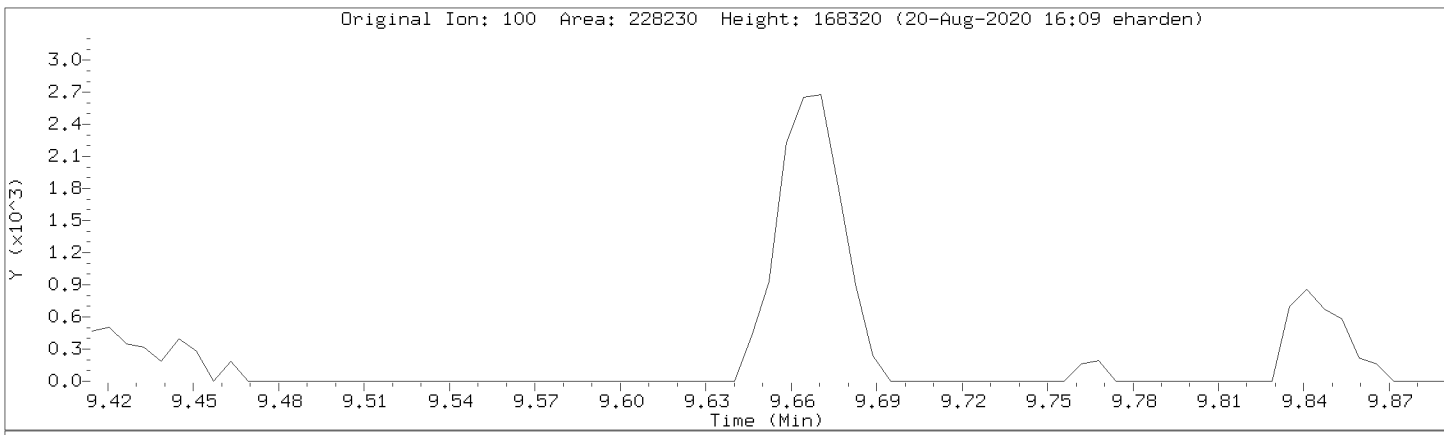
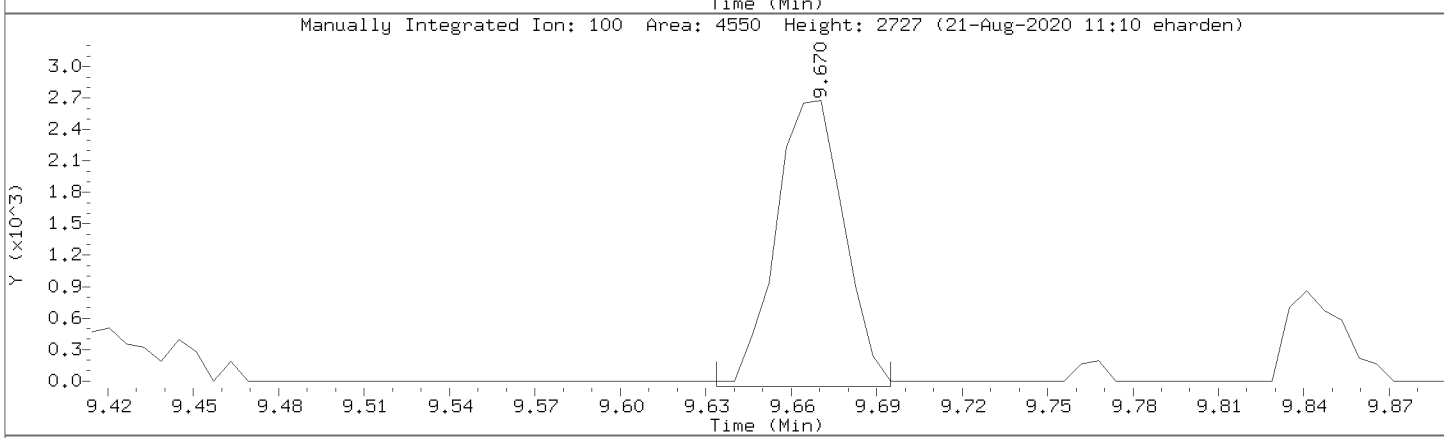
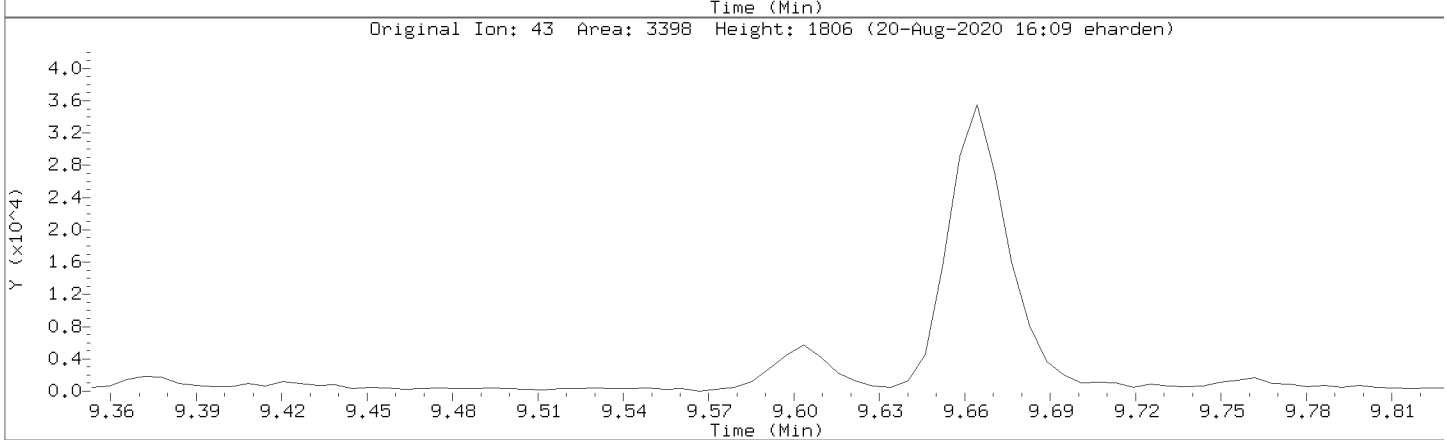
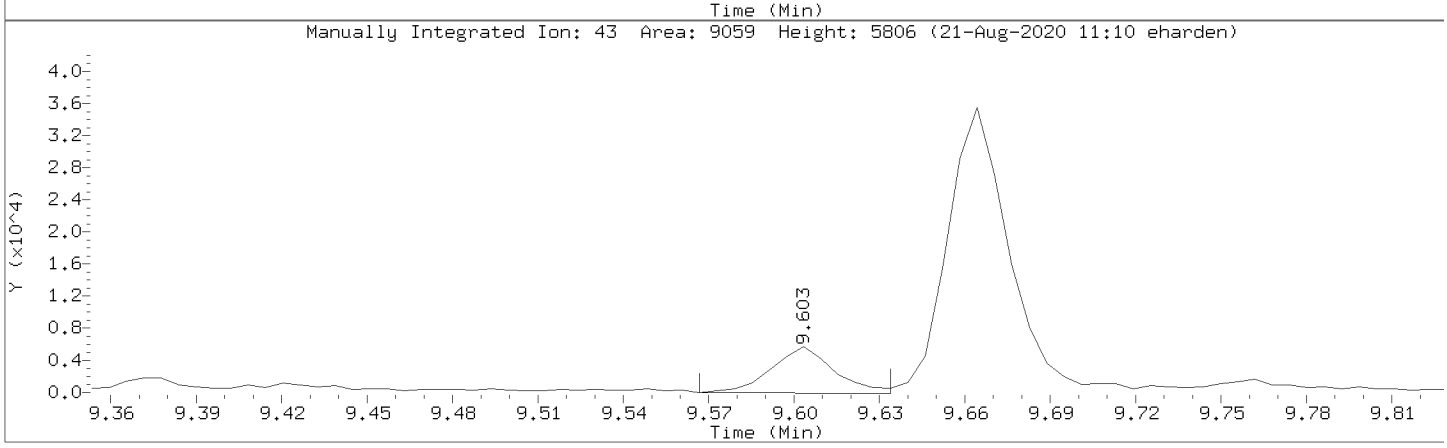
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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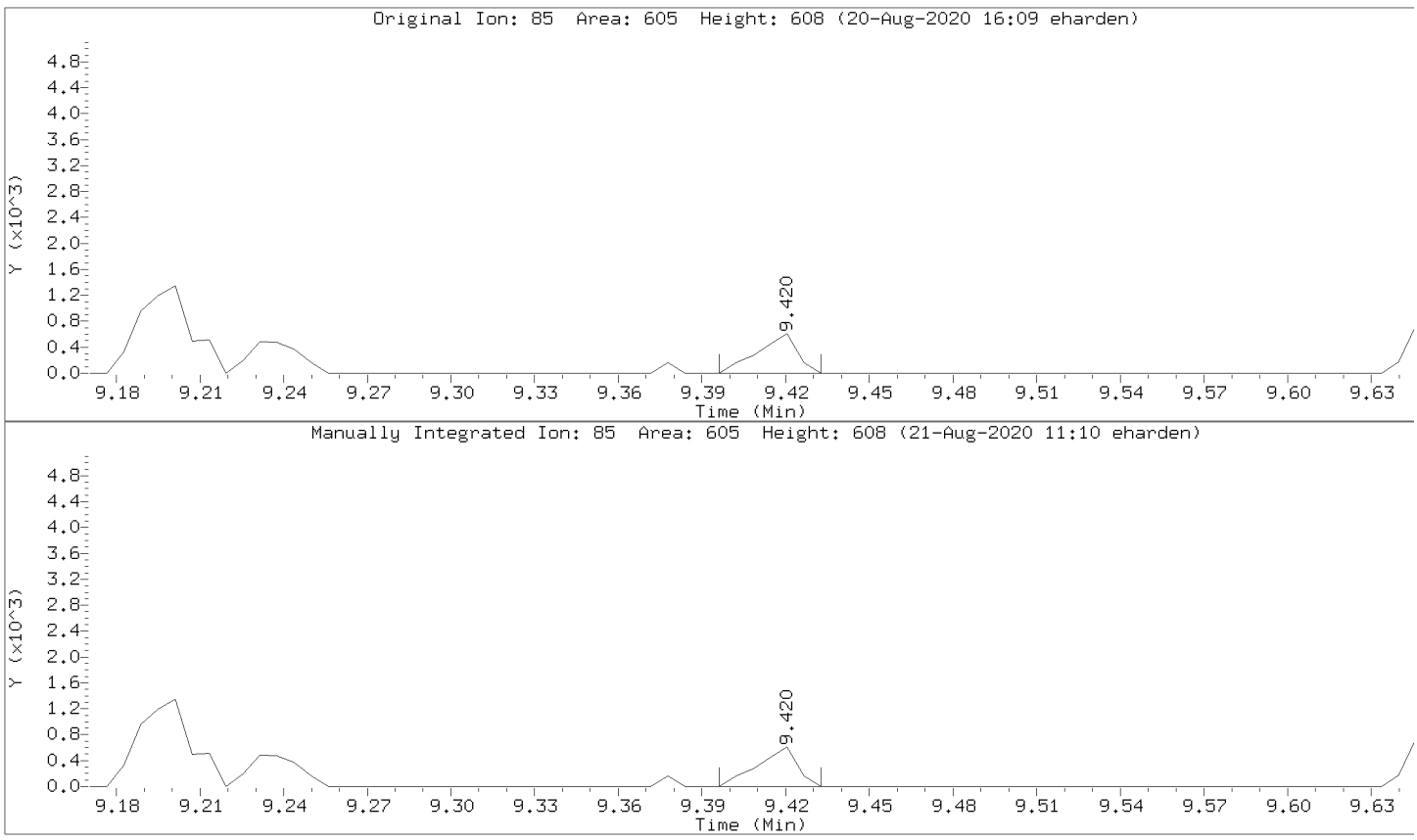
Instrument: 52mv02.i
Lab Sample ID: CAL6



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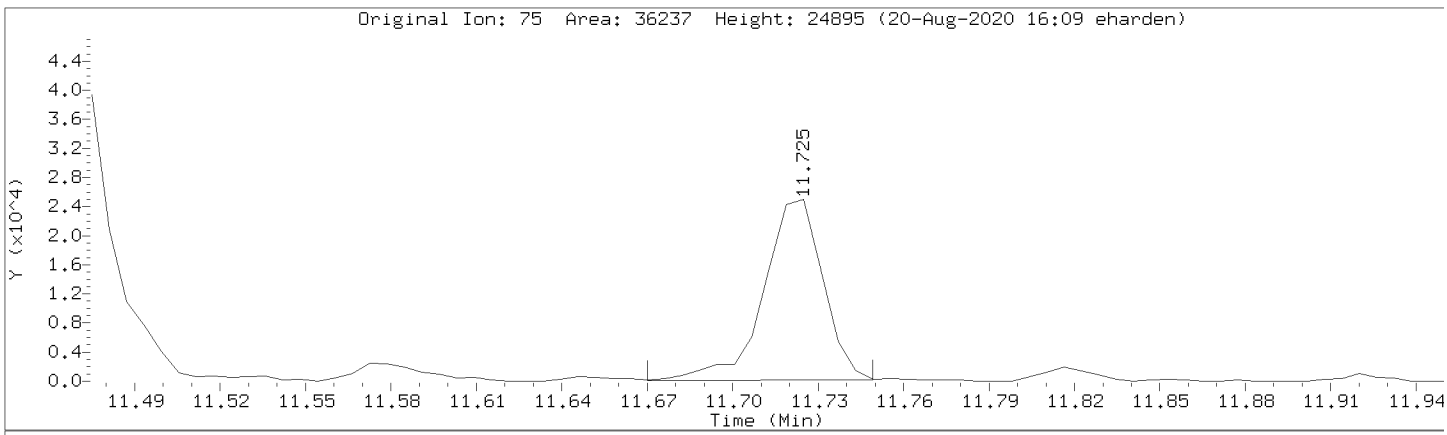
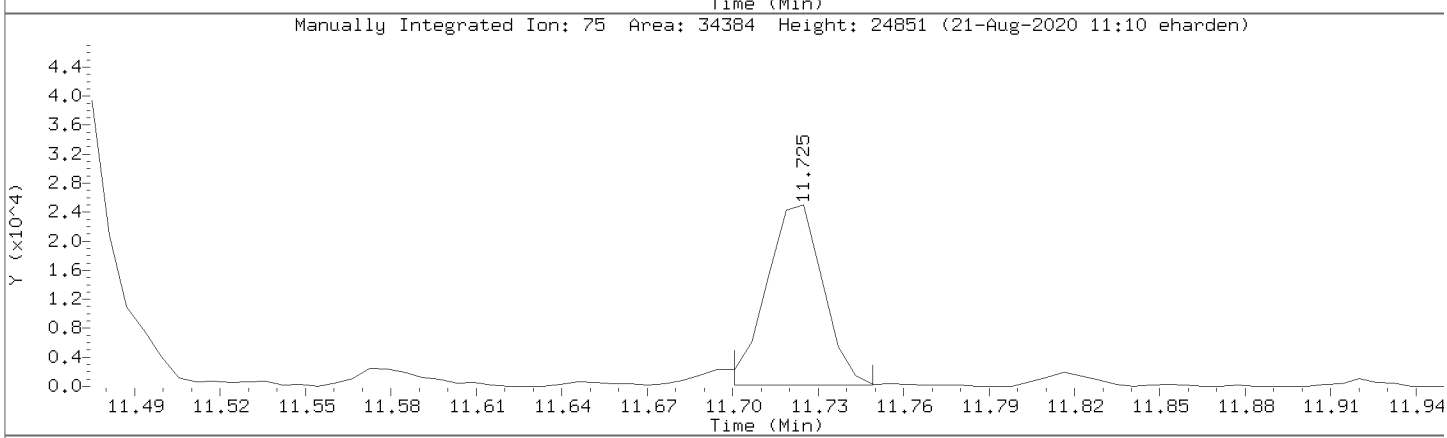
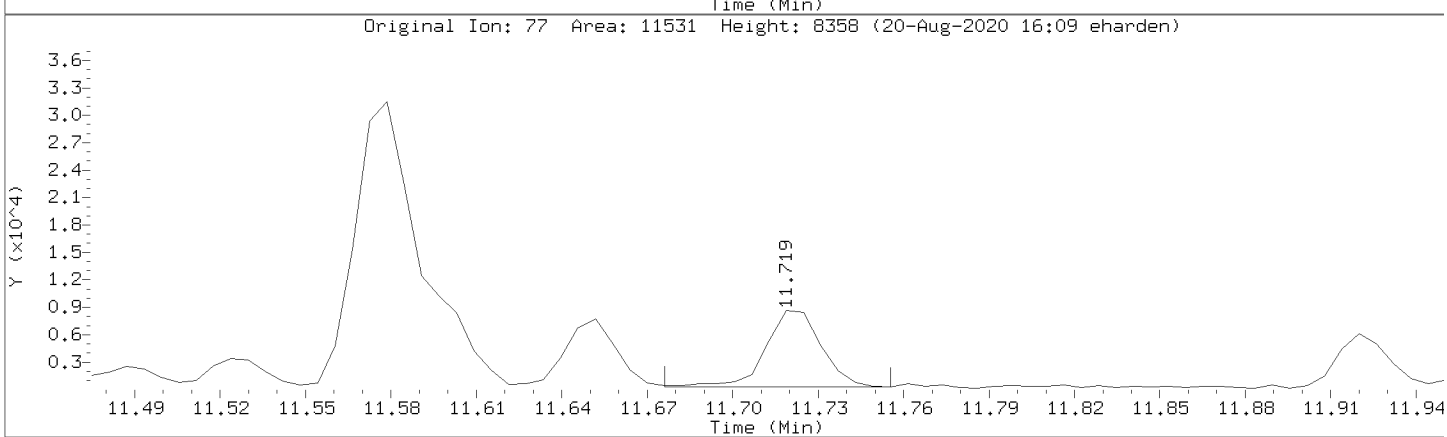
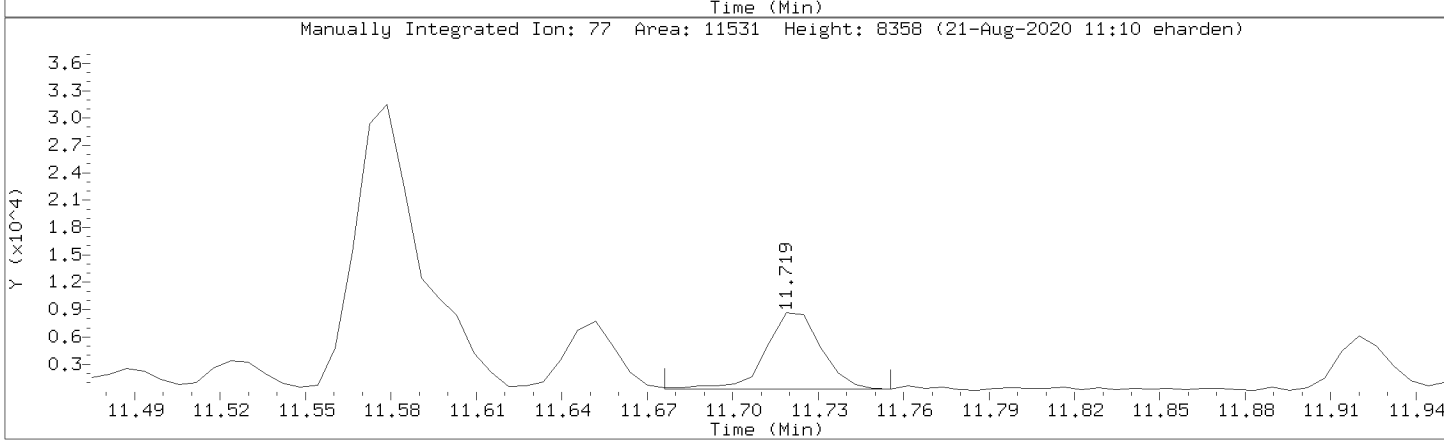
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: 1,2,3-Trichloropropane Review Code: CO
CAS Number: 96-18-4









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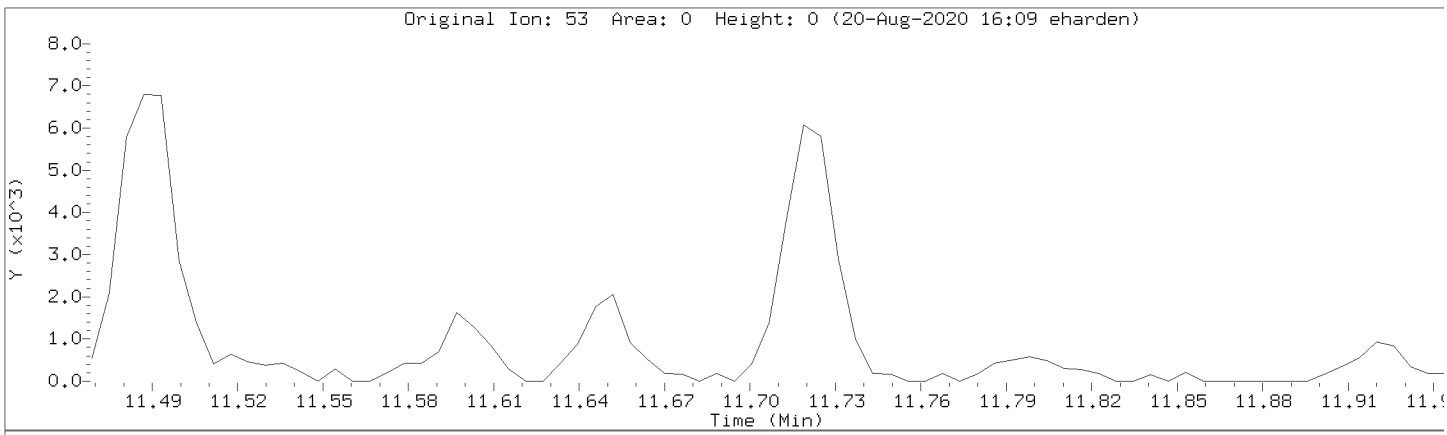
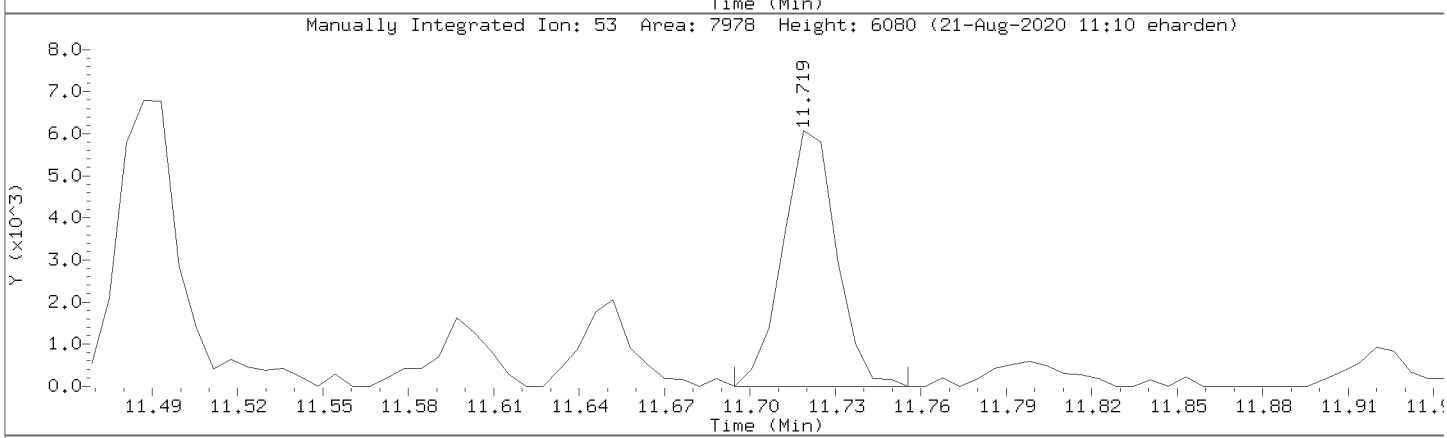
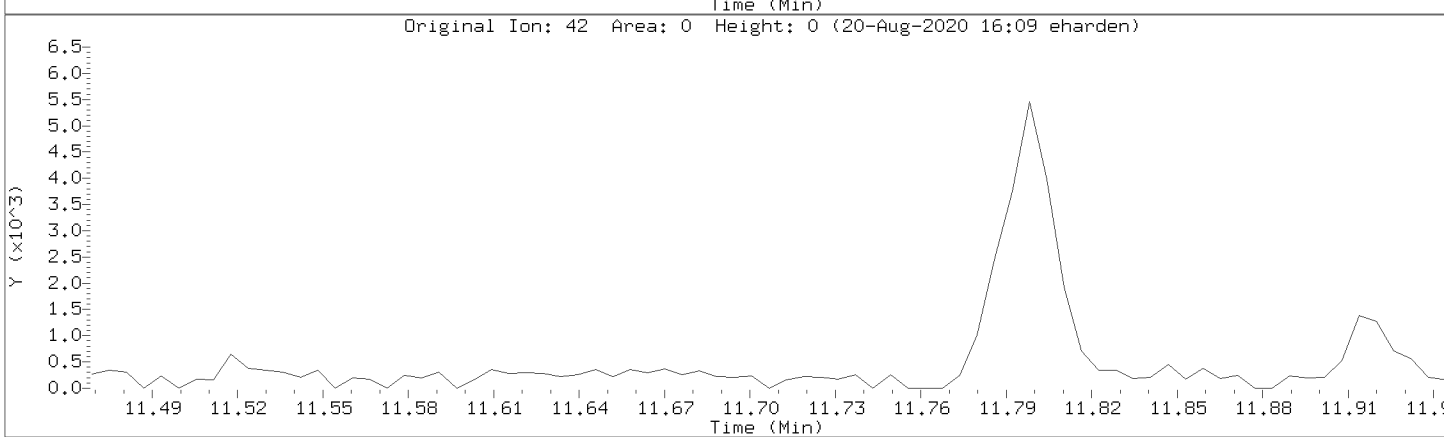
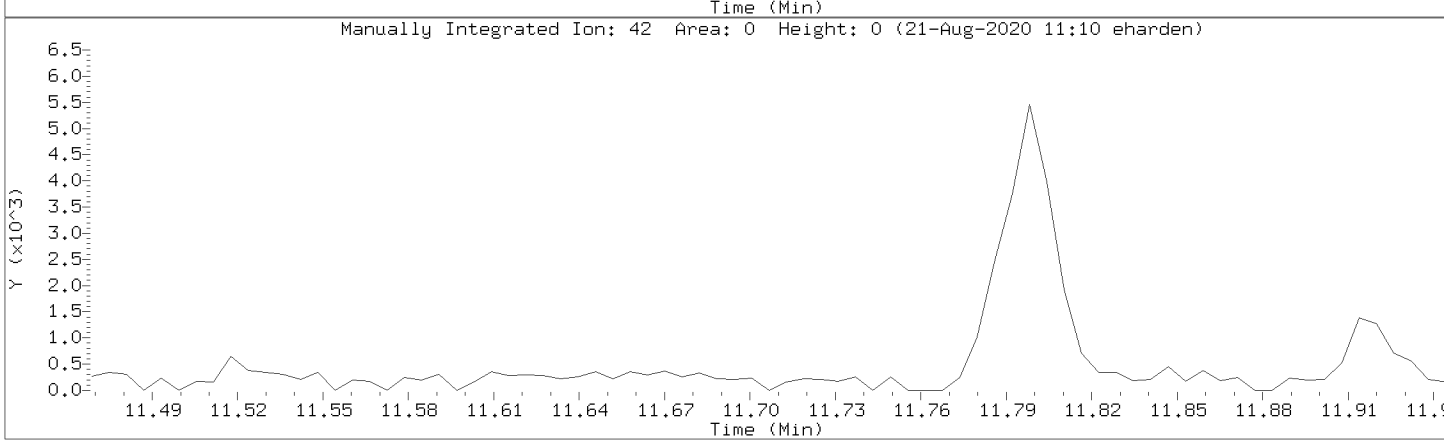
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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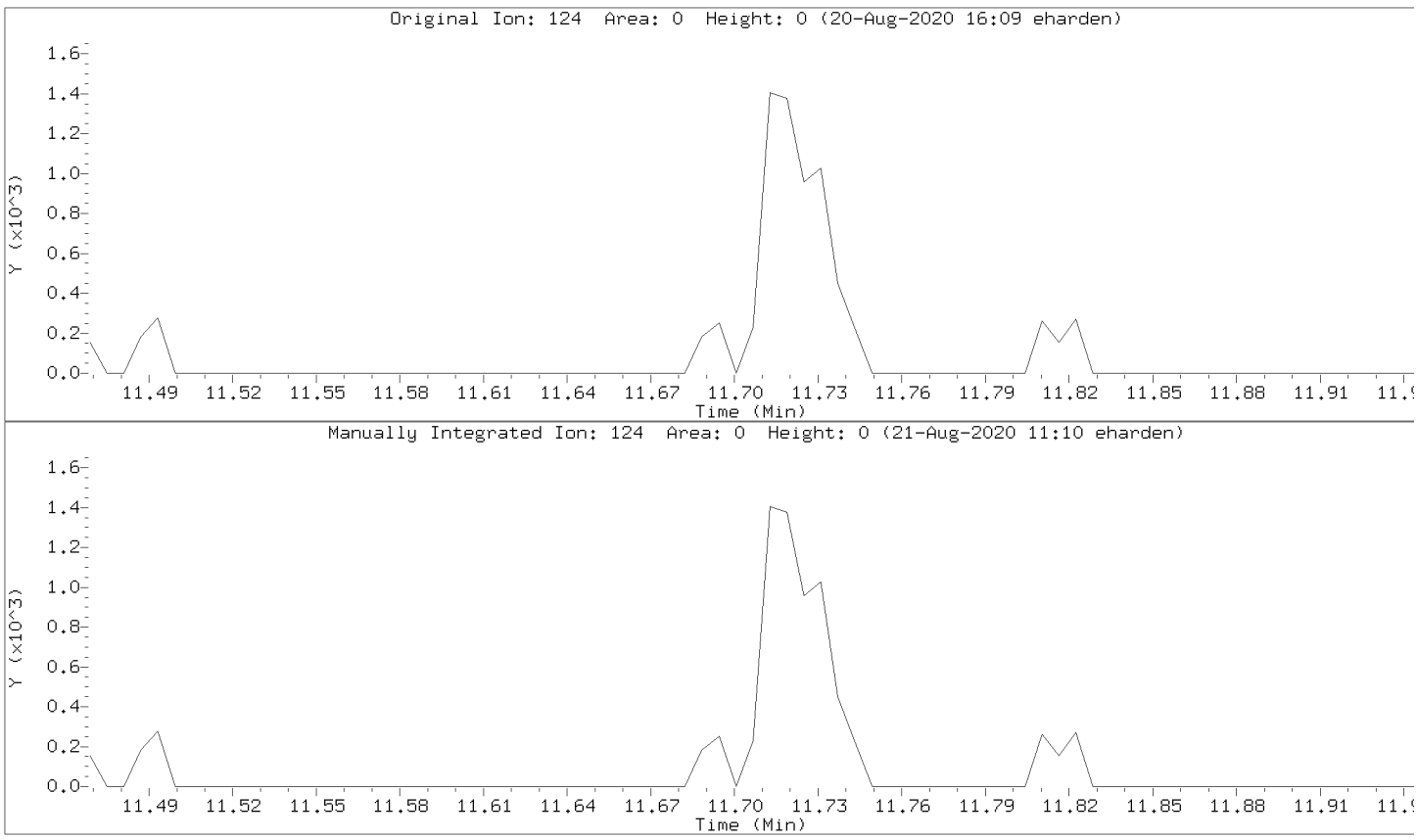
Injection Date: 20-AUG-2020 12:55
Instrument: 52mv02.i
Lab Sample ID: CAL6



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_09.D
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 20-AUG-2020 13:20
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal7,27243:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 13:20 Cal File: 082020_09.D
Als bottle: 7 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.410)	66551	20.0000	21.2(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	81131	20.0000	21.6	
3 Vinyl chloride	62	3.702	3.702	(0.471)	61034	20.0000	19.8	
4 1,3-Butadiene	39	3.714	3.708	(0.473)	53829	20.0000	19.5	
5 Bromomethane	94	4.201	4.195	(0.535)	59646	20.0000	23.8	
6 Chloroethane	64	4.360	4.360	(0.555)	18003	20.0000	20.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	39067	20.0000	19.9	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	21772	20.0000	20.1	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	72854	20.0000	20.9	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	49223	20.0000	21.4	
11 Carbon disulfide	76	5.293	5.293	(0.673)	161348	20.0000	20.9	
12 Iodomethane	142	5.433	5.439	(0.691)	23205	20.0000	16.7	
13 Acrolein	56	5.659	5.659	(0.720)	14345	40.0000	39.8	
14 Allyl chloride	76	5.787	5.787	(0.736)	19759	20.0000	18.4	
15 Methylene Chloride	49	5.902	5.902	(0.751)	83879	20.0000	20.2	
16 Acetone	43	5.976	5.976	(0.760)	85965	40.0000	41.5	
17 Methyl acetate	43	6.067	6.067	(0.772)	105076	40.0000	43.5	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	47201	20.0000	20.0	
19 n-Hexane	86	6.116	6.110	(0.778)	4689	20.0000	18.8	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	110621	20.0000	20.1	
21 Acetonitrile	41	6.457	6.463	(0.822)	7995	40.0000	36.1(H)	
22 Chloroprene	53	6.646	6.640	(0.846)	66082	20.0000	20.1	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	95363	20.0000	20.8	
24 Acrylonitrile	53	6.738	6.738	(0.857)	41455	40.0000	41.6	
25 Vinyl acetate	43	6.859	6.860	(0.873)	94090	20.0000	20.8(T)	
26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	66700	20.0000	19.8	
27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	69400	20.0000	19.6	
28 Bromochloromethane	128	7.335	7.335	(0.933)	31223	20.0000	21.2	
29 Cyclohexane	56	7.335	7.335	(0.882)	58345	20.0000	19.6	
30 Chloroform	83	7.372	7.372	(0.938)	106759	20.0000	20.6	
31 Ethyl acetate	43	7.433	7.433	(0.946)	117599	40.0000	40.2	
32 Carbon tetrachloride	117	7.512	7.512	(0.903)	76046	20.0000	21.6	
33 Tetrahydrofuran	42	7.530	7.536	(0.958)	31173	40.0000	41.7	
$ 34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	149580	50.0000	49.9	
35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	85319	20.0000	21.4	
36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	94574	40.0000	42.3	
37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	58568	20.0000	21.1(H)	
* 38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	260205	50.0000		
39 Benzene	78	7.871	7.872	(0.946)	184702	20.0000	20.6	
40 Propionitrile	54	7.896	7.902	(1.005)	18434	40.0000	41.6	
41 Methacrylonitrile	41	7.902	7.902	(1.005)	92418	40.0000	41.0	
42 Isobutanol	43	7.993	7.987	(1.017)	3297	40.0000	(MH)	WP
$ 43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	27279	50.0000	50.6	
44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	81970	20.0000	20.2	
45 Isopropyl acetate	43	8.140	8.134	(1.036)	100475	20.0000	20.7	
46 Trichloroethene	130	8.317	8.317	(1.000)	52418	20.0000	21.4	
* 47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	349844	50.0000		
48 Methylcyclohexane	98	8.323	8.317	(1.001)	23561	20.0000	20.3	
49 n-Butanol	56	8.512	8.524	(1.023)	2226	40.0000	41.6(H)	
50 Dibromomethane	93	8.670	8.670	(1.043)	43883	20.0000	21.0	
51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	54314	20.0000	21.3	
52 Bromodichloromethane	83	8.762	8.768	(1.054)	81003	20.0000	22.1	
53 Methyl methacrylate	69	8.823	8.823	(1.061)	25633	20.0000	17.7	
54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	1026	40.0000	(M)	LT
55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	40736	40.0000	32.0	
56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	73456	20.0000	20.6	
$ 57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	379010	50.0000	50.3	
58 Toluene	91	9.414	9.414	(1.132)	176320	20.0000	20.2	
59 2-Nitropropane	43	9.603	9.603	(1.155)	16319	20.0000	18.5(H)	
60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	8556	40.0000	34.2(M)	WP
61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	73456	20.0000	20.6	
62 Tetrachloroethene	164	9.719	9.719	(0.920)	46748	20.0000	20.6	
63 Ethyl methacrylate	69	9.755	9.761	(1.173)	47723	20.0000	17.4(H)	
64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	46024	20.0000	20.8	
65 Dibromochloromethane	129	9.999	9.999	(0.947)	66111	20.0000	21.0	
66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	70284	20.0000	20.8	
67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	55408	20.0000	20.5	
68 2-Hexanone	43	10.273	10.280	(1.235)	121220	40.0000	41.0	
69 Ethylbenzene	91	10.554	10.554	(0.999)	164499	20.0000	19.0	
* 70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	330753	50.0000		
71 Chlorobenzene	112	10.578	10.578	(1.002)	128596	20.0000	20.2	
72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	54617	20.0000	20.3	
73 m&p-Xylene	91	10.651	10.651	(1.009)	280615	40.0000	37.3	
74 o-Xylene	106	10.993	10.993	(1.041)	56802	20.0000	16.3	
75 Styrene	104	11.029	11.029	(1.044)	103176	20.0000	17.0	
76 Bromoform	173	11.103	11.103	(1.051)	60029	20.0000	20.1	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	92598	20.0000	17.8	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	136161	50.0000	50.2	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	19403	20.0000	17.9	
80 n-Propylbenzene	91	11.529	11.523	(1.092)	212436	20.0000	20.0	
81 Bromobenzene	156	11.578	11.578	(1.096)	70823	20.0000	21.2	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	73479	20.0000	20.8	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	142512	20.0000	20.4	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	50034	20.0000	20.0	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	45527	20.0000	18.1	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	150389	20.0000	16.8	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	76477	20.0000	20.7	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	16946	20.0000	19.9	
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	132498	20.0000	16.6	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	145095	20.0000	17.9	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	171564	20.0000	17.9	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	132498	20.0000	16.6	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	112298	20.0000	19.9	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	212042	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	118836	20.0000	18.7	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	139939	20.0000	18.9	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	117112	20.0000	19.0	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	12299	20.0000	17.7	
100 Hexachloro-1,3-butadiene	225	13.815	13.822	(1.120)	34339	20.0000	18.2	
101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	73609	20.0000	17.6	
102 Naphthalene	128	14.193	14.193	(1.150)	120284	20.0000	14.9	
103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	74200	20.0000	19.1	

QC Flag Legend

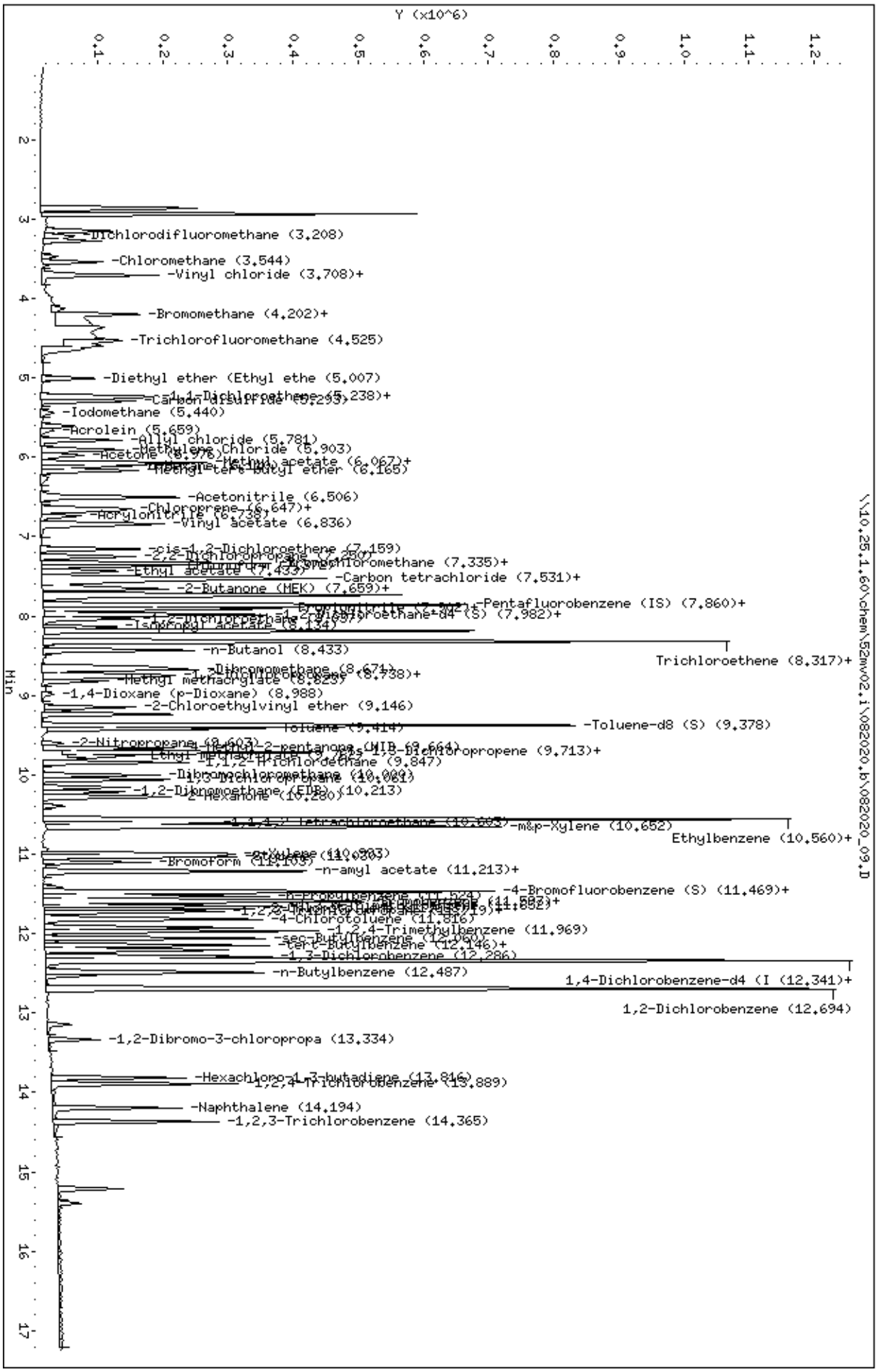
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_09.D
Date : 20-AUG-2020 13:20
Client ID: CAL7
Sample Info: CAL7,27243:1
Purge Volume: 5.0
Column phase: RTX-VMS

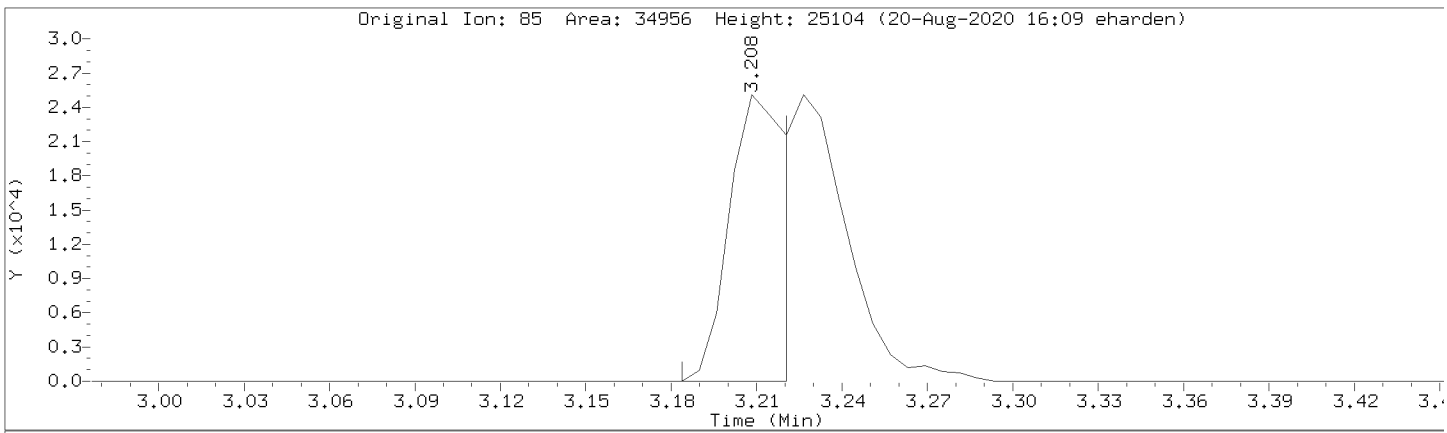
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

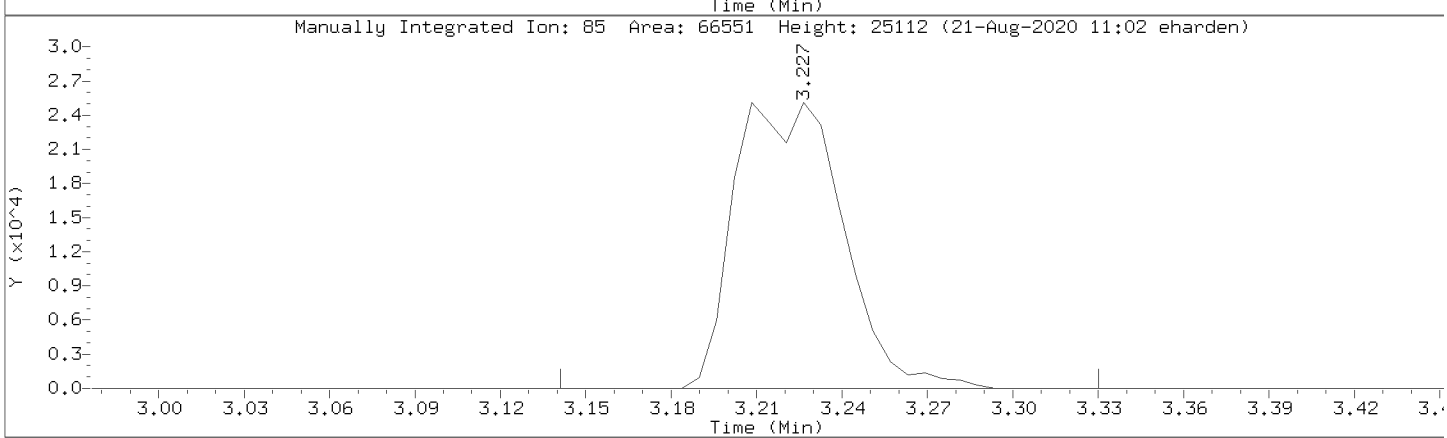


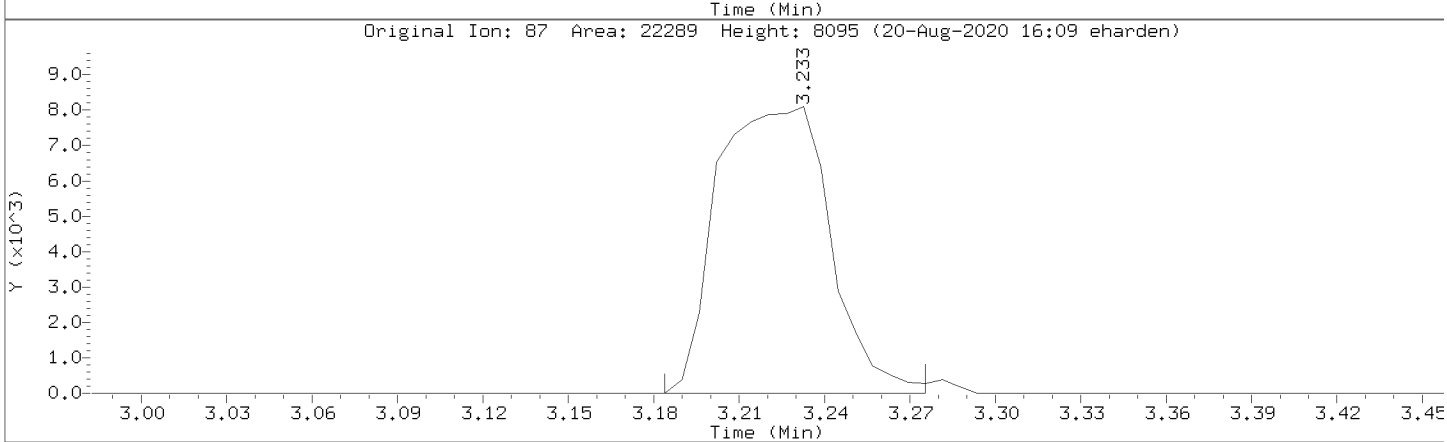
Page 4

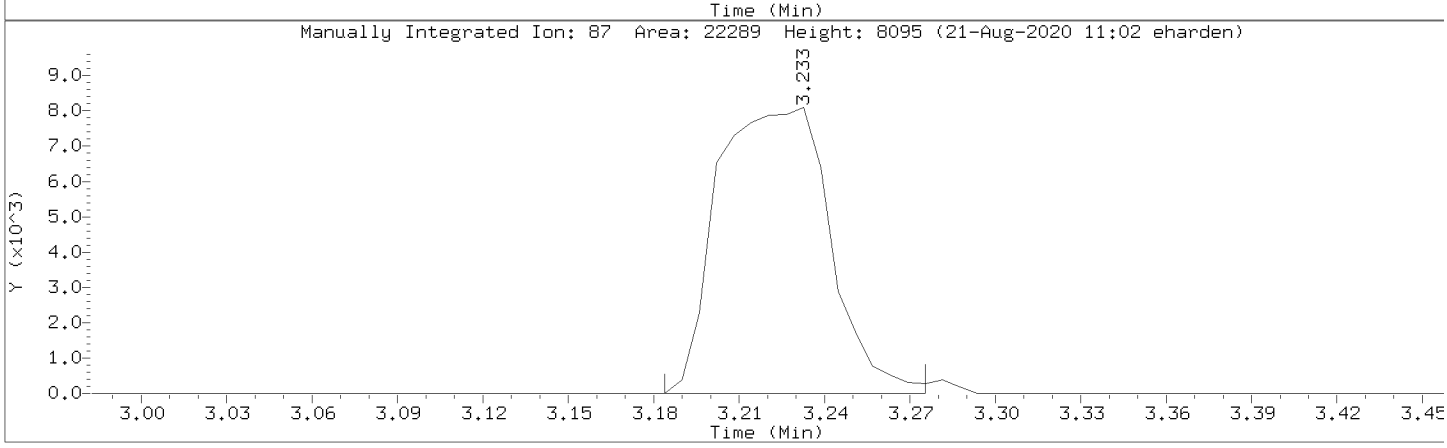
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_09.D
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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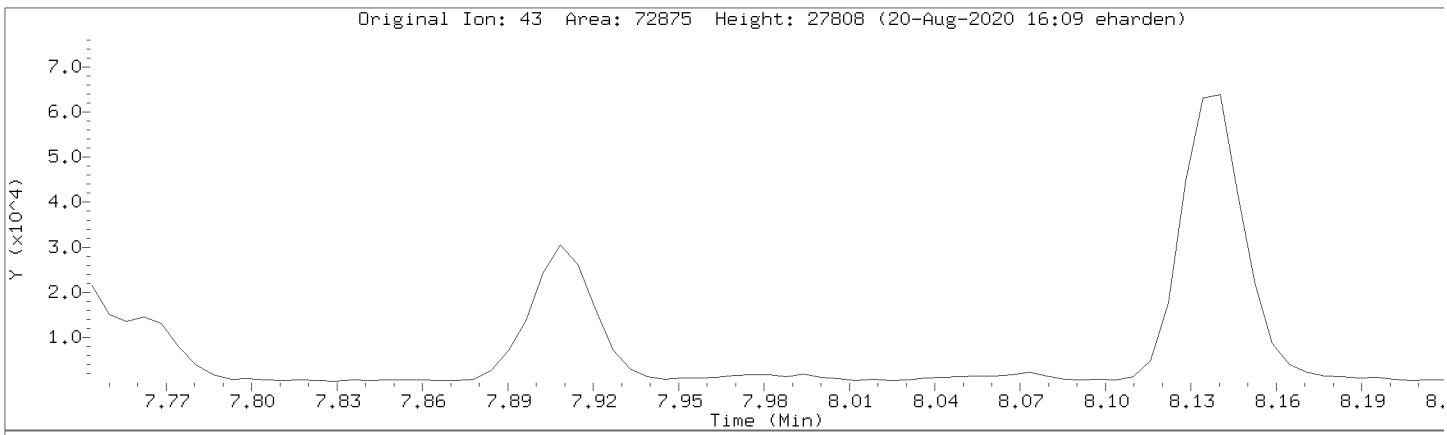
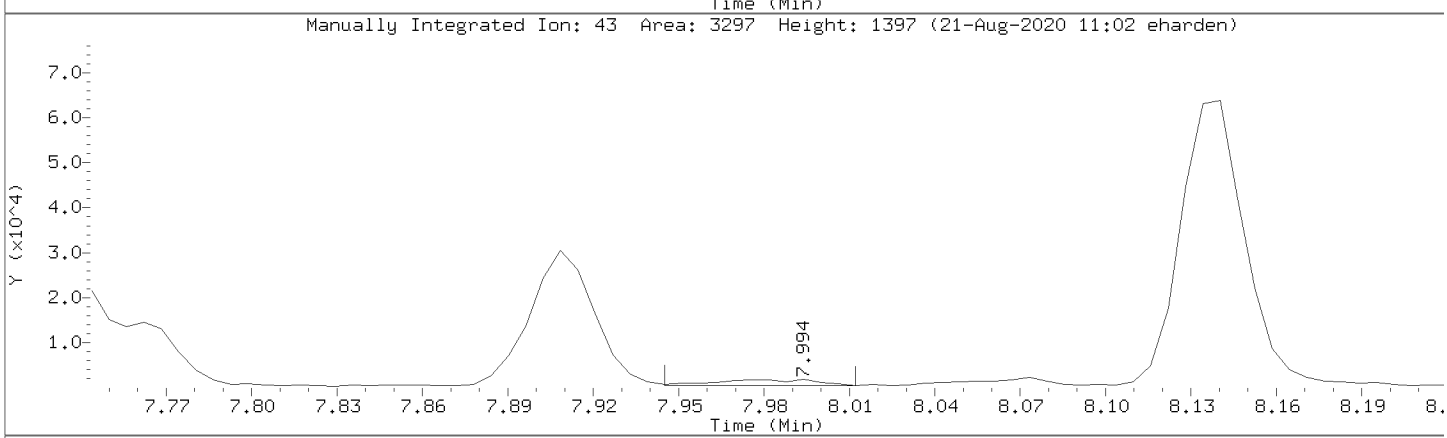
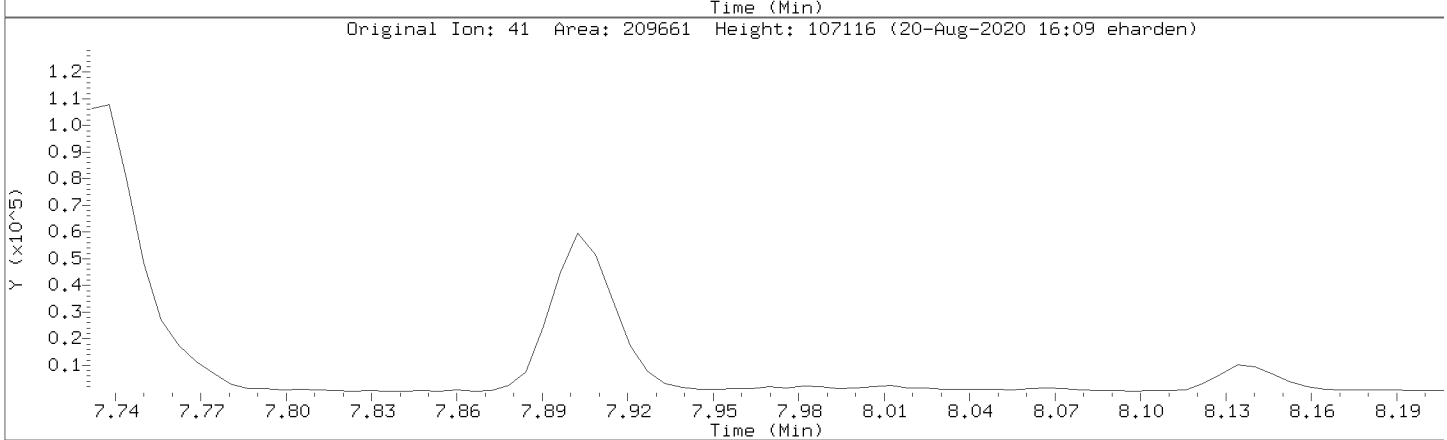
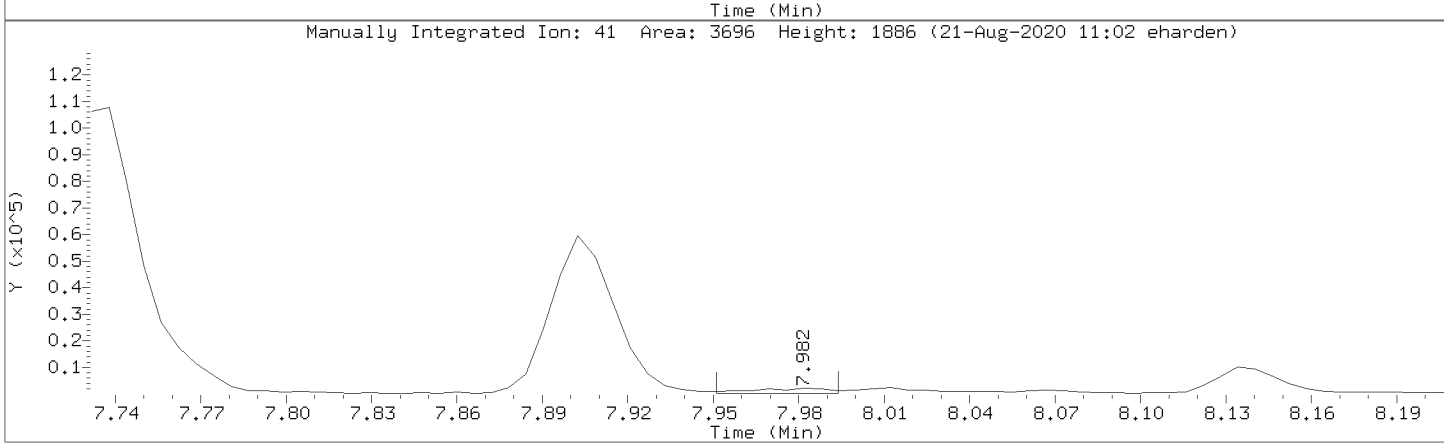
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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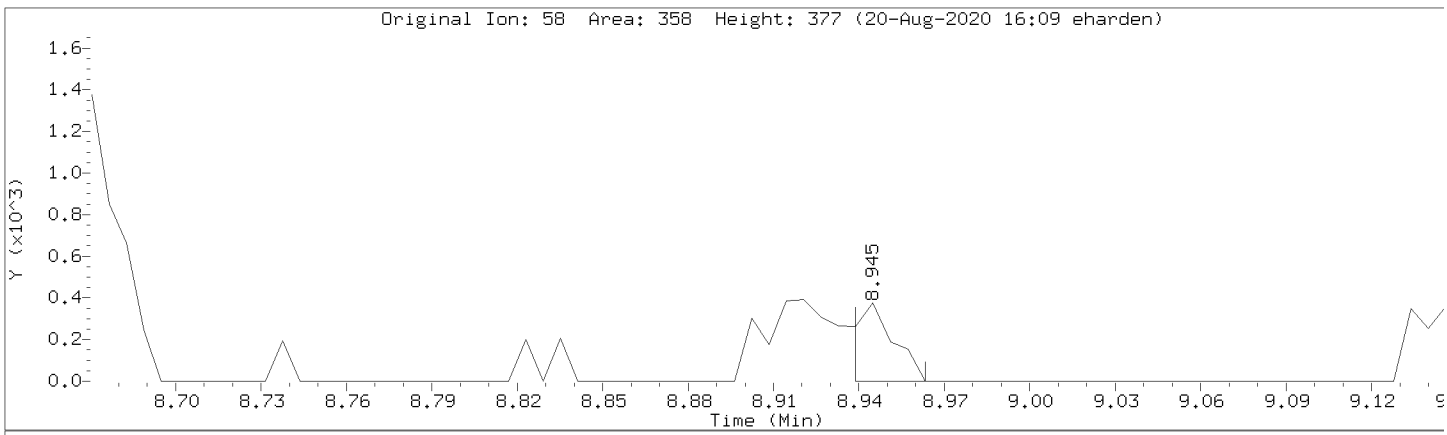
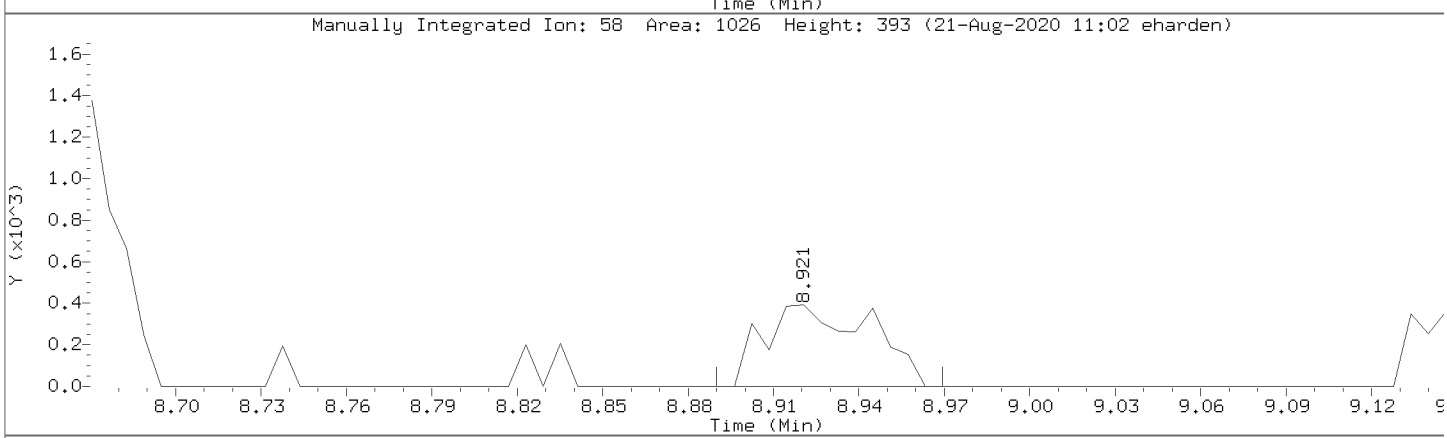
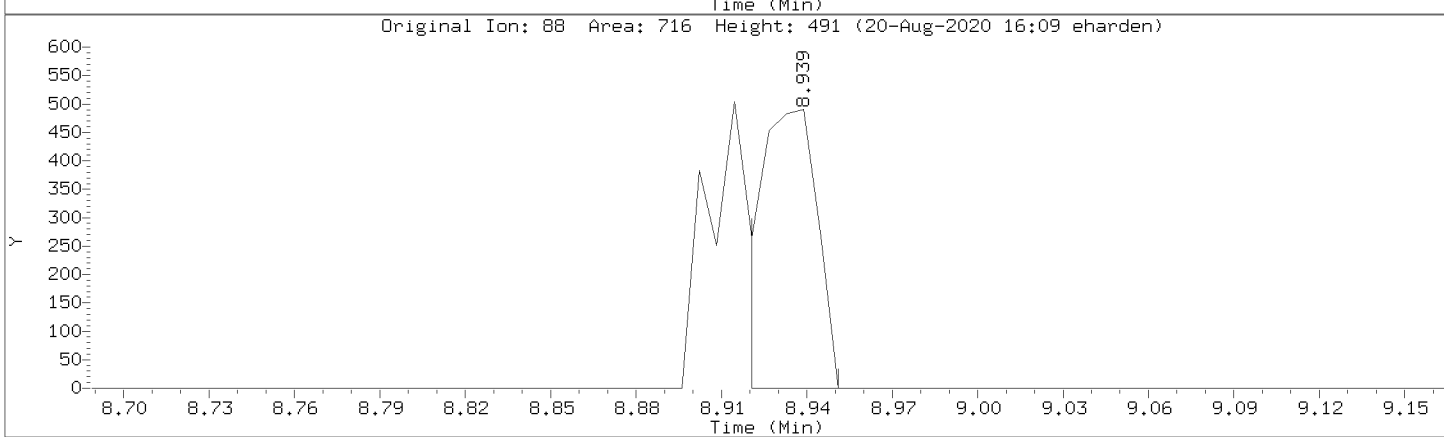
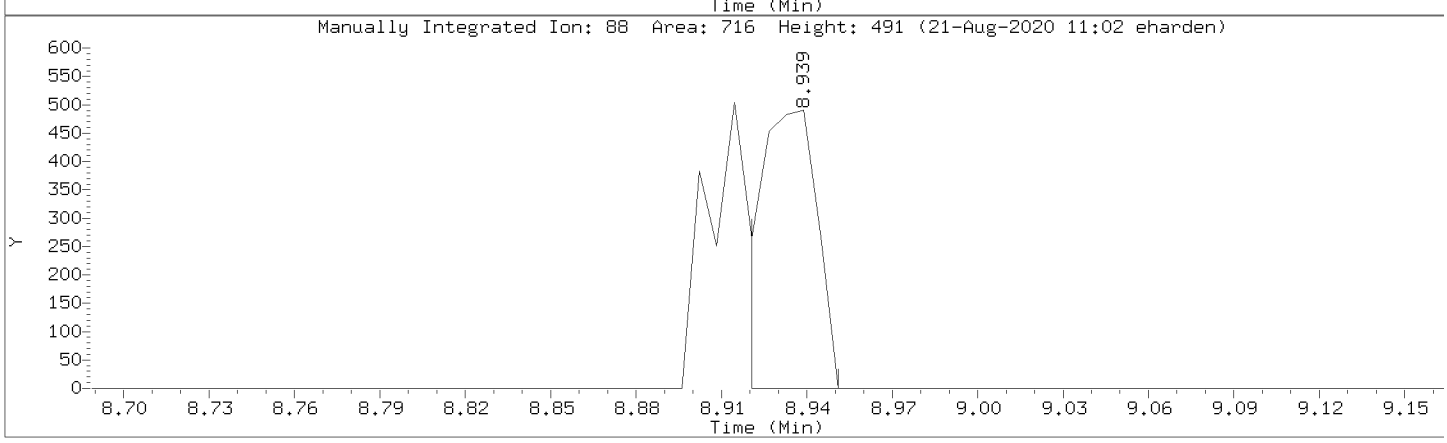
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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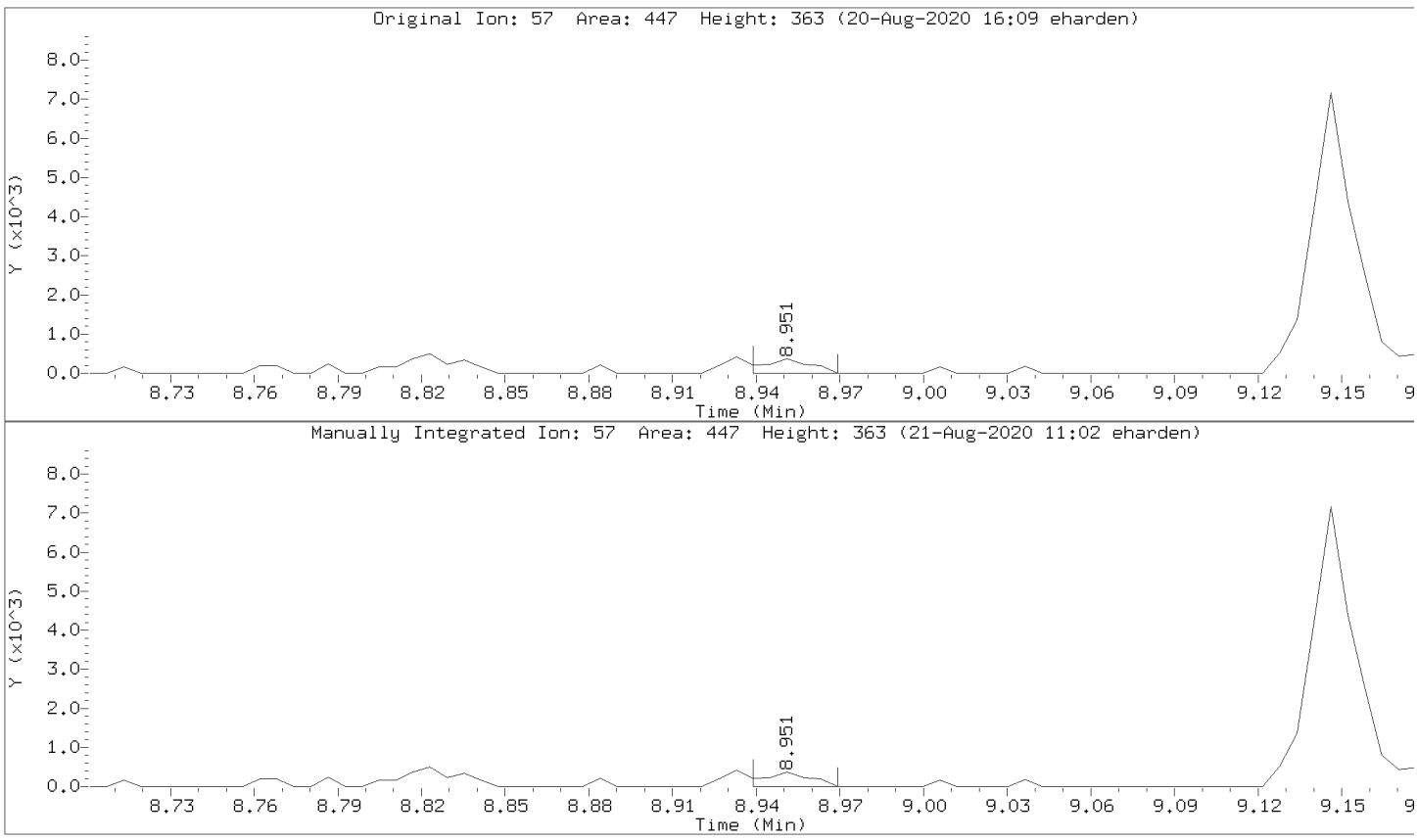
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7



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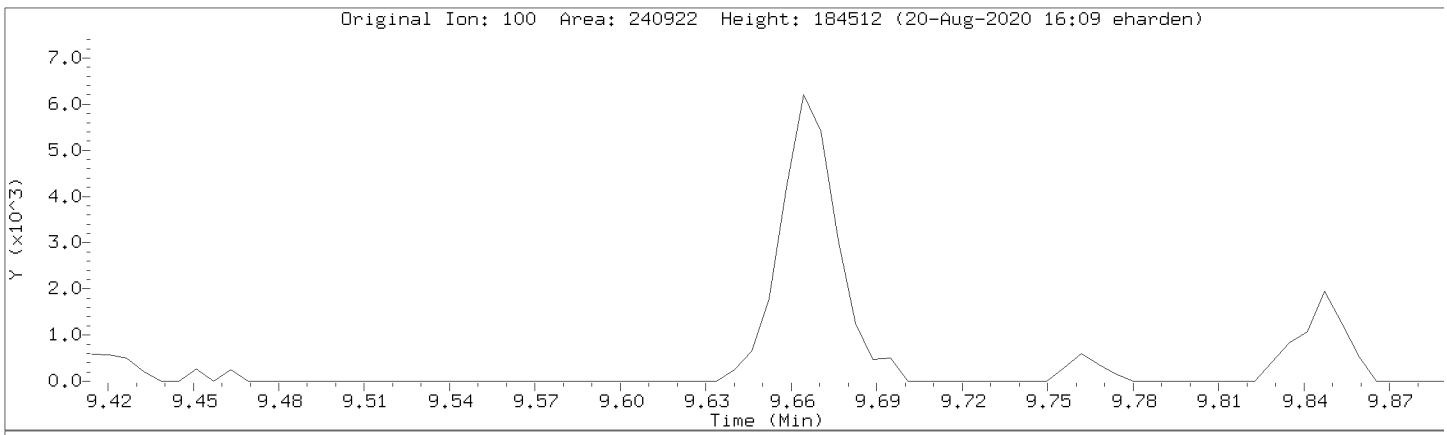
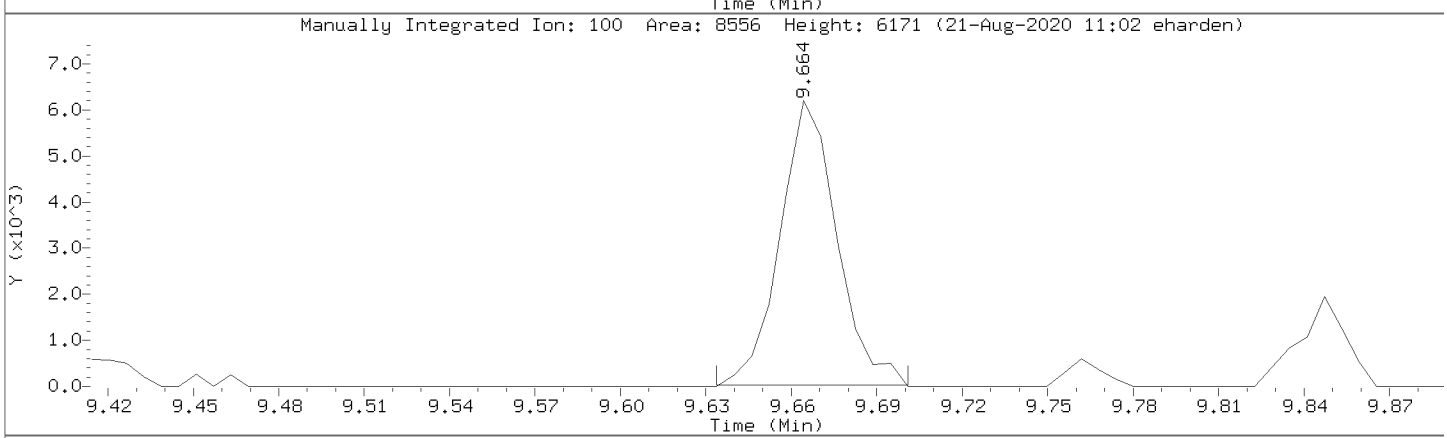
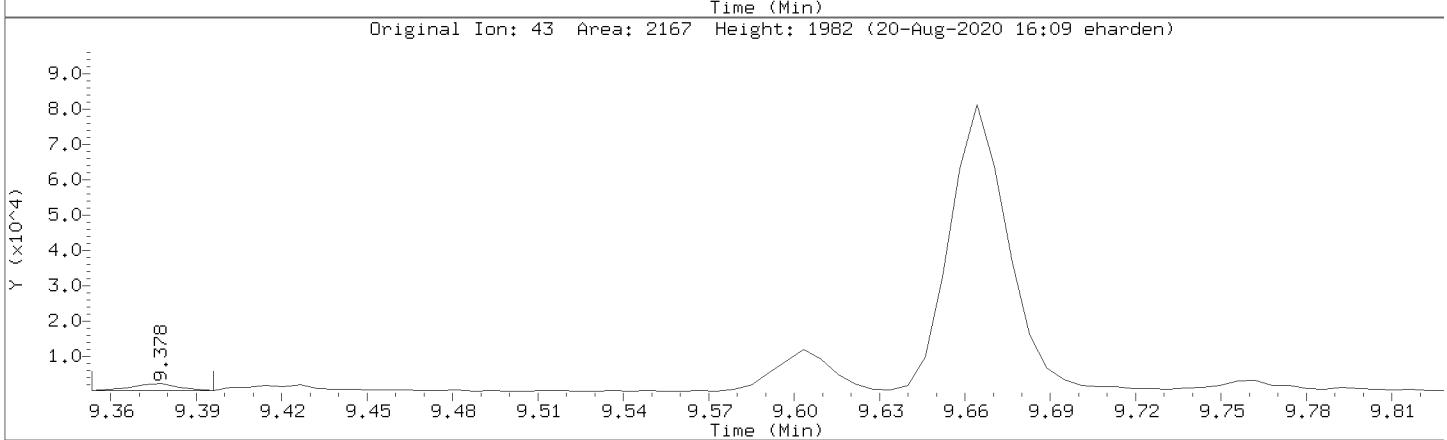
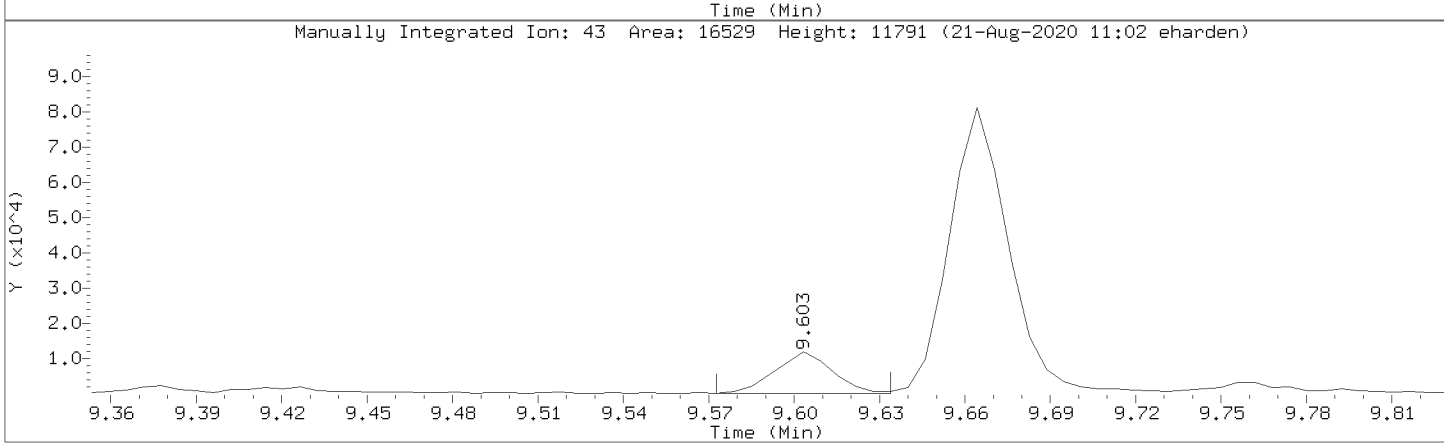
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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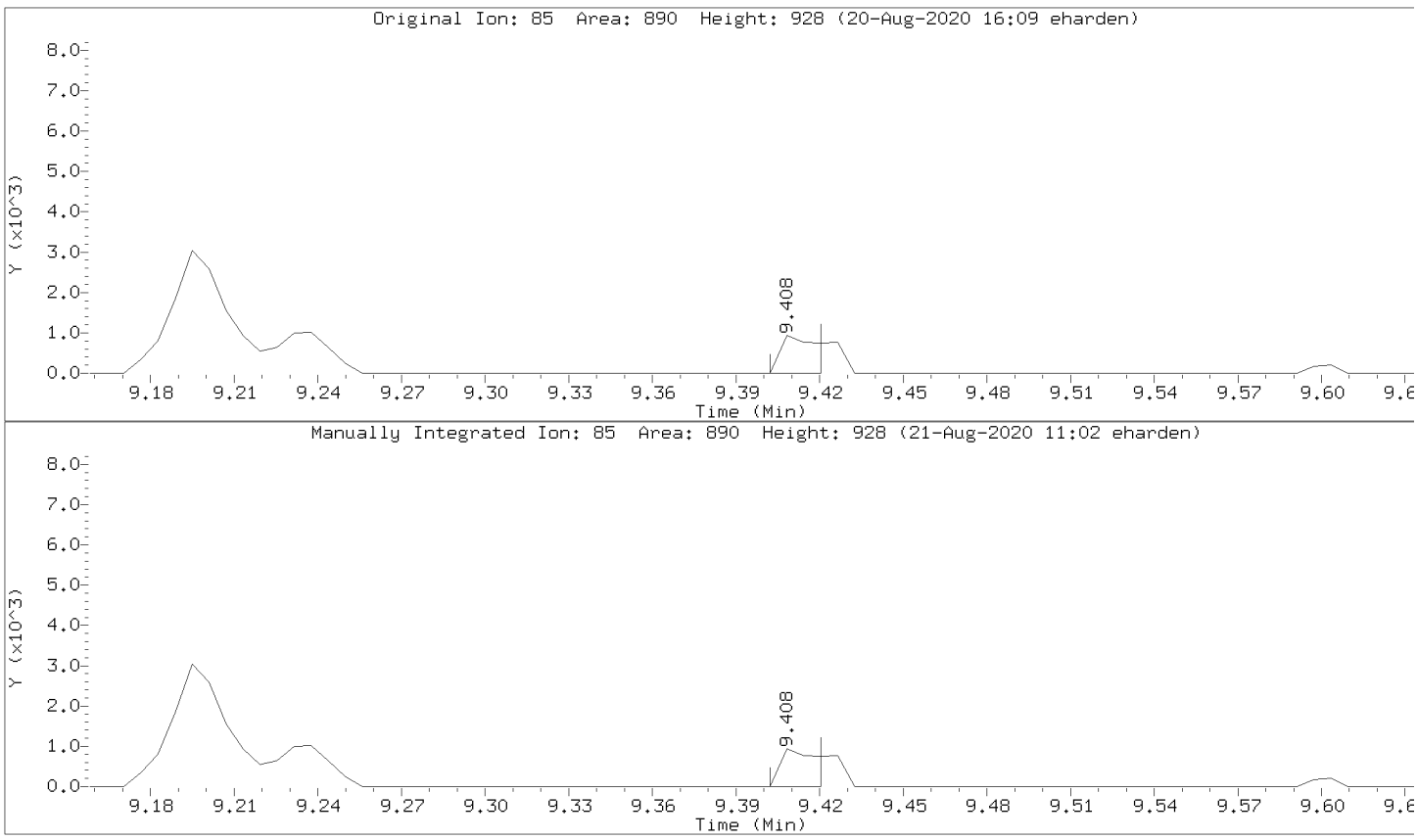
Injection Date: 20-AUG-2020 13:20
Instrument: 52mv02.i
Lab Sample ID: CAL7



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_10.D
Lab Smp Id: CAL8 Client Smp ID: CAL8
Inj Date : 20-AUG-2020 13:45
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal8,27244:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 13:45 Cal File: 082020_10.D
Als bottle: 8 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.220	3.226	(0.410)	173079	50.0000	49.6(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	212550	50.0000	52.0	
3 Vinyl chloride	62	3.695	3.702	(0.470)	166119	50.0000	48.4	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	144991	50.0000	47.2	
5 Bromomethane	94	4.201	4.195	(0.535)	130011	50.0000	49.7	
6 Chloroethane	64	4.366	4.360	(0.556)	50765	50.0000	53.1	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	100155	50.0000	45.9	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	58875	50.0000	48.9	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	192156	50.0000	49.5	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	122394	50.0000	47.8	
11 Carbon disulfide	76	5.287	5.293	(0.673)	413695	50.0000	48.1	
12 Iodomethane	142	5.439	5.439	(0.692)	89679	50.0000	44.8	
13 Acrolein	56	5.658	5.659	(0.720)	37965	100.000	94.7	
14 Allyl chloride	76	5.780	5.787	(0.736)	56951	50.0000	47.7	
15 Methylene Chloride	49	5.902	5.902	(0.751)	216337	50.0000	46.9	
16 Acetone	43	5.969	5.976	(0.760)	217508	100.000	96.6	
17 Methyl acetate	43	6.067	6.067	(0.772)	274607	100.000	103	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	124266	50.0000	47.4	
19 n-Hexane	86	6.110	6.110	(0.777)	14689	50.0000	52.8	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	314639	50.0000	51.4	
21 Acetonitrile	41	6.457	6.463	(0.822)	27093	100.000	111(H)	
22 Chloroprene	53	6.640	6.640	(0.845)	195675	50.0000	53.5	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	251927	50.0000	49.4	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	102650	100.000	92.7	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	281798	50.0000	55.9	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	185024	50.0000	49.2	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	182412	50.0000	46.4	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	78756	50.0000	48.0	
	29 Cyclohexane	56	7.335	7.335	(0.882)	177735	50.0000	54.3	
	30 Chloroform	83	7.372	7.372	(0.938)	280462	50.0000	48.6	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	323030	100.000	99.3	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	200727	50.0000	51.8	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	79823	100.000	99.2	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	159185	50.0000	47.8	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	220636	50.0000	50.3	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	237312	100.000	95.5(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	162055	50.0000	53.2(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	289504	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	489899	50.0000	49.8	
	40 Propionitrile	54	7.890	7.902	(1.004)	49807	100.000	101	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	257917	100.000	103	
	42 Isobutanol	43	7.963	7.987	(1.013)	9414	100.000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	27652	50.0000	46.1	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	209549	50.0000	46.3	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	280793	50.0000	52.1	
	46 Trichloroethene	130	8.316	8.317	(1.000)	136449	50.0000	50.7	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	384566	50.0000		
	48 Methylcyclohexane	98	8.323	8.317	(1.001)	63924	50.0000	50.2	
	49 n-Butanol	56	8.518	8.524	(1.024)	6256	100.000	106(M)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	115423	50.0000	50.4	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	141305	50.0000	50.3	
	52 Bromodichloromethane	83	8.762	8.768	(1.054)	214260	50.0000	53.1	
	53 Methyl methacrylate	69	8.822	8.823	(1.061)	75413	50.0000	46.2	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	1885	100.000		
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	131862	100.000	90.8	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	204555	50.0000	52.2	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	414998	50.0000	50.1	
	58 Toluene	91	9.414	9.414	(1.132)	484269	50.0000	50.5	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	44089	50.0000	46.2(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	28658	100.000	104(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	204310	50.0000	52.2	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	126445	50.0000	50.1	
	63 Ethyl methacrylate	69	9.755	9.761	(1.173)	146188	50.0000	47.0(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	115505	50.0000	47.5	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	175886	50.0000	50.3	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	193129	50.0000	52.1	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	146153	50.0000	48.8	
	68 2-Hexanone	43	10.280	10.280	(1.236)	360382	100.000	111	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	498717	50.0000	51.9	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	367527	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	344375	50.0000	48.6	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	141151	50.0000	47.1	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	829841	100.000	98.6	
	74 o-Xylene	106	10.993	10.993	(1.041)	177926	50.0000	45.1	
	75 Styrene	104	11.029	11.029	(1.044)	324197	50.0000	47.1	
	76 Bromoform	173	11.103	11.103	(1.051)	159603	50.0000	48.1	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	289017	50.0000	48.8	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	155822	50.0000	51.7	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	54700	50.0000	45.3	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	638613	50.0000	54.2	
81 Bromobenzene	156	11.578	11.578	(1.096)	189432	50.0000	50.9	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	190650	50.0000	48.5	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	416577	50.0000	53.1	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	136445	50.0000	48.6	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	136492	50.0000	48.2	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	469102	50.0000	46.3	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	204905	50.0000	49.8	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	49228	50.0000	52.0(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	419415	50.0000	45.8	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	442492	50.0000	48.1	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	512642	50.0000	46.9	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	419415	50.0000	45.8	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	318067	50.0000	50.3	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	237436	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	327228	50.0000	45.9	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	445646	50.0000	53.9	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	323974	50.0000	46.9	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	35137	50.0000	45.2	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	100028	50.0000	47.2	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	228410	50.0000	48.8	
102 Naphthalene	128	14.199	14.193	(1.151)	399832	50.0000	43.2	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	218926	50.0000	50.4	

QC Flag Legend

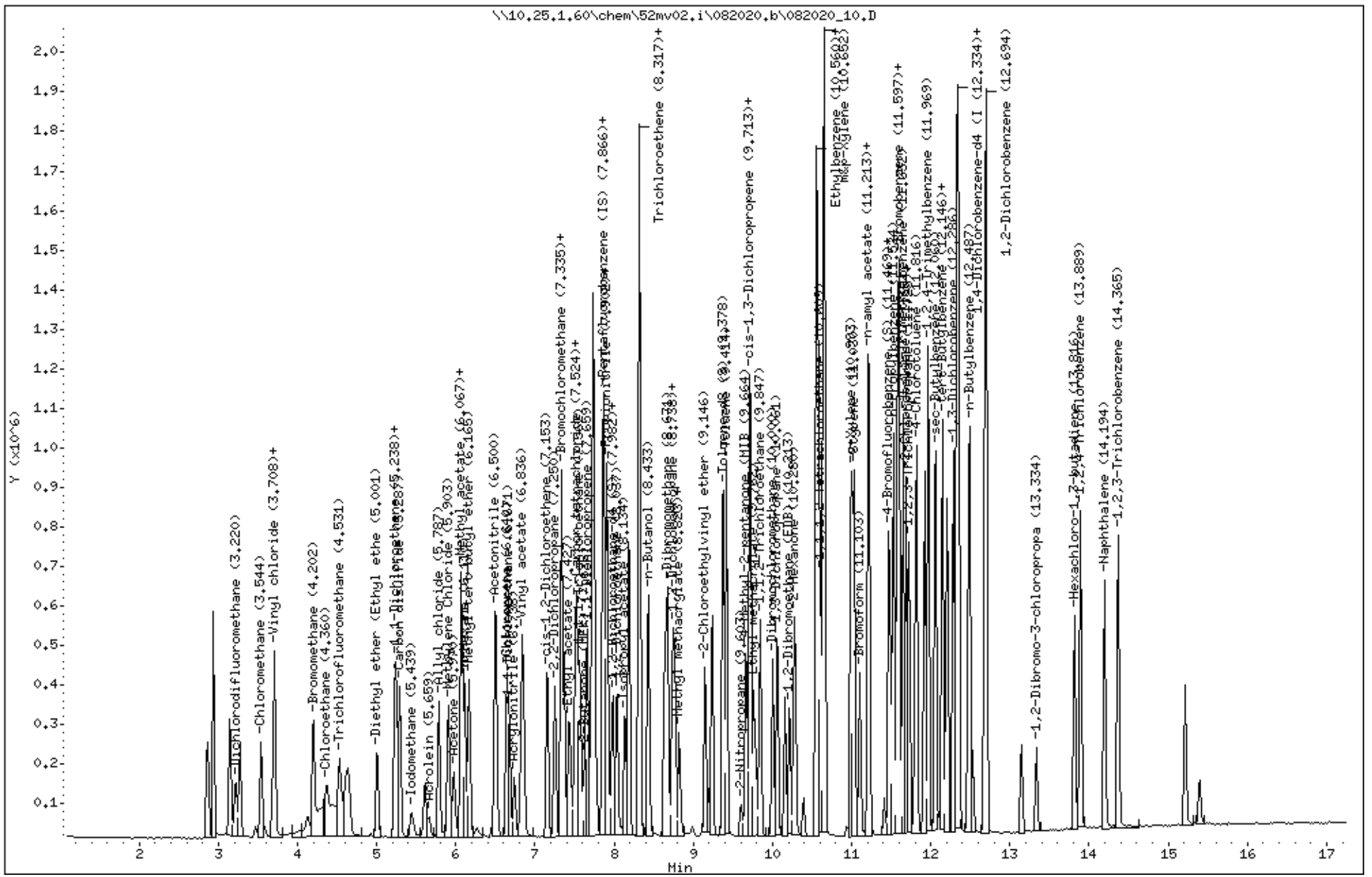
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_10.D
Date : 20-AUG-2020 13:45
Client ID: CAL8
Sample Info: CAL8,27244:1
Purge Volume: 5.0
Column phase: RTX-VMS

Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18



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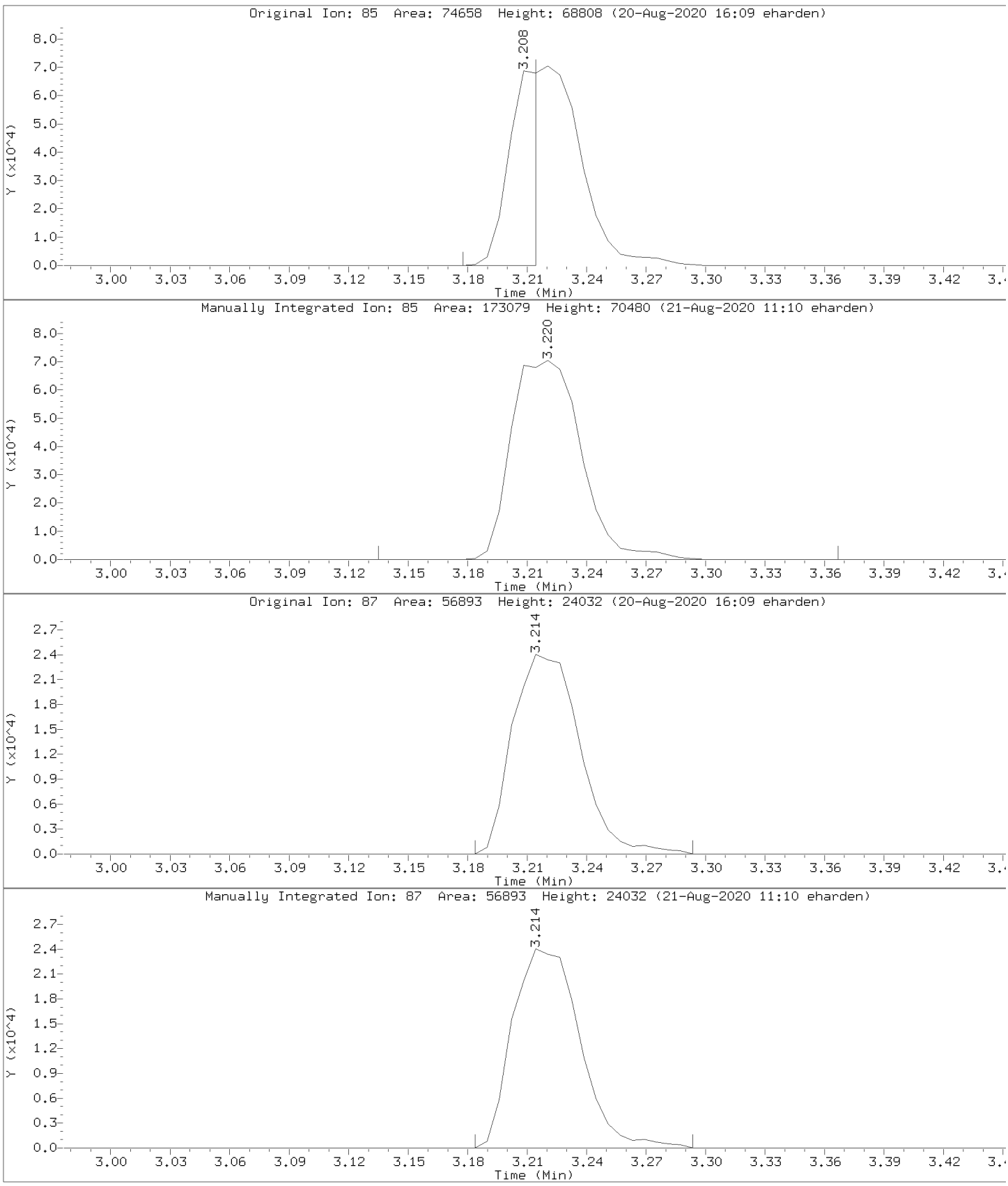
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



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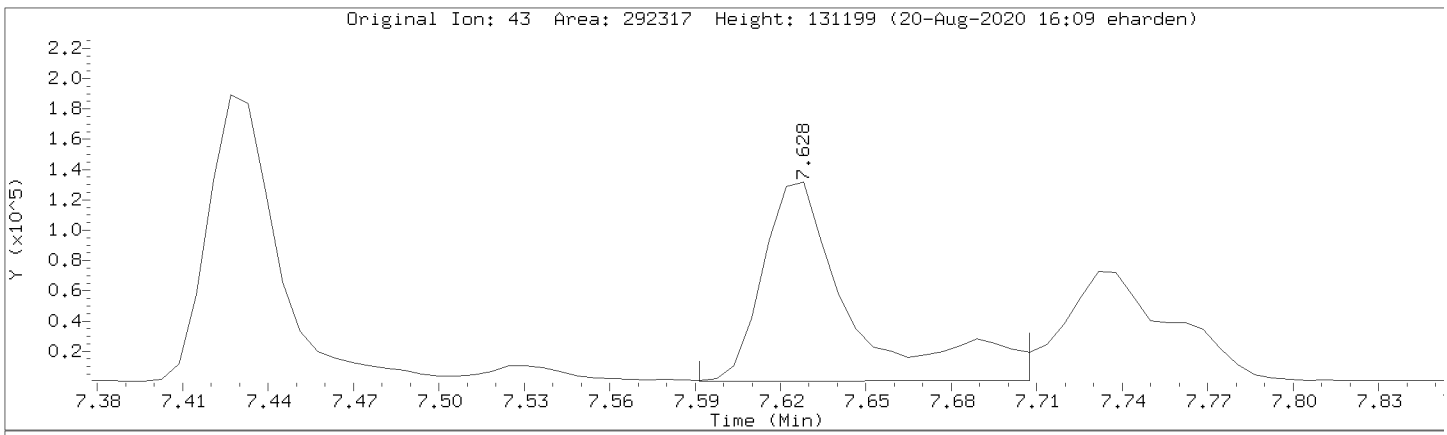
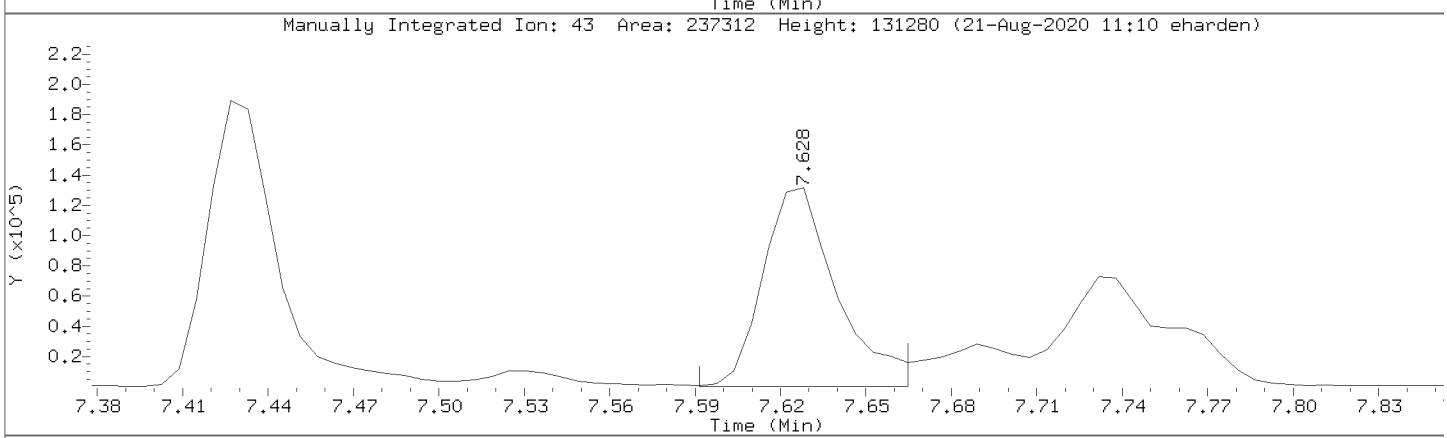
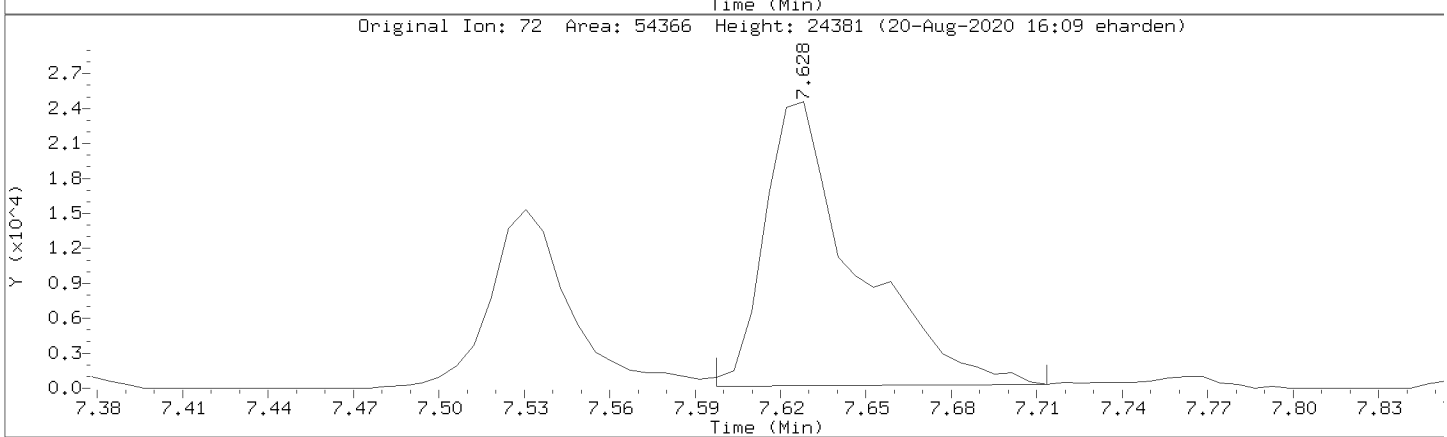
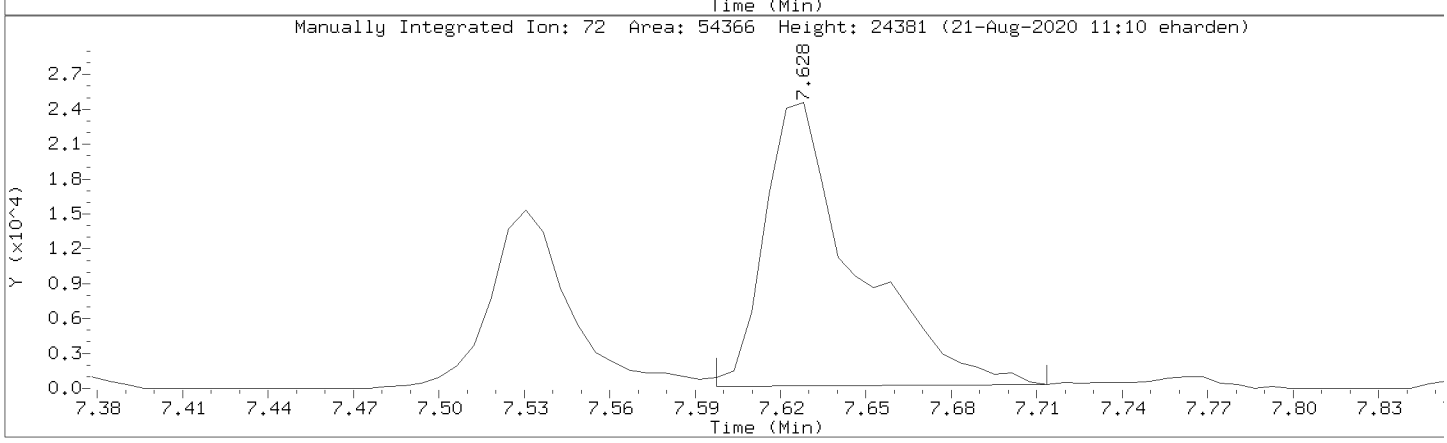
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3









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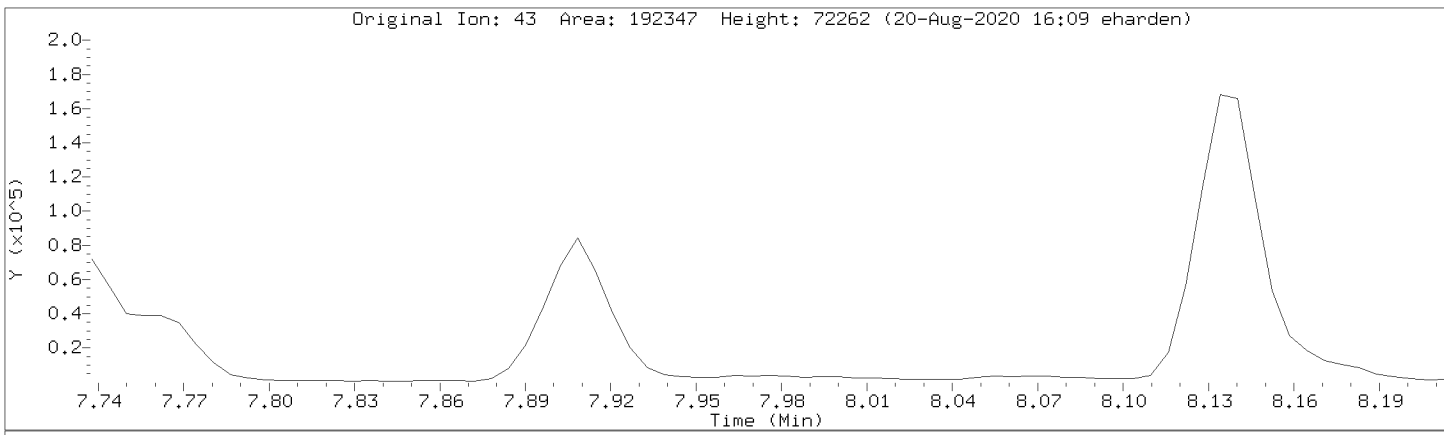
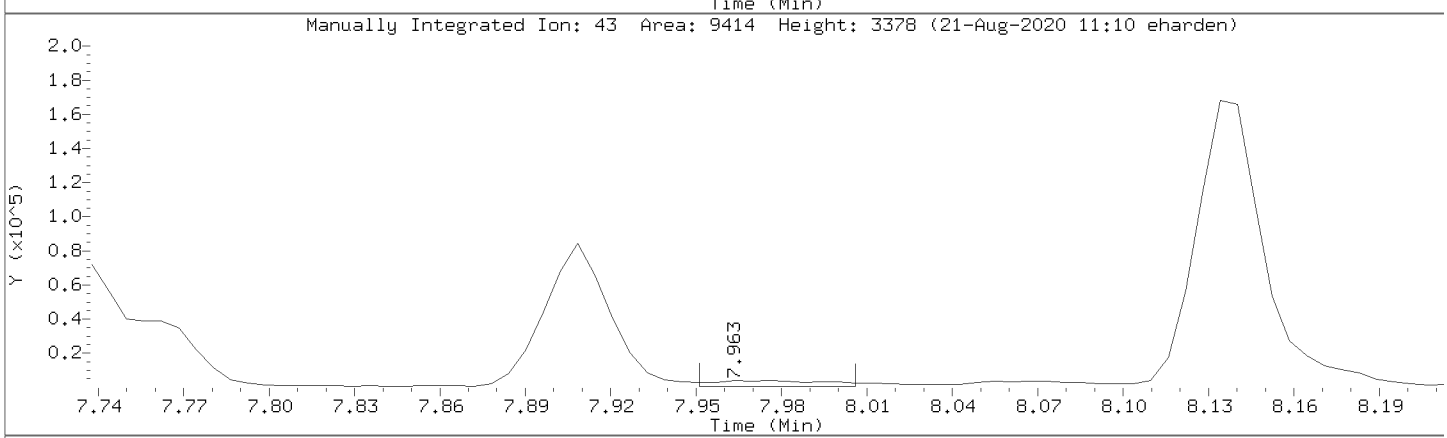
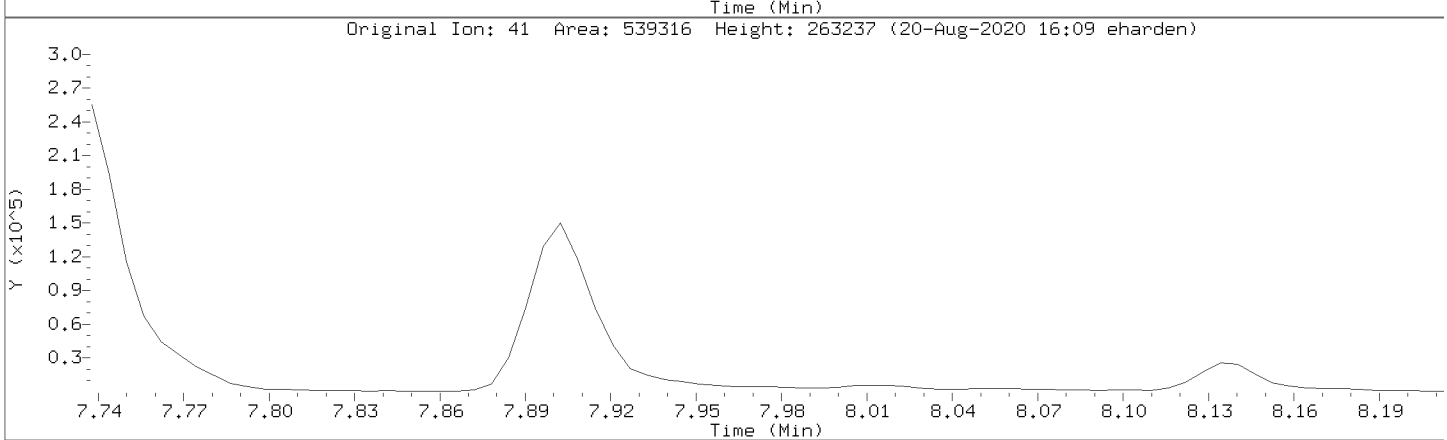
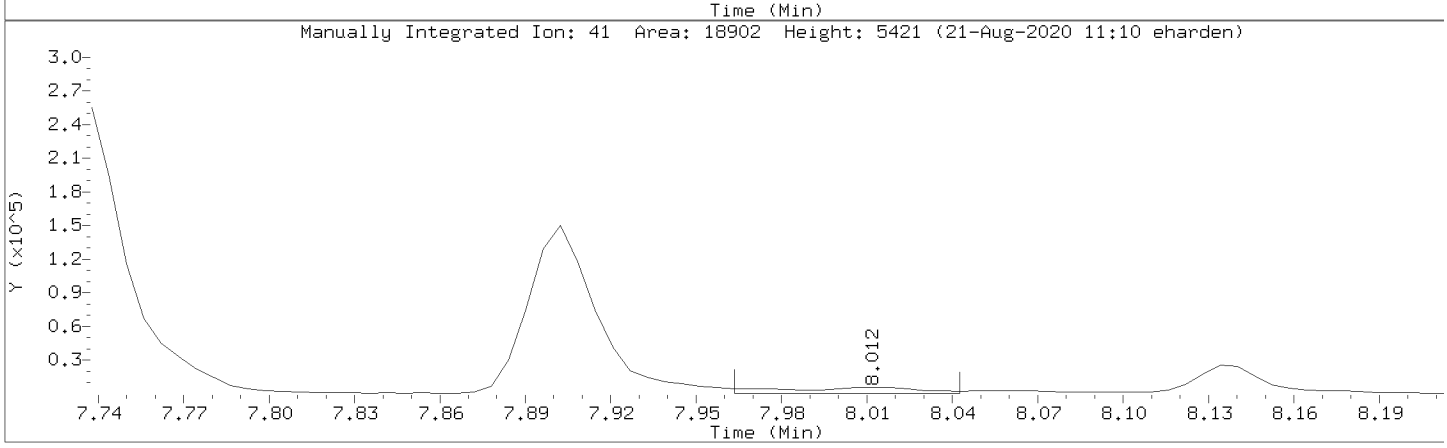
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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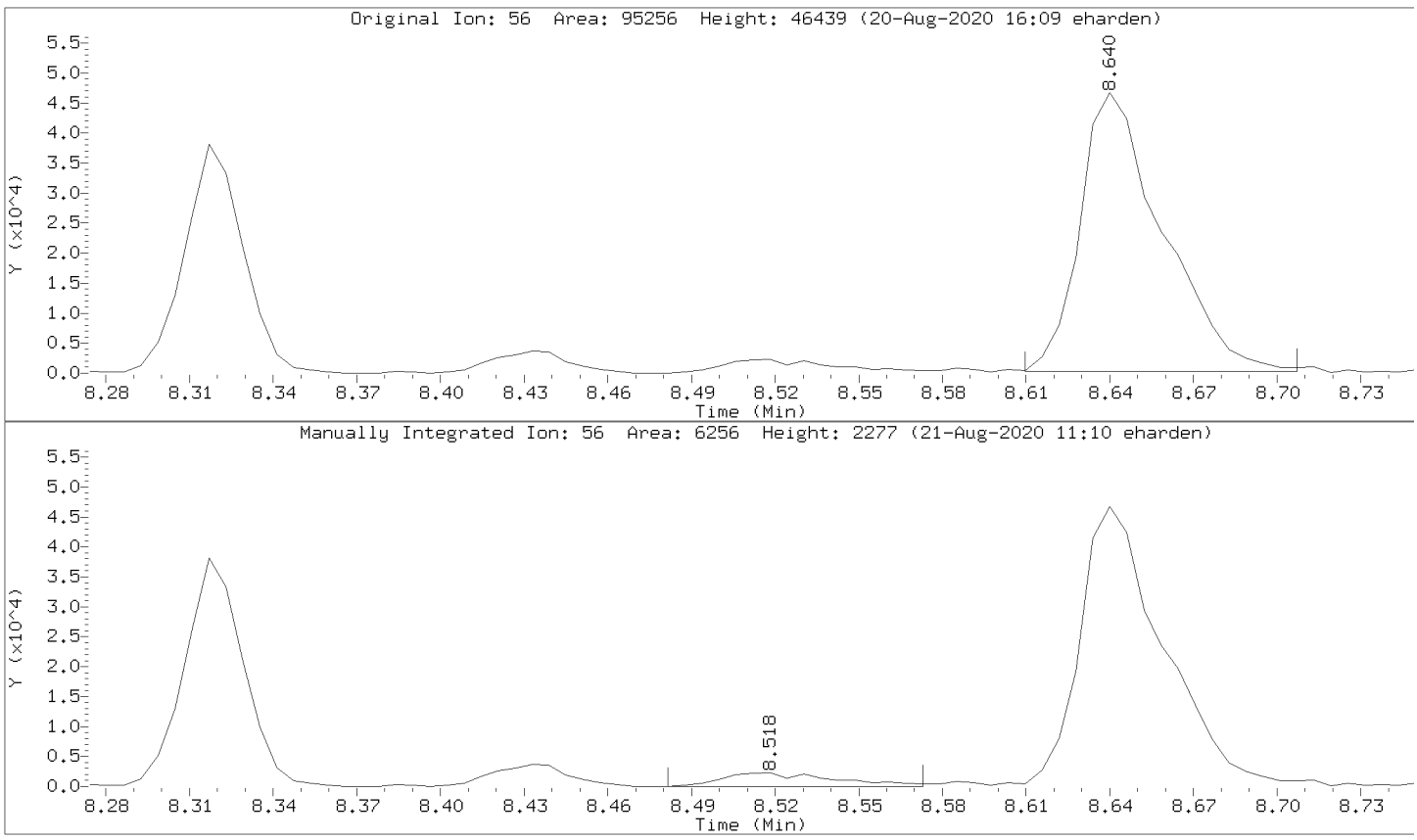
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3



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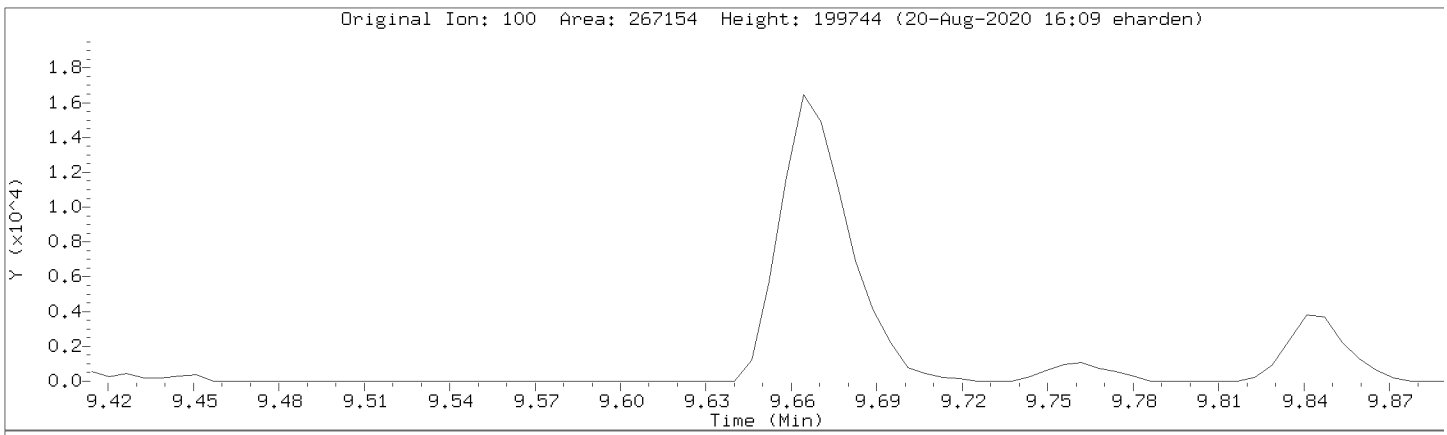
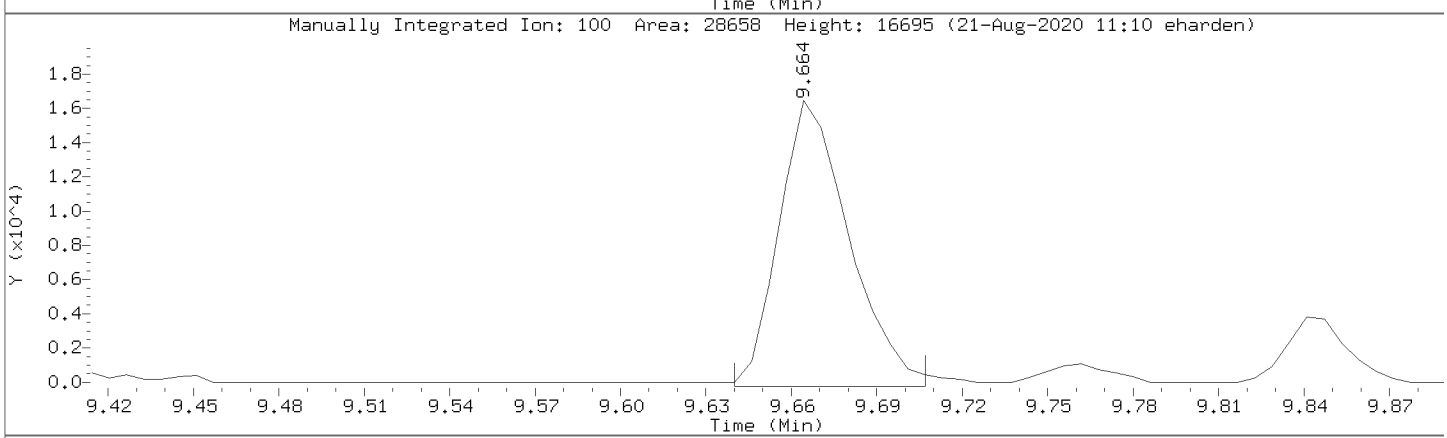
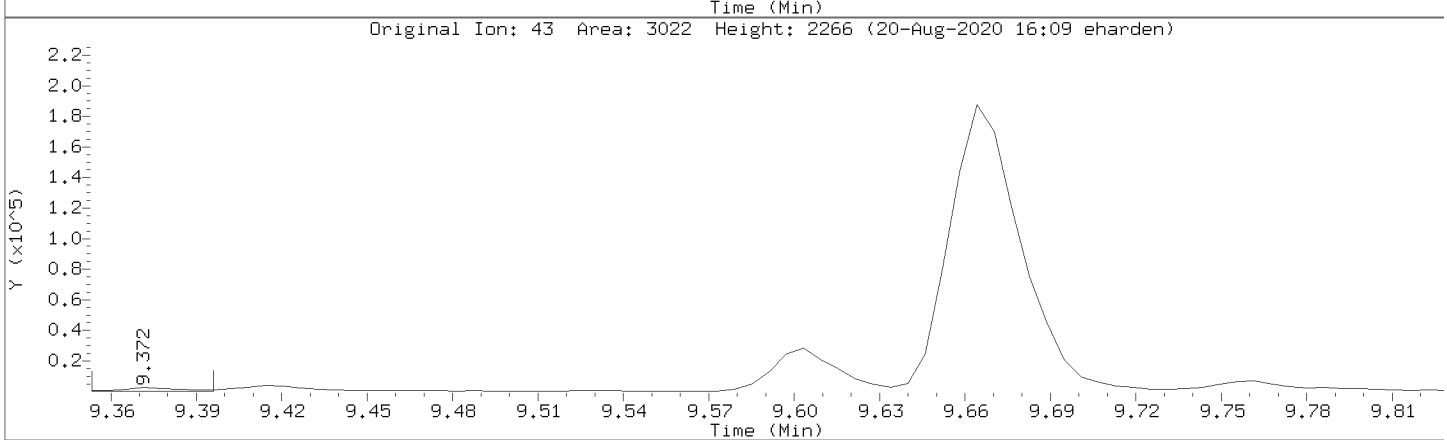
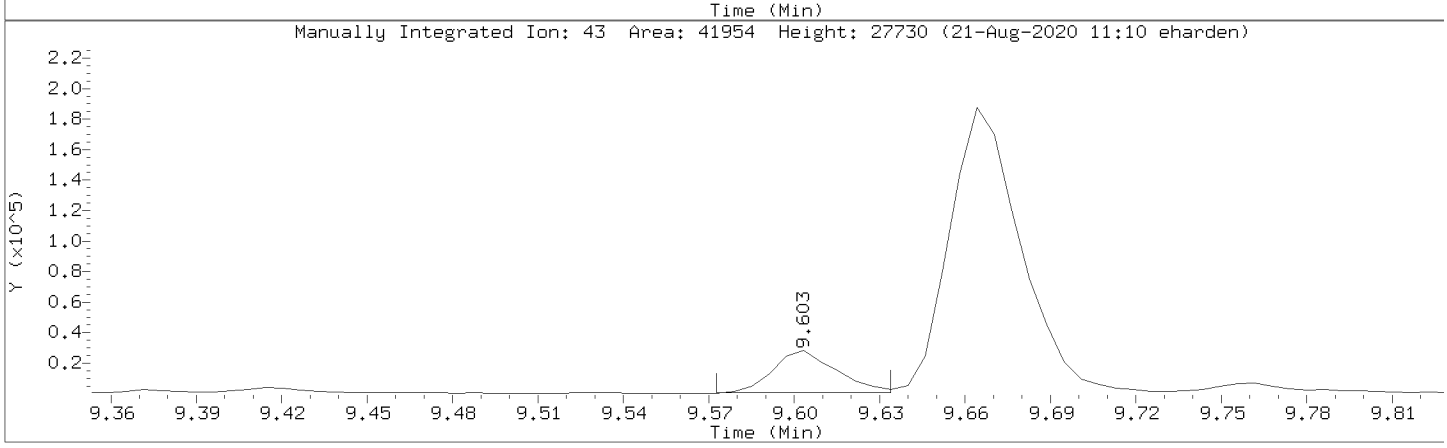
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1

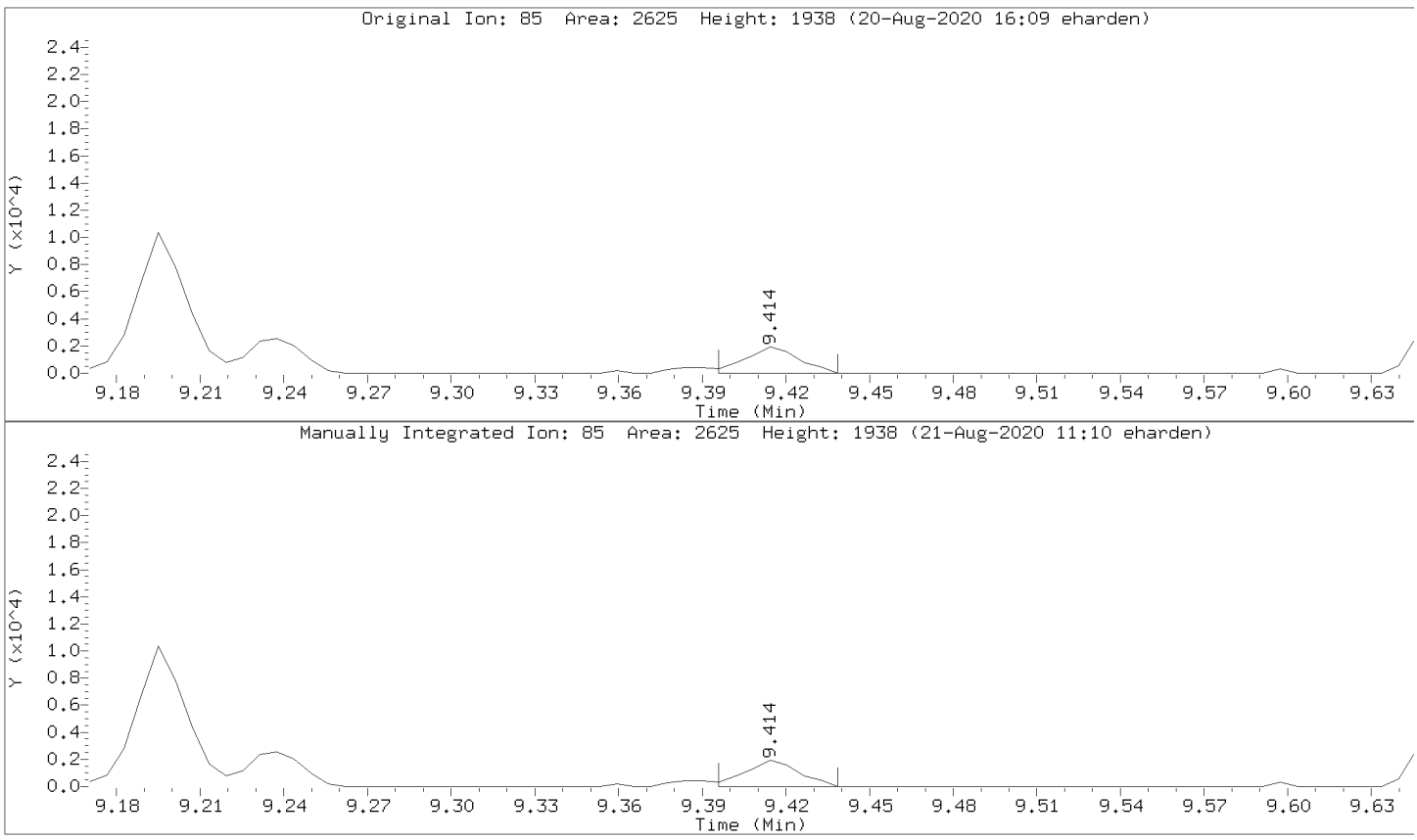








Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_10.D
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8



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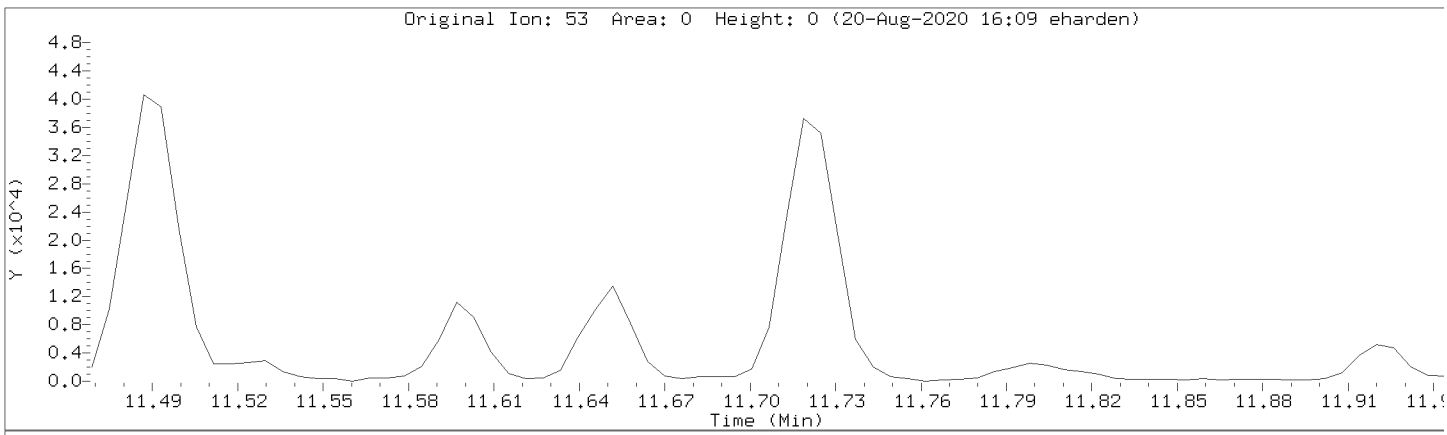
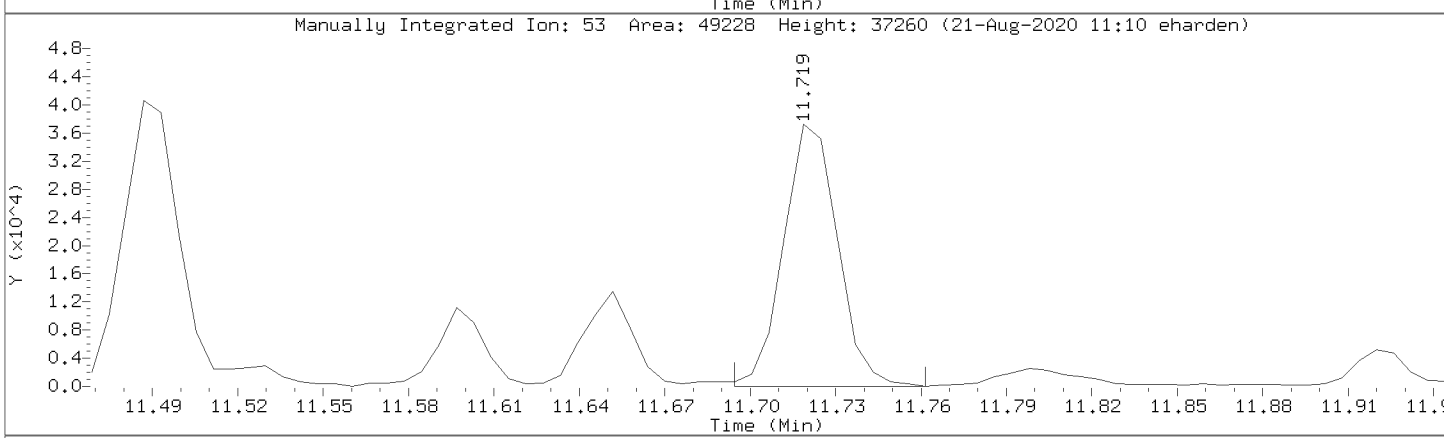
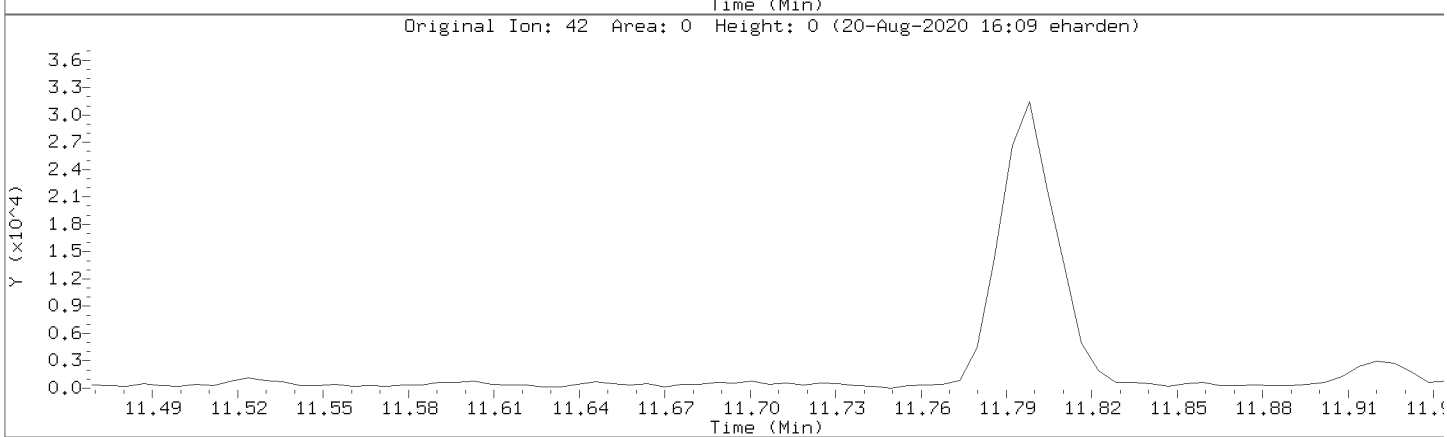
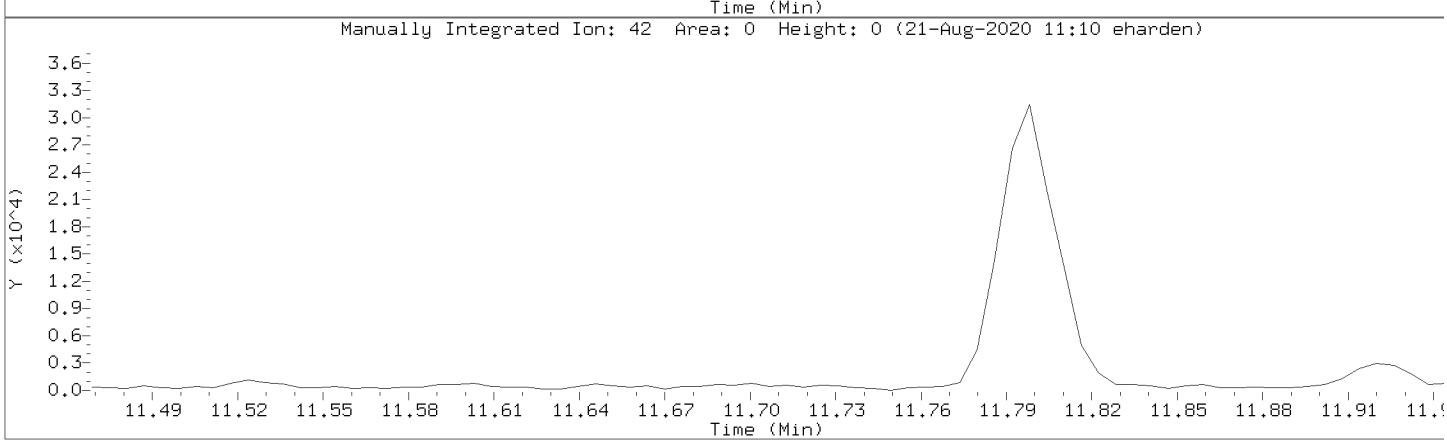
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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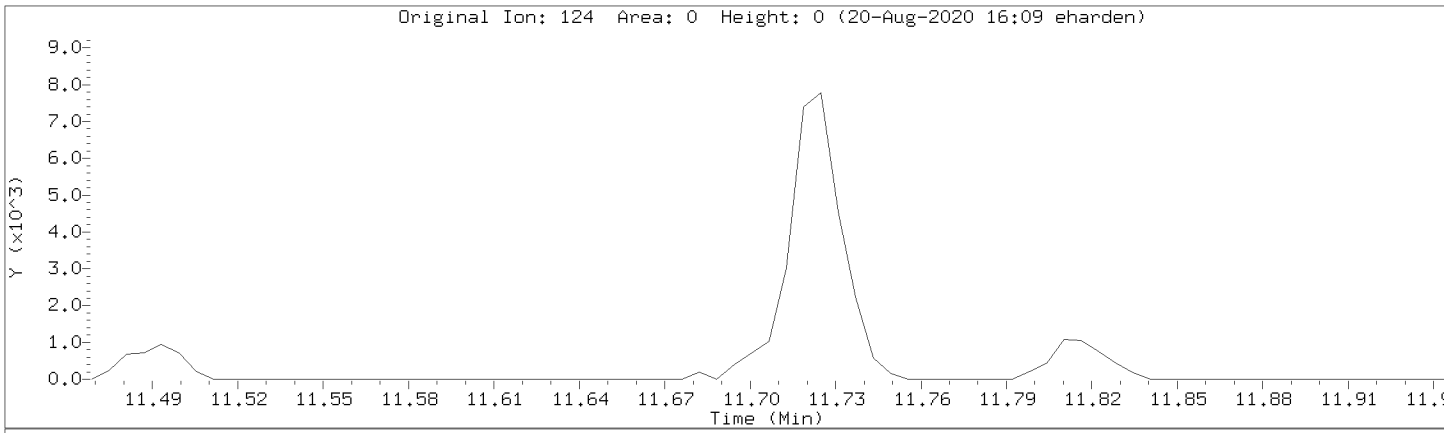
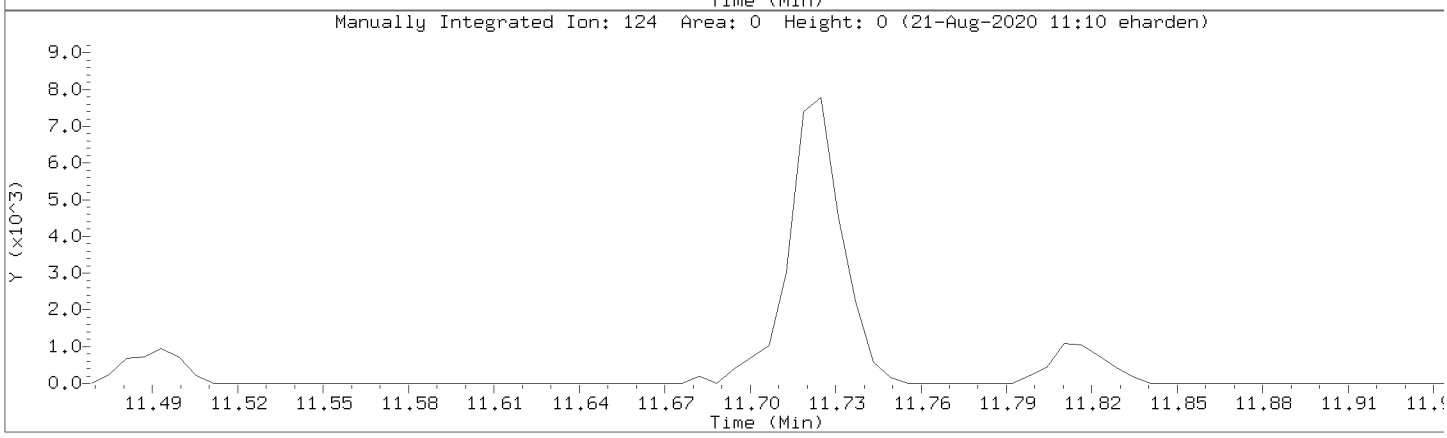
Injection Date: 20-AUG-2020 13:45
Instrument: 52mv02.i
Lab Sample ID: CAL8





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_11.D
Lab Smp Id: CAL9 Client Smp ID: CAL9
Inj Date : 20-AUG-2020 14:11
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal9,27245:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 14:11 Cal File: 082020_11.D
Als bottle: 9 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.410)	283760	75.0000	76.1(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	346933	75.0000	79.8	
3 Vinyl chloride	62	3.702	3.702	(0.471)	266129	75.0000	72.5	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	229006	75.0000	69.8	
5 Bromomethane	94	4.201	4.195	(0.535)	197842	75.0000	72.1	
6 Chloroethane	64	4.366	4.360	(0.556)	76609	75.0000	75.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	152397	75.0000	65.3	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	95070	75.0000	73.9	
9 1,1-Dichloroethene	61	5.226	5.226	(0.665)	307254	75.0000	74.0	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	190336	75.0000	69.5	
11 Carbon disulfide	76	5.287	5.293	(0.673)	644187	75.0000	70.1	
12 Iodomethane	142	5.445	5.439	(0.693)	174575	75.0000	74.4	
13 Acrolein	56	5.658	5.659	(0.720)	65220	150.000	152	
14 Allyl chloride	76	5.786	5.787	(0.736)	91135	75.0000	71.4	
15 Methylene Chloride	49	5.902	5.902	(0.751)	342732	75.0000	69.5	
16 Acetone	43	5.969	5.976	(0.760)	359242	150.000	150	
17 Methyl acetate	43	6.067	6.067	(0.772)	445182	150.000	157	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	200360	75.0000	71.5	
19 n-Hexane	86	6.110	6.110	(0.777)	24817	75.0000	83.6	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	507129	75.0000	77.6	
21 Acetonitrile	41	6.457	6.463	(0.822)	43661	150.000	168(H)	
22 Chloroprene	53	6.640	6.640	(0.845)	329381	75.0000	84.3	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	394304	75.0000	72.4	
24 Acrylonitrile	53	6.731	6.738	(0.857)	183534	150.000	155	
25 Vinyl acetate	43	6.859	6.860	(0.873)	438519	75.0000	81.4	
26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	296515	75.0000	73.9	
27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	277755	75.0000	66.1	
28 Bromochloromethane	128	7.335	7.335	(0.933)	121740	75.0000	69.4	
29 Cyclohexane	56	7.335	7.335	(0.882)	289677	75.0000	82.8	
30 Chloroform	83	7.372	7.372	(0.938)	435835	75.0000	70.8	
31 Ethyl acetate	43	7.426	7.433	(0.945)	516261	150.000	148	
32 Carbon tetrachloride	117	7.506	7.512	(0.902)	317911	75.0000	76.8	
33 Tetrahydrofuran	42	7.530	7.536	(0.958)	139651	150.000	164	
$ 34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	168498	50.0000	47.3	
35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	346786	75.0000	73.9	
36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	407706	150.000	154	
37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	260917	75.0000	80.1(H)	
* 38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	309362	50.0000		
39 Benzene	78	7.871	7.872	(0.946)	777686	75.0000	73.9	
40 Propionitrile	54	7.896	7.902	(1.005)	76528	150.000	145	
41 Methacrylonitrile	41	7.902	7.902	(1.005)	401655	150.000	150	
42 Isobutanol	43	7.975	7.987	(1.015)	20414	150.000	(MH)	WP
$ 43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	29467	50.0000	46.0	
44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	328819	75.0000	68.0	
45 Isopropyl acetate	43	8.134	8.134	(1.035)	448742	75.0000	77.9	
46 Trichloroethene	130	8.316	8.317	(1.000)	215771	75.0000	75.0	
* 47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	411283	50.0000		
48 Methylcyclohexane	98	8.316	8.317	(1.000)	104652	75.0000	76.8	
49 n-Butanol	56	8.512	8.524	(1.023)	10615	150.000	169(H)	
50 Dibromomethane	93	8.670	8.670	(1.043)	178140	75.0000	72.7	
51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	221116	75.0000	73.6	
52 Bromodichloromethane	83	8.768	8.768	(1.054)	335188	75.0000	77.7	
53 Methyl methacrylate	69	8.822	8.823	(1.061)	128004	75.0000	72.9	
54 1,4-Dioxane (p-Dioxane)	58	8.932	8.920	(1.074)	3243	150.000	(MH)	LT
55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	229530	150.000	147	
56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	334526	75.0000	79.8	
$ 57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	447242	50.0000	50.5	
58 Toluene	91	9.414	9.414	(1.132)	781683	75.0000	76.2	
59 2-Nitropropane	43	9.603	9.603	(1.155)	75539	75.0000	74.4(H)	
60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	44292	150.000	150(M)	WP
61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	333917	75.0000	79.8	
62 Tetrachloroethene	164	9.719	9.719	(0.920)	205799	75.0000	76.6	
63 Ethyl methacrylate	69	9.761	9.761	(1.174)	245737	75.0000	73.4(H)	
64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	182207	75.0000	70.1	
65 Dibromochloromethane	129	9.999	9.999	(0.947)	280478	75.0000	75.3	
66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	312981	75.0000	79.0	
67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	231783	75.0000	72.6	
68 2-Hexanone	43	10.273	10.280	(1.235)	571212	150.000	164	
69 Ethylbenzene	91	10.554	10.554	(0.999)	846583	75.0000	82.6	
* 70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	391574	50.0000		
71 Chlorobenzene	112	10.578	10.578	(1.002)	554970	75.0000	73.5	
72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	225655	75.0000	70.7	
73 m&p-Xylene	91	10.651	10.651	(1.009)	1353204	150.000	151	
74 o-Xylene	106	10.993	10.993	(1.041)	299124	75.0000	70.9	
75 Styrene	104	11.029	11.029	(1.044)	546784	75.0000	74.2	
76 Bromoform	173	11.103	11.103	(1.051)	260722	75.0000	73.7	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.224	11.225	(1.063)	479165	75.0000	75.6	
$	78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	166582	50.0000	51.8	
	79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	91712	75.0000	71.3	
	80 n-Propylbenzene	91	11.523	11.523	(1.091)	1052699	75.0000	83.8	
	81 Bromobenzene	156	11.578	11.578	(1.096)	312070	75.0000	78.8	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	302282	75.0000	72.2	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	695519	75.0000	83.9	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	220722	75.0000	73.6	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	228636	75.0000	75.5	
	86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	797567	75.0000	73.6	
	87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	319085	75.0000	72.8	
	88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	78111	75.0000	77.5(M)	NI
	89 Cyclohexanone	98	Compound Not Detected.						(D)
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	710565	75.0000	73.0	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	731346	75.0000	74.8	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	858491	75.0000	74.0	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	710565	75.0000	73.0	
	94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	523242	75.0000	78.3	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	251122	50.0000		
	96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	532968	75.0000	70.7	
	97 n-Butylbenzene	91	12.486	12.486	(1.012)	748624	75.0000	85.5	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	517606	75.0000	70.9	
	99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	59552	75.0000	72.5	
	100 Hexachloro-1,3-butadiene	225	13.815	13.822	(1.120)	164678	75.0000	73.6	
	101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	399731	75.0000	80.8	
	102 Naphthalene	128	14.193	14.193	(1.150)	711974	75.0000	72.4	
	103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	369768	75.0000	80.4	

QC Flag Legend

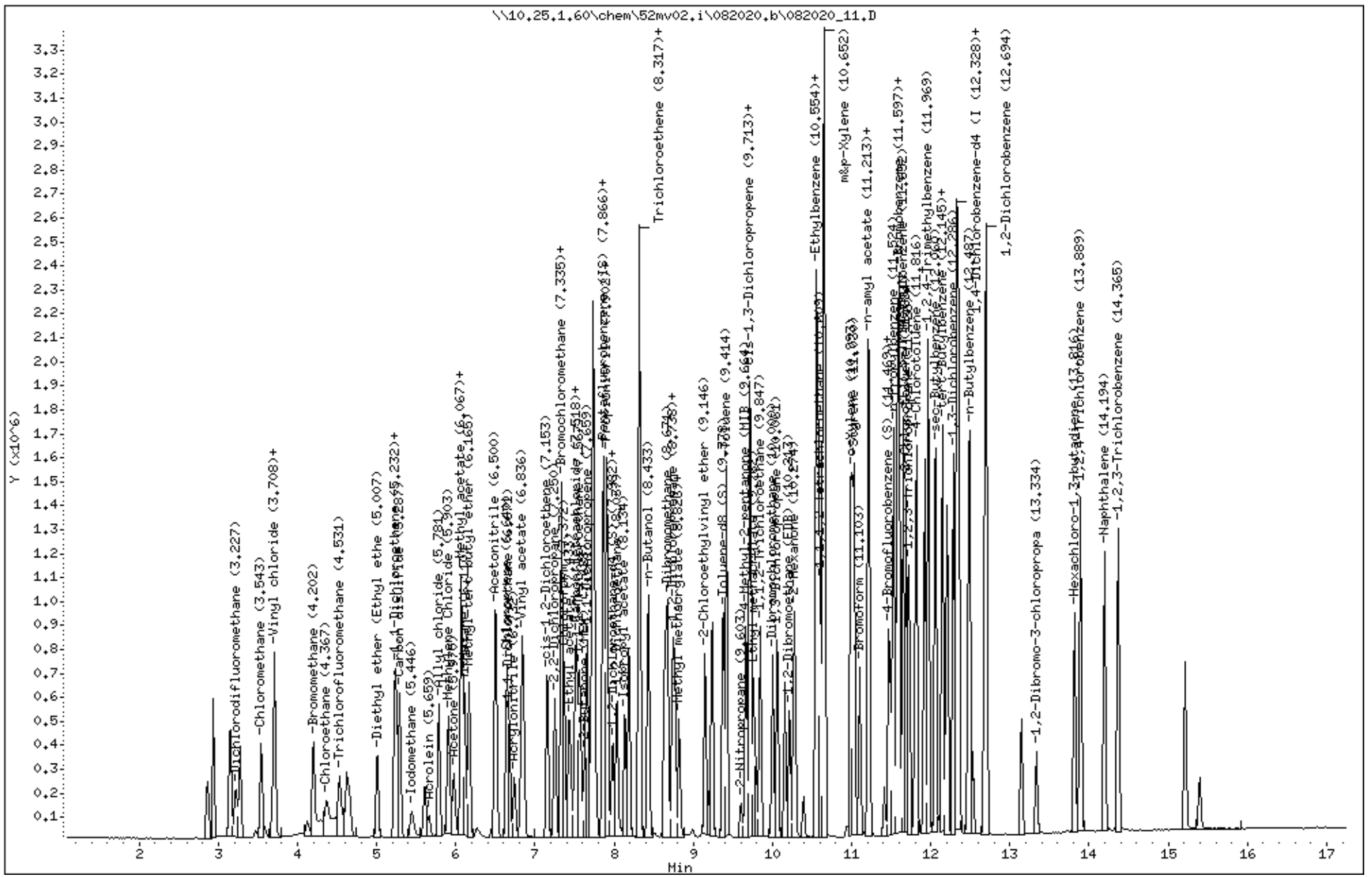
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

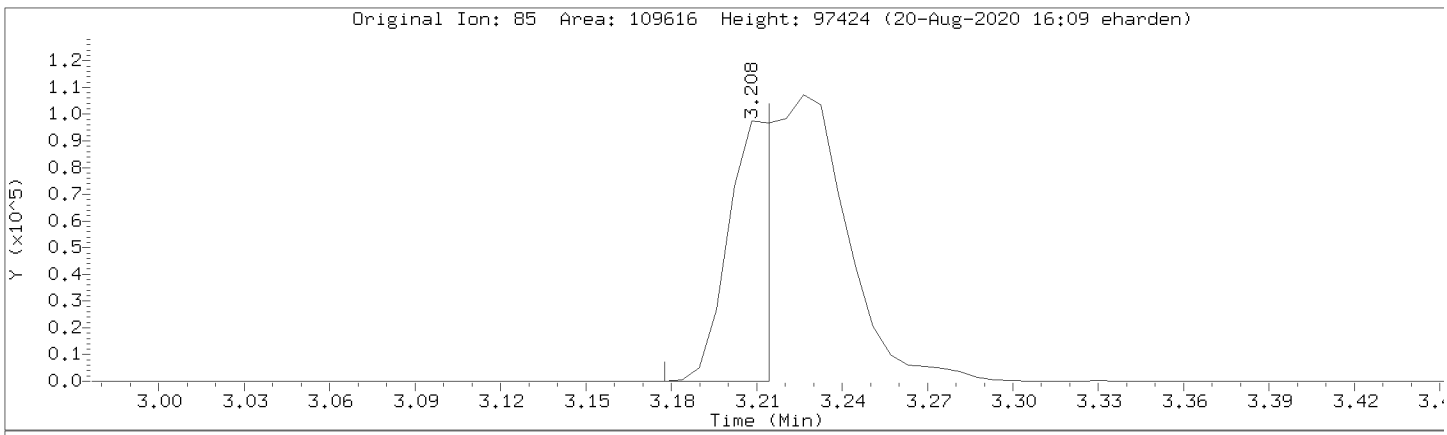
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_11.D
Date : 20-AUG-2020 14:11
Client ID: CAL9
Sample Info: CAL9,27245:1
Purge Volume: 5.0
Column phase: RTX-VMS

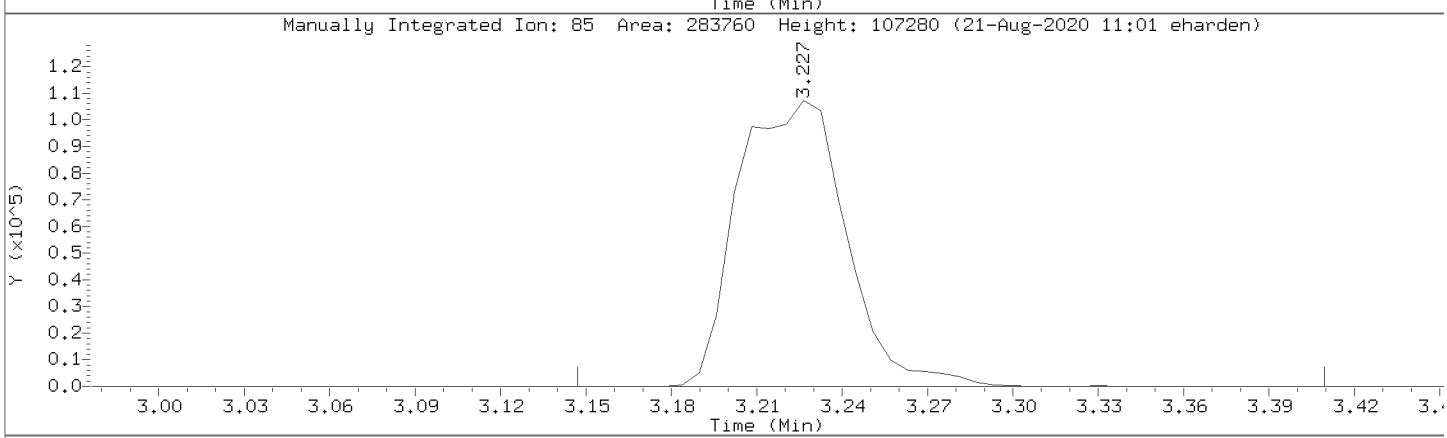
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

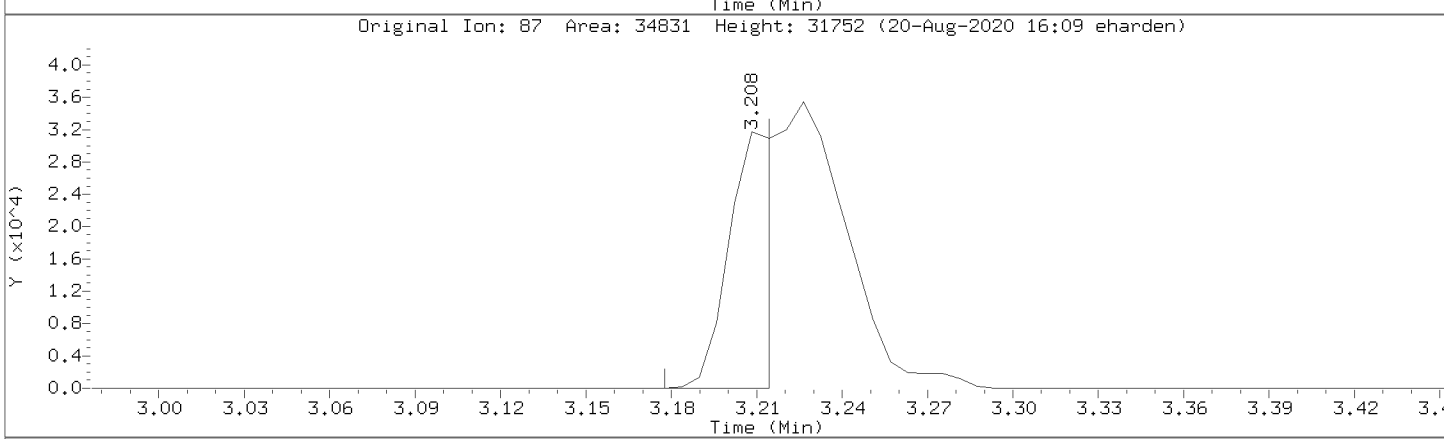


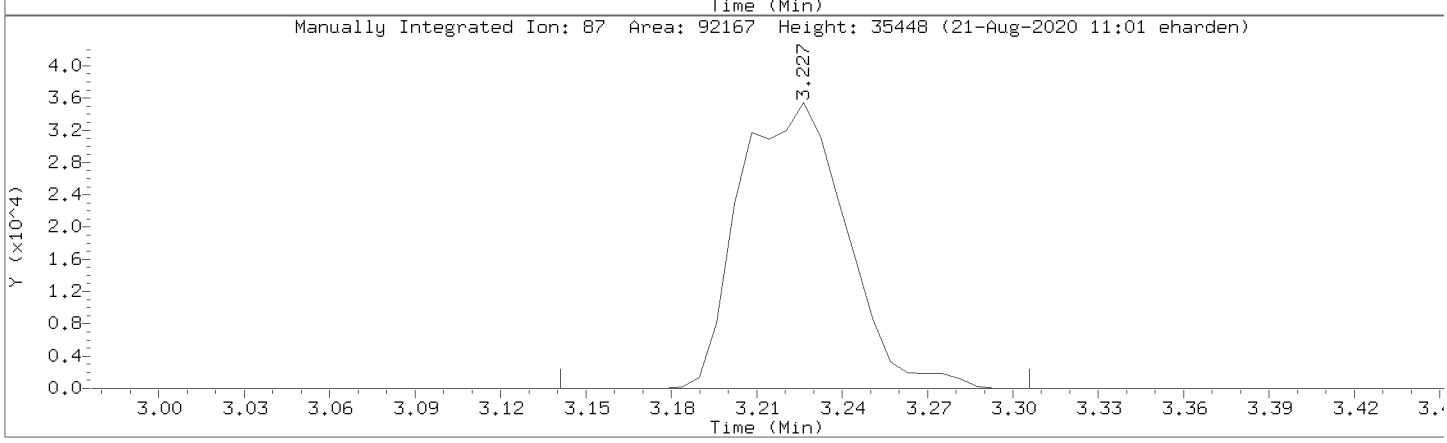
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_11.D
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8



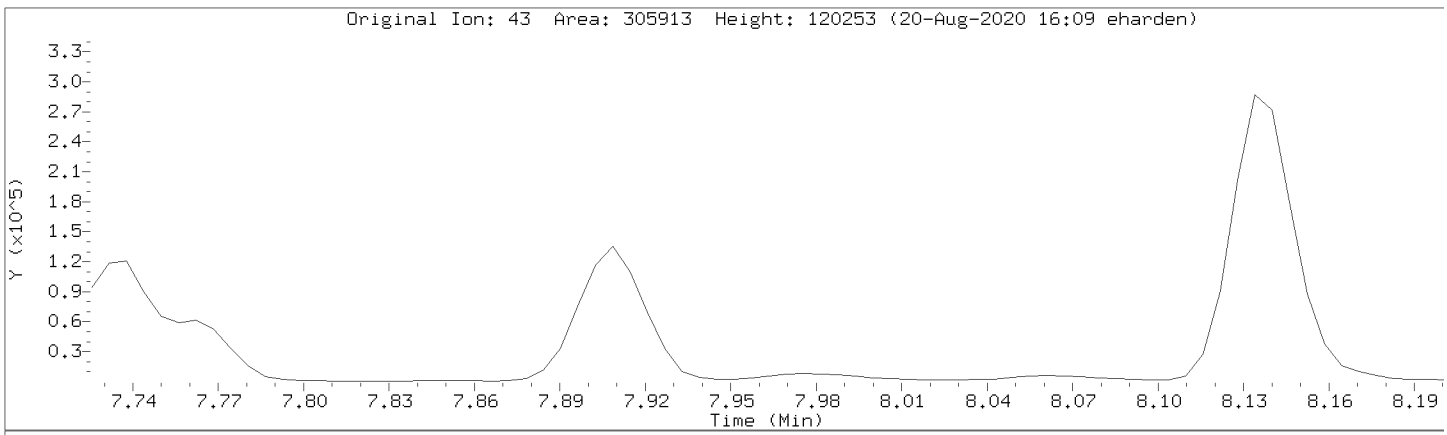


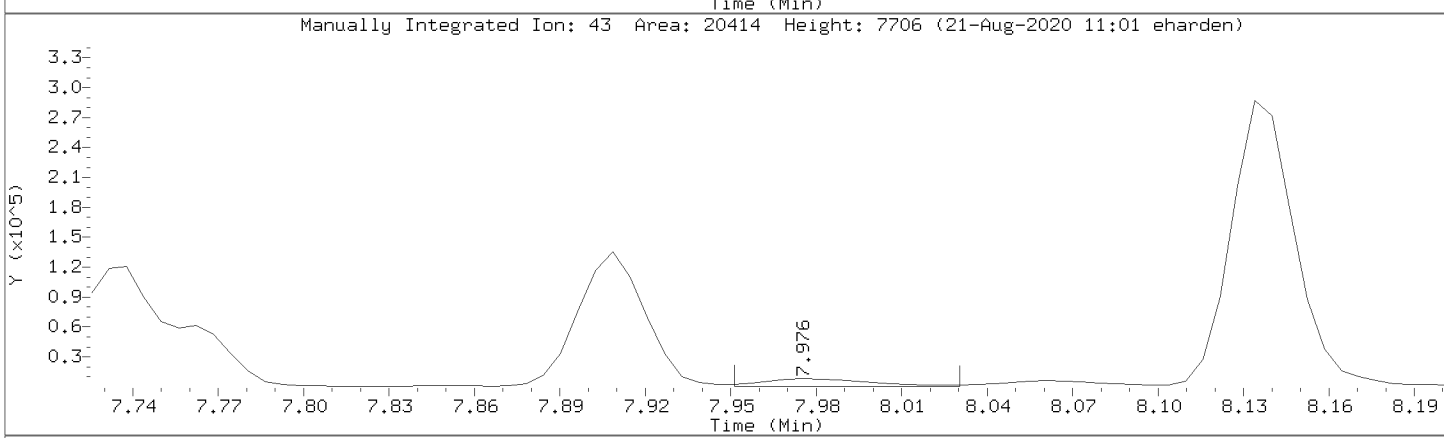


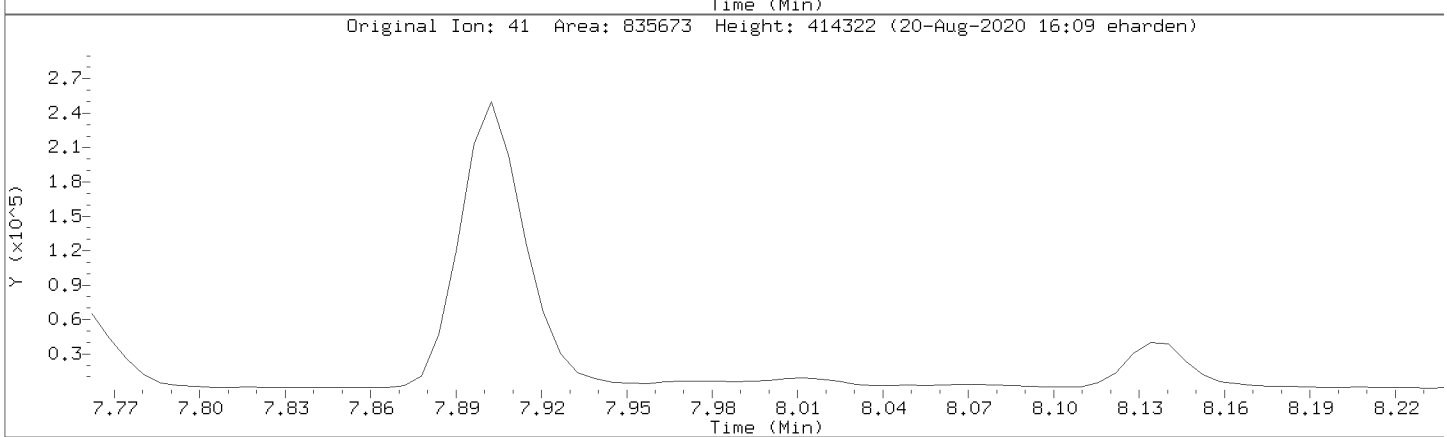


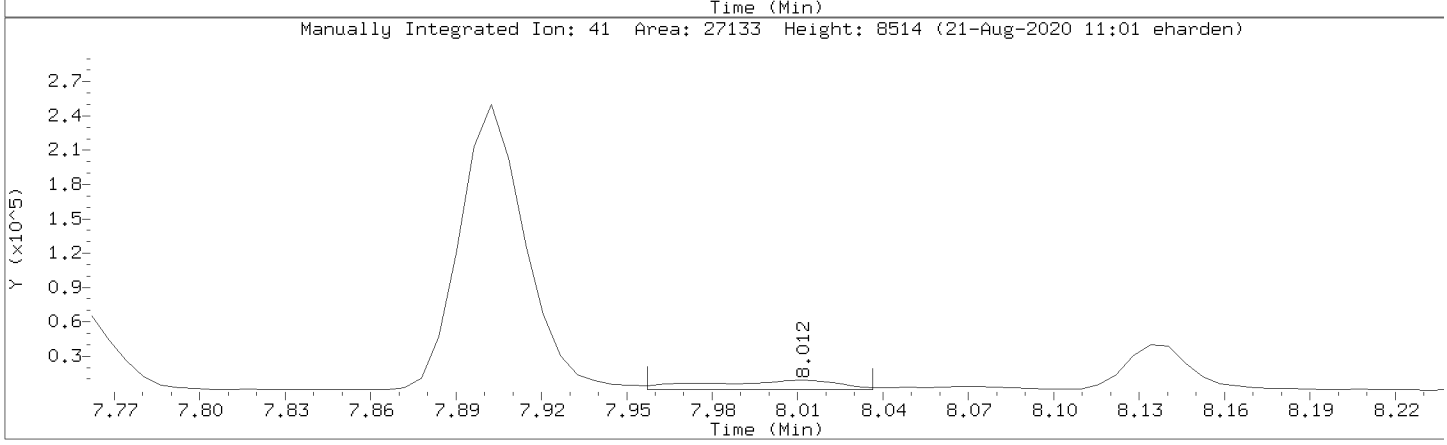
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_11.D
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1



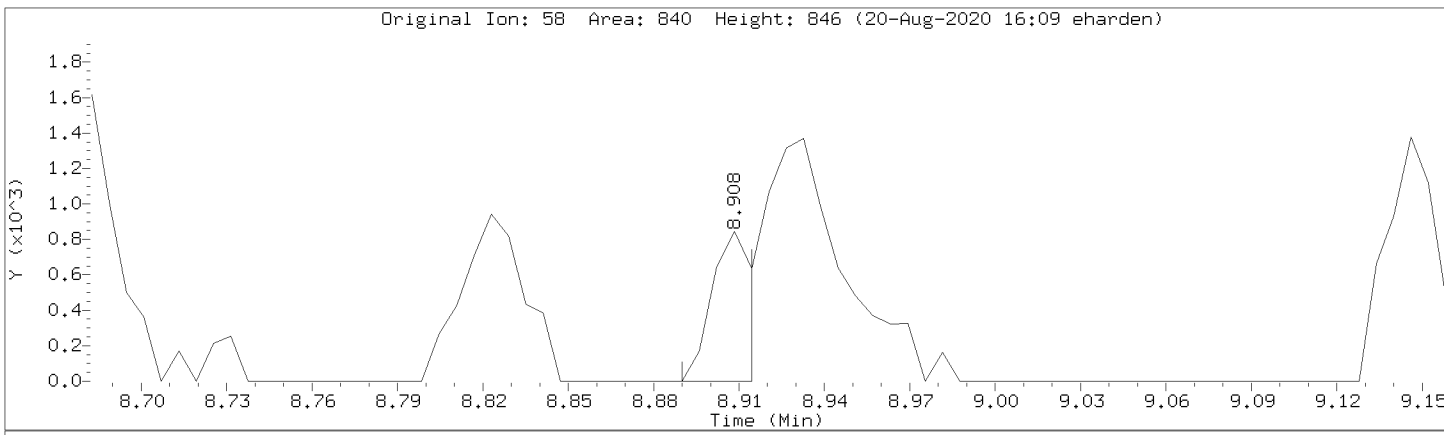


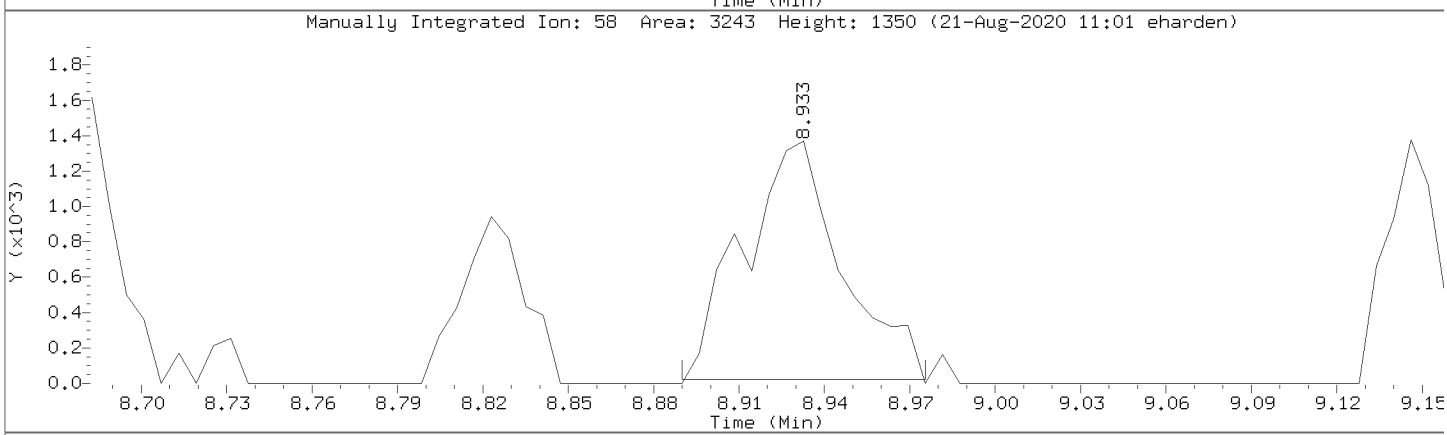


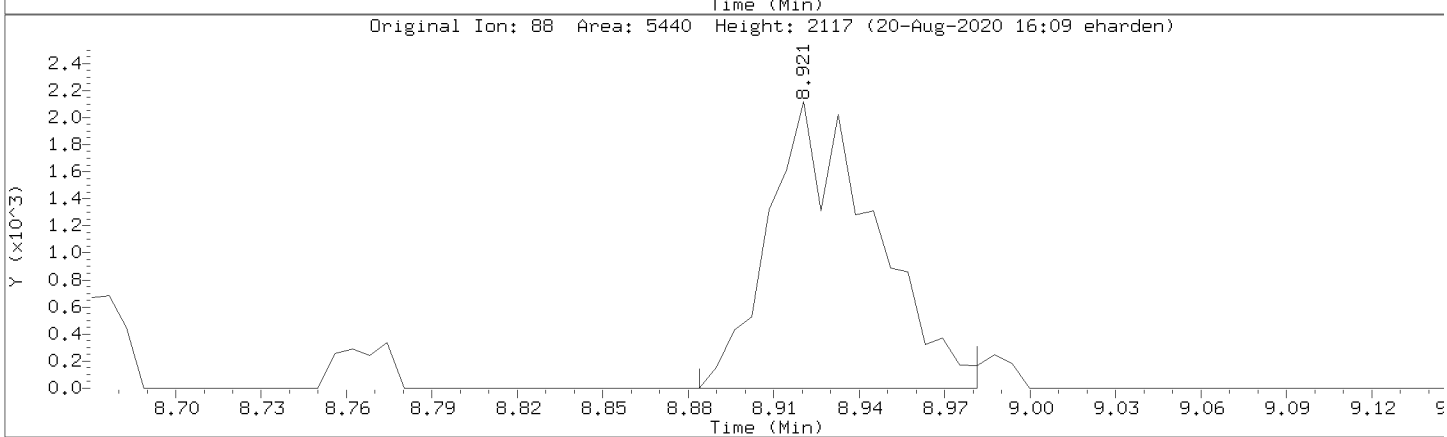


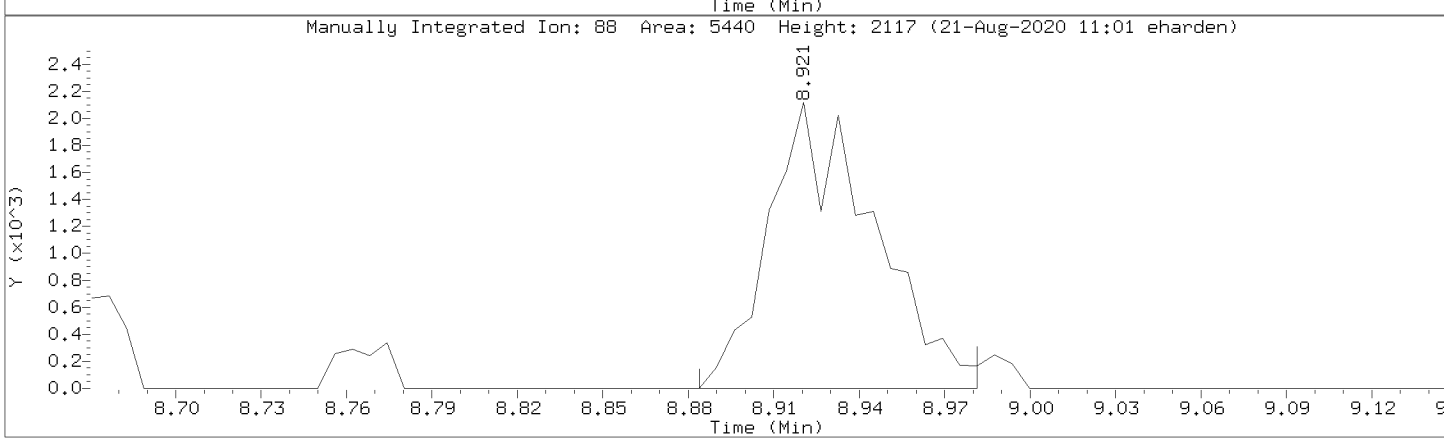
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_11.D
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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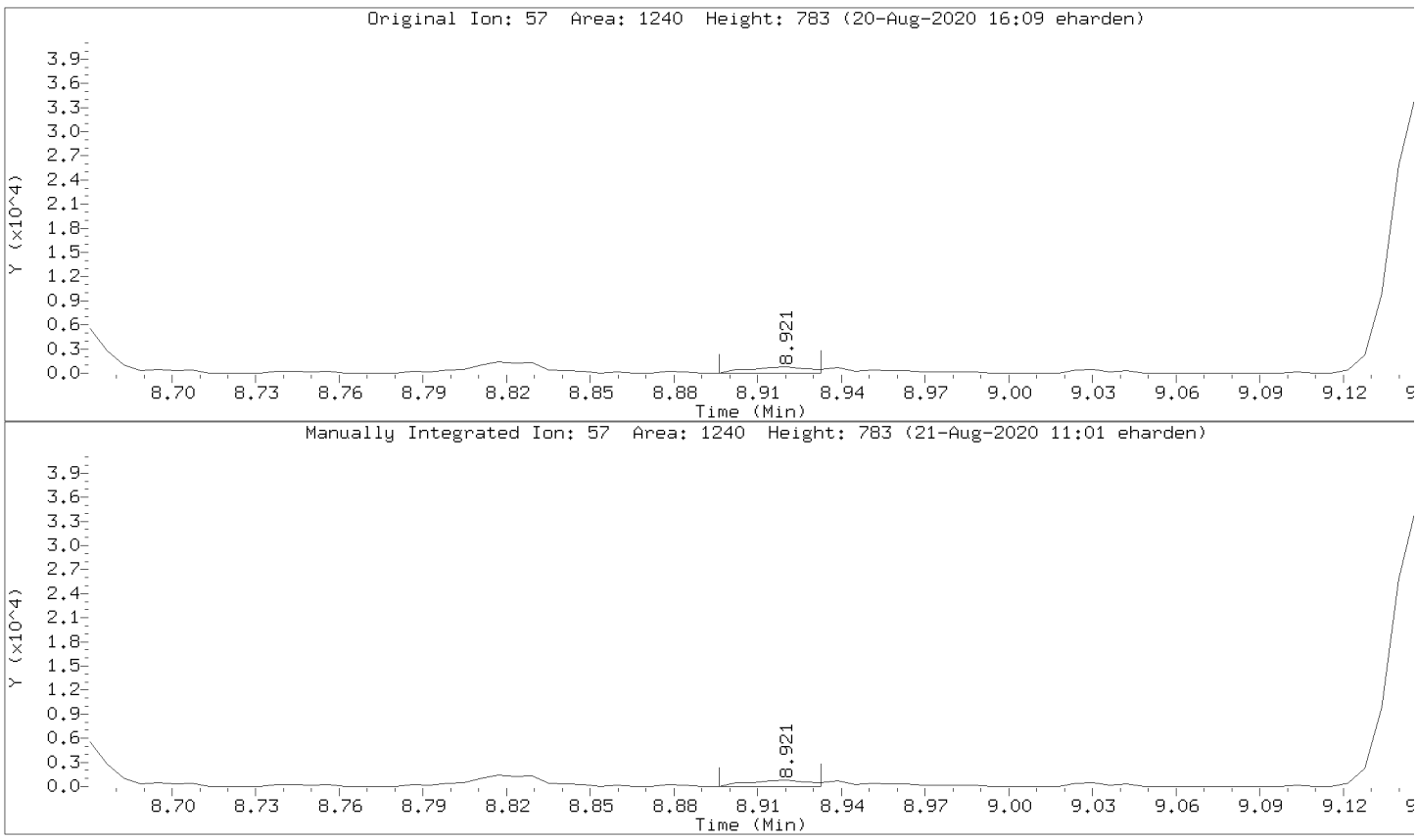
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9



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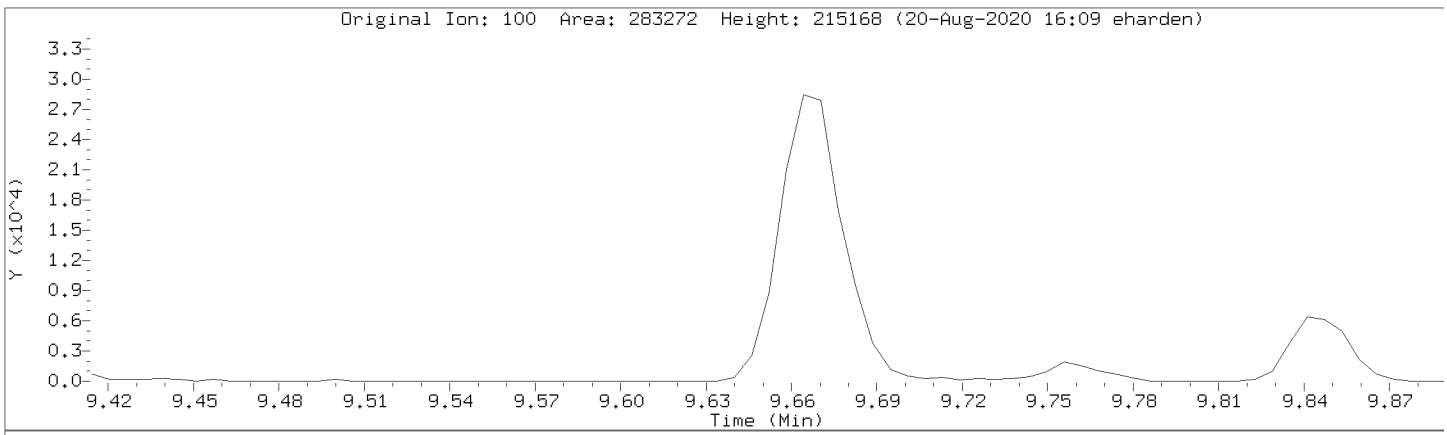
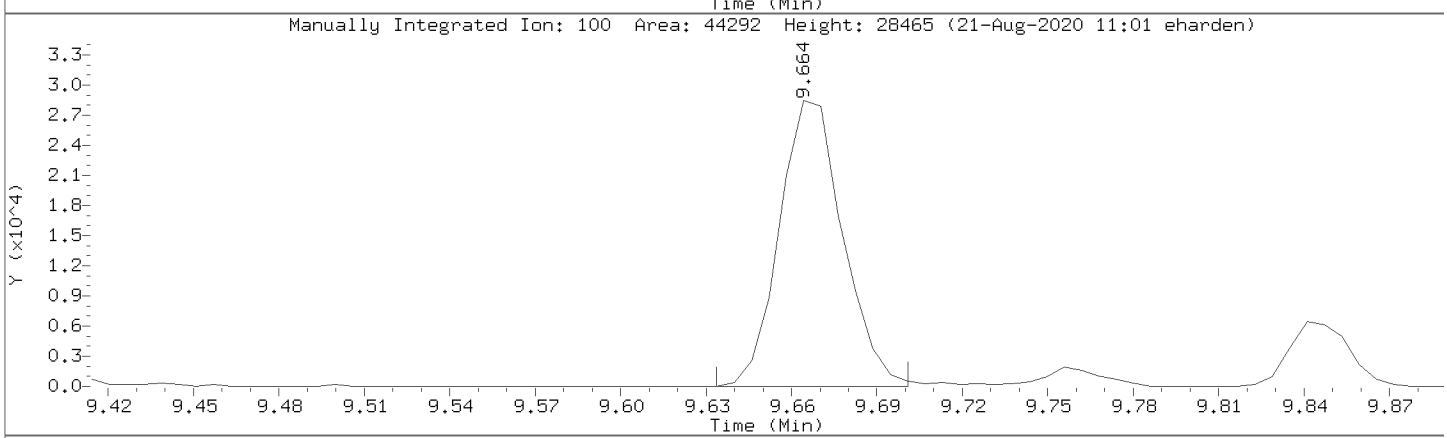
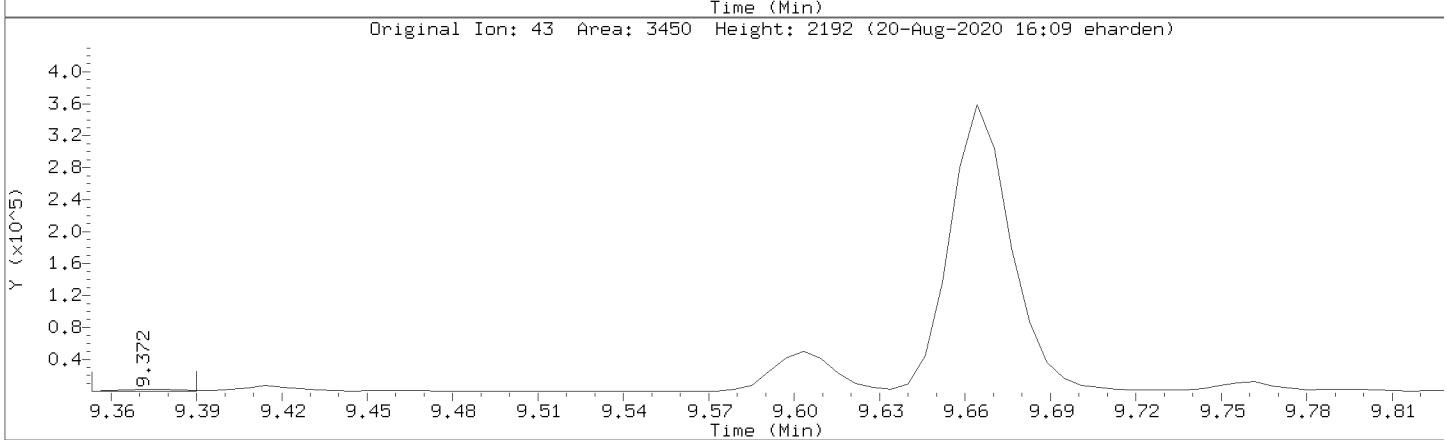
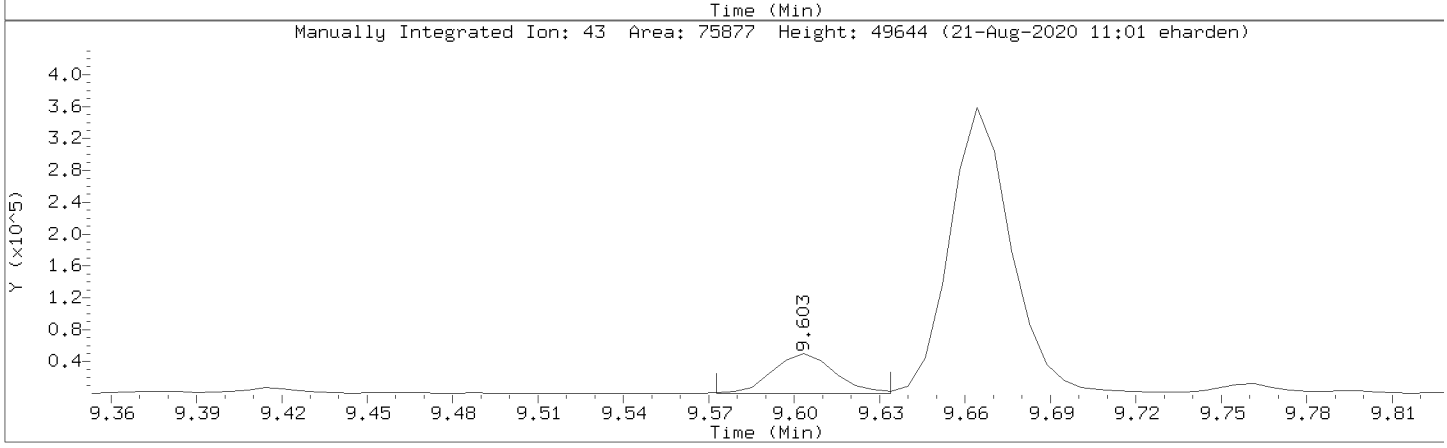
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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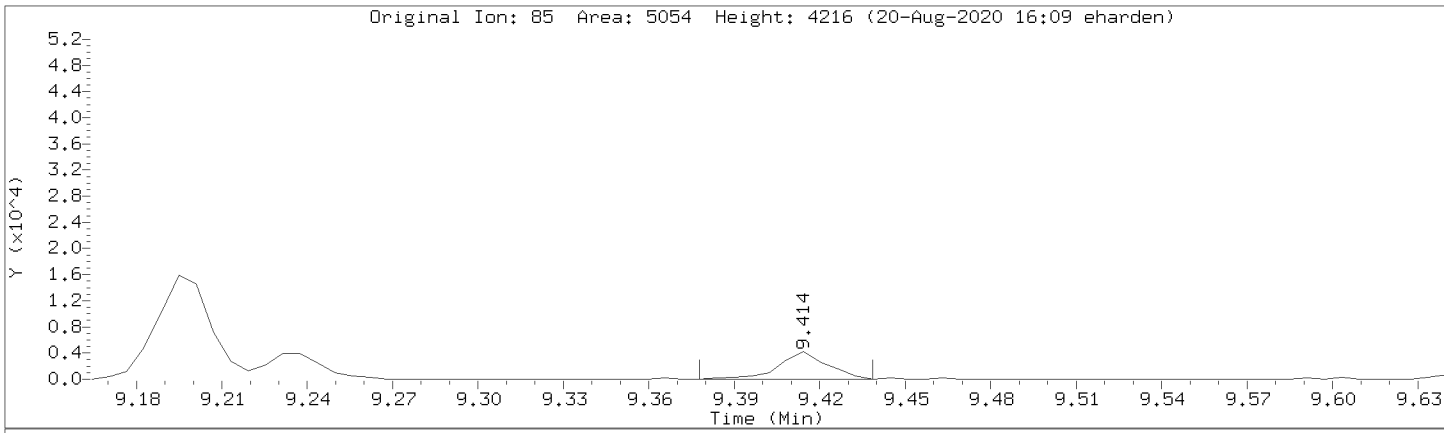
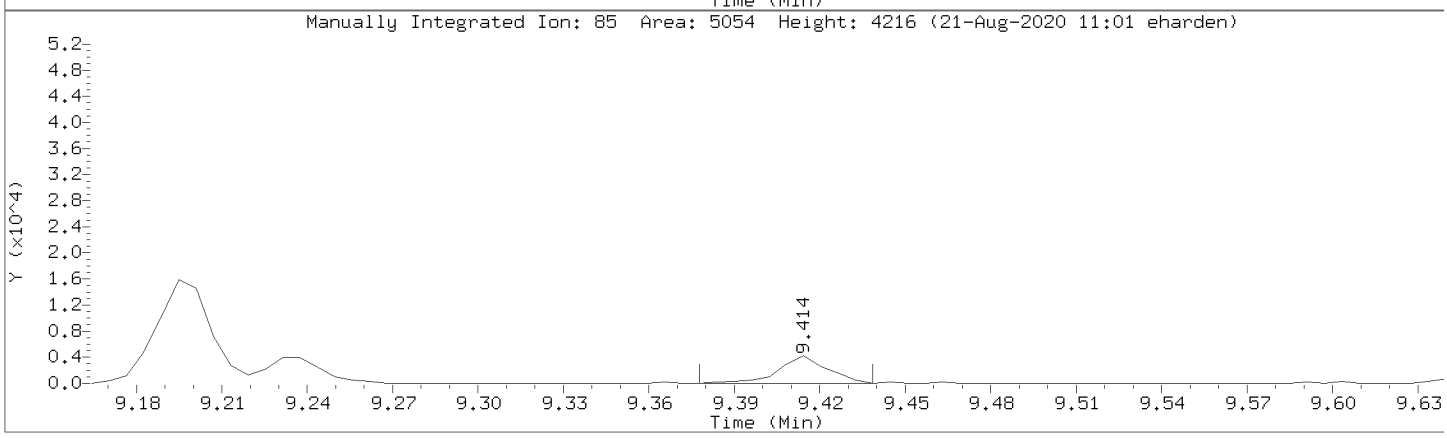
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9





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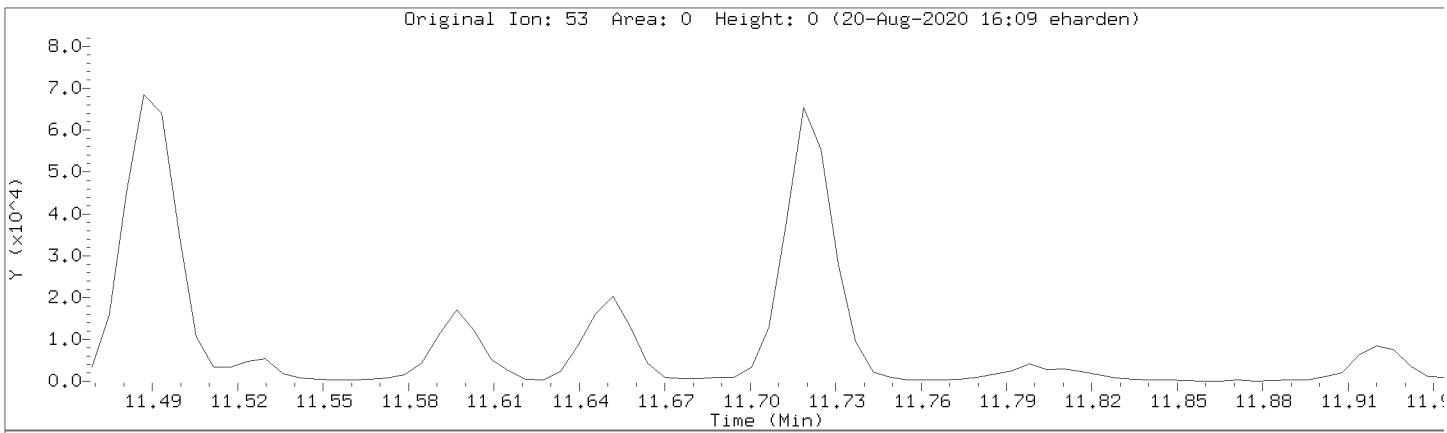
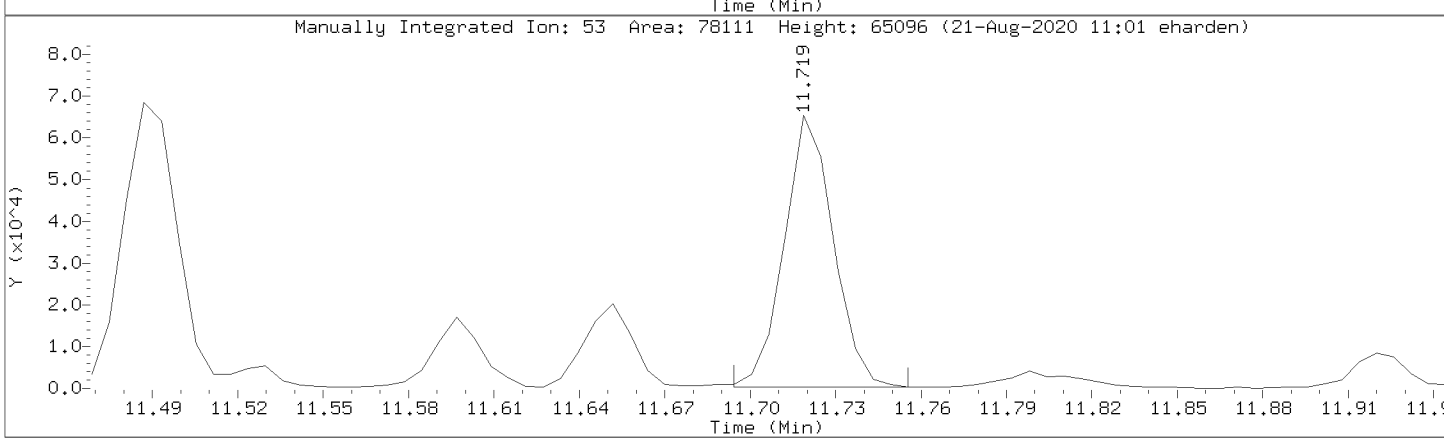
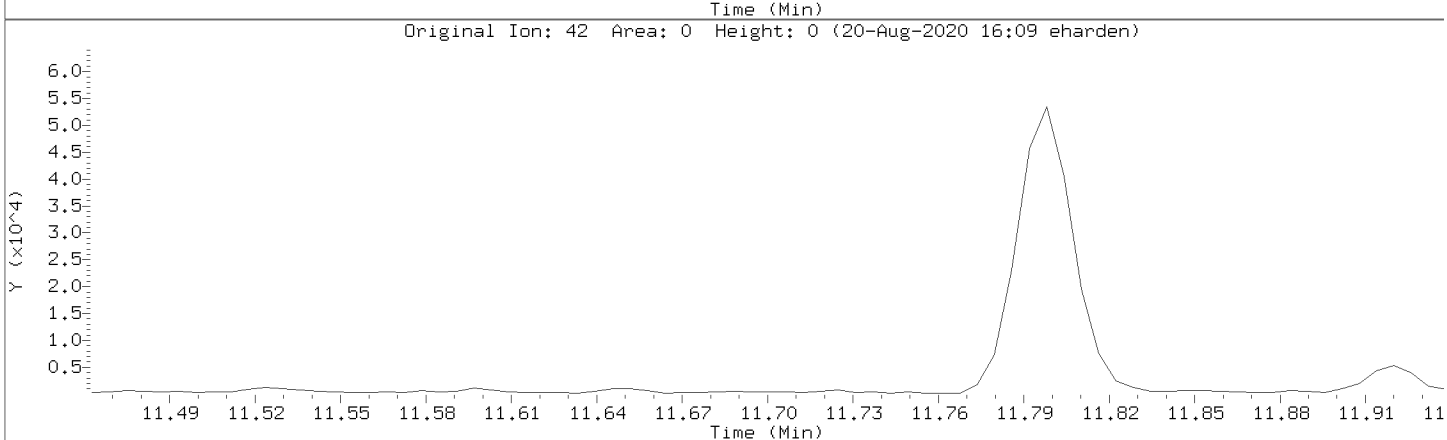
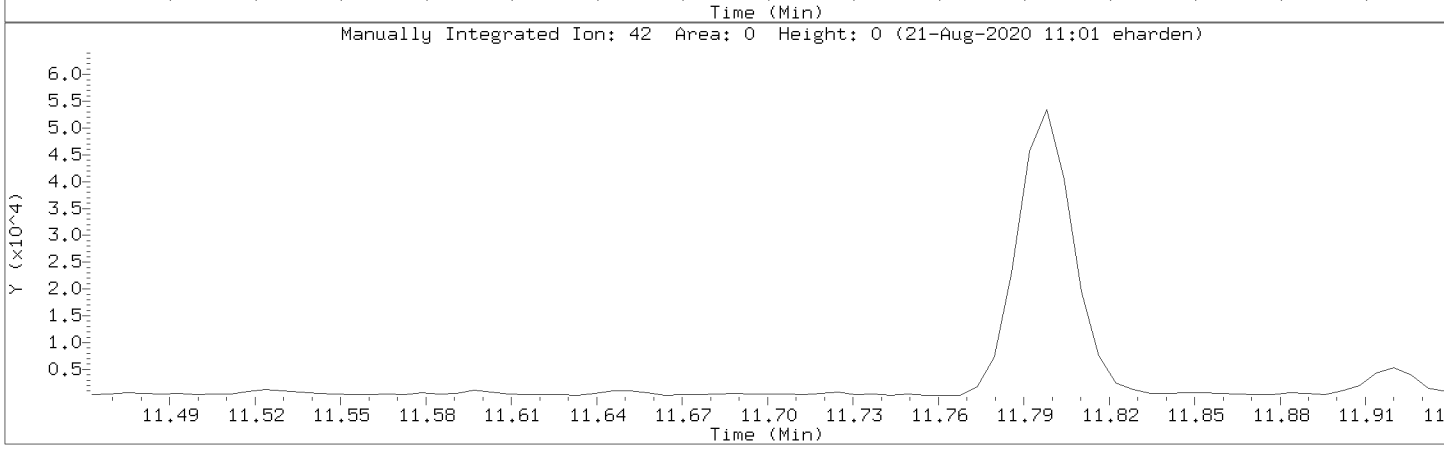
Injection Date: 20-AUG-2020 14:11
Instrument: 52mv02.i
Lab Sample ID: CAL9

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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Injection Date: 20-AUG-2020 14:11
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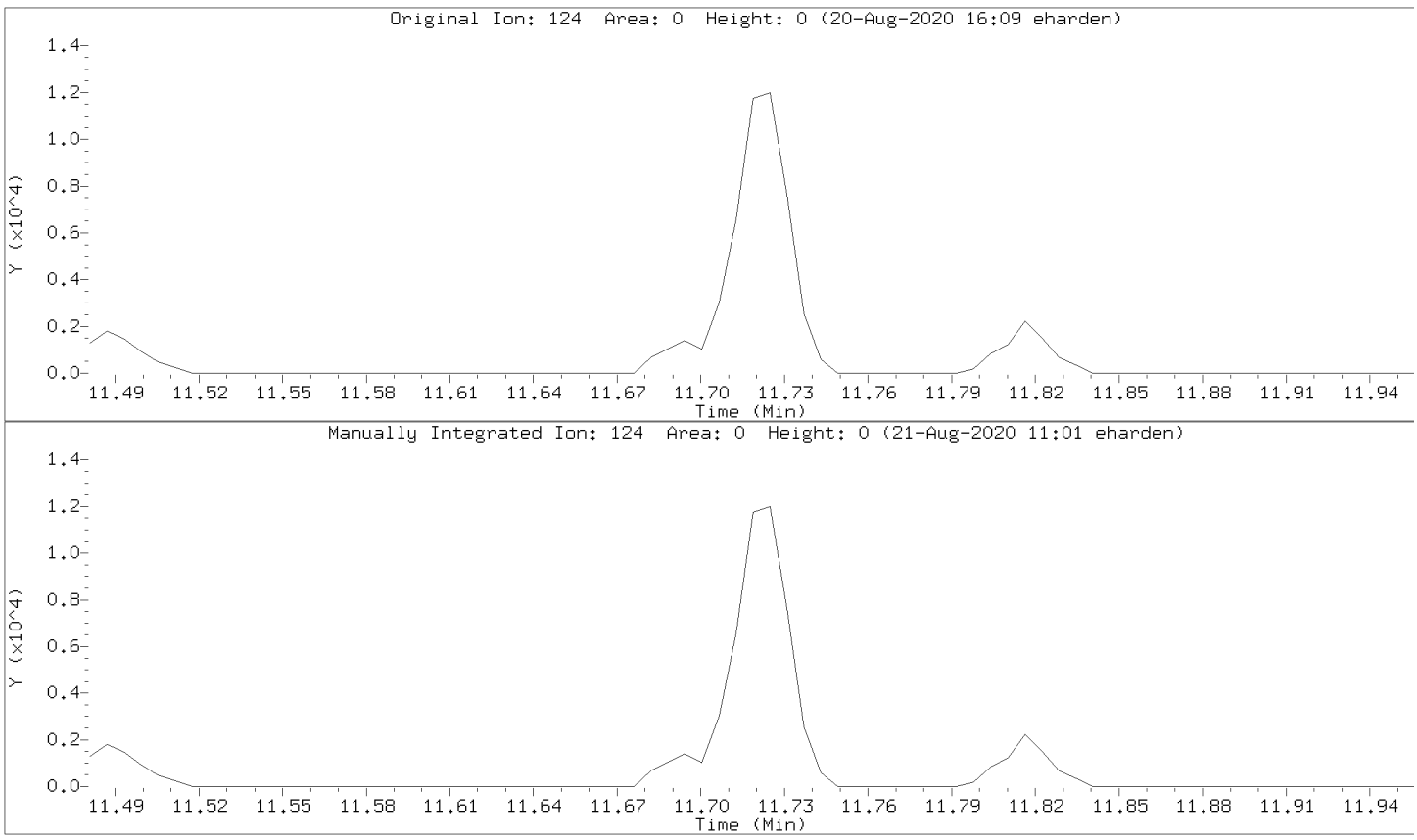
Lab Sample ID: CAL9



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_12.D
Lab Smp Id: CAL10 Client Smp ID: CAL10
Inj Date : 20-AUG-2020 14:36
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal10,27246:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 14:36 Cal File: 082020_12.D
Als bottle: 10 Calibration Sample, Level: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.232	3.226	(0.411)	408577	100.000	102(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	484636	100.000	105	
3 Vinyl chloride	62	3.702	3.702	(0.471)	387049	100.000	98.7	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	337639	100.000	96.3	
5 Bromomethane	94	4.201	4.195	(0.535)	280008	100.000	96.6	
6 Chloroethane	64	4.366	4.360	(0.556)	102291	100.000	94.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	201296	100.000	80.8	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	132497	100.000	96.5	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	447052	100.000	101	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	271477	100.000	92.9	
11 Carbon disulfide	76	5.287	5.293	(0.673)	903417	100.000	92.1	
12 Iodomethane	142	5.445	5.439	(0.693)	281734	100.000	105	
13 Acrolein	56	5.659	5.659	(0.720)	92978	200.000	203	
14 Allyl chloride	76	5.787	5.787	(0.736)	131327	100.000	96.3	
15 Methylene Chloride	49	5.902	5.902	(0.751)	464439	100.000	88.2	
16 Acetone	43	5.969	5.976	(0.760)	504949	200.000	198	
17 Methyl acetate	43	6.067	6.067	(0.772)	615823	200.000	204(A)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	281562	100.000	94.1	
19 n-Hexane	86	6.110	6.110	(0.777)	34191	100.000	108	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	722402	100.000	103	
21 Acetonitrile	41	6.463	6.463	(0.822)	59347	200.000	214(AH)	
22 Chloroprene	53	6.640	6.640	(0.845)	465931	100.000	112	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	538565	100.000	92.6	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	257393	200.000	204(A)	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	592348	100.000	103	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	420353	100.000	98.0	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	400045	100.000	89.2	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	170642	100.000	91.1	
	29 Cyclohexane	56	7.335	7.335	(0.882)	419057	100.000	113	
	30 Chloroform	83	7.372	7.372	(0.938)	604780	100.000	92.0	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	715243	200.000	193	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	438244	100.000	99.7	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	196080	200.000	216(A)	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	173193	50.0000	45.5	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	483513	100.000	97.1	
	36 2-Butanone (MEK)	43	7.622	7.628	(0.970)	582167	200.000	205	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	369324	100.000	107(H)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	330367	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	1069569	100.000	95.8	
	40 Propionitrile	54	7.896	7.902	(1.005)	106137	200.000	188	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	553697	200.000	193	
	42 Isobutanol	43	7.981	7.987	(1.016)	27725	200.000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	30521	50.0000	44.6	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	462341	100.000	89.5	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	647452	100.000	105	
	46 Trichloroethene	130	8.317	8.317	(1.000)	309121	100.000	101	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	436570	50.0000		
	48 Methylcyclohexane	98	8.317	8.317	(1.000)	158128	100.000	109	
	49 n-Butanol	56	8.512	8.524	(1.023)	14392	200.000	216(AH)	
	50 Dibromomethane	93	8.670	8.670	(1.043)	246347	100.000	94.7	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	303772	100.000	95.3	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	472990	100.000	103	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	186585	100.000	99.8	
	54 1,4-Dioxane (p-Dioxane)	58	8.932	8.920	(1.074)	5966	200.000		
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	331081	200.000	199	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	477231	100.000	107	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	469795	50.0000	50.0	
	58 Toluene	91	9.414	9.414	(1.132)	1103221	100.000	101	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	107110	100.000	99.6(H)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	67349	200.000	216(M)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	476057	100.000	107	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	293850	100.000	102	
	63 Ethyl methacrylate	69	9.755	9.761	(1.173)	357290	100.000	100(H)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	256256	100.000	92.9	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	402726	100.000	100	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	445948	100.000	106	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	331903	100.000	96.5	
	68 2-Hexanone	43	10.273	10.280	(1.235)	835017	200.000	226	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	1239031	100.000	112	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	421679	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	778798	100.000	95.7	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	313159	100.000	91.1	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	1926275	200.000	199	
	74 o-Xylene	106	10.993	10.993	(1.041)	447143	100.000	98.2	
	75 Styrene	104	11.029	11.029	(1.044)	787917	100.000	99.1	
	76 Bromoform	173	11.103	11.103	(1.051)	373847	100.000	98.1	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	674839	100.000	98.7	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	181905	50.0000	52.6	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	126903	100.000	91.6	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	1515194	100.000	112	
81 Bromobenzene	156	11.578	11.578	(1.096)	444066	100.000	104	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	420224	100.000	93.1	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	994488	100.000	112	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	318275	100.000	98.4	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	325711	100.000	99.8	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	1159541	100.000	99.1	
87 1,2,3-Trichloropropane	75	11.718	11.724	(1.110)	452394	100.000	95.9	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	107903	100.000	99.4(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	1046010	100.000	100	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	1050761	100.000	100	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	1234948	100.000	99.0	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	1046010	100.000	100	
94 1,3-Dichlorobenzene	146	12.285	12.291	(0.996)	748097	100.000	104	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	269551	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	761377	100.000	94.0	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	1072153	100.000	114	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	743908	100.000	94.9	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.340	(1.081)	85330	100.000	96.8	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	240583	100.000	100	
101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	573550	100.000	108	
102 Naphthalene	128	14.193	14.193	(1.150)	1058070	100.000	100	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	534252	100.000	108	

QC Flag Legend

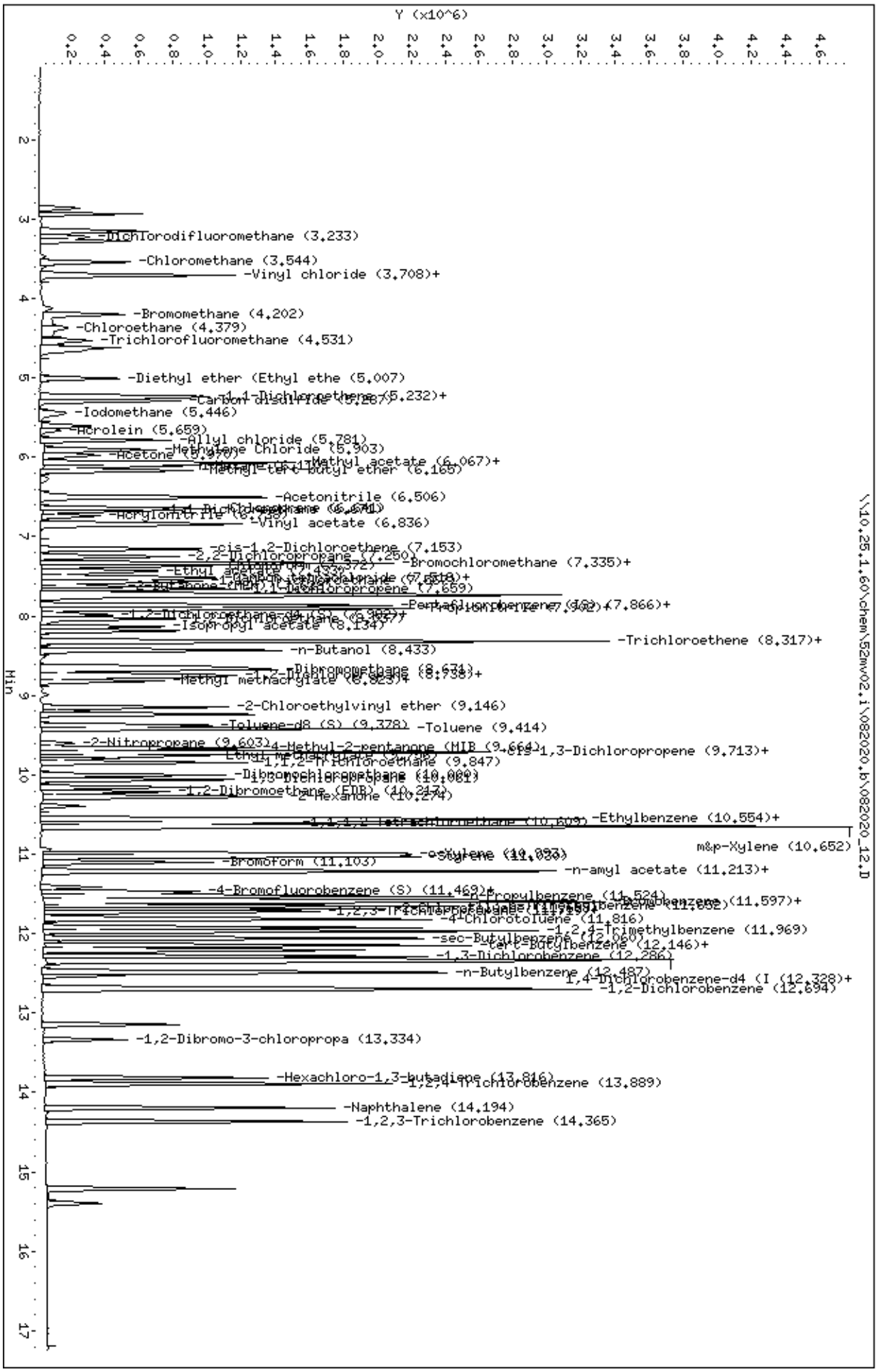
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_12.D
Date : 20-AUG-2020 14:36
Client ID: CAL10
Sample Info: CAL10,27246:1
Purge Volume: 5.0
Column phase: RTX-VMS

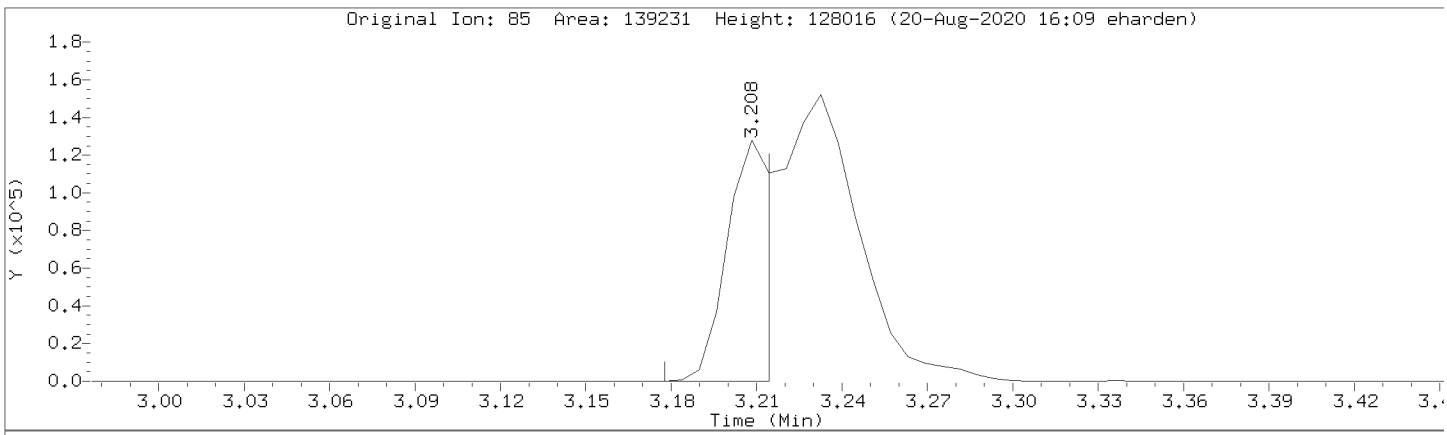
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

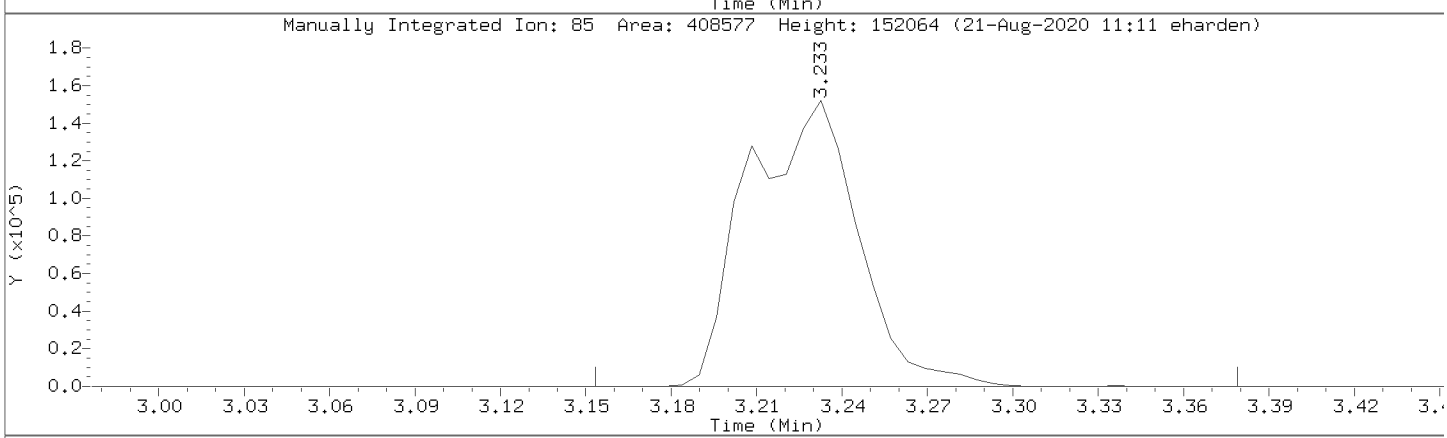


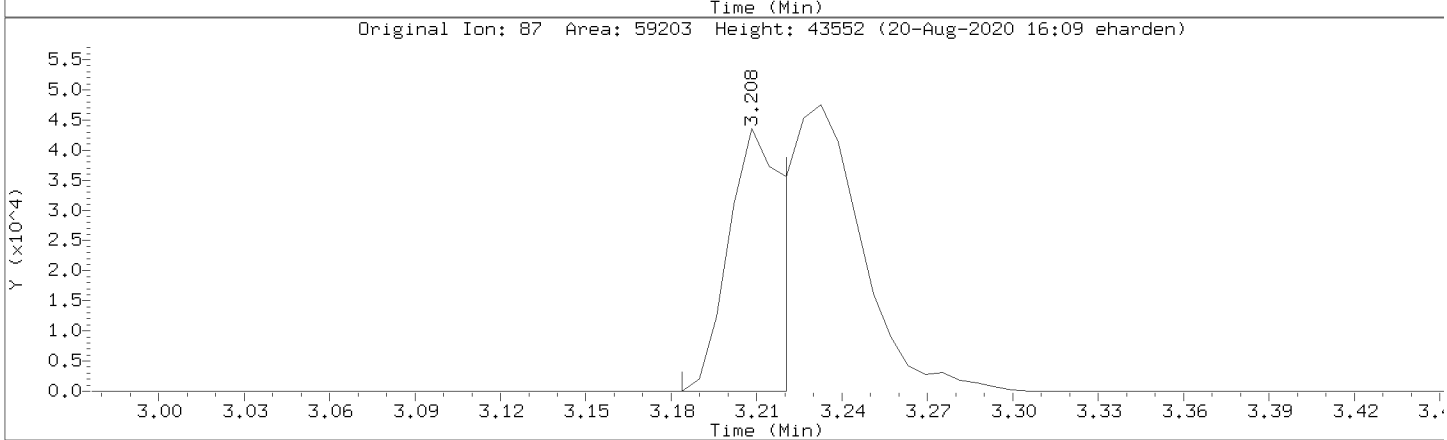
Page 4

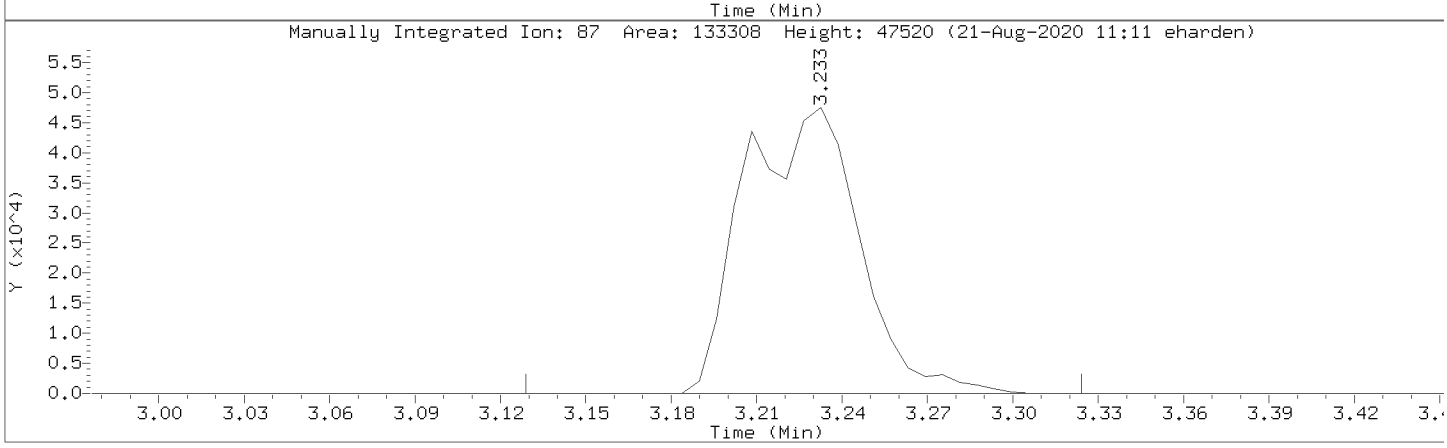
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_12.D
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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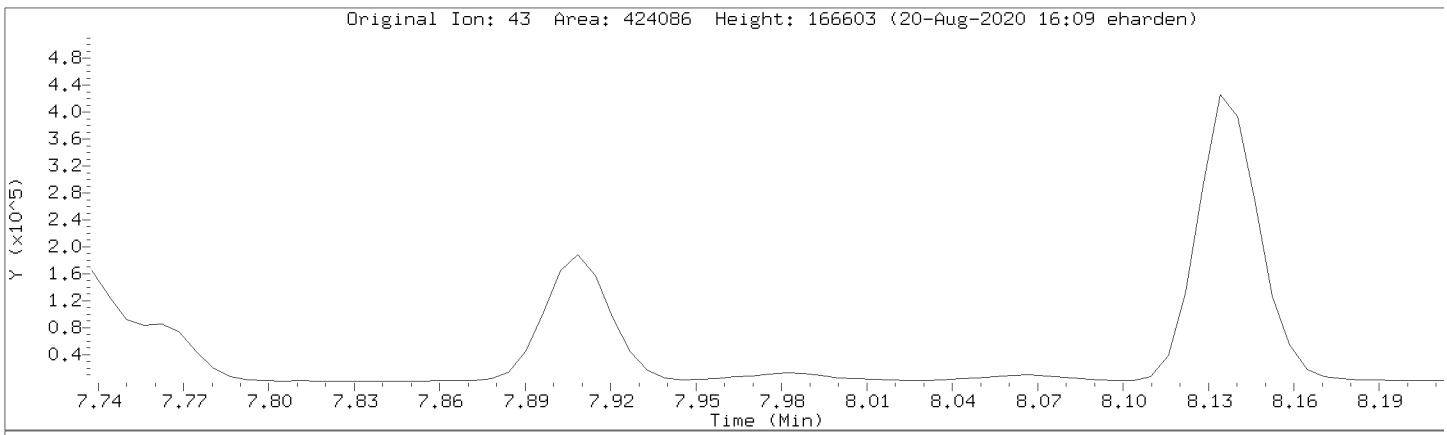
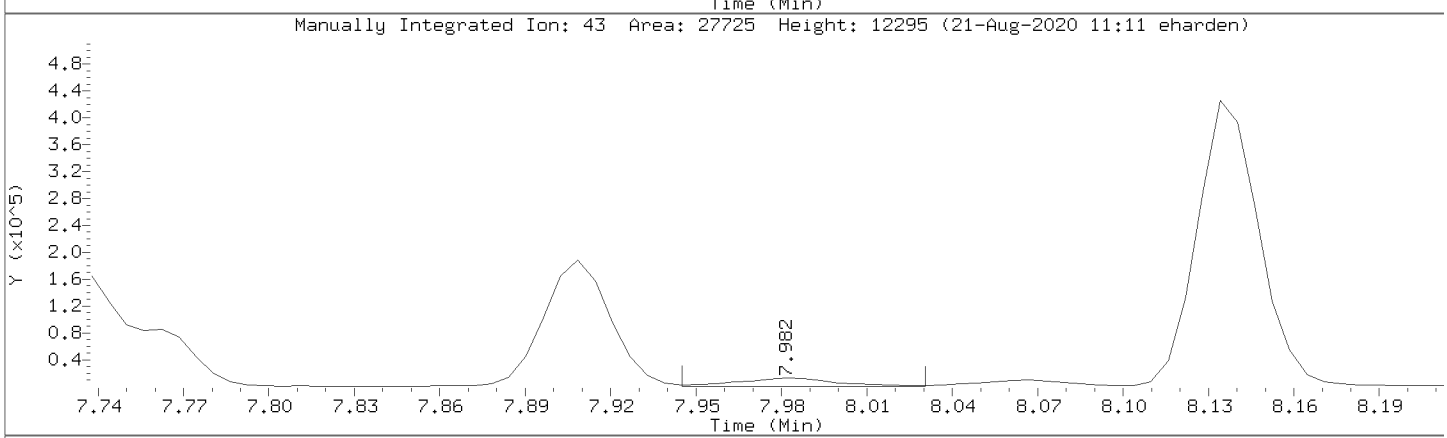
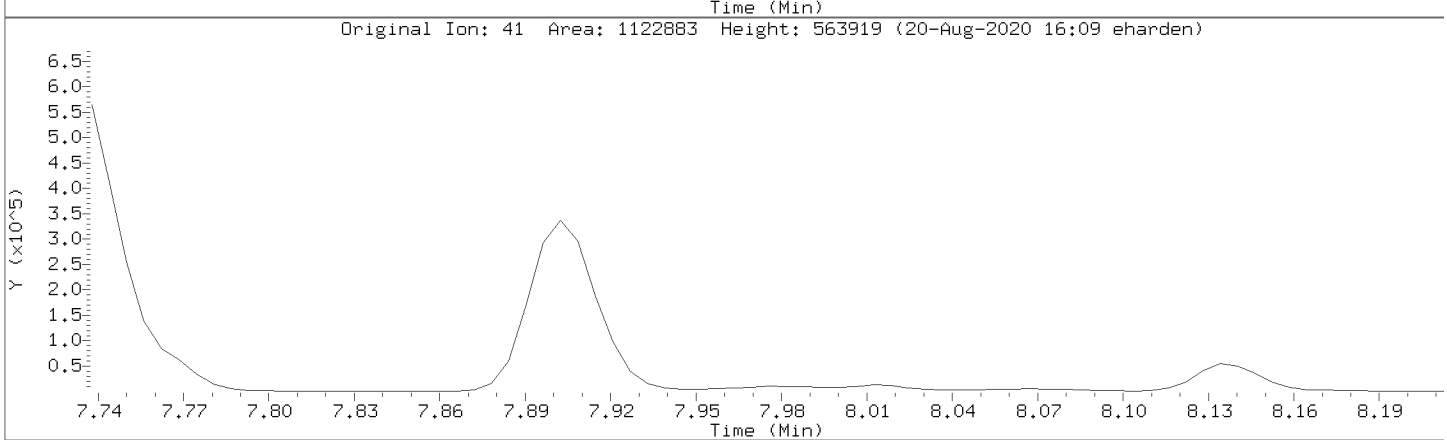
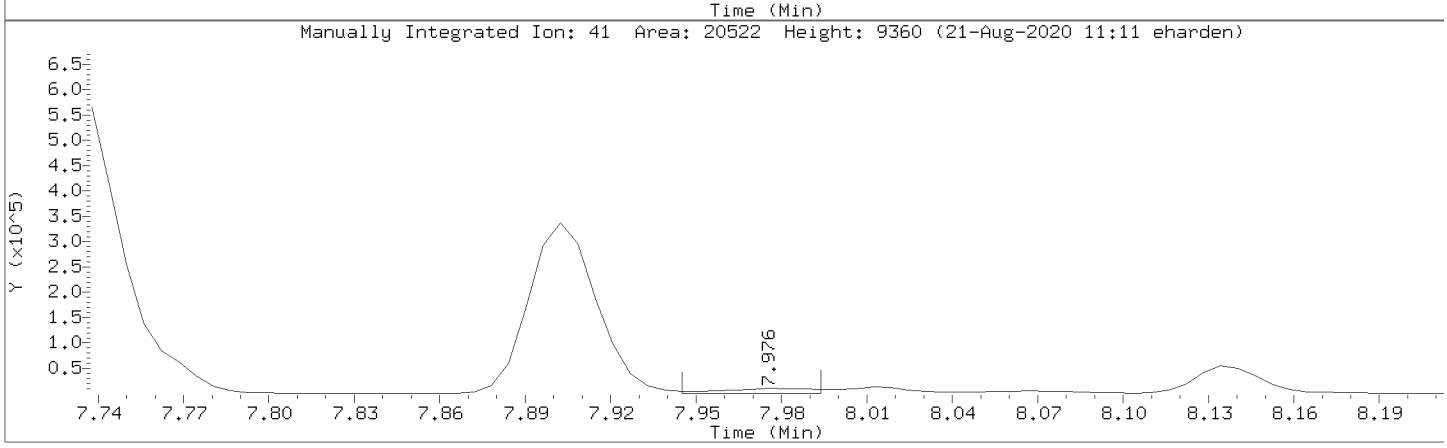
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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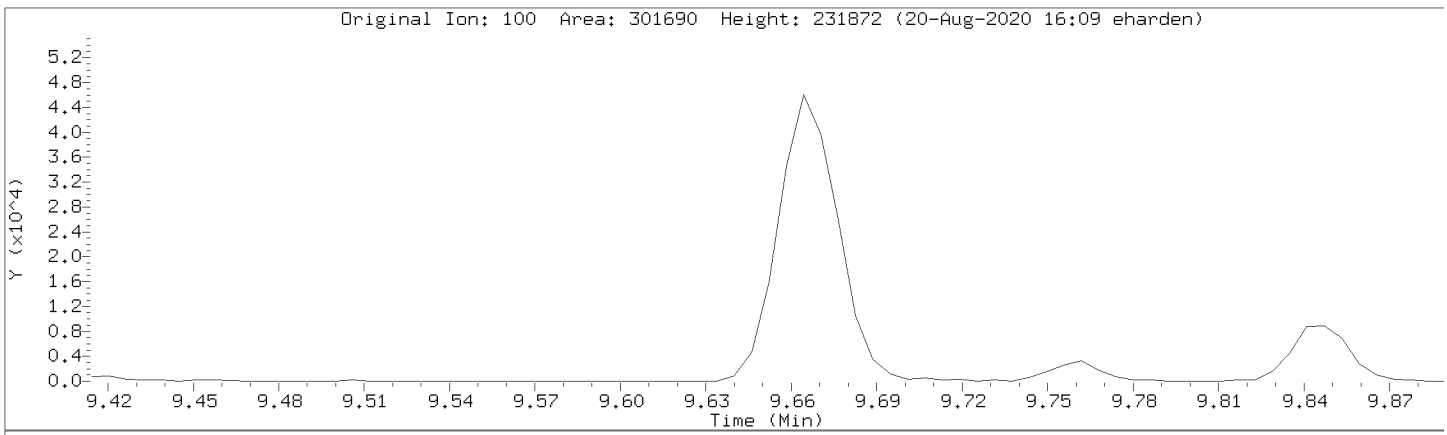
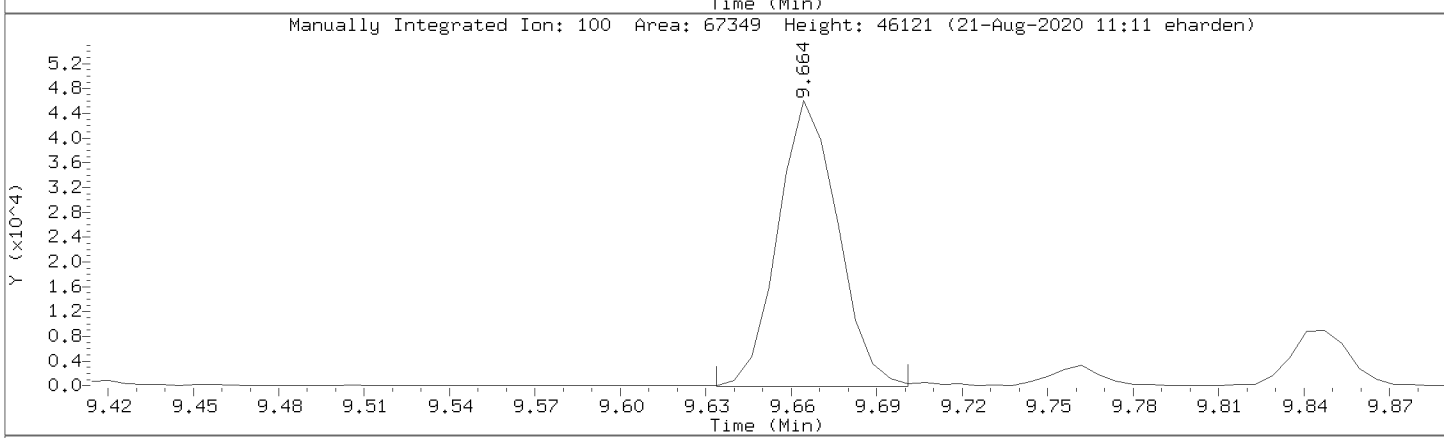
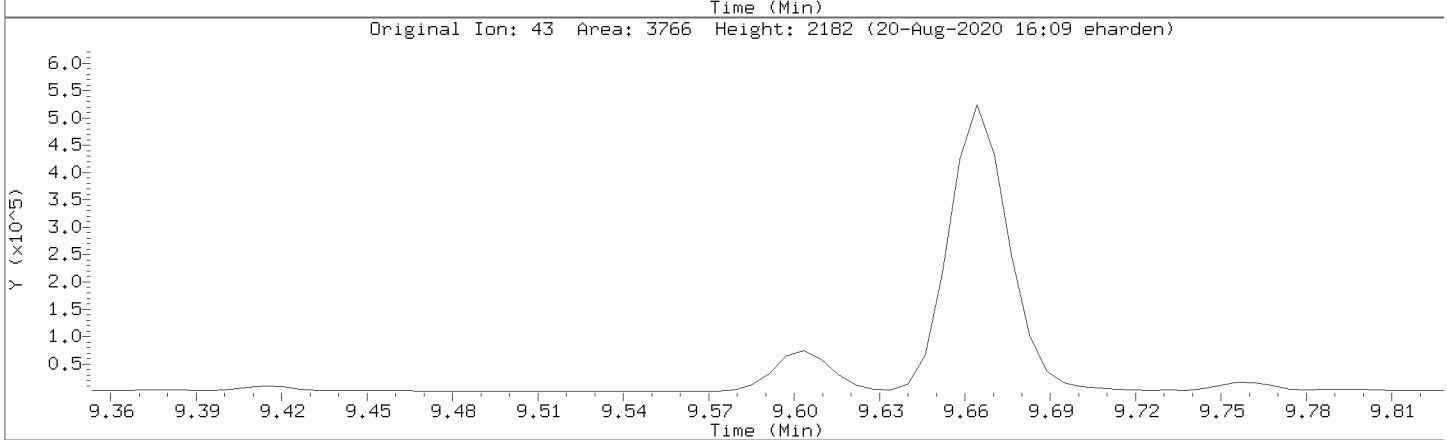
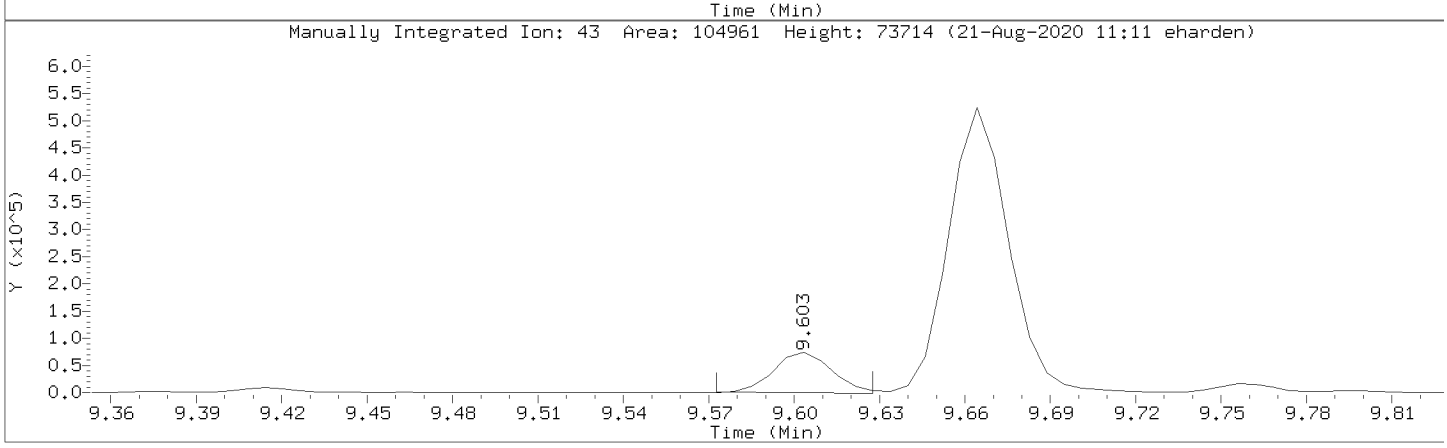
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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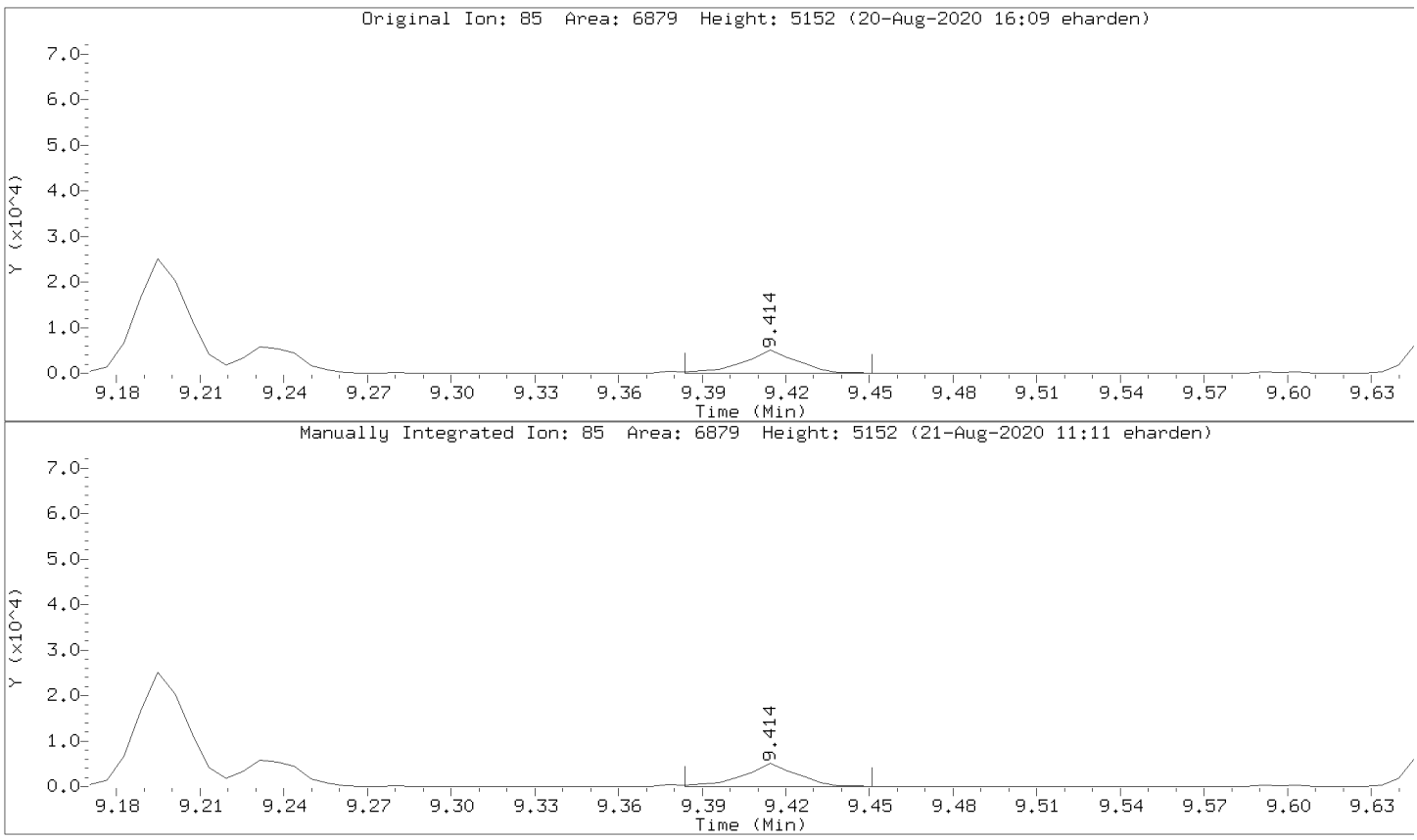
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10



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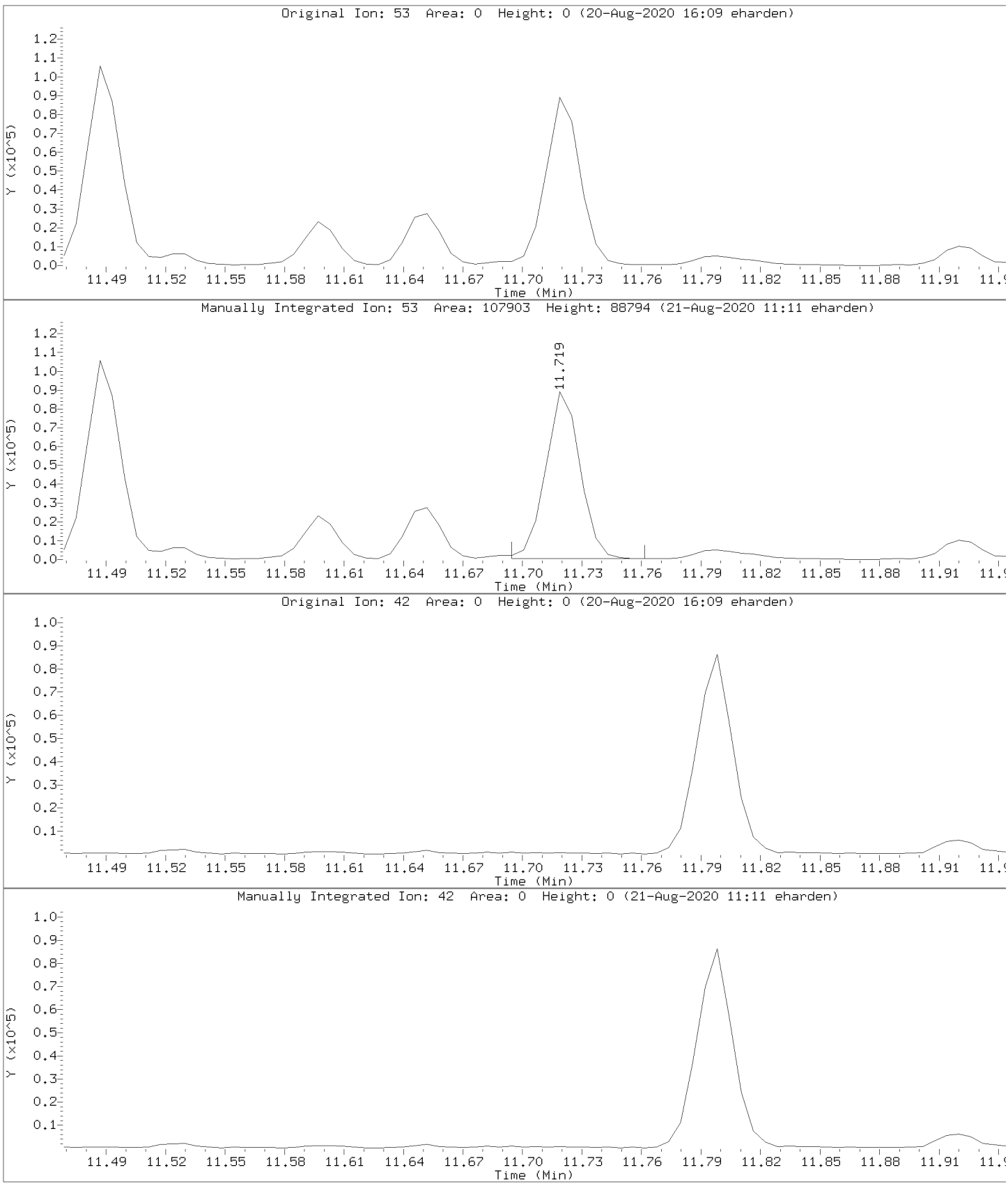
Injection Date: 20-AUG-2020 14:36
Instrument: 52mv02.i
Lab Sample ID: CAL10

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6



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Injection Date: 20-AUG-2020 14:36
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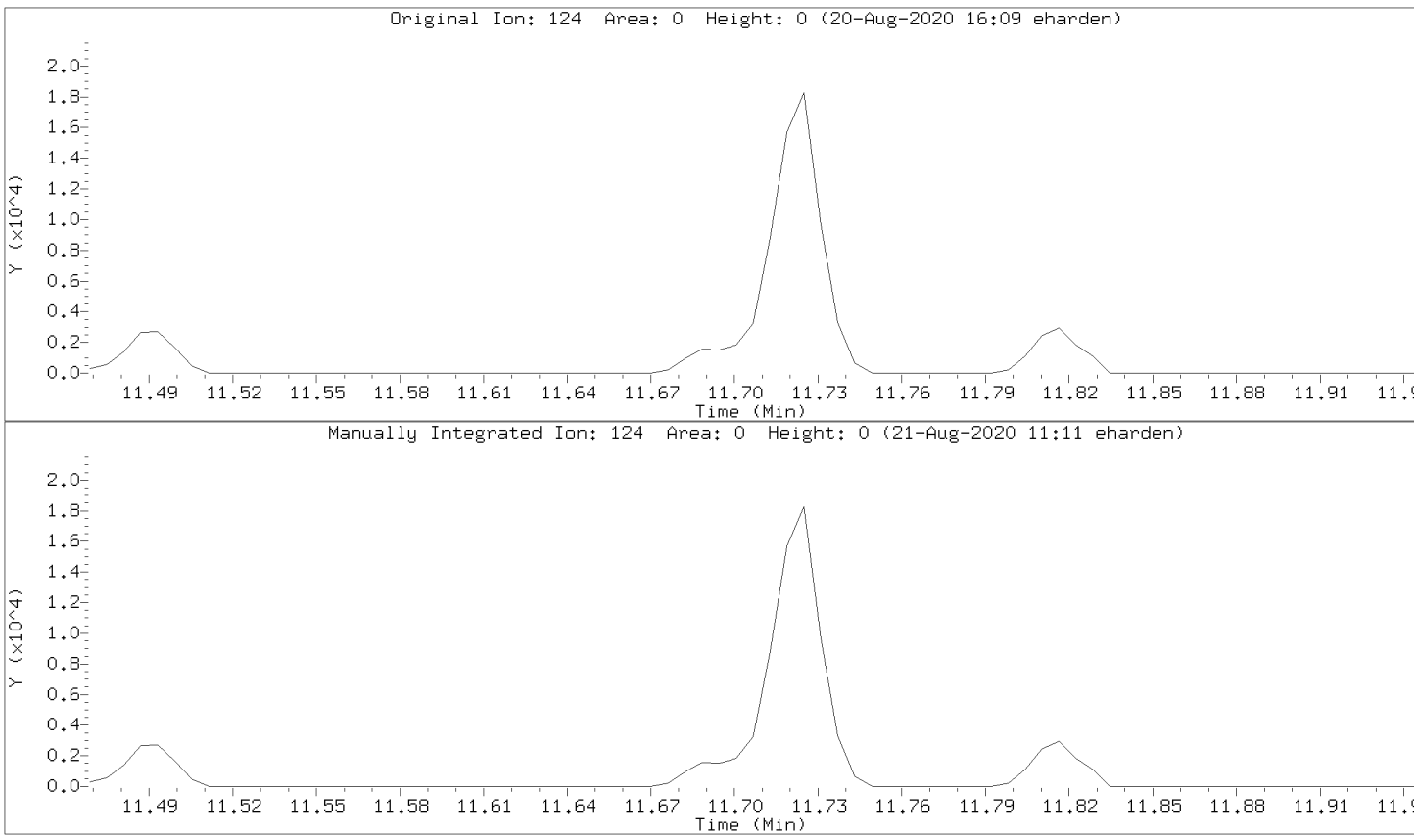
Lab Sample ID: CAL10



Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_13.D
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Inj Date : 20-AUG-2020 15:01
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal11,27247:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 11 Calibration Sample, Level: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.411)	596195	150.000	136	
2 Chloromethane	50	3.543	3.543	(0.451)	739356	150.000	145	
3 Vinyl chloride	62	3.696	3.702	(0.470)	576689	150.000	133	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	505231	150.000	131	
5 Bromomethane	94	4.202	4.195	(0.535)	405786	150.000	128	
6 Chloroethane	64	4.372	4.360	(0.556)	160377	150.000	135	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	281645	150.000	102	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	213435	150.000	141	
9 1,1-Dichloroethene	61	5.232	5.226	(0.666)	700428	150.000	143	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	416914	150.000	129	
11 Carbon disulfide	76	5.293	5.293	(0.673)	1405135	150.000	130	
12 Iodomethane	142	5.445	5.439	(0.693)	477239	150.000	149	
13 Acrolein	56	5.653	5.659	(0.719)	138935	300.000	275	
14 Allyl chloride	76	5.781	5.787	(0.736)	206328	150.000	137	
15 Methylene Chloride	49	5.903	5.902	(0.751)	727096	150.000	125	
16 Acetone	43	5.970	5.976	(0.760)	656255	300.000	234	
17 Methyl acetate	43	6.067	6.067	(0.772)	970273	300.000	292(A)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	446654	150.000	135	
19 n-Hexane	86	6.110	6.110	(0.777)	56907	150.000	163	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	1130159	150.000	147	
21 Acetonitrile	41	6.457	6.463	(0.822)	86780	300.000	285(AH)	
22 Chloroprene	53	6.640	6.640	(0.845)	759997	150.000	165	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	841882	150.000	131	
24 Acrylonitrile	53	6.732	6.738	(0.857)	345438	300.000	248(A)	
25 Vinyl acetate	43	6.860	6.860	(0.873)	953920	150.000	150	
26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	675979	150.000	143	
27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	639550	150.000	129	
28 Bromochloromethane	128	7.335	7.335	(0.933)	262219	150.000	127	
29 Cyclohexane	56	7.335	7.335	(0.882)	673959	150.000	169	
30 Chloroform	83	7.372	7.372	(0.938)	938653	150.000	129	
31 Ethyl acetate	43	7.427	7.433	(0.945)	1167339	300.000	285(A)	
32 Carbon tetrachloride	117	7.512	7.512	(0.903)	693313	150.000	147	
33 Tetrahydrofuran	42	7.530	7.536	(0.958)	267882	300.000	269(A)	
$ 34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	173692	50.0000	41.4	
35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	769482	150.000	144	
36 2-Butanone (MEK)	43	7.622	7.628	(0.970)	813342	300.000	260	
37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	593514	150.000	160(H)	
* 38 Pentafluorobenzene (IS)	168	7.860	7.859	(1.000)	364284	50.0000		
39 Benzene	78	7.872	7.872	(0.946)	1687076	150.000	140	
40 Propionitrile	54	7.896	7.902	(1.005)	166664	300.000	268(A)	
41 Methacrylonitrile	41	7.902	7.902	(1.005)	899644	300.000	285(A)	
42 Isobutanol	43	7.939	7.987	(1.010)	51350	300.000	326(MH)	WP
$ 43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	31193	50.0000	41.3	
44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	727644	150.000	128	
45 Isopropyl acetate	43	8.134	8.134	(1.035)	1065124	150.000	157	
46 Trichloroethene	130	8.317	8.317	(1.000)	502843	150.000	153	
* 47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	469326	50.0000		
48 Methylcyclohexane	98	8.317	8.317	(1.000)	251607	150.000	162	
49 n-Butanol	56	8.506	8.524	(1.023)	20257	300.000	282(AM)	WP
50 Dibromomethane	93	8.670	8.670	(1.043)	389827	150.000	139	
51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	498266	150.000	145	
52 Bromodichloromethane	83	8.762	8.768	(1.054)	761518	150.000	155	
53 Methyl methacrylate	69	8.823	8.823	(1.061)	310093	150.000	154	
54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	8913	300.000	(M)	LT
55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	556411	300.000	310(A)	
56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	771157	150.000	161	
$ 57 Toluene-d8 (S)	98	9.378	9.377	(1.128)	506560	50.0000	50.1	
58 Toluene	91	9.414	9.414	(1.132)	1804467	150.000	154	
59 2-Nitropropane	43	9.603	9.603	(1.155)	173571	150.000	150(H)	
60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	110057	300.000	328(M)	WP
61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	770276	150.000	161	
62 Tetrachloroethene	164	9.719	9.719	(0.920)	474671	150.000	157	
63 Ethyl methacrylate	69	9.762	9.761	(1.174)	589423	150.000	153(H)	
64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	411208	150.000	139	
65 Dibromochloromethane	129	9.999	9.999	(0.947)	661080	150.000	158	
66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	718701	150.000	159	
67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	540700	150.000	151	
68 2-Hexanone	43	10.280	10.280	(1.236)	1321811	300.000	334	
69 Ethylbenzene	91	10.554	10.554	(0.999)	2030868	150.000	176	
* 70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	440117	50.0000		
71 Chlorobenzene	112	10.578	10.578	(1.002)	1246902	150.000	147	
72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	502389	150.000	140	
73 m&p-Xylene	91	10.652	10.651	(1.009)	3087209	300.000	306	
74 o-Xylene	106	10.993	10.993	(1.041)	749110	150.000	157	
75 Styrene	104	11.030	11.029	(1.044)	1284674	150.000	154	
76 Bromoform	173	11.103	11.103	(1.051)	620516	150.000	156	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	77 n-amyl acetate	43	11.225	11.225	(1.063)	1097042	150.000	153	
$	78 4-Bromofluorobenzene (S)	95	11.469	11.468	(1.086)	197928	50.0000	54.8	
	79 cis-1,4-Dichloro-2-butene	53	11.493	11.487	(1.088)	206357	150.000	143	
	80 n-Propylbenzene	91	11.523	11.523	(1.091)	2449319	150.000	173	
	81 Bromobenzene	156	11.578	11.578	(1.096)	711831	150.000	160	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	670344	150.000	142	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	1583363	150.000	167	
	84 2-Chlorotoluene	126	11.694	11.694	(1.107)	512053	150.000	151	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	520832	150.000	153	
	86 Isopropylbenzene (Cumene)	105	11.213	11.212	(1.062)	1881332	150.000	154	
	87 1,2,3-Trichloropropane	75	11.725	11.724	(1.110)	714757	150.000	145	
	88 trans-1,4-Dichloro-2-butene	53	11.725	11.718	(1.110)	175075	150.000	154(M)	NI
	89 Cyclohexanone	98	Compound Not Detected.						(D)
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	1701781	150.000	153	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	1675381	150.000	150	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	2013841	150.000	152	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	1701781	150.000	153	
	94 1,3-Dichlorobenzene	146	12.292	12.291	(0.996)	1189514	150.000	156	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	286487	50.0000		
	96 1,4-Dichlorobenzene	146	12.353	12.352	(1.001)	1209618	150.000	140	
	97 n-Butylbenzene	91	12.487	12.486	(1.012)	1702056	150.000	170	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	1195470	150.000	143	
	99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	140776	150.000	150	
	100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	396371	150.000	155	
	101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	959966	150.000	170	
	102 Naphthalene	128	14.194	14.193	(1.150)	1728714	150.000	153	
	103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	908509	150.000	173	

QC Flag Legend

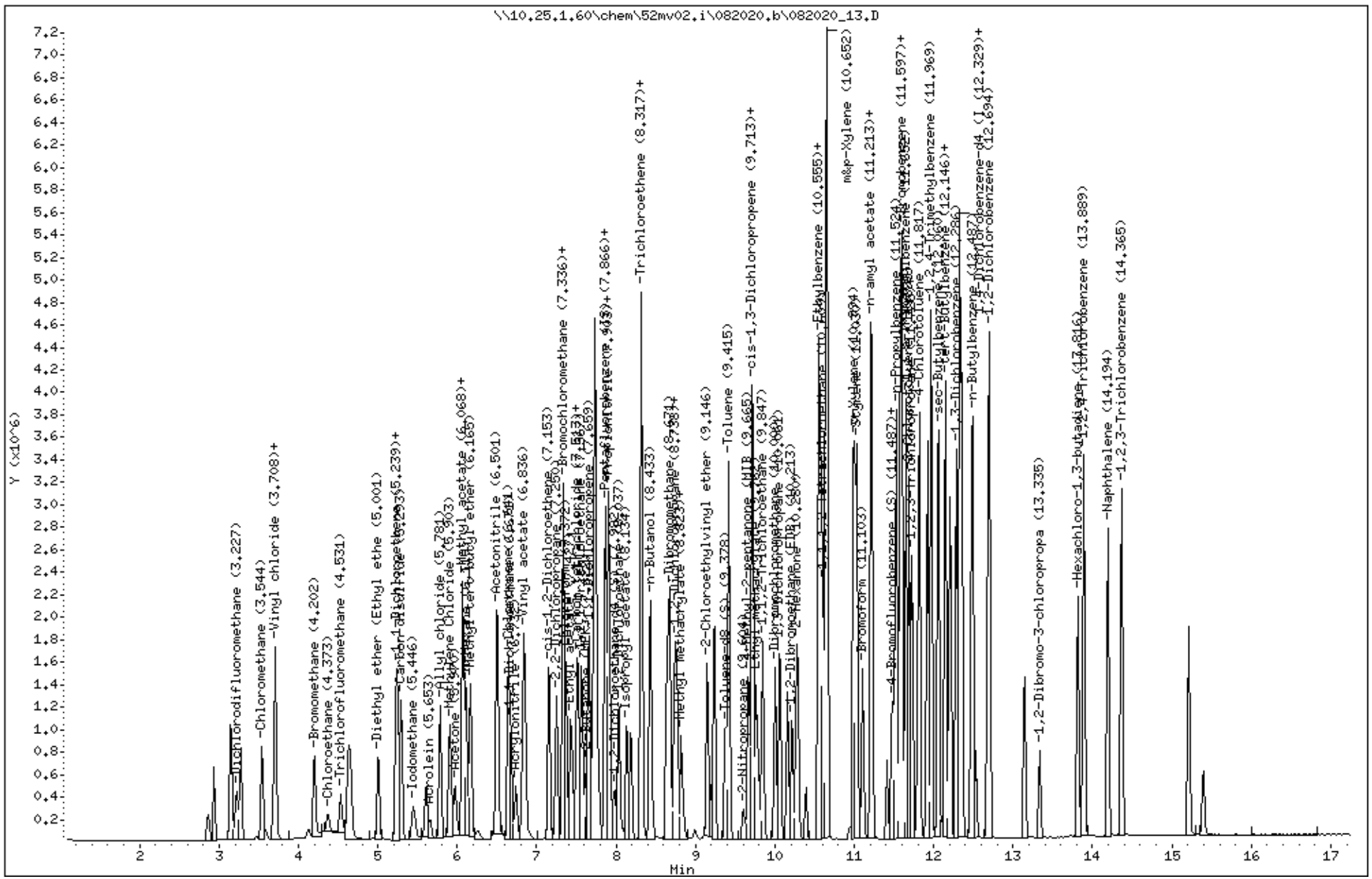
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
NI: Indicates that the peak was not integrated at all by the computer software.

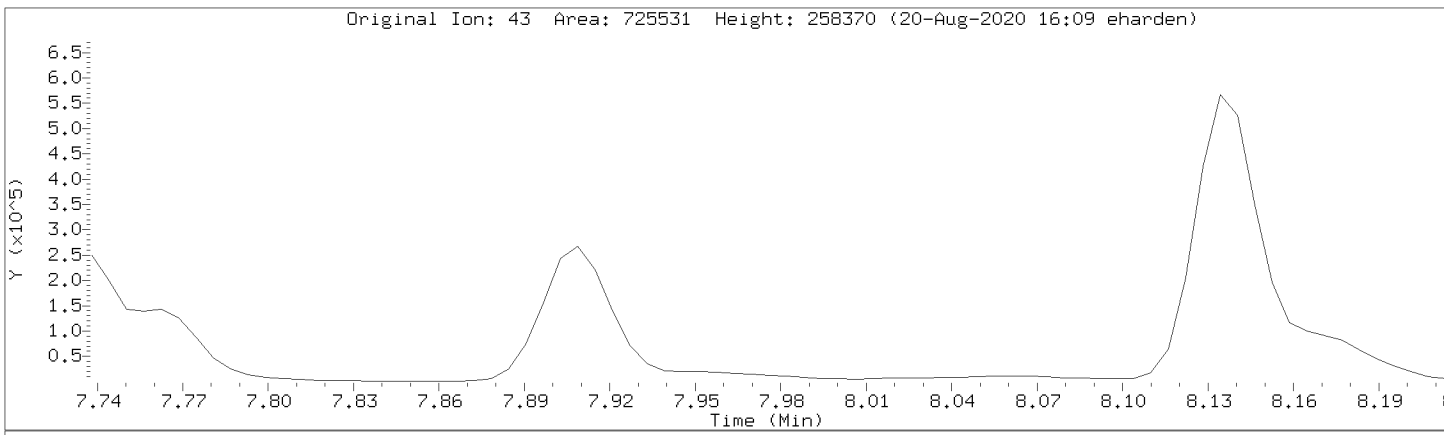
Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_13.D
Date : 20-AUG-2020 15:01
Client ID: CAL11
Sample Info: CAL11,27247:1
Purge Volume: 5.0
Column phase: RTX-VMS

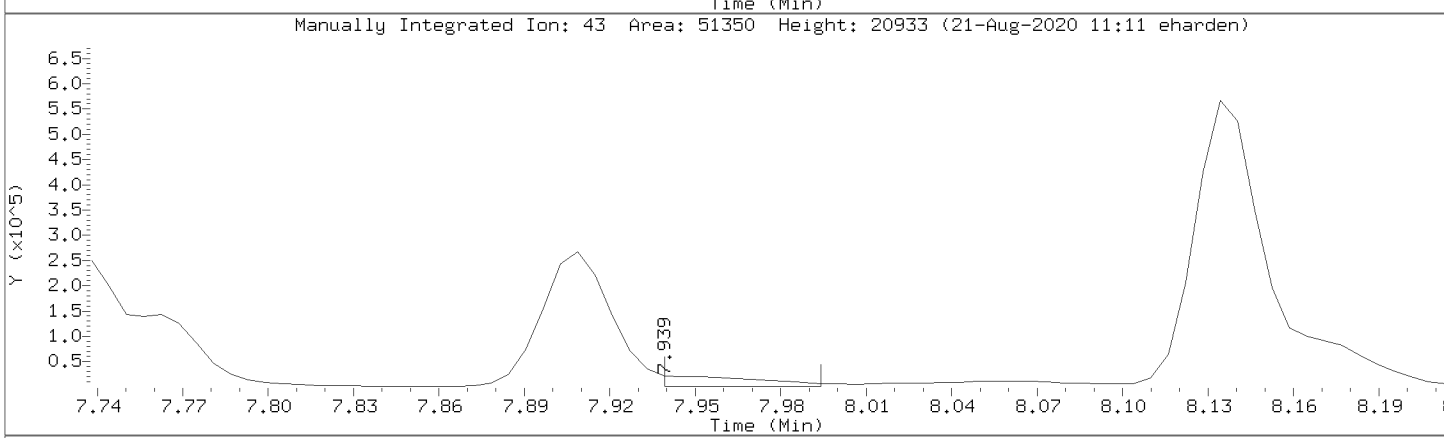
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

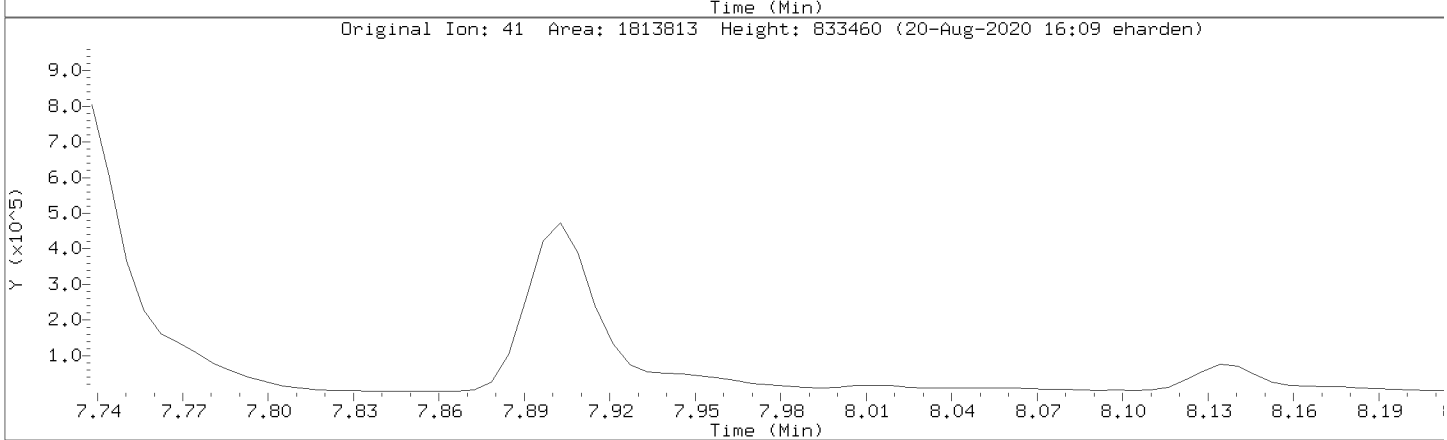


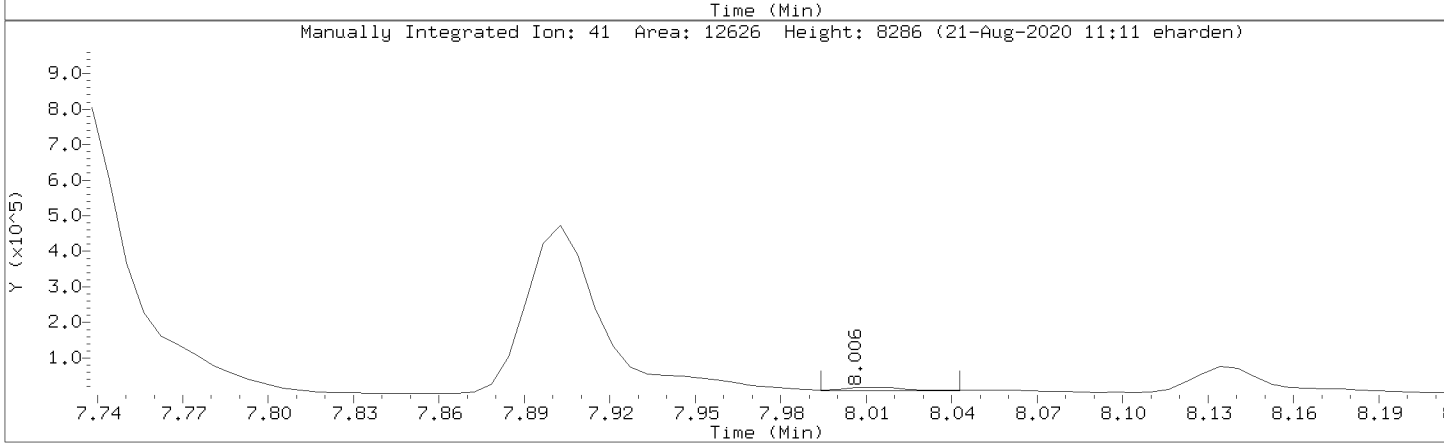
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_13.D
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1



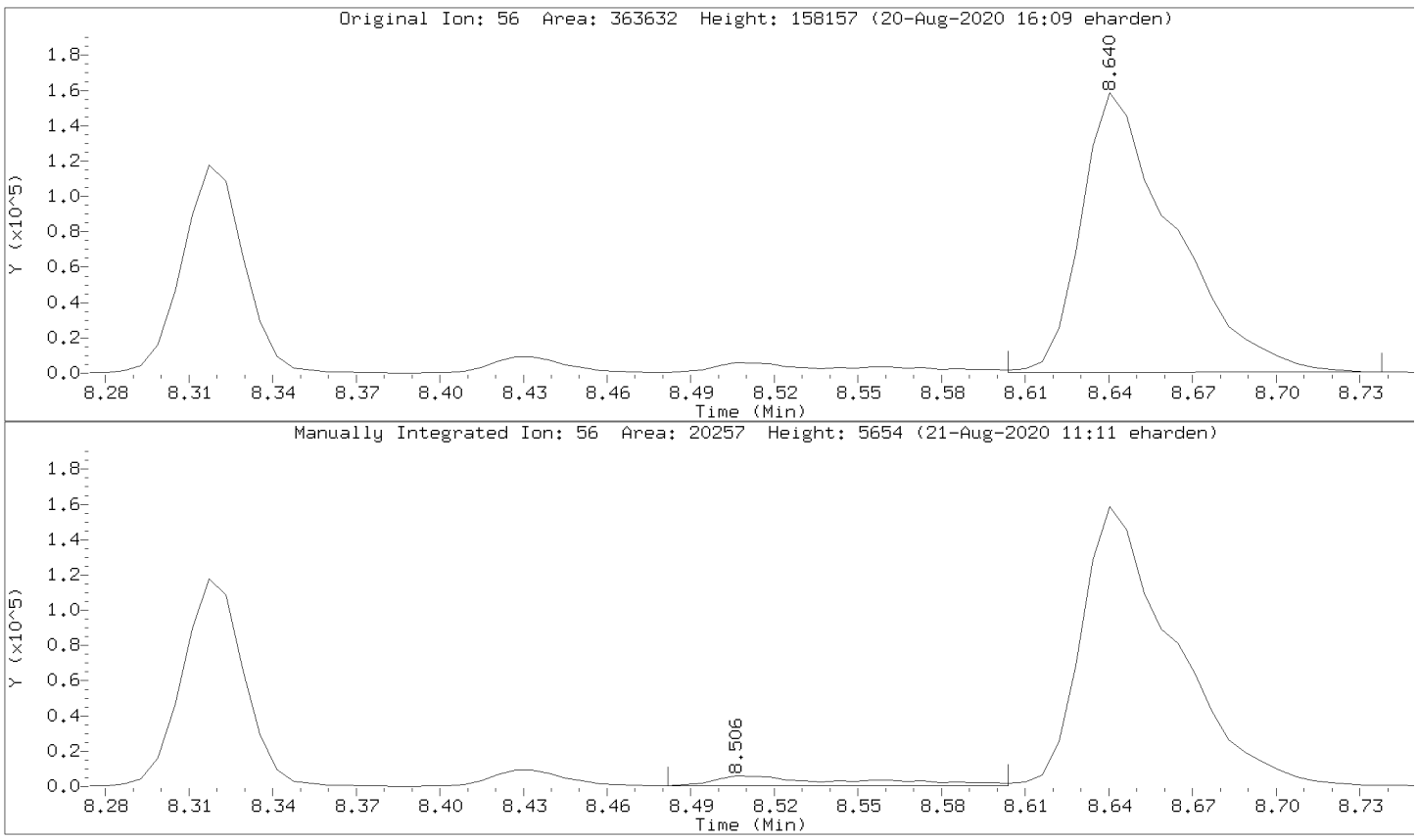






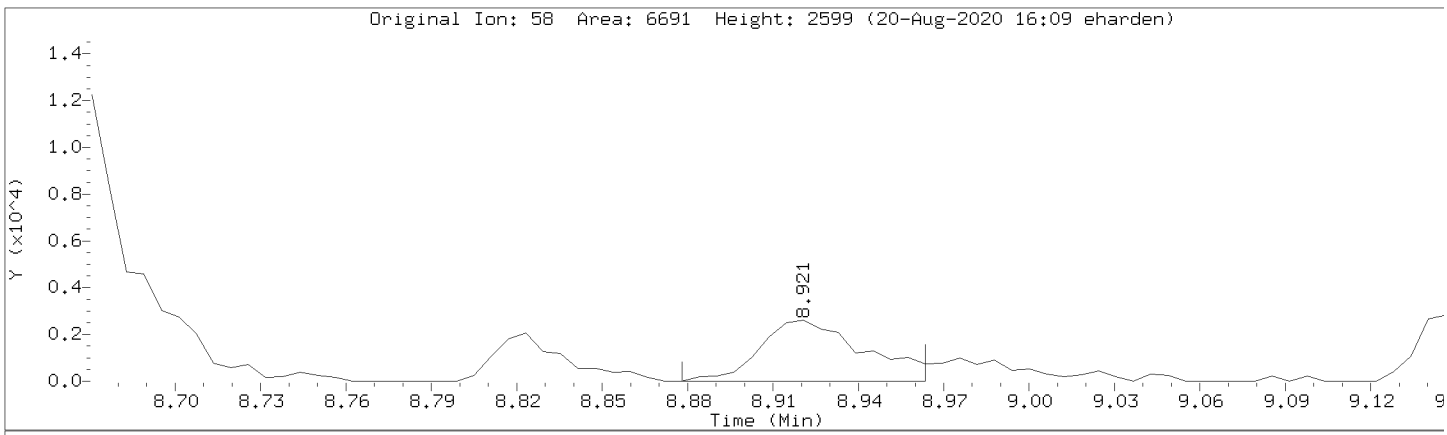
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_13.D
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

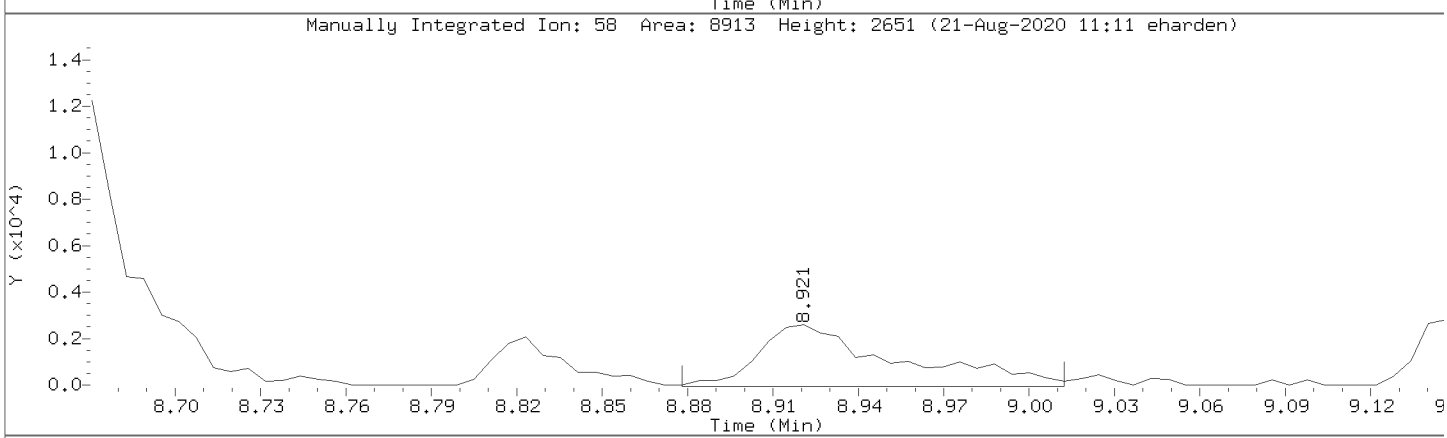
Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3

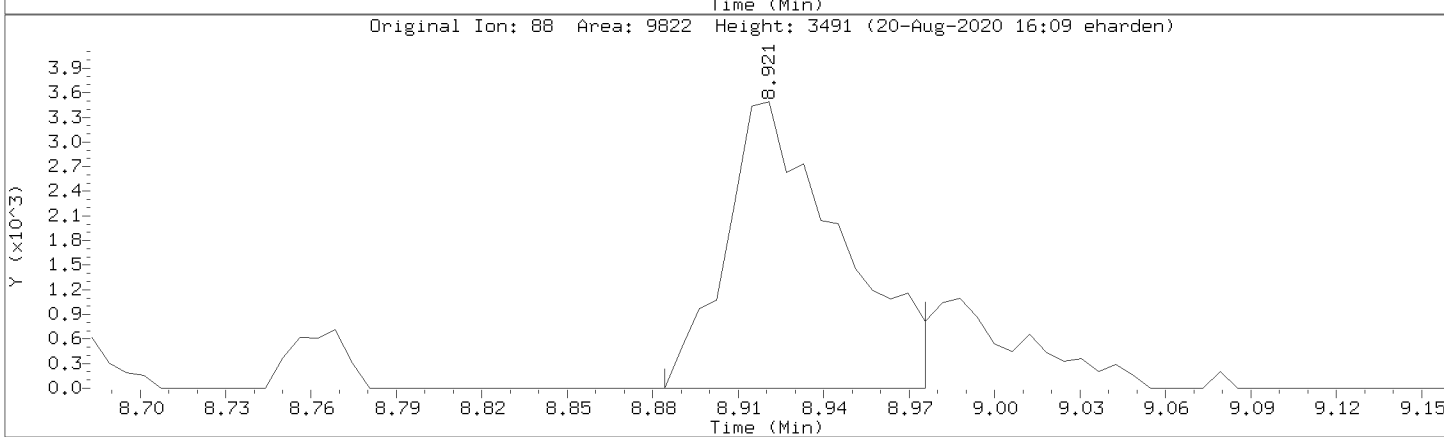


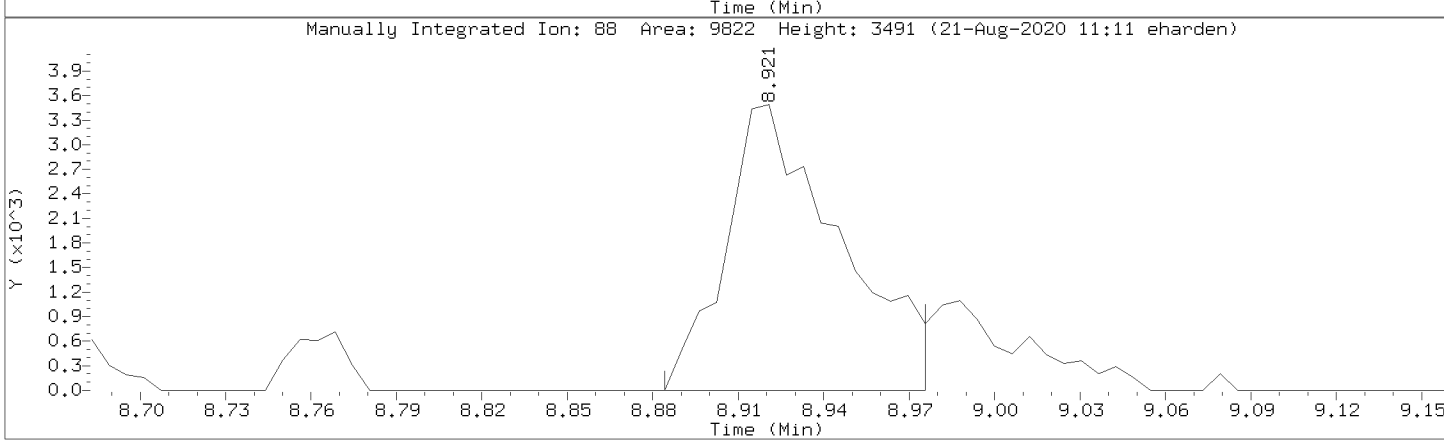
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_13.D
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1









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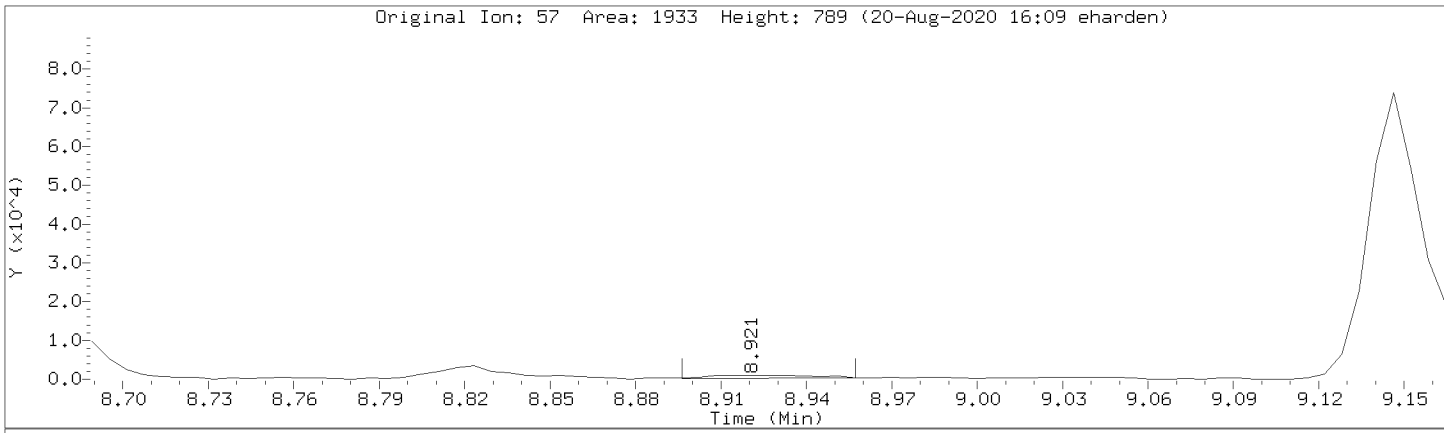
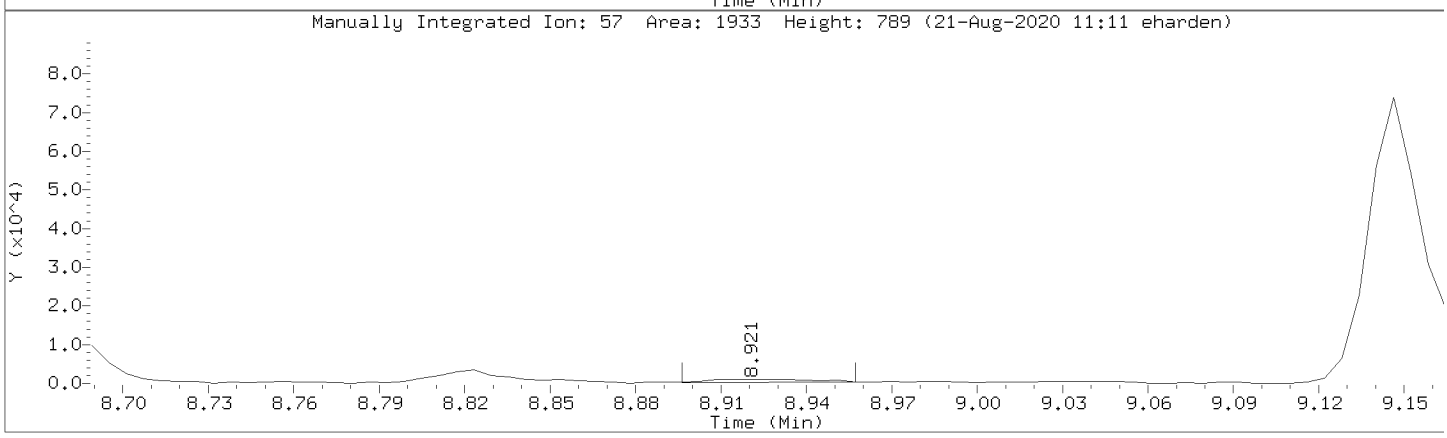
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11





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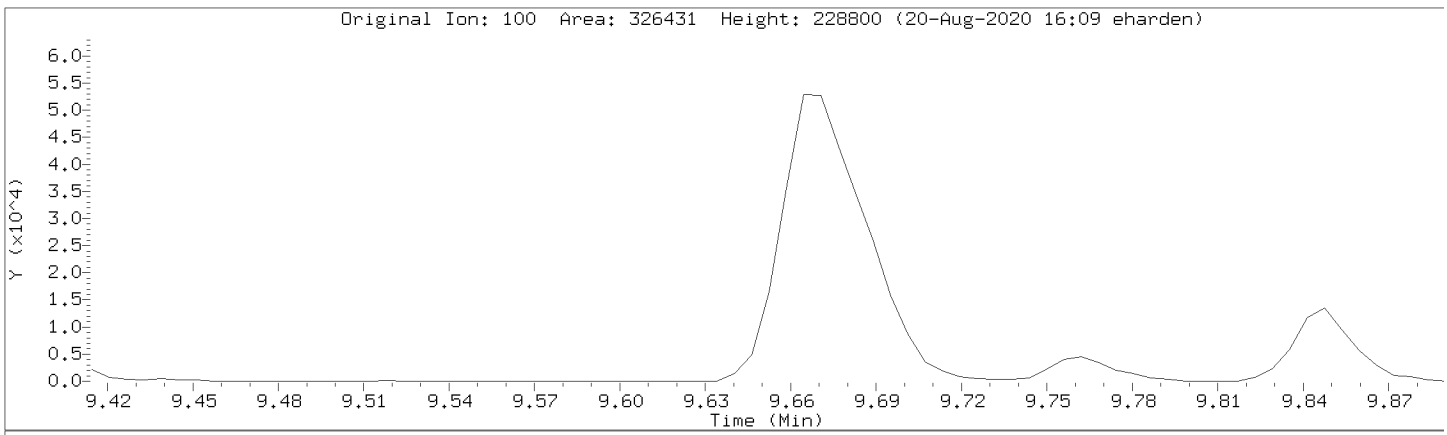
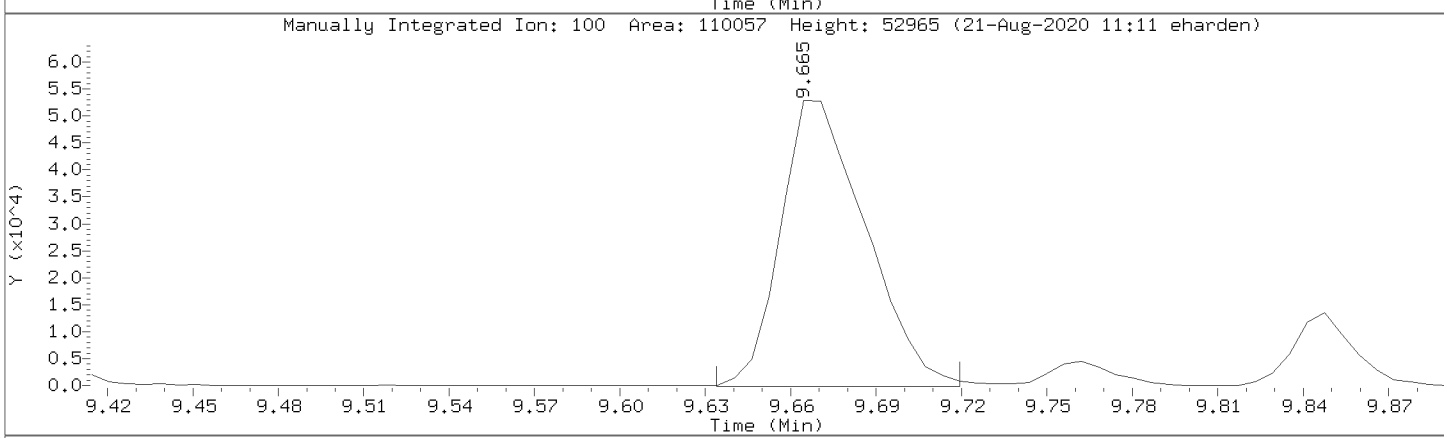
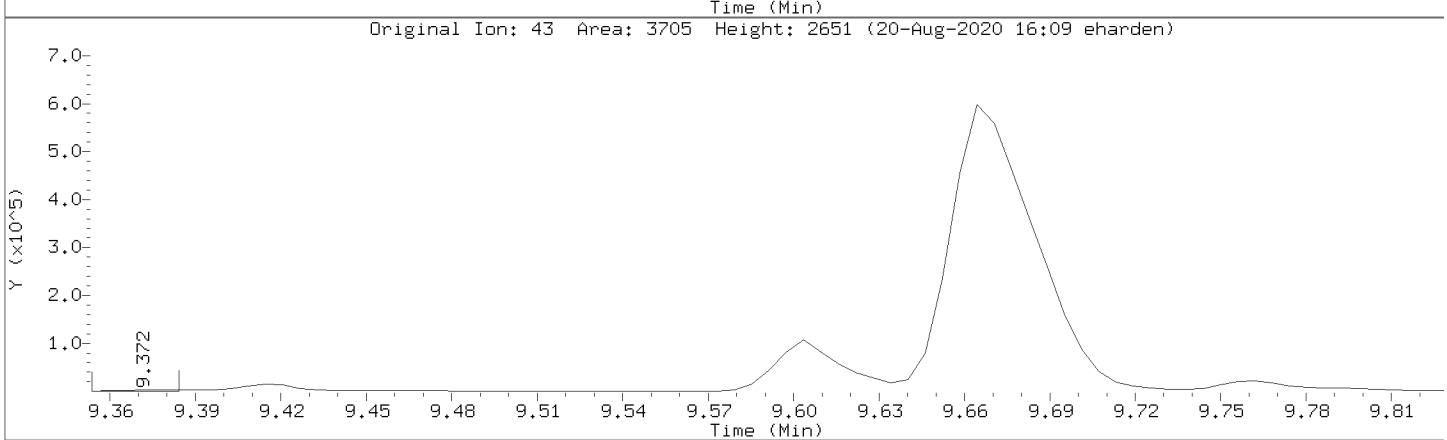
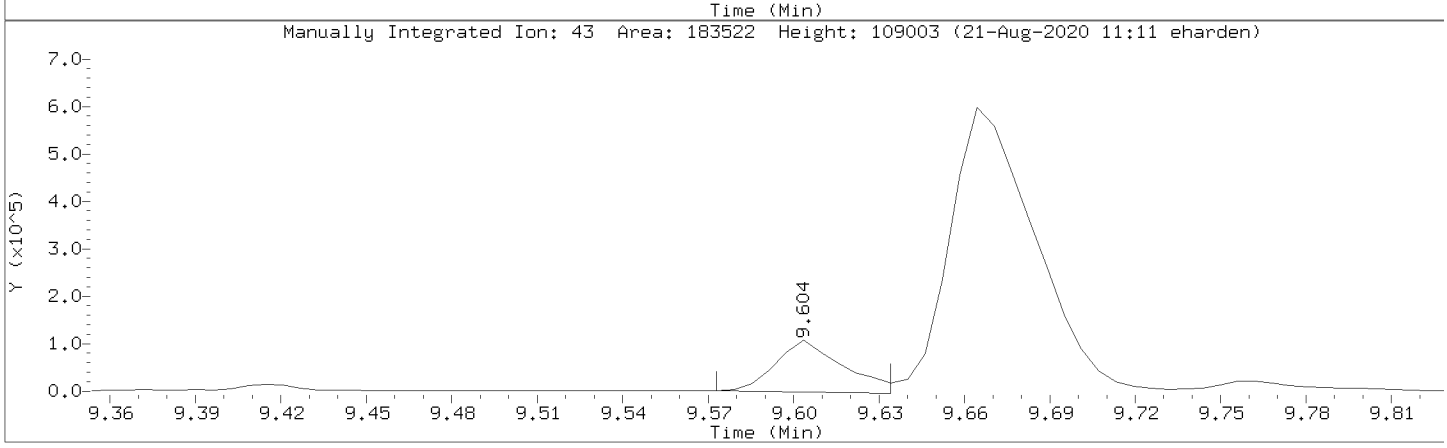
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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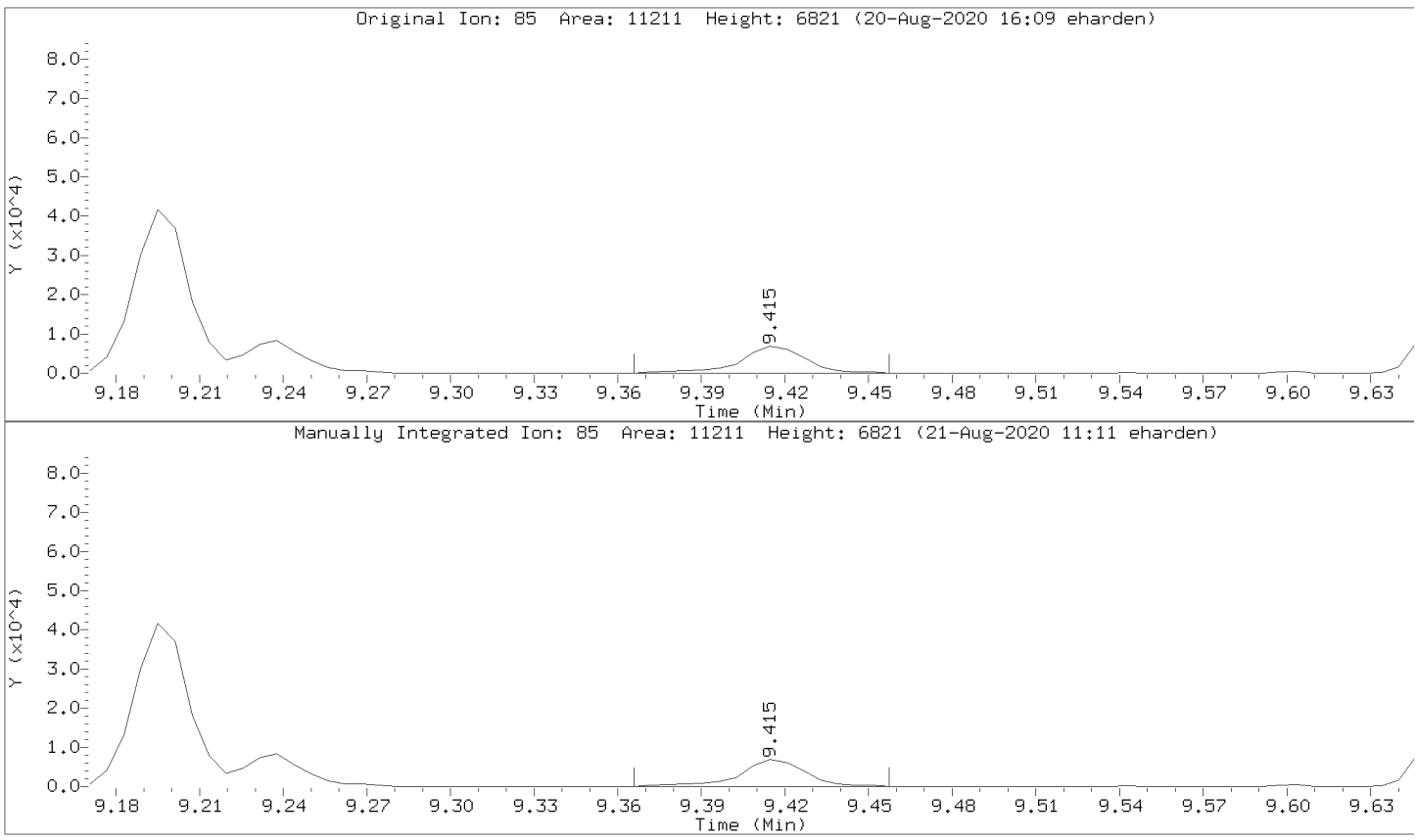
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11



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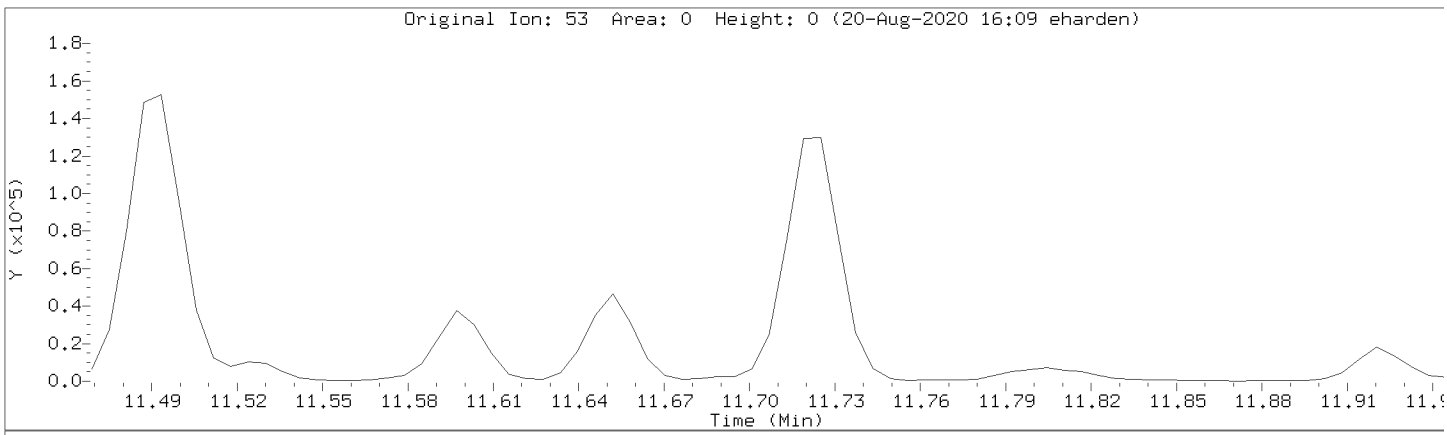
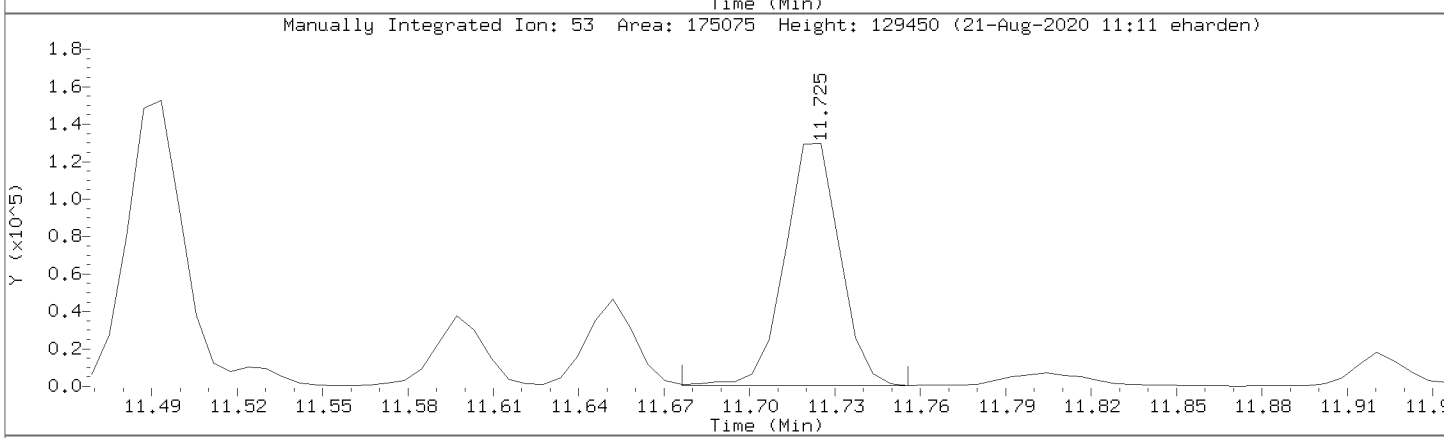
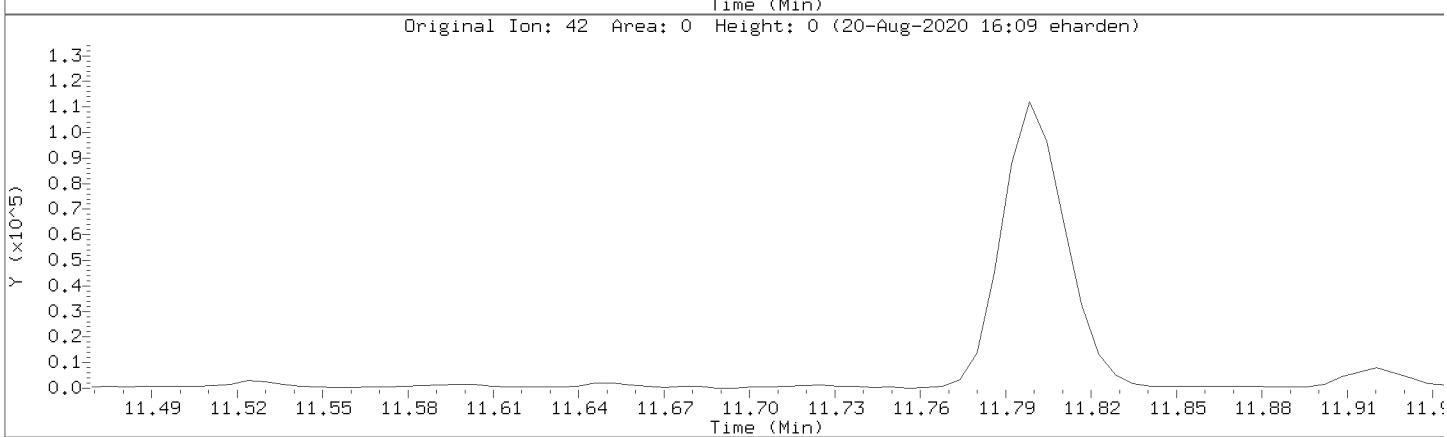
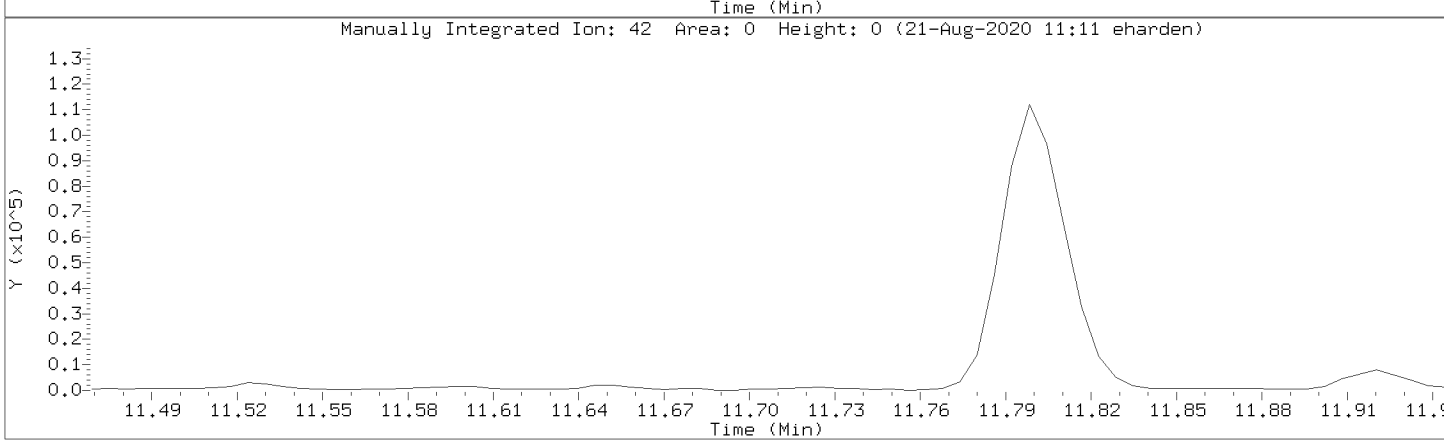
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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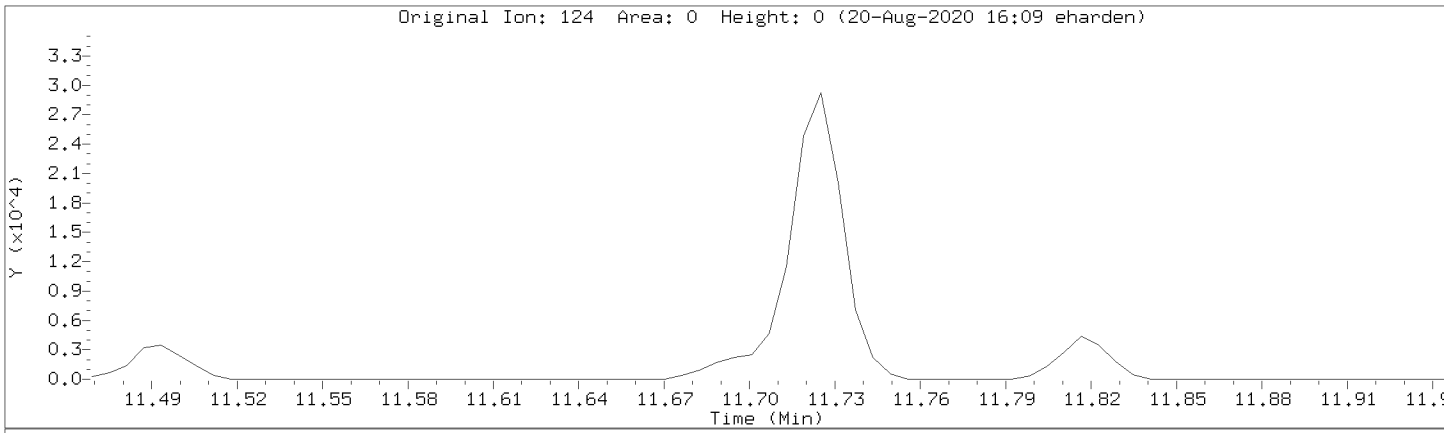
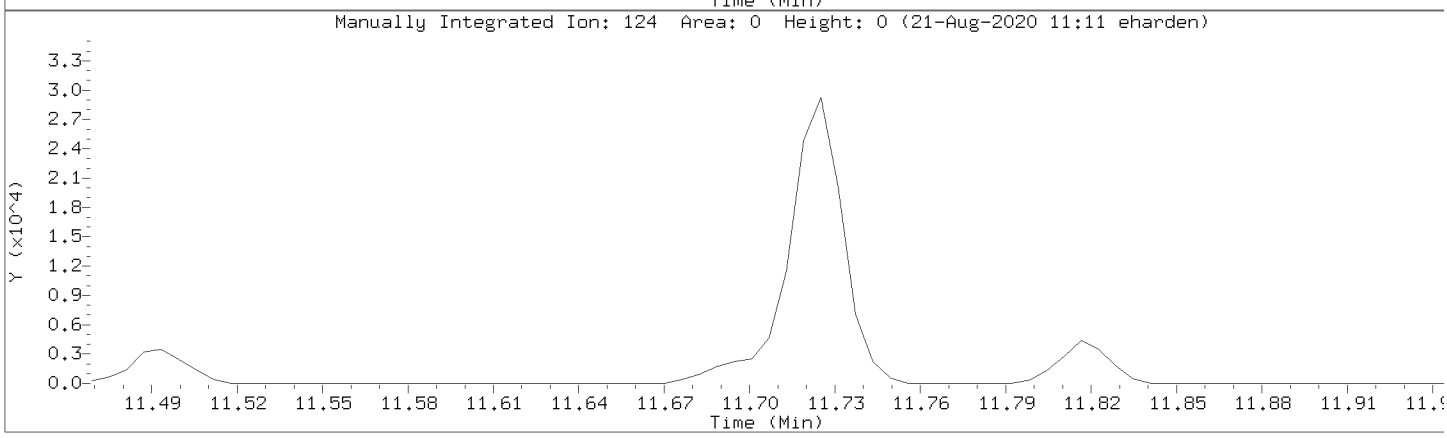
Injection Date: 20-AUG-2020 15:01
Instrument: 52mv02.i
Lab Sample ID: CAL11





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_14.D
Lab Smp Id: CAL12 Client Smp ID: CAL12
Inj Date : 20-AUG-2020 15:26
Operator : EAH Inst ID: 52mv02.i
Smp Info : cal12,27248:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 15:26 Cal File: 082020_14.D
Als bottle: 12 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.410)	843624	200.000	180	
2 Chloromethane	50	3.543	3.543	(0.451)	1035862	200.000	191	
3 Vinyl chloride	62	3.702	3.702	(0.471)	829656	200.000	180	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	724882	200.000	176	
5 Bromomethane	94	4.201	4.195	(0.535)	575423	200.000	171	
6 Chloroethane	64	4.372	4.360	(0.556)	201667	200.000	159	
7 Trichlorofluoromethane	101	4.531	4.531	(0.576)	390171	200.000	133	
8 Diethyl ether (Ethyl ether)	74	5.006	5.000	(0.637)	307440	200.000	190	
9 1,1-Dichloroethene	61	5.226	5.226	(0.665)	1011414	200.000	194	
10 1,1,2-Trichlorotrifluoroethane	101	5.250	5.256	(0.668)	600631	200.000	175	
11 Carbon disulfide	76	5.287	5.293	(0.673)	2019084	200.000	175	
12 Iodomethane	142	5.451	5.439	(0.694)	734096	200.000	200	
13 Acrolein	56	5.658	5.659	(0.720)	211690	400.000	394	
14 Allyl chloride	76	5.786	5.787	(0.736)	294574	200.000	184	
15 Methylene Chloride	49	5.908	5.902	(0.752)	1050051	200.000	170	
16 Acetone	43	5.969	5.976	(0.760)	1032420	400.000	346	
17 Methyl acetate	43	6.067	6.067	(0.772)	1381491	400.000	390(A)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	650447	200.000	185	
19 n-Hexane	86	6.110	6.110	(0.777)	81559	200.000	219(A)	
20 Methyl-tert-butyl ether	73	6.164	6.165	(0.784)	1688062	200.000	206(A)	
21 Acetonitrile	41	6.457	6.463	(0.822)	123656	400.000	381(AH)	
22 Chloroprene	53	6.640	6.640	(0.845)	1112304	200.000	227(A)	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.670	6.671	(0.849)	1205231	200.000	176	
	24 Acrylonitrile	53	6.738	6.738	(0.857)	581161	400.000	391(A)	
	25 Vinyl acetate	43	6.859	6.860	(0.873)	1375005	200.000	203(A)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	992534	200.000	197	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	903801	200.000	171	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	387279	200.000	176	
	29 Cyclohexane	56	7.335	7.335	(0.882)	980896	200.000	229(A)	
	30 Chloroform	83	7.372	7.372	(0.938)	1342881	200.000	174	
	31 Ethyl acetate	43	7.426	7.433	(0.945)	1641965	400.000	376(A)	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	1014164	200.000	200(A)	
	33 Tetrahydrofuran	42	7.530	7.536	(0.958)	425365	400.000	401(A)	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	196115	50.0000	43.8	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	1082414	200.000	189	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	1209413	400.000	363(M)	CO
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	852371	200.000	214(AH)	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	388427	50.0000		
	39 Benzene	78	7.871	7.872	(0.946)	2390433	200.000	186	
	40 Propionitrile	54	7.896	7.902	(1.005)	235361	400.000	356(A)	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	1267856	400.000	376(A)	
	42 Isobutanol	43	8.006	7.987	(1.019)	63350	400.000	(MH)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	34530	50.0000	42.9	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	1018325	200.000	168	
	45 Isopropyl acetate	43	8.140	8.134	(1.036)	1505636	200.000	208(A)	
	46 Trichloroethene	130	8.316	8.317	(1.000)	711450	200.000	202(A)	
*	47 1,4-Difluorobenzene (IS)	114	8.316	8.317	(1.000)	502471	50.0000		
	48 Methylcyclohexane	98	8.316	8.317	(1.000)	366667	200.000	220(A)	
	49 n-Butanol	56	8.524	8.524	(1.025)	32202	400.000	419(AH)	
	50 Dibromomethane	93	8.670	8.670	(1.043)	548606	200.000	183	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	697290	200.000	190	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	1076005	200.000	204(A)	
	53 Methyl methacrylate	69	8.822	8.823	(1.061)	445324	200.000	206(A)	
	54 1,4-Dioxane (p-Dioxane)	58	8.926	8.920	(1.073)	12627	400.000		
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	804281	400.000	417(A)	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	1101907	200.000	215(A)	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	535532	50.0000	49.5	
	58 Toluene	91	9.414	9.414	(1.132)	2545722	200.000	203(A)	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	254950	200.000	206(AH)	
	60 4-Methyl-2-pentanone (MIBK)	100	9.670	9.664	(1.163)	157776	400.000	439(AM)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	1100485	200.000	215(A)	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	675307	200.000	207(A)	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	846262	200.000	206(AH)	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	576866	200.000	182	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	932240	200.000	206(A)	
	66 1,3-Dichloropropane	76	10.066	10.060	(1.210)	1015605	200.000	210(A)	
	67 1,2-Dibromoethane (EDB)	107	10.212	10.213	(0.967)	770644	200.000	199	
	68 2-Hexanone	43	10.280	10.280	(1.236)	1882914	400.000	444(A)	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	2928963	200.000	236(A)	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	475366	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	1776013	200.000	194	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	724011	200.000	187	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	4406208	400.000	404(A)	
	74 o-Xylene	106	10.993	10.993	(1.041)	1080392	200.000	210(A)	
	75 Styrene	104	11.029	11.029	(1.044)	1852119	200.000	206(A)	
	76 Bromoform	173	11.103	11.103	(1.051)	891644	200.000	208(A)	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.224	11.225	(1.063)	1568685	200.000	203(A)	
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	213757	50.0000	54.8	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	295248	200.000	189	
80 n-Propylbenzene	91	11.529	11.523	(1.092)	3505994	200.000	230(A)	
81 Bromobenzene	156	11.578	11.578	(1.096)	1028329	200.000	214(A)	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	952451	200.000	187	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	2283486	200.000	233(AH)	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	743796	200.000	204(A)	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	747393	200.000	203(A)	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	2752818	200.000	208(A)	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	984420	200.000	185	
88 trans-1,4-Dichloro-2-butene	53	11.724	11.718	(1.110)	245006	200.000	200(AM)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	2429584	200.000	210(A)	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	2397637	200.000	207(A)	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	2866460	200.000	208(A)	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	2429584	200.000	210(A)	
94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	1695278	200.000	214(A)	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	296897	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	1711879	200.000	192	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	2431584	200.000	235(A)	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	1704224	200.000	197	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	202261	200.000	208(A)	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	587132	200.000	222(A)	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	1407142	200.000	241(A)	
102 Naphthalene	128	14.193	14.193	(1.150)	2506120	200.000	214(A)	
103 1,2,3-Trichlorobenzene	180	14.370	14.364	(1.165)	1299349	200.000	239(A)	

QC Flag Legend

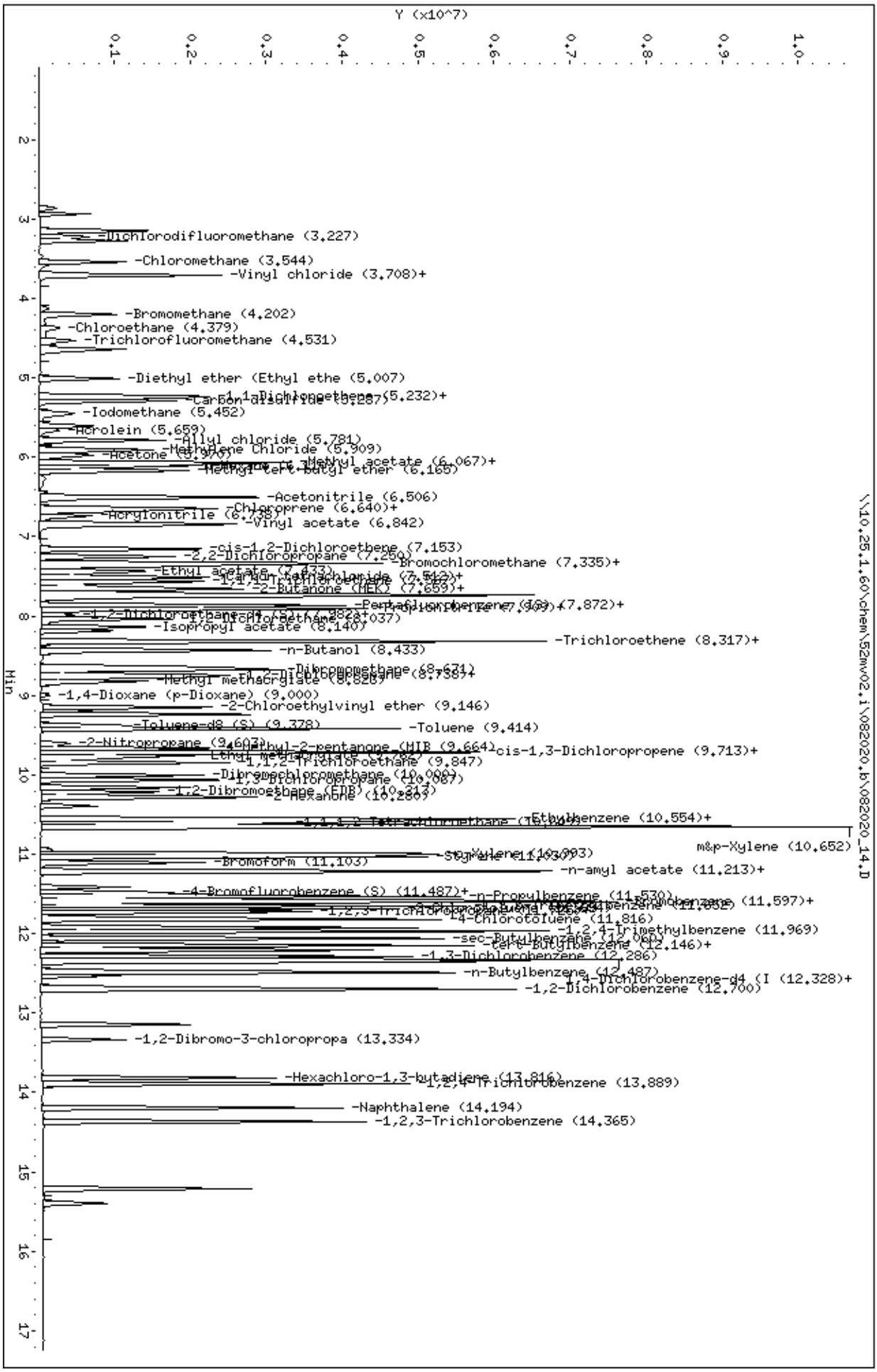
A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_14.D
Date : 20-AUG-2020 15:26
Client ID: CAL12
Sample Info: CAL12,27248:1
Purge Volume: 5.0
Column phase: RTX-VMS

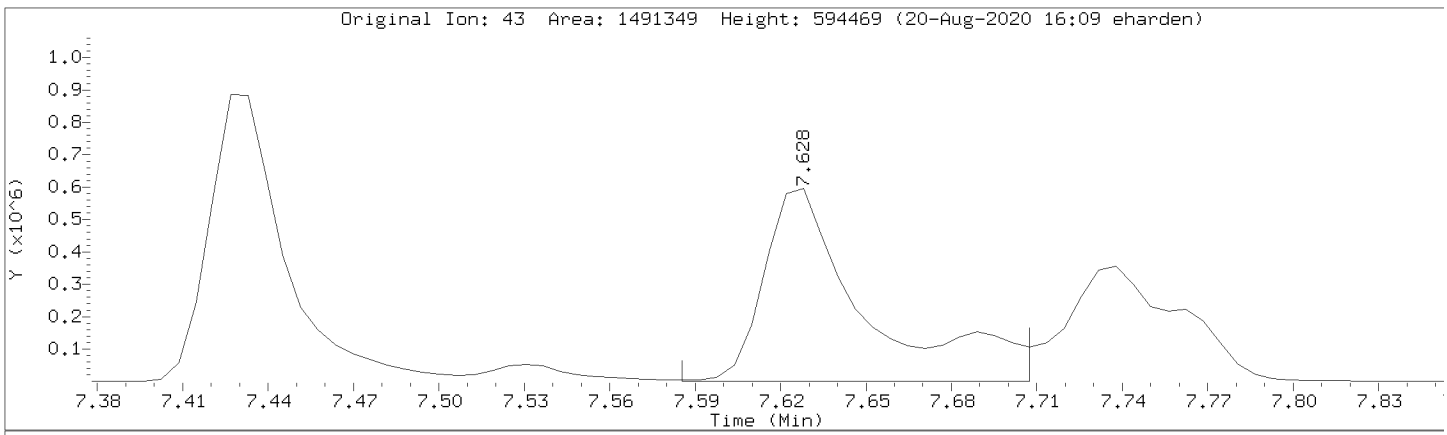
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

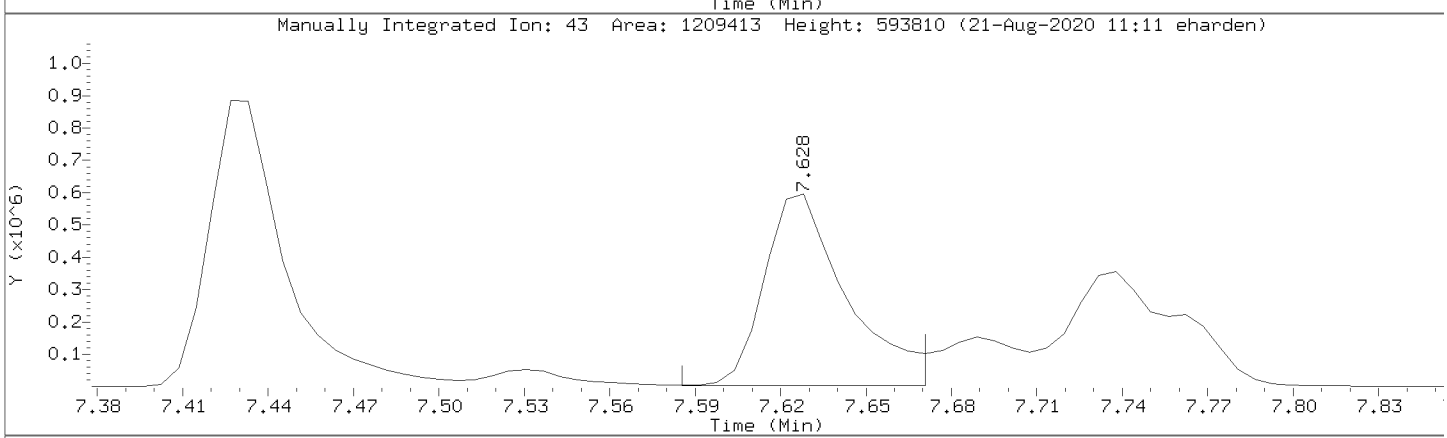


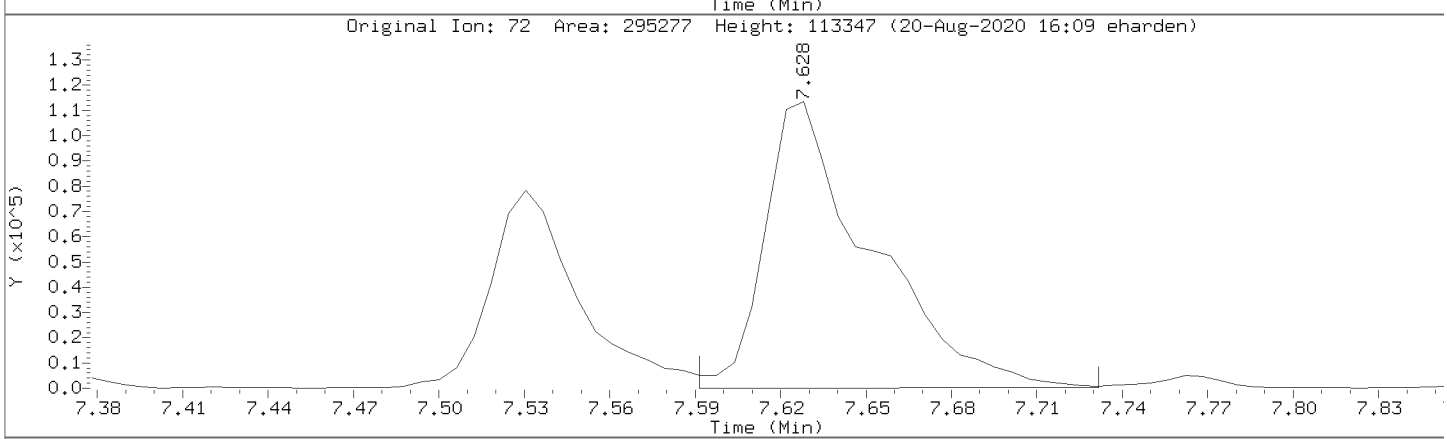
Page 4

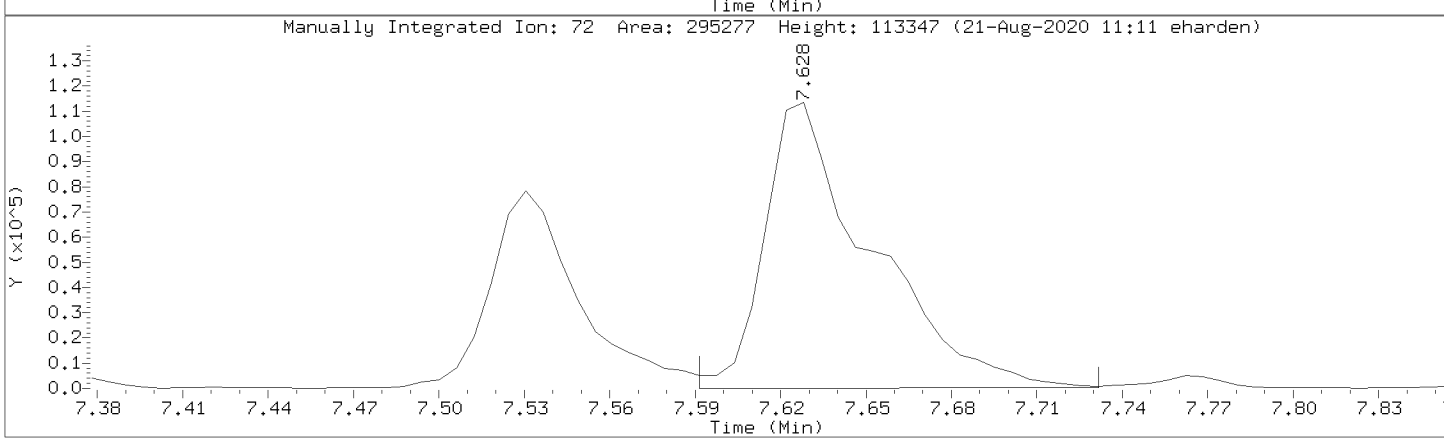
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_14.D
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: 2-Butanone (MEK) Review Code: CO
CAS Number: 78-93-3



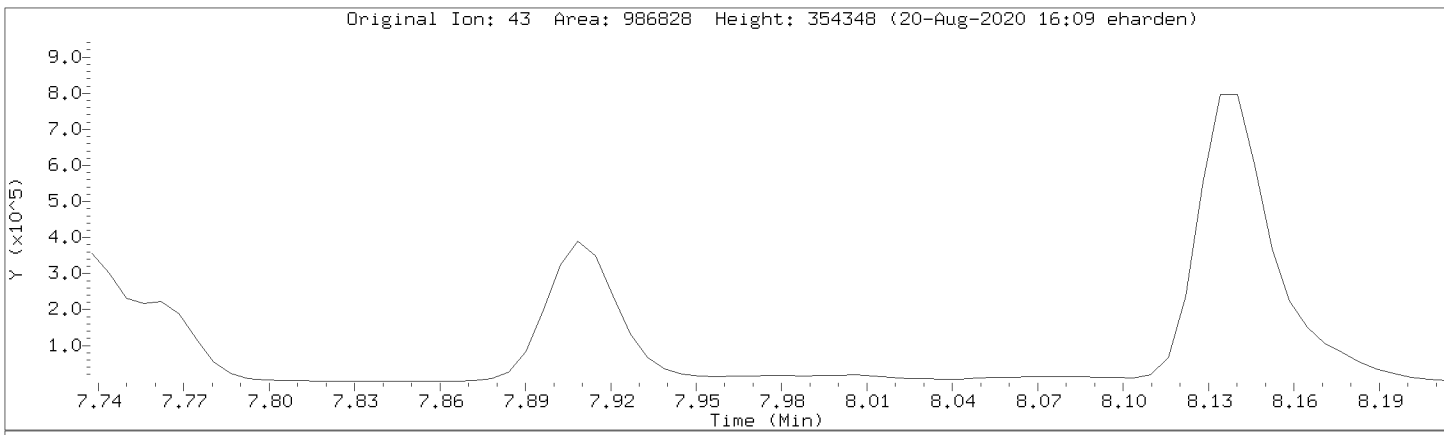


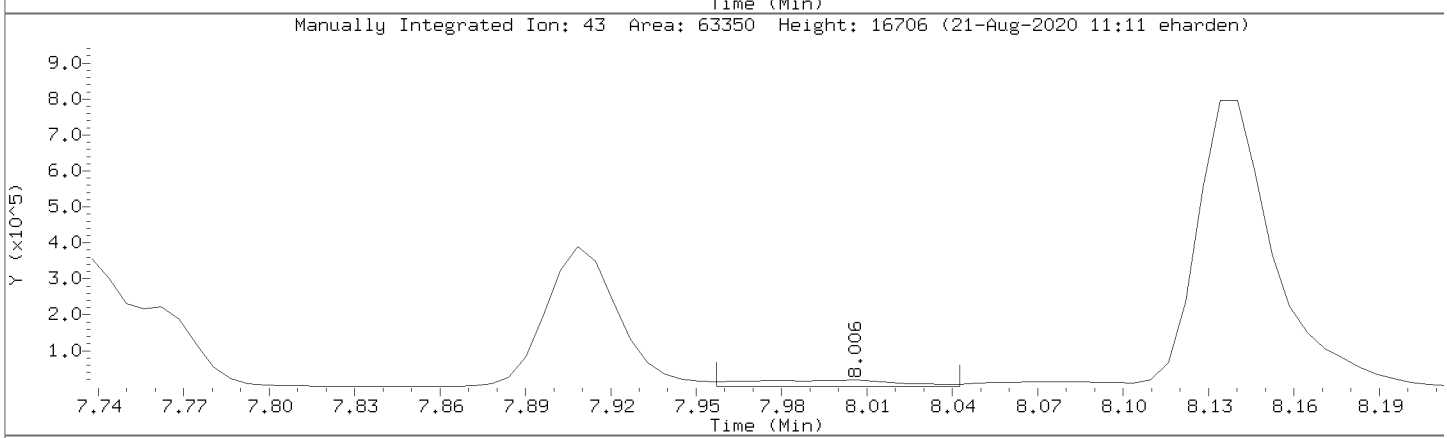


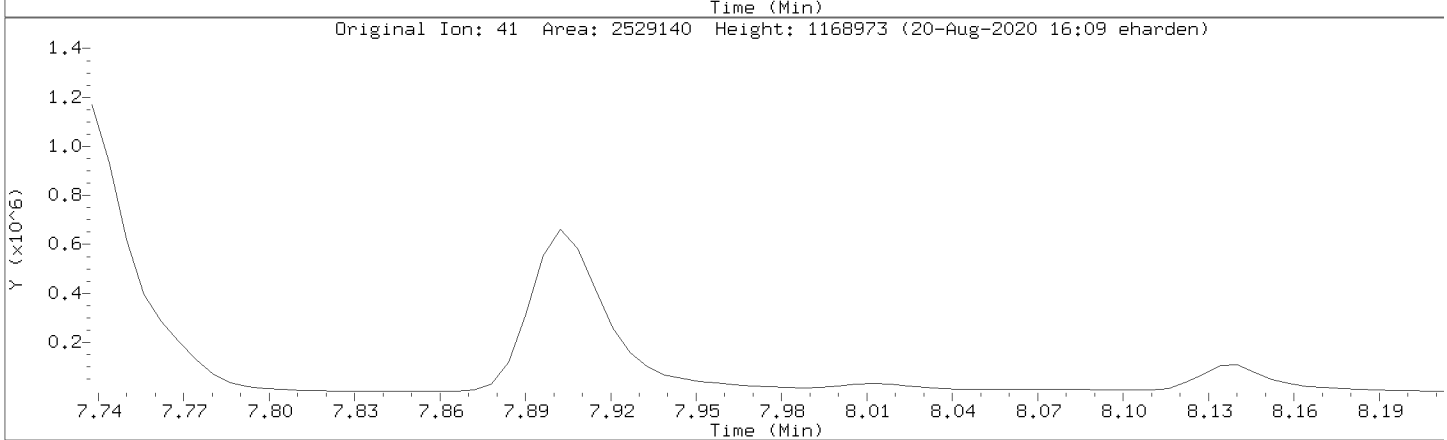


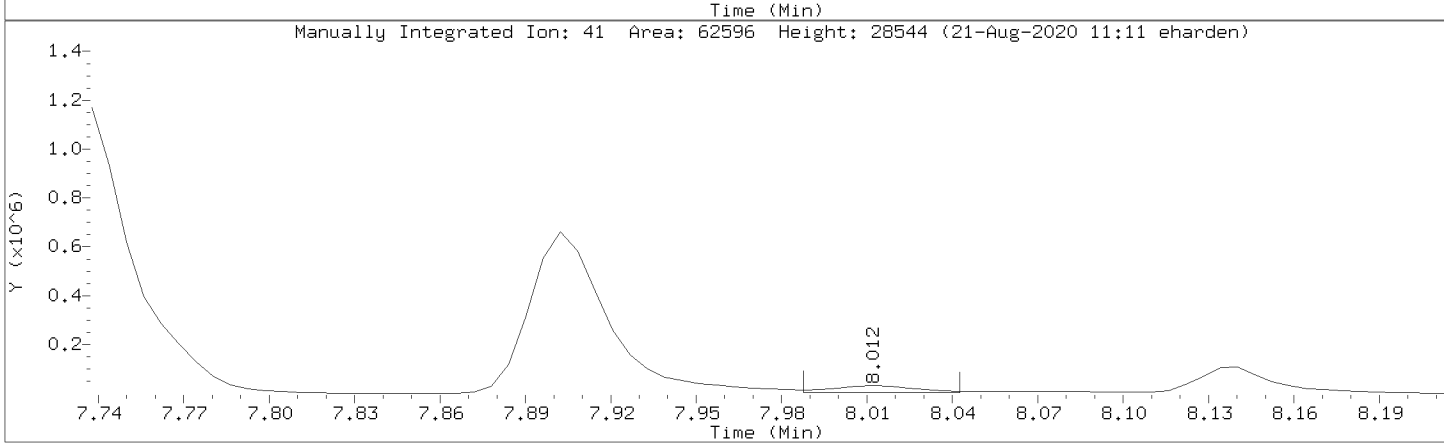
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_14.D
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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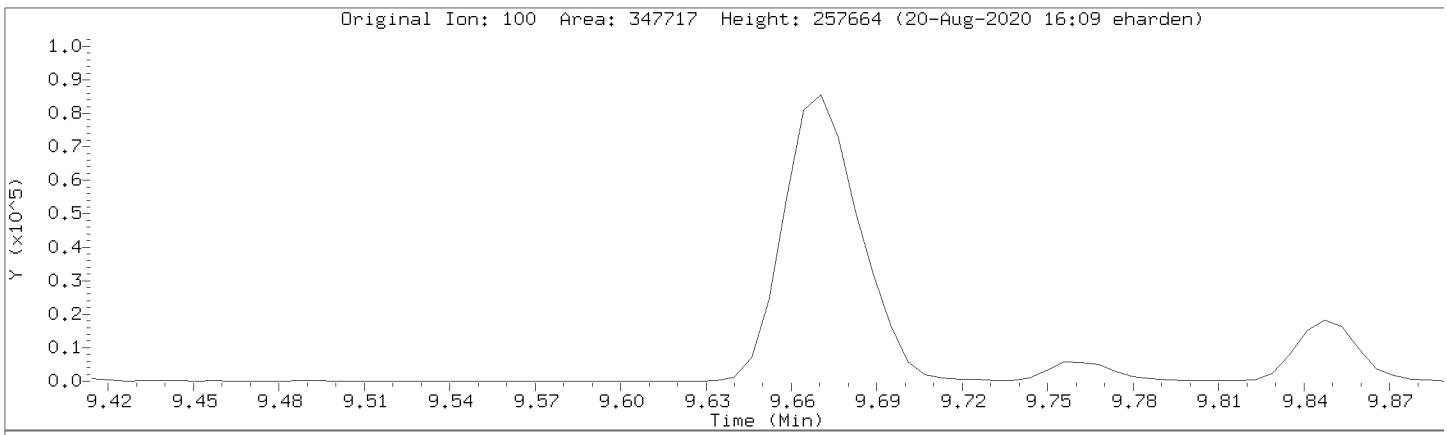
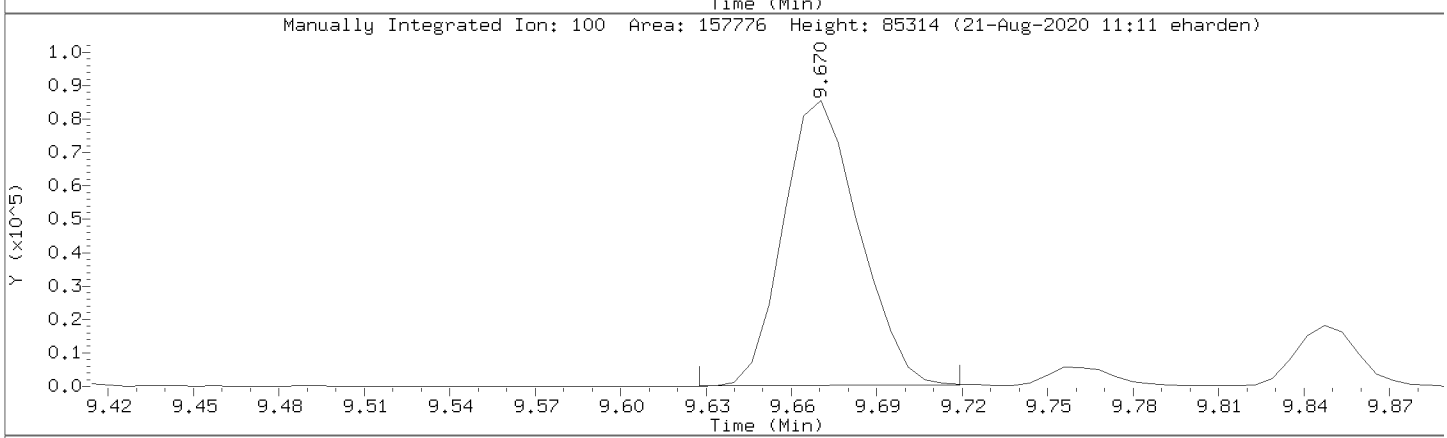
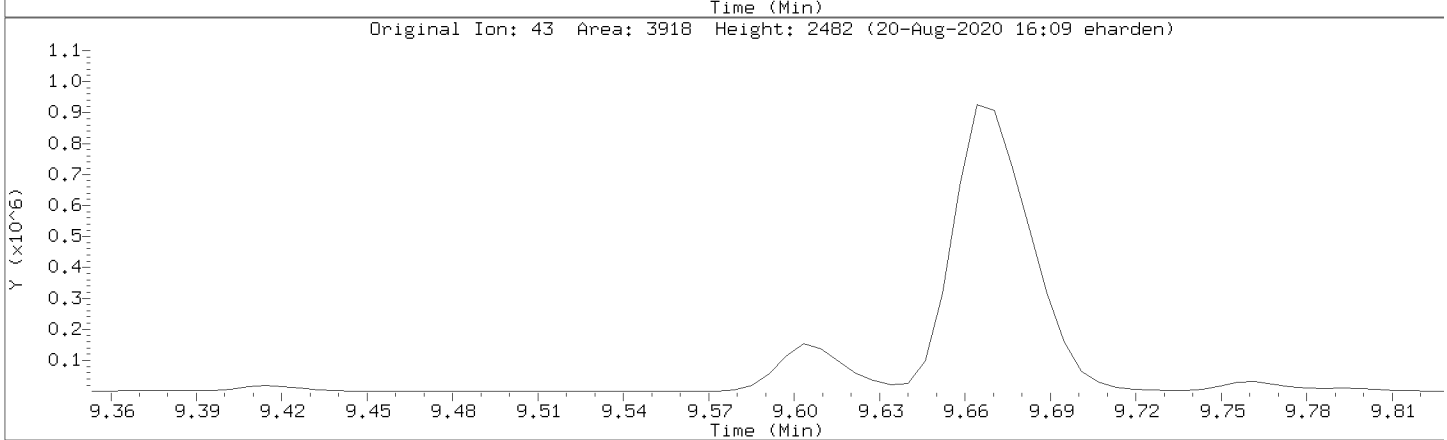
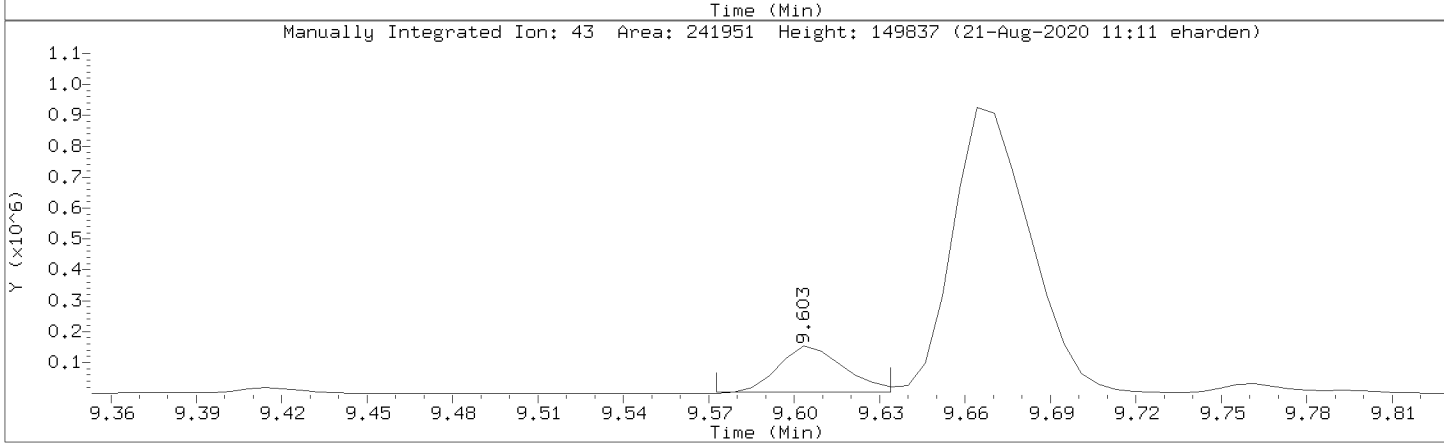
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1

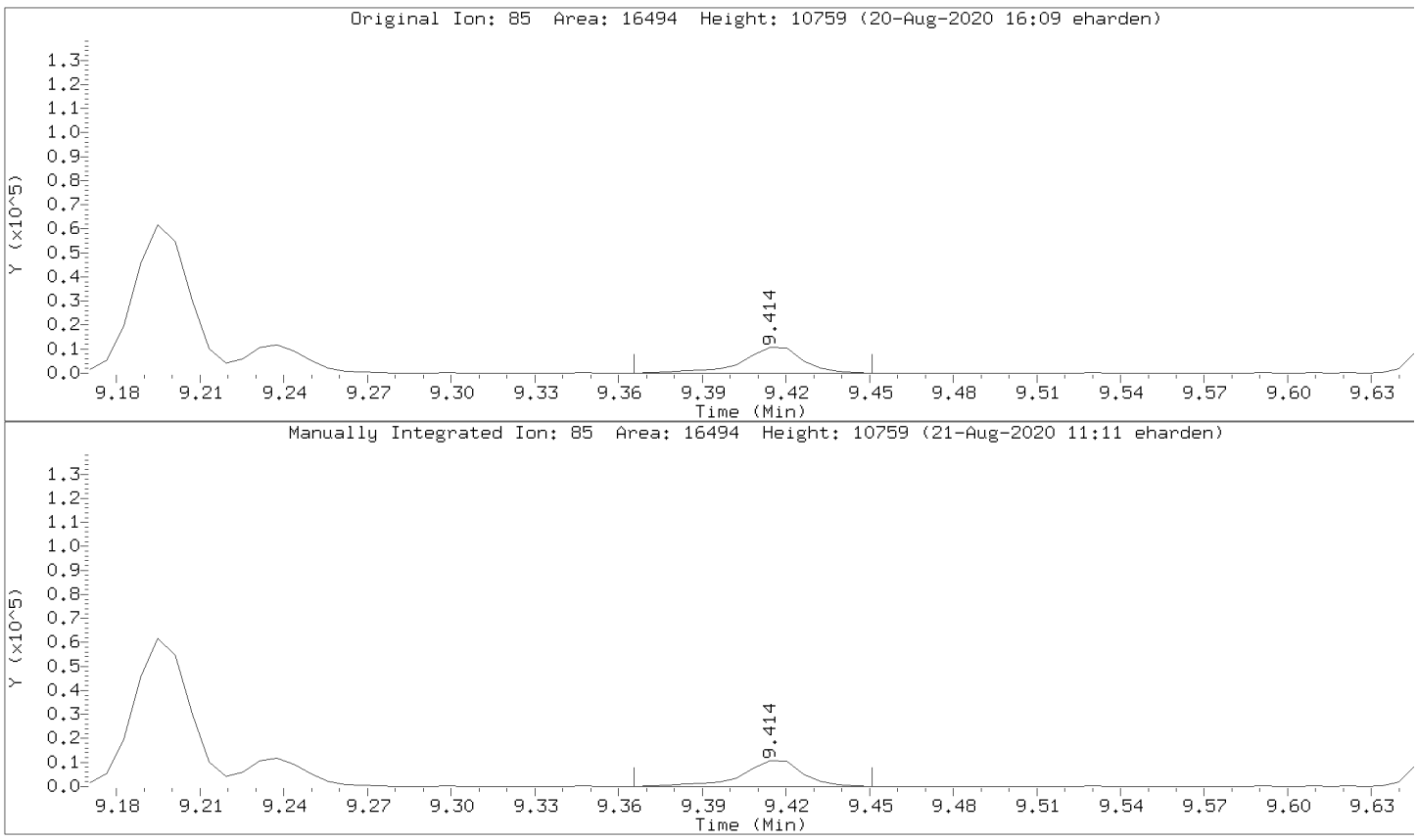






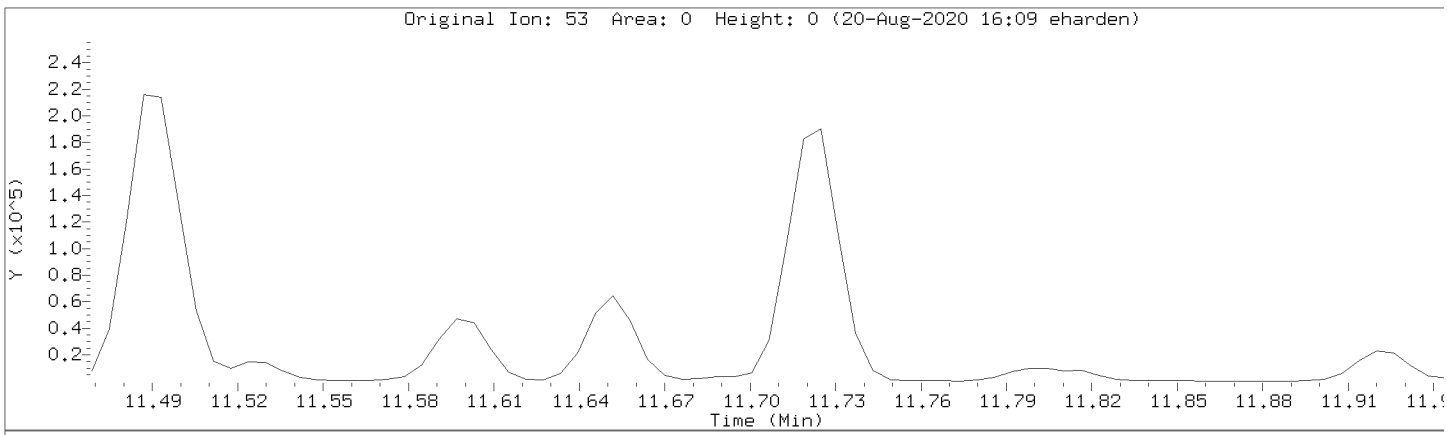


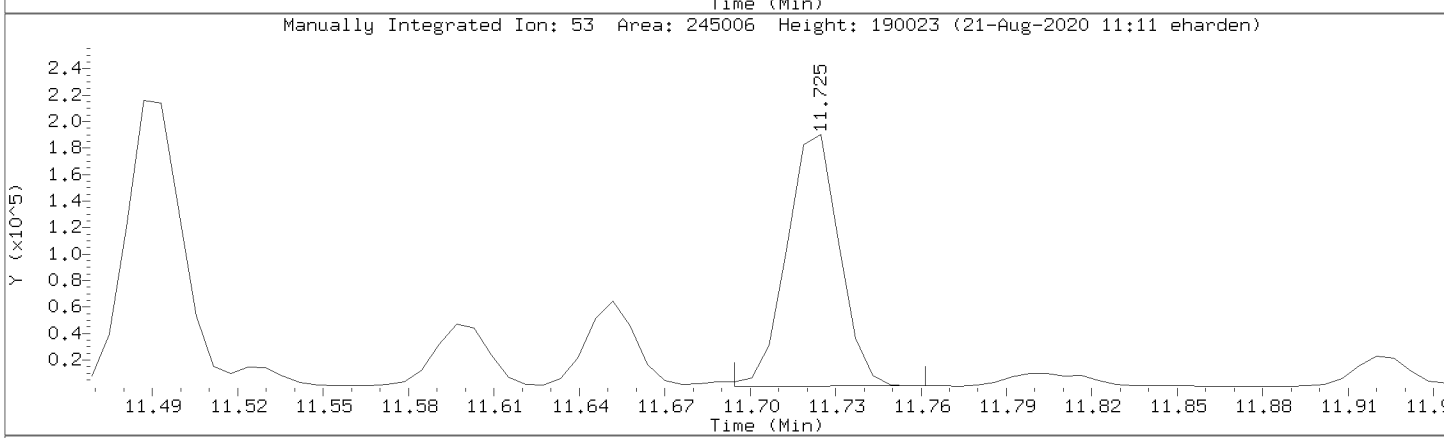
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_14.D
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

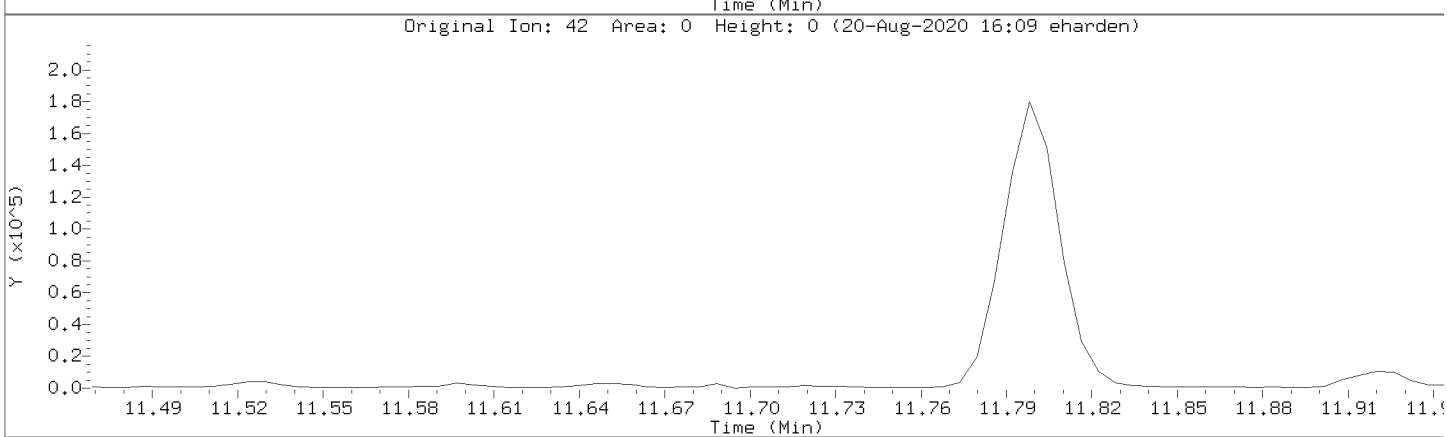


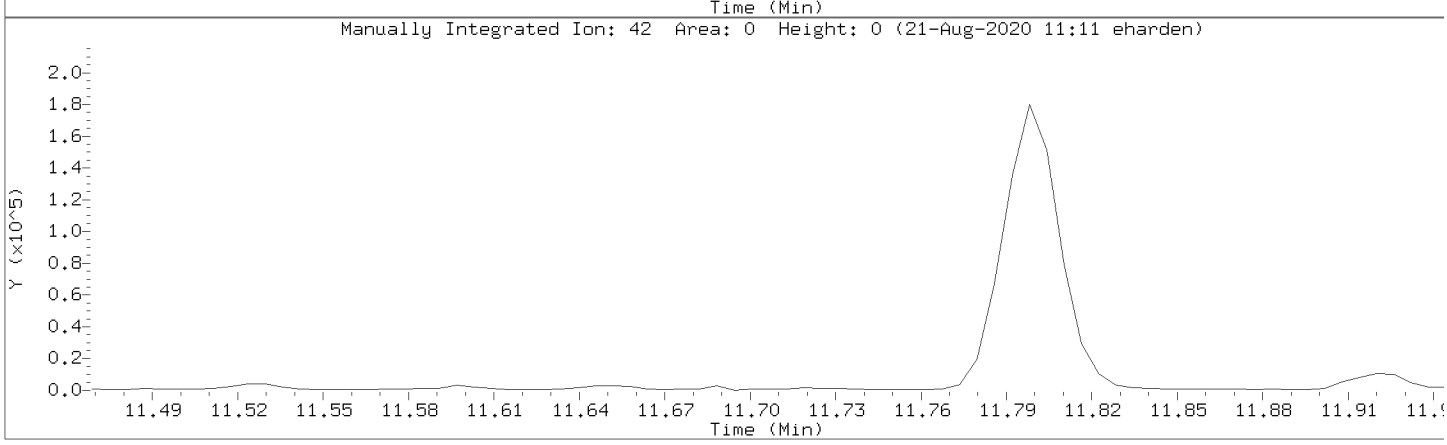
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_14.D
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6

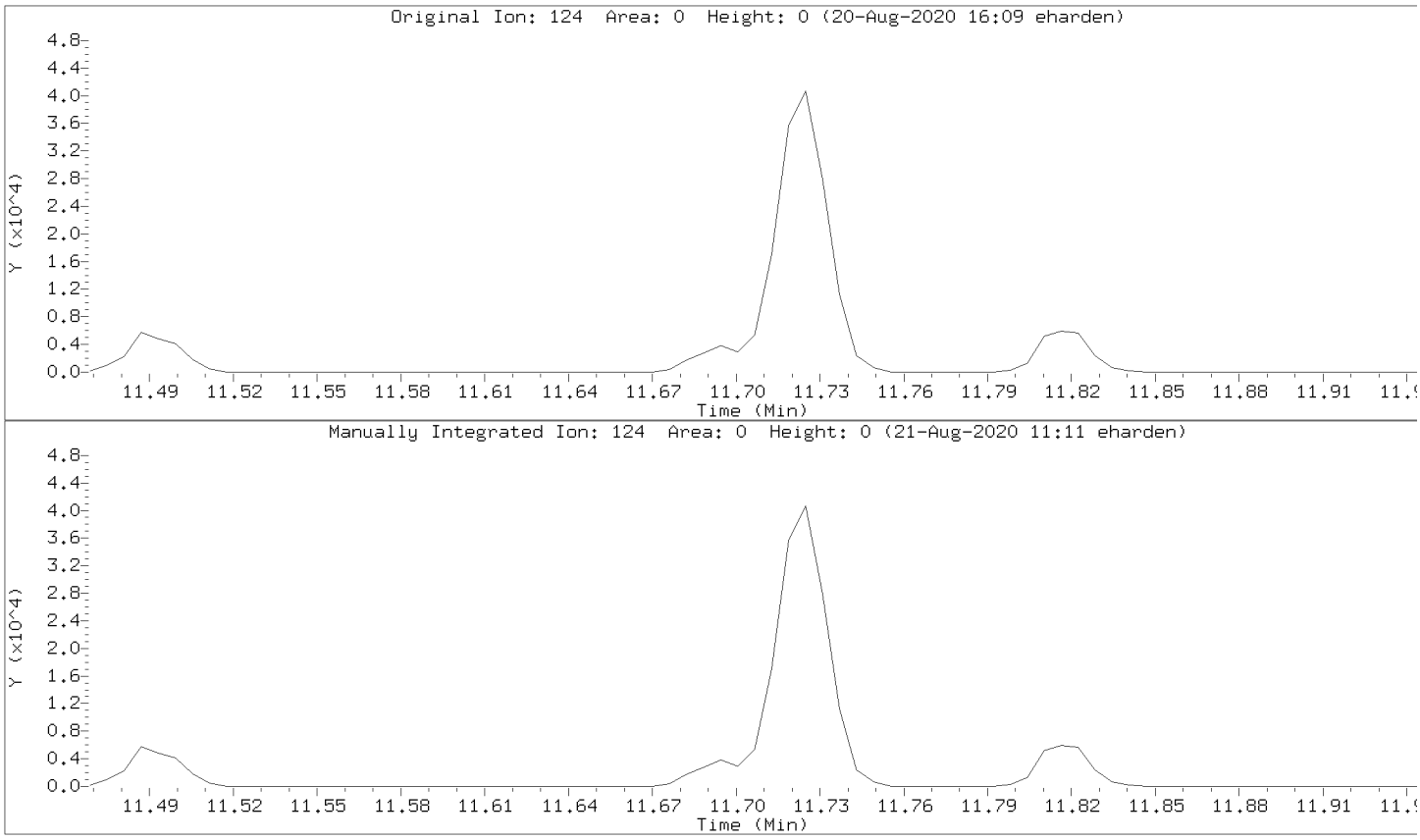








Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_14.D
Injection Date: 20-AUG-2020 15:26
Instrument: 52mv02.i
Lab Sample ID: CAL12



SAMPLE NO.

1419858ICV

MSV - FORM VII VOA-1
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/20/2020 Time: 17:06

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082020.B\082020_18.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249616

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Wt Linear	40	24.82310	0.0100	-37.9422	20.0000
Acetonitrile	Wt Linear	40	45.08252	0.0100	12.7063	20.0000
Acrolein	Averaged	0.06923	0.04113	0.0100	-40.5887	20.0000
Acrylonitrile	Averaged	0.19127	0.17352	0.0100	-9.2796	20.0000
Benzene	Averaged	1.27880	1.23471	0.0100	-3.4482	20.0000
Bromobenzene	Averaged	0.50590	0.52741	0.0100	4.2522	20.0000
Bromochloromethane	Averaged	0.28358	0.25650	0.0100	-9.5467	20.0000
Bromodichloromethane	Averaged	0.52427	0.53160	0.0100	1.3963	20.0000
Bromoform	Averaged	0.45179	0.43515	0.1000	-3.6837	20.0000
Bromomethane	Wt Linear	20	23.62960	0.0100	18.1480	20.0000
2-Butanone (MEK)	Averaged	0.42919	0.26923	0.0100	-37.2693	20.0000
n-Butylbenzene	Averaged	1.74233	1.59435	0.0100	-8.4931	20.0000
sec-Butylbenzene	Wt Linear	20	17.56000	0.0100	-12.2000	20.0000
tert-Butylbenzene	Wt Linear	20	16.89826	0.0100	-15.5087	20.0000
Carbon disulfide	Averaged	1.48423	1.27936	0.0100	-13.8029	20.0000
Carbon tetrachloride	Averaged	0.50339	0.50026	0.0100	-0.6221	20.0000
Chlorobenzene	Averaged	0.96465	0.93844	0.3000	-2.7167	20.0000
Chloroethane	Wt Linear	20	12.67107	0.0100	-36.6446	20.0000
Chloroform	Averaged	0.99545	0.88461	0.0100	-11.1349	20.0000
Chloromethane	Wt Linear	20	18.23379	0.1000	-8.8310	20.0000
2-Chlorotoluene	Wt Linear	20	19.57548	0.0100	-2.1226	20.0000
4-Chlorotoluene	Wt Linear	20	18.13182	0.0100	-9.3409	20.0000
1,2-Dibromo-3-chloropropane	Averaged	0.16352	0.13836	0.0100	-15.3871	20.0000
Dibromochloromethane	Averaged	0.47553	0.47473	0.0100	-0.1686	20.0000
1,2-Dibromoethane (EDB)	Averaged	0.40786	0.40623	0.0100	-0.3978	20.0000
Dibromomethane	Averaged	0.29781	0.28268	0.0100	-5.0799	20.0000
1,2-Dichlorobenzene	Averaged	1.45432	1.36425	0.0100	-6.1934	20.0000
1,3-Dichlorobenzene	Averaged	1.33091	1.33610	0.0100	0.3903	20.0000
1,4-Dichlorobenzene	Averaged	1.50164	1.35286	0.0100	-9.9078	20.0000
Dichlorodifluoromethane	Averaged	0.60278	0.50357	0.0100	-16.4588	20.0000
1,1-Dichloroethane	Averaged	0.88035	0.79945	0.1000	-9.1896	20.0000
1,2-Dichloroethane	Averaged	0.78154	0.68274	0.0100	-12.6415	20.0000
1,1-Dichloroethene	Averaged	0.67064	0.59964	0.0100	-10.5866	20.0000
cis-1,2-Dichloroethene	Averaged	0.64880	0.60018	0.0100	-7.4943	20.0000
trans-1,2-Dichloroethene	Averaged	0.45304	0.38891	0.0100	-14.1553	20.0000
1,2-Dichloropropane	Averaged	0.36511	0.36208	0.0100	-0.8301	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 1:41

SAMPLE NO.

1419858ICV

MSV - FORM VII VOA-2
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/20/2020 Time: 17:06

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082020.B\082020_18.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249616

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,3-Dichloropropane	Averaged	0.48194	0.48242	0.0100	0.0987	20.0000
2,2-Dichloropropane	Averaged	0.67907	0.53477	0.0100	-21.2485	20.0000
1,1-Dichloropropene	Averaged	0.39618	0.37313	0.0100	-5.8167	20.0000
cis-1,3-Dichloropropene	Averaged	0.50984	0.49638	0.0100	-2.6405	20.0000
trans-1,3-Dichloropropene	Averaged	0.50883	0.49514	0.0100	-2.6903	20.0000
Ethyl acetate	Averaged	0.56197	0.49122	0.0100	-12.5887	20.0000
Ethylbenzene	Averaged	1.30807	1.28682	0.0100	-1.6246	20.0000
2-Hexanone	Averaged	0.42211	0.28352	0.0100	-32.8334	20.0000
Isopropylbenzene (Cumene)	Wt Linear	20	17.85189	0.0100	-10.7405	20.0000
p-Isopropyltoluene	Wt Linear	20	16.89826	0.0100	-15.5087	20.0000
Methylene Chloride	Averaged	0.79672	0.68891	0.0100	-13.5314	20.0000
4-Methyl-2-pentanone (MIBK)	Averaged	0.03578	0.03144	0.0100	-12.1476	20.0000
Methyl-tert-butyl ether	Averaged	1.05644	1.01790	0.0100	-3.6480	20.0000
Naphthalene	Wt Linear	20	16.32090	0.0100	-18.3955	20.0000
n-Propylbenzene	Averaged	1.60388	1.60259	0.0100	-0.0803	20.0000
Styrene	Wt Linear	20	17.64204	0.0100	-11.7898	20.0000
1,1,1,2-Tetrachloroethane	Averaged	0.40743	0.38534	0.3000	-5.4218	20.0000
1,1,2,2-Tetrachloroethane	Averaged	0.53495	0.49291	0.3000	-7.8595	20.0000
Tetrachloroethene	Averaged	0.34315	0.35395	0.0100	3.1459	20.0000
Toluene	Averaged	1.24680	1.24992	0.0100	0.2497	20.0000
1,2,3-Trichlorobenzene	Averaged	0.91538	0.87148	0.0100	-4.7954	20.0000
1,2,4-Trichlorobenzene	Averaged	0.98474	0.93125	0.0100	-5.4317	20.0000
1,1,1-Trichloroethane	Averaged	0.57038	0.54382	0.0100	-4.6553	20.0000
1,1,2-Trichloroethane	Averaged	0.31598	0.29895	0.0100	-5.3888	20.0000
Trichloroethene	Averaged	0.34963	0.35653	0.0100	1.9739	20.0000
Trichlorofluoromethane	Averaged	0.37716	0.28883	0.0100	-23.4190	20.0000
1,2,3-Trichloropropane	Averaged	0.55922	0.53202	0.0100	-4.8654	20.0000
1,2,4-Trimethylbenzene	Wt Linear	20	17.70907	0.0100	-11.4546	20.0000
1,3,5-Trimethylbenzene	Averaged	1.65100	1.59405	0.0100	-3.4490	20.0000
Vinyl acetate	Averaged	0.87084	0.47990	0.0100	-44.8924	20.0000
Vinyl chloride	Averaged	0.59325	0.47996	0.0100	-19.0961	20.0000
4-Bromofluorobenzene (S)	Averaged	0.41034	0.41596	0.0100	1.3689	20.0000
Dibromofluoromethane (S)	Averaged	0.57568	0.52418	0.0100	-8.9462	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.10356	0.09167	0.0100	-11.4833	20.0000
Toluene-d8 (S)	Averaged	1.07633	1.07582	0.0100	-0.0475	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 1:41

SAMPLE NO.

1438005CCV

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/28/2020 Time: 13:17

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082820.B\082820_03.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249616

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Wt Linear	40	40.49993	0.0100	1.2498	20.0000
Acetonitrile	Wt Linear	40	49.15600	0.0100	22.8900	20.0000
Acrolein	Averaged	0.06923	0.05595	0.0100	-19.1792	20.0000
Acrylonitrile	Averaged	0.19127	0.17957	0.0100	-6.1162	20.0000
Benzene	Averaged	1.27880	1.35811	0.0100	6.2018	20.0000
Bromobenzene	Averaged	0.50590	0.54137	0.0100	7.0125	20.0000
Bromochloromethane	Averaged	0.28358	0.29661	0.0100	4.5971	20.0000
Bromodichloromethane	Averaged	0.52427	0.60814	0.0100	15.9974	20.0000
Bromoform	Averaged	0.45179	0.48218	0.1000	6.7264	20.0000
Bromomethane	Wt Linear	20	24.06493	0.0100	20.3247	20.0000
2-Butanone (MEK)	Averaged	0.42919	0.36335	0.0100	-15.3402	20.0000
n-Butylbenzene	Averaged	1.74233	1.69002	0.0100	-3.0019	20.0000
sec-Butylbenzene	Wt Linear	20	17.62763	0.0100	-11.8618	20.0000
tert-Butylbenzene	Wt Linear	20	16.49320	0.0100	-17.5340	20.0000
Carbon disulfide	Averaged	1.48423	1.45547	0.0100	-1.9376	20.0000
Carbon tetrachloride	Averaged	0.50339	0.59438	0.0100	18.0736	20.0000
Chlorobenzene	Averaged	0.96465	1.00412	0.3000	4.0917	20.0000
Chloroethane	Wt Linear	20	23.43615	0.0100	17.1808	20.0000
Chloroform	Averaged	0.99545	1.02959	0.0100	3.4297	20.0000
Chloromethane	Wt Linear	20	20.88952	0.1000	4.4476	20.0000
2-Chlorotoluene	Wt Linear	20	20.08881	0.0100	0.4441	20.0000
4-Chlorotoluene	Wt Linear	20	18.95119	0.0100	-5.2440	20.0000
1,2-Dibromo-3-chloropropane	Averaged	0.16352	0.13980	0.0100	-14.5041	20.0000
Dibromochloromethane	Averaged	0.47553	0.53966	0.0100	13.4866	20.0000
1,2-Dibromoethane (EDB)	Averaged	0.40786	0.40919	0.0100	0.3267	20.0000
Dibromomethane	Averaged	0.29781	0.31175	0.0100	4.6815	20.0000
1,2-Dichlorobenzene	Averaged	1.45432	1.40947	0.0100	-3.0841	20.0000
1,3-Dichlorobenzene	Averaged	1.33091	1.36644	0.0100	2.6699	20.0000
1,4-Dichlorobenzene	Averaged	1.50164	1.47446	0.0100	-1.8103	20.0000
Dichlorodifluoromethane	Averaged	0.60278	0.43626	0.0100	-27.6258	20.0000
1,1-Dichloroethane	Averaged	0.88035	0.91036	0.1000	3.4087	20.0000
1,2-Dichloroethane	Averaged	0.78154	0.81490	0.0100	4.2678	20.0000
1,1-Dichloroethene	Averaged	0.67064	0.67311	0.0100	0.3680	20.0000
cis-1,2-Dichloroethene	Averaged	0.64880	0.62925	0.0100	-3.0131	20.0000
trans-1,2-Dichloroethene	Averaged	0.45304	0.44649	0.0100	-1.4449	20.0000
1,2-Dichloropropane	Averaged	0.36511	0.38631	0.0100	5.8087	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 1:41

SAMPLE NO.

1438005CCV

MSV - FORM VII VOA-2
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Dayton
Calibration Date: 08/28/2020 Time: 13:17

Instrument ID: 52MV02 GC Column: Col 1
Init. Calib. Date(s): 08/20/2020 08/20/2020

Lab File ID: 082820.B\082820_03.D
Init. Calib. Time(s): 10:50 15:26

SDG No.: 5249616

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,3-Dichloropropane	Averaged	0.48194	0.52468	0.0100	8.8671	20.0000
2,2-Dichloropropane	Averaged	0.67907	0.72476	0.0100	6.7284	20.0000
1,1-Dichloropropene	Averaged	0.39618	0.41293	0.0100	4.2284	20.0000
cis-1,3-Dichloropropene	Averaged	0.50984	0.54845	0.0100	7.5738	20.0000
trans-1,3-Dichloropropene	Averaged	0.50883	0.54845	0.0100	7.7869	20.0000
Ethyl acetate	Averaged	0.56197	0.51531	0.0100	-8.3024	20.0000
Ethylbenzene	Averaged	1.30807	1.29155	0.0100	-1.2628	20.0000
2-Hexanone	Averaged	0.42211	0.43591	0.0100	3.2691	20.0000
Isopropylbenzene (Cumene)	Wt Linear	20	17.14524	0.0100	-14.2738	20.0000
p-Isopropyltoluene	Wt Linear	20	16.49320	0.0100	-17.5340	20.0000
Methylene Chloride	Averaged	0.79672	0.77080	0.0100	-3.2532	20.0000
4-Methyl-2-pentanone (MIBK)	Averaged	0.03578	0.03716	0.0100	3.8413	20.0000
Methyl-tert-butyl ether	Averaged	1.05644	1.02984	0.0100	-2.5179	20.0000
Naphthalene	Wt Linear	20	13.96580	0.0100	-30.1710	20.0000
n-Propylbenzene	Averaged	1.60388	1.63363	0.0100	1.8547	20.0000
Styrene	Wt Linear	20	17.74979	0.0100	-11.2510	20.0000
1,1,1,2-Tetrachloroethane	Averaged	0.40743	0.42775	0.3000	4.9852	20.0000
1,1,2,2-Tetrachloroethane	Averaged	0.53495	0.54450	0.3000	1.7845	20.0000
Tetrachloroethene	Averaged	0.34315	0.37776	0.0100	10.0862	20.0000
Toluene	Averaged	1.24680	1.33603	0.0100	7.1565	20.0000
1,2,3-Trichlorobenzene	Averaged	0.91538	0.82010	0.0100	-10.4091	20.0000
1,2,4-Trichlorobenzene	Averaged	0.98474	0.85704	0.0100	-12.9674	20.0000
1,1,1-Trichloroethane	Averaged	0.57038	0.64426	0.0100	12.9533	20.0000
1,1,2-Trichloroethane	Averaged	0.31598	0.31707	0.0100	0.3469	20.0000
Trichloroethene	Averaged	0.34963	0.37467	0.0100	7.1600	20.0000
Trichlorofluoromethane	Averaged	0.37716	0.49434	0.0100	31.0700	20.0000
1,2,3-Trichloropropane	Averaged	0.55922	0.55662	0.0100	-0.4662	20.0000
1,2,4-Trimethylbenzene	Wt Linear	20	18.03562	0.0100	-9.8219	20.0000
1,3,5-Trimethylbenzene	Averaged	1.65100	1.62187	0.0100	-1.7642	20.0000
Vinyl acetate	Averaged	0.87084	0.76182	0.0100	-12.5186	20.0000
Vinyl chloride	Averaged	0.59325	0.54381	0.0100	-8.3335	20.0000
4-Bromofluorobenzene (S)	Averaged	0.41034	0.41447	0.0100	1.0051	20.0000
Dibromofluoromethane (S)	Averaged	0.57568	0.56320	0.0100	-2.1676	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.10356	0.09770	0.0100	-5.6557	20.0000
Toluene-d8 (S)	Averaged	1.07633	1.07997	0.0100	0.3377	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

09/03/2020 1:41

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082020.b\082020_18.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 20-AUG-2020 17:06
Operator : EAH Inst ID: 52mv02.i
Smp Info : icv, 27249:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082020.b\8260BSM_082020.m
Meth Date : 21-Aug-2020 11:09 52mv02.i Quant Type: ISTD
Cal Date : 20-AUG-2020 11:40 Cal File: 082020_05.D
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.226	3.226	(0.411)	62218	20.0000	16.7(M)	LT
2 Chloromethane	50	3.543	3.543	(0.451)	81833	20.0000	18.2	
3 Vinyl chloride	62	3.702	3.702	(0.471)	59301	20.0000	16.2	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	43356	20.0000	13.2	
5 Bromomethane	94	4.195	4.195	(0.534)	70375	20.0000	23.6	
6 Chloroethane	64	4.360	4.360	(0.555)	13606	20.0000	12.7	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	35686	20.0000	15.3	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	23334	20.0000	18.2	
9 1,1-Dichloroethene	61	5.226	5.226	(0.665)	74088	20.0000	17.9	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	46759	20.0000	17.1	
11 Carbon disulfide	76	5.293	5.293	(0.673)	158069	20.0000	17.2	
12 Iodomethane	142	5.439	5.439	(0.692)	24702	20.0000	15.5	
13 Acrolein	56	5.659	5.659	(0.720)	10164	40.0000	23.8	
14 Allyl chloride	76	5.787	5.787	(0.736)	22210	20.0000	17.4	
15 Methylene Chloride	49	5.902	5.902	(0.751)	85117	20.0000	17.3	
16 Acetone	43	5.976	5.976	(0.760)	62754	40.0000	24.8	
17 Methyl acetate	43	6.067	6.067	(0.772)	104303	40.0000	36.3	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	48051	20.0000	17.2	
19 n-Hexane	86	6.110	6.110	(0.777)	5754	20.0000	19.4	
20 Methyl-tert-butyl ether	73	6.165	6.165	(0.784)	125765	20.0000	19.3	
21 Acetonitrile	41	6.463	6.463	(0.822)	11809	40.0000	45.1	
22 Chloroprene	53	6.640	6.640	(0.845)	65755	20.0000	16.8	
23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	98775	20.0000	18.2	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	24 Acrylonitrile	53	6.738	6.738	(0.857)	42878	40.0000	36.3	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	59293	20.0000	11.0(T)	
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	74154	20.0000	18.5	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	66073	20.0000	15.8	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	31692	20.0000	18.1	
	29 Cyclohexane	56	7.335	7.335	(0.882)	61163	20.0000	18.4	
	30 Chloroform	83	7.372	7.372	(0.938)	109296	20.0000	17.8	
	31 Ethyl acetate	43	7.433	7.433	(0.946)	121384	40.0000	35.0	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	78185	20.0000	19.9	
	33 Tetrahydrofuran	42	7.536	7.536	(0.959)	32607	40.0000	36.5	
$	34 Dibromofluoromethane (S)	113	7.530	7.530	(0.958)	161909	50.0000	45.5	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	84993	20.0000	19.1	
	36 2-Butanone (MEK)	43	7.628	7.628	(0.971)	66529	40.0000	25.1	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	58316	20.0000	18.8	
*	38 Pentafluorobenzene (IS)	168	7.859	7.859	(1.000)	308883	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	192970	20.0000	19.3	
	40 Propionitrile	54	7.902	7.902	(1.005)	18605	40.0000	35.3	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	97332	40.0000	36.3	
	42 Isobutanol	43	7.987	7.987	(1.016)	3741	40.0000	47.8(M)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	28315	50.0000	44.2	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	84355	20.0000	17.5	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	100534	20.0000	17.5	
	46 Trichloroethene	130	8.317	8.317	(1.000)	55722	20.0000	20.4	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	390720	50.0000		
	48 Methylcyclohexane	98	8.317	8.317	(1.000)	25333	20.0000	19.6	
	49 n-Butanol	56	8.524	8.524	(1.025)	2306	40.0000	38.6	
	50 Dibromomethane	93	8.670	8.670	(1.043)	44180	20.0000	19.0	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	56588	20.0000	19.8	
	52 Bromodichloromethane	83	8.768	8.768	(1.054)	83082	20.0000	20.3	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	27754	20.0000	17.2	
	54 1,4-Dioxane (p-Dioxane)	58	8.920	8.920	(1.073)	950	40.0000	39.5	
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	45831	40.0000	32.2	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	77578	20.0000	19.5	
$	57 Toluene-d8 (S)	98	9.377	9.377	(1.128)	420345	50.0000	50.0	
	58 Toluene	91	9.414	9.414	(1.132)	195347	20.0000	20.0	
	59 2-Nitropropane	43	9.603	9.603	(1.155)	16542	20.0000	16.7	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	9826	40.0000	35.1(MH)	WP
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	77385	20.0000	19.5	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	52492	20.0000	20.6	
	63 Ethyl methacrylate	69	9.761	9.761	(1.174)	52298	20.0000	17.0	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	46722	20.0000	18.9	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	70404	20.0000	20.0	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	75396	20.0000	20.0	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	60246	20.0000	19.9	
	68 2-Hexanone	43	10.280	10.280	(1.236)	88620	40.0000	26.9	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	190840	20.0000	19.7	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	370760	50.0000		
	71 Chlorobenzene	112	10.578	10.578	(1.002)	139175	20.0000	19.4	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	57148	20.0000	18.9	
	73 m&p-Xylene	91	10.651	10.651	(1.009)	308621	40.0000	36.6	
	74 o-Xylene	106	10.993	10.993	(1.041)	66780	20.0000	17.1	
	75 Styrene	104	11.029	11.029	(1.044)	120102	20.0000	17.6	
	76 Bromoform	173	11.103	11.103	(1.051)	64534	20.0000	19.3	
	77 n-amyl acetate	43	11.225	11.225	(1.063)	96056	20.0000	16.6	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
$ 78 4-Bromofluorobenzene (S)	95	11.468	11.468	(1.086)	154222	50.0000	50.7	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	22484	20.0000	18.5	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	237671	20.0000	20.0	
81 Bromobenzene	156	11.578	11.578	(1.096)	78217	20.0000	20.8	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	73100	20.0000	18.4	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	152266	20.0000	19.3	
84 2-Chlorotoluene	126	11.694	11.694	(1.107)	54826	20.0000	19.6	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	51146	20.0000	18.1	
86 Isopropylbenzene (Cumene)	105	11.212	11.212	(1.062)	178840	20.0000	17.8	
87 1,2,3-Trichloropropane	75	11.724	11.724	(1.110)	78900	20.0000	19.0	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.718	(1.110)	19932	20.0000	20.9(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	152436	20.0000	16.9	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	161183	20.0000	17.7	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	189442	20.0000	17.6	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	152436	20.0000	16.9	
94 1,3-Dichlorobenzene	146	12.291	12.291	(0.996)	127626	20.0000	20.1	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	238803	50.0000		
96 1,4-Dichlorobenzene	146	12.352	12.352	(1.001)	129227	20.0000	18.0	
97 n-Butylbenzene	91	12.486	12.486	(1.012)	152294	20.0000	18.3	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	130315	20.0000	18.8	
99 1,2-Dibromo-3-chloropropane	155	13.340	13.340	(1.081)	13216	20.0000	16.9	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	39516	20.0000	18.6	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	88954	20.0000	18.9	
102 Naphthalene	128	14.193	14.193	(1.150)	148785	20.0000	16.3	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	83245	20.0000	19.0	

QC Flag Legend

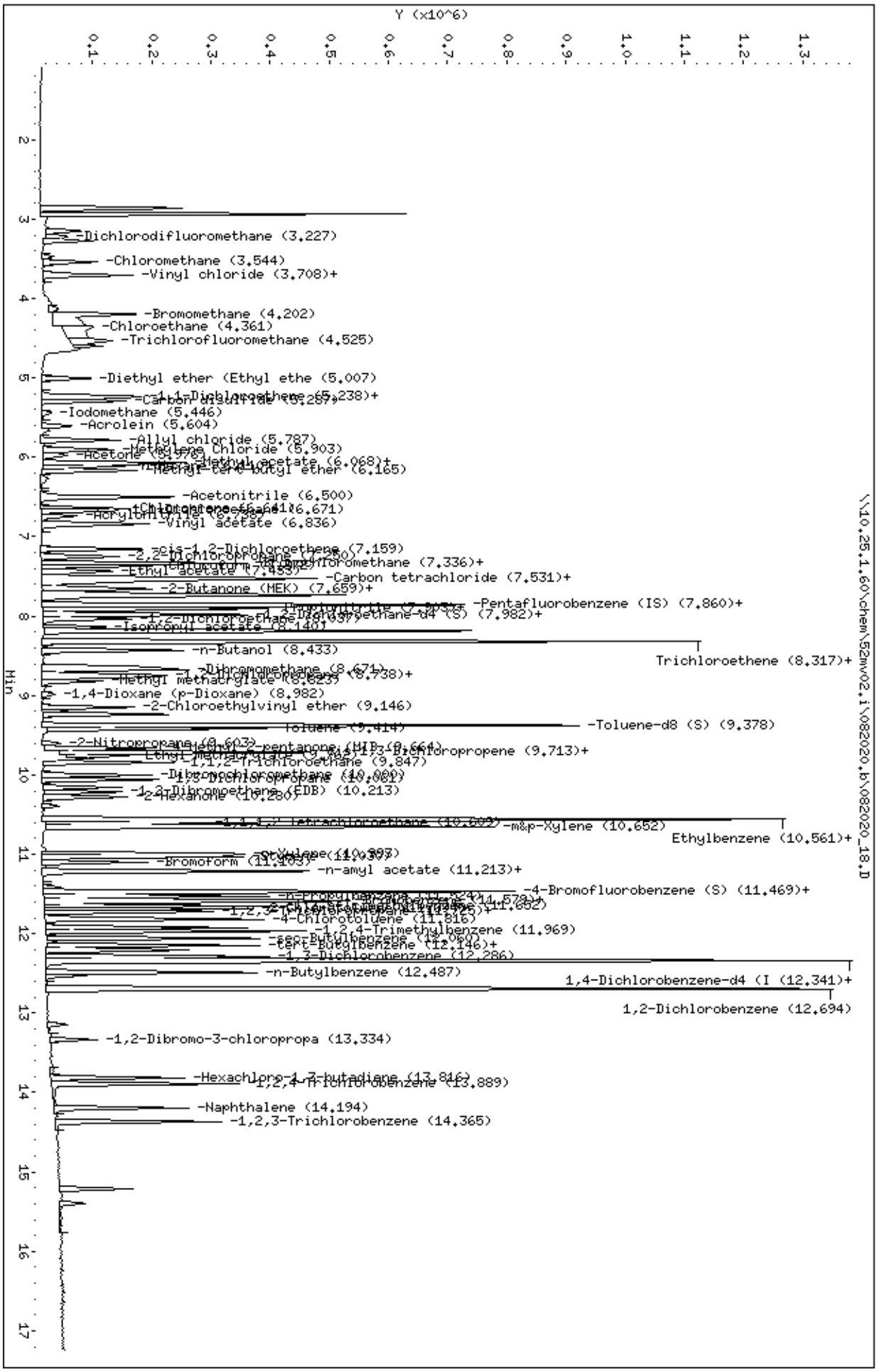
T - Target compound detected outside RT window.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.
D - User disabled compound identification.

Review Codes Legend

LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_18.D
Date : 20-AUG-2020 17:06
Client ID: ICV
Sample Info: ICV, 27249:1
Purge Volume: 5.0
Column phase: RTX-VMS

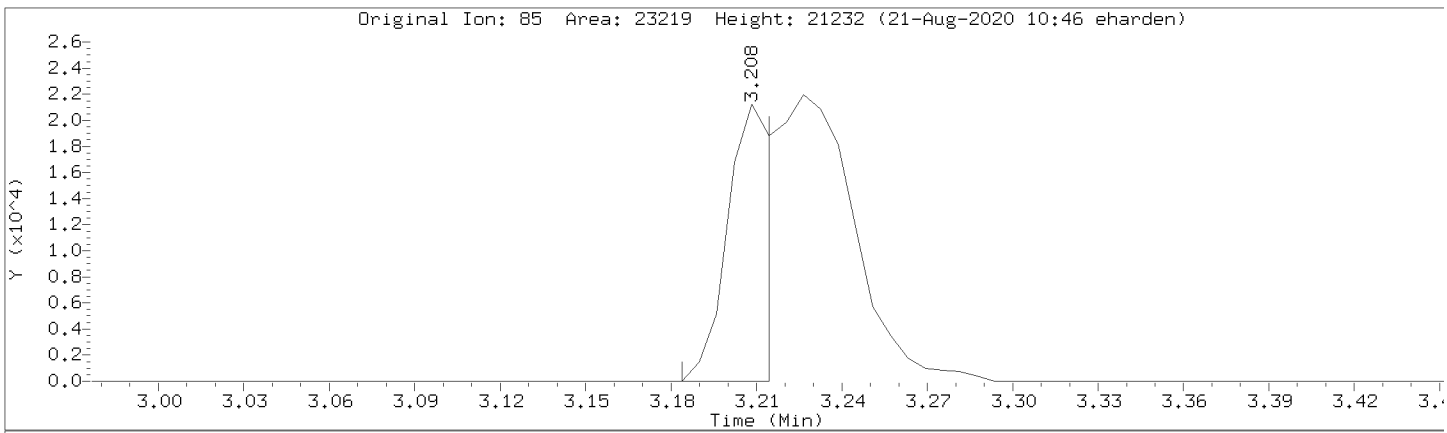
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

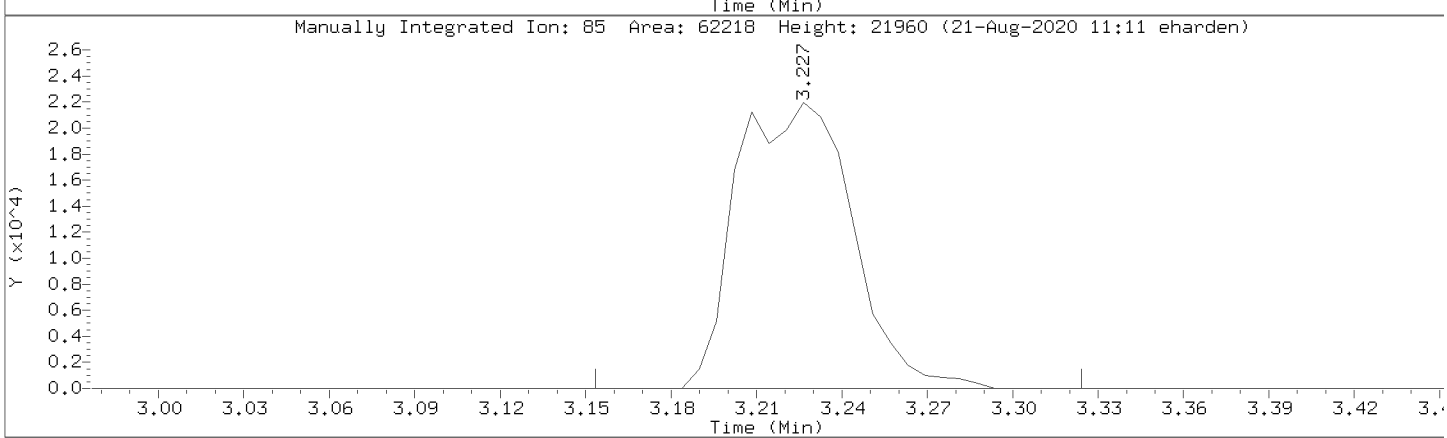


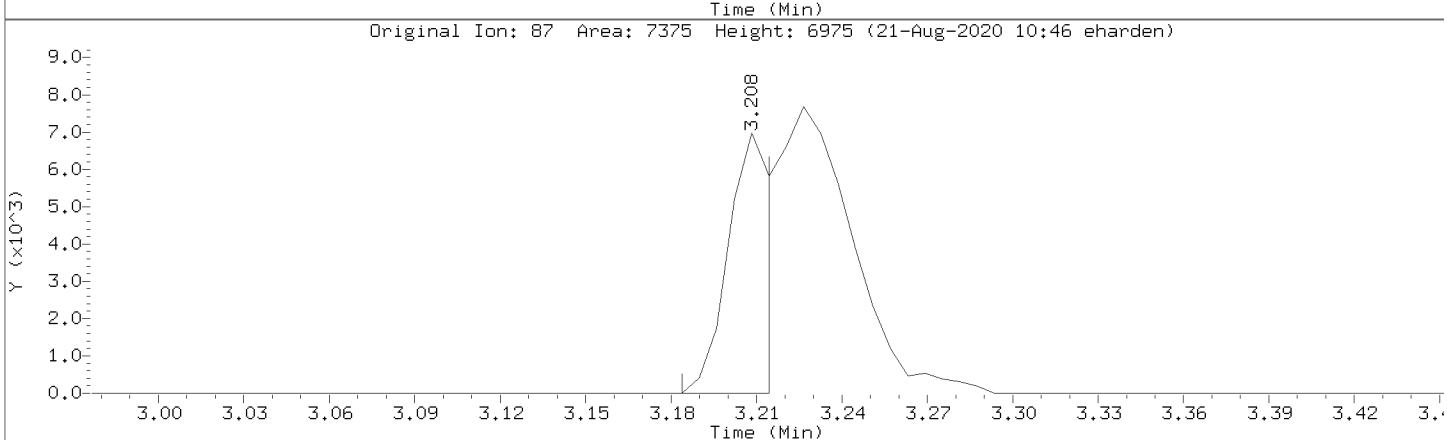
Page 4

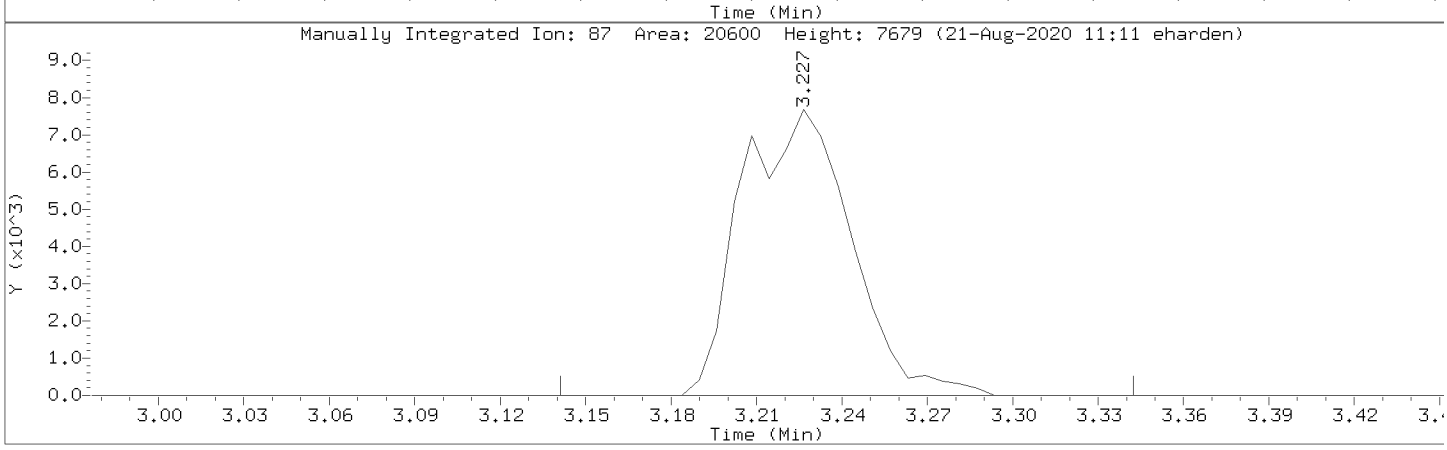
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_18.D
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: Dichlorodifluoromethane Review Code: LT
CAS Number: 75-71-8









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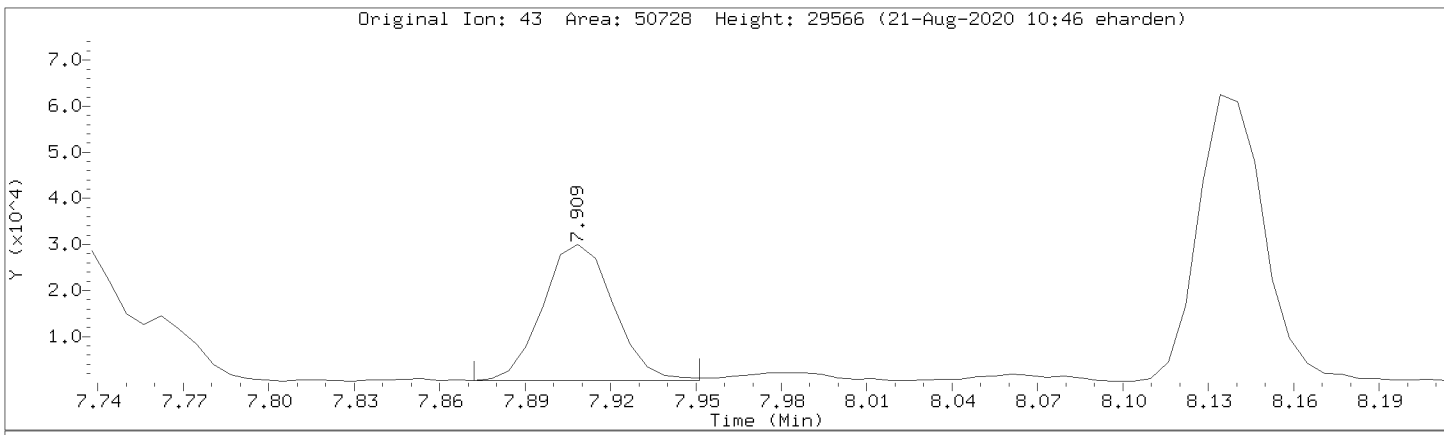
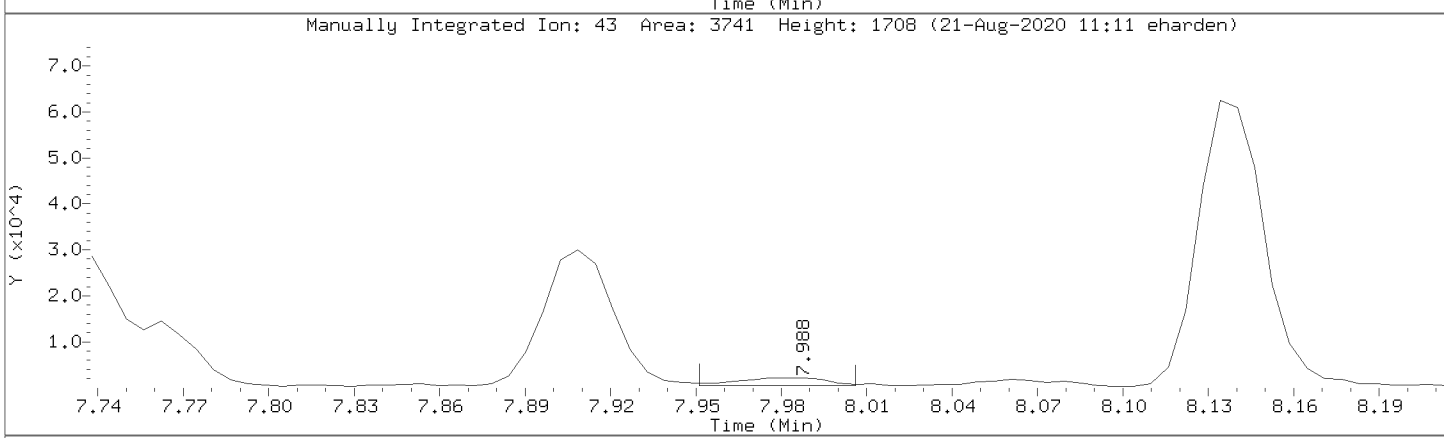
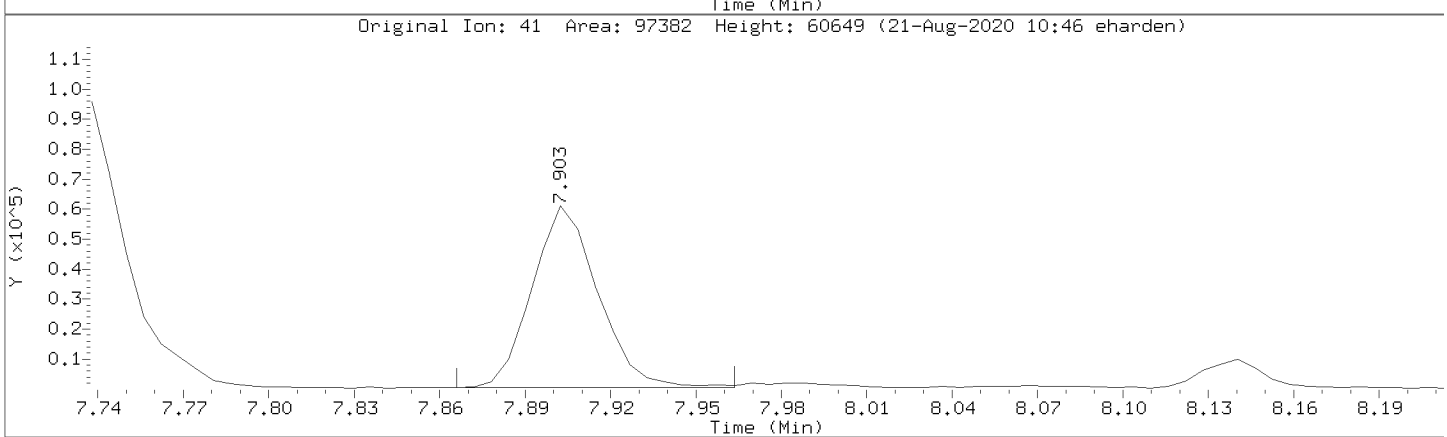
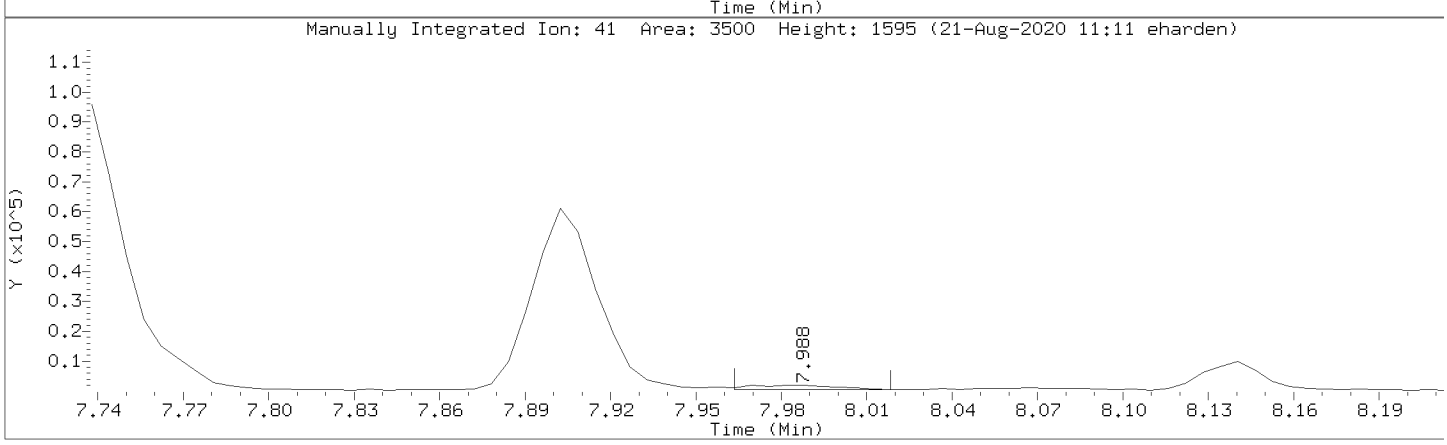
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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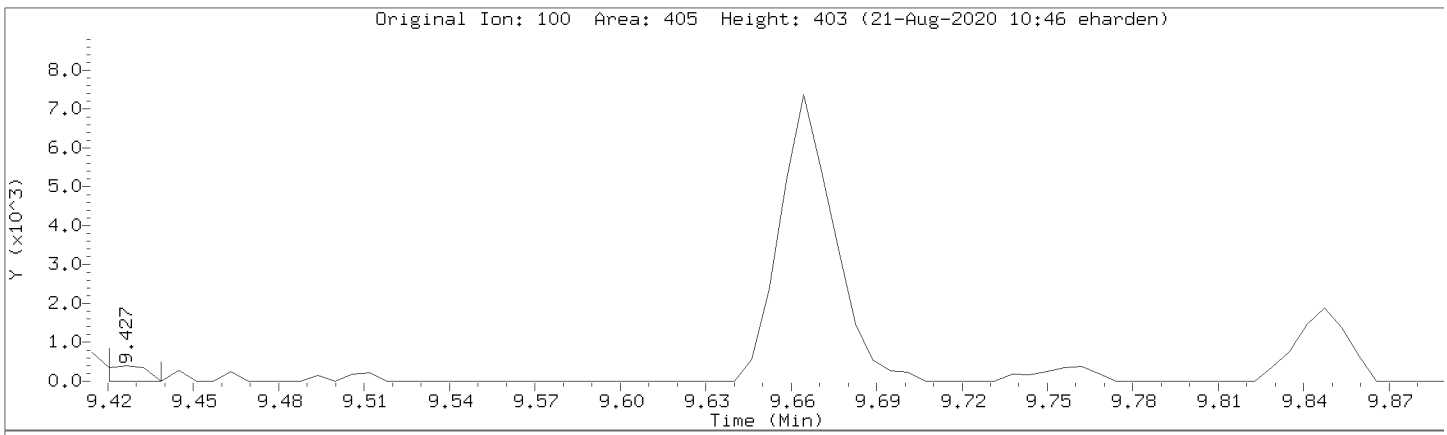
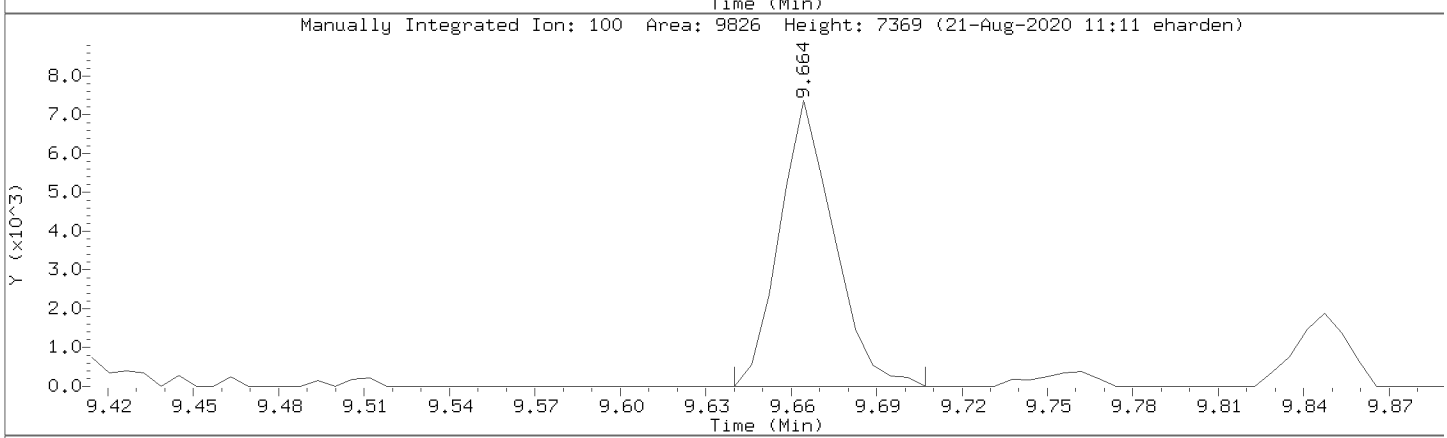
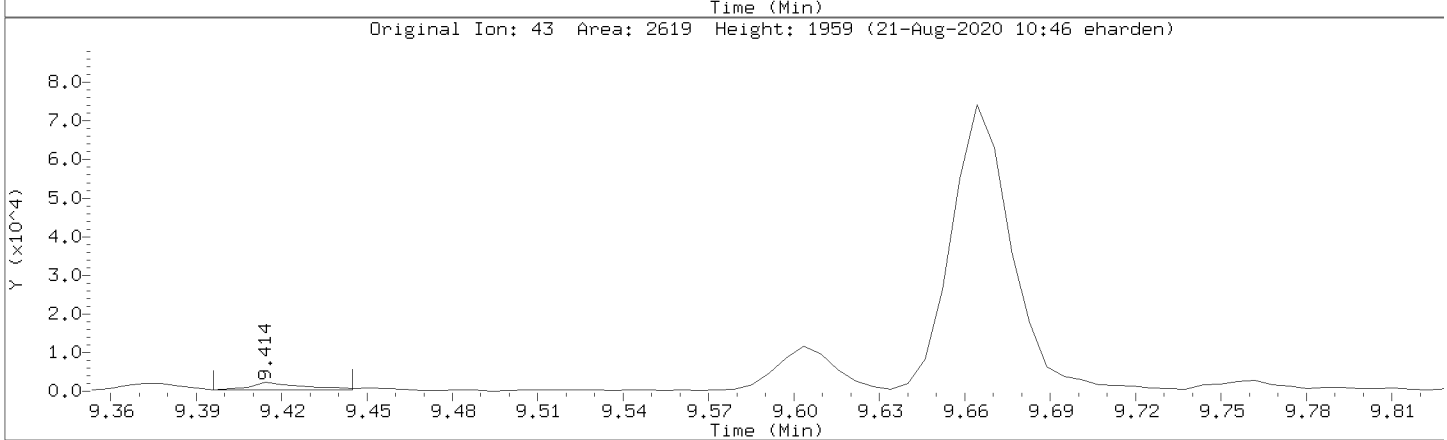
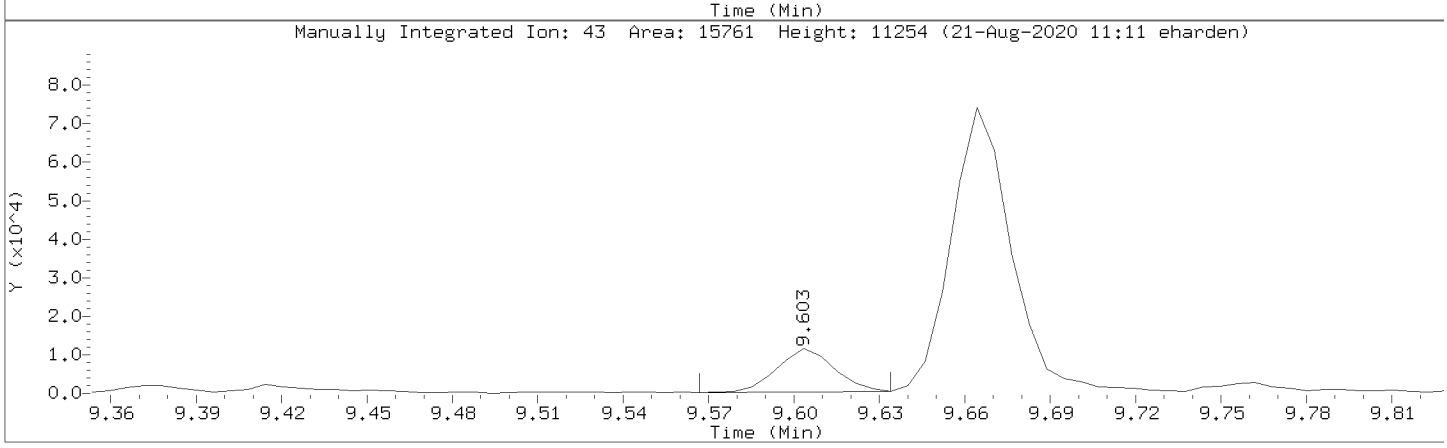
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: 4-Methyl-2-pentanone (MIBK) Review Code: WP
CAS Number: 108-10-1









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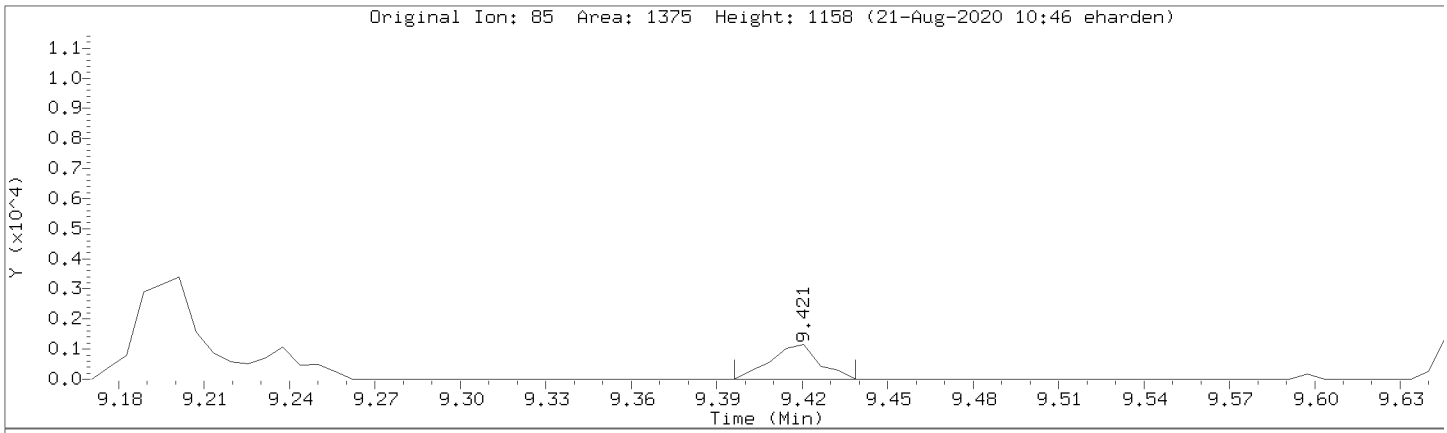
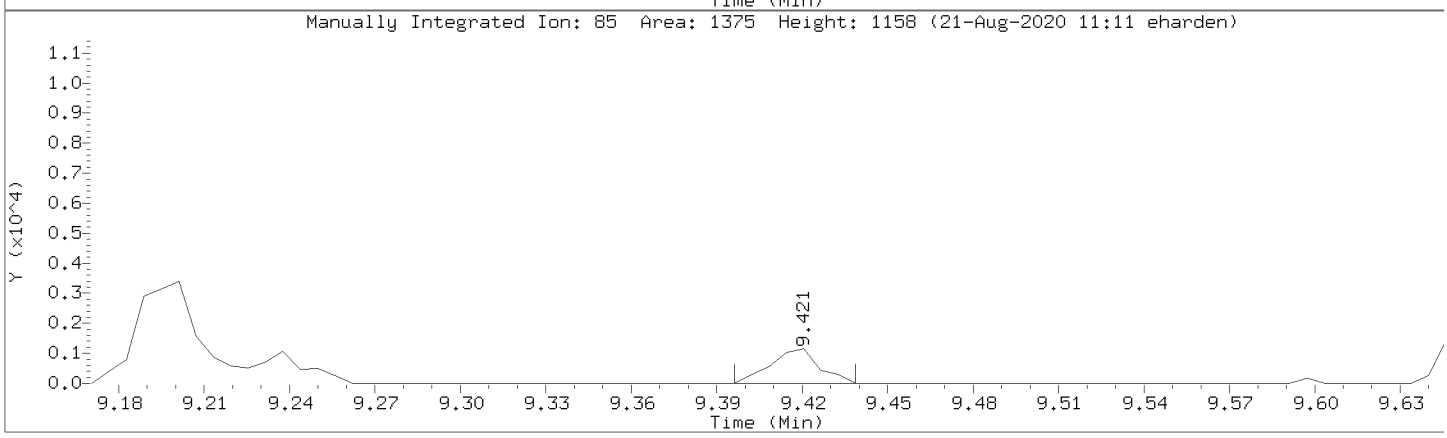
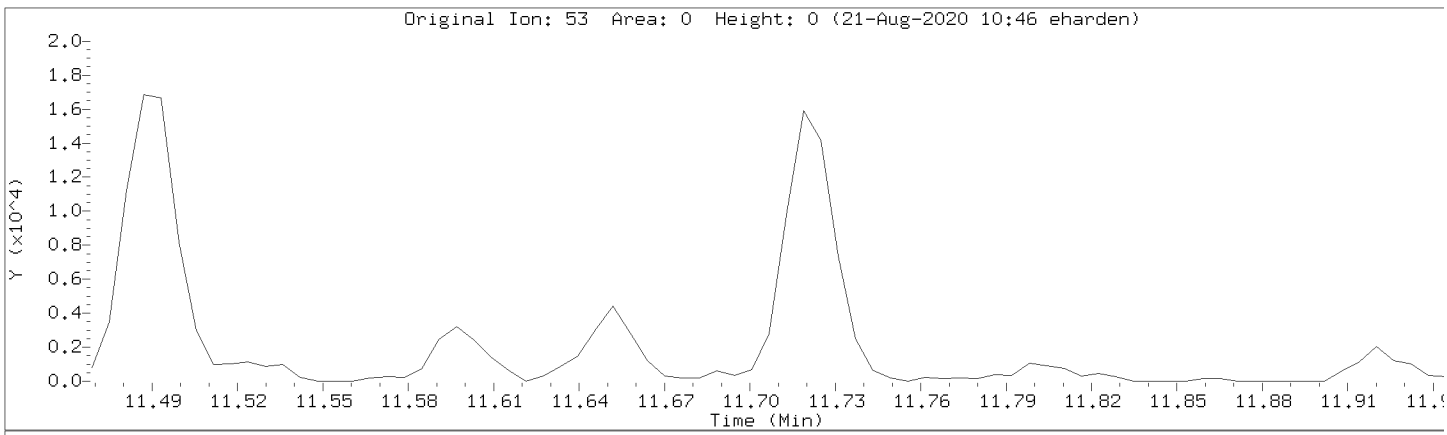
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

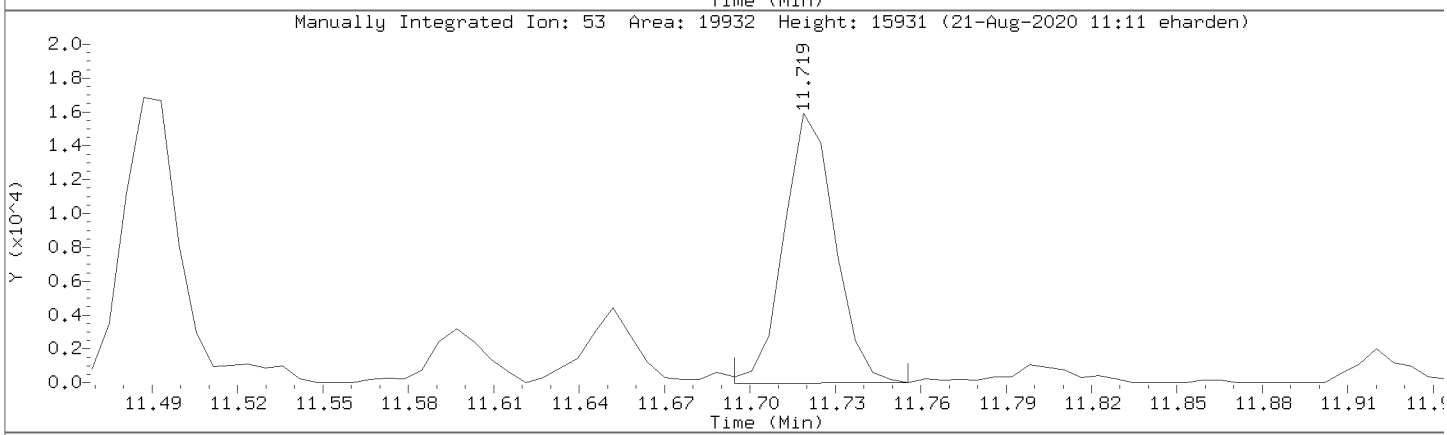


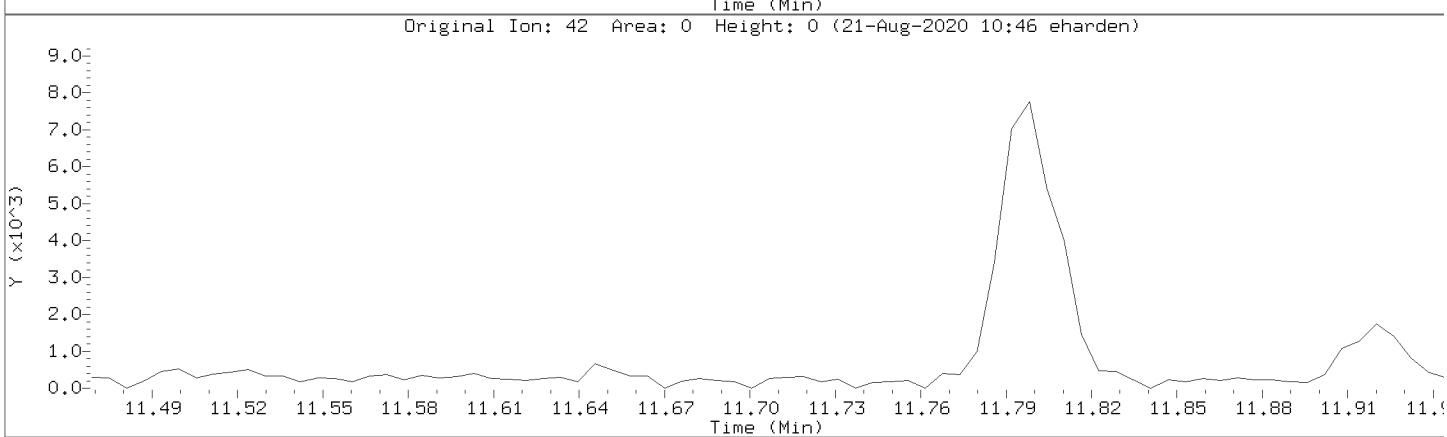


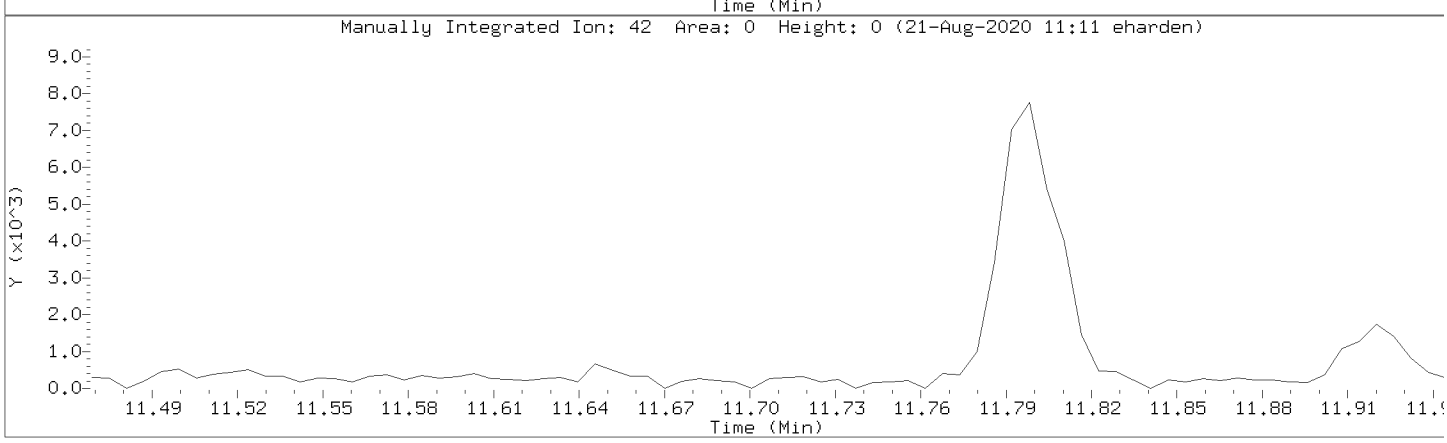
Data File: \\10.25.1.60\chem\52mv02.i\082020.b/082020_18.D
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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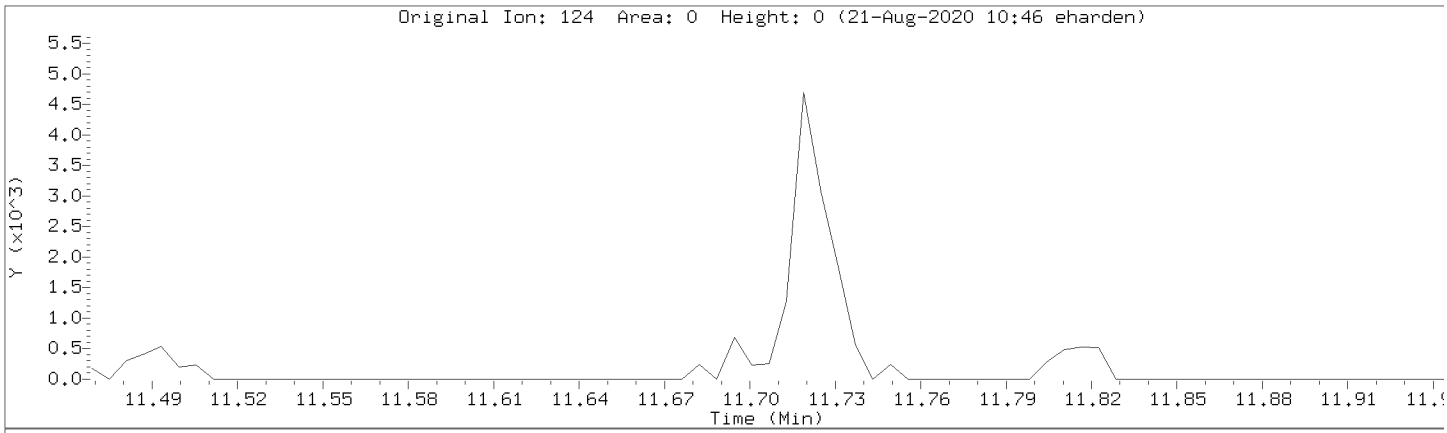
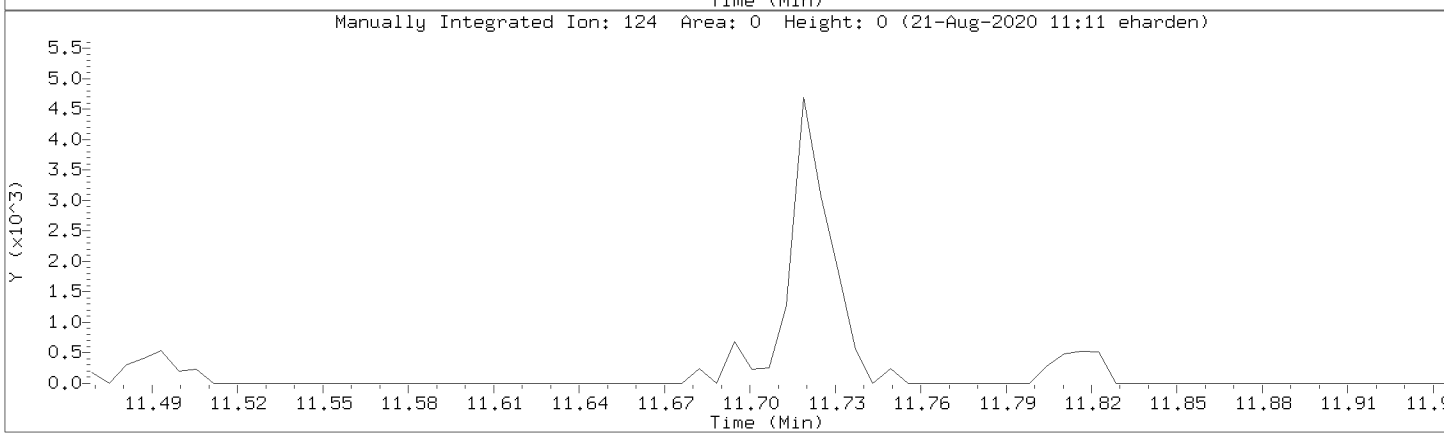
Injection Date: 20-AUG-2020 17:06
Instrument: 52mv02.i
Lab Sample ID: ICV





Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082820.b\082820_03.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 28-AUG-2020 13:17
Operator : EAH Inst ID: 52mv02.i
Smp Info : ccv,27466:1
Misc Info : 2957,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082820.b\8260BSM_082020.m
Meth Date : 28-Aug-2020 13:40 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 52-VOA-TGTWK2

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.208	(0.408)	38157	20.0000	14.5	
2 Chloromethane	50	3.537	3.537	(0.450)	66002	20.0000	20.9	
3 Vinyl chloride	62	3.690	3.690	(0.469)	47564	20.0000	18.3	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	43172	20.0000	18.6	
5 Bromomethane	94	4.196	4.196	(0.534)	50627	20.0000	24.1	
6 Chloroethane	64	4.360	4.360	(0.555)	17277	20.0000	23.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	43237	20.0000	26.2	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	16180	20.0000	17.8	
9 1,1-Dichloroethene	61	5.232	5.232	(0.666)	58873	20.0000	20.1	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	40352	20.0000	20.8	
11 Carbon disulfide	76	5.293	5.293	(0.673)	127301	20.0000	19.6	
12 Iodomethane	142	5.439	5.439	(0.692)	17485	20.0000	15.5	
13 Acrolein	56	5.659	5.659	(0.720)	9788	40.0000	32.3	
14 Allyl chloride	76	5.787	5.787	(0.736)	16417	20.0000	18.2	
15 Methylene Chloride	49	5.903	5.903	(0.751)	67417	20.0000	19.3	
16 Acetone	43	5.964	5.964	(0.759)	70581	40.0000	40.5	
17 Methyl acetate	43	6.067	6.067	(0.772)	73632	40.0000	36.2	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	39052	20.0000	19.7	
19 n-Hexane	86	6.116	6.116	(0.778)	3700	20.0000	17.6	
20 Methyl-tert-butyl ether	73	6.159	6.159	(0.784)	90074	20.0000	19.5	
21 Acetonitrile	41	6.457	6.457	(0.822)	9103	40.0000	49.2	
22 Chloroprene	53	6.640	6.640	(0.845)	55143	20.0000	20.0	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	79624	20.0000	20.7	
	24 Acrylonitrile	53	6.732	6.732	(0.857)	31412	40.0000	37.6	
	25 Vinyl acetate	43	6.860	6.860	(0.873)	66632	20.0000	17.5(TM)	CO
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	55037	20.0000	19.4	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	63390	20.0000	21.3	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	25943	20.0000	20.9	
	29 Cyclohexane	56	7.335	7.335	(0.882)	46447	20.0000	19.2	
	30 Chloroform	83	7.366	7.366	(0.937)	90052	20.0000	20.7	
	31 Ethyl acetate	43	7.427	7.427	(0.945)	90142	40.0000	36.7	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	67513	20.0000	23.6	
	33 Tetrahydrofuran	42	7.530	7.530	(0.958)	22078	40.0000	34.8	
$	34 Dibromofluoromethane (S)	113	7.524	7.524	(0.957)	123149	50.0000	48.9	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	73179	20.0000	22.6	
	36 2-Butanone (MEK)	43	7.622	7.622	(0.970)	63560	40.0000	33.9	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	46903	20.0000	20.8	
*	38 Pentafluorobenzene (IS)	168	7.860	7.860	(1.000)	218660	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	154263	20.0000	21.2	
	40 Propionitrile	54	7.896	7.896	(1.005)	15374	40.0000	41.2	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	71356	40.0000	37.6	
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21364	50.0000	47.2	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	71274	20.0000	20.8	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	74627	20.0000	18.3	
	46 Trichloroethene	130	8.317	8.317	(1.000)	42557	20.0000	21.4	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	283966	50.0000		
	48 Methylcyclohexane	98	8.323	8.323	(1.001)	18997	20.0000	20.2	
	49 n-Butanol	56	8.518	8.518	(1.024)	1544	40.0000	35.6(M)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	35411	20.0000	20.9	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	43880	20.0000	21.2	
	52 Bromodichloromethane	83	8.762	8.762	(1.054)	69077	20.0000	23.2	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	20465	20.0000	17.5	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	34086	40.0000	32.9	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	62297	20.0000	21.5	
$	57 Toluene-d8 (S)	98	9.371	9.371	(1.127)	306674	50.0000	50.2	
	58 Toluene	91	9.414	9.414	(1.132)	151755	20.0000	21.4	
	59 2-Nitropropane	43	9.597	9.597	(1.154)	11399	20.0000	15.8	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	8441	40.0000	41.5	
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	62297	20.0000	21.6	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	41487	20.0000	22.0	
	63 Ethyl methacrylate	69	9.755	9.755	(1.173)	38369	20.0000	17.2	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	36015	20.0000	20.1	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	59267	20.0000	22.7	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	59596	20.0000	21.8	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	44938	20.0000	20.1	
	68 2-Hexanone	43	10.274	10.274	(1.235)	99026	40.0000	41.3	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	141841	20.0000	19.7	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	274556	50.0000		
	71 Chlorobenzene	112	10.572	10.572	(1.001)	110275	20.0000	20.8	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	46976	20.0000	21.0	
	73 m&p-Xylene	91	10.652	10.652	(1.009)	238196	40.0000	38.2	
	74 o-Xylene	106	10.993	10.993	(1.041)	48077	20.0000	16.6	
	75 Styrene	104	11.030	11.030	(1.044)	89499	20.0000	17.7	
	76 Bromoform	173	11.103	11.103	(1.051)	52954	20.0000	21.3	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
77 n-amyl acetate	43	11.225	11.225	(1.063)	73401	20.0000	17.1	
$ 78 4-Bromofluorobenzene (S)	95	11.469	11.469	(1.086)	113795	50.0000	50.5	
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	18028	20.0000	20.0	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	179409	20.0000	20.4	
81 Bromobenzene	156	11.578	11.578	(1.096)	59455	20.0000	21.4	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	59798	20.0000	20.4	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	117823	20.0000	19.6	
84 2-Chlorotoluene	126	11.688	11.688	(1.107)	41685	20.0000	20.1	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	39622	20.0000	19.0	
86 Isopropylbenzene (Cumene)	105	11.213	11.213	(1.062)	127023	20.0000	17.1	
87 1,2,3-Trichloropropane	75	11.719	11.719	(1.110)	61129	20.0000	19.9	
88 trans-1,4-Dichloro-2-butene	53	11.719	11.719	(1.110)	15579	20.0000	22.0(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	113060	20.0000	16.5	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	124906	20.0000	18.0	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	144647	20.0000	17.6	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	113060	20.0000	16.5	
94 1,3-Dichlorobenzene	146	12.285	12.285	(0.996)	99267	20.0000	20.5	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	181616	50.0000		
96 1,4-Dichlorobenzene	146	12.353	12.353	(1.001)	107114	20.0000	19.6	
97 n-Butylbenzene	91	12.487	12.487	(1.012)	122774	20.0000	19.4	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	102393	20.0000	19.4	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.334	(1.081)	10156	20.0000	17.1	
100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	31046	20.0000	19.2	
101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	62261	20.0000	17.4	
102 Naphthalene	128	14.194	14.194	(1.150)	96274	20.0000	14.0	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	59577	20.0000	17.9	

QC Flag Legend

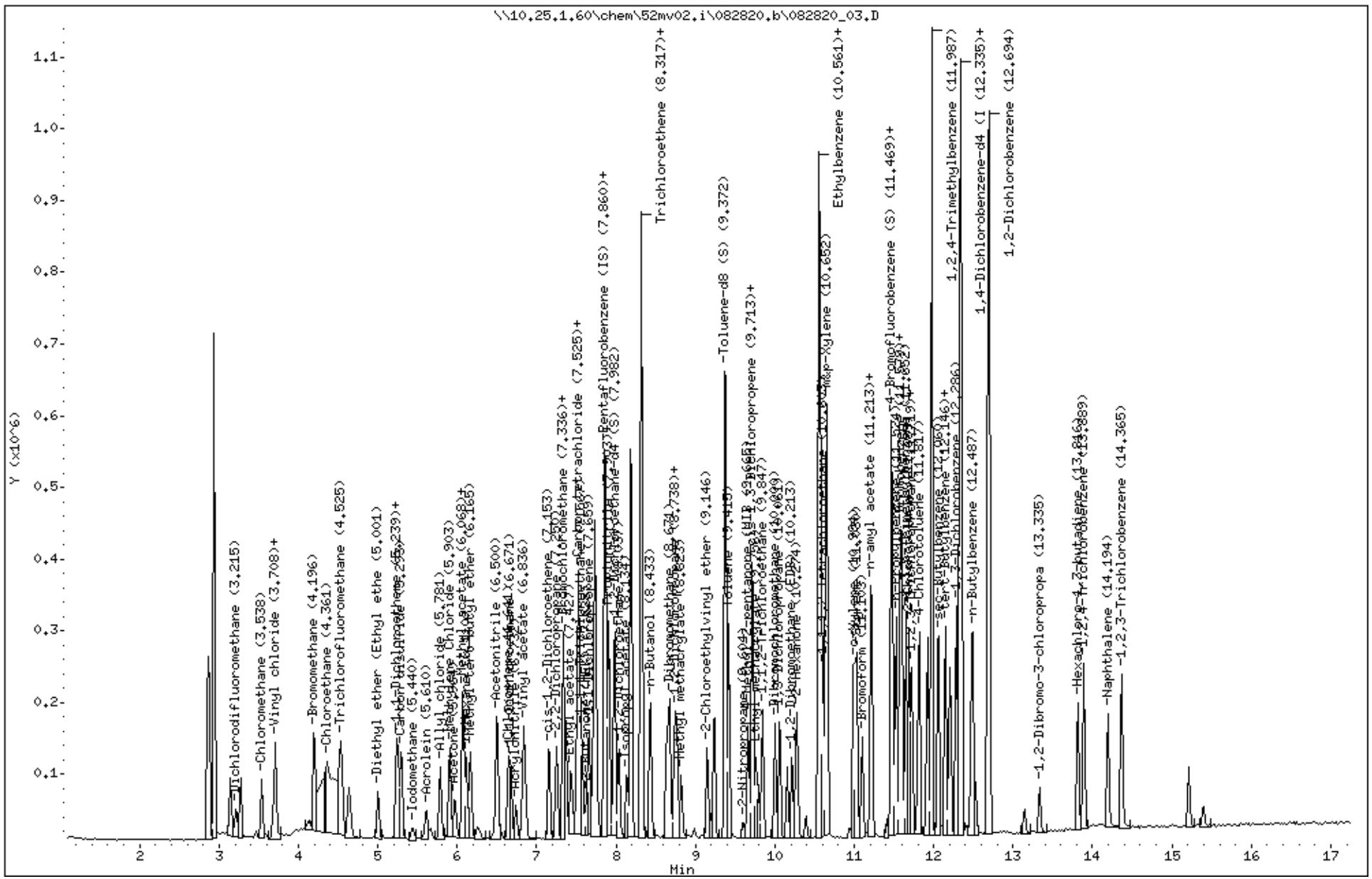
T - Target compound detected outside RT window.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

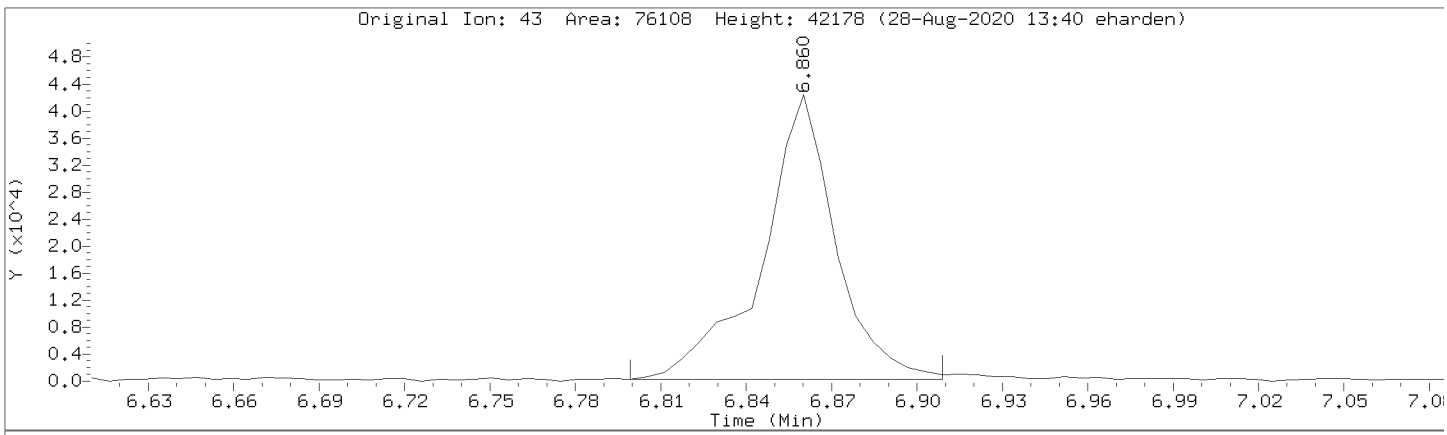
Data File: \\10.25.1.60\chem\52mv02.i\082820.b\082820_03.D
Date : 28-AUG-2020 13:17
Client ID: CCV
Sample Info: CCV,27466:1
Purge Volume: 5.0
Column phase: RTX-VMS

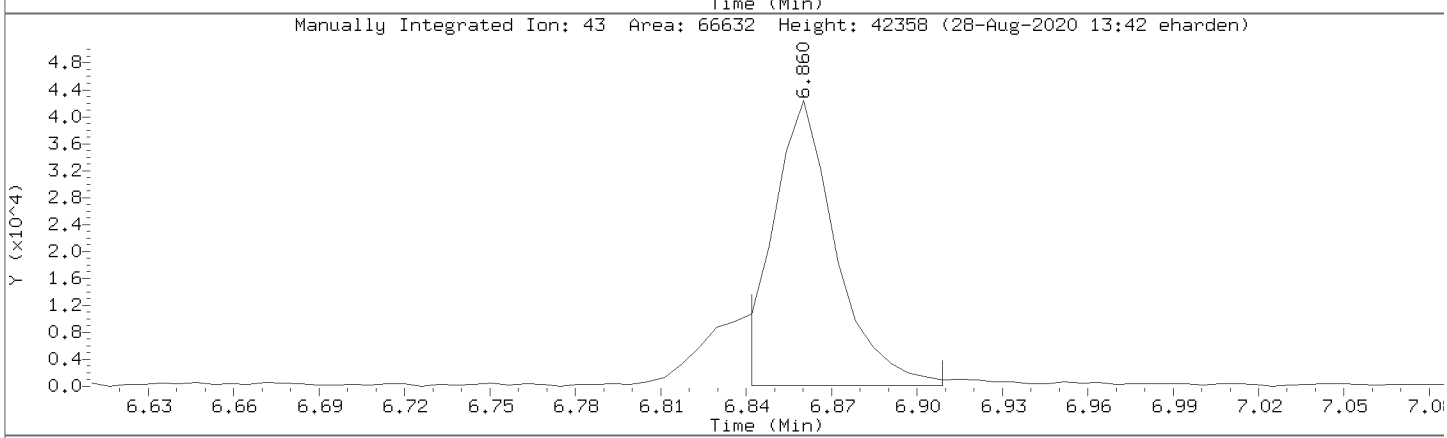
Instrument: 52mv02.i
Operator: EAH
Column diameter: 0.18

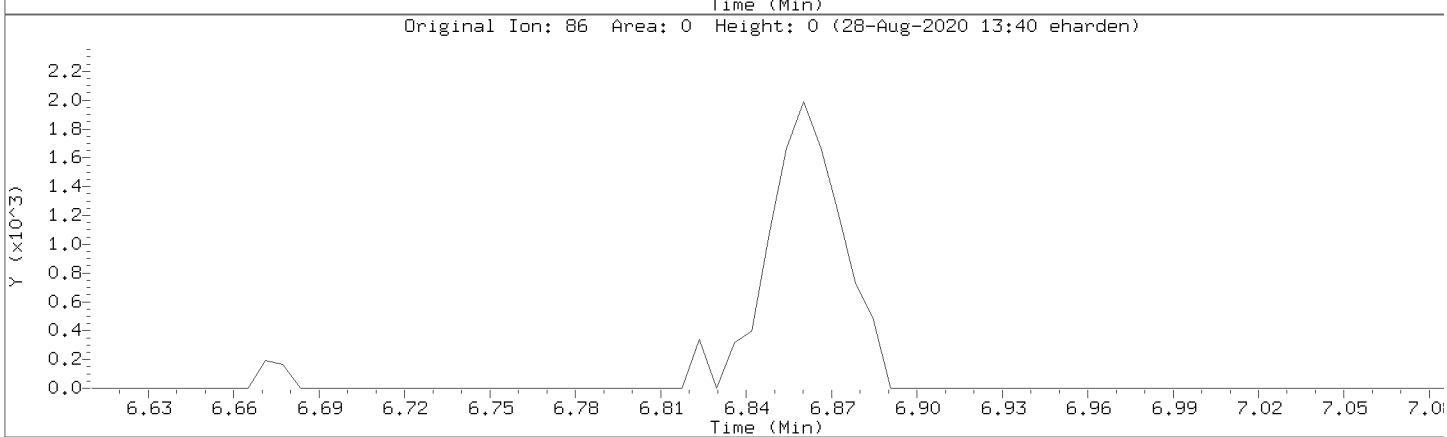


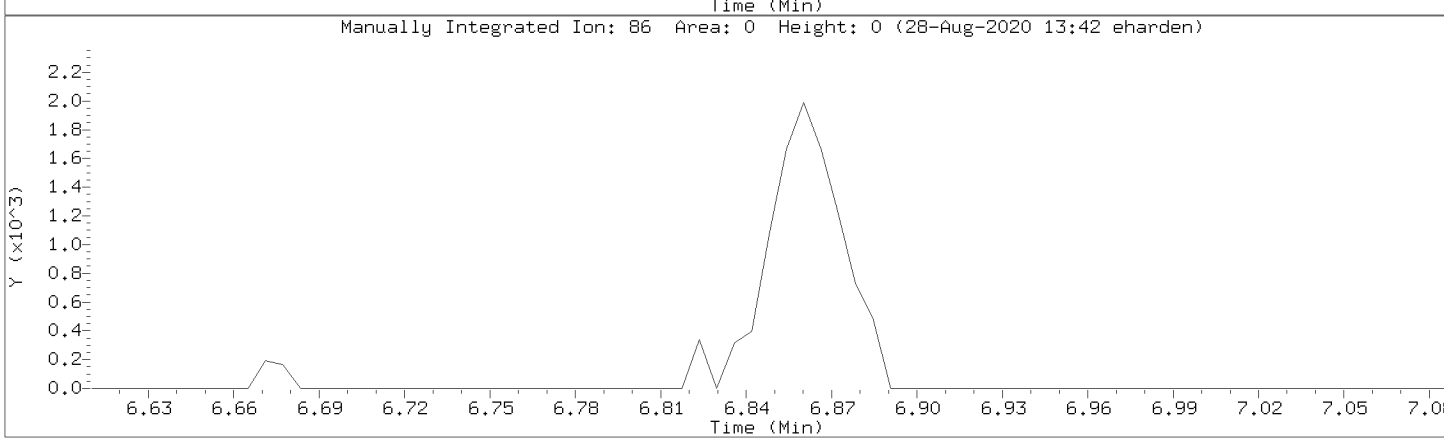
Data File: \\10.25.1.60\chem\52mv02.i\082820.b/082820_03.D
Injection Date: 28-AUG-2020 13:17
Instrument: 52mv02.i
Lab Sample ID: CCV

Compound: Vinyl acetate Review Code: CO
CAS Number: 108-05-4









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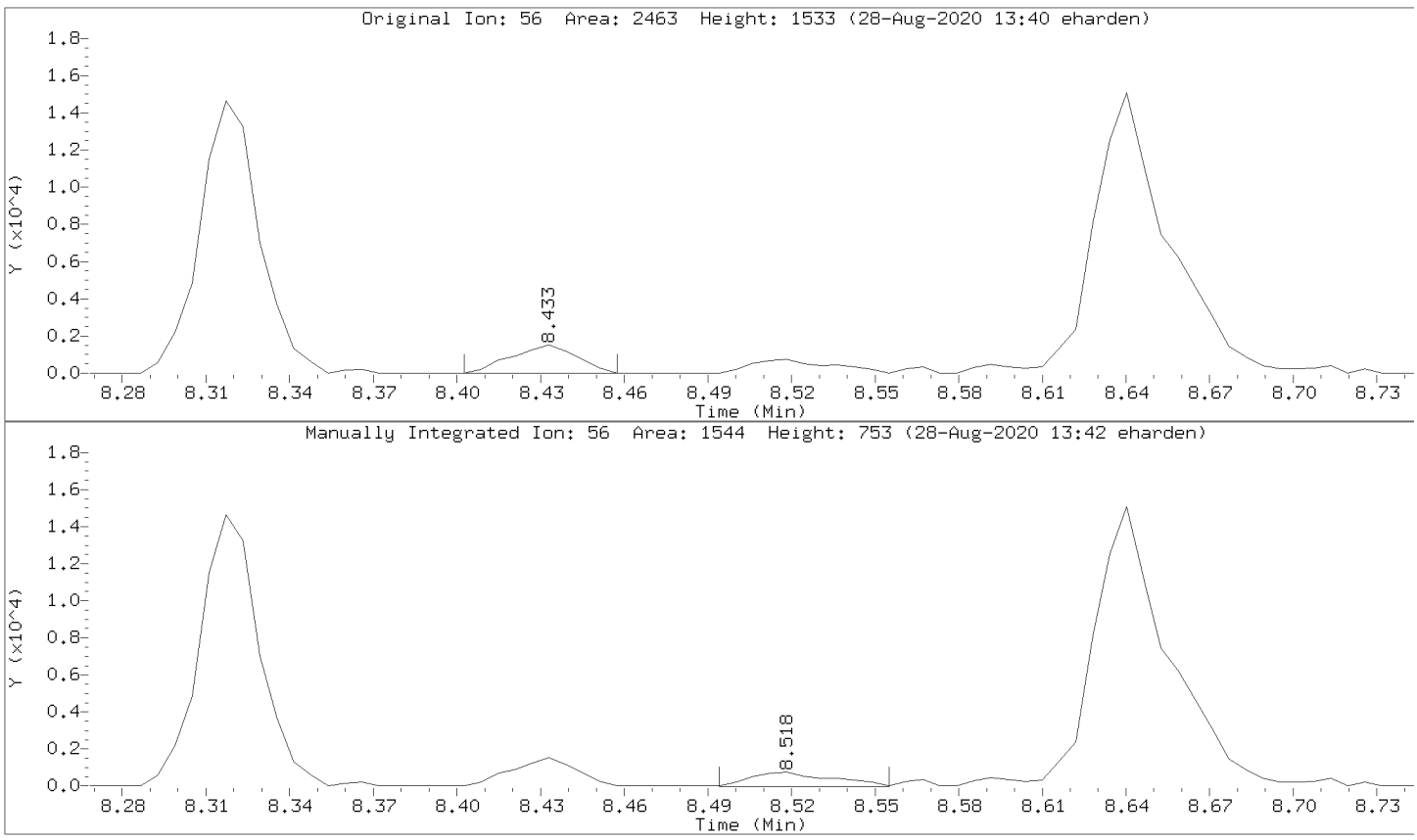
Injection Date: 28-AUG-2020 13:17
Instrument: 52mv02.i
Lab Sample ID: CCV

Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3



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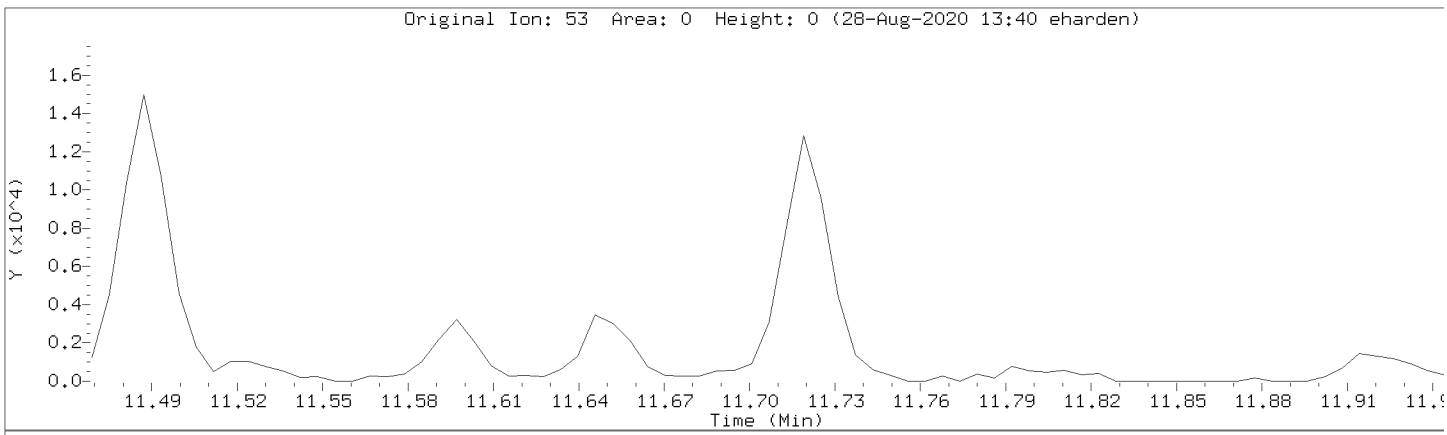
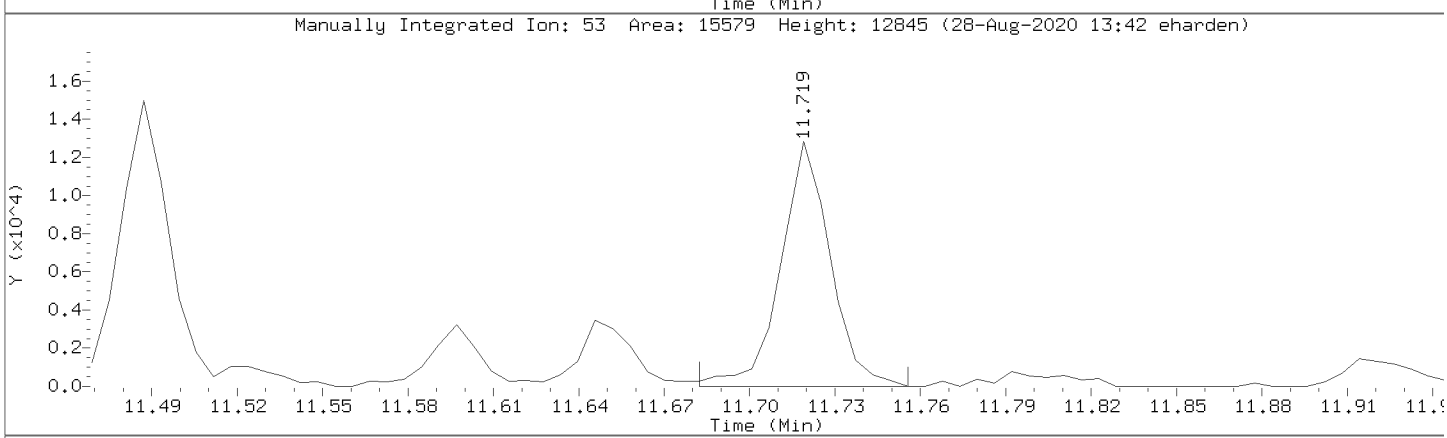
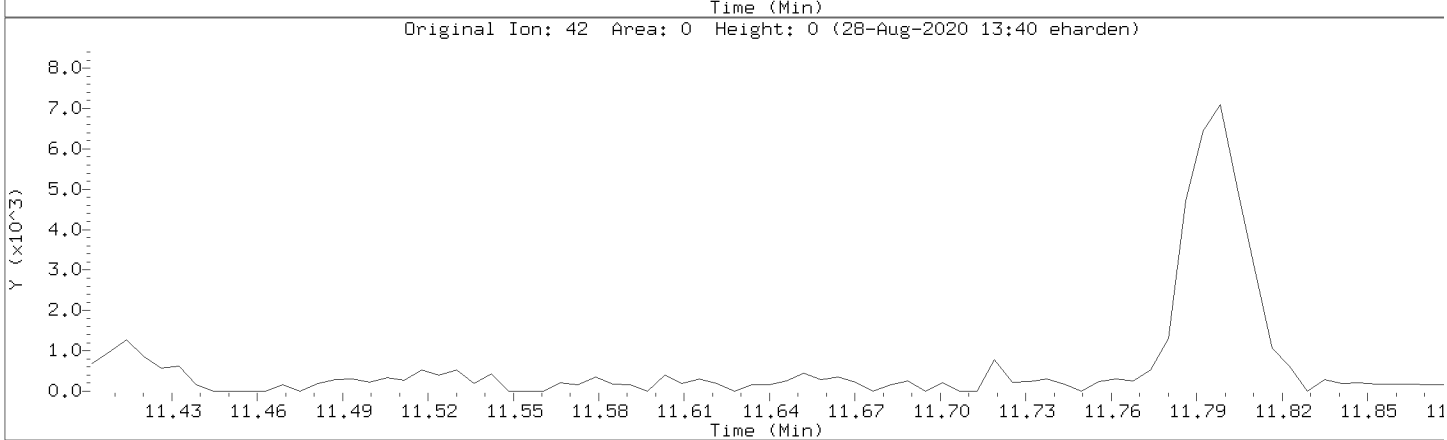
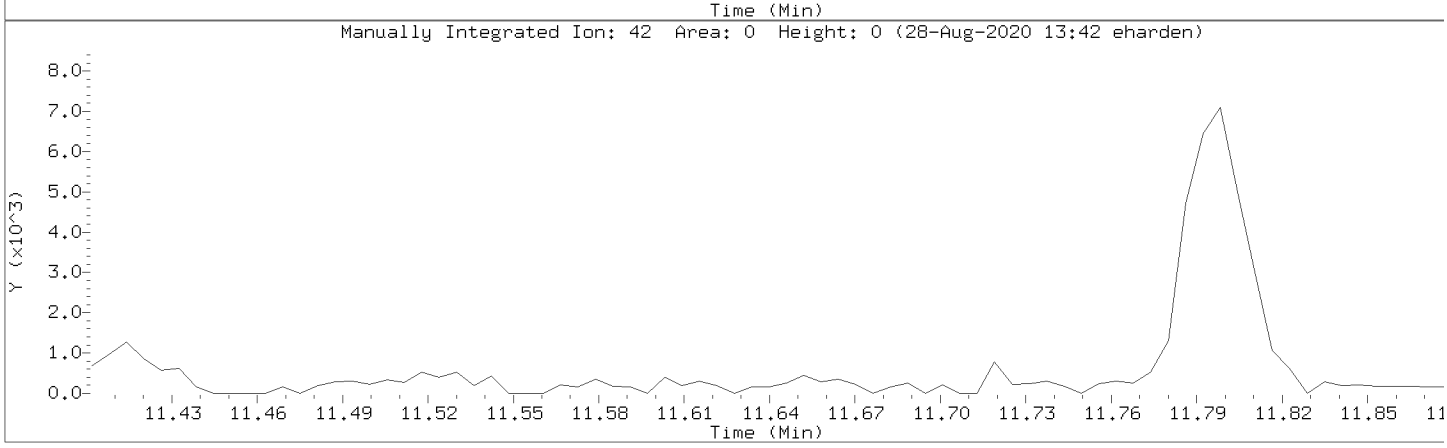
Injection Date: 28-AUG-2020 13:17
Instrument: 52mv02.i
Lab Sample ID: CCV

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6

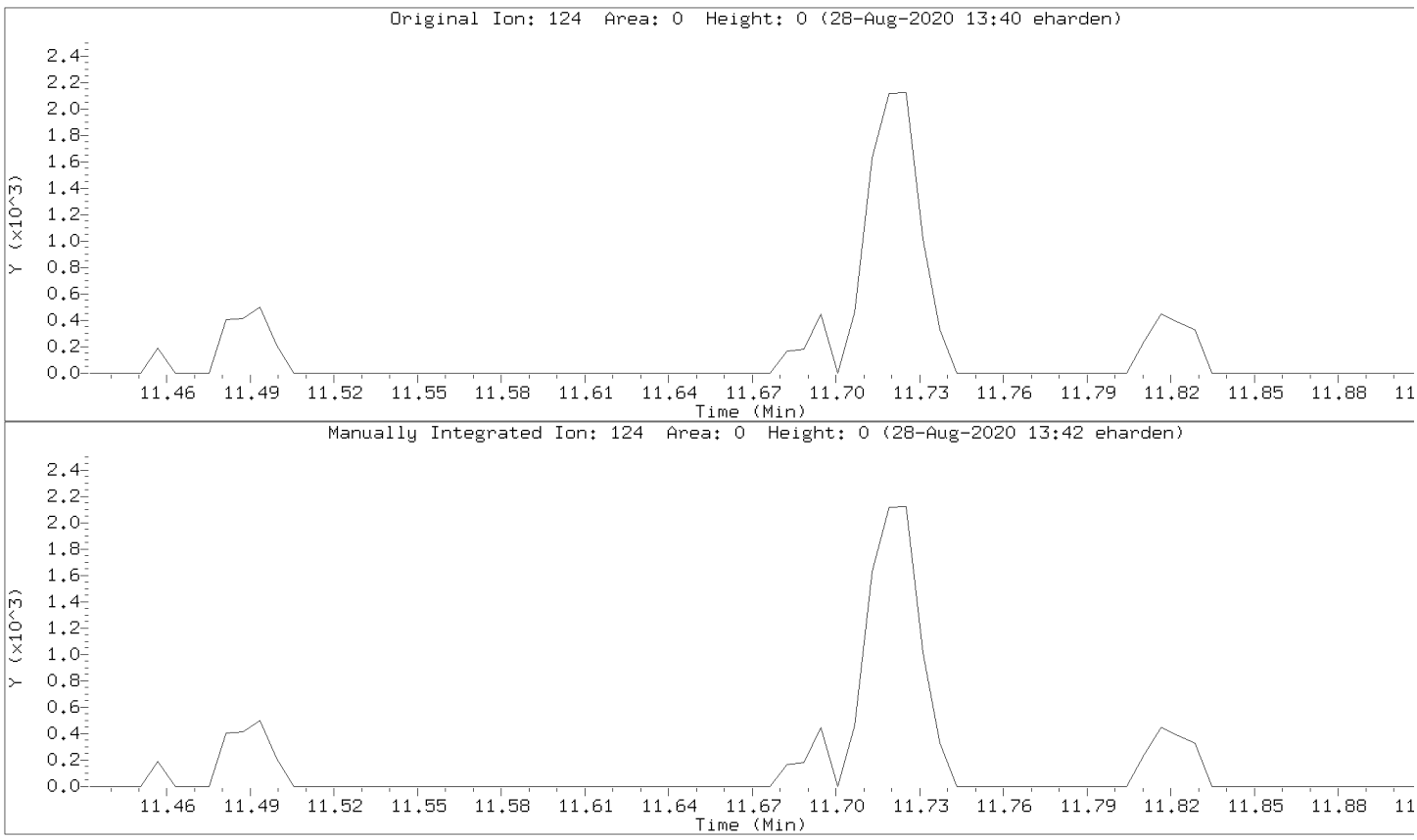








Data File: \\10.25.1.60\chem\52mv02.i\082820.b/082820_03.D
Injection Date: 28-AUG-2020 13:17
Instrument: 52mv02.i
Lab Sample ID: CCV



Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_01.D

Date : 20-AUG-2020 09:57

Client ID: BFB

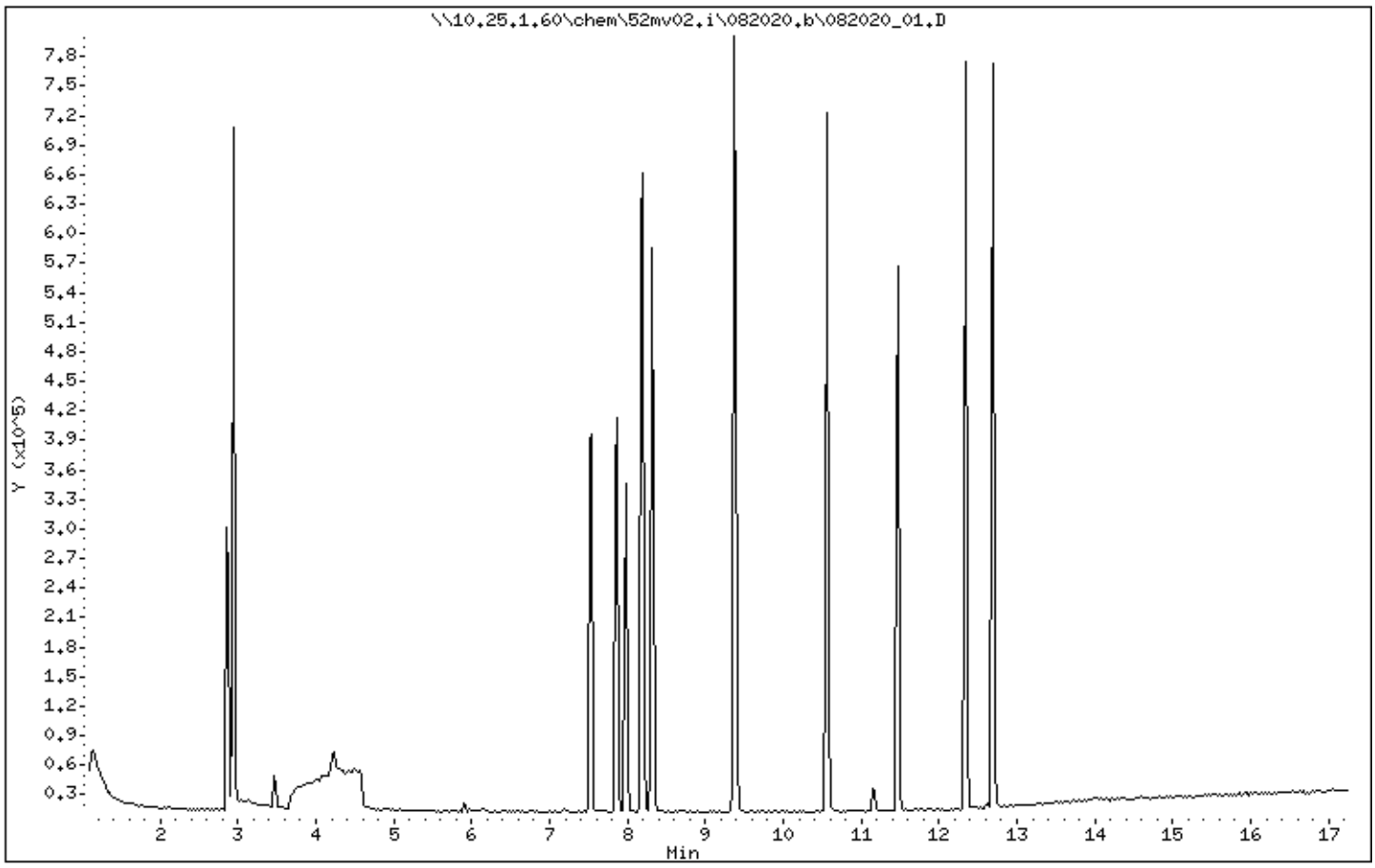
Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_01.D

Date : 20-AUG-2020 09:57

Client ID: BFB

Instrument: 52mv02.i

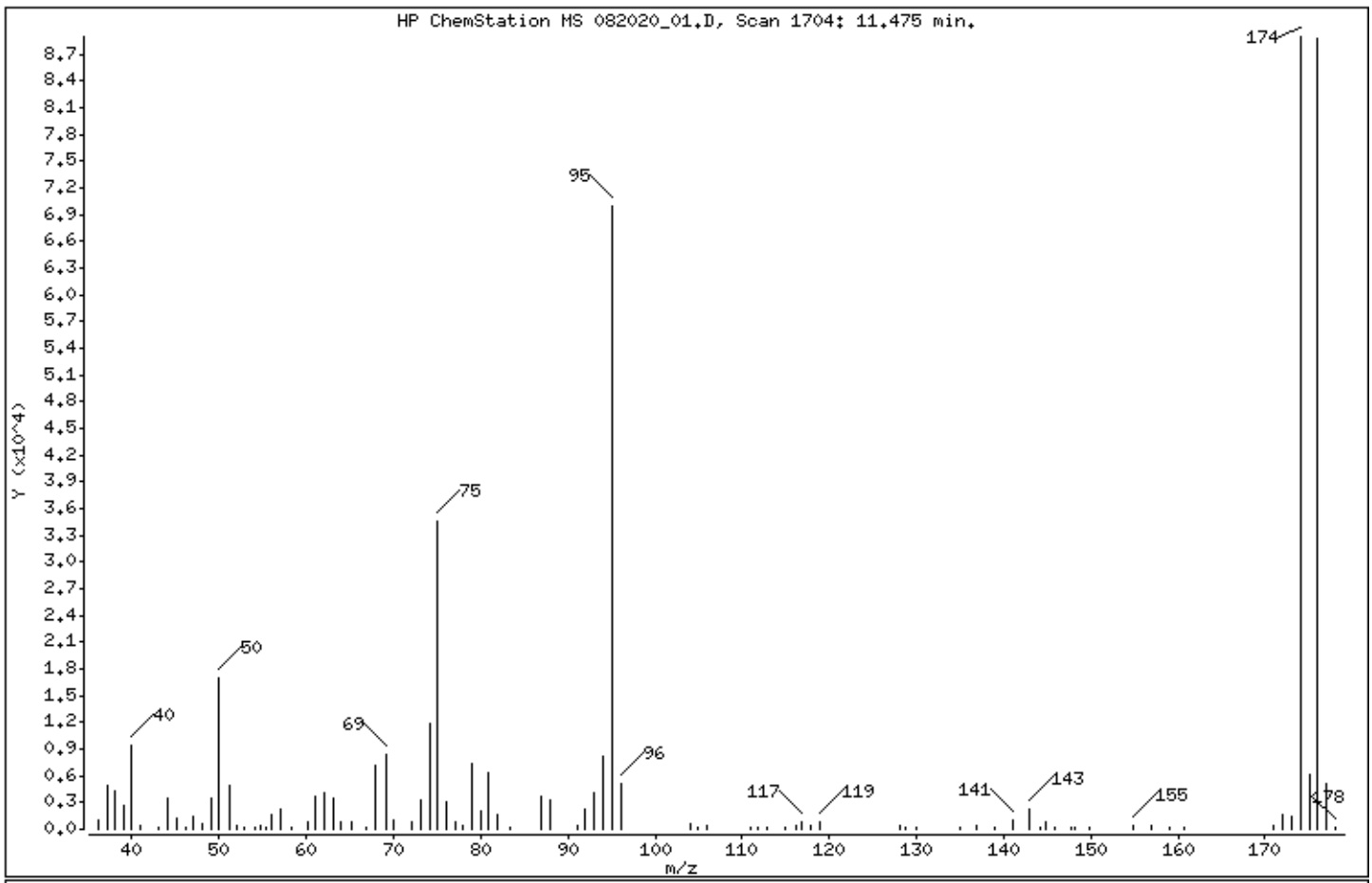
Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	24.30
75	30.00 - 60.00% of mass 95	49.31
96	5.00 - 9.00% of mass 95	7.36
173	Less than 2.00% of mass 174	2.18 (1.71)
174	Greater than 50.00% of mass 95	127.30
175	5.00 - 9.00% of mass 174	8.81 (6.92)
176	95.00 - 101.00% of mass 174	127.12 (99.86)
177	5.00 - 9.00% of mass 176	7.18 (5.65)

Data File: \\10.25.1.60\chem\52mv02.i\082020.b\082020_01.D

Date : 20-AUG-2020 09:57

Client ID: BFB

Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

Data File: 082020_01.D
Spectrum: HP ChemStation MS 082020_01.D, Scan 1704: 11.475 min.
Location of Maximum: 174.00
Number of points: 90

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	1098	60.10	905	87.90	3288	138.90	166
37.10	4897	61.10	3589	91.10	457	141.00	1123
38.10	4243	62.10	4175	92.00	2173	143.00	2215
39.00	2667	63.10	3523	93.00	4038	144.20	186
40.00	9368	63.90	778	94.10	8248	144.90	869
40.90	361	65.10	918	95.10	69920	145.90	188
43.00	292	66.90	193	96.10	5147	147.80	240
44.10	3452	68.00	7096	104.00	555	148.20	197
45.10	1204	69.10	8359	105.00	169	149.80	174
46.10	287	70.10	938	105.90	381	154.80	333
47.00	1467	72.00	732	110.90	175	156.90	307
48.00	627	73.10	3315	111.90	187	159.00	184
49.10	3548	74.10	11905	112.90	178	160.80	185
50.00	16992	75.10	34480	115.00	269	171.00	332
51.10	4943	76.00	3077	116.10	308	172.00	1687
52.00	318	77.10	845	116.90	765	173.00	1525
52.90	284	77.90	421	117.90	509	174.00	89008
54.10	194	78.90	7291	118.90	747	175.10	6163
54.80	315	80.00	1995	128.10	499	176.00	88880
55.30	249	80.90	6439	128.80	229	177.00	5023
56.10	1661	82.00	1621	130.00	283	178.10	199
57.10	2297	83.30	177	134.90	164		
58.20	201	87.00	3615	136.90	329		

Data File: \\10.25.1.60\chem\52mv02.i\082820.b\082820_03TUNE.D

Date : 28-AUG-2020 13:17

Client ID: BFB

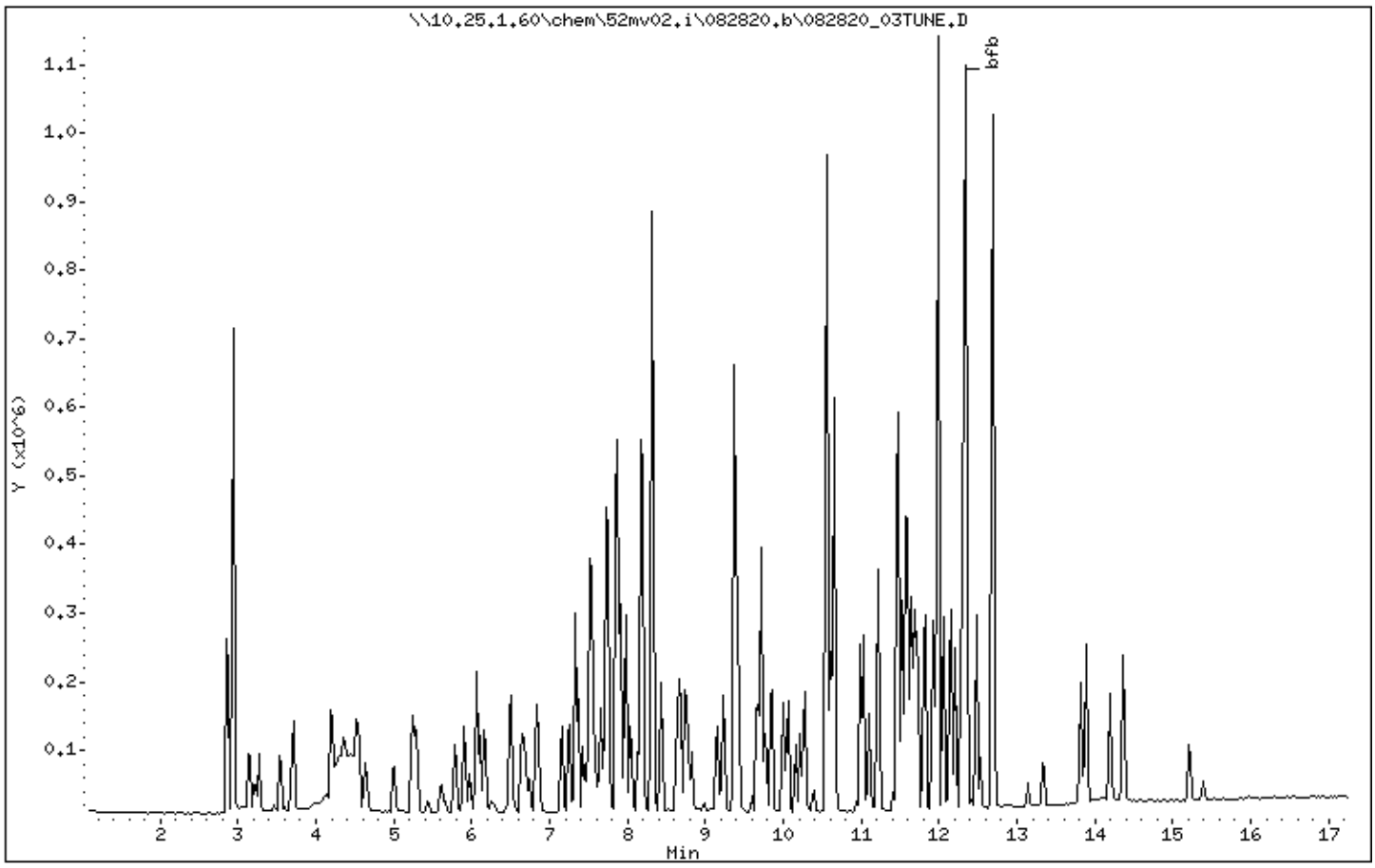
Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18



Data File: \\10.25.1.60\chem\52mv02.i\082820.b\082820_03TUNE.D

Date : 28-AUG-2020 13:17

Client ID: BFB

Instrument: 52mv02.i

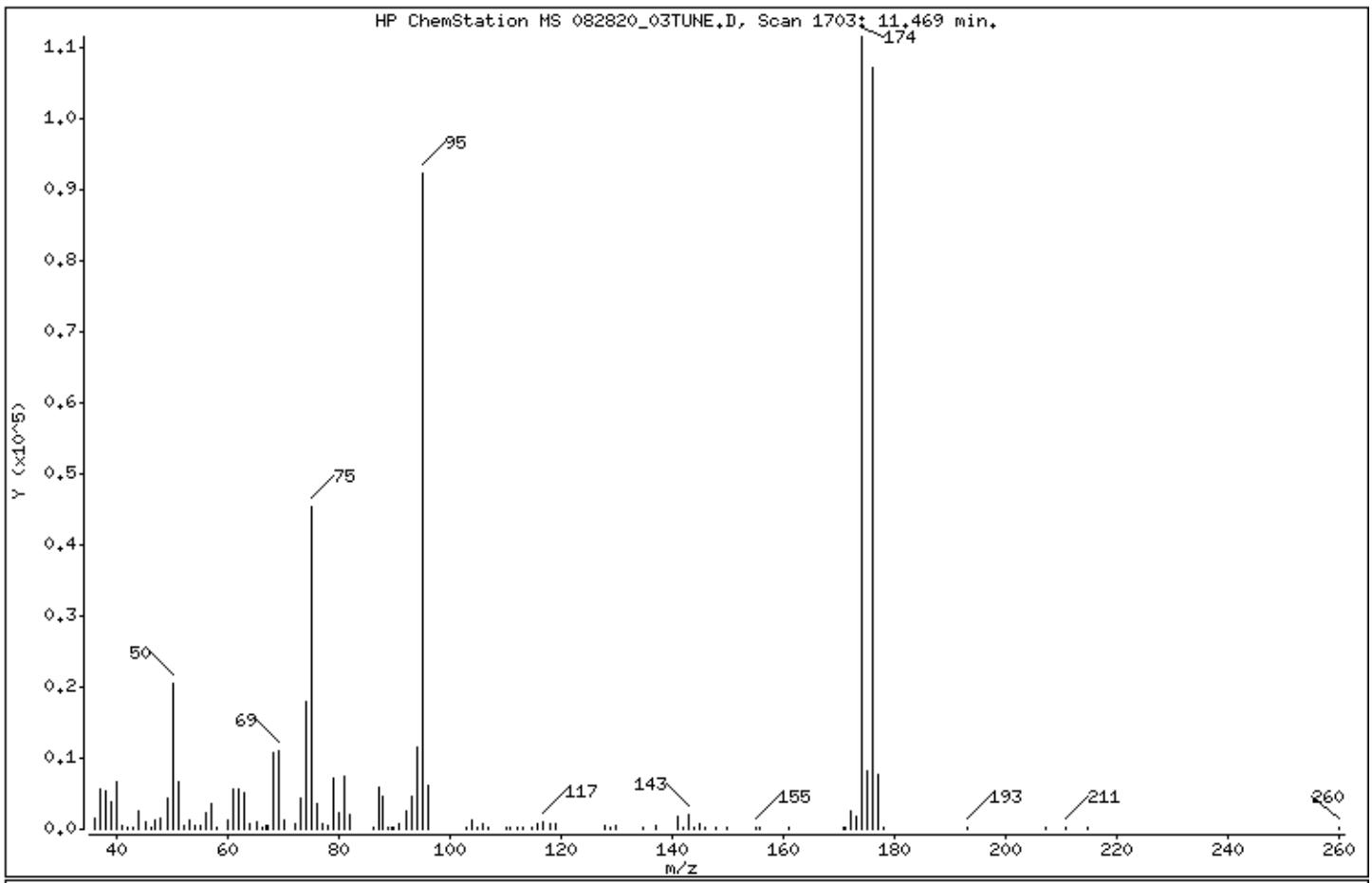
Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.21
75	30.00 - 60.00% of mass 95	49.33
96	5.00 - 9.00% of mass 95	6.64
173	Less than 2.00% of mass 174	1.84 (1.52)
174	Greater than 50.00% of mass 95	120.99
175	5.00 - 9.00% of mass 174	8.94 (7.39)
176	95.00 - 101.00% of mass 174	116.38 (96.19)
177	5.00 - 9.00% of mass 176	8.33 (7.16)

Data File: \\10.25.1.60\chem\52mv02.i\082820.b\082820_03TUNE.D

Date : 28-AUG-2020 13:17

Client ID: BFB

Instrument: 52mv02.i

Sample Info: TUNE,26400:1,

Operator: EAH

Column phase: Restek Rtx-VMS

Column diameter: 0.18

Data File: 082820_03TUNE.D
Spectrum: HP ChemStation MS 082820_03TUNE.D, Scan 1703: 11.469 min.
Location of Maximum: 174.00
Number of points: 102

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	1453	63.10	5221	91.00	832	141.90	185
37.10	5763	64.00	644	92.10	2562	143.00	1985
38.10	5364	65.10	1137	93.10	4664	144.10	164
39.10	3848	66.30	173	94.10	11633	144.90	749
40.00	6773	66.90	422	95.10	92184	146.00	277
41.00	427	67.20	422	96.10	6123	147.80	343
42.00	162	68.10	10833	103.00	168	150.00	242
43.10	348	69.10	11082	104.00	1159	155.00	323
44.00	2656	70.20	1166	105.00	344	155.80	178
45.20	982	72.10	778	106.00	668	160.90	200
46.20	244	73.00	4234	107.00	227	170.70	324
47.00	1312	74.10	18024	110.10	178	171.20	378
48.00	1433	75.10	45472	110.90	214	172.00	2486
49.10	4399	76.10	3709	112.10	240	173.10	1696
50.10	20472	77.10	822	113.10	308	174.00	111536
51.10	6652	78.10	462	114.90	270	175.00	8237
52.20	529	79.00	7136	115.80	665	176.00	107288
53.10	1230	79.90	2280	116.90	1061	177.00	7678
54.00	432	81.00	7328	118.00	692	178.00	192
55.00	555	82.00	1956	119.00	832	193.00	241
56.10	2201	86.10	238	127.80	469	207.10	196
57.00	3582	87.10	5839	129.00	200	211.00	324
58.10	245	88.00	4589	129.80	602	214.90	246
60.10	1270	88.80	254	134.80	215	260.00	152
61.10	5591	89.40	191	137.10	421		
62.10	5619	89.90	245	141.00	1815		

SAMPLE NO.

BLANK

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249616
Date Extracted: 08/28/2020 12:10
Lab Sample ID: 205794
Date Analyzed: 08/28/2020 14:32
Lab File ID: 082820.B\082820_06.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	ND	U
75-05-8	Acetonitrile	ND	U
107-02-8	Acrolein	ND	U
107-13-1	Acrylonitrile	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	2.7	J
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U

SAMPLE NO.

BLANK

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249616
Date Extracted: 08/28/2020 12:10
Lab Sample ID: 205794
Date Analyzed: 08/28/2020 14:32
Lab File ID: 082820.B\082820_06.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
141-78-6	Ethyl acetate	ND	U
100-41-4	Ethylbenzene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	2.6	J
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
96-18-4	1,2,3-Trichloropropane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082820.b\082820_06.D
Lab Smp Id: 205794 Client Smp ID: MB
Inj Date : 28-AUG-2020 14:32
Operator : EAH Inst ID: 52mv02.i
Smp Info : 205794,
Misc Info : 3000,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082820.b\8260BSM_082020.m
Meth Date : 28-Aug-2020 13:40 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 1,3-Butadiene	39	Compound Not Detected.						(D)
5 Bromomethane	94	Compound Not Detected.						
6 Chloroethane	64	Compound Not Detected.						
7 Trichlorofluoromethane	101	Compound Not Detected.						(D)
8 Diethyl ether (Ethyl ether)	74	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	101	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	76	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	43	Compound Not Detected.						
17 Methyl acetate	43	Compound Not Detected.						
18 trans-1,2-Dichloroethene	96	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						
21 Acetonitrile	41	Compound Not Detected.						(D)
22 Chloroprene	53	Compound Not Detected.						
23 1,1-Dichloroethane	63	Compound Not Detected.						
24 Acrylonitrile	53	Compound Not Detected.						

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	Compound Not Detected.						
	26 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	27 2,2-Dichloropropane	77	Compound Not Detected.						
	28 Bromochloromethane	128	Compound Not Detected.						
	29 Cyclohexane	56	Compound Not Detected.						
	30 Chloroform	83	Compound Not Detected.						
	31 Ethyl acetate	43	Compound Not Detected.						
	32 Carbon tetrachloride	117	Compound Not Detected.						
	33 Tetrahydrofuran	42	Compound Not Detected.						
$	34 Dibromofluoromethane (S)	113	7.530	7.524	(0.958)	120211	51.9522	52.0	
	35 1,1,1-Trichloroethane	97	Compound Not Detected.						
	36 2-Butanone (MEK)	43	Compound Not Detected.						
	37 1,1-Dichloropropene	75	Compound Not Detected.						(D)
*	38 Pentafluorobenzene (IS)	168	7.859	7.860	(1.000)	200970	50.0000		
	39 Benzene	78	Compound Not Detected.						
	40 Propionitrile	54	Compound Not Detected.						
	41 Methacrylonitrile	41	Compound Not Detected.						(D)
	42 Isobutanol	43	Compound Not Detected.						
$	43 1,2-Dichloroethane-d4 (S)	102	7.975	7.981	(1.015)	21076	50.6325	50.6	
	44 1,2-Dichloroethane	62	8.030	8.036	(1.022)	337	0.10728	0.107	
	45 Isopropyl acetate	43	Compound Not Detected.						(D)
	46 Trichloroethene	130	Compound Not Detected.						
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	276399	50.0000		
	48 Methylcyclohexane	98	Compound Not Detected.						(D)
	49 n-Butanol	56	Compound Not Detected.						(D)
	50 Dibromomethane	93	Compound Not Detected.						
	51 1,2-Dichloropropane	63	Compound Not Detected.						
	52 Bromodichloromethane	83	Compound Not Detected.						
	53 Methyl methacrylate	69	Compound Not Detected.						
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	56 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	57 Toluene-d8 (S)	98	9.371	9.371	(1.127)	290890	48.8895	48.9	
	58 Toluene	91	9.420	9.414	(1.133)	713	0.10345	0.103	
	59 2-Nitropropane	43	Compound Not Detected.						(D)
	60 4-Methyl-2-pentanone (MIBK)	100	Compound Not Detected.						(D)
	61 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	62 Tetrachloroethene	164	Compound Not Detected.						
	63 Ethyl methacrylate	69	Compound Not Detected.						(D)
	64 1,1,2-Trichloroethane	83	Compound Not Detected.						
	65 Dibromochloromethane	129	Compound Not Detected.						
	66 1,3-Dichloropropane	76	Compound Not Detected.						
	67 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	68 2-Hexanone	43	Compound Not Detected.						
	69 Ethylbenzene	91	Compound Not Detected.						
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	239099	50.0000		
	71 Chlorobenzene	112	Compound Not Detected.						
	72 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	73 m&p-Xylene	91	10.664	10.652	(1.010)	490	0.49107	0.491(TM)	WP
	74 o-Xylene	106	Compound Not Detected.						
	75 Styrene	104	Compound Not Detected.						
	76 Bromoform	173	Compound Not Detected.						
	77 n-amyl acetate	43	Compound Not Detected.						(D)
$	78 4-Bromofluorobenzene (S)	95	11.469	11.469	(1.086)	92743	47.2633	47.3	
	79 cis-1,4-Dichloro-2-butene	53	Compound Not Detected.						(D)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
80 n-Propylbenzene	91	Compound Not Detected.						
81 Bromobenzene	156	Compound Not Detected.						
82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
84 2-Chlorotoluene	126	Compound Not Detected.						
85 4-Chlorotoluene	126	Compound Not Detected.						
86 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
87 1,2,3-Trichloropropane	75	Compound Not Detected.						
88 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	Compound Not Detected.						
91 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
92 sec-Butylbenzene	105	Compound Not Detected.						
93 p-Isopropyltoluene	119	Compound Not Detected.						
94 1,3-Dichlorobenzene	146	Compound Not Detected.						
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	133337	50.0000		
96 1,4-Dichlorobenzene	146	Compound Not Detected.						
97 n-Butylbenzene	91	Compound Not Detected.						
98 1,2-Dichlorobenzene	146	Compound Not Detected.						
99 1,2-Dibromo-3-chloropropane	155	Compound Not Detected.						
100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
102 Naphthalene	128	Compound Not Detected.						
103 1,2,3-Trichlorobenzene	180	Compound Not Detected.						

QC Flag Legend

T - Target compound detected outside RT window.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

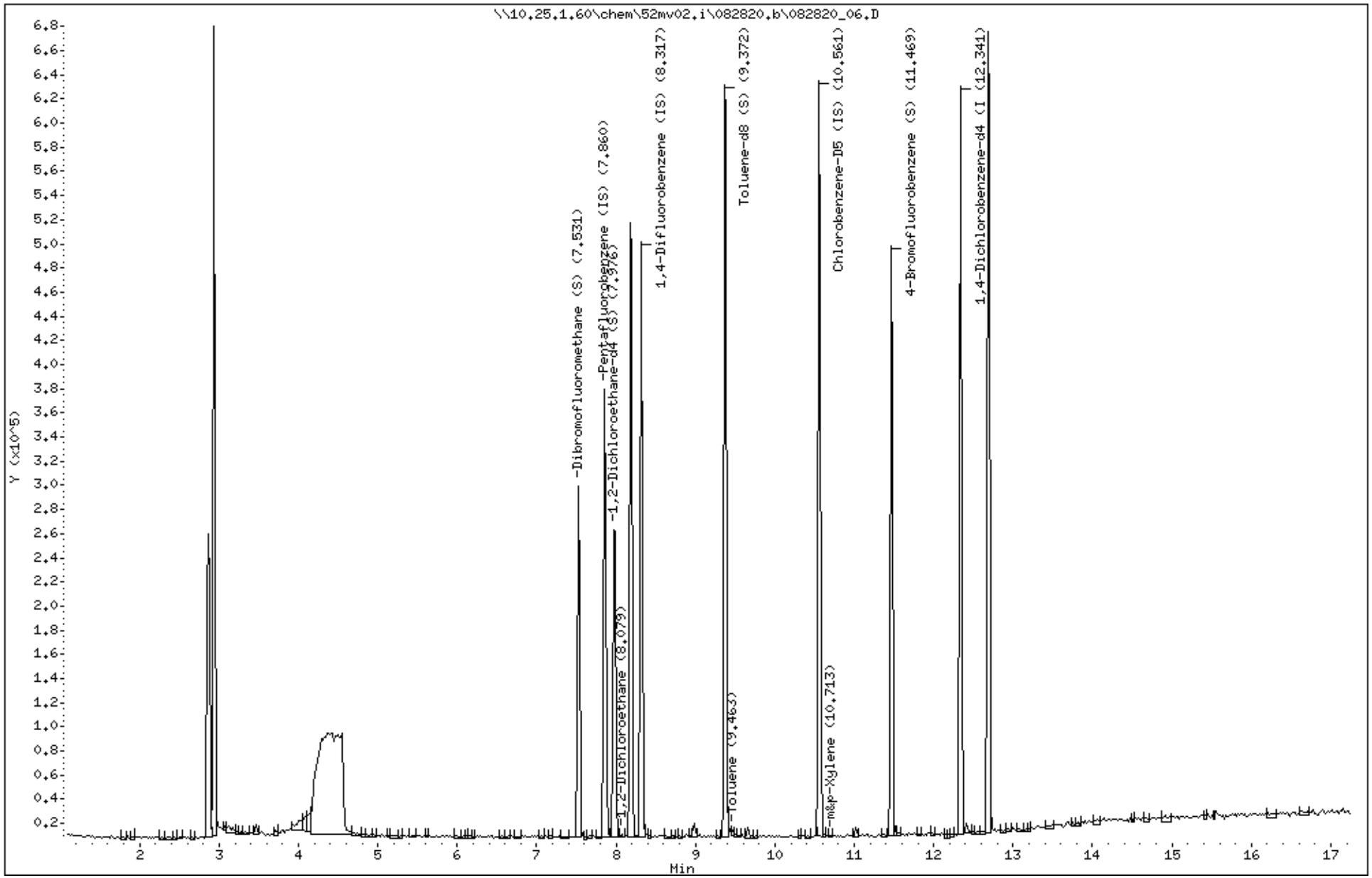
Data File: \\10.25.1.60\chem\52mv02.i\082820.b\082820_06.D
Date : 28-AUG-2020 14:32
Client ID: MB
Sample Info: 205794,

Instrument: 52mv02.i

Operator: EAH

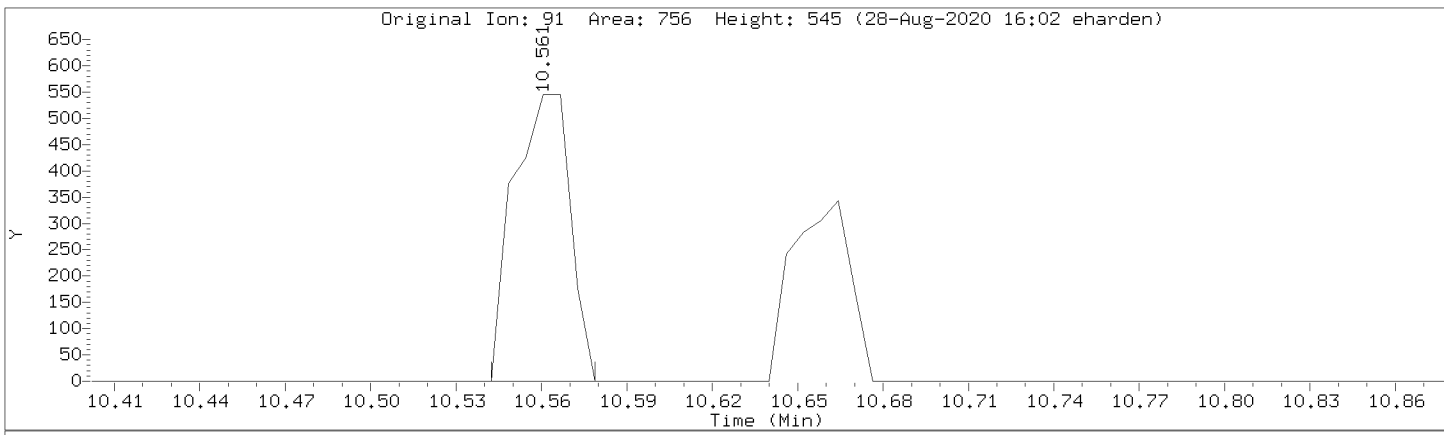
Column phase: RTX-VMS

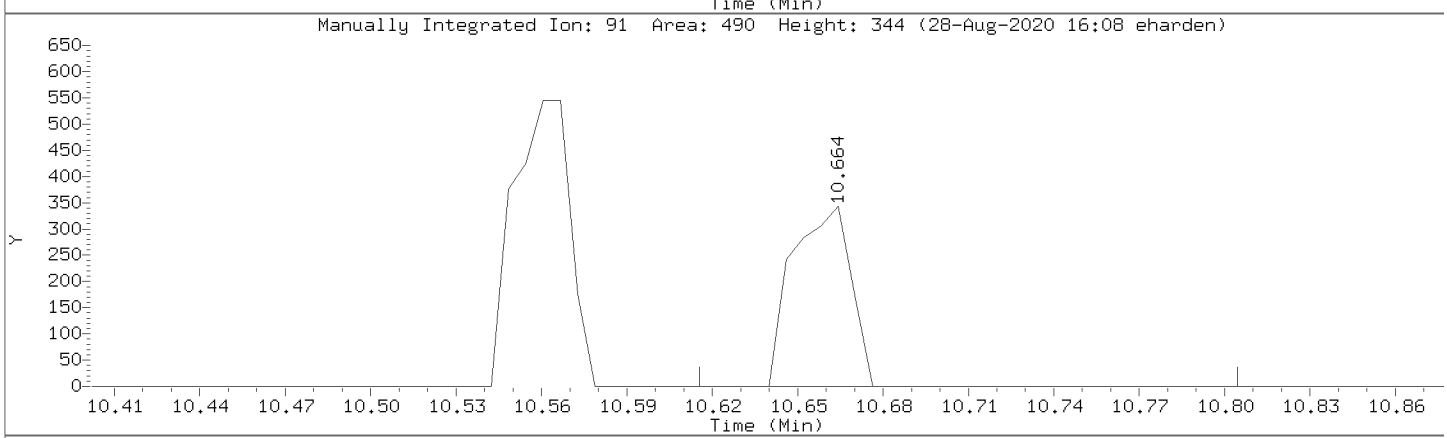
Column diameter: 0.18

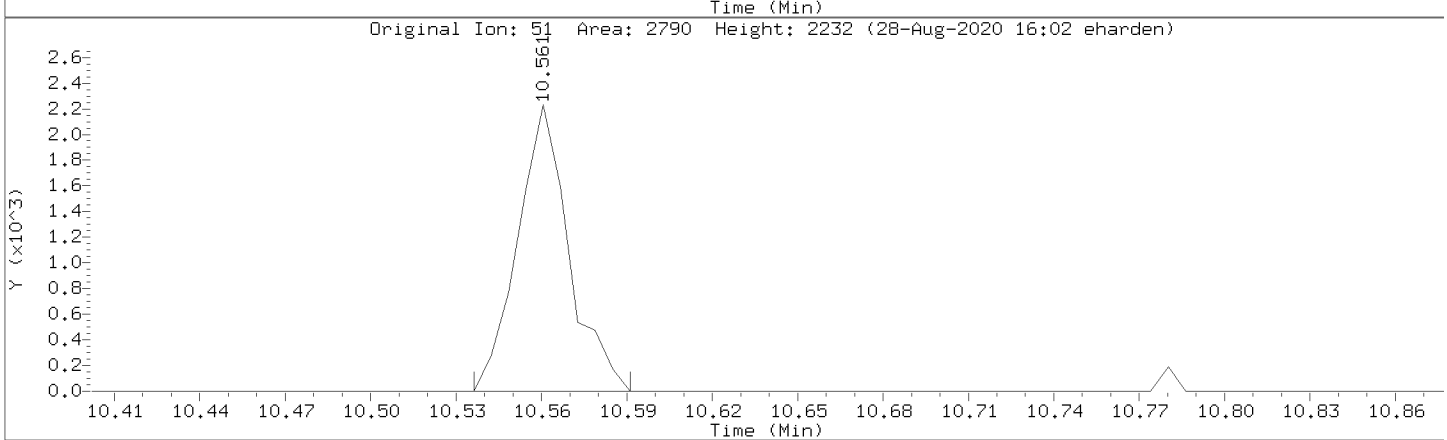


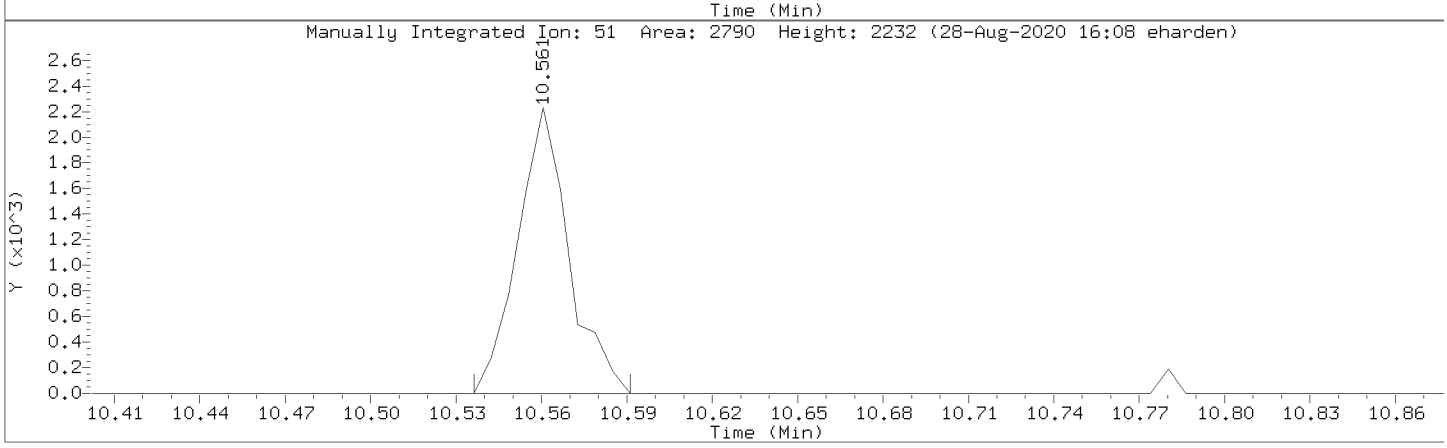
Data File: \\10.25.1.60\chem\52mv02.i\082820.b/082820_06.D
Injection Date: 28-AUG-2020 14:32
Instrument: 52mv02.i
Lab Sample ID: 205794

Compound: m&p-Xylene Review Code: WP
CAS Number: 7816-60-0









SAMPLE NO.

LCS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249616
Date Extracted: 08/28/2020 12:10
Lab Sample ID: 205795
Date Analyzed: 08/28/2020 13:17
Lab File ID: 082820.B\082820_03B3000.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	1010	
75-05-8	Acetonitrile	1230	
107-02-8	Acrolein	808	
107-13-1	Acrylonitrile	939	
71-43-2	Benzene	531	
108-86-1	Bromobenzene	535	
74-97-5	Bromochloromethane	523	
75-27-4	Bromodichloromethane	580	
75-25-2	Bromoform	534	
74-83-9	Bromomethane	602	
78-93-3	2-Butanone (MEK)	847	
104-51-8	n-Butylbenzene	485	
135-98-8	sec-Butylbenzene	441	
98-06-6	tert-Butylbenzene	412	
75-15-0	Carbon disulfide	490	
56-23-5	Carbon tetrachloride	590	
108-90-7	Chlorobenzene	520	
75-00-3	Chloroethane	586	
67-66-3	Chloroform	517	
74-87-3	Chloromethane	522	
95-49-8	2-Chlorotoluene	502	
106-43-4	4-Chlorotoluene	474	
96-12-8	1,2-Dibromo-3-chloropropane	427	
124-48-1	Dibromochloromethane	567	
106-93-4	1,2-Dibromoethane (EDB)	502	
74-95-3	Dibromomethane	523	
95-50-1	1,2-Dichlorobenzene	485	
541-73-1	1,3-Dichlorobenzene	513	
106-46-7	1,4-Dichlorobenzene	491	
75-71-8	Dichlorodifluoromethane	362	
75-34-3	1,1-Dichloroethane	517	
107-06-2	1,2-Dichloroethane	521	
75-35-4	1,1-Dichloroethene	502	
156-59-2	cis-1,2-Dichloroethene	485	
156-60-5	trans-1,2-Dichloroethene	493	
78-87-5	1,2-Dichloropropane	529	
142-28-9	1,3-Dichloropropane	544	

SAMPLE NO.

LCS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received:
Matrix: Solid SDG No.: 5249616
Date Extracted: 08/28/2020 12:10
Lab Sample ID: 205795
Date Analyzed: 08/28/2020 13:17
Lab File ID: 082820.B\082820_03B3000.D
Initial wt/vol: 5 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	534	
563-58-6	1,1-Dichloropropene	521	
10061-01-5	cis-1,3-Dichloropropene	538	
10061-02-6	trans-1,3-Dichloropropene	539	
141-78-6	Ethyl acetate	917	
100-41-4	Ethylbenzene	494	
591-78-6	2-Hexanone	1030	
98-82-8	Isopropylbenzene (Cumene)	429	
99-87-6	p-Isopropyltoluene	412	
75-09-2	Methylene Chloride	484	
108-10-1	4-Methyl-2-pentanone (MIBK)	1040	
1634-04-4	Methyl-tert-butyl ether	487	
91-20-3	Naphthalene	349	
103-65-1	n-Propylbenzene	509	
100-42-5	Styrene	444	
630-20-6	1,1,1,2-Tetrachloroethane	525	
79-34-5	1,1,2,2-Tetrachloroethane	509	
127-18-4	Tetrachloroethene	550	
108-88-3	Toluene	536	
87-61-6	1,2,3-Trichlorobenzene	448	
120-82-1	1,2,4-Trichlorobenzene	435	
71-55-6	1,1,1-Trichloroethane	565	
79-00-5	1,1,2-Trichloroethane	502	
79-01-6	Trichloroethene	536	
75-69-4	Trichlorofluoromethane	655	
96-18-4	1,2,3-Trichloropropane	498	
95-63-6	1,2,4-Trimethylbenzene	451	
108-67-8	1,3,5-Trimethylbenzene	491	
108-05-4	Vinyl acetate	437	
75-01-4	Vinyl chloride	458	
1330-20-7	Xylene (Total)	1370	

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082820.b\082820_03B3000.D
Lab Smp Id: 205795 Client Smp ID: MBLCS
Inj Date : 28-AUG-2020 13:17
Operator : EAH Inst ID: 52mv02.i
Smp Info : 205795,
Misc Info : 3000,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082820.b\8260BSM_082020.m
Meth Date : 28-Aug-2020 13:40 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	3.208	3.208	(0.408)	38157	14.4748	14.5	
2 Chloromethane	50	3.537	3.537	(0.450)	66002	20.8895	20.9	
3 Vinyl chloride	62	3.690	3.690	(0.469)	47564	18.3333	18.3	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	43172	18.6099	18.6	
5 Bromomethane	94	4.196	4.196	(0.534)	50627	24.0649	24.1	
6 Chloroethane	64	4.360	4.360	(0.555)	17277	23.4362	23.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	43237	26.2140	26.2	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	16180	17.8014	17.8	
9 1,1-Dichloroethene	61	5.232	5.232	(0.666)	58873	20.0736	20.1	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	40352	20.8560	20.8	
11 Carbon disulfide	76	5.293	5.293	(0.673)	127301	19.6125	19.6	
12 Iodomethane	142	5.439	5.439	(0.692)	17485	15.4932	15.5	
13 Acrolein	56	5.659	5.659	(0.720)	9788	32.3283	32.3	
14 Allyl chloride	76	5.787	5.787	(0.736)	16417	18.1934	18.2	
15 Methylene Chloride	49	5.903	5.903	(0.751)	67417	19.3494	19.3	
16 Acetone	43	5.964	5.964	(0.759)	70581	40.4999	40.5	
17 Methyl acetate	43	6.067	6.067	(0.772)	73632	36.1646	36.2	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	39052	19.7110	19.7	
19 n-Hexane	86	6.116	6.116	(0.778)	3700	17.6239	17.6	
20 Methyl-tert-butyl ether	73	6.159	6.159	(0.784)	90074	19.4964	19.5	
21 Acetonitrile	41	6.457	6.457	(0.822)	9103	49.1560	49.2	
22 Chloroprene	53	6.640	6.640	(0.845)	55143	19.9659	20.0	
23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	79624	20.6817	20.7	
24 Acrylonitrile	53	6.732	6.732	(0.857)	31412	37.5535	37.6	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	6.860	6.860	(0.873)	66632	17.4963	17.5(TM)	CO
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	55037	19.3974	19.4	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	63390	21.3457	21.3	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	25943	20.9194	20.9	
	29 Cyclohexane	56	7.335	7.335	(0.882)	46447	19.2232	19.2	
	30 Chloroform	83	7.366	7.366	(0.937)	90052	20.6859	20.7	
	31 Ethyl acetate	43	7.427	7.427	(0.945)	90142	36.6790	36.7	
	32 Carbon tetrachloride	117	7.512	7.512	(0.903)	67513	23.6147	23.6	
	33 Tetrahydrofuran	42	7.530	7.530	(0.958)	22078	34.7931	34.8	
$	34 Dibromofluoromethane (S)	113	7.524	7.524	(0.957)	123149	48.9162	48.9(R)	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	73179	22.5907	22.6	
	36 2-Butanone (MEK)	43	7.622	7.622	(0.970)	63560	33.8639	33.9	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	46903	20.8457	20.8	
*	38 Pentafluorobenzene (IS)	168	7.860	7.860	(1.000)	218660	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	154263	21.2404	21.2	
	40 Propionitrile	54	7.896	7.896	(1.005)	15374	41.2571	41.2	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	71356	37.6413	37.6	
	42 Isobutanol	43	Compound Not Detected.						(D)
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	21364	47.1722	47.2(R)	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	71274	20.8536	20.8	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	74627	18.3320	18.3	
	46 Trichloroethene	130	8.317	8.317	(1.000)	42557	21.4320	21.4	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	283966	50.0000		
	48 Methylcyclohexane	98	8.323	8.323	(1.001)	18997	20.1855	20.2	
	49 n-Butanol	56	8.518	8.518	(1.024)	1544	35.5740	35.6(M)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	35411	20.9363	20.9	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	43880	21.1617	21.2	
	52 Bromodichloromethane	83	8.762	8.762	(1.054)	69077	23.1995	23.2	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	20465	17.4674	17.5	
	54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	34086	32.9390	32.9	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	62297	21.5148	21.5	
$	57 Toluene-d8 (S)	98	9.371	9.371	(1.127)	306674	50.1689	50.2(R)	
	58 Toluene	91	9.414	9.414	(1.132)	151755	21.4313	21.4	
	59 2-Nitropropane	43	9.597	9.597	(1.154)	11399	15.8536	15.8	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	8441	41.5365	41.5	
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	62297	21.5574	21.6	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	41487	22.0172	22.0	
	63 Ethyl methacrylate	69	9.755	9.755	(1.173)	38369	17.2069	17.2	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	36015	20.0694	20.1	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	59267	22.6973	22.7	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	59596	21.7734	21.8	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	44938	20.0653	20.1	
	68 2-Hexanone	43	10.274	10.274	(1.235)	99026	41.3076	41.3	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	141841	19.7474	19.7	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	274556	50.0000		
	71 Chlorobenzene	112	10.572	10.572	(1.001)	110275	20.8183	20.8	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	46976	20.9970	21.0	
	73 m&p-Xylene	91	10.652	10.652	(1.009)	238196	38.1513	38.2	
	74 o-Xylene	106	10.993	10.993	(1.041)	48077	16.6186	16.6	
	75 Styrene	104	11.030	11.030	(1.044)	89499	17.7498	17.7	
	76 Bromoform	173	11.103	11.103	(1.051)	52954	21.3453	21.3	
	77 n-amyl acetate	43	11.225	11.225	(1.063)	73401	17.0652	17.1	
$	78 4-Bromofluorobenzene (S)	95	11.469	11.469	(1.086)	113795	50.5026	50.5(R)	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	18028	19.9976	20.0	
	80 n-Propylbenzene	91	11.523	11.523	(1.091)	179409	20.3709	20.4	
	81 Bromobenzene	156	11.578	11.578	(1.096)	59455	21.4025	21.4	
	82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	59798	20.3569	20.4	
	83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	117823	19.6472	19.6	
	84 2-Chlorotoluene	126	11.688	11.688	(1.107)	41685	20.0888	20.1	
	85 4-Chlorotoluene	126	11.816	11.816	(1.119)	39622	18.9512	19.0	
	86 Isopropylbenzene (Cumene)	105	11.213	11.213	(1.062)	127023	17.1452	17.1	
	87 1,2,3-Trichloropropane	75	11.719	11.719	(1.110)	61129	19.9068	19.9	
	88 trans-1,4-Dichloro-2-butene	53	11.719	11.719	(1.110)	15579	22.0357	22.0(M)	NI
	89 Cyclohexanone	98	Compound Not Detected.						(D)
	90 tert-Butylbenzene	119	12.145	12.145	(0.984)	113060	16.4932	16.5	
	91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	124906	18.0356	18.0	
	92 sec-Butylbenzene	105	12.060	12.060	(0.977)	144647	17.6276	17.6	
	93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	113060	16.4932	16.5	
	94 1,3-Dichlorobenzene	146	12.285	12.285	(0.996)	99267	20.5340	20.5	
*	95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	181616	50.0000		
	96 1,4-Dichlorobenzene	146	12.353	12.353	(1.001)	107114	19.6379	19.6	
	97 n-Butylbenzene	91	12.487	12.487	(1.012)	122774	19.3996	19.4	
	98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	102393	19.3832	19.4	
	99 1,2-Dibromo-3-chloropropane	155	13.334	13.334	(1.081)	10156	17.0992	17.1	
	100 Hexachloro-1,3-butadiene	225	13.822	13.822	(1.120)	31046	19.1738	19.2	
	101 1,2,4-Trichlorobenzene	180	13.895	13.895	(1.126)	62261	17.4065	17.4	
	102 Naphthalene	128	14.194	14.194	(1.150)	96274	13.9658	14.0	
	103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	59577	17.9182	17.9	

QC Flag Legend

T - Target compound detected outside RT window.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

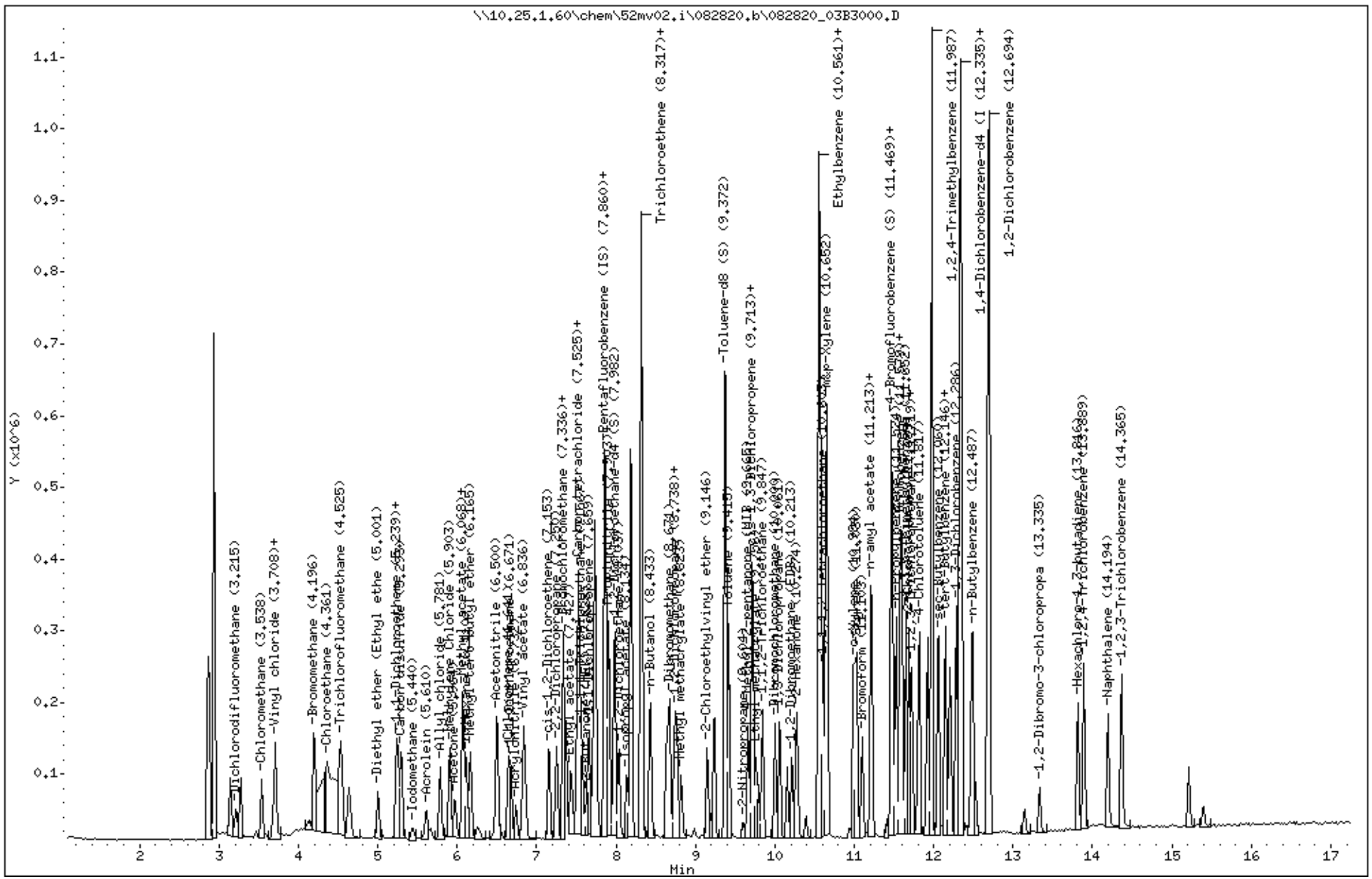
Data File: \\10.25.1.60\chem\52mv02.i\082820.b\082820_03B3000.D
Date : 28-AUG-2020 13:17
Client ID: MBLCS
Sample Info: 205795,

Instrument: 52mv02.i

Operator: EAH

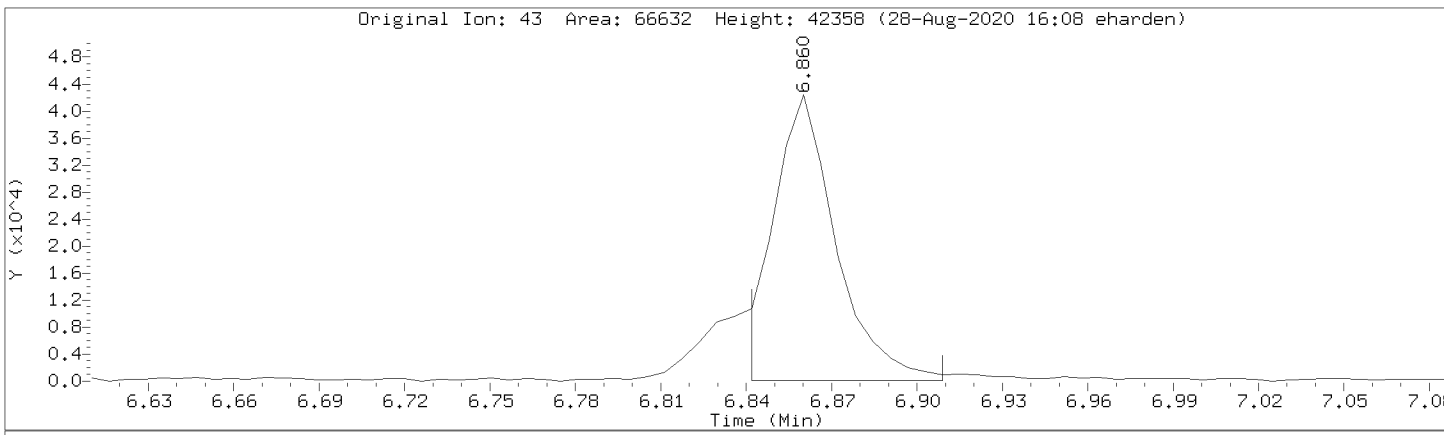
Column phase: RTX-VMS

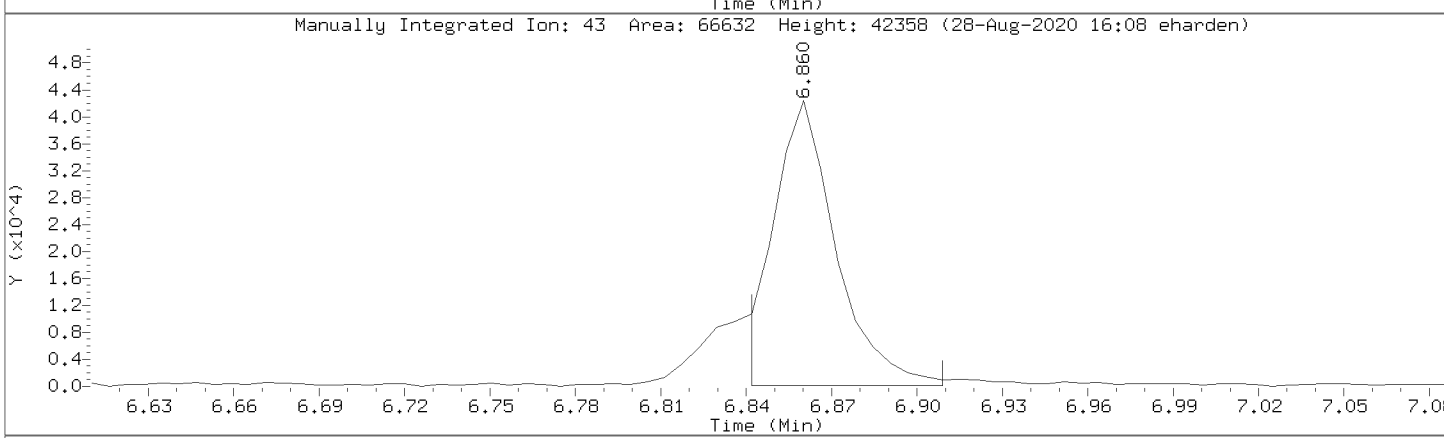
Column diameter: 0.18

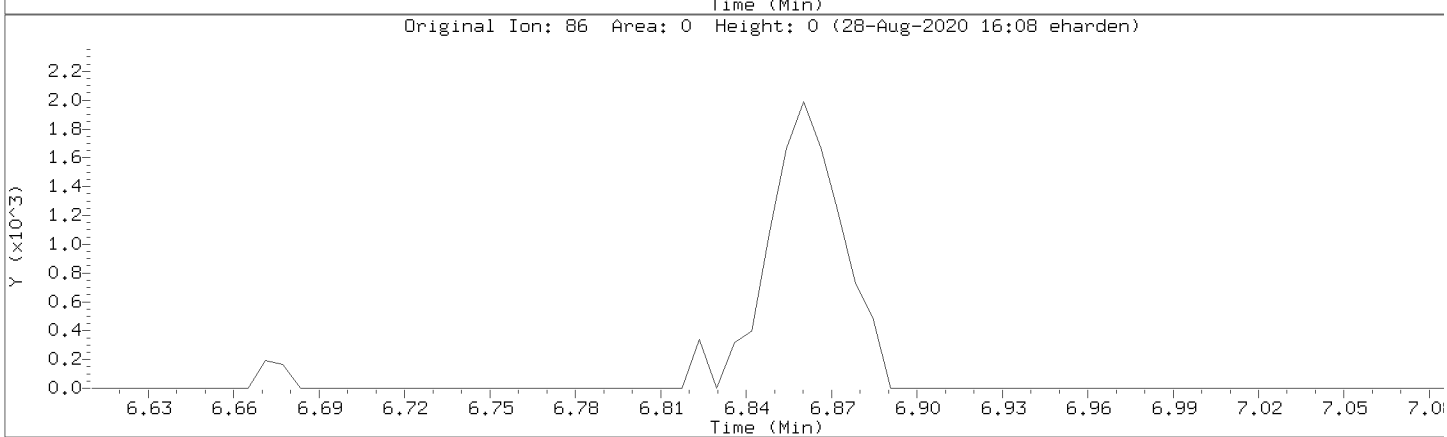


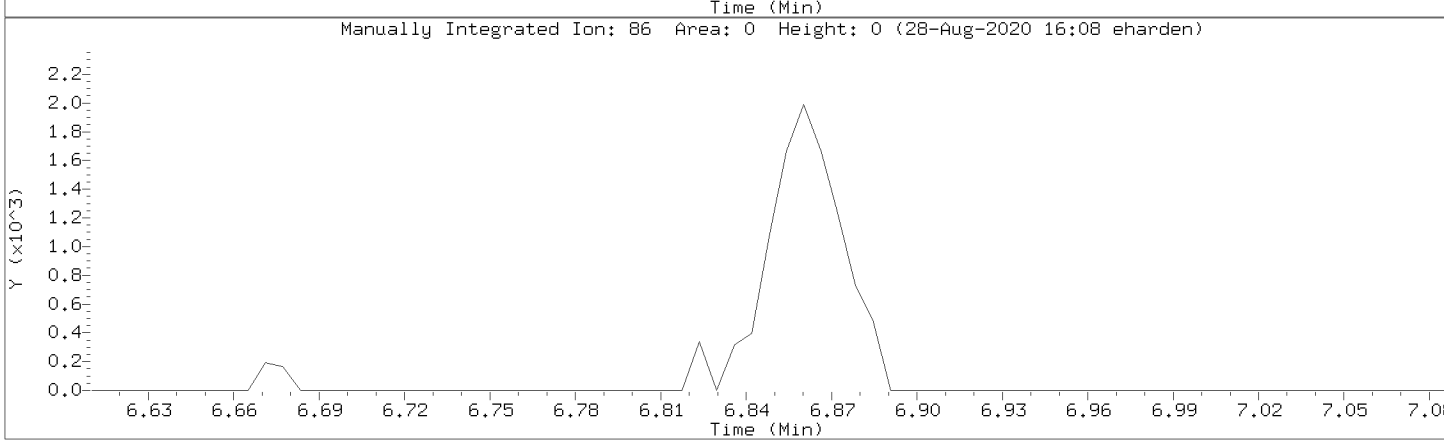
Data File: \\10.25.1.60\chem\52mv02.i\082820.b/082820_03B3000.D
Injection Date: 28-AUG-2020 13:17
Instrument: 52mv02.i
Lab Sample ID: 205795

Compound: Vinyl acetate Review Code: CO
CAS Number: 108-05-4



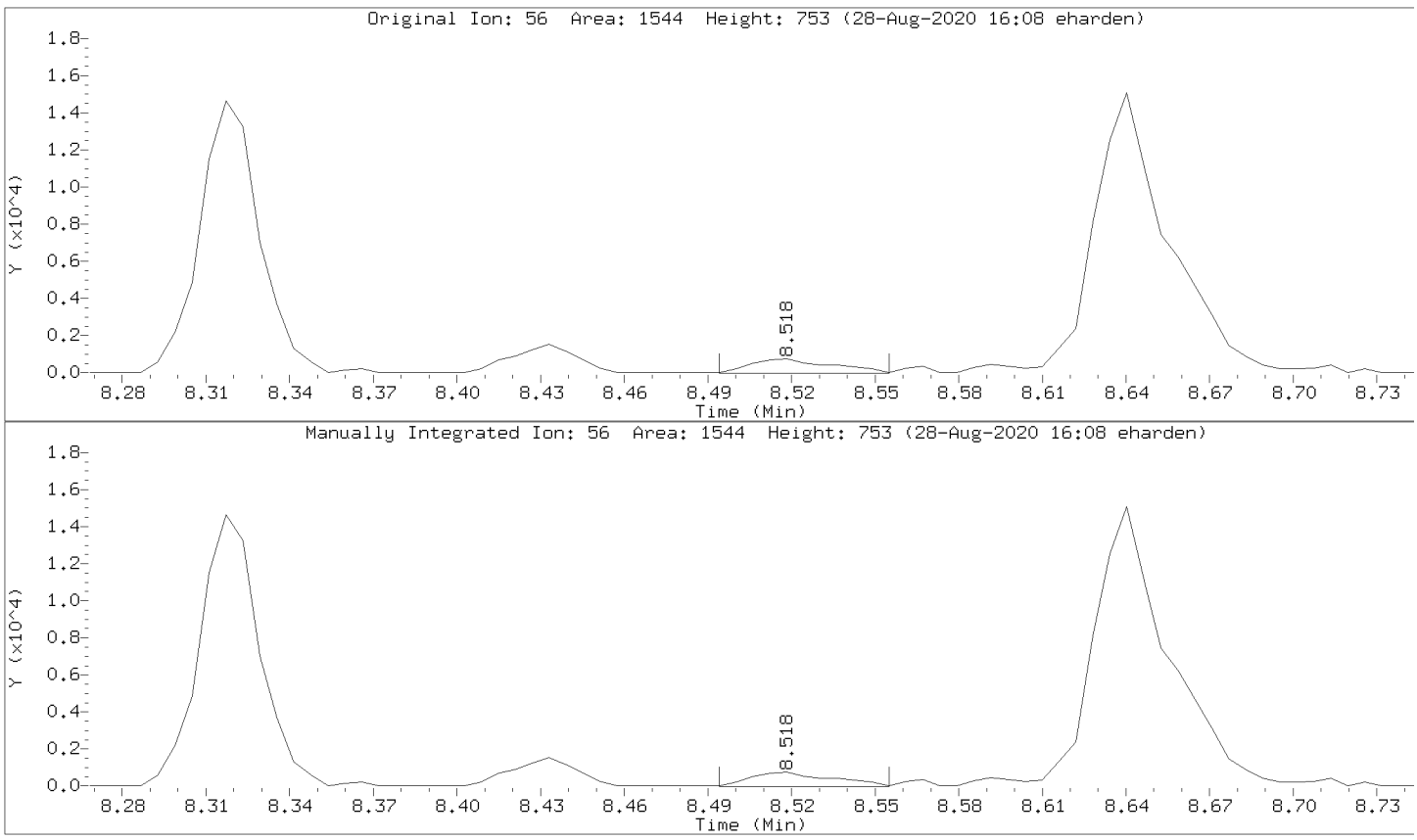






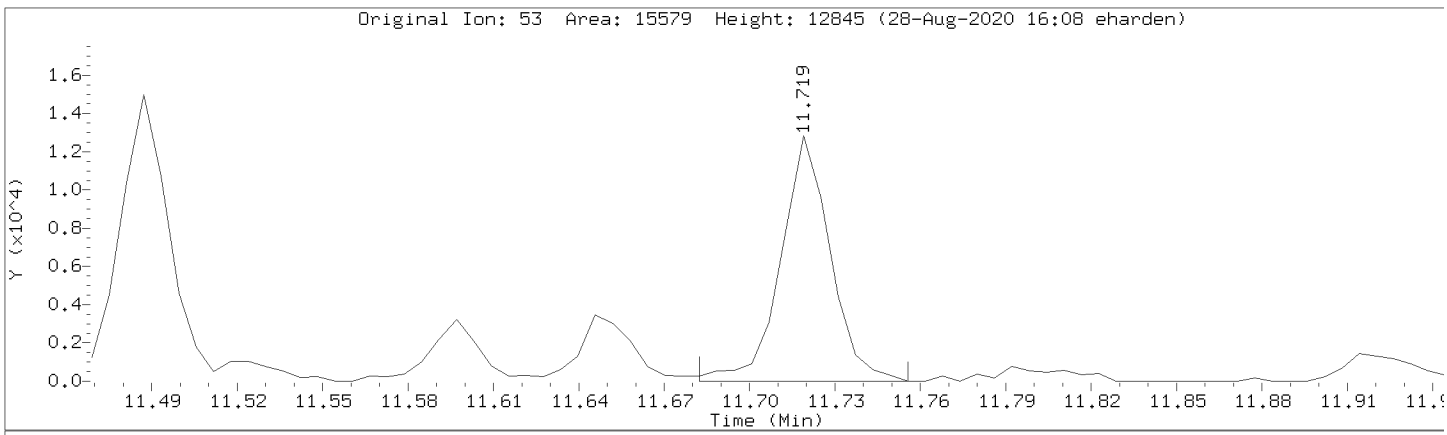
Data File: \\10.25.1.60\chem\52mv02.i\082820.b/082820_03B3000.D
Injection Date: 28-AUG-2020 13:17
Instrument: 52mv02.i
Lab Sample ID: 205795

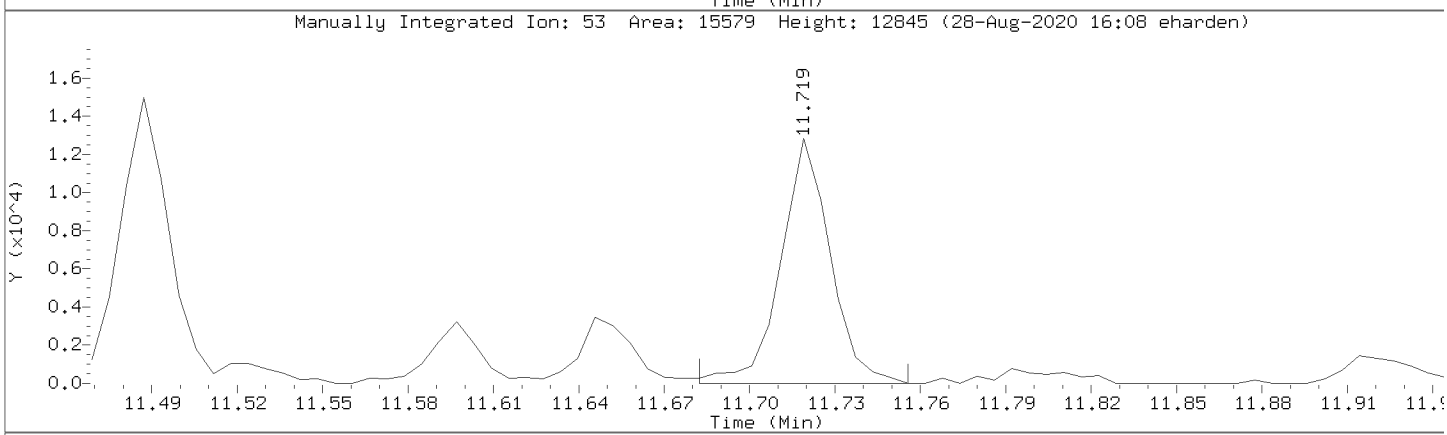
Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3

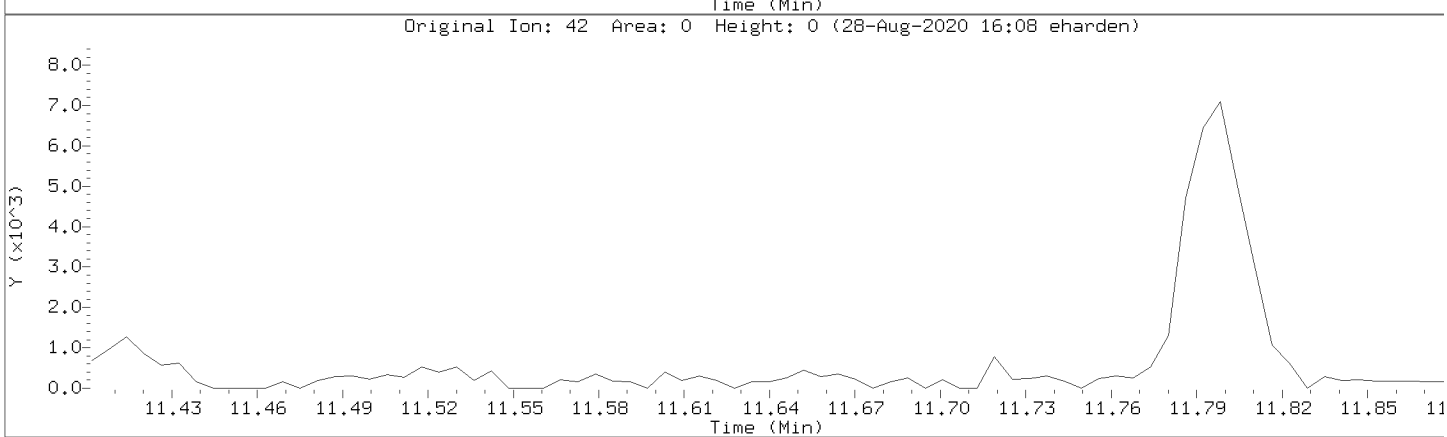


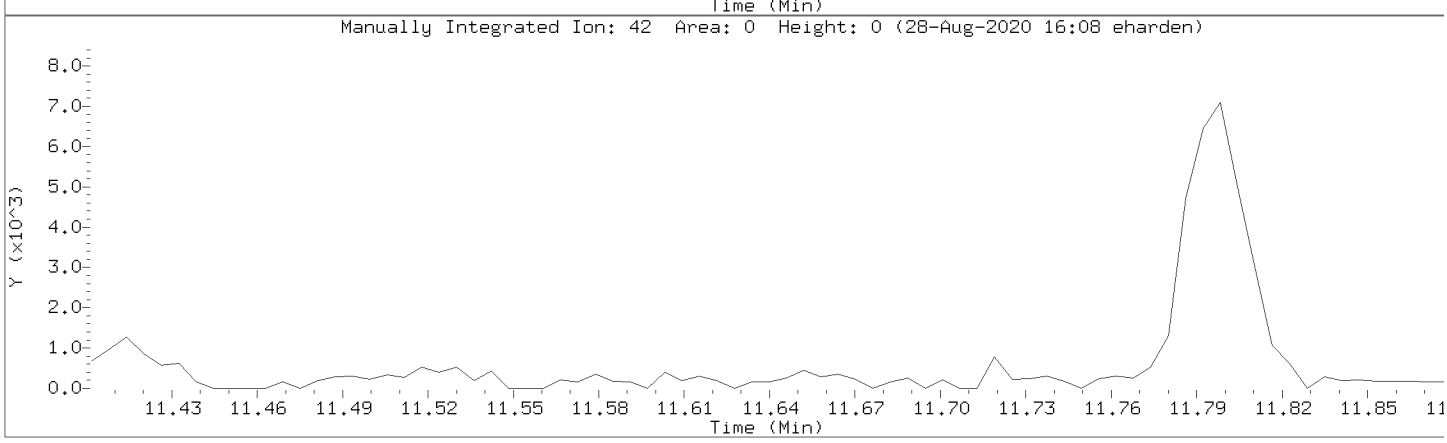
Data File: \\10.25.1.60\chem\52mv02.i\082820.b/082820_03B3000.D
Injection Date: 28-AUG-2020 13:17
Instrument: 52mv02.i
Lab Sample ID: 205795

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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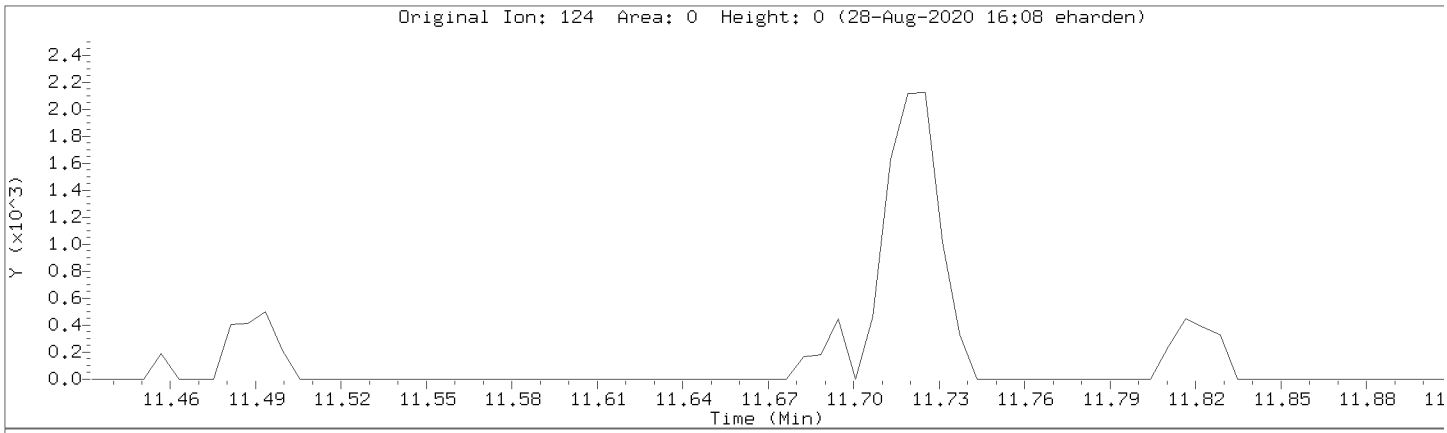
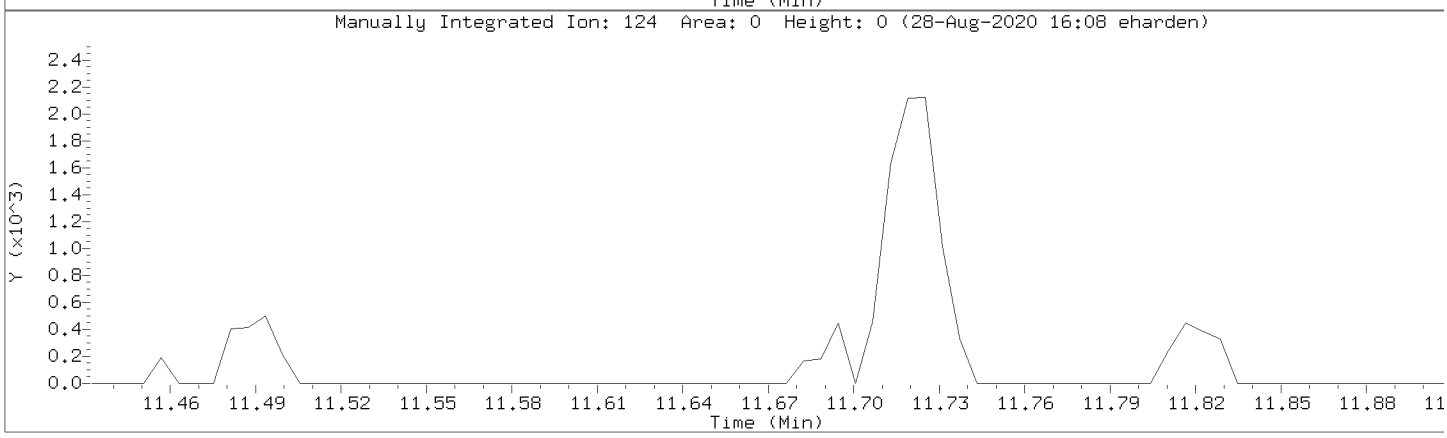
Injection Date: 28-AUG-2020 13:17
Instrument: 52mv02.i
Lab Sample ID: 205795





SAMPLE NO.

MS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/28/2020 11:40
Matrix: Solid SDG No.: 5249616
Date Extracted: 08/28/2020 12:10
Lab Sample ID: 205796
Date Analyzed: 08/28/2020 15:25
Lab File ID: 082820.B\082820_08.D
Initial wt/vol: 5.09 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 17.2%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	1150	
75-05-8	Acetonitrile	1410	
107-02-8	Acrolein	954	
107-13-1	Acrylonitrile	1070	
71-43-2	Benzene	598	
108-86-1	Bromobenzene	624	
74-97-5	Bromochloromethane	575	
75-27-4	Bromodichloromethane	669	
75-25-2	Bromoform	605	
74-83-9	Bromomethane	690	
78-93-3	2-Butanone (MEK)	946	
104-51-8	n-Butylbenzene	538	
135-98-8	sec-Butylbenzene	489	
98-06-6	tert-Butylbenzene	459	
75-15-0	Carbon disulfide	564	
56-23-5	Carbon tetrachloride	663	
108-90-7	Chlorobenzene	600	
75-00-3	Chloroethane	704	
67-66-3	Chloroform	583	
74-87-3	Chloromethane	594	
95-49-8	2-Chlorotoluene	578	
106-43-4	4-Chlorotoluene	529	
96-12-8	1,2-Dibromo-3-chloropropane	495	
124-48-1	Dibromochloromethane	628	
106-93-4	1,2-Dibromoethane (EDB)	586	
74-95-3	Dibromomethane	632	
95-50-1	1,2-Dichlorobenzene	525	
541-73-1	1,3-Dichlorobenzene	560	
106-46-7	1,4-Dichlorobenzene	533	
75-71-8	Dichlorodifluoromethane	431	
75-34-3	1,1-Dichloroethane	576	
107-06-2	1,2-Dichloroethane	562	
75-35-4	1,1-Dichloroethene	553	
156-59-2	cis-1,2-Dichloroethene	539	
156-60-5	trans-1,2-Dichloroethene	525	
78-87-5	1,2-Dichloropropane	593	
142-28-9	1,3-Dichloropropane	595	

SAMPLE NO.

MS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/28/2020 11:40
Matrix: Solid SDG No.: 5249616
Date Extracted: 08/28/2020 12:10
Lab Sample ID: 205796
Date Analyzed: 08/28/2020 15:25
Lab File ID: 082820.B\082820_08.D
Initial wt/vol: 5.09 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 17.2%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	575	
563-58-6	1,1-Dichloropropene	594	
10061-01-5	cis-1,3-Dichloropropene	616	
10061-02-6	trans-1,3-Dichloropropene	617	
141-78-6	Ethyl acetate	1000	
100-41-4	Ethylbenzene	560	
591-78-6	2-Hexanone	1170	
98-82-8	Isopropylbenzene (Cumene)	491	
99-87-6	p-Isopropyltoluene	459	
75-09-2	Methylene Chloride	553	
108-10-1	4-Methyl-2-pentanone (MIBK)	1010	
1634-04-4	Methyl-tert-butyl ether	534	
91-20-3	Naphthalene	392	
103-65-1	n-Propylbenzene	596	
100-42-5	Styrene	505	
630-20-6	1,1,1,2-Tetrachloroethane	606	
79-34-5	1,1,2,2-Tetrachloroethane	589	
127-18-4	Tetrachloroethene	665	
108-88-3	Toluene	593	
87-61-6	1,2,3-Trichlorobenzene	522	
120-82-1	1,2,4-Trichlorobenzene	508	
71-55-6	1,1,1-Trichloroethane	648	
79-00-5	1,1,2-Trichloroethane	560	
79-01-6	Trichloroethene	644	
75-69-4	Trichlorofluoromethane	693	
96-18-4	1,2,3-Trichloropropane	570	
95-63-6	1,2,4-Trimethylbenzene	503	
108-67-8	1,3,5-Trimethylbenzene	567	
108-05-4	Vinyl acetate	450	
75-01-4	Vinyl chloride	516	
1330-20-7	Xylene (Total)	1590	

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082820.b\082820_08.D
Lab Smp Id: 205796 Client Smp ID: 082820R2MS
Inj Date : 28-AUG-2020 15:25
Operator : EAH Inst ID: 52mv02.i
Smp Info : 205796,
Misc Info : 3000,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082820.b\8260BSM_082020.m
Meth Date : 28-Aug-2020 13:40 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 4 QC Sample: MS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.208	(0.409)	39607	14.5253	14.5	
2 Chloromethane	50	3.537	3.537	(0.450)	65501	20.0082	20.0	
3 Vinyl chloride	62	3.690	3.690	(0.469)	46701	17.4022	17.4	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	39625	16.5131	16.5	
5 Bromomethane	94	4.202	4.196	(0.535)	50814	23.2556	23.2	
6 Chloroethane	64	4.360	4.360	(0.555)	18073	23.7109	23.7	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	39816	23.3373	23.3	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	16652	17.7116	17.7	
9 1,1-Dichloroethene	61	5.232	5.232	(0.666)	56489	18.6204	18.6	
10 1,1,2-Trichlorotrifluoroethane	101	5.262	5.256	(0.670)	39797	19.8853	19.9	
11 Carbon disulfide	76	5.293	5.293	(0.673)	127576	19.0014	19.0	
12 Iodomethane	142	5.439	5.439	(0.692)	18798	15.9141	15.9	
13 Acrolein	56	5.653	5.659	(0.719)	10073	32.1635	32.2	
14 Allyl chloride	76	5.787	5.787	(0.736)	15722	16.8439	16.8	
15 Methylene Chloride	49	5.903	5.903	(0.751)	67141	18.6294	18.6	
16 Acetone	43	5.970	5.964	(0.760)	69904	38.7012	38.7	
17 Methyl acetate	43	6.067	6.067	(0.772)	75538	35.8605	35.9(R)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	36234	17.6806	17.7	
19 n-Hexane	86	6.110	6.116	(0.777)	4283	19.7225	19.7	
20 Methyl-tert-butyl ether	73	6.165	6.159	(0.784)	85969	17.9892	18.0	
21 Acetonitrile	41	6.463	6.457	(0.822)	9094	47.4498	47.4(R)	
22 Chloroprene	53	6.640	6.640	(0.845)	51131	17.8977	17.9	
23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	77323	19.4163	19.4	
24 Acrylonitrile	53	6.732	6.732	(0.857)	31266	36.1362	36.1(R)	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
25 Vinyl acetate	43	6.860	6.860	(0.873)	59767	15.1719	15.2	
26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	53271	18.1507	18.2	
27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	59546	19.3846	19.4	
28 Bromochloromethane	128	7.335	7.335	(0.933)	24853	19.3742	19.4	
29 Cyclohexane	56	7.335	7.335	(0.882)	44949	18.5004	18.5	
30 Chloroform	83	7.372	7.366	(0.938)	88424	19.6366	19.6	
31 Ethyl acetate	43	7.427	7.427	(0.945)	85929	33.8023	33.8(R)	
32 Carbon tetrachloride	117	7.512	7.512	(0.903)	64238	22.3450	22.3	
33 Tetrahydrofuran	42	7.530	7.530	(0.958)	22536	34.3019	34.3(R)	
$ 34 Dibromofluoromethane (S)	113	7.530	7.524	(0.958)	124110	47.6589	47.6	
35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	71169	21.8488	21.8	
36 2-Butanone (MEK)	43	7.628	7.622	(0.971)	61906	31.8861	31.9	
37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	45324	20.0326	20.0	
* 38 Pentafluorobenzene (IS)	168	7.859	7.860	(1.000)	226180	50.0000		
39 Benzene	78	7.872	7.872	(0.946)	147052	20.1356	20.1	
40 Propionitrile	54	7.890	7.896	(1.004)	13580	35.2311	35.2(R)	
41 Methacrylonitrile	41	7.902	7.902	(1.005)	70668	36.0390	36.0(R)	
42 Isobutanol	43	7.963	7.908	(1.013)	2773	48.0529	48.0(TM)	WP
$ 43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	22220	47.4310	47.4	
44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	66903	18.9239	18.9	
45 Isopropyl acetate	43	8.134	8.134	(1.035)	75129	17.8417	17.8	
46 Trichloroethene	130	8.317	8.317	(1.000)	43306	21.6887	21.7	
* 47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	285544	50.0000		
48 Methylcyclohexane	98	8.317	8.323	(1.000)	19148	20.2335	20.2	
49 n-Butanol	56	8.530	8.518	(1.026)	1320	30.2449	30.2(RM)	WP
50 Dibromomethane	93	8.670	8.670	(1.043)	36243	21.3098	21.3	
51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	41683	19.9911	20.0	
52 Bromodichloromethane	83	8.762	8.762	(1.054)	67468	22.5339	22.5	
53 Methyl methacrylate	69	8.823	8.823	(1.061)	19149	16.3064	16.3	
54 1,4-Dioxane (p-Dioxane)	58	Compound Not Detected.						(D)
55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	36164	34.6566	34.6(R)	
56 cis-1,3-Dichloropropene	75	9.707	9.713	(1.167)	60412	20.7485	20.7	
$ 57 Toluene-d8 (S)	98	9.371	9.371	(1.127)	312771	50.8835	50.9	
58 Toluene	91	9.414	9.414	(1.132)	142175	19.9674	20.0	
59 2-Nitropropane	43	9.603	9.597	(1.155)	10479	14.4485	14.4	
60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	6924	33.8834	33.9	
61 trans-1,3-Dichloropropene	75	9.707	9.713	(1.167)	60412	20.7896	20.8	
62 Tetrachloroethene	164	9.719	9.719	(0.920)	41728	22.3984	22.4	
63 Ethyl methacrylate	69	9.755	9.755	(1.173)	36427	16.2894	16.3	
64 1,1,2-Trichloroethane	83	9.841	9.847	(1.183)	34048	18.8684	18.9	
65 Dibromochloromethane	129	9.999	9.999	(0.947)	54613	21.1541	21.2	
66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	55226	20.0653	20.1	
67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	43761	19.7632	19.8	
68 2-Hexanone	43	10.274	10.274	(1.235)	94864	39.3528	39.4	
69 Ethylbenzene	91	10.554	10.554	(0.999)	133930	18.8593	18.8	
* 70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	271452	50.0000		
71 Chlorobenzene	112	10.572	10.572	(1.001)	105826	20.2069	20.2	
72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	45205	20.4365	20.4	
73 m&p-Xylene	91	10.652	10.652	(1.009)	230782	37.3946	37.4	
74 o-Xylene	106	10.993	10.993	(1.041)	45782	16.0241	16.0	
75 Styrene	104	11.030	11.030	(1.044)	84692	17.0122	17.0	
76 Bromoform	173	11.103	11.103	(1.051)	50045	20.4034	20.4	
77 n-amyl acetate	43	11.219	11.225	(1.062)	70675	16.6376	16.6	
$ 78 4-Bromofluorobenzene (S)	95	11.469	11.469	(1.086)	110898	49.7796	49.8	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	16867	18.9237	18.9	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	174948	20.0916	20.1	
81 Bromobenzene	156	11.578	11.578	(1.096)	57751	21.0268	21.0	
82 1,1,2,2-Tetrachloroethane	83	11.578	11.584	(1.096)	57664	19.8549	19.8	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	114673	19.0931	19.1	
84 2-Chlorotoluene	126	11.688	11.688	(1.107)	39965	19.4913	19.5	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	36826	17.8375	17.8	
86 Isopropylbenzene (Cumene)	105	11.213	11.213	(1.062)	121032	16.5437	16.5	
87 1,2,3-Trichloropropane	75	11.718	11.719	(1.110)	58268	19.1920	19.2	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.719	(1.110)	14386	20.5810	20.6(TM)	WP
89 Cyclohexanone	98	Compound Not Detected.						(D)
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	106029	15.4789	15.5	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	117322	16.9443	16.9	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	135250	16.4912	16.5	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	106029	15.4789	15.5	
94 1,3-Dichlorobenzene	146	12.285	12.285	(0.996)	91323	18.8623	18.9	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	181890	50.0000		
96 1,4-Dichlorobenzene	146	12.353	12.353	(1.001)	98163	17.9698	18.0	
97 n-Butylbenzene	91	12.487	12.487	(1.012)	114917	18.1308	18.1	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	93556	17.6836	17.7	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.334	(1.081)	9922	16.6800	16.7	
100 Hexachloro-1,3-butadiene	225	13.816	13.822	(1.120)	29614	18.2618	18.3	
101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	61349	17.1257	17.1	
102 Naphthalene	128	14.194	14.194	(1.150)	90910	13.1984	13.2(R)	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	58579	17.5915	17.6	

QC Flag Legend

T - Target compound detected outside RT window.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

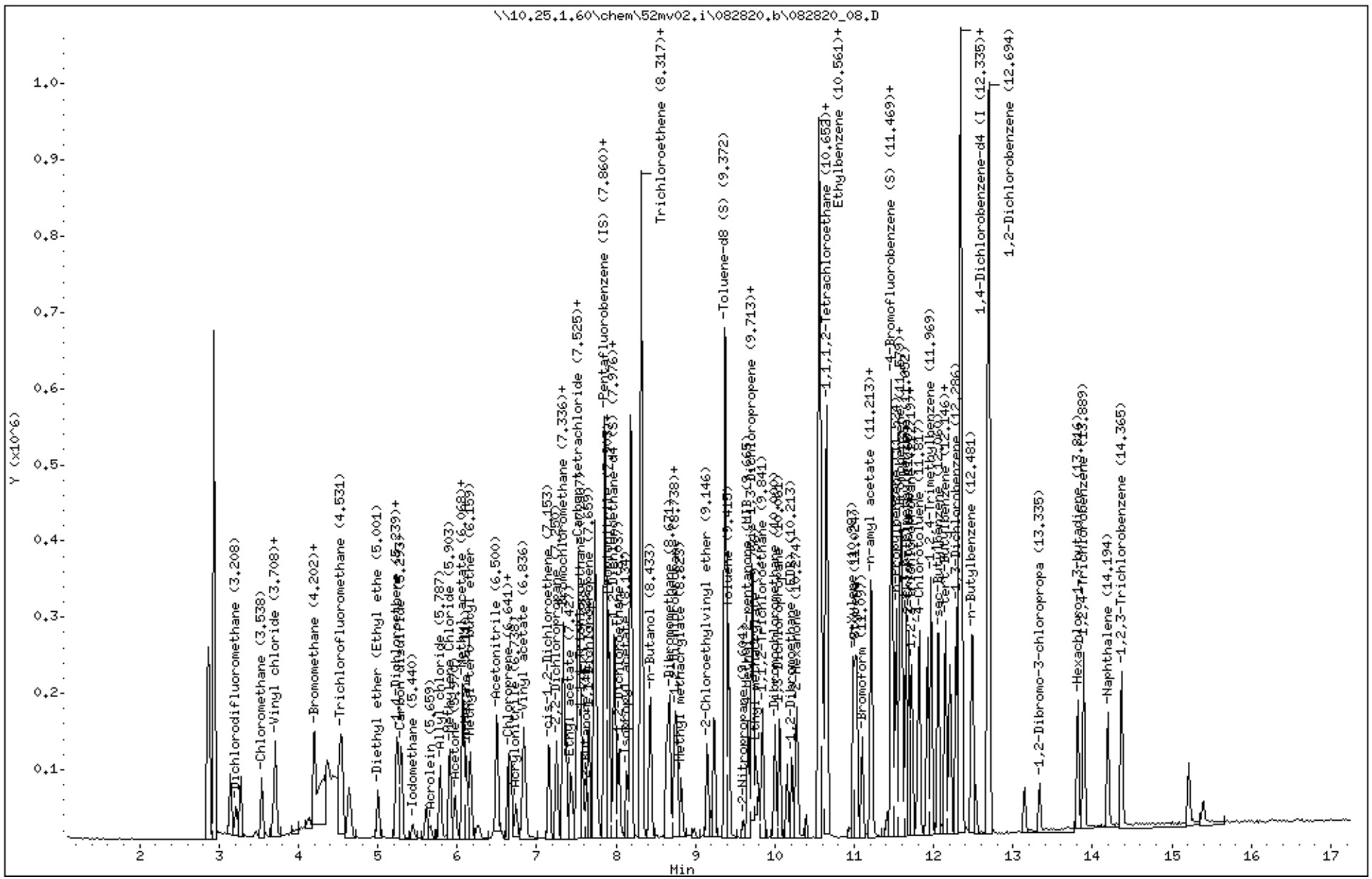
Data File: \\10.25.1.60\chem\52mv02.i\082820.b\082820_08.D
Date : 28-AUG-2020 15:25
Client ID: 082820R2MS
Sample Info: 205796,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



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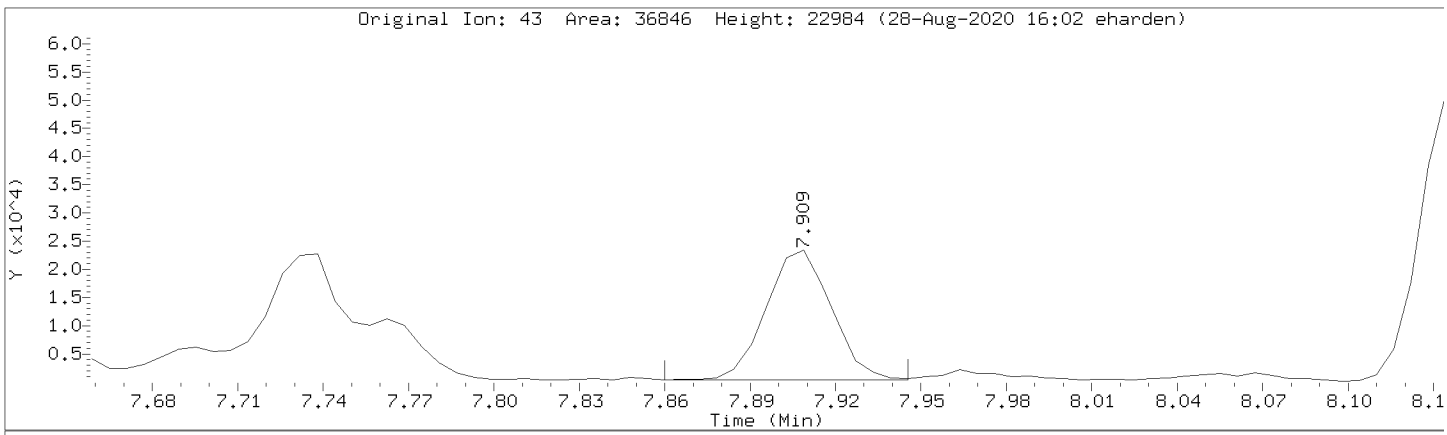
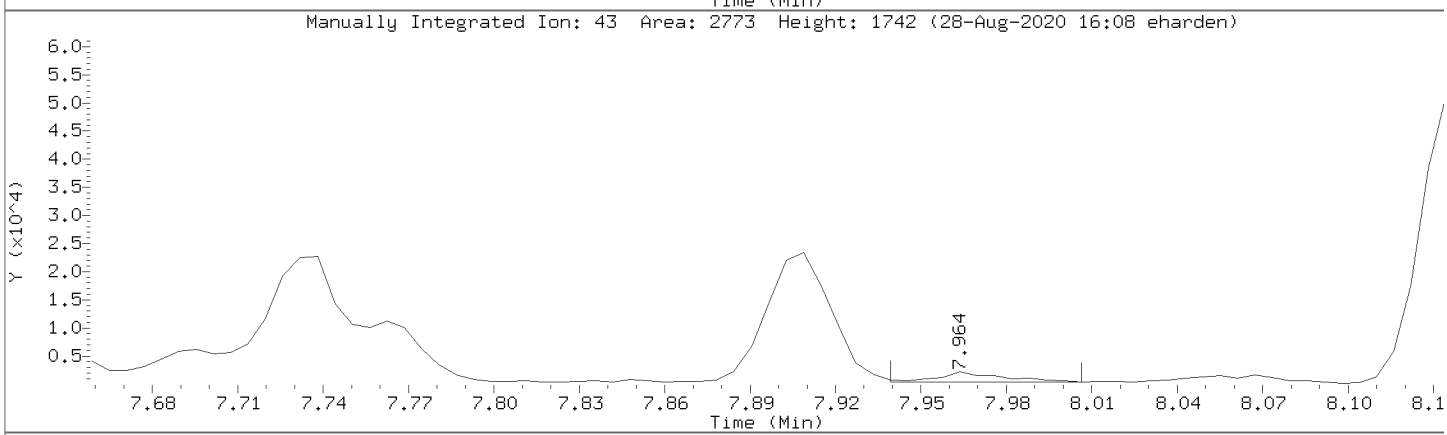
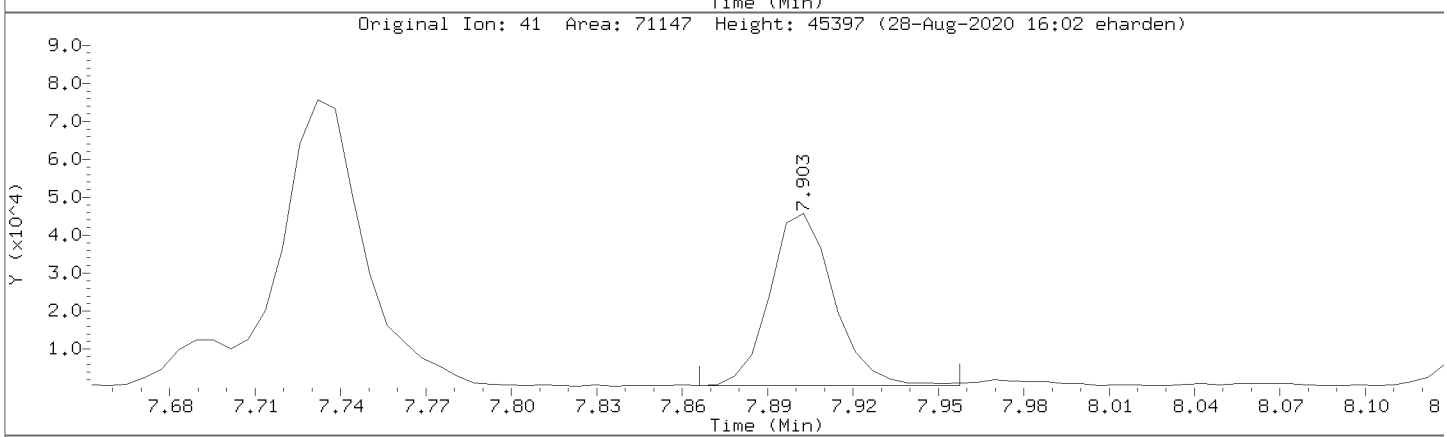
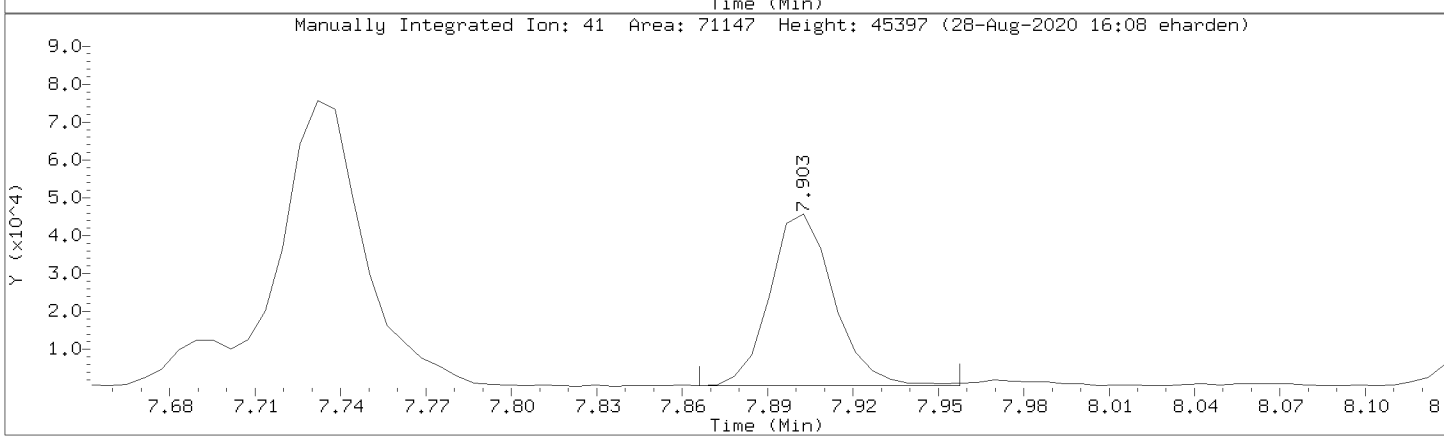
Injection Date: 28-AUG-2020 15:25
Instrument: 52mv02.i
Lab Sample ID: 205796

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1









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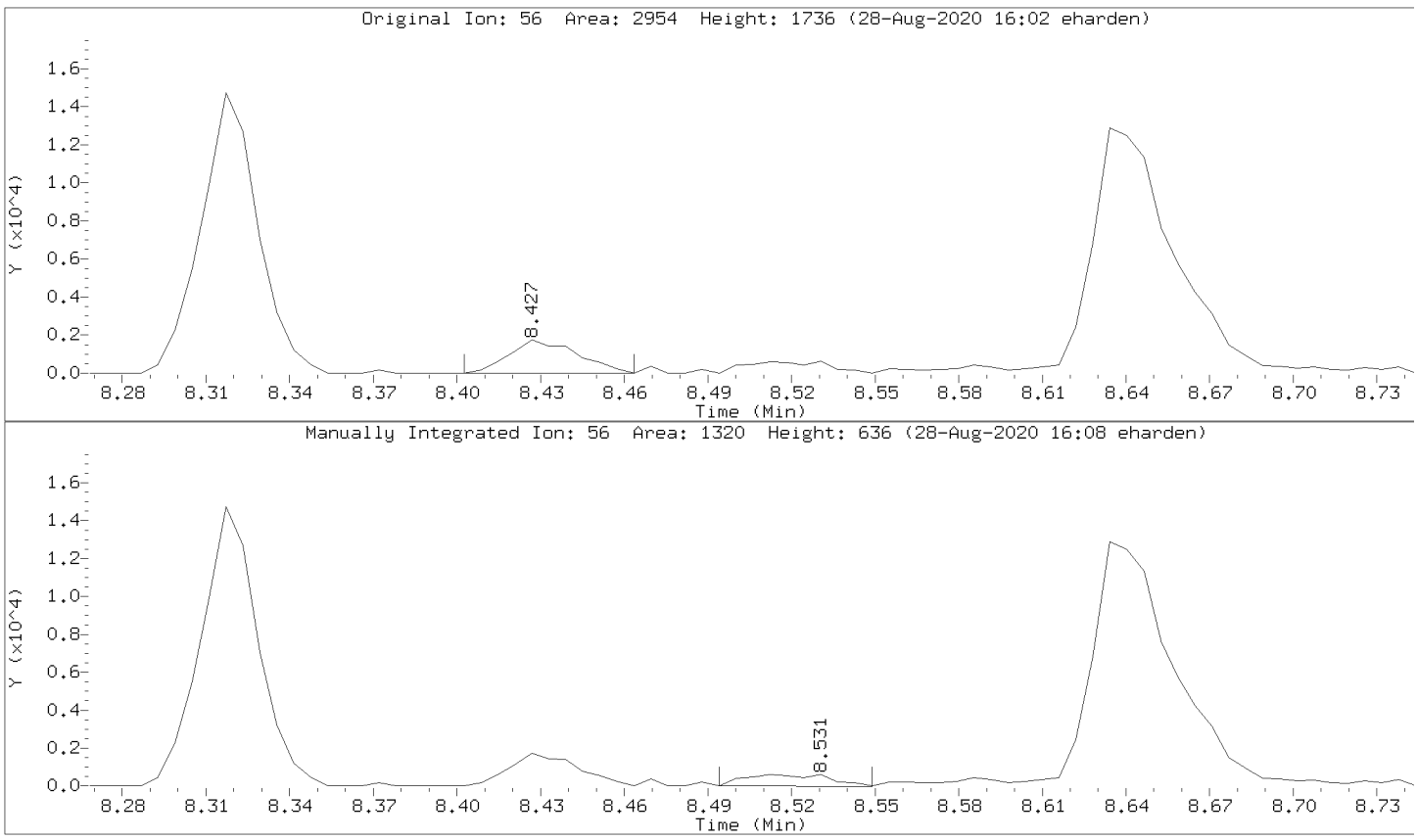
Injection Date: 28-AUG-2020 15:25
Instrument: 52mv02.i
Lab Sample ID: 205796

Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3



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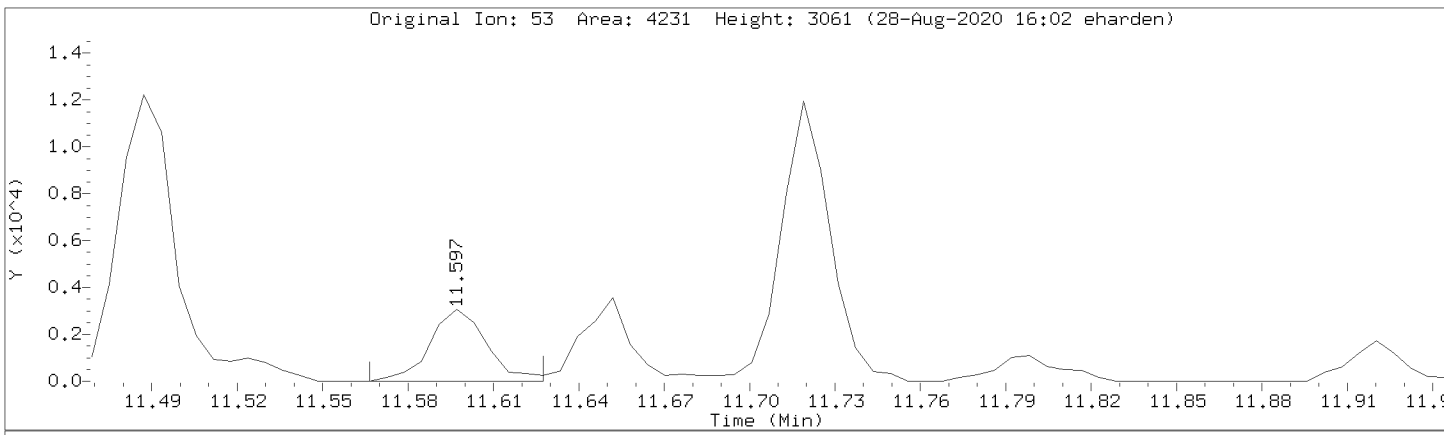
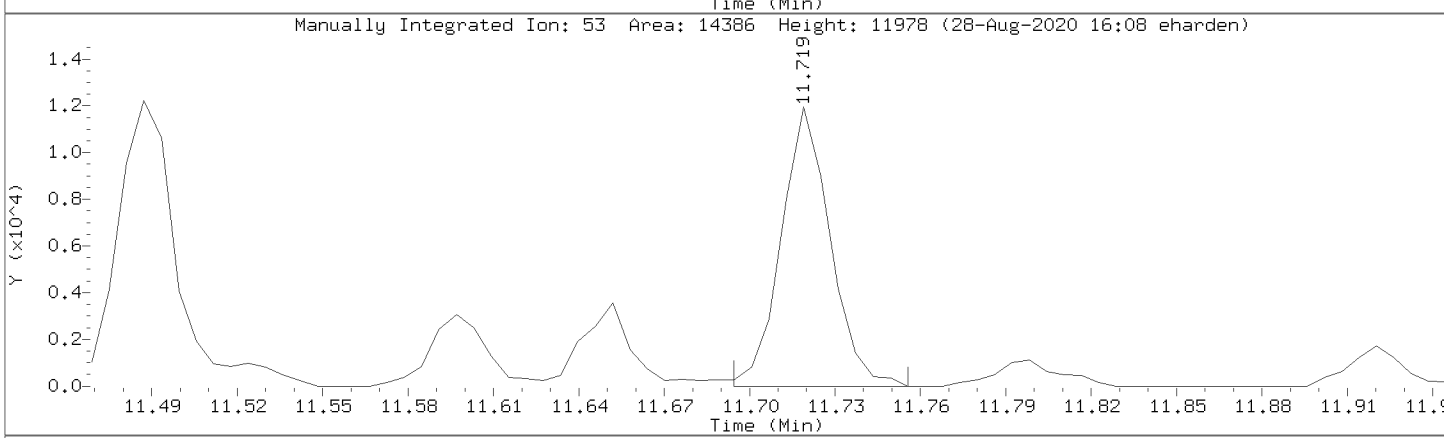
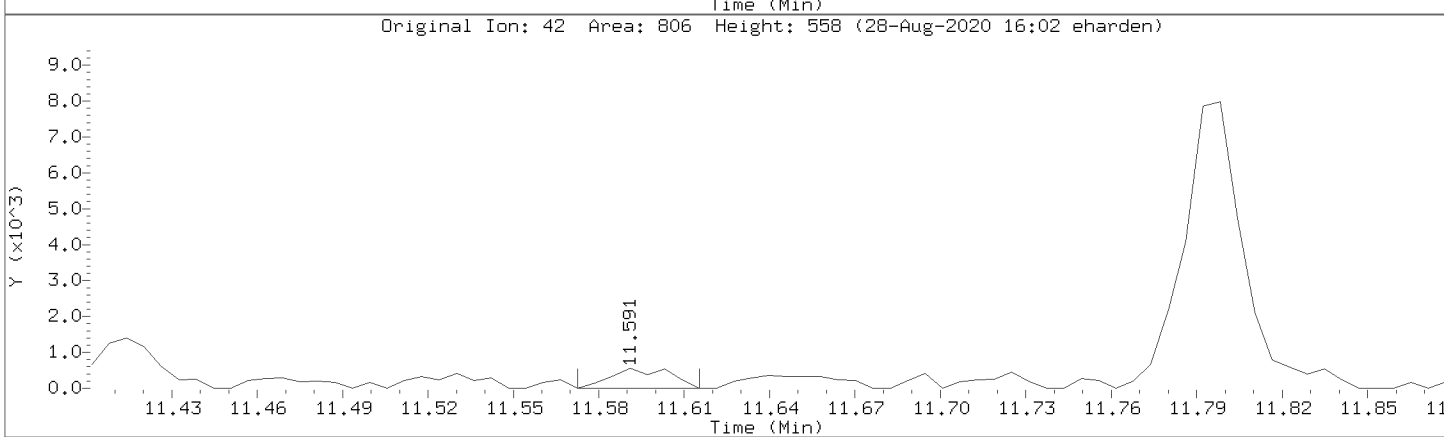
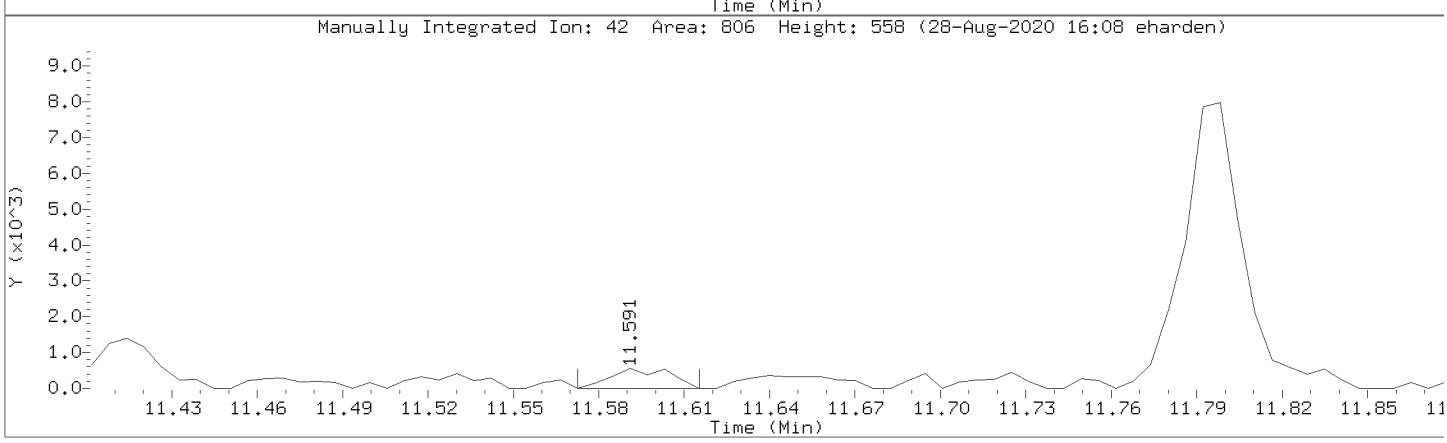
Injection Date: 28-AUG-2020 15:25
Instrument: 52mv02.i
Lab Sample ID: 205796

Compound: trans-1,4-Dichloro-2-butene Review Code: WP
CAS Number: 110-57-6









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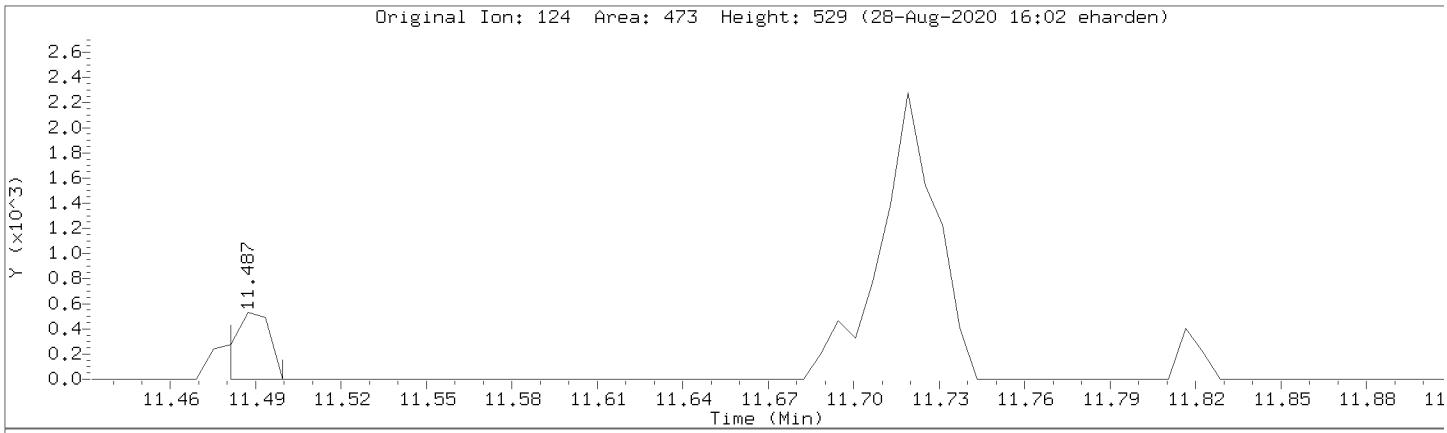
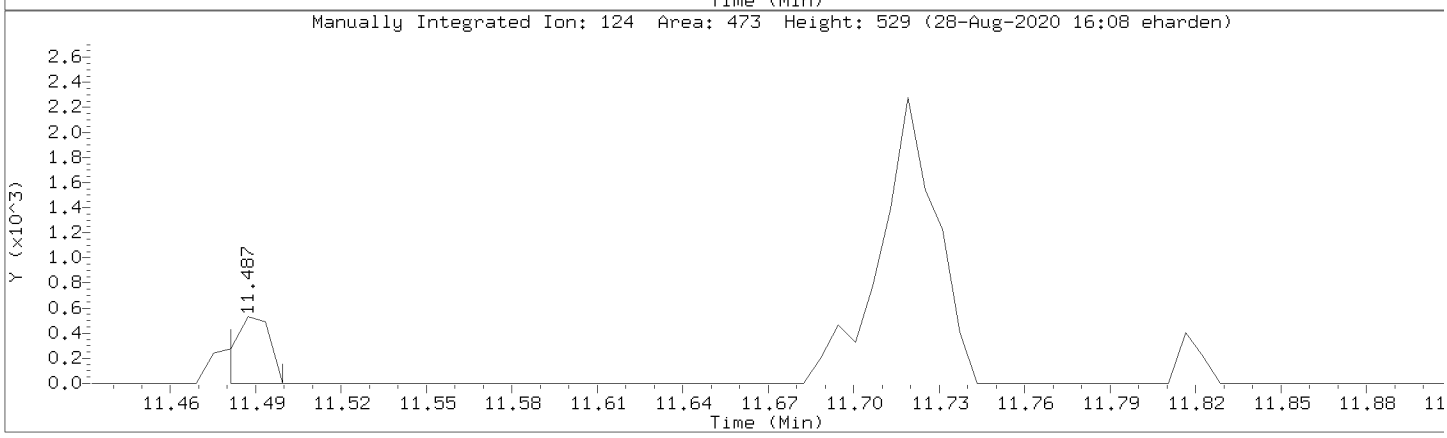
Instrument: 52mv02.i
Lab Sample ID: 205796





SAMPLE NO.

MSD

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/28/2020 11:40
Matrix: Solid SDG No.: 5249616
Date Extracted: 08/28/2020 12:10
Lab Sample ID: 205797
Date Analyzed: 08/28/2020 15:50
Lab File ID: 082820.B\082820_09.D
Initial wt/vol: 5.06 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 17.2%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
67-64-1	Acetone	1130	
75-05-8	Acetonitrile	1250	
107-02-8	Acrolein	975	
107-13-1	Acrylonitrile	1020	
71-43-2	Benzene	583	
108-86-1	Bromobenzene	617	
74-97-5	Bromochloromethane	553	
75-27-4	Bromodichloromethane	655	
75-25-2	Bromoform	615	
74-83-9	Bromomethane	611	
78-93-3	2-Butanone (MEK)	932	
104-51-8	n-Butylbenzene	536	
135-98-8	sec-Butylbenzene	496	
98-06-6	tert-Butylbenzene	471	
75-15-0	Carbon disulfide	547	
56-23-5	Carbon tetrachloride	669	
108-90-7	Chlorobenzene	586	
75-00-3	Chloroethane	638	
67-66-3	Chloroform	566	
74-87-3	Chloromethane	578	
95-49-8	2-Chlorotoluene	561	
106-43-4	4-Chlorotoluene	513	
96-12-8	1,2-Dibromo-3-chloropropane	491	
124-48-1	Dibromochloromethane	622	
106-93-4	1,2-Dibromoethane (EDB)	572	
74-95-3	Dibromomethane	608	
95-50-1	1,2-Dichlorobenzene	540	
541-73-1	1,3-Dichlorobenzene	580	
106-46-7	1,4-Dichlorobenzene	556	
75-71-8	Dichlorodifluoromethane	402	
75-34-3	1,1-Dichloroethane	567	
107-06-2	1,2-Dichloroethane	555	
75-35-4	1,1-Dichloroethene	588	
156-59-2	cis-1,2-Dichloroethene	533	
156-60-5	trans-1,2-Dichloroethene	535	
78-87-5	1,2-Dichloropropane	573	
142-28-9	1,3-Dichloropropane	584	

SAMPLE NO.

MSD

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton
Contract: RUSH VOC Soils
Date Received: 08/28/2020 11:40
Matrix: Solid SDG No.: 5249616
Date Extracted: 08/28/2020 12:10
Lab Sample ID: 205797
Date Analyzed: 08/28/2020 15:50
Lab File ID: 082820.B\082820_09.D
Initial wt/vol: 5.06 g Final wt/vol: 5 mL Dilution: 1
Instrument: 52MV02 Percent Moisture: 17.2%

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
594-20-7	2,2-Dichloropropane	568	
563-58-6	1,1-Dichloropropene	595	
10061-01-5	cis-1,3-Dichloropropene	606	
10061-02-6	trans-1,3-Dichloropropene	607	
141-78-6	Ethyl acetate	961	
100-41-4	Ethylbenzene	572	
591-78-6	2-Hexanone	1150	
98-82-8	Isopropylbenzene (Cumene)	500	
99-87-6	p-Isopropyltoluene	471	
75-09-2	Methylene Chloride	528	
108-10-1	4-Methyl-2-pentanone (MIBK)	1040	
1634-04-4	Methyl-tert-butyl ether	527	
91-20-3	Naphthalene	412	
103-65-1	n-Propylbenzene	584	
100-42-5	Styrene	501	
630-20-6	1,1,1,2-Tetrachloroethane	603	
79-34-5	1,1,2,2-Tetrachloroethane	569	
127-18-4	Tetrachloroethene	668	
108-88-3	Toluene	585	
87-61-6	1,2,3-Trichlorobenzene	540	
120-82-1	1,2,4-Trichlorobenzene	517	
71-55-6	1,1,1-Trichloroethane	649	
79-00-5	1,1,2-Trichloroethane	569	
79-01-6	Trichloroethene	627	
75-69-4	Trichlorofluoromethane	614	
96-18-4	1,2,3-Trichloropropane	568	
95-63-6	1,2,4-Trimethylbenzene	507	
108-67-8	1,3,5-Trimethylbenzene	569	
108-05-4	Vinyl acetate	423	
75-01-4	Vinyl chloride	510	
1330-20-7	Xylene (Total)	1560	

Pace Analytical Services, Inc.

SW846 8260

Data file : \\10.25.1.60\chem\52mv02.i\082820.b\082820_09.D
Lab Smp Id: 205797 Client Smp ID: 082820R2MSD
Inj Date : 28-AUG-2020 15:50
Operator : EAH Inst ID: 52mv02.i
Smp Info : 205797,
Misc Info : 3000,
Comment :
Method : \\10.25.1.60\chem\52mv02.i\082820.b\8260BSM_082020.m
Meth Date : 28-Aug-2020 13:40 eharden Quant Type: ISTD
Cal Date : 20-AUG-2020 15:01 Cal File: 082020_13.D
Als bottle: 5 QC Sample: MSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Va	100.000	Volume of aliquot extract added (uL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
1 Dichlorodifluoromethane	85	3.214	3.208	(0.409)	38824	13.4610	13.5(R)	
2 Chloromethane	50	3.537	3.537	(0.450)	67151	19.3671	19.4	
3 Vinyl chloride	62	3.696	3.690	(0.470)	48533	17.0977	17.1	
4 1,3-Butadiene	39	3.708	3.708	(0.472)	44761	17.6352	17.6	
5 Bromomethane	94	4.202	4.196	(0.535)	48088	20.4691	20.5	
6 Chloroethane	64	4.366	4.360	(0.556)	17290	21.3603	21.4	
7 Trichlorofluoromethane	101	4.531	4.531	(0.577)	37129	20.5745	20.6	
8 Diethyl ether (Ethyl ether)	74	5.000	5.000	(0.636)	17011	17.1058	17.1	
9 1,1-Dichloroethene	61	5.232	5.232	(0.666)	63155	19.6813	19.7	
10 1,1,2-Trichlorotrifluoroethane	101	5.256	5.256	(0.669)	40739	19.2448	19.2	
11 Carbon disulfide	76	5.293	5.293	(0.673)	130061	18.3141	18.3	
12 Iodomethane	142	5.439	5.439	(0.692)	20874	16.4671	16.5	
13 Acrolein	56	5.659	5.659	(0.720)	10824	32.6749	32.7	
14 Allyl chloride	76	5.787	5.787	(0.736)	17062	17.2817	17.3	
15 Methylene Chloride	49	5.903	5.903	(0.751)	67382	17.6758	17.7	
16 Acetone	43	5.970	5.964	(0.760)	72694	38.0187	38.0	
17 Methyl acetate	43	6.067	6.067	(0.772)	74917	33.5738	33.6(R)	
18 trans-1,2-Dichloroethene	96	6.067	6.067	(0.772)	38884	17.9380	17.9	
19 n-Hexane	86	6.116	6.116	(0.778)	4421	19.2467	19.2	
20 Methyl-tert-butyl ether	73	6.165	6.159	(0.784)	89289	17.6641	17.7	
21 Acetonitrile	41	6.463	6.457	(0.822)	8498	41.8349	41.8(R)	
22 Chloroprene	53	6.640	6.640	(0.845)	54309	17.9724	18.0	
23 1,1-Dichloroethane	63	6.671	6.671	(0.849)	79960	18.9825	19.0	
24 Acrylonitrile	53	6.738	6.732	(0.857)	31203	34.0948	34.1(R)	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
	25 Vinyl acetate	43	6.860	6.860	(0.873)	59100	14.1836	14.2(M)	CO
	26 cis-1,2-Dichloroethene	61	7.152	7.152	(0.910)	55478	17.8709	17.9	
	27 2,2-Dichloropropane	77	7.250	7.250	(0.922)	61818	19.0257	19.0	
	28 Bromochloromethane	128	7.335	7.335	(0.933)	25123	18.5156	18.5	
	29 Cyclohexane	56	7.335	7.335	(0.882)	47058	18.3823	18.4	
	30 Chloroform	83	7.372	7.366	(0.938)	90378	18.9750	19.0	
	31 Ethyl acetate	43	7.427	7.427	(0.945)	86601	32.2071	32.2(R)	
	32 Carbon tetrachloride	117	7.506	7.512	(0.902)	67853	22.4007	22.4	
	33 Tetrahydrofuran	42	7.530	7.530	(0.958)	21194	30.2280	30.2(R)	
$	34 Dibromofluoromethane (S)	113	7.530	7.524	(0.958)	131142	47.6103	47.6	
	35 1,1,1-Trichloroethane	97	7.567	7.567	(0.910)	74654	21.7517	21.8	
	36 2-Butanone (MEK)	43	7.622	7.622	(0.970)	64109	31.2183	31.2	
	37 1,1-Dichloropropene	75	7.658	7.658	(0.921)	47547	19.9451	19.9	
*	38 Pentafluorobenzene (IS)	168	7.859	7.860	(1.000)	239239	50.0000		
	39 Benzene	78	7.872	7.872	(0.946)	150361	19.5404	19.5	
	40 Propionitrile	54	7.890	7.896	(1.004)	14556	35.7019	35.7(R)	
	41 Methacrylonitrile	41	7.902	7.902	(1.005)	73146	35.2665	35.3(R)	
	42 Isobutanol	43	7.975	7.908	(1.015)	2529	44.6733	44.7(TM)	WP
$	43 1,2-Dichloroethane-d4 (S)	102	7.981	7.981	(1.016)	22913	46.2405	46.2	
	44 1,2-Dichloroethane	62	8.036	8.036	(1.022)	69476	18.5790	18.6	
	45 Isopropyl acetate	43	8.134	8.134	(1.035)	75482	16.9471	16.9	
	46 Trichloroethene	130	8.317	8.317	(1.000)	44194	21.0064	21.0	
*	47 1,4-Difluorobenzene (IS)	114	8.317	8.317	(1.000)	300863	50.0000		
	48 Methylcyclohexane	98	8.317	8.323	(1.000)	21137	21.1980	21.2	
	49 n-Butanol	56	8.518	8.518	(1.024)	1376	29.9227	29.9(RM)	WP
	50 Dibromomethane	93	8.670	8.670	(1.043)	36494	20.3648	20.4	
	51 1,2-Dichloropropane	63	8.737	8.737	(1.051)	42196	19.2067	19.2	
	52 Bromodichloromethane	83	8.762	8.762	(1.054)	69248	21.9508	22.0	
	53 Methyl methacrylate	69	8.823	8.823	(1.061)	20137	16.2761	16.3	
	54 1,4-Dioxane (p-Dioxane)	58	8.926	8.939	(1.073)	739	39.9006	39.9	
	55 2-Chloroethylvinyl ether	63	9.146	9.146	(1.100)	36017	32.8551	32.8(R)	
	56 cis-1,3-Dichloropropene	75	9.713	9.713	(1.168)	62296	20.3061	20.3	
$	57 Toluene-d8 (S)	98	9.371	9.371	(1.127)	334100	51.5859	51.6	
	58 Toluene	91	9.414	9.414	(1.132)	147057	19.6015	19.6	
	59 2-Nitropropane	43	9.603	9.597	(1.155)	11909	15.6254	15.6	
	60 4-Methyl-2-pentanone (MIBK)	100	9.664	9.664	(1.162)	7498	34.8241	34.8	
	61 trans-1,3-Dichloropropene	75	9.713	9.713	(1.168)	62296	20.3463	20.3	
	62 Tetrachloroethene	164	9.719	9.719	(0.920)	43971	22.3709	22.4	
	63 Ethyl methacrylate	69	9.755	9.755	(1.173)	36328	15.4599	15.4	
	64 1,1,2-Trichloroethane	83	9.847	9.847	(1.184)	36223	19.0516	19.0	
	65 Dibromochloromethane	129	9.999	9.999	(0.947)	56756	20.8372	20.8	
	66 1,3-Dichloropropane	76	10.060	10.060	(1.210)	56764	19.5740	19.6	
	67 1,2-Dibromoethane (EDB)	107	10.213	10.213	(0.967)	44796	19.1751	19.2	
	68 2-Hexanone	43	10.274	10.274	(1.235)	98238	38.6775	38.7	
	69 Ethylbenzene	91	10.554	10.554	(0.999)	143460	19.1472	19.1	
*	70 Chlorobenzene-D5 (IS)	117	10.560	10.560	(1.000)	286395	50.0000		
	71 Chlorobenzene	112	10.572	10.572	(1.001)	108433	19.6244	19.6	
	72 1,1,1,2-Tetrachloroethane	131	10.609	10.609	(1.005)	47176	20.2148	20.2	
	73 m&p-Xylene	91	10.652	10.652	(1.009)	238266	36.6015	36.6	
	74 o-Xylene	106	10.987	10.993	(1.040)	47154	15.6547	15.6	
	75 Styrene	104	11.030	11.030	(1.044)	88080	16.7776	16.8	
	76 Bromoform	173	11.103	11.103	(1.051)	53329	20.6078	20.6	
	77 n-amyl acetate	43	11.219	11.225	(1.062)	71295	15.9386	15.9	
$	78 4-Bromofluorobenzene (S)	95	11.469	11.469	(1.086)	117598	50.0329	50.0	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/kg)	REVIEW C
79 cis-1,4-Dichloro-2-butene	53	11.487	11.487	(1.088)	17240	18.3330	18.3	
80 n-Propylbenzene	91	11.523	11.523	(1.091)	179741	19.5650	19.6	
81 Bromobenzene	156	11.578	11.578	(1.096)	59871	20.6613	20.7	
82 1,1,2,2-Tetrachloroethane	83	11.584	11.584	(1.097)	58411	19.0627	19.1	
83 1,3,5-Trimethylbenzene	105	11.651	11.651	(0.944)	119130	19.0763	19.1	
84 2-Chlorotoluene	126	11.688	11.688	(1.107)	40651	18.8047	18.8	
85 4-Chlorotoluene	126	11.816	11.816	(1.119)	37390	17.1797	17.2	
86 Isopropylbenzene (Cumene)	105	11.212	11.213	(1.062)	129435	16.7615	16.8	
87 1,2,3-Trichloropropane	75	11.718	11.719	(1.110)	60895	19.0108	19.0	
88 trans-1,4-Dichloro-2-butene	53	11.718	11.719	(1.110)	14956	20.2800	20.3(M)	NI
89 Cyclohexanone	98	Compound Not Detected.						
90 tert-Butylbenzene	119	12.145	12.145	(0.984)	112481	15.7815	15.8	
91 1,2,4-Trimethylbenzene	105	11.968	11.968	(0.970)	122314	16.9881	17.0	
92 sec-Butylbenzene	105	12.060	12.060	(0.977)	141732	16.6164	16.6	
93 p-Isopropyltoluene	119	12.145	12.145	(0.984)	112481	15.7815	15.8	
94 1,3-Dichlorobenzene	146	12.285	12.285	(0.996)	97797	19.4266	19.4	
* 95 1,4-Dichlorobenzene-d4 (IS)	152	12.340	12.340	(1.000)	189126	50.0000		
96 1,4-Dichlorobenzene	146	12.353	12.353	(1.001)	105872	18.6395	18.6	
97 n-Butylbenzene	91	12.487	12.487	(1.012)	118361	17.9597	18.0	
98 1,2-Dichlorobenzene	146	12.700	12.700	(1.029)	99558	18.0981	18.1	
99 1,2-Dibromo-3-chloropropane	155	13.334	13.334	(1.081)	10171	16.4444	16.4	
100 Hexachloro-1,3-butadiene	225	13.816	13.822	(1.120)	31861	18.8957	18.9	
101 1,2,4-Trichlorobenzene	180	13.889	13.895	(1.125)	64455	17.3044	17.3	
102 Naphthalene	128	14.194	14.194	(1.150)	98938	13.7894	13.8(R)	
103 1,2,3-Trichlorobenzene	180	14.364	14.364	(1.164)	62633	18.0893	18.1	

QC Flag Legend

T - Target compound detected outside RT window.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
CO: Indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).
NI: Indicates that the peak was not integrated at all by the computer software.

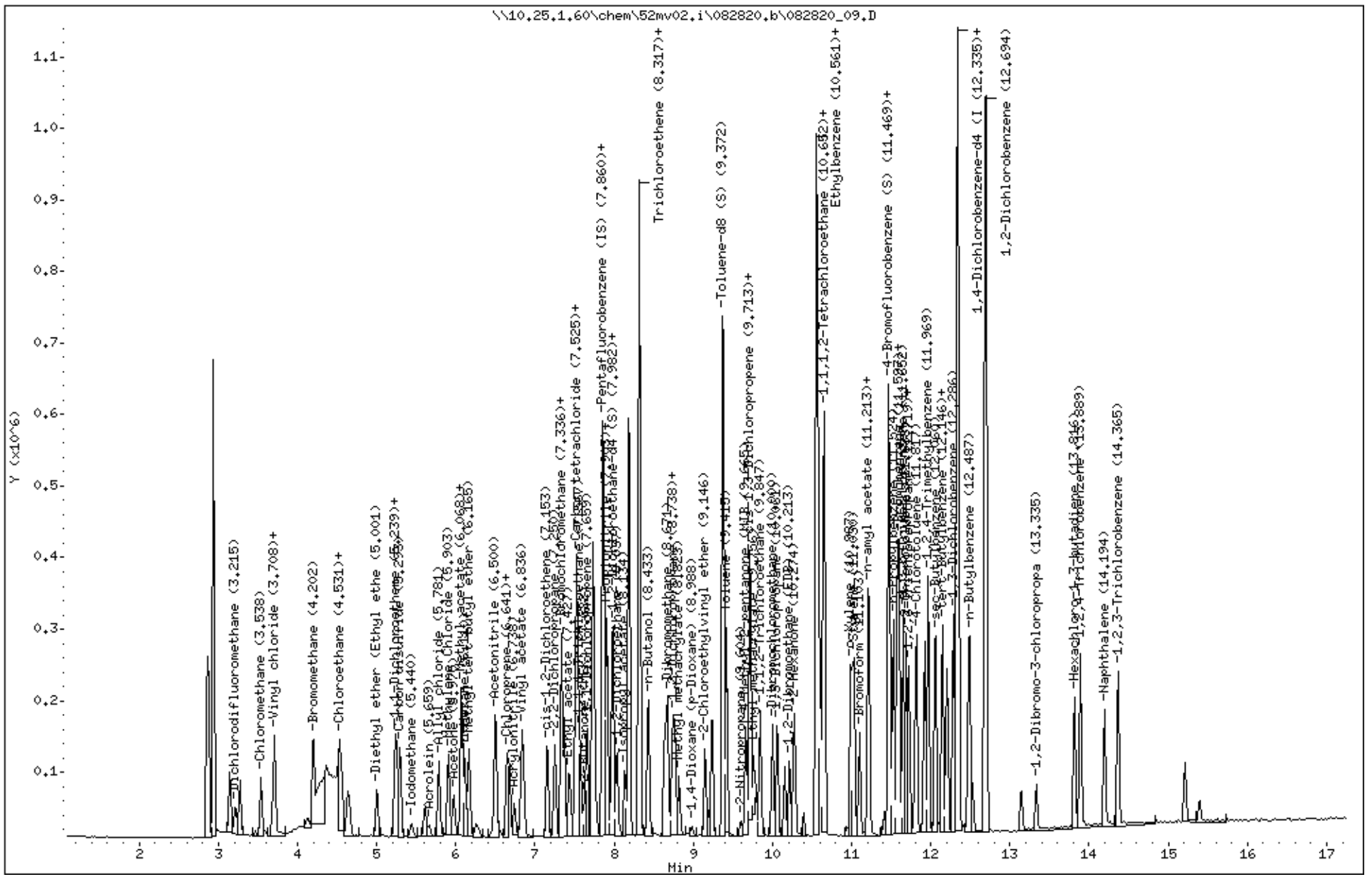
Data File: \\10.25.1.60\chem\52mv02.i\082820.b\082820_09.D
Date : 28-AUG-2020 15:50
Client ID: 082820R2MSD
Sample Info: 205797,

Instrument: 52mv02.i

Operator: EAH

Column phase: RTX-VMS

Column diameter: 0.18



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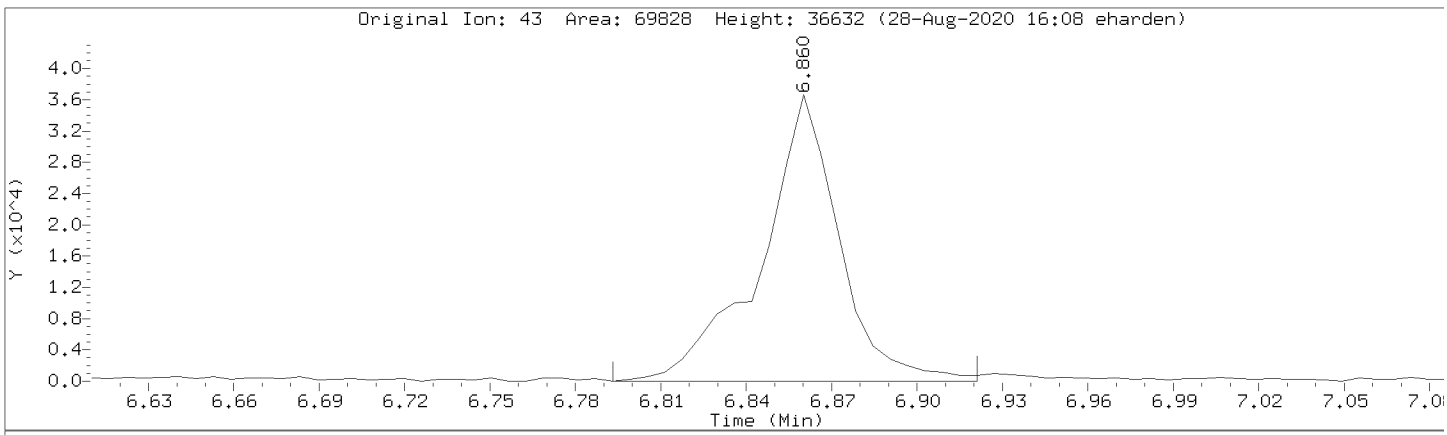
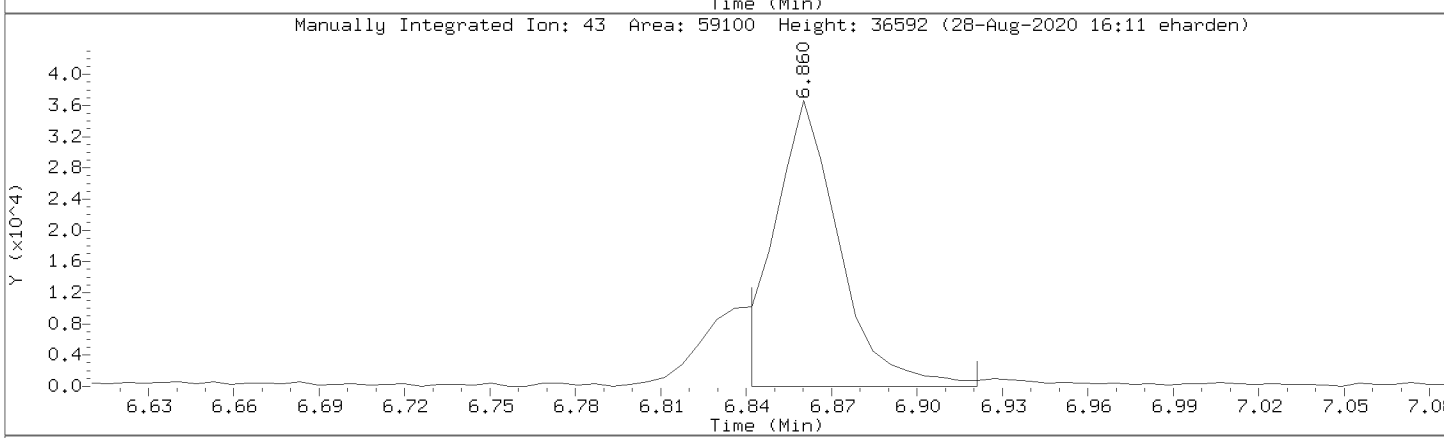
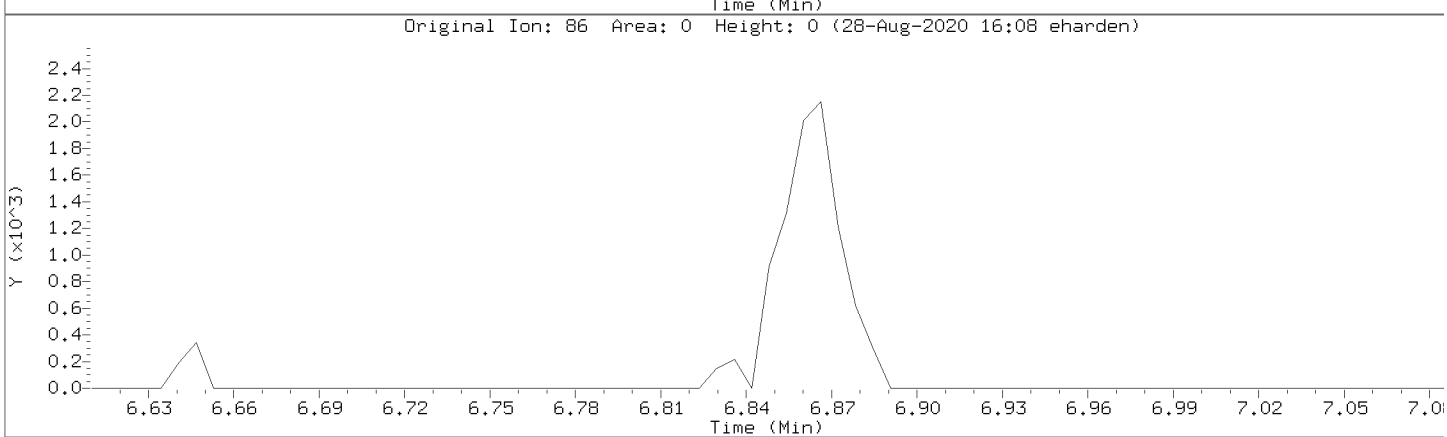
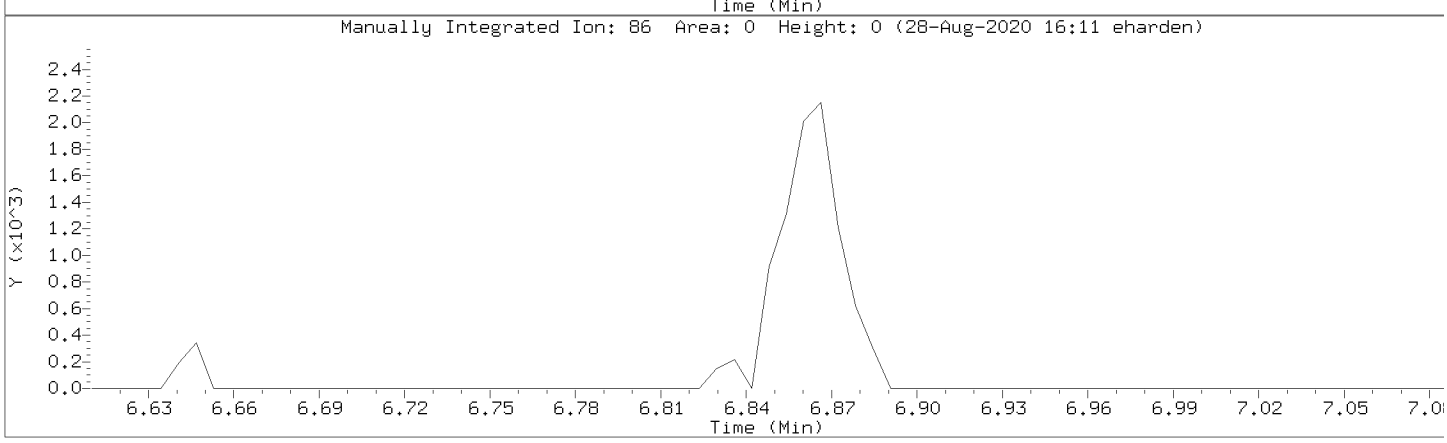
Injection Date: 28-AUG-2020 15:50
Instrument: 52mv02.i
Lab Sample ID: 205797

Compound: Vinyl acetate Review Code: CO
CAS Number: 108-05-4



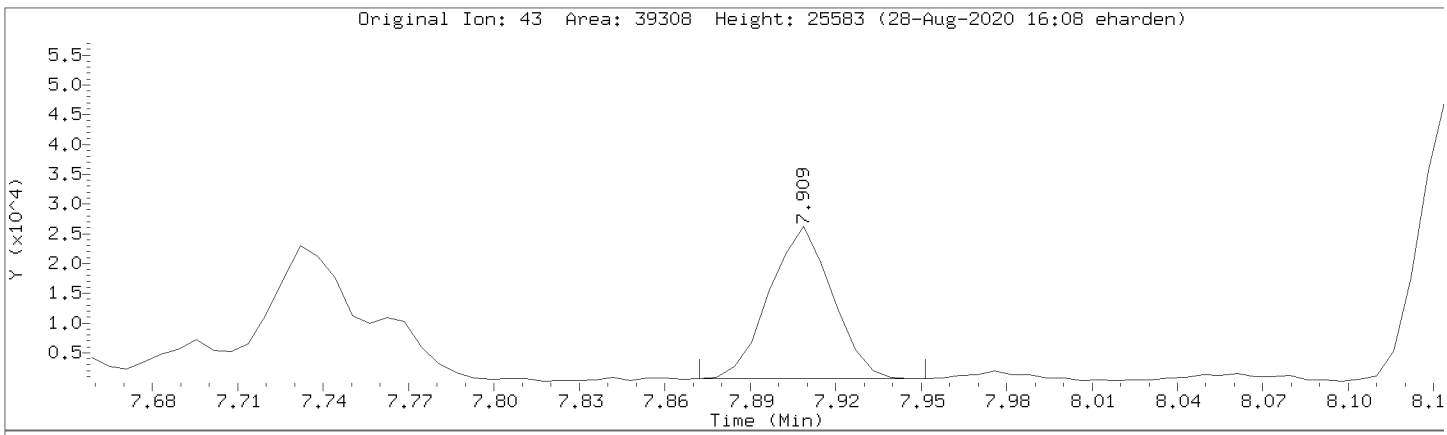


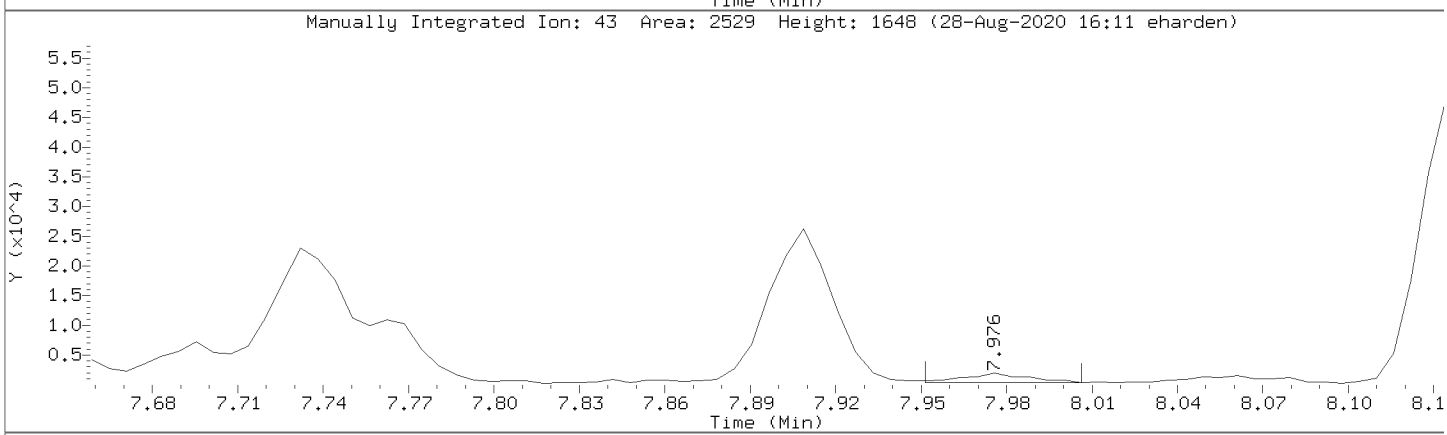


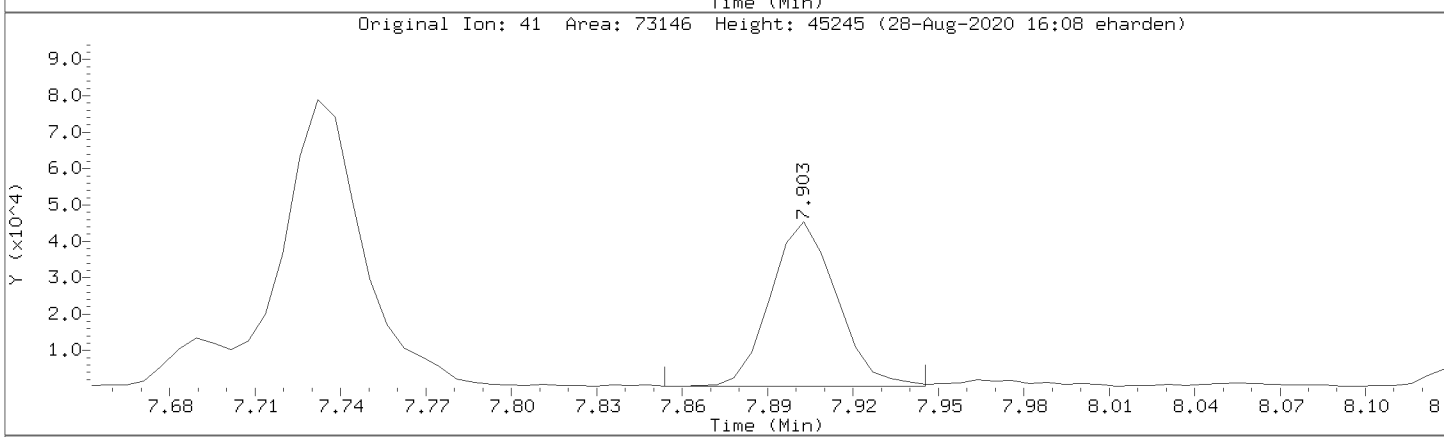


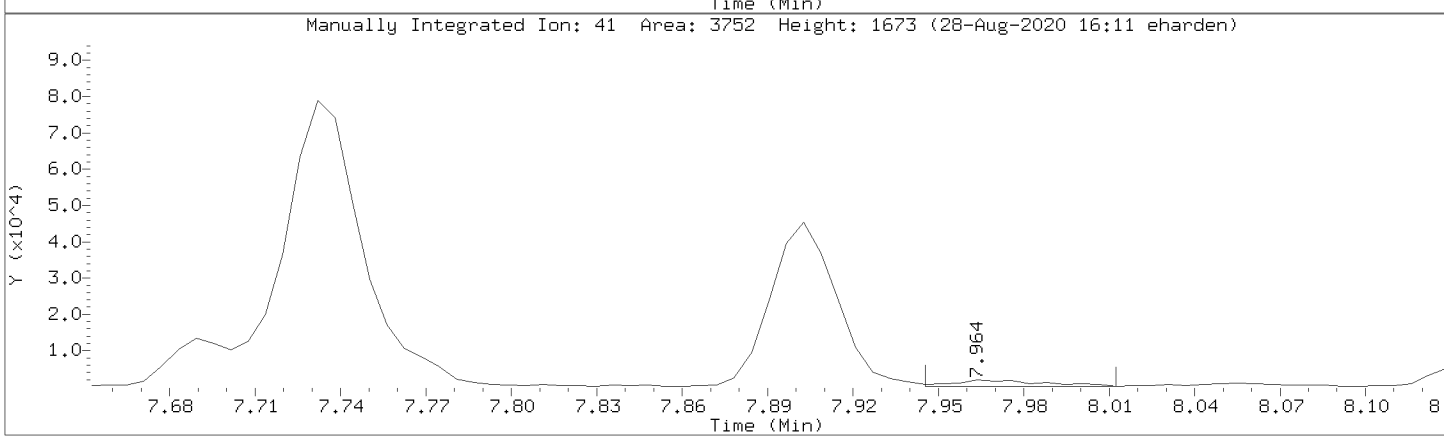
Data File: \\10.25.1.60\chem\52mv02.i\082820.b/082820_09.D
Injection Date: 28-AUG-2020 15:50
Instrument: 52mv02.i
Lab Sample ID: 205797

Compound: Isobutanol Review Code: WP
CAS Number: 78-83-1



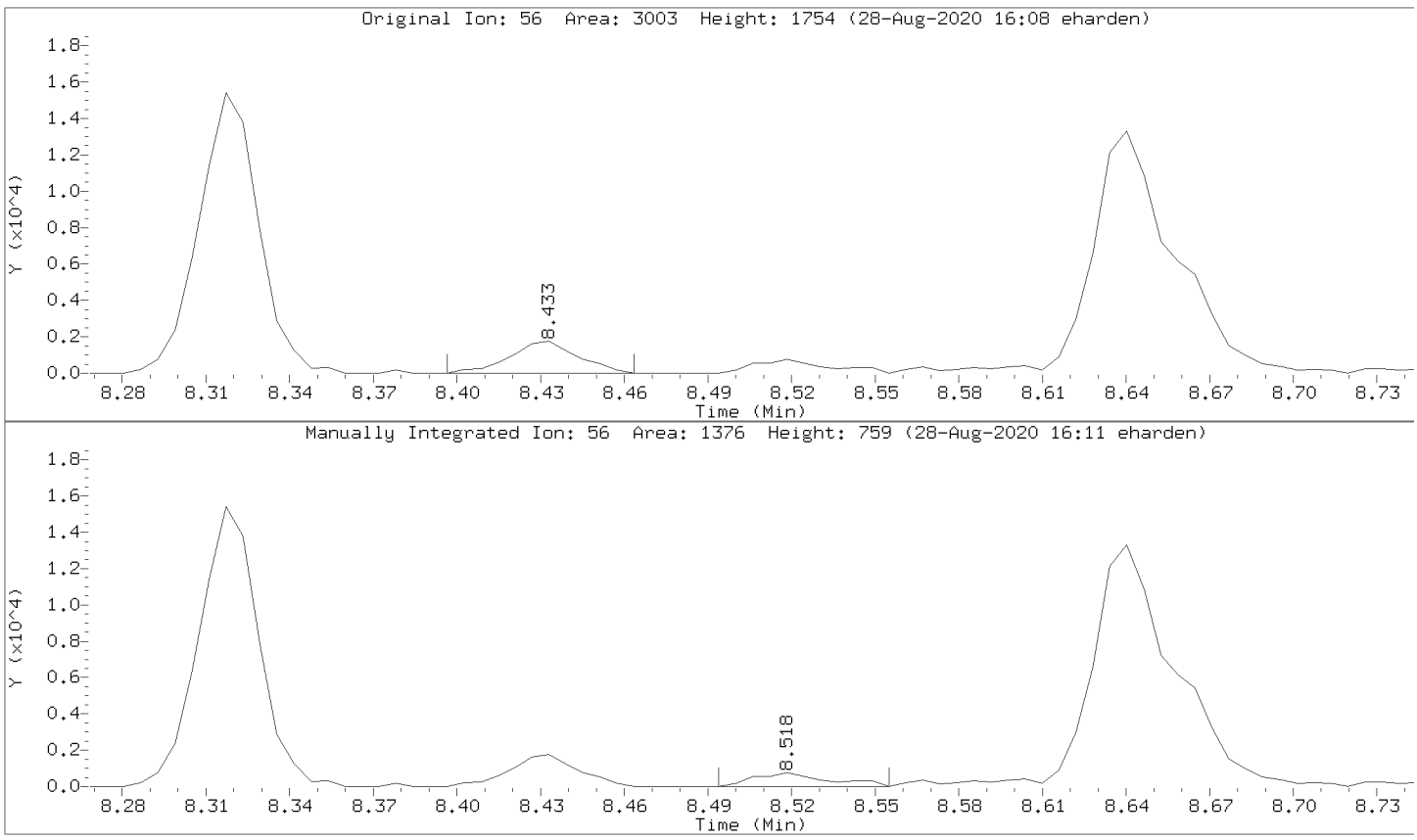






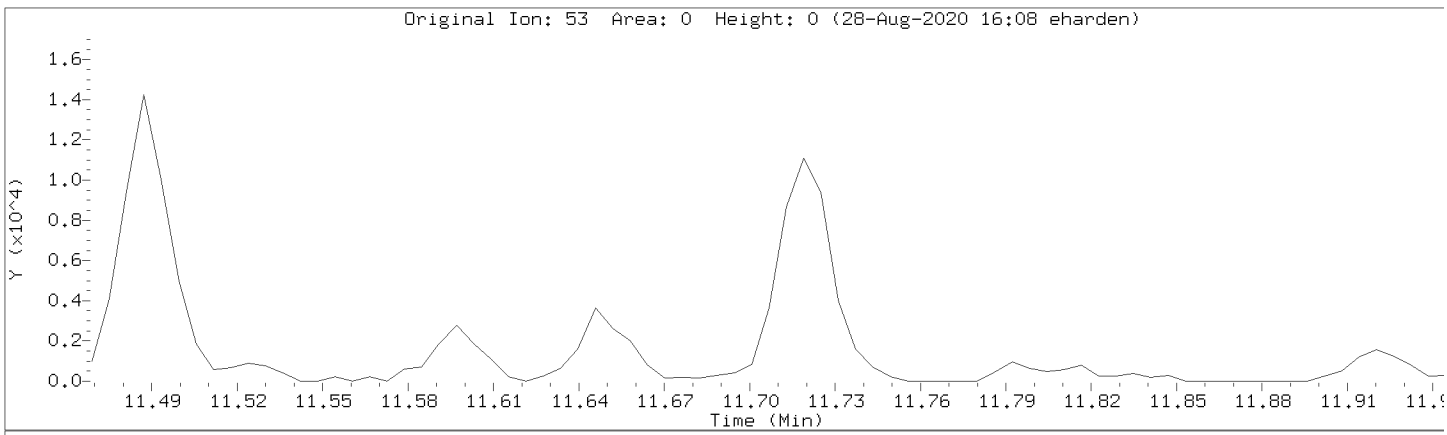
Data File: \\10.25.1.60\chem\52mv02.i\082820.b/082820_09.D
Injection Date: 28-AUG-2020 15:50
Instrument: 52mv02.i
Lab Sample ID: 205797

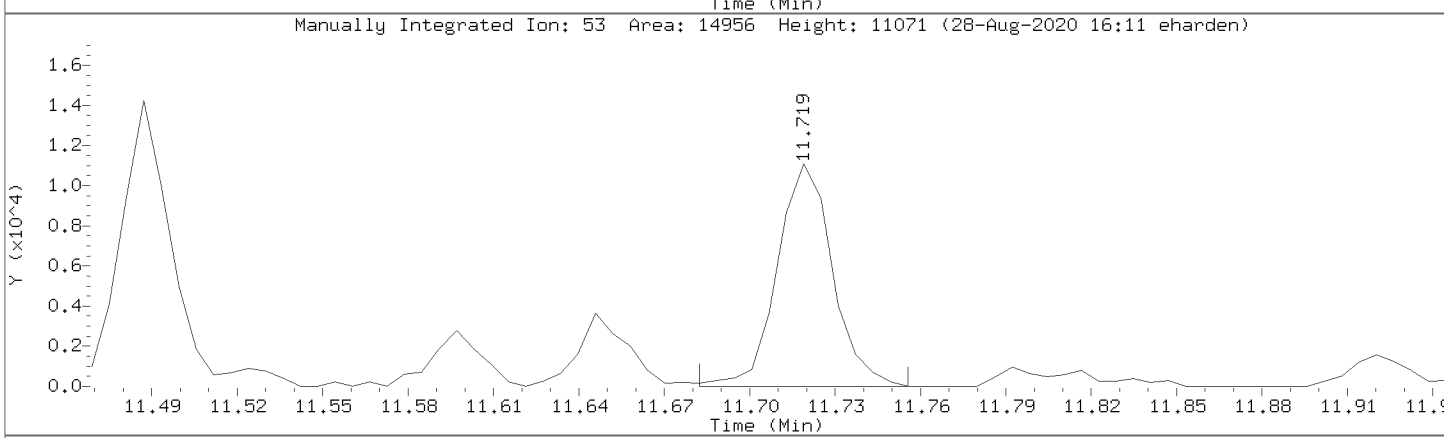
Compound: n-Butanol Review Code: WP
CAS Number: 71-36-3

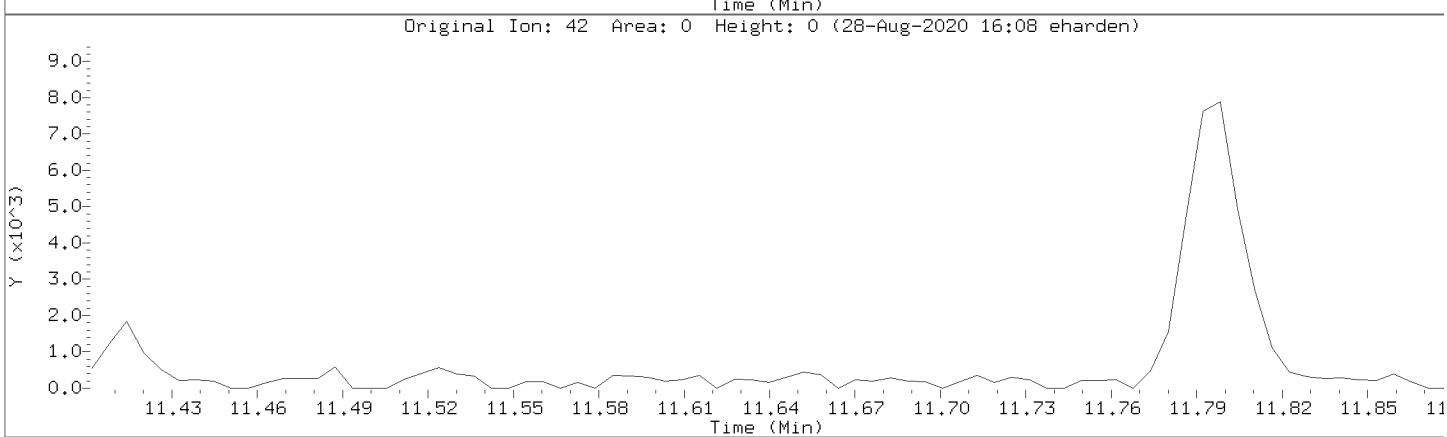


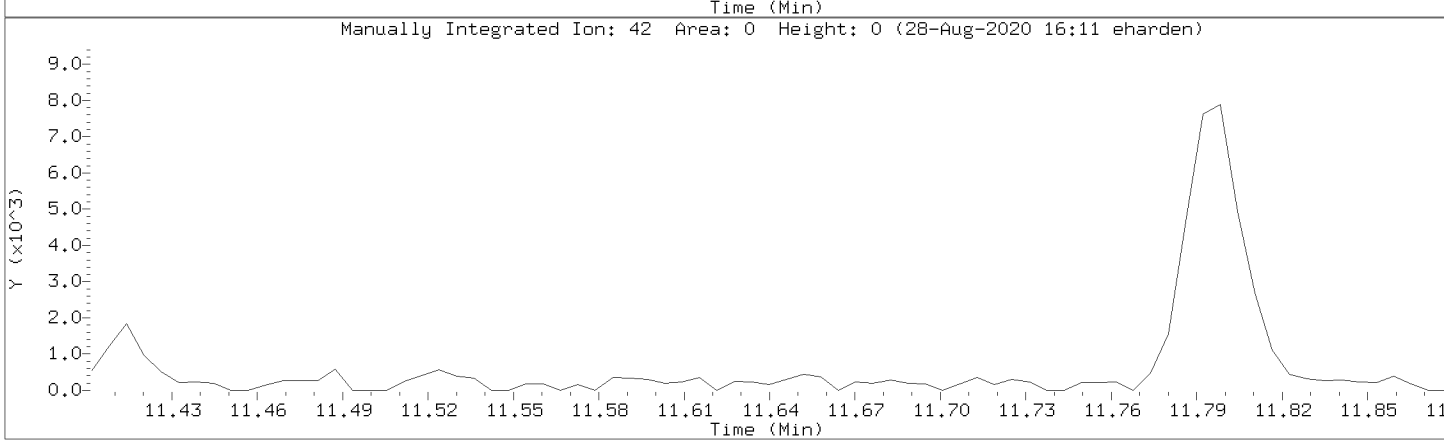
Data File: \\10.25.1.60\chem\52mv02.i\082820.b/082820_09.D
Injection Date: 28-AUG-2020 15:50
Instrument: 52mv02.i
Lab Sample ID: 205797

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6

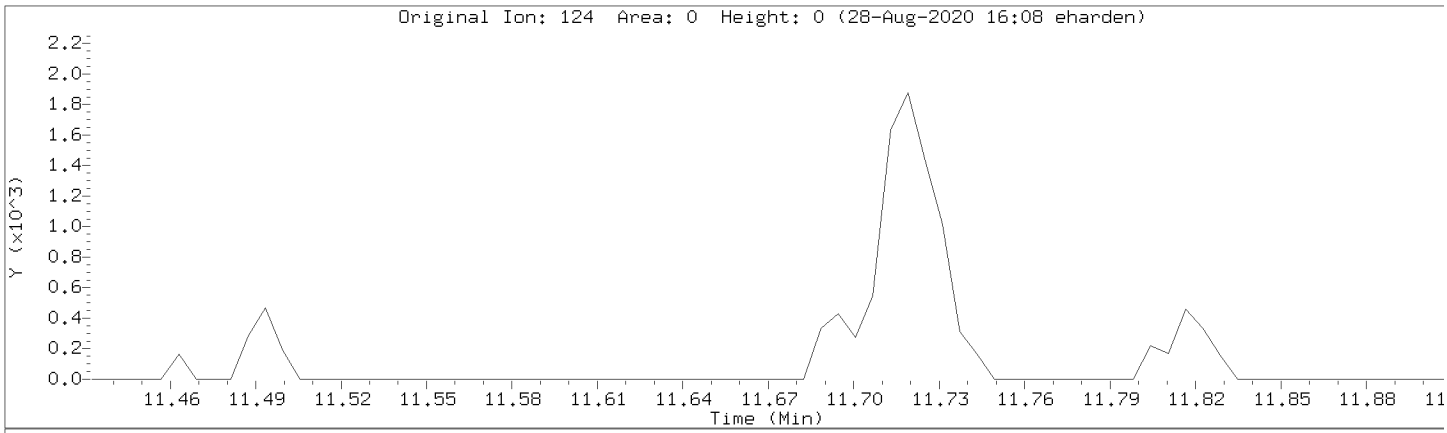


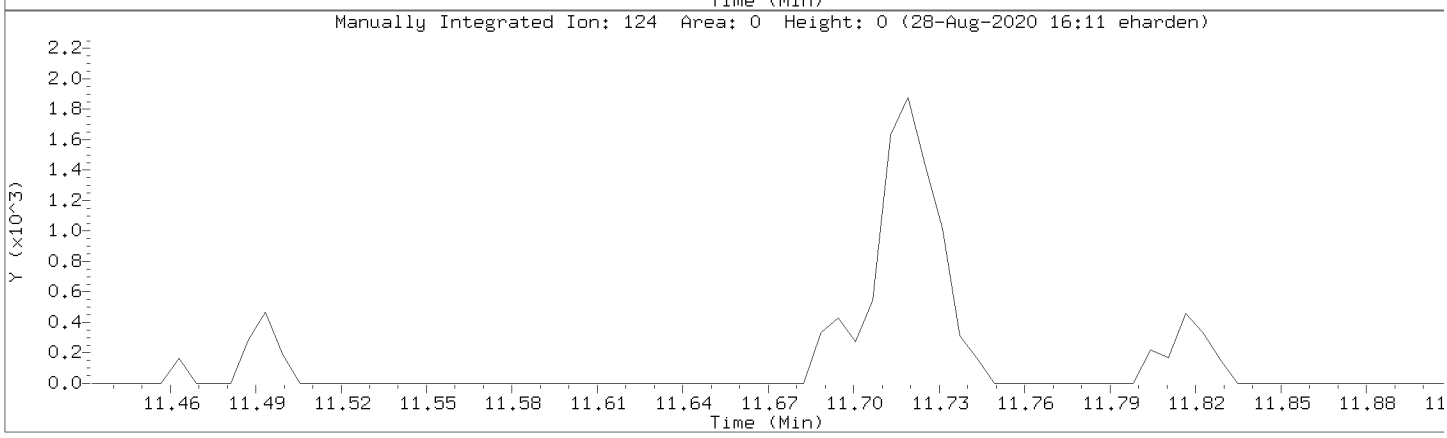






Data File: \\10.25.1.60\chem\52mv02.i\082820.b/082820_09.D
Injection Date: 28-AUG-2020 15:50
Instrument: 52mv02.i
Lab Sample ID: 205797





Prep Log Report

Batch Information: MSV 8260B SM_P 48914 **Template Version: EF-DAYT-O-001-Rev.00 (02Nov2018)**

Prep Method	EPA 5035A	Analysis Method	EPA 8260B	Prepared By	EAH	Extracted Date/Time	08/28/2020 12:10:17:559
Instrument	52BL11	Ottawa Sand	8940	Reviewed By		Reviewed By Date	
Batch Notes							

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Tare Weight (g)	Total Weight (g)	Initial Weight (g)	Final Volume (mL)	Preservation	Sample Notes
8260B SM_P	BLANK	**205794**	0	5	5.0000	5		
8260B SM_P	LCS	**205795**	0	5	5.0000	5		
8260B SM_P	PS	**5249616001**	0	5.23	5.2300	5		
8260B SM_P	MS	**205796**	0	5.09	5.0900	5		
8260B SM_P	MSD	**205797**	0	5.06	5.0600	5		

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
ISTD lot:
Lot:
Tune std: _____

Method: EPA 524.2
Surr. lot: 26400:1
Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/081920_02.D	TUNE,26558:1,	L/~~2919~~ 2933	BFB	1	7	BFB/all	8/19/20	09:34	EAH	
1/081920_03.D	CCV,27136:1	L/2860	CCALIB_7	1	7	8260BW_071720/	8/19/20	09:59	EAH	
1/081920_03TUNE.D	TUNE	L/2860	BFB	1	7	BFB/all	8/19/20	09:59	EAH	
1/081920_04.D	CCV,27137:1	L/2933	CCALIB_5	1	7	5242W_080720/a	8/19/20	10:24	EAH	
1/081920_04B2955.D	202255,	L/2955	LCS	1	7	5242W_080720/a	8/19/20	10:24	EAH	
1/081920_05.D	0.50 RLC	L/	RLC	1	<2	5242W_080720/a	8/19/20	10:49	EAH	
1/081920_06.D	0.40 RLC	L/	RLC	1	<2	5242W_080720/M	8/19/20	11:14	EAH	
1/081920_07.D	202254,	L/2955	BLANK	1	7	5242W_080720/a	8/19/20	11:39	EAH	
1/081920_08.D	5248591001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	12:06	EAH	
1/081920_09.D	5248591002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	12:32	EAH	
1/081920_10.D	5248591003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	12:57	EAH	
1/081920_11.D	5248591004,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	13:22	EAH	
1/081920_12.D	5248591005,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	13:47	EAH	
1/081920_13.D	5248713001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	14:12	EAH	
1/081920_14.D	5248713002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	14:37	EAH	
1/081920_15.D	5248713003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	15:02	EAH	
1/081920_16.D	5248588001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	15:27	EAH	
1/081920_17.D	5248588002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	15:52	EAH	
1/081920_18.D	5248588003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	16:17	EAH	
1/081920_19.D	5248590001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	16:42	EAH	
1/081920_20.D	5248590002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	17:07	EAH	
1/081920_21.D	5248590003,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	17:32	EAH	
1/081920_22.D	5248650001,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	17:57	EAH	
1/081920_23.D	5248650002,	L/2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	18:22	EAH	
1/081920_24.D	5248792001,	L/~~2595~~ 2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	18:48	EAH	
1/081920_25.D	5248792002,	L/~~2595~~ 2955	SAMPLE	1	<2	5242W_080720/T	8/19/20	19:13	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\081920.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 14:51 08/20/2020

Reviewed By/Date: _____ Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
ISTD lot:
Lot:
Tune std: _____

Method: SW846 8260
Surr. lot: 26400:5
Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/082020_01.D	TUNE,26400:1,	L/2957	BFB	1	7	BFB/all	8/20/20	09:57	EAH	
1/082020_02.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	10:23	EAH	
1/082020_03.D	CAL1,27237:1	L/2957	CALIB_1	1	<2	8260BSM_082020	8/20/20	10:50	EAH	
1/082020_04.D	CAL2,27238:1	L/2957	CALIB_2	1	<2	8260BSM_082020	8/20/20	11:15	EAH	
1/082020_05.D	CAL3,27239:1	L/2957	CALIB_3	1	<2	8260BSM_082020	8/20/20	11:40	EAH	
1/082020_06.D	CAL4,27240:1	L/2957	CALIB_4	1	<2	8260BSM_082020	8/20/20	12:05	EAH	
1/082020_07.D	CAL5,27241:1	L/2957	CALIB_5	1	<2	8260BSM_082020	8/20/20	12:30	EAH	
1/082020_08.D	CAL6,27242:1	L/2957	CALIB_6	1	<2	8260BSM_082020	8/20/20	12:55	EAH	
1/082020_09.D	CAL7,27243:1	L/2957	CALIB_7	1	<2	8260BSM_082020	8/20/20	13:20	EAH	
1/082020_10.D	CAL8,27244:1	L/2957	CALIB_8	1	<2	8260BSM_082020	8/20/20	13:45	EAH	
1/082020_11.D	CAL9,27245:1	L/2957	CALIB_9	1	<2	8260BSM_082020	8/20/20	14:11	EAH	
1/082020_12.D	CAL10,27246:1	L/2957	CALIB_10	1	<2	8260BSM_082020	8/20/20	14:36	EAH	
1/082020_13.D	CAL11,27247:1	L/2957	CALIB_11	1	<2	8260BSM_082020	8/20/20	15:01	EAH	
1/082020_14.D	CAL12,27248:1	L/2957	CALIB_12	1	<2	8260BSM_082020	8/20/20	15:26	EAH	
1/082020_15.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	15:51	EAH	
1/082020_16.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	16:16	EAH	
1/082020_17.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/20/20	16:41	EAH	
1/082020_18.D	ICV, 27249:1	L/2957	CCALIB_7	1	7	8260BSM_082020	8/20/20	17:06	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\082020.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 11:12 08/21/2020

Reviewed By/Date: _____ Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
Misc. Prep Info [S]:
ISTD lot:
Lot:
Tune std: _____

Method: SW846 8260

Surr. lot: 26400:5

Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/082720_01.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/27/20	10:44	EAH	
1/082720_02.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/27/20	11:09	EAH	
1/082720_03.D	CCV,27136:1	L/2957	CCALIB_7	1	7	8260BSM_082020	8/27/20	11:34	EAH	
1/082720_03B2991.D	205216,	S/2991	LCS	1		8260BSM_082020	8/27/20	11:34	EAH	
1/082720_03TUNE.D	TUNE,26400:1,	L/2957	BFB	1	7	BFB/all	8/27/20	11:34	EAH	
1/082720_04.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/27/20	11:59	EAH	
1/082720_05.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/27/20	12:25	EAH	
1/082720_06.D	205215,	S/2991	BLANK	1		8260BSM_082020	8/27/20	12:50	EAH	
1/082720_07.D	5249452002X2,	S/2991	SAMPLE	2		8260BSM_082020	8/27/20	13:15	EAH	
1/082720_08.D	5249454002X2,	S/2991	SAMPLE	2		8260BSM_082020	8/27/20	13:40	EAH	
1/082720_09.D	5249154001,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	14:05	EAH	
1/082720_10.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/27/20	14:30	EAH	
1/082720_11.D	5249553001,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	16:20	EAH	
1/082720_12.D	5249553002,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	16:45	EAH	
1/082720_13.D	5249553003,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	17:10	EAH	
1/082720_14.D	5249553004,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	17:35	EAH	
1/082720_15.D	5249553005,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	18:01	EAH	
1/082720_16.D	5249553006,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	18:26	EAH	
1/082720_17.D	5249553007,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	18:51	EAH	
1/082720_18.D	5249553008,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	19:16	EAH	
1/082720_19.D	5249553009,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	19:41	EAH	
1/082720_20.D	5249553010,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	20:06	EAH	
1/082720_21.D	5249553011,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	20:31	EAH	
1/082720_22.D	5249553012,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	20:56	EAH	
1/082720_23.D	5249553013,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	21:21	EAH	
1/082720_24.D	5249553014,	S/2991	SAMPLE	1		8260BSM_082020	8/27/20	21:46	EAH	
1/082720_25.D	205521,	S/2991	MS	1		8260BSM_082020	8/27/20	22:11	EAH	
1/082720_26.D	205522,	S/2991	MSD	1		8260BSM_082020	8/27/20	22:36	EAH	
1/082720_27.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/27/20	23:02	EAH	
1/082720_28.D	RINSE	L/	SAMPLE	1	<2	8260BSM_082020	8/27/20	23:27	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\082720.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 11:24 08/28/2020

Reviewed By/Date: _____ Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 52mv02.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
ISTD lot:
Lot:
Tune std: _____

Method: EPA 524.2
Surr. lot: 26400:1
Cal. std: _____

Path/File	Smp Info	Mtrx/Batch	Type	DF	pH	Method/Sublist	Date	Time	Oper	Comments
1/082820_10.D	RINSE	L/	SAMPLE	1	<2	5242W_082820/a	8/28/20	16:16	EAH	
1/082820_11.D	RINSE	L/	SAMPLE	1	<2	5242W_082820/a	8/28/20	16:41	EAH	
1/082820_12.D	TUNE,26400:1,	L/2997	BFB	1	7	5242W_082820/a	8/28/20	17:08	EAH	
1/082820_13.D	CAL1,27626:1	L/2997	CALIB_1	1	<2	5242W_082820/a	8/28/20	17:33	EAH	
1/082820_14.D	CAL2,27627:1	L/2997	CALIB_2	1	<2	5242W_082820/a	8/28/20	17:58	EAH	
1/082820_15.D	CAL3,27628:1	L/2997	CALIB_3	1	<2	5242W_082820/a	8/28/20	18:23	EAH	
1/082820_16.D	CAL4,27629:1	L/2997	CALIB_4	1	<2	5242W_082820/a	8/28/20	18:48	EAH	
1/082820_17.D	CAL5,27630:1	L/2997	CALIB_5	1	<2	5242W_082820/a	8/28/20	19:13	EAH	
1/082820_18.D	CAL6,27631:1	L/2997	CALIB_6	1	<2	5242W_082820/a	8/28/20	19:38	EAH	
1/082820_19.D	CAL7,27632:1	L/2997	CALIB_7	1	<2	5242W_082820/a	8/28/20	20:03	EAH	
1/082820_20.D	CAL8,27633:1	L/2997	CALIB_8	1	<2	5242W_082820/a	8/28/20	20:28	EAH	
1/082820_21.D	CAL9,27634:1	L/2997	CALIB_9	1	<2	5242W_082820/a	8/28/20	20:53	EAH	
1/082820_22.D	CAL10,27635:1	L/2997	CALIB_10	1	<2	5242W_082820/a	8/28/20	21:19	EAH	
1/082820_25.D	RINSE	L/	SAMPLE	1	<2	5242W_082820/a	8/28/20	22:34	EAH	
1/082820_26.D	RINSE	L/	SAMPLE	1	<2	5242W_082820/a	8/28/20	22:59	EAH	
1/082820_27.D	RINSE	L/	SAMPLE	1	<2	5242W_082820/a	8/28/20	23:24	EAH	
1/082820_29.D	ICV,27636:1	L/2997	CCALIB_5	1	7	5242W_082820/a	8/29/20	00:14	EAH	

Comments: All water samples have a pH below 2 unless otherwise noted.
Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced _____
___ No maintenance performed today

Additional Comments:

Run Order Verified: _____

File Path 1: \\10.25.1.60\chem\52mv02.i\082820M5242.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 09:15 09/01/2020

Reviewed By/Date: _____ Page: 1 of 1

Standard Log Report

Standards Log Information for Standard #27466

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/26/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/01/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CCV

Notes:

MSV 8260 CCV

Compound Name and Concentration for Standard #27466

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	20 ug/L	1,1,1-Trichloroethane	20 ug/L
1,1,2,2-Tetrachloroethane	20 ug/L	1,1,2-Trichloroethane	20 ug/L
1,1,2-	20 ug/L	1,1-Dichloroethane	20 ug/L
1,1-Dichloroethene	20 ug/L	1,1-Dichloropropene	20 ug/L
1,2,3-Trichlorobenzene	20 ug/L	1,2,3-Trichloropropane	20 ug/L
1,2,4-Trichlorobenzene	20 ug/L	1,2,4-Trimethylbenzene	20 ug/L
1,2-Dibromo-3-	20 ug/L	1,2-Dibromoethane (EDB)	20 ug/L
1,2-Dichlorobenzene	20 ug/L	1,2-Dichloroethane	20 ug/L
1,2-Dichloropropane	20 ug/L	1,3,5-Trimethylbenzene	20 ug/L
1,3-Butadiene	20 ug/L	1,3-Dichlorobenzene	20 ug/L
1,3-Dichloropropane	20 ug/L	1,4-Dichlorobenzene	20 ug/L
1,4-Dioxane (p-Dioxane)	40 ug/L	2,2-Dichloropropane	20 ug/L
2-Butanone (MEK)	40 ug/L	2-Chloroethylvinyl ether	40 ug/L
2-Chlorotoluene	20 ug/L	2-Hexanone	40 ug/L
2-Nitropropane	20 ug/L	4-Chlorotoluene	20 ug/L
4-Methyl-2-pentanone	40 ug/L	Acetone	40 ug/L
Acetonitrile	40 ug/L	Acrolein	40 ug/L
Acrylonitrile	40 ug/L	Allyl chloride	20 ug/L
Benzene	20 ug/L	Bromobenzene	20 ug/L
Bromochloromethane	20 ug/L	Bromodichloromethane	20 ug/L
Bromoform	20 ug/L	Bromomethane	20 ug/L
Carbon disulfide	20 ug/L	Carbon tetrachloride	20 ug/L
Chlorobenzene	20 ug/L	Chloroethane	20 ug/L
Chloroform	20 ug/L	Chloromethane	20 ug/L
Chloroprene	20 ug/L	Cyclohexane	20 ug/L
DI Water	ug/L	Dibromochloromethane	20 ug/L
Dibromomethane	20 ug/L	Dichlorodifluoromethane	20 ug/L
Diethyl ether (Ethyl ether)	20 ug/L	Ethyl acetate	40 ug/L
Ethyl methacrylate	20 ug/L	Ethylbenzene	20 ug/L
Hexachloro-1,3-butadiene	20 ug/L	Iodomethane	20 ug/L
Isobutanol	40 ug/L	Isopropyl acetate	20 ug/L
Isopropylbenzene	20 ug/L	Methacrylonitrile	40 ug/L
Methanol	ug/L	Methyl acetate	40 ug/L
Methyl acrylate	20 ug/L	Methyl methacrylate	20 ug/L
Methyl-tert-butyl ether	20 ug/L	Methylcyclohexane	20 ug/L
Methylene Chloride	20 ug/L	Naphthalene	20 ug/L
Propionitrile	40 ug/L	Styrene	20 ug/L
TOTAL BTEX	120 ug/L	Tetrachloroethene	20 ug/L
Tetrahydrofuran	40 ug/L	Toluene	20 ug/L
Total Trihalomethanes	80 ug/L	Trichloroethene	20 ug/L
Trichlorofluoromethane	20 ug/L	Vinyl acetate	20 ug/L
Vinyl chloride	20 ug/L	Xylene (Total)	60 ug/L
cis-1,2-Dichloroethene	20 ug/L	cis-1,3-Dichloropropene	20 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
cis-1,4-Dichloro-2-butene	20 ug/L	m&p-Xylene	40 ug/L
n-Butanol	40 ug/L	n-Butylbenzene	20 ug/L
n-Hexane	20 ug/L	n-Propylbenzene	20 ug/L
n-amyl acetate	20 ug/L	o-Xylene	20 ug/L
p-Isopropyltoluene	20 ug/L	sec-Butylbenzene	20 ug/L
tert-Butylbenzene	20 ug/L	trans-1,2-Dichloroethene	20 ug/L
trans-1,3-Dichloropropene	20 ug/L	trans-1,4-Dichloro-2-	20 ug/L

Composed of Information for Standard #27466

Composed of Standard Seq	Volume	Units
27432	0.02	mL
26717	0.02	mL
1	49.96	mL

Standard Log Report

Standards Log Information for Standard #27432

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/25/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/01/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260GAS-SPK

Notes:

MSV 8260 Phenova Primary Gas Spike MIX

Compound Name and Concentration for Standard #27432

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	100 ug/mL	Acrolein	100 ug/mL
Acrylonitrile	100 ug/mL	Bromomethane	50 ug/mL
Chloroethane	50 ug/mL	Chloromethane	50 ug/mL
Dichlorodifluoromethane	50 ug/mL	Methanol	ug/mL
Methyl acetate	100 ug/mL	Trichlorofluoromethane	50 ug/mL
Vinyl acetate	50 ug/mL	Vinyl chloride	50 ug/mL

Composed of Information for Standard #27432

Composed of Standard Seq	Volume	Units
27399	0.625	mL
27397	0.25	mL
27388	23.25	mL
27049	0.625	mL
26387	0.25	mL

Standard Log Report

Standards Log Information for Standard #27399

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522735
Create Date:	08/24/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180018
Expire Date:	09/16/2020	**Manufacturer Lot ID:**	CL15665	**Standard ID:**	ACETATEPSTK

Notes:

MSV Phenova Custom Acetate Mix-Primary Source

Compound Name and Concentration for Standard #27399

Compound Name	Concentration	Compound Name	Concentration
Vinyl acetate	2000 ug/mL		

The standards listed are from Pace's LIMS52.

Standard Log Report

Standards Log Information for Standard #27397

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522733
Create Date:	08/24/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180017
Expire Date:	09/18/2020	**Manufacturer Lot ID:**	CL15670	**Standard ID:**	AcrolienPSTK

Notes:

MSV Phenova Acrolein Stock Standard - Primary

Compound Name and Concentration for Standard #27397

Compound Name	Concentration	Compound Name	Concentration
Acrolein	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #27388

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	522732
Create Date:	08/24/2020	**Manufacturer:**	Fisher Scientific	**Part ID:**	A453-500
Expire Date:	02/20/2021	**Manufacturer Lot ID:**	198331	**Standard ID:**	RGNT179

Notes:

MSV P/T Methanol

Compound Name and Concentration for Standard #27388

Compound Name	Concentration	Compound Name	Concentration
Methanol			

Standard Log Report

Standards Log Information for Standard #27249

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-ICV

Notes:

MSV 8260 ICV

Compound Name and Concentration for Standard #27249

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	20 ug/L	1,1,1-Trichloroethane	20 ug/L
1,1,2,2-Tetrachloroethane	20 ug/L	1,1,2-Trichloroethane	20 ug/L
1,1,2-	20 ug/L	1,1-Dichloroethane	20 ug/L
1,1-Dichloroethene	20 ug/L	1,1-Dichloropropene	20 ug/L
1,2,3-Trichlorobenzene	20 ug/L	1,2,3-Trichloropropane	20 ug/L
1,2,4-Trichlorobenzene	20 ug/L	1,2,4-Trimethylbenzene	20 ug/L
1,2-Dibromo-3-	20 ug/L	1,2-Dibromoethane (EDB)	20 ug/L
1,2-Dichlorobenzene	20 ug/L	1,2-Dichloroethane	20 ug/L
1,2-Dichloropropane	20 ug/L	1,3,5-Trimethylbenzene	20 ug/L
1,3-Butadiene	20 ug/L	1,3-Dichlorobenzene	20 ug/L
1,3-Dichloropropane	20 ug/L	1,4-Dichlorobenzene	20 ug/L
1,4-Dioxane (p-Dioxane)	40 ug/L	2,2-Dichloropropane	20 ug/L
2-Butanone (MEK)	40 ug/L	2-Chloroethylvinyl ether	40 ug/L
2-Chlorotoluene	20 ug/L	2-Hexanone	40 ug/L
2-Nitropropane	20 ug/L	4-Chlorotoluene	20 ug/L
4-Methyl-2-pentanone	40 ug/L	Acetone	40 ug/L
Acetonitrile	40 ug/L	Acrolein	40 ug/L
Acrylonitrile	40 ug/L	Allyl chloride	20 ug/L
Benzene	20 ug/L	Bromobenzene	20 ug/L
Bromochloromethane	20 ug/L	Bromodichloromethane	20 ug/L
Bromoform	20 ug/L	Bromomethane	20 ug/L
Carbon disulfide	20 ug/L	Carbon tetrachloride	20 ug/L
Chlorobenzene	20 ug/L	Chloroethane	20 ug/L
Chloroform	20 ug/L	Chloromethane	20 ug/L
Chloroprene	20 ug/L	Cyclohexane	20 ug/L
Dibromochloromethane	20 ug/L	Dibromomethane	20 ug/L
Dichlorodifluoromethane	20 ug/L	Diethyl ether (Ethyl ether)	20 ug/L
Ethyl acetate	40 ug/L	Ethyl methacrylate	20 ug/L
Ethylbenzene	20 ug/L	Hexachloro-1,3-butadiene	20 ug/L
Iodomethane	20 ug/L	Isobutanol	40 ug/L
Isopropyl acetate	20 ug/L	Isopropylbenzene	20 ug/L
Methacrylonitrile	40 ug/L	Methanol	ug/L
Methyl acetate	40 ug/L	Methyl acrylate	20 ug/L
Methyl methacrylate	20 ug/L	Methyl-tert-butyl ether	20 ug/L
Methylcyclohexane	20 ug/L	Methylene Chloride	20 ug/L
Naphthalene	20 ug/L	Propionitrile	40 ug/L
Styrene	20 ug/L	TOTAL BTEX	120 ug/L
Tetrachloroethene	20 ug/L	Tetrahydrofuran	40 ug/L
Toluene	20 ug/L	Total Trihalomethanes	80 ug/L
Trichloroethene	20 ug/L	Trichlorofluoromethane	20 ug/L
Vinyl acetate	20 ug/L	Vinyl chloride	20 ug/L
Xylene (Total)	60 ug/L	cis-1,2-Dichloroethene	20 ug/L
cis-1,3-Dichloropropene	20 ug/L	cis-1,4-Dichloro-2-butene	20 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	40 ug/L	n-Butanol	40 ug/L
n-Butylbenzene	20 ug/L	n-Hexane	20 ug/L
n-Propylbenzene	20 ug/L	n-amyl acetate	20 ug/L
o-Xylene	20 ug/L	p-Isopropyltoluene	20 ug/L
sec-Butylbenzene	20 ug/L	tert-Butylbenzene	20 ug/L
trans-1,2-Dichloroethene	20 ug/L	trans-1,3-Dichloropropene	20 ug/L
trans-1,4-Dichloro-2-	20 ug/L		

Composed of Information for Standard #27249

Composed of Standard Seq	Volume	Units
27116	0.02	mL
26718	0.02	mL
1	49.96	mL

Standard Log Report

Standards Log Information for Standard #27248

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL12

Notes:

MSV 8260 200PPB

Compound Name and Concentration for Standard #27248

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	200 ug/L	1,1,1-Trichloroethane	200 ug/L
1,1,2,2-Tetrachloroethane	200 ug/L	1,1,2-Trichloroethane	200 ug/L
1,1,2-	200 ug/L	1,1-Dichloroethane	200 ug/L
1,1-Dichloroethene	200 ug/L	1,1-Dichloropropene	200 ug/L
1,2,3-Trichlorobenzene	200 ug/L	1,2,3-Trichloropropane	200 ug/L
1,2,4-Trichlorobenzene	200 ug/L	1,2,4-Trimethylbenzene	200 ug/L
1,2-Dibromo-3-	200 ug/L	1,2-Dibromoethane (EDB)	200 ug/L
1,2-Dichlorobenzene	200 ug/L	1,2-Dichloroethane	200 ug/L
1,2-Dichloropropane	200 ug/L	1,3,5-Trimethylbenzene	200 ug/L
1,3-Butadiene	200 ug/L	1,3-Dichlorobenzene	200 ug/L
1,3-Dichloropropane	200 ug/L	1,4-Dichlorobenzene	200 ug/L
1,4-Dioxane (p-Dioxane)	400 ug/L	2,2-Dichloropropane	200 ug/L
2-Butanone (MEK)	400 ug/L	2-Chloroethylvinyl ether	400 ug/L
2-Chlorotoluene	200 ug/L	2-Hexanone	400 ug/L
2-Nitropropane	200 ug/L	4-Chlorotoluene	200 ug/L
4-Methyl-2-pentanone	400 ug/L	Acetone	400 ug/L
Acetonitrile	400 ug/L	Acrolein	400 ug/L
Acrylonitrile	400 ug/L	Allyl chloride	200 ug/L
Benzene	200 ug/L	Bromobenzene	200 ug/L
Bromochloromethane	200 ug/L	Bromodichloromethane	200 ug/L
Bromoform	200 ug/L	Bromomethane	200 ug/L
Carbon disulfide	200 ug/L	Carbon tetrachloride	200 ug/L
Chlorobenzene	200 ug/L	Chloroethane	200 ug/L
Chloroform	200 ug/L	Chloromethane	200 ug/L
Chloroprene	200 ug/L	Cyclohexane	200 ug/L
Dibromochloromethane	200 ug/L	Dibromomethane	200 ug/L
Dichlorodifluoromethane	200 ug/L	Diethyl ether (Ethyl ether)	200 ug/L
Ethyl acetate	400 ug/L	Ethyl methacrylate	200 ug/L
Ethylbenzene	200 ug/L	Hexachloro-1,3-butadiene	200 ug/L
Iodomethane	200 ug/L	Isobutanol	400 ug/L
Isopropyl acetate	200 ug/L	Isopropylbenzene	200 ug/L
Methacrylonitrile	400 ug/L	Methanol	ug/L
Methyl acetate	400 ug/L	Methyl acrylate	200 ug/L
Methyl methacrylate	200 ug/L	Methyl-tert-butyl ether	200 ug/L
Methylcyclohexane	200 ug/L	Methylene Chloride	200 ug/L
Naphthalene	200 ug/L	Propionitrile	400 ug/L
Styrene	200 ug/L	TOTAL BTEX	1200 ug/L
Tetrachloroethene	200 ug/L	Tetrahydrofuran	400 ug/L
Toluene	200 ug/L	Total Trihalomethanes	800 ug/L
Trichloroethene	200 ug/L	Trichlorofluoromethane	200 ug/L
Vinyl acetate	200 ug/L	Vinyl chloride	200 ug/L
Xylene (Total)	600 ug/L	cis-1,2-Dichloroethene	200 ug/L
cis-1,3-Dichloropropene	200 ug/L	cis-1,4-Dichloro-2-butene	200 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	400 ug/L	n-Butanol	400 ug/L
n-Butylbenzene	200 ug/L	n-Hexane	200 ug/L
n-Propylbenzene	200 ug/L	n-amyl acetate	200 ug/L
o-Xylene	200 ug/L	p-Isopropyltoluene	200 ug/L
sec-Butylbenzene	200 ug/L	tert-Butylbenzene	200 ug/L
trans-1,2-Dichloroethene	200 ug/L	trans-1,3-Dichloropropene	200 ug/L
trans-1,4-Dichloro-2-	200 ug/L		

Composed of Information for Standard #27248

Composed of Standard Seq	Volume	Units
27114	0.2	mL
26717	0.2	mL
1	49.3	mL

Standard Log Report

Standards Log Information for Standard #27247

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL11

Notes:

MSV 8260 150PPB

Compound Name and Concentration for Standard #27247

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	150 ug/L	1,1,1-Trichloroethane	150 ug/L
1,1,2,2-Tetrachloroethane	150 ug/L	1,1,2-Trichloroethane	150 ug/L
1,1,2-	150 ug/L	1,1-Dichloroethane	150 ug/L
1,1-Dichloroethene	150 ug/L	1,1-Dichloropropene	150 ug/L
1,2,3-Trichlorobenzene	150 ug/L	1,2,3-Trichloropropane	150 ug/L
1,2,4-Trichlorobenzene	150 ug/L	1,2,4-Trimethylbenzene	150 ug/L
1,2-Dibromo-3-	150 ug/L	1,2-Dibromoethane (EDB)	150 ug/L
1,2-Dichlorobenzene	150 ug/L	1,2-Dichloroethane	150 ug/L
1,2-Dichloropropane	150 ug/L	1,3,5-Trimethylbenzene	150 ug/L
1,3-Butadiene	150 ug/L	1,3-Dichlorobenzene	150 ug/L
1,3-Dichloropropane	150 ug/L	1,4-Dichlorobenzene	150 ug/L
1,4-Dioxane (p-Dioxane)	300 ug/L	2,2-Dichloropropane	150 ug/L
2-Butanone (MEK)	300 ug/L	2-Chloroethylvinyl ether	300 ug/L
2-Chlorotoluene	150 ug/L	2-Hexanone	300 ug/L
2-Nitropropane	150 ug/L	4-Chlorotoluene	150 ug/L
4-Methyl-2-pentanone	300 ug/L	Acetone	300 ug/L
Acetonitrile	300 ug/L	Acrolein	300 ug/L
Acrylonitrile	300 ug/L	Allyl chloride	150 ug/L
Benzene	150 ug/L	Bromobenzene	150 ug/L
Bromochloromethane	150 ug/L	Bromodichloromethane	150 ug/L
Bromoform	150 ug/L	Bromomethane	150 ug/L
Carbon disulfide	150 ug/L	Carbon tetrachloride	150 ug/L
Chlorobenzene	150 ug/L	Chloroethane	150 ug/L
Chloroform	150 ug/L	Chloromethane	150 ug/L
Chloroprene	150 ug/L	Cyclohexane	150 ug/L
Dibromochloromethane	150 ug/L	Dibromomethane	150 ug/L
Dichlorodifluoromethane	150 ug/L	Diethyl ether (Ethyl ether)	150 ug/L
Ethyl acetate	300 ug/L	Ethyl methacrylate	150 ug/L
Ethylbenzene	150 ug/L	Hexachloro-1,3-butadiene	150 ug/L
Iodomethane	150 ug/L	Isobutanol	300 ug/L
Isopropyl acetate	150 ug/L	Isopropylbenzene	150 ug/L
Methacrylonitrile	300 ug/L	Methanol	ug/L
Methyl acetate	300 ug/L	Methyl acrylate	150 ug/L
Methyl methacrylate	150 ug/L	Methyl-tert-butyl ether	150 ug/L
Methylcyclohexane	150 ug/L	Methylene Chloride	150 ug/L
Naphthalene	150 ug/L	Propionitrile	300 ug/L
Styrene	150 ug/L	TOTAL BTEX	900 ug/L
Tetrachloroethene	150 ug/L	Tetrahydrofuran	300 ug/L
Toluene	150 ug/L	Total Trihalomethanes	600 ug/L
Trichloroethene	150 ug/L	Trichlorofluoromethane	150 ug/L
Vinyl acetate	150 ug/L	Vinyl chloride	150 ug/L
Xylene (Total)	450 ug/L	cis-1,2-Dichloroethene	150 ug/L
cis-1,3-Dichloropropene	150 ug/L	cis-1,4-Dichloro-2-butene	150 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	300 ug/L	n-Butanol	300 ug/L
n-Butylbenzene	150 ug/L	n-Hexane	150 ug/L
n-Propylbenzene	150 ug/L	n-amyl acetate	150 ug/L
o-Xylene	150 ug/L	p-Isopropyltoluene	150 ug/L
sec-Butylbenzene	150 ug/L	tert-Butylbenzene	150 ug/L
trans-1,2-Dichloroethene	150 ug/L	trans-1,3-Dichloropropene	150 ug/L
trans-1,4-Dichloro-2-	150 ug/L		

Composed of Information for Standard #27247

Composed of Standard Seq	Volume	Units
27114	0.15	mL
26717	0.15	mL
1	49.7	mL

Standard Log Report

Standards Log Information for Standard #27246

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL10

Notes:

MSV 8260 100PPB

Compound Name and Concentration for Standard #27246

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	100 ug/L	1,1,1-Trichloroethane	100 ug/L
1,1,2,2-Tetrachloroethane	100 ug/L	1,1,2-Trichloroethane	100 ug/L
1,1,2-	100 ug/L	1,1-Dichloroethane	100 ug/L
1,1-Dichloroethene	100 ug/L	1,1-Dichloropropene	100 ug/L
1,2,3-Trichlorobenzene	100 ug/L	1,2,3-Trichloropropane	100 ug/L
1,2,4-Trichlorobenzene	100 ug/L	1,2,4-Trimethylbenzene	100 ug/L
1,2-Dibromo-3-	100 ug/L	1,2-Dibromoethane (EDB)	100 ug/L
1,2-Dichlorobenzene	100 ug/L	1,2-Dichloroethane	100 ug/L
1,2-Dichloropropane	100 ug/L	1,3,5-Trimethylbenzene	100 ug/L
1,3-Butadiene	100 ug/L	1,3-Dichlorobenzene	100 ug/L
1,3-Dichloropropane	100 ug/L	1,4-Dichlorobenzene	100 ug/L
1,4-Dioxane (p-Dioxane)	200 ug/L	2,2-Dichloropropane	100 ug/L
2-Butanone (MEK)	200 ug/L	2-Chloroethylvinyl ether	200 ug/L
2-Chlorotoluene	100 ug/L	2-Hexanone	200 ug/L
2-Nitropropane	100 ug/L	4-Chlorotoluene	100 ug/L
4-Methyl-2-pentanone	200 ug/L	Acetone	200 ug/L
Acetonitrile	200 ug/L	Acrolein	200 ug/L
Acrylonitrile	200 ug/L	Allyl chloride	100 ug/L
Benzene	100 ug/L	Bromobenzene	100 ug/L
Bromochloromethane	100 ug/L	Bromodichloromethane	100 ug/L
Bromoform	100 ug/L	Bromomethane	100 ug/L
Carbon disulfide	100 ug/L	Carbon tetrachloride	100 ug/L
Chlorobenzene	100 ug/L	Chloroethane	100 ug/L
Chloroform	100 ug/L	Chloromethane	100 ug/L
Chloroprene	100 ug/L	Cyclohexane	100 ug/L
Dibromochloromethane	100 ug/L	Dibromomethane	100 ug/L
Dichlorodifluoromethane	100 ug/L	Diethyl ether (Ethyl ether)	100 ug/L
Ethyl acetate	200 ug/L	Ethyl methacrylate	100 ug/L
Ethylbenzene	100 ug/L	Hexachloro-1,3-butadiene	100 ug/L
Iodomethane	100 ug/L	Isobutanol	200 ug/L
Isopropyl acetate	100 ug/L	Isopropylbenzene	100 ug/L
Methacrylonitrile	200 ug/L	Methanol	ug/L
Methyl acetate	200 ug/L	Methyl acrylate	100 ug/L
Methyl methacrylate	100 ug/L	Methyl-tert-butyl ether	100 ug/L
Methylcyclohexane	100 ug/L	Methylene Chloride	100 ug/L
Naphthalene	100 ug/L	Propionitrile	200 ug/L
Styrene	100 ug/L	TOTAL BTEX	600 ug/L
Tetrachloroethene	100 ug/L	Tetrahydrofuran	200 ug/L
Toluene	100 ug/L	Total Trihalomethanes	400 ug/L
Trichloroethene	100 ug/L	Trichlorofluoromethane	100 ug/L
Vinyl acetate	100 ug/L	Vinyl chloride	100 ug/L
Xylene (Total)	300 ug/L	cis-1,2-Dichloroethene	100 ug/L
cis-1,3-Dichloropropene	100 ug/L	cis-1,4-Dichloro-2-butene	100 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	200 ug/L	n-Butanol	200 ug/L
n-Butylbenzene	100 ug/L	n-Hexane	100 ug/L
n-Propylbenzene	100 ug/L	n-amyl acetate	100 ug/L
o-Xylene	100 ug/L	p-Isopropyltoluene	100 ug/L
sec-Butylbenzene	100 ug/L	tert-Butylbenzene	100 ug/L
trans-1,2-Dichloroethene	100 ug/L	trans-1,3-Dichloropropene	100 ug/L
trans-1,4-Dichloro-2-	100 ug/L		

Composed of Information for Standard #27246

Composed of Standard Seq	Volume	Units
27114	0.1	mL
26717	0.1	mL
1	49.8	mL

Standard Log Report

Standards Log Information for Standard #27245

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL9

Notes:

MSV 8260 75PPB

Compound Name and Concentration for Standard #27245

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	75 ug/L	1,1,1-Trichloroethane	75 ug/L
1,1,2,2-Tetrachloroethane	75 ug/L	1,1,2-Trichloroethane	75 ug/L
1,1,2-	75 ug/L	1,1-Dichloroethane	75 ug/L
1,1-Dichloroethene	75 ug/L	1,1-Dichloropropene	75 ug/L
1,2,3-Trichlorobenzene	75 ug/L	1,2,3-Trichloropropane	75 ug/L
1,2,4-Trichlorobenzene	75 ug/L	1,2,4-Trimethylbenzene	75 ug/L
1,2-Dibromo-3-	75 ug/L	1,2-Dibromoethane (EDB)	75 ug/L
1,2-Dichlorobenzene	75 ug/L	1,2-Dichloroethane	75 ug/L
1,2-Dichloropropane	75 ug/L	1,3,5-Trimethylbenzene	75 ug/L
1,3-Butadiene	75 ug/L	1,3-Dichlorobenzene	75 ug/L
1,3-Dichloropropane	75 ug/L	1,4-Dichlorobenzene	75 ug/L
1,4-Dioxane (p-Dioxane)	150 ug/L	2,2-Dichloropropane	75 ug/L
2-Butanone (MEK)	150 ug/L	2-Chloroethylvinyl ether	150 ug/L
2-Chlorotoluene	75 ug/L	2-Hexanone	150 ug/L
2-Nitropropane	75 ug/L	4-Chlorotoluene	75 ug/L
4-Methyl-2-pentanone	150 ug/L	Acetone	150 ug/L
Acetonitrile	150 ug/L	Acrolein	150 ug/L
Acrylonitrile	150 ug/L	Allyl chloride	75 ug/L
Benzene	75 ug/L	Bromobenzene	75 ug/L
Bromochloromethane	75 ug/L	Bromodichloromethane	75 ug/L
Bromoform	75 ug/L	Bromomethane	75 ug/L
Carbon disulfide	75 ug/L	Carbon tetrachloride	75 ug/L
Chlorobenzene	75 ug/L	Chloroethane	75 ug/L
Chloroform	75 ug/L	Chloromethane	75 ug/L
Chloroprene	75 ug/L	Cyclohexane	75 ug/L
Dibromochloromethane	75 ug/L	Dibromomethane	75 ug/L
Dichlorodifluoromethane	75 ug/L	Diethyl ether (Ethyl ether)	75 ug/L
Ethyl acetate	150 ug/L	Ethyl methacrylate	75 ug/L
Ethylbenzene	75 ug/L	Hexachloro-1,3-butadiene	75 ug/L
Iodomethane	75 ug/L	Isobutanol	150 ug/L
Isopropyl acetate	75 ug/L	Isopropylbenzene	75 ug/L
Methacrylonitrile	150 ug/L	Methanol	ug/L
Methyl acetate	150 ug/L	Methyl acrylate	75 ug/L
Methyl methacrylate	75 ug/L	Methyl-tert-butyl ether	75 ug/L
Methylcyclohexane	75 ug/L	Methylene Chloride	75 ug/L
Naphthalene	75 ug/L	Propionitrile	150 ug/L
Styrene	75 ug/L	TOTAL BTEX	450 ug/L
Tetrachloroethene	75 ug/L	Tetrahydrofuran	150 ug/L
Toluene	75 ug/L	Total Trihalomethanes	300 ug/L
Trichloroethene	75 ug/L	Trichlorofluoromethane	75 ug/L
Vinyl acetate	75 ug/L	Vinyl chloride	75 ug/L
Xylene (Total)	225 ug/L	cis-1,2-Dichloroethene	75 ug/L
cis-1,3-Dichloropropene	75 ug/L	cis-1,4-Dichloro-2-butene	75 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	150 ug/L	n-Butanol	150 ug/L
n-Butylbenzene	75 ug/L	n-Hexane	75 ug/L
n-Propylbenzene	75 ug/L	n-amyl acetate	75 ug/L
o-Xylene	75 ug/L	p-Isopropyltoluene	75 ug/L
sec-Butylbenzene	75 ug/L	tert-Butylbenzene	75 ug/L
trans-1,2-Dichloroethene	75 ug/L	trans-1,3-Dichloropropene	75 ug/L
trans-1,4-Dichloro-2-	75 ug/L		

Composed of Information for Standard #27245

Composed of Standard Seq	Volume	Units
27114	0.075	mL
26717	0.075	mL
1	49.85	mL

Standard Log Report

Standards Log Information for Standard #27244

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL8

Notes:

MSV 8260 50PPB

Compound Name and Concentration for Standard #27244

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	50 ug/L	1,1,1-Trichloroethane	50 ug/L
1,1,2,2-Tetrachloroethane	50 ug/L	1,1,2-Trichloroethane	50 ug/L
1,1,2-	50 ug/L	1,1-Dichloroethane	50 ug/L
1,1-Dichloroethene	50 ug/L	1,1-Dichloropropene	50 ug/L
1,2,3-Trichlorobenzene	50 ug/L	1,2,3-Trichloropropane	50 ug/L
1,2,4-Trichlorobenzene	50 ug/L	1,2,4-Trimethylbenzene	50 ug/L
1,2-Dibromo-3-	50 ug/L	1,2-Dibromoethane (EDB)	50 ug/L
1,2-Dichlorobenzene	50 ug/L	1,2-Dichloroethane	50 ug/L
1,2-Dichloropropane	50 ug/L	1,3,5-Trimethylbenzene	50 ug/L
1,3-Butadiene	50 ug/L	1,3-Dichlorobenzene	50 ug/L
1,3-Dichloropropane	50 ug/L	1,4-Dichlorobenzene	50 ug/L
1,4-Dioxane (p-Dioxane)	100 ug/L	2,2-Dichloropropane	50 ug/L
2-Butanone (MEK)	100 ug/L	2-Chloroethylvinyl ether	100 ug/L
2-Chlorotoluene	50 ug/L	2-Hexanone	100 ug/L
2-Nitropropane	50 ug/L	4-Chlorotoluene	50 ug/L
4-Methyl-2-pentanone	100 ug/L	Acetone	100 ug/L
Acetonitrile	100 ug/L	Acrolein	100 ug/L
Acrylonitrile	100 ug/L	Allyl chloride	50 ug/L
Benzene	50 ug/L	Bromobenzene	50 ug/L
Bromochloromethane	50 ug/L	Bromodichloromethane	50 ug/L
Bromoform	50 ug/L	Bromomethane	50 ug/L
Carbon disulfide	50 ug/L	Carbon tetrachloride	50 ug/L
Chlorobenzene	50 ug/L	Chloroethane	50 ug/L
Chloroform	50 ug/L	Chloromethane	50 ug/L
Chloroprene	50 ug/L	Cyclohexane	50 ug/L
Dibromochloromethane	50 ug/L	Dibromomethane	50 ug/L
Dichlorodifluoromethane	50 ug/L	Diethyl ether (Ethyl ether)	50 ug/L
Ethyl acetate	100 ug/L	Ethyl methacrylate	50 ug/L
Ethylbenzene	50 ug/L	Hexachloro-1,3-butadiene	50 ug/L
Iodomethane	50 ug/L	Isobutanol	100 ug/L
Isopropyl acetate	50 ug/L	Isopropylbenzene	50 ug/L
Methacrylonitrile	100 ug/L	Methanol	ug/L
Methyl acetate	100 ug/L	Methyl acrylate	50 ug/L
Methyl methacrylate	50 ug/L	Methyl-tert-butyl ether	50 ug/L
Methylcyclohexane	50 ug/L	Methylene Chloride	50 ug/L
Naphthalene	50 ug/L	Propionitrile	100 ug/L
Styrene	50 ug/L	TOTAL BTEX	300 ug/L
Tetrachloroethene	50 ug/L	Tetrahydrofuran	100 ug/L
Toluene	50 ug/L	Total Trihalomethanes	200 ug/L
Trichloroethene	50 ug/L	Trichlorofluoromethane	50 ug/L
Vinyl acetate	50 ug/L	Vinyl chloride	50 ug/L
Xylene (Total)	150 ug/L	cis-1,2-Dichloroethene	50 ug/L
cis-1,3-Dichloropropene	50 ug/L	cis-1,4-Dichloro-2-butene	50 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	100 ug/L	n-Butanol	100 ug/L
n-Butylbenzene	50 ug/L	n-Hexane	50 ug/L
n-Propylbenzene	50 ug/L	n-amyl acetate	50 ug/L
o-Xylene	50 ug/L	p-Isopropyltoluene	50 ug/L
sec-Butylbenzene	50 ug/L	tert-Butylbenzene	50 ug/L
trans-1,2-Dichloroethene	50 ug/L	trans-1,3-Dichloropropene	50 ug/L
trans-1,4-Dichloro-2-	50 ug/L		

Composed of Information for Standard #27244

Composed of Standard Seq	Volume	Units
27114	0.05	mL
26717	0.05	mL
1	49.9	mL

Standard Log Report

Standards Log Information for Standard #27243

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL7

Notes:

MSV 8260 20PPB

Compound Name and Concentration for Standard #27243

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	20 ug/L	1,1,1-Trichloroethane	20 ug/L
1,1,2,2-Tetrachloroethane	20 ug/L	1,1,2-Trichloroethane	20 ug/L
1,1,2-	20 ug/L	1,1-Dichloroethane	20 ug/L
1,1-Dichloroethene	20 ug/L	1,1-Dichloropropene	20 ug/L
1,2,3-Trichlorobenzene	20 ug/L	1,2,3-Trichloropropane	20 ug/L
1,2,4-Trichlorobenzene	20 ug/L	1,2,4-Trimethylbenzene	20 ug/L
1,2-Dibromo-3-	20 ug/L	1,2-Dibromoethane (EDB)	20 ug/L
1,2-Dichlorobenzene	20 ug/L	1,2-Dichloroethane	20 ug/L
1,2-Dichloropropane	20 ug/L	1,3,5-Trimethylbenzene	20 ug/L
1,3-Butadiene	20 ug/L	1,3-Dichlorobenzene	20 ug/L
1,3-Dichloropropane	20 ug/L	1,4-Dichlorobenzene	20 ug/L
1,4-Dioxane (p-Dioxane)	40 ug/L	2,2-Dichloropropane	20 ug/L
2-Butanone (MEK)	40 ug/L	2-Chloroethylvinyl ether	40 ug/L
2-Chlorotoluene	20 ug/L	2-Hexanone	40 ug/L
2-Nitropropane	20 ug/L	4-Chlorotoluene	20 ug/L
4-Methyl-2-pentanone	40 ug/L	Acetone	40 ug/L
Acetonitrile	40 ug/L	Acrolein	40 ug/L
Acrylonitrile	40 ug/L	Allyl chloride	20 ug/L
Benzene	20 ug/L	Bromobenzene	20 ug/L
Bromochloromethane	20 ug/L	Bromodichloromethane	20 ug/L
Bromoform	20 ug/L	Bromomethane	20 ug/L
Carbon disulfide	20 ug/L	Carbon tetrachloride	20 ug/L
Chlorobenzene	20 ug/L	Chloroethane	20 ug/L
Chloroform	20 ug/L	Chloromethane	20 ug/L
Chloroprene	20 ug/L	Cyclohexane	20 ug/L
Dibromochloromethane	20 ug/L	Dibromomethane	20 ug/L
Dichlorodifluoromethane	20 ug/L	Diethyl ether (Ethyl ether)	20 ug/L
Ethyl acetate	40 ug/L	Ethyl methacrylate	20 ug/L
Ethylbenzene	20 ug/L	Hexachloro-1,3-butadiene	20 ug/L
Iodomethane	20 ug/L	Isobutanol	40 ug/L
Isopropyl acetate	20 ug/L	Isopropylbenzene	20 ug/L
Methacrylonitrile	40 ug/L	Methanol	ug/L
Methyl acetate	40 ug/L	Methyl acrylate	20 ug/L
Methyl methacrylate	20 ug/L	Methyl-tert-butyl ether	20 ug/L
Methylcyclohexane	20 ug/L	Methylene Chloride	20 ug/L
Naphthalene	20 ug/L	Propionitrile	40 ug/L
Styrene	20 ug/L	TOTAL BTEX	120 ug/L
Tetrachloroethene	20 ug/L	Tetrahydrofuran	40 ug/L
Toluene	20 ug/L	Total Trihalomethanes	80 ug/L
Trichloroethene	20 ug/L	Trichlorofluoromethane	20 ug/L
Vinyl acetate	20 ug/L	Vinyl chloride	20 ug/L
Xylene (Total)	60 ug/L	cis-1,2-Dichloroethene	20 ug/L
cis-1,3-Dichloropropene	20 ug/L	cis-1,4-Dichloro-2-butene	20 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	40 ug/L	n-Butanol	40 ug/L
n-Butylbenzene	20 ug/L	n-Hexane	20 ug/L
n-Propylbenzene	20 ug/L	n-amyl acetate	20 ug/L
o-Xylene	20 ug/L	p-Isopropyltoluene	20 ug/L
sec-Butylbenzene	20 ug/L	tert-Butylbenzene	20 ug/L
trans-1,2-Dichloroethene	20 ug/L	trans-1,3-Dichloropropene	20 ug/L
trans-1,4-Dichloro-2-	20 ug/L		

Composed of Information for Standard #27243

Composed of Standard Seq	Volume	Units
27114	0.02	mL
26717	0.02	mL
1	49.96	mL

Standard Log Report

Standards Log Information for Standard #27242

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL6

Notes:

MSV 8260 10PPB

Compound Name and Concentration for Standard #27242

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	10 ug/L	1,1,1-Trichloroethane	10 ug/L
1,1,2,2-Tetrachloroethane	10 ug/L	1,1,2-Trichloroethane	10 ug/L
1,1,2-	10 ug/L	1,1-Dichloroethane	10 ug/L
1,1-Dichloroethene	10 ug/L	1,1-Dichloropropene	10 ug/L
1,2,3-Trichlorobenzene	10 ug/L	1,2,3-Trichloropropane	10 ug/L
1,2,4-Trichlorobenzene	10 ug/L	1,2,4-Trimethylbenzene	10 ug/L
1,2-Dibromo-3-	10 ug/L	1,2-Dibromoethane (EDB)	10 ug/L
1,2-Dichlorobenzene	10 ug/L	1,2-Dichloroethane	10 ug/L
1,2-Dichloropropane	10 ug/L	1,3,5-Trimethylbenzene	10 ug/L
1,3-Butadiene	10 ug/L	1,3-Dichlorobenzene	10 ug/L
1,3-Dichloropropane	10 ug/L	1,4-Dichlorobenzene	10 ug/L
1,4-Dioxane (p-Dioxane)	20 ug/L	2,2-Dichloropropane	10 ug/L
2-Butanone (MEK)	20 ug/L	2-Chloroethylvinyl ether	20 ug/L
2-Chlorotoluene	10 ug/L	2-Hexanone	20 ug/L
2-Nitropropane	10 ug/L	4-Chlorotoluene	10 ug/L
4-Methyl-2-pentanone	20 ug/L	Acetone	20 ug/L
Acetonitrile	20 ug/L	Acrolein	20 ug/L
Acrylonitrile	20 ug/L	Allyl chloride	10 ug/L
Benzene	10 ug/L	Bromobenzene	10 ug/L
Bromochloromethane	10 ug/L	Bromodichloromethane	10 ug/L
Bromoform	10 ug/L	Bromomethane	10 ug/L
Carbon disulfide	10 ug/L	Carbon tetrachloride	10 ug/L
Chlorobenzene	10 ug/L	Chloroethane	10 ug/L
Chloroform	10 ug/L	Chloromethane	10 ug/L
Chloroprene	10 ug/L	Cyclohexane	10 ug/L
Dibromochloromethane	10 ug/L	Dibromomethane	10 ug/L
Dichlorodifluoromethane	10 ug/L	Diethyl ether (Ethyl ether)	10 ug/L
Ethyl acetate	20 ug/L	Ethyl methacrylate	10 ug/L
Ethylbenzene	10 ug/L	Hexachloro-1,3-butadiene	10 ug/L
Iodomethane	10 ug/L	Isobutanol	20 ug/L
Isopropyl acetate	10 ug/L	Isopropylbenzene	10 ug/L
Methacrylonitrile	20 ug/L	Methanol	ug/L
Methyl acetate	20 ug/L	Methyl acrylate	10 ug/L
Methyl methacrylate	10 ug/L	Methyl-tert-butyl ether	10 ug/L
Methylcyclohexane	10 ug/L	Methylene Chloride	10 ug/L
Naphthalene	10 ug/L	Propionitrile	20 ug/L
Styrene	10 ug/L	TOTAL BTEX	60 ug/L
Tetrachloroethene	10 ug/L	Tetrahydrofuran	20 ug/L
Toluene	10 ug/L	Total Trihalomethanes	40 ug/L
Trichloroethene	10 ug/L	Trichlorofluoromethane	10 ug/L
Vinyl acetate	10 ug/L	Vinyl chloride	10 ug/L
Xylene (Total)	30 ug/L	cis-1,2-Dichloroethene	10 ug/L
cis-1,3-Dichloropropene	10 ug/L	cis-1,4-Dichloro-2-butene	10 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	20 ug/L	n-Butanol	20 ug/L
n-Butylbenzene	10 ug/L	n-Hexane	10 ug/L
n-Propylbenzene	10 ug/L	n-amyl acetate	10 ug/L
o-Xylene	10 ug/L	p-Isopropyltoluene	10 ug/L
sec-Butylbenzene	10 ug/L	tert-Butylbenzene	10 ug/L
trans-1,2-Dichloroethene	10 ug/L	trans-1,3-Dichloropropene	10 ug/L
trans-1,4-Dichloro-2-	10 ug/L		

Composed of Information for Standard #27242

Composed of Standard Seq	Volume	Units
27114	0.01	mL
26717	0.01	mL
1	49.98	mL

Standard Log Report

Standards Log Information for Standard #27241

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL5

Notes:

MSV 8260 5PPB

Compound Name and Concentration for Standard #27241

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	5 ug/L	1,1,1-Trichloroethane	5 ug/L
1,1,2,2-Tetrachloroethane	5 ug/L	1,1,2-Trichloroethane	5 ug/L
1,1,2-	5 ug/L	1,1-Dichloroethane	5 ug/L
1,1-Dichloroethene	5 ug/L	1,1-Dichloropropene	5 ug/L
1,2,3-Trichlorobenzene	5 ug/L	1,2,3-Trichloropropane	5 ug/L
1,2,4-Trichlorobenzene	5 ug/L	1,2,4-Trimethylbenzene	5 ug/L
1,2-Dibromo-3-	5 ug/L	1,2-Dibromoethane (EDB)	5 ug/L
1,2-Dichlorobenzene	5 ug/L	1,2-Dichloroethane	5 ug/L
1,2-Dichloropropane	5 ug/L	1,3,5-Trimethylbenzene	5 ug/L
1,3-Butadiene	5 ug/L	1,3-Dichlorobenzene	5 ug/L
1,3-Dichloropropane	5 ug/L	1,4-Dichlorobenzene	5 ug/L
1,4-Dioxane (p-Dioxane)	10 ug/L	2,2-Dichloropropane	5 ug/L
2-Butanone (MEK)	10 ug/L	2-Chloroethylvinyl ether	10 ug/L
2-Chlorotoluene	5 ug/L	2-Hexanone	10 ug/L
2-Nitropropane	5 ug/L	4-Chlorotoluene	5 ug/L
4-Methyl-2-pentanone	10 ug/L	Acetone	10 ug/L
Acetonitrile	10 ug/L	Acrolein	10 ug/L
Acrylonitrile	10 ug/L	Allyl chloride	5 ug/L
Benzene	5 ug/L	Bromobenzene	5 ug/L
Bromochloromethane	5 ug/L	Bromodichloromethane	5 ug/L
Bromoform	5 ug/L	Bromomethane	5 ug/L
Carbon disulfide	5 ug/L	Carbon tetrachloride	5 ug/L
Chlorobenzene	5 ug/L	Chloroethane	5 ug/L
Chloroform	5 ug/L	Chloromethane	5 ug/L
Chloroprene	5 ug/L	Cyclohexane	5 ug/L
Dibromochloromethane	5 ug/L	Dibromomethane	5 ug/L
Dichlorodifluoromethane	5 ug/L	Diethyl ether (Ethyl ether)	5 ug/L
Ethyl acetate	10 ug/L	Ethyl methacrylate	5 ug/L
Ethylbenzene	5 ug/L	Hexachloro-1,3-butadiene	5 ug/L
Iodomethane	5 ug/L	Isobutanol	10 ug/L
Isopropyl acetate	5 ug/L	Isopropylbenzene	5 ug/L
Methacrylonitrile	10 ug/L	Methanol	ug/L
Methyl acetate	10 ug/L	Methyl acrylate	5 ug/L
Methyl methacrylate	5 ug/L	Methyl-tert-butyl ether	5 ug/L
Methylcyclohexane	5 ug/L	Methylene Chloride	5 ug/L
Naphthalene	5 ug/L	Propionitrile	10 ug/L
Styrene	5 ug/L	TOTAL BTEX	30 ug/L
Tetrachloroethene	5 ug/L	Tetrahydrofuran	10 ug/L
Toluene	5 ug/L	Total Trihalomethanes	20 ug/L
Trichloroethene	5 ug/L	Trichlorofluoromethane	5 ug/L
Vinyl acetate	5 ug/L	Vinyl chloride	5 ug/L
Xylene (Total)	15 ug/L	cis-1,2-Dichloroethene	5 ug/L
cis-1,3-Dichloropropene	5 ug/L	cis-1,4-Dichloro-2-butene	5 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	10 ug/L	n-Butanol	10 ug/L
n-Butylbenzene	5 ug/L	n-Hexane	5 ug/L
n-Propylbenzene	5 ug/L	n-amyl acetate	5 ug/L
o-Xylene	5 ug/L	p-Isopropyltoluene	5 ug/L
sec-Butylbenzene	5 ug/L	tert-Butylbenzene	5 ug/L
trans-1,2-Dichloroethene	5 ug/L	trans-1,3-Dichloropropene	5 ug/L
trans-1,4-Dichloro-2-	5 ug/L		

Composed of Information for Standard #27241

Composed of Standard Seq	Volume	Units
27114	0.005	mL
26717	0.005	mL
1	49.99	mL

Standard Log Report

Standards Log Information for Standard #27240

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL4

Notes:

MSV 8260 2PPB

Compound Name and Concentration for Standard #27240

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	2 ug/L	1,1,1-Trichloroethane	2 ug/L
1,1,2,2-Tetrachloroethane	2 ug/L	1,1,2-Trichloroethane	2 ug/L
1,1,2-	2 ug/L	1,1-Dichloroethane	2 ug/L
1,1-Dichloroethene	2 ug/L	1,1-Dichloropropene	2 ug/L
1,2,3-Trichlorobenzene	2 ug/L	1,2,3-Trichloropropane	2 ug/L
1,2,4-Trichlorobenzene	2 ug/L	1,2,4-Trimethylbenzene	2 ug/L
1,2-Dibromo-3-	2 ug/L	1,2-Dibromoethane (EDB)	2 ug/L
1,2-Dichlorobenzene	2 ug/L	1,2-Dichloroethane	2 ug/L
1,2-Dichloropropane	2 ug/L	1,3,5-Trimethylbenzene	2 ug/L
1,3-Butadiene	2 ug/L	1,3-Dichlorobenzene	2 ug/L
1,3-Dichloropropane	2 ug/L	1,4-Dichlorobenzene	2 ug/L
1,4-Dioxane (p-Dioxane)	4 ug/L	2,2-Dichloropropane	2 ug/L
2-Butanone (MEK)	4 ug/L	2-Chloroethylvinyl ether	4 ug/L
2-Chlorotoluene	2 ug/L	2-Hexanone	4 ug/L
2-Nitropropane	2 ug/L	4-Chlorotoluene	2 ug/L
4-Methyl-2-pentanone	4 ug/L	Acetone	4 ug/L
Acetonitrile	4 ug/L	Acrolein	4 ug/L
Acrylonitrile	4 ug/L	Allyl chloride	2 ug/L
Benzene	2 ug/L	Bromobenzene	2 ug/L
Bromochloromethane	2 ug/L	Bromodichloromethane	2 ug/L
Bromoform	2 ug/L	Bromomethane	2 ug/L
Carbon disulfide	2 ug/L	Carbon tetrachloride	2 ug/L
Chlorobenzene	2 ug/L	Chloroethane	2 ug/L
Chloroform	2 ug/L	Chloromethane	2 ug/L
Chloroprene	2 ug/L	Cyclohexane	2 ug/L
Dibromochloromethane	2 ug/L	Dibromomethane	2 ug/L
Dichlorodifluoromethane	2 ug/L	Diethyl ether (Ethyl ether)	2 ug/L
Ethyl acetate	4 ug/L	Ethyl methacrylate	2 ug/L
Ethylbenzene	2 ug/L	Hexachloro-1,3-butadiene	2 ug/L
Iodomethane	2 ug/L	Isobutanol	4 ug/L
Isopropyl acetate	2 ug/L	Isopropylbenzene	2 ug/L
Methacrylonitrile	4 ug/L	Methanol	ug/L
Methyl acetate	4 ug/L	Methyl acrylate	2 ug/L
Methyl methacrylate	2 ug/L	Methyl-tert-butyl ether	2 ug/L
Methylcyclohexane	2 ug/L	Methylene Chloride	2 ug/L
Naphthalene	2 ug/L	Propionitrile	4 ug/L
Styrene	2 ug/L	TOTAL BTEX	12 ug/L
Tetrachloroethene	2 ug/L	Tetrahydrofuran	4 ug/L
Toluene	2 ug/L	Total Trihalomethanes	8 ug/L
Trichloroethene	2 ug/L	Trichlorofluoromethane	2 ug/L
Vinyl acetate	2 ug/L	Vinyl chloride	2 ug/L
Xylene (Total)	6 ug/L	cis-1,2-Dichloroethene	2 ug/L
cis-1,3-Dichloropropene	2 ug/L	cis-1,4-Dichloro-2-butene	2 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	4 ug/L	n-Butanol	4 ug/L
n-Butylbenzene	2 ug/L	n-Hexane	2 ug/L
n-Propylbenzene	2 ug/L	n-amyl acetate	2 ug/L
o-Xylene	2 ug/L	p-Isopropyltoluene	2 ug/L
sec-Butylbenzene	2 ug/L	tert-Butylbenzene	2 ug/L
trans-1,2-Dichloroethene	2 ug/L	trans-1,3-Dichloropropene	2 ug/L
trans-1,4-Dichloro-2-	2 ug/L		

Composed of Information for Standard #27240

Composed of Standard Seq	Volume	Units
27114	0.002	mL
26717	0.002	mL
1	49.996	mL

Standard Log Report

Standards Log Information for Standard #27239

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	50 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL3

Notes:

MSV 8260 1PPB

Compound Name and Concentration for Standard #27239

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	1 ug/L	1,1,1-Trichloroethane	1 ug/L
1,1,2,2-Tetrachloroethane	1 ug/L	1,1,2-Trichloroethane	1 ug/L
1,1,2-	1 ug/L	1,1-Dichloroethane	1 ug/L
1,1-Dichloroethene	1 ug/L	1,1-Dichloropropene	1 ug/L
1,2,3-Trichlorobenzene	1 ug/L	1,2,3-Trichloropropane	1 ug/L
1,2,4-Trichlorobenzene	1 ug/L	1,2,4-Trimethylbenzene	1 ug/L
1,2-Dibromo-3-	1 ug/L	1,2-Dibromoethane (EDB)	1 ug/L
1,2-Dichlorobenzene	1 ug/L	1,2-Dichloroethane	1 ug/L
1,2-Dichloropropane	1 ug/L	1,3,5-Trimethylbenzene	1 ug/L
1,3-Butadiene	1 ug/L	1,3-Dichlorobenzene	1 ug/L
1,3-Dichloropropane	1 ug/L	1,4-Dichlorobenzene	1 ug/L
1,4-Dioxane (p-Dioxane)	2 ug/L	2,2-Dichloropropane	1 ug/L
2-Butanone (MEK)	2 ug/L	2-Chloroethylvinyl ether	2 ug/L
2-Chlorotoluene	1 ug/L	2-Hexanone	2 ug/L
2-Nitropropane	1 ug/L	4-Chlorotoluene	1 ug/L
4-Methyl-2-pentanone	2 ug/L	Acetone	2 ug/L
Acetonitrile	2 ug/L	Acrolein	2 ug/L
Acrylonitrile	2 ug/L	Allyl chloride	1 ug/L
Benzene	1 ug/L	Bromobenzene	1 ug/L
Bromochloromethane	1 ug/L	Bromodichloromethane	1 ug/L
Bromoform	1 ug/L	Bromomethane	1 ug/L
Carbon disulfide	1 ug/L	Carbon tetrachloride	1 ug/L
Chlorobenzene	1 ug/L	Chloroethane	1 ug/L
Chloroform	1 ug/L	Chloromethane	1 ug/L
Chloroprene	1 ug/L	Cyclohexane	1 ug/L
Dibromochloromethane	1 ug/L	Dibromomethane	1 ug/L
Dichlorodifluoromethane	1 ug/L	Diethyl ether (Ethyl ether)	1 ug/L
Ethyl acetate	2 ug/L	Ethyl methacrylate	1 ug/L
Ethylbenzene	1 ug/L	Hexachloro-1,3-butadiene	1 ug/L
Iodomethane	1 ug/L	Isobutanol	2 ug/L
Isopropyl acetate	1 ug/L	Isopropylbenzene	1 ug/L
Methacrylonitrile	2 ug/L	Methanol	ug/L
Methyl acetate	2 ug/L	Methyl acrylate	1 ug/L
Methyl methacrylate	1 ug/L	Methyl-tert-butyl ether	1 ug/L
Methylcyclohexane	1 ug/L	Methylene Chloride	1 ug/L
Naphthalene	1 ug/L	Propionitrile	2 ug/L
Styrene	1 ug/L	TOTAL BTEX	6 ug/L
Tetrachloroethene	1 ug/L	Tetrahydrofuran	2 ug/L
Toluene	1 ug/L	Total Trihalomethanes	4 ug/L
Trichloroethene	1 ug/L	Trichlorofluoromethane	1 ug/L
Vinyl acetate	1 ug/L	Vinyl chloride	1 ug/L
Xylene (Total)	3 ug/L	cis-1,2-Dichloroethene	1 ug/L
cis-1,3-Dichloropropene	1 ug/L	cis-1,4-Dichloro-2-butene	1 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	2 ug/L	n-Butanol	2 ug/L
n-Butylbenzene	1 ug/L	n-Hexane	1 ug/L
n-Propylbenzene	1 ug/L	n-amyl acetate	1 ug/L
o-Xylene	1 ug/L	p-Isopropyltoluene	1 ug/L
sec-Butylbenzene	1 ug/L	tert-Butylbenzene	1 ug/L
trans-1,2-Dichloroethene	1 ug/L	trans-1,3-Dichloropropene	1 ug/L
trans-1,4-Dichloro-2-	1 ug/L		

Composed of Information for Standard #27239

Composed of Standard Seq	Volume	Units
27114	0.001	mL
26717	0.001	mL
1	49.998	mL

Standard Log Report

Standards Log Information for Standard #27238

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	100 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL2

Notes:

MSV 8260 0.5PPB

Compound Name and Concentration for Standard #27238

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	.5 ug/L	1,1,1-Trichloroethane	.5 ug/L
1,1,2,2-Tetrachloroethane	.5 ug/L	1,1,2-Trichloroethane	.5 ug/L
1,1,2-	.5 ug/L	1,1-Dichloroethane	.5 ug/L
1,1-Dichloroethene	.5 ug/L	1,1-Dichloropropene	.5 ug/L
1,2,3-Trichlorobenzene	.5 ug/L	1,2,3-Trichloropropane	.5 ug/L
1,2,4-Trichlorobenzene	.5 ug/L	1,2,4-Trimethylbenzene	.5 ug/L
1,2-Dibromo-3-	.5 ug/L	1,2-Dibromoethane (EDB)	.5 ug/L
1,2-Dichlorobenzene	.5 ug/L	1,2-Dichloroethane	.5 ug/L
1,2-Dichloropropane	.5 ug/L	1,3,5-Trimethylbenzene	.5 ug/L
1,3-Butadiene	.5 ug/L	1,3-Dichlorobenzene	.5 ug/L
1,3-Dichloropropane	.5 ug/L	1,4-Dichlorobenzene	.5 ug/L
1,4-Dioxane (p-Dioxane)	1 ug/L	2,2-Dichloropropane	.5 ug/L
2-Butanone (MEK)	1 ug/L	2-Chloroethylvinyl ether	1 ug/L
2-Chlorotoluene	.5 ug/L	2-Hexanone	1 ug/L
2-Nitropropane	.5 ug/L	4-Chlorotoluene	.5 ug/L
4-Methyl-2-pentanone	1 ug/L	Acetone	1 ug/L
Acetonitrile	1 ug/L	Acrolein	1 ug/L
Acrylonitrile	1 ug/L	Allyl chloride	.5 ug/L
Benzene	.5 ug/L	Bromobenzene	.5 ug/L
Bromochloromethane	.5 ug/L	Bromodichloromethane	.5 ug/L
Bromoform	.5 ug/L	Bromomethane	.5 ug/L
Carbon disulfide	.5 ug/L	Carbon tetrachloride	.5 ug/L
Chlorobenzene	.5 ug/L	Chloroethane	.5 ug/L
Chloroform	.5 ug/L	Chloromethane	.5 ug/L
Chloroprene	.5 ug/L	Cyclohexane	.5 ug/L
Dibromochloromethane	.5 ug/L	Dibromomethane	.5 ug/L
Dichlorodifluoromethane	.5 ug/L	Diethyl ether (Ethyl ether)	.5 ug/L
Ethyl acetate	1 ug/L	Ethyl methacrylate	.5 ug/L
Ethylbenzene	.5 ug/L	Hexachloro-1,3-butadiene	.5 ug/L
Iodomethane	.5 ug/L	Isobutanol	1 ug/L
Isopropyl acetate	.5 ug/L	Isopropylbenzene	.5 ug/L
Methacrylonitrile	1 ug/L	Methanol	ug/L
Methyl acetate	1 ug/L	Methyl acrylate	.5 ug/L
Methyl methacrylate	.5 ug/L	Methyl-tert-butyl ether	.5 ug/L
Methylcyclohexane	.5 ug/L	Methylene Chloride	.5 ug/L
Naphthalene	.5 ug/L	Propionitrile	1 ug/L
Styrene	.5 ug/L	TOTAL BTEX	3 ug/L
Tetrachloroethene	.5 ug/L	Tetrahydrofuran	1 ug/L
Toluene	.5 ug/L	Total Trihalomethanes	2 ug/L
Trichloroethene	.5 ug/L	Trichlorofluoromethane	.5 ug/L
Vinyl acetate	.5 ug/L	Vinyl chloride	.5 ug/L
Xylene (Total)	1.5 ug/L	cis-1,2-Dichloroethene	.5 ug/L
cis-1,3-Dichloropropene	.5 ug/L	cis-1,4-Dichloro-2-butene	.5 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	1 ug/L	n-Butanol	1 ug/L
n-Butylbenzene	.5 ug/L	n-Hexane	.5 ug/L
n-Propylbenzene	.5 ug/L	n-amyl acetate	.5 ug/L
o-Xylene	.5 ug/L	p-Isopropyltoluene	.5 ug/L
sec-Butylbenzene	.5 ug/L	tert-Butylbenzene	.5 ug/L
trans-1,2-Dichloroethene	.5 ug/L	trans-1,3-Dichloropropene	.5 ug/L
trans-1,4-Dichloro-2-	.5 ug/L		

Composed of Information for Standard #27238

Composed of Standard Seq	Volume	Units
27114	0.001	mL
26717	0.001	mL
1	99.998	mL

Standard Log Report

Standards Log Information for Standard #27237

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	100 mL	**Lot ID:**	NA
Create Date:	08/20/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-CAL1

Notes:

MSV 8260 0.2 PPB

Compound Name and Concentration for Standard #27237

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	.2 ug/L	1,1,1-Trichloroethane	.2 ug/L
1,1,2,2-Tetrachloroethane	.2 ug/L	1,1,2-Trichloroethane	.2 ug/L
1,1,2-	.2 ug/L	1,1-Dichloroethane	.2 ug/L
1,1-Dichloroethene	.2 ug/L	1,1-Dichloropropene	.2 ug/L
1,2,3-Trichlorobenzene	.2 ug/L	1,2,3-Trichloropropane	.2 ug/L
1,2,4-Trichlorobenzene	.2 ug/L	1,2,4-Trimethylbenzene	.2 ug/L
1,2-Dibromo-3-	.2 ug/L	1,2-Dibromoethane (EDB)	.2 ug/L
1,2-Dichlorobenzene	.2 ug/L	1,2-Dichloroethane	.2 ug/L
1,2-Dichloropropane	.2 ug/L	1,3,5-Trimethylbenzene	.2 ug/L
1,3-Butadiene	.2 ug/L	1,3-Dichlorobenzene	.2 ug/L
1,3-Dichloropropane	.2 ug/L	1,4-Dichlorobenzene	.2 ug/L
1,4-Dioxane (p-Dioxane)	.4 ug/L	2,2-Dichloropropane	.2 ug/L
2-Butanone (MEK)	.4 ug/L	2-Chloroethylvinyl ether	.4 ug/L
2-Chlorotoluene	.2 ug/L	2-Hexanone	.4 ug/L
2-Nitropropane	.2 ug/L	4-Chlorotoluene	.2 ug/L
4-Methyl-2-pentanone	.4 ug/L	Acetone	.4 ug/L
Acetonitrile	.4 ug/L	Acrolein	.4 ug/L
Acrylonitrile	.4 ug/L	Allyl chloride	.2 ug/L
Benzene	.2 ug/L	Bromobenzene	.2 ug/L
Bromochloromethane	.2 ug/L	Bromodichloromethane	.2 ug/L
Bromoform	.2 ug/L	Bromomethane	.2 ug/L
Carbon disulfide	.2 ug/L	Carbon tetrachloride	.2 ug/L
Chlorobenzene	.2 ug/L	Chloroethane	.2 ug/L
Chloroform	.2 ug/L	Chloromethane	.2 ug/L
Chloroprene	.2 ug/L	Cyclohexane	.2 ug/L
Dibromochloromethane	.2 ug/L	Dibromomethane	.2 ug/L
Dichlorodifluoromethane	.2 ug/L	Diethyl ether (Ethyl ether)	.2 ug/L
Ethyl acetate	.4 ug/L	Ethyl methacrylate	.2 ug/L
Ethylbenzene	.2 ug/L	Hexachloro-1,3-butadiene	.2 ug/L
Iodomethane	.2 ug/L	Isobutanol	.4 ug/L
Isopropyl acetate	.2 ug/L	Isopropylbenzene	.2 ug/L
Methacrylonitrile	.4 ug/L	Methanol	ug/L
Methyl acetate	.4 ug/L	Methyl acrylate	.2 ug/L
Methyl methacrylate	.2 ug/L	Methyl-tert-butyl ether	.2 ug/L
Methylcyclohexane	.2 ug/L	Methylene Chloride	.2 ug/L
Naphthalene	.2 ug/L	Propionitrile	.4 ug/L
Styrene	.2 ug/L	TOTAL BTEX	1.2 ug/L
Tetrachloroethene	.2 ug/L	Tetrahydrofuran	.4 ug/L
Toluene	.2 ug/L	Total Trihalomethanes	.8 ug/L
Trichloroethene	.2 ug/L	Trichlorofluoromethane	.2 ug/L
Vinyl acetate	.2 ug/L	Vinyl chloride	.2 ug/L
Xylene (Total)	.6 ug/L	cis-1,2-Dichloroethene	.2 ug/L
cis-1,3-Dichloropropene	.2 ug/L	cis-1,4-Dichloro-2-butene	.2 ug/L

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
m&p-Xylene	.4 ug/L	n-Butanol	.4 ug/L
n-Butylbenzene	.2 ug/L	n-Hexane	.2 ug/L
n-Propylbenzene	.2 ug/L	n-amyl acetate	.2 ug/L
o-Xylene	.2 ug/L	p-Isopropyltoluene	.2 ug/L
sec-Butylbenzene	.2 ug/L	tert-Butylbenzene	.2 ug/L
trans-1,2-Dichloroethene	.2 ug/L	trans-1,3-Dichloropropene	.2 ug/L
trans-1,4-Dichloro-2-	.2 ug/L		

Composed of Information for Standard #27237

Composed of Standard Seq	Volume	Units
27114	0.0004	mL
26717	0.0004	mL
1	99.9992	mL

Standard Log Report

Standards Log Information for Standard #27116

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/18/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260GAS-SPK

Notes:

MSV 8260 Agilent Secondary Gas Spike MIX

Compound Name and Concentration for Standard #27116

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	100 ug/mL	Acrolein	100 ug/mL
Acrylonitrile	100 ug/mL	Bromomethane	50 ug/mL
Chloroethane	50 ug/mL	Chloromethane	50 ug/mL
Dichlorodifluoromethane	50 ug/mL	Methanol	ug/mL
Methyl acetate	100 ug/mL	Trichlorofluoromethane	50 ug/mL
Vinyl acetate	50 ug/mL	Vinyl chloride	50 ug/mL

Composed of Information for Standard #27116

Composed of Standard Seq	Volume	Units
26774	23.5	mL
26712	0.625	mL
26711	0.25	mL
26710	0.625	mL

Standard Log Report

Standards Log Information for Standard #27114

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/18/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/25/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260GAS-SPK

Notes:

MSV 8260 Phenova Primary Gas Spike MIX

Compound Name and Concentration for Standard #27114

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	100 ug/mL	Acrolein	100 ug/mL
Acrylonitrile	100 ug/mL	Bromomethane	50 ug/mL
Chloroethane	50 ug/mL	Chloromethane	50 ug/mL
Dichlorodifluoromethane	50 ug/mL	Methanol	ug/mL
Methyl acetate	100 ug/mL	Trichlorofluoromethane	50 ug/mL
Vinyl acetate	50 ug/mL	Vinyl chloride	50 ug/mL

Composed of Information for Standard #27114

Composed of Standard Seq	Volume	Units
26774	23.25	mL
26387	0.25	mL
26386	0.625	mL
26385	0.25	mL
24913	0.625	mL

Standard Log Report

Standards Log Information for Standard #27049

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522700
Create Date:	08/17/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180002
Expire Date:	07/31/2025	**Manufacturer Lot ID:**	CL15196	**Standard ID:**	MSV-GAS-PS

Notes:

MSV 502.2 Cal Mix#1-Primary Source

Compound Name and Concentration for Standard #27049

Compound Name	Concentration	Compound Name	Concentration
Bromomethane	2000 ug/mL	Chloroethane	2000 ug/mL
Chloromethane	2000 ug/mL	Dichlorodifluoromethane	2000 ug/mL
Trichlorofluoromethane	2000 ug/mL	Vinyl chloride	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #26774

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	522674
Create Date:	08/07/2020	**Manufacturer:**	Fisher Scientific	**Part ID:**	A453-500
Expire Date:	02/03/2021	**Manufacturer Lot ID:**	198331	**Standard ID:**	RGNT179

Notes:

MSV P/T Methanol

Compound Name and Concentration for Standard #26774

Compound Name	Concentration	Compound Name	Concentration
Methanol			

Standard Log Report

Standards Log Information for Standard #26718

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/06/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/05/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-SPK

Notes:

MSV 8260 Agilent Secondary Mega Mix Spike

Compound Name and Concentration for Standard #26718

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	50 ug/mL	1,1,1-Trichloroethane	50 ug/mL
1,1,2,2-Tetrachloroethane	50 ug/mL	1,1,2-Trichloroethane	50 ug/mL
1,1,2-	50 ug/mL	1,1-Dichloroethane	50 ug/mL
1,1-Dichloroethene	50 ug/mL	1,1-Dichloropropene	50 ug/mL
1,2,3-Trichlorobenzene	50 ug/mL	1,2,3-Trichloropropane	50 ug/mL
1,2,4-Trichlorobenzene	50 ug/mL	1,2,4-Trimethylbenzene	50 ug/mL
1,2-Dibromo-3-	50 ug/mL	1,2-Dibromoethane (EDB)	50 ug/mL
1,2-Dichlorobenzene	50 ug/mL	1,2-Dichloroethane	50 ug/mL
1,2-Dichloropropane	50 ug/mL	1,3,5-Trimethylbenzene	50 ug/mL
1,3-Butadiene	50 ug/mL	1,3-Dichlorobenzene	50 ug/mL
1,3-Dichloropropane	50 ug/mL	1,4-Dichlorobenzene	50 ug/mL
1,4-Dioxane (p-Dioxane)	100 ug/mL	2,2-Dichloropropane	50 ug/mL
2-Butanone (MEK)	100 ug/mL	2-Chlorotoluene	50 ug/mL
2-Hexanone	100 ug/mL	2-Nitropropane	50 ug/mL
4-Chlorotoluene	50 ug/mL	4-Methyl-2-pentanone	100 ug/mL
Acetone	100 ug/mL	Acetonitrile	100 ug/mL
Allyl chloride	50 ug/mL	Benzene	50 ug/mL
Bromobenzene	50 ug/mL	Bromochloromethane	50 ug/mL
Bromodichloromethane	50 ug/mL	Bromoform	50 ug/mL
Carbon disulfide	50 ug/mL	Carbon tetrachloride	50 ug/mL
Chlorobenzene	50 ug/mL	Chloroform	50 ug/mL
Chloroprene	50 ug/mL	Cyclohexane	50 ug/mL
Dibromochloromethane	50 ug/mL	Dibromomethane	50 ug/mL
Diethyl ether (Ethyl ether)	50 ug/mL	Ethyl acetate	100 ug/mL
Ethyl methacrylate	50 ug/mL	Ethylbenzene	50 ug/mL
Hexachloro-1,3-butadiene	50 ug/mL	Iodomethane	50 ug/mL
Isobutanol	100 ug/mL	Isopropyl acetate	50 ug/mL
Isopropylbenzene	50 ug/mL	Methacrylonitrile	100 ug/mL
Methanol	ug/mL	Methyl acrylate	50 ug/mL
Methyl methacrylate	50 ug/mL	Methyl-tert-butyl ether	50 ug/mL
Methylcyclohexane	50 ug/mL	Methylene Chloride	50 ug/mL
Naphthalene	50 ug/mL	Propionitrile	100 ug/mL
Styrene	50 ug/mL	TOTAL BTEX	300 ug/mL
Tetrachloroethene	50 ug/mL	Tetrahydrofuran	100 ug/mL
Toluene	50 ug/mL	Total Trihalomethanes	200 ug/mL
Trichloroethene	50 ug/mL	Xylene (Total)	150 ug/mL
cis-1,2-Dichloroethene	50 ug/mL	cis-1,3-Dichloropropene	50 ug/mL
cis-1,4-Dichloro-2-butene	50 ug/mL	m&p-Xylene	100 ug/mL
n-Butanol	100 ug/mL	n-Butylbenzene	50 ug/mL
n-Hexane	50 ug/mL	n-Propylbenzene	50 ug/mL
n-amyl acetate	50 ug/mL	o-Xylene	50 ug/mL
p-Isopropyltoluene	50 ug/mL	sec-Butylbenzene	50 ug/mL
tert-Butylbenzene	50 ug/mL	trans-1,2-Dichloroethene	50 ug/mL

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
trans-1,3-Dichloropropene	50 ug/mL	trans-1,4-Dichloro-2-	50 ug/mL

Composed of Information for Standard #26718

Composed of Standard Seq	Volume	Units
26117	21.375	mL
25570	0.25	mL
25569	0.25	mL
25568	0.625	mL
25566	0.625	mL
25565	0.625	mL
25564	0.625	mL

Standard Log Report

Standards Log Information for Standard #26717

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	25 mL	**Lot ID:**	PACE
Create Date:	08/06/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	09/05/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-SPK

Notes:

MSV 8260 Phenova Primary Mega Mix Spike

Compound Name and Concentration for Standard #26717

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	50 ug/mL	1,1,1-Trichloroethane	50 ug/mL
1,1,2,2-Tetrachloroethane	50 ug/mL	1,1,2-Trichloroethane	50 ug/mL
1,1,2-	50 ug/mL	1,1-Dichloroethane	50 ug/mL
1,1-Dichloroethene	50 ug/mL	1,1-Dichloropropene	50 ug/mL
1,2,3-Trichlorobenzene	50 ug/mL	1,2,3-Trichloropropane	50 ug/mL
1,2,4-Trichlorobenzene	50 ug/mL	1,2,4-Trimethylbenzene	50 ug/mL
1,2-Dibromo-3-	50 ug/mL	1,2-Dibromoethane (EDB)	50 ug/mL
1,2-Dichlorobenzene	50 ug/mL	1,2-Dichloroethane	50 ug/mL
1,2-Dichloropropane	50 ug/mL	1,3,5-Trimethylbenzene	50 ug/mL
1,3-Butadiene	50 ug/mL	1,3-Dichlorobenzene	50 ug/mL
1,3-Dichloropropane	50 ug/mL	1,4-Dichlorobenzene	50 ug/mL
1,4-Dioxane (p-Dioxane)	100 ug/mL	2,2-Dichloropropane	50 ug/mL
2-Butanone (MEK)	100 ug/mL	2-Chlorotoluene	50 ug/mL
2-Hexanone	100 ug/mL	2-Nitropropane	50 ug/mL
4-Chlorotoluene	50 ug/mL	4-Methyl-2-pentanone	100 ug/mL
Acetone	100 ug/mL	Acetonitrile	100 ug/mL
Allyl chloride	50 ug/mL	Benzene	50 ug/mL
Bromobenzene	50 ug/mL	Bromochloromethane	50 ug/mL
Bromodichloromethane	50 ug/mL	Bromoform	50 ug/mL
Carbon disulfide	50 ug/mL	Carbon tetrachloride	50 ug/mL
Chlorobenzene	50 ug/mL	Chloroform	50 ug/mL
Chloroprene	50 ug/mL	Cyclohexane	50 ug/mL
Dibromochloromethane	50 ug/mL	Dibromomethane	50 ug/mL
Diethyl ether (Ethyl ether)	50 ug/mL	Ethyl acetate	100 ug/mL
Ethyl methacrylate	50 ug/mL	Ethylbenzene	50 ug/mL
Hexachloro-1,3-butadiene	50 ug/mL	Iodomethane	50 ug/mL
Isobutanol	100 ug/mL	Isopropyl acetate	50 ug/mL
Isopropylbenzene	50 ug/mL	Methacrylonitrile	100 ug/mL
Methanol	ug/mL	Methyl acrylate	50 ug/mL
Methyl methacrylate	50 ug/mL	Methyl-tert-butyl ether	50 ug/mL
Methylcyclohexane	50 ug/mL	Methylene Chloride	50 ug/mL
Naphthalene	50 ug/mL	Propionitrile	100 ug/mL
Styrene	50 ug/mL	TOTAL BTEX	300 ug/mL
Tetrachloroethene	50 ug/mL	Tetrahydrofuran	100 ug/mL
Toluene	50 ug/mL	Total Trihalomethanes	200 ug/mL
Trichloroethene	50 ug/mL	Xylene (Total)	150 ug/mL
cis-1,2-Dichloroethene	50 ug/mL	cis-1,3-Dichloropropene	50 ug/mL
cis-1,4-Dichloro-2-butene	50 ug/mL	m&p-Xylene	100 ug/mL
n-Butanol	100 ug/mL	n-Butylbenzene	50 ug/mL
n-Hexane	50 ug/mL	n-Propylbenzene	50 ug/mL
n-amyl acetate	50 ug/mL	o-Xylene	50 ug/mL
p-Isopropyltoluene	50 ug/mL	sec-Butylbenzene	50 ug/mL
tert-Butylbenzene	50 ug/mL	trans-1,2-Dichloroethene	50 ug/mL

The standards listed are from Pace's LIMS52.

Standard Log Report

Compound Name	Concentration	Compound Name	Concentration
trans-1,3-Dichloropropene	50 ug/mL	trans-1,4-Dichloro-2-	50 ug/mL

Composed of Information for Standard #26717

Composed of Standard Seq	Volume	Units
26117	22.625	mL
23770	0.625	mL
23769	0.625	mL
23768	0.625	mL
23767	0.25	mL
23766	0.25	mL

Standard Log Report

Standards Log Information for Standard #26712

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522672
Create Date:	08/06/2020	**Manufacturer:**	Agilent	**Part ID:**	3095185
Expire Date:	11/30/2020	**Manufacturer Lot ID:**	0006547794	**Standard ID:**	ACETATESTK

Notes:

MSV Custom Acetate Mix-Secondary Source

Compound Name and Concentration for Standard #26712

Compound Name	Concentration	Compound Name	Concentration
Vinyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26711

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522671
Create Date:	08/06/2020	**Manufacturer:**	Agilent	**Part ID:**	3059401
Expire Date:	11/30/2020	**Manufacturer Lot ID:**	0006547796	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #26711

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	10000 ug/mL	Acrolein	10000 ug/mL
Acrylonitrile	10000 ug/mL	Methyl acetate	10000 ug/mL

Standard Log Report

Standards Log Information for Standard #26710

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522670
Create Date:	08/06/2020	**Manufacturer:**	Agilent	**Part ID:**	3059400
Expire Date:	08/31/2022	**Manufacturer Lot ID:**	0006547006	**Standard ID:**	MSV-GAS-SS

Notes:

MSV 502.2 Cal Mix#1-Secondary Source

Compound Name and Concentration for Standard #26710

Compound Name	Concentration	Compound Name	Concentration
Bromomethane	2000 ug/mL	Chloroethane	2000 ug/mL
Chloromethane	2000 ug/mL	Dichlorodifluoromethane	2000 ug/mL
Trichlorofluoromethane	2000 ug/mL	Vinyl chloride	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #26400

WORKING STANDARD

Created By:	EAH	**Volume of Standard:**	10 mL	**Lot ID:**	PACE
Create Date:	07/30/2020	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	08/29/2020	**Manufacturer Lot ID:**	PACE	**Standard ID:**	8260-ISSS

Notes:

MSV Working MV02 524/8260 IS/Surrogate

Compound Name and Concentration for Standard #26400

Compound Name	Concentration	Compound Name	Concentration
1,2-Dichlorobenzene-d4 (S)	50 mg/L	1,2-Dichloroethane-d4 (S)	50 mg/L
1,4-Dichlorobenzene-d4	50 mg/L	1,4-Difluorobenzene (IS)	50 mg/L
4-Bromofluorobenzene (S)	50 mg/L	Chlorobenzene-D5 (IS)	50 mg/L
Dibromofluoromethane (S)	50 mg/L	Fluorobenzene (IS)	50 mg/L
Methanol	mg/L	Pentafluorobenzene (IS)	50 mg/L
Toluene-d8 (S)	50 mg/L		

Composed of Information for Standard #26400

Composed of Standard Seq	Volume	Units
26117	9.1	mL
24910	0.25	mL
24909	0.25	mL
24908	0.2	mL
24907	0.2	mL

Standard Log Report

Standards Log Information for Standard #26387

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522645
Create Date:	07/29/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180007
Expire Date:	10/31/2020	**Manufacturer Lot ID:**	CL15234	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Reactives Std-Primary Source

Compound Name and Concentration for Standard #26387

Compound Name	Concentration	Compound Name	Concentration
2-Chloroethylvinyl ether	10000 ug/mL	Acrylonitrile	10000 ug/mL
Methyl acetate	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26386

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522644
Create Date:	07/29/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180018
Expire Date:	08/27/2020	**Manufacturer Lot ID:**	CL15596	**Standard ID:**	ACETATEPSTK

Notes:

MSV Phenova Custom Acetate Mix-Primary Source

Compound Name and Concentration for Standard #26386

Compound Name	Concentration	Compound Name	Concentration
Vinyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26385

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522643
Create Date:	07/29/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180017
Expire Date:	08/27/2020	**Manufacturer Lot ID:**	CL15595	**Standard ID:**	AcrolienPSTK

Notes:

MSV Phenova Acrolein Stock Standard - Primary

Compound Name and Concentration for Standard #26385

Compound Name	Concentration	Compound Name	Concentration
Acrolein	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #26117

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	522617
Create Date:	07/22/2020	**Manufacturer:**	Fisher Scientific	**Part ID:**	A453-500
Expire Date:	01/18/2021	**Manufacturer Lot ID:**	198331	**Standard ID:**	RGNT179

Notes:

MSV P/T Methanol

Compound Name and Concentration for Standard #26117

Compound Name	Concentration	Compound Name	Concentration
Methanol			

Standard Log Report

Standards Log Information for Standard #25570

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522580
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059390
Expire Date:	04/30/2021	**Manufacturer Lot ID:**	0006527178	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #25570

Compound Name	Concentration	Compound Name	Concentration
n-Butanol	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25569

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522579
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059399
Expire Date:	07/31/2022	**Manufacturer Lot ID:**	00006542413	**Standard ID:**	VOACALMX1

Notes:

MSV VOA Calibration Mix#1-Secondary Source

Compound Name and Concentration for Standard #25569

Compound Name	Concentration	Compound Name	Concentration
1,4-Dioxane (p-Dioxane)	10000 ug/mL	2-Butanone (MEK)	10000 ug/mL
2-Hexanone	10000 ug/mL	4-Methyl-2-pentanone	10000 ug/mL
Acetone	10000 ug/mL	Acetonitrile	10000 ug/mL
Ethyl acetate	10000 ug/mL	Isobutanol	10000 ug/mL
Methacrylonitrile	10000 ug/mL	Propionitrile	10000 ug/mL
Tetrahydrofuran	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25568

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522578
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059396
Expire Date:	04/30/2022	**Manufacturer Lot ID:**	0006527210	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #25568

Compound Name	Concentration	Compound Name	Concentration
Chloroprene	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25566

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522576
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3154935
Expire Date:	09/30/2020	**Manufacturer Lot ID:**	0006537291	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Supplemental Std-Secondary Source

Compound Name and Concentration for Standard #25566

Compound Name	Concentration	Compound Name	Concentration
Isopropyl acetate	2000 ug/mL	Methyl acrylate	2000 ug/mL
n-amyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25565

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522575
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3083487
Expire Date:	04/30/2021	**Manufacturer Lot ID:**	0006527215	**Standard ID:**	ButadieneSTK

Notes:

MSV 1,3-Butadiene Stock-Secondary Source

Compound Name and Concentration for Standard #25565

Compound Name	Concentration	Compound Name	Concentration
1,3-Butadiene	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #25564

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522574
Create Date:	07/08/2020	**Manufacturer:**	Agilent	**Part ID:**	3059393
Expire Date:	07/31/2022	**Manufacturer Lot ID:**	0006542412	**Standard ID:**	VOC SS STK

Notes:

MSV Custom VOC Mix-Agilent Secondary Source

Compound Name and Concentration for Standard #25564

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	2000 ug/mL	1,1,1-Trichloroethane	2000 ug/mL
1,1,2,2-Tetrachloroethane	2000 ug/mL	1,1,2-Trichloroethane	2000 ug/mL
1,1,2-	2000 ug/mL	1,1-Dichloroethane	2000 ug/mL
1,1-Dichloroethene	2000 ug/mL	1,1-Dichloropropene	2000 ug/mL
1,2,3-Trichlorobenzene	2000 ug/mL	1,2,3-Trichloropropane	2000 ug/mL
1,2,4-Trichlorobenzene	2000 ug/mL	1,2,4-Trimethylbenzene	2000 ug/mL
1,2-Dibromo-3-	2000 ug/mL	1,2-Dibromoethane (EDB)	2000 ug/mL
1,2-Dichlorobenzene	2000 ug/mL	1,2-Dichloroethane	2000 ug/mL
1,2-Dichloropropane	2000 ug/mL	1,3,5-Trimethylbenzene	2000 ug/mL
1,3-Dichlorobenzene	2000 ug/mL	1,3-Dichloropropane	2000 ug/mL
1,4-Dichlorobenzene	2000 ug/mL	2,2-Dichloropropane	2000 ug/mL
2-Chlorotoluene	2000 ug/mL	2-Nitropropane	2000 ug/mL
4-Chlorotoluene	2000 ug/mL	Allyl chloride	2000 ug/mL
Benzene	2000 ug/mL	Bromobenzene	2000 ug/mL
Bromochloromethane	2000 ug/mL	Bromodichloromethane	2000 ug/mL
Bromoform	2000 ug/mL	Carbon disulfide	2000 ug/mL
Carbon tetrachloride	2000 ug/mL	Chlorobenzene	2000 ug/mL
Chloroform	2000 ug/mL	Cyclohexane	2000 ug/mL
Dibromochloromethane	2000 ug/mL	Dibromomethane	2000 ug/mL
Diethyl ether (Ethyl ether)	2000 ug/mL	Ethyl methacrylate	2000 ug/mL
Ethylbenzene	2000 ug/mL	Hexachloro-1,3-butadiene	2000 ug/mL
Iodomethane	2000 ug/mL	Isopropylbenzene	2000 ug/mL
Methyl methacrylate	2000 ug/mL	Methyl-tert-butyl ether	2000 ug/mL
Methylcyclohexane	2000 ug/mL	Methylene Chloride	2000 ug/mL
Naphthalene	2000 ug/mL	Styrene	2000 ug/mL
TOTAL BTEX	12000 ug/mL	Tetrachloroethene	2000 ug/mL
Toluene	2000 ug/mL	Total Trihalomethanes	8000 ug/mL
Trichloroethene	2000 ug/mL	Xylene (Total)	6000 ug/mL
cis-1,2-Dichloroethene	2000 ug/mL	cis-1,3-Dichloropropene	2000 ug/mL
cis-1,4-Dichloro-2-butene	2000 ug/mL	m&p-Xylene	4000 ug/mL
n-Butylbenzene	2000 ug/mL	n-Hexane	2000 ug/mL
n-Propylbenzene	2000 ug/mL	o-Xylene	2000 ug/mL
p-Isopropyltoluene	2000 ug/mL	sec-Butylbenzene	2000 ug/mL
tert-Butylbenzene	2000 ug/mL	trans-1,2-Dichloroethene	2000 ug/mL
trans-1,3-Dichloropropene	2000 ug/mL	trans-1,4-Dichloro-2-	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #24913

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522539
Create Date:	06/23/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180002
Expire Date:	08/31/2024	**Manufacturer Lot ID:**	CL14053	**Standard ID:**	MSV-GAS-PS

Notes:

MSV 502.2 Cal Mix#1-Primary Source

Compound Name and Concentration for Standard #24913

Compound Name	Concentration	Compound Name	Concentration
Bromomethane	2000 ug/mL	Chloroethane	2000 ug/mL
Chloromethane	2000 ug/mL	Dichlorodifluoromethane	2000 ug/mL
Trichlorofluoromethane	2000 ug/mL	Vinyl chloride	2000 ug/mL

Standard Log Report

Standards Log Information for Standard #24910

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522538
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30030
Expire Date:	02/28/2025	**Manufacturer Lot ID:**	A0158124	**Standard ID:**	524 IS STK

Notes:

MSV 524.2 Fluorobenzene IS Stock

Compound Name and Concentration for Standard #24910

Compound Name	Concentration	Compound Name	Concentration
Fluorobenzene (IS)	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #24909

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522537
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30049
Expire Date:	08/31/2028	**Manufacturer Lot ID:**	A0160880	**Standard ID:**	524 Surr STK

Notes:

MSV 524 Surrogate 1,2-Dichlorobenzene-d4

Compound Name and Concentration for Standard #24909

Compound Name	Concentration	Compound Name	Concentration
1,2-Dichlorobenzene-d4 (S)	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #24908

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522536
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30240
Expire Date:	01/31/2025	**Manufacturer Lot ID:**	A0156492	**Standard ID:**	8260 SUR STK

Notes:

MSV 8260 Surrogate Stock

Compound Name and Concentration for Standard #24908

Compound Name	Concentration	Compound Name	Concentration
1,2-Dichloroethane-d4 (S)	2500 ug/mL	4-Bromofluorobenzene (S)	2500 ug/mL
Dibromofluoromethane (S)	2500 ug/mL	Toluene-d8 (S)	2500 ug/mL

Standard Log Report

Standards Log Information for Standard #24907

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522535
Create Date:	06/23/2020	**Manufacturer:**	Restek	**Part ID:**	30074
Expire Date:	04/30/2025	**Manufacturer Lot ID:**	A0159786	**Standard ID:**	8260 IS

Notes:

MSV 8260 IS Stock

Compound Name and Concentration for Standard #24907

Compound Name	Concentration	Compound Name	Concentration
1,4-Dichlorobenzene-d4	2500 ug/mL	1,4-Difluorobenzene (IS)	2500 ug/mL
Chlorobenzene-D5 (IS)	2500 ug/mL	Pentafluorobenzene (IS)	2500 ug/mL

Standard Log Report

Standards Log Information for Standard #23770

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522451
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180001
Expire Date:	12/31/2021	**Manufacturer Lot ID:**	CL14606	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Mix-Primary Source

Compound Name and Concentration for Standard #23770

Compound Name	Concentration	Compound Name	Concentration
1,1,1,2-Tetrachloroethane	2000 ug/mL	1,1,1-Trichloroethane	2000 ug/mL
1,1,2,2-Tetrachloroethane	2000 ug/mL	1,1,2-Trichloroethane	2000 ug/mL
1,1,2-	2000 ug/mL	1,1-Dichloroethane	2000 ug/mL
1,1-Dichloroethene	2000 ug/mL	1,1-Dichloropropene	2000 ug/mL
1,2,3-Trichlorobenzene	2000 ug/mL	1,2,3-Trichloropropane	2000 ug/mL
1,2,4-Trichlorobenzene	2000 ug/mL	1,2,4-Trimethylbenzene	2000 ug/mL
1,2-Dibromo-3-	2000 ug/mL	1,2-Dibromoethane (EDB)	2000 ug/mL
1,2-Dichlorobenzene	2000 ug/mL	1,2-Dichloroethane	2000 ug/mL
1,2-Dichloropropane	2000 ug/mL	1,3,5-Trimethylbenzene	2000 ug/mL
1,3-Dichlorobenzene	2000 ug/mL	1,3-Dichloropropane	2000 ug/mL
1,4-Dichlorobenzene	2000 ug/mL	2,2-Dichloropropane	2000 ug/mL
2-Chlorotoluene	2000 ug/mL	2-Nitropropane	2000 ug/mL
4-Chlorotoluene	2000 ug/mL	Allyl chloride	2000 ug/mL
Benzene	2000 ug/mL	Bromobenzene	2000 ug/mL
Bromochloromethane	2000 ug/mL	Bromodichloromethane	2000 ug/mL
Bromoform	2000 ug/mL	Carbon disulfide	2000 ug/mL
Carbon tetrachloride	2000 ug/mL	Chlorobenzene	2000 ug/mL
Chloroform	2000 ug/mL	Chloroprene	2000 ug/mL
Cyclohexane	2000 ug/mL	Dibromochloromethane	2000 ug/mL
Dibromomethane	2000 ug/mL	Diethyl ether (Ethyl ether)	2000 ug/mL
Ethyl methacrylate	2000 ug/mL	Ethylbenzene	2000 ug/mL
Hexachloro-1,3-butadiene	2000 ug/mL	Iodomethane	2000 ug/mL
Isopropylbenzene	2000 ug/mL	Methyl methacrylate	2000 ug/mL
Methyl-tert-butyl ether	2000 ug/mL	Methylcyclohexane	2000 ug/mL
Methylene Chloride	2000 ug/mL	Naphthalene	2000 ug/mL
Styrene	2000 ug/mL	TOTAL BTEX	12000 ug/mL
Tetrachloroethene	2000 ug/mL	Toluene	2000 ug/mL
Total Trihalomethanes	8000 ug/mL	Trichloroethene	2000 ug/mL
Xylene (Total)	6000 ug/mL	cis-1,2-Dichloroethene	2000 ug/mL
cis-1,3-Dichloropropene	2000 ug/mL	cis-1,4-Dichloro-2-butene	2000 ug/mL
m&p-Xylene	4000 ug/mL	n-Butylbenzene	2000 ug/mL
n-Hexane	2000 ug/mL	n-Propylbenzene	2000 ug/mL
o-Xylene	2000 ug/mL	p-Isopropyltoluene	2000 ug/mL
sec-Butylbenzene	2000 ug/mL	tert-Butylbenzene	2000 ug/mL
trans-1,2-Dichloroethene	2000 ug/mL	trans-1,3-Dichloropropene	2000 ug/mL
trans-1,4-Dichloro-2-	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23769

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522450
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180006
Expire Date:	11/30/2020	**Manufacturer Lot ID:**	CL14585	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Supplemental Std-Primary Source

Compound Name and Concentration for Standard #23769

Compound Name	Concentration	Compound Name	Concentration
Isopropyl acetate	2000 ug/mL	Methyl acrylate	2000 ug/mL
n-amyl acetate	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23768

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522449
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180004
Expire Date:	11/30/2021	**Manufacturer Lot ID:**	CL14652	**Standard ID:**	ButadieneSTK

Notes:

MSV 1,3-Butadiene Stock-Primary Source

Compound Name and Concentration for Standard #23768

Compound Name	Concentration	Compound Name	Concentration
1,3-Butadiene	2000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23767

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522448
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180003
Expire Date:	11/30/2022	**Manufacturer Lot ID:**	CL14587	**Standard ID:**	VOACALMX1

Notes:

MSV VOA Calibration Mix#1-Primary Source

Compound Name and Concentration for Standard #23767

Compound Name	Concentration	Compound Name	Concentration
1,4-Dioxane (p-Dioxane)	10000 ug/mL	2-Butanone (MEK)	10000 ug/mL
2-Hexanone	10000 ug/mL	4-Methyl-2-pentanone	10000 ug/mL
Acetone	10000 ug/mL	Acetonitrile	10000 ug/mL
Ethyl acetate	10000 ug/mL	Isobutanol	10000 ug/mL
Methacrylonitrile	10000 ug/mL	Propionitrile	10000 ug/mL
Tetrahydrofuran	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #23766

INDIVIDUAL STANDARD

Created By:	EAH	**Volume of Standard:**	1 mL	**Lot ID:**	522447
Create Date:	05/26/2020	**Manufacturer:**	Phenova	**Part ID:**	AL0-180005
Expire Date:	12/31/2020	**Manufacturer Lot ID:**	CL14607	**Standard ID:**	VOC PS STK

Notes:

MSV Custom VOC Supplemental Std-Primary Source

Compound Name and Concentration for Standard #23766

Compound Name	Concentration	Compound Name	Concentration
n-Butanol	10000 ug/mL		

Standard Log Report

Standards Log Information for Standard #8940

STOCK STANDARD

Created By:	EAH	**Volume of Standard:**		**Lot ID:**	521408
Create Date:	05/09/2019	**Manufacturer:**	Fisher Scientific	**Part ID:**	S23-3
Expire Date:	09/01/2022	**Manufacturer Lot ID:**	175767	**Standard ID:**	RGNT210

Notes:

MSV Ottowa Sand

Compound Name and Concentration for Standard #8940

Compound Name	Concentration	Compound Name	Concentration
Ottawa Sand	mg/kg		

Standard Log Report

Standards Log Information for Standard #1

STOCK STANDARD

Created By:	GR1	**Volume of Standard:**	1000 mL	**Lot ID:**	PACE
Create Date:	01/01/2018	**Manufacturer:**	PACE	**Part ID:**	N/A
Expire Date:	01/01/2025	**Manufacturer Lot ID:**	PACE	**Standard ID:**	RGNT389

Notes:

DI Water

Compound Name and Concentration for Standard #1

Compound Name	Concentration	Compound Name	Concentration
DI Water			

The standards listed are from Pace's LIMS52.

521408
REC. 04/19/18 BY EF
Exp. 9/1/22 By
Open 1/9/19 By

STD
8940

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

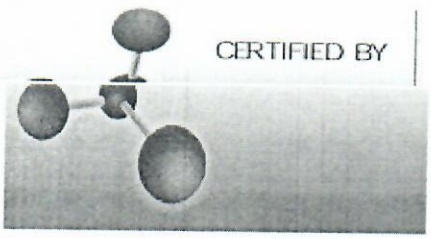
Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**S23**	**Quality Test / Release Date**	**9/26/2017**
Lot Number	**175767**		
Description	**SAND, OTTAWA**		
Country of Origin	**United States**	*** Suggested Retest Date**	**Sep-2022**

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	Colorless to Yellow-Brown Beads
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
MESH SIZE	PASS/FAIL	= PASS TEST	PASS TEST



Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180005
Description: Additions Mix 1
Storage: Freeze (-18-0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14607
Certification Date: January 22, 2020
Expiration Date: December 31, 2020

Andrea L Gill

522447
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STO# 23766

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
n-Decane	124-18-5	2001	0.230%
n-Dodecane	112-40-3	2000	0.115%
n-Undecane	1120-21-4	1999	0.115%
n-Octane	111-65-9	2000	0.115%
n-Nonane	111-84-2	2001	0.167%
3,3-dimethyl-1-butanol	624-95-3	10002	0.157%
1-Chlorobutane	109-69-3	2000	0.230%
1-Propanol	71-23-8	10000	0.226%
2-Bromo-1-chloropropane	3017-95-6	2000	1.042%
2-Butanol	78-92-2	2000	0.230%
2-Methylpentane	107-83-5	2000	0.115%
4-Methyl-2-pentanol	108-11-2	1999	0.230%
Benzyl chloride	100-44-7	1999	0.140%
Butylcyclohexane	1678-93-9	2001	0.230%
Hexachloroethane	67-72-1	2001	0.230%
2-Chloroethanol	107-07-3	2000	0.230%
Nitrobenzene	98-95-3	2000	0.230%
1-Methylnaphthalene	90-12-0	2000	0.115%
Isooctane	540-84-1	2000	0.115%
1-Butanol	71-36-3	10000	0.226%
n-Heptane	142-82-5	2000	0.204%
Isopropanol (2-Propanol)	67-63-0	10000	0.105%

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Catalog Number: AL0-180003
Description: Elevated VOA Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14587
Certification Date: January 12, 2020
Expiration Date: November 30, 2022

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522448
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STD# 23767

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Acetone	67-64-1	10000	3.527%
Acetonitrile	75-05-8	10000	0.225%
tert-Amyl alcohol	75-85-4	10002	0.104%
tert-Butanol	75-65-0	10000	0.105%
2-Butanone	78-93-3	10000	0.225%
Cyclohexanone	108-94-1	10000	0.225%
1,4-Dioxane	123-91-1	10001	0.225%
Ethanol	64-17-5	10000	0.225%
Ethyl acetate	141-78-6	10000	0.225%
Isobutanol (2-methyl-1-propanol)	78-83-1	10000	0.225%
2-Hexanone	591-78-6	10000	0.105%
Methacrylonitrile	126-98-7	10000	0.105%
4-Methyl-2-pentanone	108-10-1	10000	0.225%
Propionitrile	107-12-0	10000	0.225%
Tetrahydrofuran	109-99-9	10000	0.225%

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Catalog Number: AL0-180004
Description: Custom 8260 Additions Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14652
Certification Date: January 21, 2020
Expiration Date: November 30, 2021

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522449
REC.05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STD#23768

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
1,3-Butadiene	106-99-0	2005	5.367%
Dicyclopentadiene	77-73-6	2000	13.563%
4-Ethyltoluene	622-96-8	2000	13.560%
Propene	115-07-1	1981	8.812%

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Certified Reference Material

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Catalog Number: AL0-180006
Description: Additions Mix 2
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14585
Certification Date: January 12, 2020
Expiration Date: November 30, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522450
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STO# 23769

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Methyl acrylate	96-33-3	2000	4.712%
n-Amyl acetate	628-63-7	2000	3.289%
Ethyl acrylate	140-88-5	2000	5.106%
Butyl Acetate	123-86-4	2000	4.627%
tert-Butyl Acetate	540-88-5	2000	5.102%
tert-Butyl Formate	762-75-4	10000	4.021%
Isopropyl acetate	108-21-4	2000	4.640%

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Catalog Number: AL0-180001
Description: Custom VOA Cal Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: > 1 mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14606
Certification Date: March 3, 2020
Expiration Date: December 31, 2021

522451
REC. 05/22/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STOck 23770

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Allyl Chloride	107-05-1	2000	0.492%
tert-Amyl Ethyl Ether (TAEE)	919-94-8	2000	0.215%
tert-Amyl Methyl Ether (TAME)	994-05-8	2000	0.632%
Benzene	71-43-2	2000	0.519%
Bromobenzene	108-86-1	2000	0.479%
Bromoform	75-25-2	2000	0.487%
Bromochloromethane	74-97-5	2000	0.545%
Bromodichloromethane	75-27-4	2000	0.481%
n-Butylbenzene	104-51-8	2000	0.480%
sec-Butylbenzene	135-98-8	2000	0.478%
tert-Butylbenzene	98-06-6	2000	0.481%
Ethyl-tert Butyl Ether (ETBE)	637-92-3	2000	0.635%
Carbon disulfide	75-15-0	2000	0.480%
Carbon tetrachloride	56-23-5	2000	0.519%
Chlorobenzene	108-90-7	2000	0.519%
Chloroform	67-66-3	2000	0.519%
Chloroprene	126-99-8	2000	1.518%
2-Chlorotoluene	95-49-8	2000	0.478%
4-Chlorotoluene	106-43-4	2000	0.479%
Cyclohexane	110-82-7	2000	0.507%
Dibromochloromethane	124-48-1	2000	0.480%
1,2-Dibromo-3-Chloropropane	96-12-8	2000	0.479%
Dibromomethane	74-95-3	2000	0.508%
Dibromomethane	106-93-4	2000	0.508%
1,2-Dichlorobenzene	95-50-1	2000	0.478%
1,3-Dichlorobenzene	541-73-1	2000	0.479%

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Catalog Number: AL0-180001
Description: Custom VOA Cal Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: > 1 mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14606
Certification Date: March 3, 2020
Expiration Date: December 31, 2021

OFFICE USE

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
1,4-Dichlorobenzene	106-46-7	2001	0.215%
cis-1,4-Dichloro-2-butene	1476-11-5	2000	0.480%
trans-1,4-Dichloro-2-butene	110-57-6	2000	0.492%
1,1-Dichloroethane	75-34-3	2000	0.546%
1,2-Dichloroethane	107-06-2	2000	0.545%
1,1-Dichloroethene	75-35-4	2000	0.507%
cis-1,2-Dichloroethene	156-59-2	2000	0.545%
trans-1,2-Dichloroethene	156-60-5	2000	0.558%
1,2-Dichloropropane	78-87-5	2000	0.524%
1,3-Dichloropropane	142-28-9	2000	0.478%
2,2-Dichloropropane	594-20-7	2000	0.519%
1,1-Dichloropropene	563-58-6	2000	0.218%
cis-1,3-Dichloropropene	10061-01-5	2001	0.507%
trans-1,3-Dichloropropene	10061-02-6	2000	0.507%
Ethyl Ether	60-29-7	2000	0.624%
Diisopropyl ether (DIPE)	108-20-3	2000	0.622%
Ethylbenzene	100-41-4	2000	0.519%
Ethyl methacrylate	97-63-2	2000	0.500%
Hexachlorobutadiene	87-68-3	2000	0.479%
n-Hexane	110-54-3	2000	0.507%
Iodomethane (methyl iodide)	74-88-4	1999	0.216%
Isopropylbenzene	98-82-8	2000	0.507%
p-isopropyltoluene	99-87-6	2000	0.507%
Methyl-tert-butyl ether (MTBE)	1634-04-4	2000	0.649%
Methylcyclohexane	108-87-2	2000	0.479%
Methyl methacrylate	80-62-6	2000	0.479%

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Catalog Number: AL0-180001
Description: Custom VOA Cal Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: > 1 mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14606
Certification Date: March 3, 2020
Expiration Date: December 31, 2021

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Methylene Chloride	75-09-2	2000	0.479%
2-Methylnaphthalene	91-57-6	2000	0.479%
Naphthalene	91-20-3	2000	0.217%
2-Nitropropane	79-46-9	2000	0.509%
N-Propylbenzene	103-65-1	2000	0.519%
Styrene	100-42-5	2000	0.501%
1,1,1,2-Tetrachloroethane	630-20-6	2000	0.505%
1,1,2,2-Tetrachloroethane	79-34-5	2000	0.480%
Tetrachloroethene	127-18-4	2000	0.519%
Toluene	108-88-3	2000	0.519%
1,2,3-Trichlorobenzene	87-61-6	2000	0.293%
1,2,4-Trichlorobenzene	120-82-1	2000	0.478%
1,1,1-Trichloroethane	71-55-6	2001	1.009%
1,1,2-Trichloroethane	79-00-5	2000	0.479%
Trichloroethene	79-01-6	2000	0.479%
1,2,3-Trichloropropane	96-18-4	2000	0.479%
1,1,2-Trichlorotrifluoroethane	76-13-1	2000	0.644%
1,2,3-Trimethylbenzene	526-73-8	2000	0.215%
1,2,4-Trimethylbenzene	95-63-6	2000	0.507%
1,3,5-Trimethylbenzene	108-67-8	2000	0.507%
m-Xylene	108-38-3	2000	0.478%
o-Xylene	95-47-6	2000	0.479%
p-Xylene	106-42-3	2000	0.478%

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522535
REC. 06/16/20 BY EF
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STD#24907

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ilac-MRA

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30074 **Lot No.:** A0159786

Description : 8260 Internal Standard Mix

8260 Internal Standard Mix 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Pentafluorobenzene **CAS #** 363-72-4 **Purity** 99%	(Lot MKCH1850)	2,507.0 µg/mL	+/- 14.5759 µg/mL +/- 140.5650 µg/mL +/- 143.8540 µg/mL		Gravimetric Unstressed Stressed
2	1,4-Difluorobenzene **CAS #** 540-36-3 **Purity** 99%	(Lot MKBN8571V)	2,506.6 µg/mL	+/- 14.5736 µg/mL +/- 140.5426 µg/mL +/- 143.8311 µg/mL		Gravimetric Unstressed Stressed
3	Chlorobenzene-d5 **CAS #** 3114-55-4 **Purity** 99%	(Lot PR-29571)	2,504.8 µg/mL	+/- 14.5631 µg/mL +/- 140.4416 µg/mL +/- 143.7278 µg/mL		Gravimetric Unstressed Stressed
4	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 **Purity** 99%	(Lot PR-30447)	2,508.0 µg/mL	+/- 14.5817 µg/mL +/- 140.6211 µg/mL +/- 143.9114 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30240 **Lot No.:** A0156492

Description : 8260A Surrogate Mix

8260A Surrogate Mix 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dibromofluoromethane **CAS #** 1868-53-7 **Purity** 99%	(Lot 0012016)	2,501.9 µg/mL	+/- 14.5463 µg/mL +/- 140.2790 µg/mL +/- 143.5614 µg/mL		Gravimetric Unstressed Stressed
2	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 **Purity** 99%	(Lot PR-29377)	2,500.9 µg/mL	+/- 14.5404 µg/mL +/- 140.2230 µg/mL +/- 143.5040 µg/mL		Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 **Purity** 99%	(Lot I-21928)	2,500.5 µg/mL	+/- 14.5381 µg/mL +/- 140.2006 µg/mL +/- 143.4811 µg/mL		Gravimetric Unstressed Stressed
4	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 **Purity** 99%	(Lot 20401KO)	2,501.2 µg/mL	+/- 14.5422 µg/mL +/- 140.2398 µg/mL +/- 143.5212 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30049 **Lot No.:** A0160880

Description : 1,2-Dichlorobenzene-d4 Mix

1, 2-Dichlorobenzene-d4 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2028 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,2-Dichlorobenzene-d4	2,000.0 µg/mL	+/- 11.8794	µg/mL	Gravimetric
	CAS # 2199-69-1 (Lot M-2097)		+/- 112.1643	µg/mL	Unstressed
	Purity 99%		+/- 114.7876	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30030 **Lot No.:** A0158124

Description : Fluorobenzene Mixture

Fluorobenzene 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Fluorobenzene **CAS #** 462-06-6 (Lot BCBZ5549) **Purity** 99%	2,006.0 µg/mL	+/- 11.7723 µg/mL +/- 112.4858 µg/mL +/- 115.1173 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

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Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180002
Description: 8260 Gases Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL14053
Certification Date: January 12, 2020
Expiration Date: August 31, 2024

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STD# 24913

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Bromomethane	74-83-9	2000	6.589%
Chloroethane	75-00-3	2001	4.979%
Chloromethane	74-87-3	2009	7.022%
Chlorodifluoromethane	75-45-6	2000	0.405%
Dichlorodifluoromethane	75-71-8	2006	8.740%
Dichlorofluoromethane	75-43-4	2007	8.745%
Trichlorofluoromethane	75-69-4	1996	4.584%
Vinyl Chloride	75-01-4	2001	7.920%

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Certicate No. 2427.03

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STD# 2556 4

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002034

Lot Issue Date: 17-Jun-2020

Lot Number: 0006542412

Expiration Date: 31-Jul-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,1,1,2-tetrachloroethane	000630-20-6	RM12632	2008 ± 10 µg/mL
1,1,1-trichloroethane	000071-55-6	RM15035	2008 ± 10 µg/mL
1,1,2,2-tetrachloroethane	000079-34-5	NT00390	2006 ± 10 µg/mL
1,1,2-trichlorotrifluoroethane	000076-13-1	RM04848	2000 ± 10 µg/mL
1,1,2-trichloroethane	000079-00-5	RM01175	2007 ± 10 µg/mL
1,1-dichloroethane	000075-34-3	RM15556	2003 ± 10 µg/mL
1,1-dichloroethene	000075-35-4	RM01356	2008 ± 10 µg/mL
1,1-dichloropropene	000563-58-6	RM16247	2008 ± 10 µg/mL
1,2,3-trichlorobenzene	000087-61-6	RM10193	2002 ± 10 µg/mL
1,2,3-trichloropropane	000096-18-4	RM13082	2009 ± 10 µg/mL
1,2,3-trimethylbenzene	000526-73-8	RM13689	2009 ± 10 µg/mL
1,2,4-trichlorobenzene	000120-82-1	RM09454	2007 ± 10 µg/mL
1,2,4-trimethylbenzene	000095-63-6	RM06731	2000 ± 10 µg/mL
1,2-dibromo-3-chloropropane	000096-12-8	RM13666	2003 ± 10 µg/mL
1,2-dichlorobenzene	000095-50-1	RM13636	2008 ± 10 µg/mL
1,2-dichloroethane	000107-06-2	RM04655	2007 ± 10 µg/mL
1,2-dibromoethane	000106-93-4	RM00018	2009 ± 10 µg/mL

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ISO 17034 Cert No. AR-1936

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Product Number: CUS-00002034 **Lot Number:** 0006542412

1,2-dichloropropane	000078-87-5	RM12821	2004 ± 10 µg/mL
1,3,5-trimethylbenzene	000108-67-8	NT01632	2001 ± 10 µg/mL
1,3-dichlorobenzene	000541-73-1	NT00356	2005 ± 10 µg/mL
1,3-dichloropropane	000142-28-9	RM09825	2010 ± 10 µg/mL
1,4-dichlorobenzene	000106-46-7	RM12826	2006 ± 10 µg/mL
2,2-dichloropropane	000594-20-7	RM12927	2007 ± 10 µg/mL
2-chlorotoluene	000095-49-8	RM13774	2009 ± 10 µg/mL
allyl chloride	000107-05-1	RM12242	2001 ± 10 µg/mL
4-chlorotoluene	000106-43-4	RM11750	2003 ± 10 µg/mL
4-isopropyltoluene	000099-87-6	RM09747	2009 ± 10 µg/mL
benzene	000071-43-2	RM03830	2009 ± 10 µg/mL
bromobenzene	000108-86-1	RM10227	2009 ± 10 µg/mL
bromoform	000075-25-2	RM07516	2004 ± 10 µg/mL
bromochloromethane	000074-97-5	RM00009	2001 ± 10 µg/mL
carbon disulfide	000075-15-0	RM08158	2010 ± 10 µg/mL
carbon tetrachloride	000056-23-5	RM07576	2005 ± 10 µg/mL
chlorobenzene	000108-90-7	RM01874	2006 ± 10 µg/mL
dibromochloromethane	000124-48-1	RM14843-01	2007 ± 10 µg/mL
chloroform	000067-66-3	RM13988	2005 ± 10 µg/mL
cis-1,2-dichloroethene	000156-59-2	RM15008	2007 ± 10 µg/mL
cis-1,3-dichloropropene	010061-01-5	RM12891	2007 ± 10 µg/mL
cis-1,4-dichloro-2-butene	001476-11-5	RM11674	2005 ± 10 µg/mL

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Product Number: CUS-00002034 **Lot Number:** 0006542412

cyclohexane	000110-82-7	RM11622	2006 ± 10 µg/mL
dibromomethane	000074-95-3	RM12878	2010 ± 10 µg/mL
bromodichloromethane	000075-27-4	RM14215	2004 ± 10 µg/mL
diethyl ether	000060-29-7	RM11151	2007 ± 10 µg/mL
ethyl methacrylate	000097-63-2	RM04592	2008 ± 10 µg/mL
ethylbenzene	000100-41-4	RM00783	2008 ± 10 µg/mL
hexachlorobutadiene	000087-68-3	RM09157	2009 ± 10 µg/mL
n-hexane	000110-54-3	RM10581	2010 ± 10 µg/mL
methyl iodide	000074-88-4	RM14171	2008 ± 10 µg/mL
isopropylbenzene	000098-82-8	RM00835	2009 ± 10 µg/mL
methyl methacrylate	000080-62-6	RM04912	2008 ± 10 µg/mL
tert-butylmethyl ether	001634-04-4	RM06568	2008 ± 10 µg/mL
methylcyclohexane	000108-87-2	RM10295	2008 ± 10 µg/mL
methylene chloride	000075-09-2	RM09575	2008 ± 10 µg/mL
naphthalene	000091-20-3	RM02406	2010 ± 10 µg/mL
n-butylbenzene	000104-51-8	NT01633	2009 ± 10 µg/mL
n-propylbenzene	000103-65-1	RM02470	2007 ± 10 µg/mL
m-xylene	000108-38-3	RM15919	2008 ± 10 µg/mL
o-xylene	000095-47-6	NT00774	1999 ± 10 µg/mL
p-xylene	000106-42-3	RM09445	2007 ± 10 µg/mL
sec-butylbenzene	000135-98-8	NT01548	2009 ± 10 µg/mL
styrene	000100-42-5	RM11083	2001 ± 10 µg/mL

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Product Number: CUS-00002034 **Lot Number:** 0006542412

tert-butylbenzene	000098-06-6	NT01547	2009 ± 10 µg/mL
tetrachloroethene	000127-18-4	RM06491	2002 ± 10 µg/mL
toluene	000108-88-3	RM06650	2000 ± 10 µg/mL
trans-1,2-dichloroethene	000156-60-5	RM07565	2009 ± 10 µg/mL
trans-1,3-dichloropropene	010061-02-6	RM12254	2008 ± 10 µg/mL
trans-1,4-dichloro-2-butene	000110-57-6	RM13971	2005 ± 10 µg/mL
trichloroethene	000079-01-6	RM14232	2008 ± 10 µg/mL
2-methylnaphthalene	000091-57-6	RM01258	2009 ± 10 µg/mL
2-nitropropane	000079-46-9	RM12249	2007 ± 10 µg/mL
isopropyl ether	000108-20-3	RM03712	2004 ± 10 µg/mL
tert-amyl methyl ether	000994-05-8	RM00554	2008 ± 10 µg/mL
tert-butyl ethyl ether	000637-92-3	RM05137	2007 ± 10 µg/mL
tert-amyl ethyl ether	000919-94-8	RM12453	2007 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

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Product Name: Custom Standard

Product Number: CUS-00002374

Lot Issue Date: 23-Mar-2020

Lot Number: 0006527215

Expiration Date: 30-Apr-2021

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,3-butadiene	000106-99-0	RM14006	2000 ± 10 µg/mL
4-ethyltoluene	000622-96-8	RM14957	2010 ± 10 µg/mL
dicyclopentadiene	000077-73-6	RM16067	2008 ± 10 µg/mL
propene	000115-07-1	RM11969	2000 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

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STD# 25566

Product Name: Custom Standard

Product Number: CUS-00002584

Lot Issue Date: 12-May-2020

Lot Number: 0006537291

Expiration Date: 30-Sep-2020

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
methyl acrylate	000096-33-3	NT00903	2007 ± 10 µg/mL
pentyl acetate	000628-63-7	RM02455	2006 ± 10 µg/mL
ethyl acrylate	000140-88-5	RM04396	2006 ± 10 µg/mL
n-butyl acetate	000123-86-4	RM07291	2008 ± 10 µg/mL
t-butyl acetate	000540-88-5	RM11665	2002 ± 10 µg/mL
tert-butyl formate	000762-75-4	RM10789	10040 ± 50 µg/mL
isopropyl acetate	000108-21-4	RM00997	2007 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

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STD# 25568

Product Name: Custom Standard

Product Number: CUS-00002344

Lot Issue Date: 19-Mar-2020

Lot Number: 0006527210

Expiration Date: 30-Apr-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
chloroprene	000126-99-8	RM15691	2000 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:

The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:

If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

M Bourgeois

Monica Bourgeois
QMS Representative

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STD# 25569

Product Name: Custom Standard

Product Number: CUS-00002036

Lot Number: 0006542413

Lot Issue Date: 22-Jun-2020

Expiration Date: 31-Jul-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
1,4-dioxane	000123-91-1	RM00526	10035 ± 50 µg/mL
acetonitrile	000075-05-8	RM14601	10040 ± 50 µg/mL
ethyl alcohol	000064-17-5	RM15111	10040 ± 50 µg/mL
ethyl acetate	000141-78-6	RM12930	10025 ± 50 µg/mL
isobutyl alcohol	000078-83-1	RM13876	10030 ± 50 µg/mL
tert-butanol	000075-65-0	RM01883	10040 ± 50 µg/mL
2-butanone	000078-93-3	RM06696	10039 ± 50 µg/mL
2-hexanone	000591-78-6	RM10228	10030 ± 50 µg/mL
4-methyl-2-pentanone	000108-10-1	RM14374	10028 ± 50 µg/mL
acetone	000067-64-1	RM13477	10040 ± 50 µg/mL
methacrylonitrile	000126-98-7	RM10100	10030 ± 50 µg/mL
propionitrile	000107-12-0	RM15267	10036 ± 50 µg/mL
tert-pentanol	000075-85-4	RM11924	10030 ± 50 µg/mL
tetrahydrofuran	000109-99-9	RM14318	10041 ± 50 µg/mL
cyclohexanone	000108-94-1	RM10703	10030 ± 50 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

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STD# 25570

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002032

Lot Issue Date: 23-Mar-2020

Lot Number: 0006527178

Expiration Date: 30-Apr-2021

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
n-decane	000124-18-5	RM16108	2006 ± 10 µg/mL
n-dodecane	000112-40-3	RM15591	2003 ± 10 µg/mL
n-undecane	001120-21-4	RM04270	2009 ± 10 µg/mL
n-octane	000111-65-9	NT01970	2004 ± 10 µg/mL
n-nonane	000111-84-2	RM15036	2009 ± 10 µg/mL
3,3-dimethyl-1-butanol	000624-95-3	RM15245	10024 ± 50 µg/mL
1-chlorobutane	000109-69-3	RM03678	2007 ± 10 µg/mL
1-propanol	000071-23-8	RM11119	10029 ± 50 µg/mL
2-bromo-1-chloropropane	003017-85-6	RM09192	2009 ± 10 µg/mL
sec-butanol	000078-92-2	RM01299	2008 ± 10 µg/mL
2-methylpentane	000107-83-5	RM11010	2009 ± 10 µg/mL
4-methyl-2-pentanol	000108-11-2	RM02348	2009 ± 10 µg/mL
benzyl chloride	000100-44-7	RM12844	2009 ± 10 µg/mL
butylcyclohexane	001678-93-9	RM13072	2008 ± 10 µg/mL
hexachloroethane	000067-72-1	RM06859	2007 ± 10 µg/mL
2-chloroethanol	000107-07-3	NT01518	2008 ± 10 µg/mL
nitrobenzene	000098-95-3	RM11472	2009 ± 10 µg/mL

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

www.agilent.com/quality/
CSD-QA-015.1

ISO 17025 Cert No. AT-1937

Certificate of Analysis

Product Number: CUS-00002032 **Lot Number:** 0006527178

1-methylnaphthalene	000090-12-0	RM07712	2002 ± 10 µg/mL
2,2,4-trimethylpentane	000540-84-1	RM14637	2007 ± 10 µg/mL
1-butanol	000071-36-3	RM06085	10008 ± 50 µg/mL
n-heptane	000142-82-5	RM14537	2009 ± 10 µg/mL
isopropyl alcohol	000067-63-0	RM10189	10030 ± 50 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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CSD-QA-015.1

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

Certificate of Analysis
ThermoFisher SCIENTIFIC

522617
REC. 07/22/20 BY EF
Exp. 01/18/21 By -
Open 04/22/20 By -

Certificate of Analysis

STD# 26117

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A453	Quality Test / Release Date	02/19/2020
Lot Number	198331		
Description	METHANOL, PURGE & TRAP GRADE		
Country of Origin	Venezuela	Suggested Retest Date	Feb/2025
Chemical Origin	Organic - synthetic		
BSE/TSE Comment	This product is derived from petroleum products. It does not contain any materials that are of human or animal origin, nor does it come into contact with such materials during the manufacturing process. Therefore, to the best of our knowledge, there is no potential for BSE or TSE to be present in this product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear colorless liquid free of suspended matter.
2-BUTANONE	ppb	<= 50	<25
ACETONE	ppb	<= 50	<25
AROMATIC COMPOUNDS	ppb	<= 10	<10
ASSAY	%	>= 99.9	>99.99
CARBON TETRACHLORIDE	ppb	<= 10	<10
CHLOROFORM	ppb	<= 10	<10
EVAPORATION RESIDUE	ppm	<= 1	0.22
HEPTANE	ppb	<= 50	<10
HEXANE	ppb	<= 50	<10
ISO-OCTANE	ppb	<= 50	<10
METHYL ISO-AMYL KETONE	ppb	<= 50	<25
METHYLENE CHLORIDE	ppb	<= 10	<10
OTHER DETECTABLE ALKANES	ppb	<= 50	<10
OTHER DETECTABLE CHLOROHYDROCARBONS	ppb	<= 10	<10
OTHER DETECTABLE KETONES	ppb	<= 50	<25
OTHER DETECTABLE PEAKS AS HEXANE	ppb	<= 50	<10
PENTANE	ppb	<= 50	<10
TITRATABLE ACID	MEQ/G	<= 0.0003	0.0003
TITRATABLE BASE	MEQ/G	<= 0.0002	<0.0002
VOLATILE ORGANIC CMPDS (EPA8260B OR EQUIV)	PASS/FAIL	= PASS TEST	PASS TEST

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

WATER (KARL FISCHER)	%	<= 0.2	<0.01

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

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522643
REC. 07/29/20 BY EF
Exp. __/__/__ By _
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STD# 26 385

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180017
Description: Acrolein
Storage: Freeze (-18 - 0ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL15595
Certification Date: July 28, 2020
Expiration Date: August 27, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Acrolein	107-02-8	10000	0.301%

Notes: Due to the nature of acrolein in solution, long term storage is not recommended. Please use immediately.

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Certificate of Analysis

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522644
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Exp. __/__/__ By
Open __/__/__ By

STD# 26386

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180018
Description: Vinyl Acetate
Storage: Freeze (-18 - 0 °C)
Provided As: 1 mL in 2 mL Ampoule in P&T Methanol

Lot Number: CL15596
Certification Date: July 28, 2020
Expiration Date: August 27, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Vinyl Acetate	108-05-4	2000	0.615%

Notes: Due to the nature of Vinyl Acetate in solution, long term storage is not recommended. Please use immediately.

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522645
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STOA 26 387

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180007
Description: Reactives Mix
Storage: Freeze (-18-0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL15234
Certification Date: April 28, 2020
Expiration Date: October 31, 2020

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
2-Chloroethyl vinyl ether	110-75-8	10001	0.106%
Methyl acetate	79-20-9	10001	0.225%
Acrylonitrile	107-13-1	10000	0.115%

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Chemical Testing Laboratory
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Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002037

Lot Number: 0006547006

522670
REC. 08/06/20 BY EF
Exp. __/__/__ By -
Open __/__/__ By -

STD#26710

Lot Issue Date: 21-Jul-2020

Expiration Date: 31-Aug-2022

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
bromomethane	000074-83-9	RM00064	2006 ± 10 µg/mL
chloroethane	000075-00-3	RM00065	2009 ± 10 µg/mL
chloromethane	000074-87-3	RM12571	2009 ± 10 µg/mL
chlorodifluoromethane	000075-45-6	RM04765	2010 ± 10 µg/mL
dichlorodifluoromethane	000075-71-8	RM05289	2010 ± 10 µg/mL
dichlorofluoromethane	000075-43-4	RM05287	2010 ± 10 µg/mL
trichlorofluoromethane	000075-69-4	RM00017	2004 ± 10 µg/mL
vinyl chloride	000075-01-4	RM05458	2009 ± 10 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 17025 Cert No. AT-1937

250 Smith Street North Kingstown, Rhode Island 02852 www.agilent.com/quality

Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002038

Lot Number: 0006547796

522671
REC. 08/06/20 BY EF
Exp. --/--/-- By
Open --/--/-- By

STD# 26711

Lot Issue Date: 15-Jul-2020

Expiration Date: 30-Nov-2020

Description:

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
2-chloroethylvinyl ether	000110-75-8	RM06940	10044 ± 50 µg/mL
acrolein	000107-02-8	RM15726	10043 ± 50 µg/mL
methyl acetate	000079-20-9	NT02091	10043 ± 50 µg/mL
acrylonitrile	000107-13-1	RM14521	10048 ± 50 µg/mL

Matrix: methanol (methyl alcohol)

Storage Conditions: Store Frozen (-25° to -10°C).

Traceability:

The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:

This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:

This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:

Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:

Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

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ISO 17025 Cert No. AT-1937

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Agilent

Certificate of Analysis

Product Name: Custom Standard

Product Number: CUS-00002379

Lot Number: 0006547794

522672
REC.08/06/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

Lot Issue Date: 15-Jul-2020

Expiration Date: 30-Nov-2020

Description: STD# 26712

This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system, and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	Concentration ± Uncertainty
vinyl acetate	000108-05-4	RM12298	2004 ± 10 µg/mL

Matrix: water (low TOC, < 50 ppb)

Storage Conditions: Store Refrigerated (2° - 8°C).

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This RM was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Intended Use:
This RM is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Hazards:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this RM.

Expiration of Certification:
The certification of this RM is valid until the expiration date specified above, provided the RM is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the RM is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

M Bourgeois
Monica Bourgeois
QMS Representative

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

ISO 17034 Cert No. AR-1936

RM was produced in accordance with TUV USA Inc registered ISO 9001 Quality Management System. Cert # 56 100 18560026

Page: 1 of 1

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ISO 17025 Cert No. AT-1937

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Certificate of Analysis
ThermoFisher SCIENTIFIC

522674
REC. 08/07/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STO# 26774

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A453	Quality Test / Release Date	02/19/2020
Lot Number	198331		
Description	METHANOL, PURGE & TRAP GRADE		
Country of Origin	Venezuela	Suggested Retest Date	Feb/2025
Chemical Origin	Organic - synthetic		
BSE/TSE Comment	This product is derived from petroleum products. It does not contain any materials that are of human or animal origin, nor does it come into contact with such materials during the manufacturing process. Therefore, to the best of our knowledge, there is no potential for BSE or TSE to be present in this product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear colorless liquid free of suspended matter.
2-BUTANONE	ppb	<= 50	<25
ACETONE	ppb	<= 50	<25
AROMATIC COMPOUNDS	ppb	<= 10	<10
ASSAY	%	>= 99.9	>99.99
CARBON TETRACHLORIDE	ppb	<= 10	<10
CHLOROFORM	ppb	<= 10	<10
EVAPORATION RESIDUE	ppm	<= 1	0.22
HEPTANE	ppb	<= 50	<10
HEXANE	ppb	<= 50	<10
ISO-OCTANE	ppb	<= 50	<10
METHYL ISO-AMYL KETONE	ppb	<= 50	<25
METHYLENE CHLORIDE	ppb	<= 10	<10
OTHER DETECTABLE ALKANES	ppb	<= 50	<10
OTHER DETECTABLE CHLOROHYDROCARBONS	ppb	<= 10	<10
OTHER DETECTABLE KETONES	ppb	<= 50	<25
OTHER DETECTABLE PEAKS AS HEXANE	ppb	<= 50	<10
PENTANE	ppb	<= 50	<10
TITRATABLE ACID	MEQ/G	<= 0.0003	0.0003
TITRATABLE BASE	MEQ/G	<= 0.0002	<0.0002
VOLATILE ORGANIC CMPDS (EPA8260B OR EQUIV)	PASS/FAIL	= PASS TEST	PASS TEST

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

WATER (KARL FISCHER)	%	<= 0.2	<0.01

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180002
Description: 8260 Gases Mix
Storage: Freeze (-18 - 0 ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL15196
Certification Date: July 16, 2020
Expiration Date: July 31, 2025

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

522700
REC.08/10/20 BY EF
Exp. --/--/-- By
Open --/--/-- By

STD # 27049

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Bromomethane	74-83-9	2003	5.904%
Chloroethane	75-00-3	2007	9.993%
Chloromethane	74-87-3	2005	3.509%
Chlorodifluoromethane	75-45-6	2001	0.865%
Dichlorodifluoromethane	75-71-8	2009	5.442%
Dichlorofluoromethane	75-43-4	2002	15.893%
Trichlorofluoromethane	75-69-4	1986	5.494%
Vinyl chloride	75-01-4	1997	5.851%

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

phenova Certified Reference Materials | A Phenomenex Company

Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

Certificate of Analysis
ThermoFisher SCIENTIFIC

522732
REC. 08/24/20 BY EF
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Open __/__/__ By

STD# 27388

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	A453	Quality Test / Release Date	02/19/2020
Lot Number	198331		
Description	METHANOL, PURGE & TRAP GRADE		
Country of Origin	Venezuela	Suggested Retest Date	Feb/2025
Chemical Origin	Organic - synthetic		
BSE/TSE Comment	This product is derived from petroleum products. It does not contain any materials that are of human or animal origin, nor does it come into contact with such materials during the manufacturing process. Therefore, to the best of our knowledge, there is no potential for BSE or TSE to be present in this product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear colorless liquid free of suspended matter.
2-BUTANONE	ppb	<= 50	<25
ACETONE	ppb	<= 50	<25
AROMATIC COMPOUNDS	ppb	<= 10	<10
ASSAY	%	>= 99.9	>99.99
CARBON TETRACHLORIDE	ppb	<= 10	<10
CHLOROFORM	ppb	<= 10	<10
EVAPORATION RESIDUE	ppm	<= 1	0.22
HEPTANE	ppb	<= 50	<10
HEXANE	ppb	<= 50	<10
ISO-OCTANE	ppb	<= 50	<10
METHYL ISO-AMYL KETONE	ppb	<= 50	<25
METHYLENE CHLORIDE	ppb	<= 10	<10
OTHER DETECTABLE ALKANES	ppb	<= 50	<10
OTHER DETECTABLE CHLOROHYDROCARBONS	ppb	<= 10	<10
OTHER DETECTABLE KETONES	ppb	<= 50	<25
OTHER DETECTABLE PEAKS AS HEXANE	ppb	<= 50	<10
PENTANE	ppb	<= 50	<10
TITRATABLE ACID	MEQ/G	<= 0.0003	0.0003
TITRATABLE BASE	MEQ/G	<= 0.0002	<0.0002
VOLATILE ORGANIC CMPDS (EPA8260B OR EQUIV)	PASS/FAIL	= PASS TEST	PASS TEST

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

WATER (KARL FISCHER)	%	<= 0.2	<0.01

Peter Yang - Quality Control Manager - Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Certificate of Analysis

phenova Certified Reference Materials | A Phenomenex Company

Produced by Phenova
6390 Joyce Drive STE 100, Golden, CO 80403 USA ▪ Tel: 303-940-0033 ▪ Fax: 303-940-0043 ▪ info@phenova.com
Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180017
Description: Acrolein
Storage: Freeze (-18 - 0ºC)
Provided As: 1mL in 2mL Ampoule in P&T Methanol

Lot Number: CL15670
Certification Date: August 19, 2020
Expiration Date: September 18, 2020

522733
REC.08/21/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STD# 27397

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Acrolein	107-02-8	10000	0.571%

Notes: Due to the nature of acrolein in solution, long term storage is not recommended. Please use immediately.

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

phenova Certified Reference Materials | A Phenomenex Company

Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

Certificate of Analysis

Produced by Phenova
6390 Joyce Drive STE 100, Golden, CO 80403 USA ▪ Tel: 303-940-0033 ▪ Fax: 303-940-0043 ▪ info@phenova.com
Access your Safety Data Sheets and digital Certificates at **www.phenova.com/documents.**

Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/ICE 17025 chemical testing accreditation

Catalog Number: AL0-180018
Description: Vinyl Acetate
Storage: Freeze (-18 - 0 °C)
Provided As: 1 mL in 2 mL Ampoule in P&T Methanol

Lot Number: CL15665
Certification Date: August 17, 2020
Expiration Date: September 16, 2020

522735
REC.08/20/20 BY EF
Exp. __/__/__ By
Open __/__/__ By

STD# 27399

Andrea L Gill

Andrea Gill, Certified Reference Material Manager

Component	CAS Number	Certified Value (µg/mL)	Expanded Uncertainty
Vinyl Acetate	108-05-4	2000	0.352%

Notes: Due to the nature of Vinyl Acetate in solution, long term storage is not recommended. Please use immediately.

ACCREDITED
Reference Material Producer
Certicate No. 2427.02

phenova Certified Reference Materials | A Phenomenex Company

Phenova is an accredited ISO/IEC 17034 Reference Material Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ACCREDITED
Chemical Testing Laboratory
Certicate No. 2427.03

IL8469T018_us

SAMPLE NO.

082820R2

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Dayton SDG No. : 5249616 Contract: RUSH VOC Soils

Lab Sample ID: 5249616001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Percent Moisture	17.2		%	1	08/31/2020 09:52

FORM XII INORGANIC-1

PREPARATION LOG

Lab Name: Pace Analytical - Dayton SDG No. : 5249616 Contract: RUSH VOC Soils

Preparation Method: ASTM D2216 Batch: PMST 1486

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
5249616001	082820R2	08/31/2020	1	1

FORM XIII INORGANIC-1

ANALYSIS RUN LOG

Lab Name: Pace Analytical - Dayton SDG No. : 5249616 Contract: RUSH VOC Soils

Instrument ID: 52BL03 Analysis Method: ASTM D2216

Start Date: 08/31/2020 09:52 End Date: 08/31/2020 09:52

Sample Name	Lab Sample ID	D/F	Date	Time	MOIST
082820R2	5249616001	1	08/31/2020	09:52	X

Prep Log Report

Batch Information: PMST 48994

Template Version: EF-DAYT-I-038-Rev.00 (02Nov2018)

Analysis Method	ASTM D2216	Analyzed By	SEP	Instrument	52BL03	Oven ID	52OV01
Thermometer ID	52TC01	Oven Temp Correction Factor	0	Oven Temp In1 (C) | Corr | Date/Time | Init	104.8 | 104.8 | 08/31/2020 09:55 | SEP	Oven Temp Out1 (C) | Corr | Date/Time | Init	104.5 | 104.5 | 08/31/2020 13:58 | SEP
Desic. In 1 ID | Date/Time | Init	52DS12 | 08/31/2020 13:58 | SEP	Desic. Out 1 Date/Time | Init	08/31/2020 14:14 | SEP	Oven Temp In2 (C) | Corr | Date/Time | Init	104.2 | 104.2 | 08/31/2020 14:15 | SEP	Oven Temp Out2 (C) | Corr | Date/Time | Init	104.5 | 104.5 | 08/31/2020 15:16 | SEP
Desic. In 2 ID | Date/Time | Init	52DS12 | 08/31/2020 15:17 | SEP	Desic. Out 2 Date/Time | Init	08/31/2020 15:32 | SEP	Oven Temp In3 (C) | Corr | Date/Time | Init		Reviewed By	
Reviewed By Date		Batch Notes	!				

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Dry Weight 2 (g)	Dry Wt Use 2
DRY WEIGHT	PS	**5249616001**	Y		82.75	17.25	08/31/2020 09:52:44	12.6314	1.0211	15.0511	12.6311	N	12.6314	M

QC Rule	Sample Type	Lab Sample ID	Dry Wt Diff 1&2	Dry %Diff 1&2	Sample Notes
DRY WEIGHT	PS	**5249616001**	0.0003	0.0024	

Prep Log Report

Batch Information: PMST 48994

Template Version: EF-DAYT-I-038-Rev.00 (02Nov2018)

Analysis Method	ASTM D2216	Analyzed By	SEP	Instrument	52BL03	Oven ID	52OV01
Thermometer ID	52TC01	Oven Temp Correction Factor	0	Oven Temp In1 (C) | Corr | Date/Time | Init	104.8 | 104.8 | 08/31/2020 09:55 | SEP	Oven Temp Out1 (C) | Corr | Date/Time | Init	104.5 | 104.5 | 08/31/2020 13:58 | SEP
Desic. In 1 ID | Date/Time | Init	52DS12 | 08/31/2020 13:58 | SEP	Desic. Out 1 Date/Time | Init	08/31/2020 14:14 | SEP	Oven Temp In2 (C) | Corr | Date/Time | Init	104.2 | 104.2 | 08/31/2020 14:15 | SEP	Oven Temp Out2 (C) | Corr | Date/Time | Init	104.5 | 104.5 | 08/31/2020 15:16 | SEP
Desic. In 2 ID | Date/Time | Init	52DS12 | 08/31/2020 15:17 | SEP	Desic. Out 2 Date/Time | Init	08/31/2020 15:32 | SEP	Oven Temp In3 (C) | Corr | Date/Time | Init		Reviewed By	
Reviewed By Date		Batch Notes	!				

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	ID	Client Sample ID	TS Posted (%)	Percent Moisture	Run Date/Time	Posted Dry Weight /w Dish (g)	Dish Weight (g)	Wet Weight /w Dish (g)	Dry Weight 1 (g)	Dry Wt Use 1	Dry Weight 2 (g)
DRY WEIGHT	PS	**5249616001**	Y		082820R2	82.75	17.25	08/31/2020 09:52:44	12.6314	1.0211	15.0511	12.6311	N	12.6314

QC Rule	Sample Type	Lab Sample ID	Dry Wt Use 2	Dry Wt Diff 1&2	Dry %Diff 1&2	Sample Notes
DRY WEIGHT	PS	**5249616001**	M	0.0003	0.0024	

Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

September 11, 2020

John Bowen
MAKSolve, LLC
261 Regency Dr
Dayton, OH 45459

RE: Project: Samples for Re-sample
Pace Project No.: 5249634

Dear John Bowen:

Enclosed are the analytical results for sample(s) received by the laboratory between August 24, 2020 and August 25, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Dayton

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Christina Schneider
christina.schneider@pacelabs.com
(937)832-8242
Project Manager

Enclosures

cc: Barbara McGavern, MAKSolve, LLC

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

CERTIFICATIONS

Project:	Samples for Re-sample
Pace Project No.:	5249634

Pace Analytical Services Dayton

25 Holiday Drive, Englewood, OH 45322
Florida Certification #: E871136
Ohio VAP Certification #: CL0032
Kentucky UST Certification #: 123049
Kentucky Wastewater Certification #: KY98039
Ohio EPA Drinking Water Lab #872

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SAMPLE SUMMARY

Project: Samples for Re-sample
Pace Project No.: 5249634

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5249143002	**BLA6WNSS**	Solid	08/24/20 12:23	08/24/20 14:35
5249143005	**BLB6PBWSS**	Solid	08/24/20 12:34	08/24/20 14:35
5249143006	**BLB6WNSS**	Solid	08/24/20 12:37	08/24/20 14:35
5249143007	**BLB6PBESS**	Solid	08/24/20 12:40	08/24/20 14:35
5249143008	**BLB6WESS**	Solid	08/24/20 12:42	08/24/20 14:35
5249143009	**BLB6WSSS**	Solid	08/24/20 12:44	08/24/20 14:35
5249198005	**BR8WE2SS**	Solid	08/25/20 11:15	08/25/20 12:31

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SAMPLE ANALYTE COUNT

Project: Samples for Re-sample
Pace Project No.: 5249634

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5249143002	**BLA6WNSS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249143005	**BLB6PBWSS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249143006	**BLB6WNSS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249143007	**BLB6PBESS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249143008	**BLB6WESS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249143009	**BLB6WSSS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1
5249198005	**BR8WE2SS**	EPA 8260B	EAH	72
		ASTM D2216	SEP	1

PASI-DAY = Pace Analytical Services - Dayton

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: Samples for Re-sample
Pace Project No.: 5249634

Sample: BLA6WNSS **Lab ID: 5249143002** Collected: 08/24/20 12:23 Received: 08/24/20 14:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	315	17.1	1	08/24/20 15:19	08/24/20 18:19	67-64-1	
Acetonitrile	ND	ug/kg	252	12.4	1	08/24/20 15:19	08/24/20 18:19	75-05-8	L1
Acrolein	ND	ug/kg	315	9.3	1	08/24/20 15:19	08/24/20 18:19	107-02-8	
Acrylonitrile	ND	ug/kg	126	1.4	1	08/24/20 15:19	08/24/20 18:19	107-13-1	
Benzene	ND	ug/kg	6.3	1.0	1	08/24/20 15:19	08/24/20 18:19	71-43-2	
Bromobenzene	ND	ug/kg	31.5	0.98	1	08/24/20 15:19	08/24/20 18:19	108-86-1	
Bromochloromethane	ND	ug/kg	31.5	0.77	1	08/24/20 15:19	08/24/20 18:19	74-97-5	
Bromodichloromethane	ND	ug/kg	31.5	0.99	1	08/24/20 15:19	08/24/20 18:19	75-27-4	
Bromoform	ND	ug/kg	31.5	0.76	1	08/24/20 15:19	08/24/20 18:19	75-25-2	
Bromomethane	ND	ug/kg	157	0.99	1	08/24/20 15:19	08/24/20 18:19	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	126	1.8	1	08/24/20 15:19	08/24/20 18:19	78-93-3	
n-Butylbenzene	ND	ug/kg	31.5	2.0	1	08/24/20 15:19	08/24/20 18:19	104-51-8	
sec-Butylbenzene	ND	ug/kg	31.5	1.7	1	08/24/20 15:19	08/24/20 18:19	135-98-8	
tert-Butylbenzene	ND	ug/kg	31.5	1.6	1	08/24/20 15:19	08/24/20 18:19	98-06-6	
Carbon disulfide	ND	ug/kg	126	2.0	1	08/24/20 15:19	08/24/20 18:19	75-15-0	
Carbon tetrachloride	ND	ug/kg	31.5	1.8	1	08/24/20 15:19	08/24/20 18:19	56-23-5	
Chlorobenzene	ND	ug/kg	31.5	0.96	1	08/24/20 15:19	08/24/20 18:19	108-90-7	
Chloroethane	ND	ug/kg	31.5	1.8	1	08/24/20 15:19	08/24/20 18:19	75-00-3	
Chloroform	ND	ug/kg	31.5	1.3	1	08/24/20 15:19	08/24/20 18:19	67-66-3	
Chloromethane	**7.7J**	ug/kg	31.5	0.98	1	08/24/20 15:19	08/24/20 18:19	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	31.5	1.0	1	08/24/20 15:19	08/24/20 18:19	95-49-8	
4-Chlorotoluene	ND	ug/kg	31.5	1.0	1	08/24/20 15:19	08/24/20 18:19	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	62.9	1.0	1	08/24/20 15:19	08/24/20 18:19	96-12-8	
Dibromochloromethane	ND	ug/kg	31.5	0.77	1	08/24/20 15:19	08/24/20 18:19	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	31.5	0.71	1	08/24/20 15:19	08/24/20 18:19	106-93-4	
Dibromomethane	ND	ug/kg	31.5	0.98	1	08/24/20 15:19	08/24/20 18:19	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	31.5	0.87	1	08/24/20 15:19	08/24/20 18:19	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	31.5	0.87	1	08/24/20 15:19	08/24/20 18:19	541-73-1	
1,4-Dichlorobenzene	**3.2J**	ug/kg	31.5	0.72	1	08/24/20 15:19	08/24/20 18:19	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	31.5	2.7	1	08/24/20 15:19	08/24/20 18:19	75-71-8	
1,1-Dichloroethane	ND	ug/kg	31.5	1.3	1	08/24/20 15:19	08/24/20 18:19	75-34-3	
1,2-Dichloroethane	ND	ug/kg	31.5	1.3	1	08/24/20 15:19	08/24/20 18:19	107-06-2	
1,1-Dichloroethene	ND	ug/kg	31.5	2.1	1	08/24/20 15:19	08/24/20 18:19	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	31.5	1.1	1	08/24/20 15:19	08/24/20 18:19	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	31.5	1.5	1	08/24/20 15:19	08/24/20 18:19	156-60-5	
1,2-Dichloropropane	ND	ug/kg	31.5	0.89	1	08/24/20 15:19	08/24/20 18:19	78-87-5	
1,3-Dichloropropane	ND	ug/kg	31.5	0.79	1	08/24/20 15:19	08/24/20 18:19	142-28-9	
2,2-Dichloropropane	ND	ug/kg	31.5	1.9	1	08/24/20 15:19	08/24/20 18:19	594-20-7	
1,1-Dichloropropene	ND	ug/kg	31.5	1.6	1	08/24/20 15:19	08/24/20 18:19	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	31.5	0.82	1	08/24/20 15:19	08/24/20 18:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	31.5	1.1	1	08/24/20 15:19	08/24/20 18:19	10061-02-6	
Ethyl acetate	ND	ug/kg	62.9	2.1	1	08/24/20 15:19	08/24/20 18:19	141-78-6	
Ethylbenzene	ND	ug/kg	31.5	1.4	1	08/24/20 15:19	08/24/20 18:19	100-41-4	
2-Hexanone	ND	ug/kg	126	5.7	1	08/24/20 15:19	08/24/20 18:19	591-78-6	N2

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: Samples for Re-sample
Pace Project No.: 5249634

Sample: BLA6WNSS **Lab ID: 5249143002** Collected: 08/24/20 12:23 Received: 08/24/20 14:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	31.5	1.3	1	08/24/20 15:19	08/24/20 18:19	98-82-8	
p-Isopropyltoluene	ND	ug/kg	31.5	6.3	1	08/24/20 15:19	08/24/20 18:19	99-87-6	
Methylene Chloride	ND	ug/kg	157	2.0	1	08/24/20 15:19	08/24/20 18:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	126	3.6	1	08/24/20 15:19	08/24/20 18:19	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	62.9	1.5	1	08/24/20 15:19	08/24/20 18:19	1634-04-4	
Naphthalene	ND	ug/kg	31.5	0.79	1	08/24/20 15:19	08/24/20 18:19	91-20-3	
n-Propylbenzene	ND	ug/kg	31.5	1.4	1	08/24/20 15:19	08/24/20 18:19	103-65-1	
Styrene	ND	ug/kg	31.5	1.2	1	08/24/20 15:19	08/24/20 18:19	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	31.5	0.76	1	08/24/20 15:19	08/24/20 18:19	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	31.5	0.70	1	08/24/20 15:19	08/24/20 18:19	79-34-5	
Tetrachloroethene	**55.7**	ug/kg	31.5	1.8	1	08/24/20 15:19	08/24/20 18:19	127-18-4	
Toluene	ND	ug/kg	31.5	1.1	1	08/24/20 15:19	08/24/20 18:19	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	31.5	0.73	1	08/24/20 15:19	08/24/20 18:19	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	31.5	0.84	1	08/24/20 15:19	08/24/20 18:19	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	31.5	1.6	1	08/24/20 15:19	08/24/20 18:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	31.5	1.0	1	08/24/20 15:19	08/24/20 18:19	79-00-5	
Trichloroethene	**217**	ug/kg	31.5	1.4	1	08/24/20 15:19	08/24/20 18:19	79-01-6	
Trichlorofluoromethane	ND	ug/kg	31.5	2.3	1	08/24/20 15:19	08/24/20 18:19	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	31.5	1.6	1	08/24/20 15:19	08/24/20 18:19	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	31.5	1.0	1	08/24/20 15:19	08/24/20 18:19	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	31.5	1.2	1	08/24/20 15:19	08/24/20 18:19	108-67-8	
Vinyl acetate	ND	ug/kg	62.9	2.4	1	08/24/20 15:19	08/24/20 18:19	108-05-4	
Vinyl chloride	ND	ug/kg	31.5	2.3	1	08/24/20 15:19	08/24/20 18:19	75-01-4	
Xylene (Total)	ND	ug/kg	62.9	3.3	1	08/24/20 15:19	08/24/20 18:19	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	110	%.	78-126		1	08/24/20 15:19	08/24/20 18:19	1868-53-7	
Toluene-d8 (S)	99	%.	80-120		1	08/24/20 15:19	08/24/20 18:19	2037-26-5	
4-Bromofluorobenzene (S)	94	%.	80-120		1	08/24/20 15:19	08/24/20 18:19	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%.	76-127		1	08/24/20 15:19	08/24/20 18:19	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**23.7**	%	0.10	0.10	1		08/25/20 14:10		N2

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: Samples for Re-sample
Pace Project No.: 5249634

Sample: BLB6PBWSS **Lab ID: 5249143005** Collected: 08/24/20 12:34 Received: 08/24/20 14:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	323	17.6	1	08/24/20 15:19	08/24/20 19:34	67-64-1	
Acetonitrile	ND	ug/kg	259	12.7	1	08/24/20 15:19	08/24/20 19:34	75-05-8	L1
Acrolein	ND	ug/kg	323	9.5	1	08/24/20 15:19	08/24/20 19:34	107-02-8	
Acrylonitrile	ND	ug/kg	129	1.5	1	08/24/20 15:19	08/24/20 19:34	107-13-1	
Benzene	ND	ug/kg	6.5	1.0	1	08/24/20 15:19	08/24/20 19:34	71-43-2	
Bromobenzene	ND	ug/kg	32.3	1.0	1	08/24/20 15:19	08/24/20 19:34	108-86-1	
Bromochloromethane	ND	ug/kg	32.3	0.79	1	08/24/20 15:19	08/24/20 19:34	74-97-5	
Bromodichloromethane	ND	ug/kg	32.3	1.0	1	08/24/20 15:19	08/24/20 19:34	75-27-4	
Bromoform	ND	ug/kg	32.3	0.78	1	08/24/20 15:19	08/24/20 19:34	75-25-2	
Bromomethane	ND	ug/kg	162	1.0	1	08/24/20 15:19	08/24/20 19:34	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	129	1.8	1	08/24/20 15:19	08/24/20 19:34	78-93-3	
n-Butylbenzene	ND	ug/kg	32.3	2.1	1	08/24/20 15:19	08/24/20 19:34	104-51-8	
sec-Butylbenzene	ND	ug/kg	32.3	1.8	1	08/24/20 15:19	08/24/20 19:34	135-98-8	
tert-Butylbenzene	ND	ug/kg	32.3	1.6	1	08/24/20 15:19	08/24/20 19:34	98-06-6	
Carbon disulfide	ND	ug/kg	129	2.0	1	08/24/20 15:19	08/24/20 19:34	75-15-0	
Carbon tetrachloride	ND	ug/kg	32.3	1.9	1	08/24/20 15:19	08/24/20 19:34	56-23-5	
Chlorobenzene	ND	ug/kg	32.3	0.99	1	08/24/20 15:19	08/24/20 19:34	108-90-7	
Chloroethane	ND	ug/kg	32.3	1.9	1	08/24/20 15:19	08/24/20 19:34	75-00-3	
Chloroform	ND	ug/kg	32.3	1.3	1	08/24/20 15:19	08/24/20 19:34	67-66-3	
Chloromethane	ND	ug/kg	32.3	1.0	1	08/24/20 15:19	08/24/20 19:34	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	32.3	1.1	1	08/24/20 15:19	08/24/20 19:34	95-49-8	
4-Chlorotoluene	ND	ug/kg	32.3	1.0	1	08/24/20 15:19	08/24/20 19:34	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	64.6	1.0	1	08/24/20 15:19	08/24/20 19:34	96-12-8	
Dibromochloromethane	ND	ug/kg	32.3	0.79	1	08/24/20 15:19	08/24/20 19:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	32.3	0.73	1	08/24/20 15:19	08/24/20 19:34	106-93-4	
Dibromomethane	ND	ug/kg	32.3	1.0	1	08/24/20 15:19	08/24/20 19:34	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	32.3	0.89	1	08/24/20 15:19	08/24/20 19:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	32.3	0.90	1	08/24/20 15:19	08/24/20 19:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	32.3	0.74	1	08/24/20 15:19	08/24/20 19:34	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	32.3	2.8	1	08/24/20 15:19	08/24/20 19:34	75-71-8	
1,1-Dichloroethane	ND	ug/kg	32.3	1.4	1	08/24/20 15:19	08/24/20 19:34	75-34-3	
1,2-Dichloroethane	**3.3J**	ug/kg	32.3	1.3	1	08/24/20 15:19	08/24/20 19:34	107-06-2	
1,1-Dichloroethene	ND	ug/kg	32.3	2.2	1	08/24/20 15:19	08/24/20 19:34	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	32.3	1.2	1	08/24/20 15:19	08/24/20 19:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	32.3	1.5	1	08/24/20 15:19	08/24/20 19:34	156-60-5	
1,2-Dichloropropane	ND	ug/kg	32.3	0.92	1	08/24/20 15:19	08/24/20 19:34	78-87-5	
1,3-Dichloropropane	ND	ug/kg	32.3	0.81	1	08/24/20 15:19	08/24/20 19:34	142-28-9	
2,2-Dichloropropane	ND	ug/kg	32.3	1.9	1	08/24/20 15:19	08/24/20 19:34	594-20-7	
1,1-Dichloropropene	ND	ug/kg	32.3	1.6	1	08/24/20 15:19	08/24/20 19:34	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	32.3	0.84	1	08/24/20 15:19	08/24/20 19:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	32.3	1.1	1	08/24/20 15:19	08/24/20 19:34	10061-02-6	
Ethyl acetate	ND	ug/kg	64.6	2.2	1	08/24/20 15:19	08/24/20 19:34	141-78-6	
Ethylbenzene	ND	ug/kg	32.3	1.5	1	08/24/20 15:19	08/24/20 19:34	100-41-4	
2-Hexanone	ND	ug/kg	129	5.8	1	08/24/20 15:19	08/24/20 19:34	591-78-6	N2

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25 Holiday Drive
Englewood, OH 45322
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ANALYTICAL RESULTS

Project: Samples for Re-sample
Pace Project No.: 5249634

Sample: BLB6PBWSS **Lab ID: 5249143005** Collected: 08/24/20 12:34 Received: 08/24/20 14:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	32.3	1.3	1	08/24/20 15:19	08/24/20 19:34	98-82-8	
p-Isopropyltoluene	ND	ug/kg	32.3	6.5	1	08/24/20 15:19	08/24/20 19:34	99-87-6	
Methylene Chloride	ND	ug/kg	162	2.1	1	08/24/20 15:19	08/24/20 19:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	129	3.7	1	08/24/20 15:19	08/24/20 19:34	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	64.6	1.5	1	08/24/20 15:19	08/24/20 19:34	1634-04-4	
Naphthalene	ND	ug/kg	32.3	0.81	1	08/24/20 15:19	08/24/20 19:34	91-20-3	
n-Propylbenzene	ND	ug/kg	32.3	1.4	1	08/24/20 15:19	08/24/20 19:34	103-65-1	
Styrene	ND	ug/kg	32.3	1.2	1	08/24/20 15:19	08/24/20 19:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	32.3	0.78	1	08/24/20 15:19	08/24/20 19:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	32.3	0.72	1	08/24/20 15:19	08/24/20 19:34	79-34-5	
Tetrachloroethene	**34.5**	ug/kg	32.3	1.9	1	08/24/20 15:19	08/24/20 19:34	127-18-4	
Toluene	ND	ug/kg	32.3	1.1	1	08/24/20 15:19	08/24/20 19:34	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	32.3	0.75	1	08/24/20 15:19	08/24/20 19:34	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	32.3	0.86	1	08/24/20 15:19	08/24/20 19:34	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	32.3	1.6	1	08/24/20 15:19	08/24/20 19:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	32.3	1.0	1	08/24/20 15:19	08/24/20 19:34	79-00-5	
Trichloroethene	**97.2**	ug/kg	32.3	1.4	1	08/24/20 15:19	08/24/20 19:34	79-01-6	
Trichlorofluoromethane	ND	ug/kg	32.3	2.3	1	08/24/20 15:19	08/24/20 19:34	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	32.3	1.6	1	08/24/20 15:19	08/24/20 19:34	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	32.3	1.1	1	08/24/20 15:19	08/24/20 19:34	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	32.3	1.2	1	08/24/20 15:19	08/24/20 19:34	108-67-8	
Vinyl acetate	ND	ug/kg	64.6	2.5	1	08/24/20 15:19	08/24/20 19:34	108-05-4	
Vinyl chloride	ND	ug/kg	32.3	2.3	1	08/24/20 15:19	08/24/20 19:34	75-01-4	
Xylene (Total)	ND	ug/kg	64.6	3.4	1	08/24/20 15:19	08/24/20 19:34	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	112	%.	78-126		1	08/24/20 15:19	08/24/20 19:34	1868-53-7	
Toluene-d8 (S)	99	%.	80-120		1	08/24/20 15:19	08/24/20 19:34	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	80-120		1	08/24/20 15:19	08/24/20 19:34	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%.	76-127		1	08/24/20 15:19	08/24/20 19:34	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**25.0**	%	0.10	0.10	1		08/25/20 14:13		N2

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ANALYTICAL RESULTS

Project: Samples for Re-sample
Pace Project No.: 5249634

Sample: BLB6WNSS **Lab ID: 5249143006** Collected: 08/24/20 12:37 Received: 08/24/20 14:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	297	16.2	1	08/24/20 15:19	08/24/20 19:59	67-64-1	
Acetonitrile	ND	ug/kg	238	11.7	1	08/24/20 15:19	08/24/20 19:59	75-05-8	L1
Acrolein	ND	ug/kg	297	8.8	1	08/24/20 15:19	08/24/20 19:59	107-02-8	
Acrylonitrile	ND	ug/kg	119	1.3	1	08/24/20 15:19	08/24/20 19:59	107-13-1	
Benzene	ND	ug/kg	5.9	0.96	1	08/24/20 15:19	08/24/20 19:59	71-43-2	
Bromobenzene	ND	ug/kg	29.7	0.92	1	08/24/20 15:19	08/24/20 19:59	108-86-1	
Bromochloromethane	ND	ug/kg	29.7	0.73	1	08/24/20 15:19	08/24/20 19:59	74-97-5	
Bromodichloromethane	ND	ug/kg	29.7	0.94	1	08/24/20 15:19	08/24/20 19:59	75-27-4	
Bromoform	ND	ug/kg	29.7	0.72	1	08/24/20 15:19	08/24/20 19:59	75-25-2	
Bromomethane	ND	ug/kg	149	0.93	1	08/24/20 15:19	08/24/20 19:59	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	119	1.7	1	08/24/20 15:19	08/24/20 19:59	78-93-3	
n-Butylbenzene	ND	ug/kg	29.7	1.9	1	08/24/20 15:19	08/24/20 19:59	104-51-8	
sec-Butylbenzene	ND	ug/kg	29.7	1.6	1	08/24/20 15:19	08/24/20 19:59	135-98-8	
tert-Butylbenzene	ND	ug/kg	29.7	1.5	1	08/24/20 15:19	08/24/20 19:59	98-06-6	
Carbon disulfide	ND	ug/kg	119	1.9	1	08/24/20 15:19	08/24/20 19:59	75-15-0	
Carbon tetrachloride	ND	ug/kg	29.7	1.7	1	08/24/20 15:19	08/24/20 19:59	56-23-5	
Chlorobenzene	ND	ug/kg	29.7	0.91	1	08/24/20 15:19	08/24/20 19:59	108-90-7	
Chloroethane	ND	ug/kg	29.7	1.7	1	08/24/20 15:19	08/24/20 19:59	75-00-3	
Chloroform	ND	ug/kg	29.7	1.2	1	08/24/20 15:19	08/24/20 19:59	67-66-3	
Chloromethane	ND	ug/kg	29.7	0.93	1	08/24/20 15:19	08/24/20 19:59	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	29.7	0.97	1	08/24/20 15:19	08/24/20 19:59	95-49-8	
4-Chlorotoluene	ND	ug/kg	29.7	0.96	1	08/24/20 15:19	08/24/20 19:59	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	59.4	0.96	1	08/24/20 15:19	08/24/20 19:59	96-12-8	
Dibromochloromethane	ND	ug/kg	29.7	0.73	1	08/24/20 15:19	08/24/20 19:59	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	29.7	0.67	1	08/24/20 15:19	08/24/20 19:59	106-93-4	
Dibromomethane	ND	ug/kg	29.7	0.92	1	08/24/20 15:19	08/24/20 19:59	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	29.7	0.82	1	08/24/20 15:19	08/24/20 19:59	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	29.7	0.82	1	08/24/20 15:19	08/24/20 19:59	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	29.7	0.68	1	08/24/20 15:19	08/24/20 19:59	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	29.7	2.5	1	08/24/20 15:19	08/24/20 19:59	75-71-8	
1,1-Dichloroethane	ND	ug/kg	29.7	1.3	1	08/24/20 15:19	08/24/20 19:59	75-34-3	
1,2-Dichloroethane	ND	ug/kg	29.7	1.2	1	08/24/20 15:19	08/24/20 19:59	107-06-2	
1,1-Dichloroethene	ND	ug/kg	29.7	2.0	1	08/24/20 15:19	08/24/20 19:59	75-35-4	N2
cis-1,2-Dichloroethene	ND	ug/kg	29.7	1.1	1	08/24/20 15:19	08/24/20 19:59	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	29.7	1.4	1	08/24/20 15:19	08/24/20 19:59	156-60-5	
1,2-Dichloropropane	ND	ug/kg	29.7	0.84	1	08/24/20 15:19	08/24/20 19:59	78-87-5	
1,3-Dichloropropane	ND	ug/kg	29.7	0.75	1	08/24/20 15:19	08/24/20 19:59	142-28-9	
2,2-Dichloropropane	ND	ug/kg	29.7	1.8	1	08/24/20 15:19	08/24/20 19:59	594-20-7	
1,1-Dichloropropene	ND	ug/kg	29.7	1.5	1	08/24/20 15:19	08/24/20 19:59	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	29.7	0.77	1	08/24/20 15:19	08/24/20 19:59	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	29.7	1.0	1	08/24/20 15:19	08/24/20 19:59	10061-02-6	
Ethyl acetate	ND	ug/kg	59.4	2.0	1	08/24/20 15:19	08/24/20 19:59	141-78-6	
Ethylbenzene	ND	ug/kg	29.7	1.4	1	08/24/20 15:19	08/24/20 19:59	100-41-4	
2-Hexanone	ND	ug/kg	119	5.3	1	08/24/20 15:19	08/24/20 19:59	591-78-6	N2

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ANALYTICAL RESULTS

Project: Samples for Re-sample
Pace Project No.: 5249634

Sample: BLB6WNSS **Lab ID: 5249143006** Collected: 08/24/20 12:37 Received: 08/24/20 14:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	29.7	1.2	1	08/24/20 15:19	08/24/20 19:59	98-82-8	
p-Isopropyltoluene	ND	ug/kg	29.7	5.9	1	08/24/20 15:19	08/24/20 19:59	99-87-6	
Methylene Chloride	ND	ug/kg	149	1.9	1	08/24/20 15:19	08/24/20 19:59	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	119	3.4	1	08/24/20 15:19	08/24/20 19:59	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	59.4	1.4	1	08/24/20 15:19	08/24/20 19:59	1634-04-4	
Naphthalene	ND	ug/kg	29.7	0.75	1	08/24/20 15:19	08/24/20 19:59	91-20-3	
n-Propylbenzene	ND	ug/kg	29.7	1.3	1	08/24/20 15:19	08/24/20 19:59	103-65-1	
Styrene	ND	ug/kg	29.7	1.1	1	08/24/20 15:19	08/24/20 19:59	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	29.7	0.72	1	08/24/20 15:19	08/24/20 19:59	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	29.7	0.66	1	08/24/20 15:19	08/24/20 19:59	79-34-5	
Tetrachloroethene	**122**	ug/kg	29.7	1.7	1	08/24/20 15:19	08/24/20 19:59	127-18-4	
Toluene	ND	ug/kg	29.7	1.0	1	08/24/20 15:19	08/24/20 19:59	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	29.7	0.69	1	08/24/20 15:19	08/24/20 19:59	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	29.7	0.79	1	08/24/20 15:19	08/24/20 19:59	120-82-1	
1,1,1-Trichloroethane	**12.9J**	ug/kg	29.7	1.5	1	08/24/20 15:19	08/24/20 19:59	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	29.7	0.94	1	08/24/20 15:19	08/24/20 19:59	79-00-5	
Trichloroethene	**215**	ug/kg	29.7	1.3	1	08/24/20 15:19	08/24/20 19:59	79-01-6	
Trichlorofluoromethane	ND	ug/kg	29.7	2.1	1	08/24/20 15:19	08/24/20 19:59	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	29.7	1.5	1	08/24/20 15:19	08/24/20 19:59	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	29.7	0.98	1	08/24/20 15:19	08/24/20 19:59	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	29.7	1.1	1	08/24/20 15:19	08/24/20 19:59	108-67-8	
Vinyl acetate	ND	ug/kg	59.4	2.3	1	08/24/20 15:19	08/24/20 19:59	108-05-4	
Vinyl chloride	ND	ug/kg	29.7	2.2	1	08/24/20 15:19	08/24/20 19:59	75-01-4	
Xylene (Total)	ND	ug/kg	59.4	3.1	1	08/24/20 15:19	08/24/20 19:59	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	109	%.	78-126		1	08/24/20 15:19	08/24/20 19:59	1868-53-7	
Toluene-d8 (S)	99	%.	80-120		1	08/24/20 15:19	08/24/20 19:59	2037-26-5	
4-Bromofluorobenzene (S)	96	%.	80-120		1	08/24/20 15:19	08/24/20 19:59	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%.	76-127		1	08/24/20 15:19	08/24/20 19:59	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**20.0**	%	0.10	0.10	1		08/25/20 14:14		N2

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: Samples for Re-sample
Pace Project No.: 5249634

Sample: BLB6PBESS **Lab ID: 5249143007** Collected: 08/24/20 12:40 Received: 08/24/20 14:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	324	17.6	1	08/24/20 15:19	08/24/20 20:24	67-64-1	
Acetonitrile	ND	ug/kg	259	12.8	1	08/24/20 15:19	08/24/20 20:24	75-05-8	L1
Acrolein	ND	ug/kg	324	9.6	1	08/24/20 15:19	08/24/20 20:24	107-02-8	
Acrylonitrile	ND	ug/kg	130	1.5	1	08/24/20 15:19	08/24/20 20:24	107-13-1	
Benzene	ND	ug/kg	6.5	1.0	1	08/24/20 15:19	08/24/20 20:24	71-43-2	
Bromobenzene	ND	ug/kg	32.4	1.0	1	08/24/20 15:19	08/24/20 20:24	108-86-1	
Bromochloromethane	ND	ug/kg	32.4	0.79	1	08/24/20 15:19	08/24/20 20:24	74-97-5	
Bromodichloromethane	ND	ug/kg	32.4	1.0	1	08/24/20 15:19	08/24/20 20:24	75-27-4	
Bromoform	ND	ug/kg	32.4	0.78	1	08/24/20 15:19	08/24/20 20:24	75-25-2	
Bromomethane	ND	ug/kg	162	1.0	1	08/24/20 15:19	08/24/20 20:24	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	130	1.8	1	08/24/20 15:19	08/24/20 20:24	78-93-3	
n-Butylbenzene	ND	ug/kg	32.4	2.1	1	08/24/20 15:19	08/24/20 20:24	104-51-8	
sec-Butylbenzene	ND	ug/kg	32.4	1.8	1	08/24/20 15:19	08/24/20 20:24	135-98-8	
tert-Butylbenzene	ND	ug/kg	32.4	1.6	1	08/24/20 15:19	08/24/20 20:24	98-06-6	
Carbon disulfide	ND	ug/kg	130	2.0	1	08/24/20 15:19	08/24/20 20:24	75-15-0	
Carbon tetrachloride	ND	ug/kg	32.4	1.9	1	08/24/20 15:19	08/24/20 20:24	56-23-5	
Chlorobenzene	ND	ug/kg	32.4	0.99	1	08/24/20 15:19	08/24/20 20:24	108-90-7	
Chloroethane	ND	ug/kg	32.4	1.9	1	08/24/20 15:19	08/24/20 20:24	75-00-3	
Chloroform	ND	ug/kg	32.4	1.3	1	08/24/20 15:19	08/24/20 20:24	67-66-3	
Chloromethane	ND	ug/kg	32.4	1.0	1	08/24/20 15:19	08/24/20 20:24	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	32.4	1.1	1	08/24/20 15:19	08/24/20 20:24	95-49-8	
4-Chlorotoluene	ND	ug/kg	32.4	1.1	1	08/24/20 15:19	08/24/20 20:24	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	64.8	1.0	1	08/24/20 15:19	08/24/20 20:24	96-12-8	
Dibromochloromethane	ND	ug/kg	32.4	0.79	1	08/24/20 15:19	08/24/20 20:24	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	32.4	0.73	1	08/24/20 15:19	08/24/20 20:24	106-93-4	
Dibromomethane	ND	ug/kg	32.4	1.0	1	08/24/20 15:19	08/24/20 20:24	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	32.4	0.90	1	08/24/20 15:19	08/24/20 20:24	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	32.4	0.90	1	08/24/20 15:19	08/24/20 20:24	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	32.4	0.74	1	08/24/20 15:19	08/24/20 20:24	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	32.4	2.8	1	08/24/20 15:19	08/24/20 20:24	75-71-8	
1,1-Dichloroethane	ND	ug/kg	32.4	1.4	1	08/24/20 15:19	08/24/20 20:24	75-34-3	
1,2-Dichloroethane	ND	ug/kg	32.4	1.3	1	08/24/20 15:19	08/24/20 20:24	107-06-2	
1,1-Dichloroethene	ND	ug/kg	32.4	2.2	1	08/24/20 15:19	08/24/20 20:24	75-35-4	N2
cis-1,2-Dichloroethene	**19.9J**	ug/kg	32.4	1.2	1	08/24/20 15:19	08/24/20 20:24	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	32.4	1.5	1	08/24/20 15:19	08/24/20 20:24	156-60-5	
1,2-Dichloropropane	ND	ug/kg	32.4	0.92	1	08/24/20 15:19	08/24/20 20:24	78-87-5	
1,3-Dichloropropane	ND	ug/kg	32.4	0.82	1	08/24/20 15:19	08/24/20 20:24	142-28-9	
2,2-Dichloropropane	ND	ug/kg	32.4	1.9	1	08/24/20 15:19	08/24/20 20:24	594-20-7	
1,1-Dichloropropene	ND	ug/kg	32.4	1.7	1	08/24/20 15:19	08/24/20 20:24	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	32.4	0.84	1	08/24/20 15:19	08/24/20 20:24	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	32.4	1.1	1	08/24/20 15:19	08/24/20 20:24	10061-02-6	
Ethyl acetate	ND	ug/kg	64.8	2.2	1	08/24/20 15:19	08/24/20 20:24	141-78-6	
Ethylbenzene	**3.4J**	ug/kg	32.4	1.5	1	08/24/20 15:19	08/24/20 20:24	100-41-4	
2-Hexanone	ND	ug/kg	130	5.8	1	08/24/20 15:19	08/24/20 20:24	591-78-6	N2

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: Samples for Re-sample
Pace Project No.: 5249634

Sample: BLB6PBESS **Lab ID: 5249143007** Collected: 08/24/20 12:40 Received: 08/24/20 14:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	32.4	1.3	1	08/24/20 15:19	08/24/20 20:24	98-82-8	
p-Isopropyltoluene	ND	ug/kg	32.4	6.5	1	08/24/20 15:19	08/24/20 20:24	99-87-6	
Methylene Chloride	ND	ug/kg	162	2.1	1	08/24/20 15:19	08/24/20 20:24	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	130	3.7	1	08/24/20 15:19	08/24/20 20:24	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	64.8	1.5	1	08/24/20 15:19	08/24/20 20:24	1634-04-4	
Naphthalene	**31.1J**	ug/kg	32.4	0.81	1	08/24/20 15:19	08/24/20 20:24	91-20-3	
n-Propylbenzene	ND	ug/kg	32.4	1.4	1	08/24/20 15:19	08/24/20 20:24	103-65-1	
Styrene	ND	ug/kg	32.4	1.2	1	08/24/20 15:19	08/24/20 20:24	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	32.4	0.78	1	08/24/20 15:19	08/24/20 20:24	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	32.4	0.72	1	08/24/20 15:19	08/24/20 20:24	79-34-5	
Tetrachloroethene	**96.8**	ug/kg	32.4	1.9	1	08/24/20 15:19	08/24/20 20:24	127-18-4	
Toluene	ND	ug/kg	32.4	1.1	1	08/24/20 15:19	08/24/20 20:24	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	32.4	0.76	1	08/24/20 15:19	08/24/20 20:24	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	32.4	0.87	1	08/24/20 15:19	08/24/20 20:24	120-82-1	
1,1,1-Trichloroethane	**31.7J**	ug/kg	32.4	1.6	1	08/24/20 15:19	08/24/20 20:24	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	32.4	1.0	1	08/24/20 15:19	08/24/20 20:24	79-00-5	
Trichloroethene	**138**	ug/kg	32.4	1.4	1	08/24/20 15:19	08/24/20 20:24	79-01-6	
Trichlorofluoromethane	ND	ug/kg	32.4	2.3	1	08/24/20 15:19	08/24/20 20:24	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	32.4	1.6	1	08/24/20 15:19	08/24/20 20:24	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	32.4	1.1	1	08/24/20 15:19	08/24/20 20:24	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	32.4	1.2	1	08/24/20 15:19	08/24/20 20:24	108-67-8	
Vinyl acetate	ND	ug/kg	64.8	2.5	1	08/24/20 15:19	08/24/20 20:24	108-05-4	
Vinyl chloride	ND	ug/kg	32.4	2.4	1	08/24/20 15:19	08/24/20 20:24	75-01-4	
Xylene (Total)	ND	ug/kg	64.8	3.4	1	08/24/20 15:19	08/24/20 20:24	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	109	%.	78-126		1	08/24/20 15:19	08/24/20 20:24	1868-53-7	
Toluene-d8 (S)	98	%.	80-120		1	08/24/20 15:19	08/24/20 20:24	2037-26-5	
4-Bromofluorobenzene (S)	93	%.	80-120		1	08/24/20 15:19	08/24/20 20:24	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%.	76-127		1	08/24/20 15:19	08/24/20 20:24	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**26.1**	%	0.10	0.10	1		08/25/20 14:15		N2

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: Samples for Re-sample
Pace Project No.: 5249634

Sample: BLB6WESS **Lab ID: 5249143008** Collected: 08/24/20 12:42 Received: 08/24/20 14:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	321	17.5	1	08/24/20 15:19	08/24/20 20:49	67-64-1	
Acetonitrile	ND	ug/kg	257	12.7	1	08/24/20 15:19	08/24/20 20:49	75-05-8	L1
Acrolein	ND	ug/kg	321	9.5	1	08/24/20 15:19	08/24/20 20:49	107-02-8	
Acrylonitrile	ND	ug/kg	128	1.5	1	08/24/20 15:19	08/24/20 20:49	107-13-1	
Benzene	ND	ug/kg	6.4	1.0	1	08/24/20 15:19	08/24/20 20:49	71-43-2	
Bromobenzene	ND	ug/kg	32.1	1.0	1	08/24/20 15:19	08/24/20 20:49	108-86-1	
Bromochloromethane	ND	ug/kg	32.1	0.79	1	08/24/20 15:19	08/24/20 20:49	74-97-5	
Bromodichloromethane	ND	ug/kg	32.1	1.0	1	08/24/20 15:19	08/24/20 20:49	75-27-4	
Bromoform	ND	ug/kg	32.1	0.77	1	08/24/20 15:19	08/24/20 20:49	75-25-2	
Bromomethane	ND	ug/kg	161	1.0	1	08/24/20 15:19	08/24/20 20:49	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	128	1.8	1	08/24/20 15:19	08/24/20 20:49	78-93-3	
n-Butylbenzene	ND	ug/kg	32.1	2.1	1	08/24/20 15:19	08/24/20 20:49	104-51-8	
sec-Butylbenzene	ND	ug/kg	32.1	1.8	1	08/24/20 15:19	08/24/20 20:49	135-98-8	
tert-Butylbenzene	ND	ug/kg	32.1	1.6	1	08/24/20 15:19	08/24/20 20:49	98-06-6	
Carbon disulfide	ND	ug/kg	128	2.0	1	08/24/20 15:19	08/24/20 20:49	75-15-0	
Carbon tetrachloride	ND	ug/kg	32.1	1.9	1	08/24/20 15:19	08/24/20 20:49	56-23-5	
Chlorobenzene	ND	ug/kg	32.1	0.98	1	08/24/20 15:19	08/24/20 20:49	108-90-7	
Chloroethane	ND	ug/kg	32.1	1.8	1	08/24/20 15:19	08/24/20 20:49	75-00-3	
Chloroform	ND	ug/kg	32.1	1.3	1	08/24/20 15:19	08/24/20 20:49	67-66-3	
Chloromethane	ND	ug/kg	32.1	1.0	1	08/24/20 15:19	08/24/20 20:49	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	32.1	1.0	1	08/24/20 15:19	08/24/20 20:49	95-49-8	
4-Chlorotoluene	ND	ug/kg	32.1	1.0	1	08/24/20 15:19	08/24/20 20:49	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	64.2	1.0	1	08/24/20 15:19	08/24/20 20:49	96-12-8	
Dibromochloromethane	ND	ug/kg	32.1	0.79	1	08/24/20 15:19	08/24/20 20:49	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	32.1	0.73	1	08/24/20 15:19	08/24/20 20:49	106-93-4	
Dibromomethane	ND	ug/kg	32.1	1.0	1	08/24/20 15:19	08/24/20 20:49	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	32.1	0.89	1	08/24/20 15:19	08/24/20 20:49	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	32.1	0.89	1	08/24/20 15:19	08/24/20 20:49	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	32.1	0.73	1	08/24/20 15:19	08/24/20 20:49	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	32.1	2.8	1	08/24/20 15:19	08/24/20 20:49	75-71-8	
1,1-Dichloroethane	**5.1J**	ug/kg	32.1	1.4	1	08/24/20 15:19	08/24/20 20:49	75-34-3	
1,2-Dichloroethane	ND	ug/kg	32.1	1.3	1	08/24/20 15:19	08/24/20 20:49	107-06-2	
1,1-Dichloroethene	ND	ug/kg	32.1	2.2	1	08/24/20 15:19	08/24/20 20:49	75-35-4	N2
cis-1,2-Dichloroethene	**50.2**	ug/kg	32.1	1.2	1	08/24/20 15:19	08/24/20 20:49	156-59-2	
trans-1,2-Dichloroethene	**9.7J**	ug/kg	32.1	1.5	1	08/24/20 15:19	08/24/20 20:49	156-60-5	
1,2-Dichloropropane	ND	ug/kg	32.1	0.91	1	08/24/20 15:19	08/24/20 20:49	78-87-5	
1,3-Dichloropropane	ND	ug/kg	32.1	0.81	1	08/24/20 15:19	08/24/20 20:49	142-28-9	
2,2-Dichloropropane	ND	ug/kg	32.1	1.9	1	08/24/20 15:19	08/24/20 20:49	594-20-7	
1,1-Dichloropropene	ND	ug/kg	32.1	1.6	1	08/24/20 15:19	08/24/20 20:49	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	32.1	0.84	1	08/24/20 15:19	08/24/20 20:49	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	32.1	1.1	1	08/24/20 15:19	08/24/20 20:49	10061-02-6	
Ethyl acetate	ND	ug/kg	64.2	2.2	1	08/24/20 15:19	08/24/20 20:49	141-78-6	
Ethylbenzene	ND	ug/kg	32.1	1.5	1	08/24/20 15:19	08/24/20 20:49	100-41-4	
2-Hexanone	ND	ug/kg	128	5.8	1	08/24/20 15:19	08/24/20 20:49	591-78-6	N2

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ANALYTICAL RESULTS

Project: Samples for Re-sample
Pace Project No.: 5249634

Sample: BLB6WESS **Lab ID: 5249143008** Collected: 08/24/20 12:42 Received: 08/24/20 14:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	32.1	1.3	1	08/24/20 15:19	08/24/20 20:49	98-82-8	
p-Isopropyltoluene	ND	ug/kg	32.1	6.4	1	08/24/20 15:19	08/24/20 20:49	99-87-6	
Methylene Chloride	ND	ug/kg	161	2.1	1	08/24/20 15:19	08/24/20 20:49	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	128	3.7	1	08/24/20 15:19	08/24/20 20:49	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	64.2	1.5	1	08/24/20 15:19	08/24/20 20:49	1634-04-4	
Naphthalene	ND	ug/kg	32.1	0.81	1	08/24/20 15:19	08/24/20 20:49	91-20-3	
n-Propylbenzene	ND	ug/kg	32.1	1.4	1	08/24/20 15:19	08/24/20 20:49	103-65-1	
Styrene	ND	ug/kg	32.1	1.2	1	08/24/20 15:19	08/24/20 20:49	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	32.1	0.77	1	08/24/20 15:19	08/24/20 20:49	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	32.1	0.71	1	08/24/20 15:19	08/24/20 20:49	79-34-5	
Tetrachloroethene	**80.8**	ug/kg	32.1	1.9	1	08/24/20 15:19	08/24/20 20:49	127-18-4	
Toluene	**5.9J**	ug/kg	32.1	1.1	1	08/24/20 15:19	08/24/20 20:49	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	32.1	0.75	1	08/24/20 15:19	08/24/20 20:49	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	32.1	0.86	1	08/24/20 15:19	08/24/20 20:49	120-82-1	
1,1,1-Trichloroethane	**45.2**	ug/kg	32.1	1.6	1	08/24/20 15:19	08/24/20 20:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	32.1	1.0	1	08/24/20 15:19	08/24/20 20:49	79-00-5	
Trichloroethene	**455**	ug/kg	32.1	1.4	1	08/24/20 15:19	08/24/20 20:49	79-01-6	
Trichlorofluoromethane	ND	ug/kg	32.1	2.3	1	08/24/20 15:19	08/24/20 20:49	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	32.1	1.6	1	08/24/20 15:19	08/24/20 20:49	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	32.1	1.1	1	08/24/20 15:19	08/24/20 20:49	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	32.1	1.2	1	08/24/20 15:19	08/24/20 20:49	108-67-8	
Vinyl acetate	ND	ug/kg	64.2	2.5	1	08/24/20 15:19	08/24/20 20:49	108-05-4	
Vinyl chloride	ND	ug/kg	32.1	2.3	1	08/24/20 15:19	08/24/20 20:49	75-01-4	
Xylene (Total)	ND	ug/kg	64.2	3.3	1	08/24/20 15:19	08/24/20 20:49	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	111	%.	78-126		1	08/24/20 15:19	08/24/20 20:49	1868-53-7	
Toluene-d8 (S)	98	%.	80-120		1	08/24/20 15:19	08/24/20 20:49	2037-26-5	
4-Bromofluorobenzene (S)	94	%.	80-120		1	08/24/20 15:19	08/24/20 20:49	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%.	76-127		1	08/24/20 15:19	08/24/20 20:49	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**23.2**	%	0.10	0.10	1		08/25/20 14:15		N2

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: Samples for Re-sample
Pace Project No.: 5249634

Sample: BLB6WSSS **Lab ID: 5249143009** Collected: 08/24/20 12:44 Received: 08/24/20 14:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	308	16.7	1	08/24/20 15:19	08/24/20 21:14	67-64-1	
Acetonitrile	ND	ug/kg	246	12.2	1	08/24/20 15:19	08/24/20 21:14	75-05-8	L1
Acrolein	ND	ug/kg	308	9.1	1	08/24/20 15:19	08/24/20 21:14	107-02-8	
Acrylonitrile	ND	ug/kg	123	1.4	1	08/24/20 15:19	08/24/20 21:14	107-13-1	
Benzene	ND	ug/kg	6.2	1.0	1	08/24/20 15:19	08/24/20 21:14	71-43-2	
Bromobenzene	ND	ug/kg	30.8	0.96	1	08/24/20 15:19	08/24/20 21:14	108-86-1	
Bromochloromethane	ND	ug/kg	30.8	0.76	1	08/24/20 15:19	08/24/20 21:14	74-97-5	
Bromodichloromethane	ND	ug/kg	30.8	0.97	1	08/24/20 15:19	08/24/20 21:14	75-27-4	
Bromoform	ND	ug/kg	30.8	0.74	1	08/24/20 15:19	08/24/20 21:14	75-25-2	
Bromomethane	ND	ug/kg	154	0.97	1	08/24/20 15:19	08/24/20 21:14	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	123	1.7	1	08/24/20 15:19	08/24/20 21:14	78-93-3	
n-Butylbenzene	ND	ug/kg	30.8	2.0	1	08/24/20 15:19	08/24/20 21:14	104-51-8	
sec-Butylbenzene	ND	ug/kg	30.8	1.7	1	08/24/20 15:19	08/24/20 21:14	135-98-8	
tert-Butylbenzene	ND	ug/kg	30.8	1.5	1	08/24/20 15:19	08/24/20 21:14	98-06-6	
Carbon disulfide	ND	ug/kg	123	1.9	1	08/24/20 15:19	08/24/20 21:14	75-15-0	
Carbon tetrachloride	ND	ug/kg	30.8	1.8	1	08/24/20 15:19	08/24/20 21:14	56-23-5	
Chlorobenzene	ND	ug/kg	30.8	0.94	1	08/24/20 15:19	08/24/20 21:14	108-90-7	
Chloroethane	ND	ug/kg	30.8	1.8	1	08/24/20 15:19	08/24/20 21:14	75-00-3	
Chloroform	ND	ug/kg	30.8	1.3	1	08/24/20 15:19	08/24/20 21:14	67-66-3	
Chloromethane	ND	ug/kg	30.8	0.96	1	08/24/20 15:19	08/24/20 21:14	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	30.8	1.0	1	08/24/20 15:19	08/24/20 21:14	95-49-8	
4-Chlorotoluene	ND	ug/kg	30.8	1.0	1	08/24/20 15:19	08/24/20 21:14	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	61.6	0.99	1	08/24/20 15:19	08/24/20 21:14	96-12-8	
Dibromochloromethane	ND	ug/kg	30.8	0.76	1	08/24/20 15:19	08/24/20 21:14	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	30.8	0.70	1	08/24/20 15:19	08/24/20 21:14	106-93-4	
Dibromomethane	ND	ug/kg	30.8	0.96	1	08/24/20 15:19	08/24/20 21:14	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	30.8	0.85	1	08/24/20 15:19	08/24/20 21:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	30.8	0.86	1	08/24/20 15:19	08/24/20 21:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	30.8	0.70	1	08/24/20 15:19	08/24/20 21:14	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	30.8	2.6	1	08/24/20 15:19	08/24/20 21:14	75-71-8	
1,1-Dichloroethane	ND	ug/kg	30.8	1.3	1	08/24/20 15:19	08/24/20 21:14	75-34-3	
1,2-Dichloroethane	ND	ug/kg	30.8	1.3	1	08/24/20 15:19	08/24/20 21:14	107-06-2	
1,1-Dichloroethene	ND	ug/kg	30.8	2.1	1	08/24/20 15:19	08/24/20 21:14	75-35-4	N2
cis-1,2-Dichloroethene	**196**	ug/kg	30.8	1.1	1	08/24/20 15:19	08/24/20 21:14	156-59-2	
trans-1,2-Dichloroethene	**17.7J**	ug/kg	30.8	1.5	1	08/24/20 15:19	08/24/20 21:14	156-60-5	
1,2-Dichloropropane	ND	ug/kg	30.8	0.87	1	08/24/20 15:19	08/24/20 21:14	78-87-5	
1,3-Dichloropropane	ND	ug/kg	30.8	0.78	1	08/24/20 15:19	08/24/20 21:14	142-28-9	
2,2-Dichloropropane	ND	ug/kg	30.8	1.8	1	08/24/20 15:19	08/24/20 21:14	594-20-7	
1,1-Dichloropropene	ND	ug/kg	30.8	1.6	1	08/24/20 15:19	08/24/20 21:14	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	30.8	0.80	1	08/24/20 15:19	08/24/20 21:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	30.8	1.1	1	08/24/20 15:19	08/24/20 21:14	10061-02-6	
Ethyl acetate	ND	ug/kg	61.6	2.1	1	08/24/20 15:19	08/24/20 21:14	141-78-6	
Ethylbenzene	**3.3J**	ug/kg	30.8	1.4	1	08/24/20 15:19	08/24/20 21:14	100-41-4	
2-Hexanone	ND	ug/kg	123	5.5	1	08/24/20 15:19	08/24/20 21:14	591-78-6	N2

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Englewood, OH 45322
(937)832-8242

ANALYTICAL RESULTS

Project: Samples for Re-sample
Pace Project No.: 5249634

Sample: BLB6WSSS **Lab ID: 5249143009** Collected: 08/24/20 12:44 Received: 08/24/20 14:35 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	30.8	1.3	1	08/24/20 15:19	08/24/20 21:14	98-82-8	
p-Isopropyltoluene	ND	ug/kg	30.8	6.2	1	08/24/20 15:19	08/24/20 21:14	99-87-6	
Methylene Chloride	ND	ug/kg	154	2.0	1	08/24/20 15:19	08/24/20 21:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	123	3.5	1	08/24/20 15:19	08/24/20 21:14	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	61.6	1.4	1	08/24/20 15:19	08/24/20 21:14	1634-04-4	
Naphthalene	ND	ug/kg	30.8	0.77	1	08/24/20 15:19	08/24/20 21:14	91-20-3	
n-Propylbenzene	ND	ug/kg	30.8	1.3	1	08/24/20 15:19	08/24/20 21:14	103-65-1	
Styrene	ND	ug/kg	30.8	1.2	1	08/24/20 15:19	08/24/20 21:14	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	30.8	0.74	1	08/24/20 15:19	08/24/20 21:14	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	30.8	0.69	1	08/24/20 15:19	08/24/20 21:14	79-34-5	
Tetrachloroethene	**25.5J**	ug/kg	30.8	1.8	1	08/24/20 15:19	08/24/20 21:14	127-18-4	
Toluene	**3.9J**	ug/kg	30.8	1.1	1	08/24/20 15:19	08/24/20 21:14	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	30.8	0.72	1	08/24/20 15:19	08/24/20 21:14	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	30.8	0.82	1	08/24/20 15:19	08/24/20 21:14	120-82-1	
1,1,1-Trichloroethane	**22.9J**	ug/kg	30.8	1.5	1	08/24/20 15:19	08/24/20 21:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	30.8	0.98	1	08/24/20 15:19	08/24/20 21:14	79-00-5	
Trichloroethene	**454**	ug/kg	30.8	1.4	1	08/24/20 15:19	08/24/20 21:14	79-01-6	
Trichlorofluoromethane	ND	ug/kg	30.8	2.2	1	08/24/20 15:19	08/24/20 21:14	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	30.8	1.6	1	08/24/20 15:19	08/24/20 21:14	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	30.8	1.0	1	08/24/20 15:19	08/24/20 21:14	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	30.8	1.1	1	08/24/20 15:19	08/24/20 21:14	108-67-8	
Vinyl acetate	ND	ug/kg	61.6	2.4	1	08/24/20 15:19	08/24/20 21:14	108-05-4	
Vinyl chloride	ND	ug/kg	30.8	2.2	1	08/24/20 15:19	08/24/20 21:14	75-01-4	
Xylene (Total)	ND	ug/kg	61.6	3.2	1	08/24/20 15:19	08/24/20 21:14	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	112	%.	78-126		1	08/24/20 15:19	08/24/20 21:14	1868-53-7	
Toluene-d8 (S)	97	%.	80-120		1	08/24/20 15:19	08/24/20 21:14	2037-26-5	
4-Bromofluorobenzene (S)	93	%.	80-120		1	08/24/20 15:19	08/24/20 21:14	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%.	76-127		1	08/24/20 15:19	08/24/20 21:14	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**20.6**	%	0.10	0.10	1		08/25/20 14:16		N2

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ANALYTICAL RESULTS

Project: Samples for Re-sample
Pace Project No.: 5249634

Sample: BR8WE2SS **Lab ID: 5249198005** Collected: 08/25/20 11:15 Received: 08/25/20 12:31 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A Pace Analytical Services - Dayton								
Acetone	ND	ug/kg	295	16.0	1	08/25/20 13:50	08/25/20 16:34	67-64-1	
Acetonitrile	ND	ug/kg	236	11.6	1	08/25/20 13:50	08/25/20 16:34	75-05-8	L1
Acrolein	ND	ug/kg	295	8.7	1	08/25/20 13:50	08/25/20 16:34	107-02-8	
Acrylonitrile	ND	ug/kg	118	1.3	1	08/25/20 13:50	08/25/20 16:34	107-13-1	
Benzene	ND	ug/kg	5.9	0.95	1	08/25/20 13:50	08/25/20 16:34	71-43-2	
Bromobenzene	ND	ug/kg	29.5	0.91	1	08/25/20 13:50	08/25/20 16:34	108-86-1	
Bromochloromethane	ND	ug/kg	29.5	0.72	1	08/25/20 13:50	08/25/20 16:34	74-97-5	
Bromodichloromethane	ND	ug/kg	29.5	0.93	1	08/25/20 13:50	08/25/20 16:34	75-27-4	
Bromoform	ND	ug/kg	29.5	0.71	1	08/25/20 13:50	08/25/20 16:34	75-25-2	
Bromomethane	ND	ug/kg	147	0.92	1	08/25/20 13:50	08/25/20 16:34	74-83-9	N2
2-Butanone (MEK)	ND	ug/kg	118	1.7	1	08/25/20 13:50	08/25/20 16:34	78-93-3	
n-Butylbenzene	ND	ug/kg	29.5	1.9	1	08/25/20 13:50	08/25/20 16:34	104-51-8	
sec-Butylbenzene	ND	ug/kg	29.5	1.6	1	08/25/20 13:50	08/25/20 16:34	135-98-8	
tert-Butylbenzene	ND	ug/kg	29.5	1.5	1	08/25/20 13:50	08/25/20 16:34	98-06-6	
Carbon disulfide	ND	ug/kg	118	1.8	1	08/25/20 13:50	08/25/20 16:34	75-15-0	
Carbon tetrachloride	ND	ug/kg	29.5	1.7	1	08/25/20 13:50	08/25/20 16:34	56-23-5	
Chlorobenzene	ND	ug/kg	29.5	0.90	1	08/25/20 13:50	08/25/20 16:34	108-90-7	
Chloroethane	ND	ug/kg	29.5	1.7	1	08/25/20 13:50	08/25/20 16:34	75-00-3	
Chloroform	ND	ug/kg	29.5	1.2	1	08/25/20 13:50	08/25/20 16:34	67-66-3	
Chloromethane	ND	ug/kg	29.5	0.92	1	08/25/20 13:50	08/25/20 16:34	74-87-3	N2
2-Chlorotoluene	ND	ug/kg	29.5	0.96	1	08/25/20 13:50	08/25/20 16:34	95-49-8	
4-Chlorotoluene	ND	ug/kg	29.5	0.95	1	08/25/20 13:50	08/25/20 16:34	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	58.9	0.95	1	08/25/20 13:50	08/25/20 16:34	96-12-8	
Dibromochloromethane	ND	ug/kg	29.5	0.72	1	08/25/20 13:50	08/25/20 16:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	29.5	0.67	1	08/25/20 13:50	08/25/20 16:34	106-93-4	
Dibromomethane	ND	ug/kg	29.5	0.91	1	08/25/20 13:50	08/25/20 16:34	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	29.5	0.82	1	08/25/20 13:50	08/25/20 16:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	29.5	0.82	1	08/25/20 13:50	08/25/20 16:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	29.5	0.67	1	08/25/20 13:50	08/25/20 16:34	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	29.5	2.5	1	08/25/20 13:50	08/25/20 16:34	75-71-8	
1,1-Dichloroethane	ND	ug/kg	29.5	1.2	1	08/25/20 13:50	08/25/20 16:34	75-34-3	
1,2-Dichloroethane	ND	ug/kg	29.5	1.2	1	08/25/20 13:50	08/25/20 16:34	107-06-2	
1,1-Dichloroethene	ND	ug/kg	29.5	2.0	1	08/25/20 13:50	08/25/20 16:34	75-35-4	N2
cis-1,2-Dichloroethene	**14.9J**	ug/kg	29.5	1.1	1	08/25/20 13:50	08/25/20 16:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	29.5	1.4	1	08/25/20 13:50	08/25/20 16:34	156-60-5	
1,2-Dichloropropane	ND	ug/kg	29.5	0.83	1	08/25/20 13:50	08/25/20 16:34	78-87-5	
1,3-Dichloropropane	ND	ug/kg	29.5	0.74	1	08/25/20 13:50	08/25/20 16:34	142-28-9	
2,2-Dichloropropane	ND	ug/kg	29.5	1.8	1	08/25/20 13:50	08/25/20 16:34	594-20-7	
1,1-Dichloropropene	ND	ug/kg	29.5	1.5	1	08/25/20 13:50	08/25/20 16:34	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	29.5	0.77	1	08/25/20 13:50	08/25/20 16:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	29.5	1.0	1	08/25/20 13:50	08/25/20 16:34	10061-02-6	
Ethyl acetate	ND	ug/kg	58.9	2.0	1	08/25/20 13:50	08/25/20 16:34	141-78-6	
Ethylbenzene	ND	ug/kg	29.5	1.4	1	08/25/20 13:50	08/25/20 16:34	100-41-4	
2-Hexanone	ND	ug/kg	118	5.3	1	08/25/20 13:50	08/25/20 16:34	591-78-6	N2

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ANALYTICAL RESULTS

Project: Samples for Re-sample
Pace Project No.: 5249634

Sample: BR8WE2SS **Lab ID: 5249198005** Collected: 08/25/20 11:15 Received: 08/25/20 12:31 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV 5035A Med Level	Analytical Method: EPA 8260B Preparation Method: EPA 5035A								
	Pace Analytical Services - Dayton								
Isopropylbenzene (Cumene)	ND	ug/kg	29.5	1.2	1	08/25/20 13:50	08/25/20 16:34	98-82-8	
p-Isopropyltoluene	ND	ug/kg	29.5	5.9	1	08/25/20 13:50	08/25/20 16:34	99-87-6	
Methylene Chloride	ND	ug/kg	147	1.9	1	08/25/20 13:50	08/25/20 16:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	118	3.4	1	08/25/20 13:50	08/25/20 16:34	108-10-1	N2
Methyl-tert-butyl ether	ND	ug/kg	58.9	1.4	1	08/25/20 13:50	08/25/20 16:34	1634-04-4	
Naphthalene	ND	ug/kg	29.5	0.74	1	08/25/20 13:50	08/25/20 16:34	91-20-3	
n-Propylbenzene	ND	ug/kg	29.5	1.3	1	08/25/20 13:50	08/25/20 16:34	103-65-1	
Styrene	ND	ug/kg	29.5	1.1	1	08/25/20 13:50	08/25/20 16:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	29.5	0.71	1	08/25/20 13:50	08/25/20 16:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	29.5	0.66	1	08/25/20 13:50	08/25/20 16:34	79-34-5	
Tetrachloroethene	ND	ug/kg	29.5	1.7	1	08/25/20 13:50	08/25/20 16:34	127-18-4	
Toluene	ND	ug/kg	29.5	1.0	1	08/25/20 13:50	08/25/20 16:34	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	29.5	0.69	1	08/25/20 13:50	08/25/20 16:34	87-61-6	N2
1,2,4-Trichlorobenzene	ND	ug/kg	29.5	0.79	1	08/25/20 13:50	08/25/20 16:34	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	29.5	1.5	1	08/25/20 13:50	08/25/20 16:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	29.5	0.94	1	08/25/20 13:50	08/25/20 16:34	79-00-5	
Trichloroethene	**134**	ug/kg	29.5	1.3	1	08/25/20 13:50	08/25/20 16:34	79-01-6	
Trichlorofluoromethane	ND	ug/kg	29.5	2.1	1	08/25/20 13:50	08/25/20 16:34	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	29.5	1.5	1	08/25/20 13:50	08/25/20 16:34	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	29.5	0.97	1	08/25/20 13:50	08/25/20 16:34	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	29.5	1.1	1	08/25/20 13:50	08/25/20 16:34	108-67-8	
Vinyl acetate	ND	ug/kg	58.9	2.3	1	08/25/20 13:50	08/25/20 16:34	108-05-4	
Vinyl chloride	ND	ug/kg	29.5	2.1	1	08/25/20 13:50	08/25/20 16:34	75-01-4	
Xylene (Total)	ND	ug/kg	58.9	3.1	1	08/25/20 13:50	08/25/20 16:34	1330-20-7	
Surrogates									
Dibromofluoromethane (S)	109	%.	78-126		1	08/25/20 13:50	08/25/20 16:34	1868-53-7	
Toluene-d8 (S)	99	%.	80-120		1	08/25/20 13:50	08/25/20 16:34	2037-26-5	
4-Bromofluorobenzene (S)	93	%.	80-120		1	08/25/20 13:50	08/25/20 16:34	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%.	76-127		1	08/25/20 13:50	08/25/20 16:34	17060-07-0	
Percent Moisture	Analytical Method: ASTM D2216								
	Pace Analytical Services - Dayton								
Percent Moisture	**20.6**	%	0.10	0.10	1		08/25/20 16:50		N2

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QUALITY CONTROL DATA

Project: Samples for Re-sample
Pace Project No.: 5249634

QC Batch: 48453
QC Batch Method: EPA 5035A
Analysis Method: EPA 8260B
Analysis Description: 8260B MSV 5035A Med Level
Laboratory: Pace Analytical Services - Dayton
Associated Lab Samples: 5249143002, 5249143005, 5249143006, 5249143007, 5249143008, 5249143009

METHOD BLANK: 203632
Matrix: Solid
Associated Lab Samples: 5249143002, 5249143005, 5249143006, 5249143007, 5249143008, 5249143009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	25.0	0.60	08/24/20 12:53	
1,1,1-Trichloroethane	ug/kg	ND	25.0	1.2	08/24/20 12:53	
1,1,2,2-Tetrachloroethane	ug/kg	ND	25.0	0.56	08/24/20 12:53	
1,1,2-Trichloroethane	ug/kg	ND	25.0	0.80	08/24/20 12:53	
1,1-Dichloroethane	ug/kg	ND	25.0	1.1	08/24/20 12:53	
1,1-Dichloroethene	ug/kg	ND	25.0	1.7	08/24/20 12:53	N2
1,1-Dichloropropene	ug/kg	ND	25.0	1.3	08/24/20 12:53	
1,2,3-Trichlorobenzene	ug/kg	ND	25.0	0.58	08/24/20 12:53	N2
1,2,3-Trichloropropane	ug/kg	ND	25.0	1.3	08/24/20 12:53	
1,2,4-Trichlorobenzene	ug/kg	ND	25.0	0.67	08/24/20 12:53	
1,2,4-Trimethylbenzene	ug/kg	ND	25.0	0.83	08/24/20 12:53	
1,2-Dibromo-3-chloropropane	ug/kg	ND	50.0	0.80	08/24/20 12:53	
1,2-Dibromoethane (EDB)	ug/kg	ND	25.0	0.57	08/24/20 12:53	
1,2-Dichlorobenzene	ug/kg	ND	25.0	0.69	08/24/20 12:53	
1,2-Dichloroethane	ug/kg	ND	25.0	1.0	08/24/20 12:53	
1,2-Dichloropropane	ug/kg	ND	25.0	0.71	08/24/20 12:53	
1,3,5-Trimethylbenzene	ug/kg	ND	25.0	0.92	08/24/20 12:53	
1,3-Dichlorobenzene	ug/kg	ND	25.0	0.69	08/24/20 12:53	
1,3-Dichloropropane	ug/kg	ND	25.0	0.63	08/24/20 12:53	
1,4-Dichlorobenzene	ug/kg	ND	25.0	0.57	08/24/20 12:53	
2,2-Dichloropropane	ug/kg	ND	25.0	1.5	08/24/20 12:53	
2-Butanone (MEK)	ug/kg	ND	100	1.4	08/24/20 12:53	
2-Chlorotoluene	ug/kg	ND	25.0	0.81	08/24/20 12:53	
2-Hexanone	ug/kg	ND	100	4.5	08/24/20 12:53	N2
4-Chlorotoluene	ug/kg	ND	25.0	0.81	08/24/20 12:53	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	100	2.9	08/24/20 12:53	N2
Acetone	ug/kg	ND	250	13.6	08/24/20 12:53	
Acetonitrile	ug/kg	ND	200	9.9	08/24/20 12:53	
Acrolein	ug/kg	ND	250	7.4	08/24/20 12:53	
Acrylonitrile	ug/kg	ND	100	1.1	08/24/20 12:53	
Benzene	ug/kg	ND	5.0	0.81	08/24/20 12:53	
Bromobenzene	ug/kg	ND	25.0	0.78	08/24/20 12:53	
Bromochloromethane	ug/kg	ND	25.0	0.61	08/24/20 12:53	
Bromodichloromethane	ug/kg	ND	25.0	0.79	08/24/20 12:53	
Bromoform	ug/kg	ND	25.0	0.60	08/24/20 12:53	
Bromomethane	ug/kg	ND	125	0.78	08/24/20 12:53	N2
Carbon disulfide	ug/kg	ND	100	1.6	08/24/20 12:53	
Carbon tetrachloride	ug/kg	ND	25.0	1.4	08/24/20 12:53	
Chlorobenzene	ug/kg	ND	25.0	0.76	08/24/20 12:53	
Chloroethane	ug/kg	ND	25.0	1.4	08/24/20 12:53	

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QUALITY CONTROL DATA

Project: Samples for Re-sample
Pace Project No.: 5249634

METHOD BLANK: 203632 Matrix: Solid
Associated Lab Samples: 5249143002, 5249143005, 5249143006, 5249143007, 5249143008, 5249143009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloroform	ug/kg	ND	25.0	1.0	08/24/20 12:53	
Chloromethane	ug/kg	ND	25.0	0.78	08/24/20 12:53	N2
cis-1,2-Dichloroethene	ug/kg	ND	25.0	0.91	08/24/20 12:53	
cis-1,3-Dichloropropene	ug/kg	ND	25.0	0.65	08/24/20 12:53	
Dibromochloromethane	ug/kg	ND	25.0	0.61	08/24/20 12:53	
Dibromomethane	ug/kg	ND	25.0	0.78	08/24/20 12:53	
Dichlorodifluoromethane	ug/kg	ND	25.0	2.1	08/24/20 12:53	
Ethyl acetate	ug/kg	ND	50.0	1.7	08/24/20 12:53	
Ethylbenzene	ug/kg	ND	25.0	1.2	08/24/20 12:53	
Isopropylbenzene (Cumene)	ug/kg	ND	25.0	1.0	08/24/20 12:53	
Methyl-tert-butyl ether	ug/kg	ND	50.0	1.2	08/24/20 12:53	
Methylene Chloride	ug/kg	ND	125	1.6	08/24/20 12:53	
n-Butylbenzene	ug/kg	ND	25.0	1.6	08/24/20 12:53	
n-Propylbenzene	ug/kg	ND	25.0	1.1	08/24/20 12:53	
Naphthalene	ug/kg	ND	25.0	0.63	08/24/20 12:53	
p-Isopropyltoluene	ug/kg	ND	25.0	5.0	08/24/20 12:53	
sec-Butylbenzene	ug/kg	ND	25.0	1.4	08/24/20 12:53	
Styrene	ug/kg	ND	25.0	0.96	08/24/20 12:53	
tert-Butylbenzene	ug/kg	ND	25.0	1.2	08/24/20 12:53	
Tetrachloroethene	ug/kg	ND	25.0	1.4	08/24/20 12:53	
Toluene	ug/kg	ND	25.0	0.87	08/24/20 12:53	
trans-1,2-Dichloroethene	ug/kg	ND	25.0	1.2	08/24/20 12:53	
trans-1,3-Dichloropropene	ug/kg	ND	25.0	0.86	08/24/20 12:53	
Trichloroethene	ug/kg	ND	25.0	1.1	08/24/20 12:53	
Trichlorofluoromethane	ug/kg	ND	25.0	1.8	08/24/20 12:53	
Vinyl acetate	ug/kg	ND	50.0	1.9	08/24/20 12:53	
Vinyl chloride	ug/kg	ND	25.0	1.8	08/24/20 12:53	
Xylene (Total)	ug/kg	ND	50.0	2.6	08/24/20 12:53	
1,2-Dichloroethane-d4 (S)	%.	108	76-127		08/24/20 12:53	
4-Bromofluorobenzene (S)	%.	92	80-120		08/24/20 12:53	
Dibromofluoromethane (S)	%.	110	78-126		08/24/20 12:53	
Toluene-d8 (S)	%.	97	80-120		08/24/20 12:53	

LABORATORY CONTROL SAMPLE: 203633

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	500	507	101	70-130	
1,1,1-Trichloroethane	ug/kg	500	515	103	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	500	517	103	70-130	
1,1,2-Trichloroethane	ug/kg	500	483	97	70-130	
1,1-Dichloroethane	ug/kg	500	500	100	70-130	
1,1-Dichloroethene	ug/kg	500	496	99	70-130	N2
1,1-Dichloropropene	ug/kg	500	488	98	70-130	
1,2,3-Trichlorobenzene	ug/kg	500	440	88	70-130	N2

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Samples for Re-sample
Pace Project No.: 5249634

LABORATORY CONTROL SAMPLE: 203633

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichloropropane	ug/kg	500	511	102	70-130	
1,2,4-Trichlorobenzene	ug/kg	500	431	86	70-130	
1,2,4-Trimethylbenzene	ug/kg	500	422	84	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	500	439	88	70-130	
1,2-Dibromoethane (EDB)	ug/kg	500	507	101	70-130	
1,2-Dichlorobenzene	ug/kg	500	449	90	70-130	
1,2-Dichloroethane	ug/kg	500	491	98	70-130	
1,2-Dichloropropane	ug/kg	500	497	99	70-130	
1,3,5-Trimethylbenzene	ug/kg	500	490	98	70-130	
1,3-Dichlorobenzene	ug/kg	500	474	95	50-150	
1,3-Dichloropropane	ug/kg	500	497	99	70-130	
1,4-Dichlorobenzene	ug/kg	500	457	91	50-150	
2,2-Dichloropropane	ug/kg	500	505	101	70-130	
2-Butanone (MEK)	ug/kg	1000	1010	101	50-150	
2-Chlorotoluene	ug/kg	500	486	97	70-130	
2-Hexanone	ug/kg	1000	1130	113	50-150	N2
4-Chlorotoluene	ug/kg	500	460	92	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	1000	969	97	70-130	N2
Acetone	ug/kg	1000	1070	107	50-150	
Acetonitrile	ug/kg	1000	1530	153	70-130	L1
Acrolein	ug/kg	1000	897	90	70-130	
Acrylonitrile	ug/kg	1000	1000	100	70-130	
Benzene	ug/kg	500	493	99	70-130	
Bromobenzene	ug/kg	500	500	100	70-130	
Bromochloromethane	ug/kg	500	513	103	70-130	
Bromodichloromethane	ug/kg	500	526	105	70-130	
Bromoform	ug/kg	500	499	100	70-130	
Bromomethane	ug/kg	500	580	116	50-150	N2
Carbon disulfide	ug/kg	500	480	96	70-130	
Carbon tetrachloride	ug/kg	500	534	107	70-130	
Chlorobenzene	ug/kg	500	493	99	70-130	
Chloroethane	ug/kg	500	583	117	50-150	
Chloroform	ug/kg	500	490	98	70-130	
Chloromethane	ug/kg	500	493	99	50-150	N2
cis-1,2-Dichloroethene	ug/kg	500	461	92	70-130	
cis-1,3-Dichloropropene	ug/kg	500	505	101	70-130	
Dibromochloromethane	ug/kg	500	522	104	70-130	
Dibromomethane	ug/kg	500	501	100	70-130	
Dichlorodifluoromethane	ug/kg	500	469	94	50-150	
Ethyl acetate	ug/kg	1000	967	97	70-130	
Ethylbenzene	ug/kg	500	475	95	70-130	
Isopropylbenzene (Cumene)	ug/kg	500	419	84	70-130	
Methyl-tert-butyl ether	ug/kg	500	476	95	70-130	
Methylene Chloride	ug/kg	500	468	94	70-130	
n-Butylbenzene	ug/kg	500	453	91	70-130	
n-Propylbenzene	ug/kg	500	494	99	70-130	
Naphthalene	ug/kg	500	356	71	50-150	

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QUALITY CONTROL DATA

Project: Samples for Re-sample
Pace Project No.: 5249634

LABORATORY CONTROL SAMPLE: 203633

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/kg	500	380	76	70-130	
sec-Butylbenzene	ug/kg	500	418	84	70-130	
Styrene	ug/kg	500	412	82	70-130	
tert-Butylbenzene	ug/kg	500	380	76	70-130	
Tetrachloroethene	ug/kg	500	527	105	70-130	
Toluene	ug/kg	500	488	98	70-130	
trans-1,2-Dichloroethene	ug/kg	500	462	92	70-130	
trans-1,3-Dichloropropene	ug/kg	500	506	101	70-130	
Trichloroethene	ug/kg	500	517	103	70-130	
Trichlorofluoromethane	ug/kg	500	483	97	50-150	
Vinyl acetate	ug/kg	500	510	102	70-130	
Vinyl chloride	ug/kg	500	459	92	50-150	
Xylene (Total)	ug/kg	1500	1290	86	70-130	
1,2-Dichloroethane-d4 (S)	%.			95	76-127	
4-Bromofluorobenzene (S)	%.			101	80-120	
Dibromofluoromethane (S)	%.			97	78-126	
Toluene-d8 (S)	%.			98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 203634 203635

Parameter	Units	5249043001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/kg	ND	487	497	522	545	107	110	48-135	4	20	
1,1,1-Trichloroethane	ug/kg	ND	487	497	546	550	112	111	49-123	1	23	
1,1,2,2-Tetrachloroethane	ug/kg	ND	487	497	494	527	101	106	43-135	6	26	
1,1,2-Trichloroethane	ug/kg	ND	487	497	489	499	100	100	52-138	2	21	
1,1-Dichloroethane	ug/kg	ND	487	497	517	516	106	104	61-129	0	20	
1,1-Dichloroethene	ug/kg	ND	487	497	517	526	106	106	41-127	2	28	N2
1,1-Dichloropropene	ug/kg	ND	487	497	513	523	105	105	44-119	2	25	
1,2,3-Trichlorobenzene	ug/kg	ND	487	497	438	488	90	98	10-110	11	30	N2
1,2,3-Trichloropropane	ug/kg	ND	487	497	478	513	98	103	46-128	7	24	
1,2,4-Trichlorobenzene	ug/kg	ND	487	497	429	480	88	97	11-130	11	38	
1,2,4-Trimethylbenzene	ug/kg	ND	487	497	431	468	88	94	24-153	8	25	
1,2-Dibromo-3-chloropropane	ug/kg	ND	487	497	417	499	85	101	30-146	18	26	
1,2-Dibromoethane (EDB)	ug/kg	ND	487	497	488	513	100	103	51-136	5	20	
1,2-Dichlorobenzene	ug/kg	ND	487	497	462	489	94	98	31-137	6	25	
1,2-Dichloroethane	ug/kg	ND	487	497	508	507	104	102	65-124	0	20	
1,2-Dichloropropane	ug/kg	ND	487	497	519	528	106	106	64-124	2	20	
1,3,5-Trimethylbenzene	ug/kg	ND	487	497	477	528	98	106	31-140	10	24	
1,3-Dichlorobenzene	ug/kg	ND	487	497	488	526	100	106	30-136	7	25	
1,3-Dichloropropane	ug/kg	ND	487	497	530	539	109	109	57-127	2	21	
1,4-Dichlorobenzene	ug/kg	ND	487	497	465	505	95	102	36-131	8	24	
2,2-Dichloropropane	ug/kg	ND	487	497	483	504	99	101	45-124	4	17	
2-Butanone (MEK)	ug/kg	ND	976	992	992	995	102	100	35-149	0	22	

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QUALITY CONTROL DATA

Project: Samples for Re-sample
Pace Project No.: 5249634

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 203634 203635

Parameter	Units	5249043001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2-Chlorotoluene	ug/kg	ND	487	497	491	503	101	101	37-129	2	24	
2-Hexanone	ug/kg	ND	976	992	1050	1100	108	111	34-134	5	23	N2
4-Chlorotoluene	ug/kg	ND	487	497	452	488	93	98	32-131	8	23	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	976	992	893	941	92	95	49-137	5	24	N2
Acetone	ug/kg	ND	976	992	1040	1070	106	108	12-177	3	34	
Acetonitrile	ug/kg	ND	976	992	1500	1480	153	149	41-152	1	38	M0
Acrolein	ug/kg	ND	976	992	875	918	90	92	10-200	5	48	
Acrylonitrile	ug/kg	ND	976	992	923	1090	95	110	54-136	17	26	
Benzene	ug/kg	ND	487	497	517	531	106	107	61-122	3	20	
Bromobenzene	ug/kg	ND	487	497	524	546	107	110	38-133	4	21	
Bromochloromethane	ug/kg	ND	487	497	504	490	103	99	70-130	3	19	
Bromodichloromethane	ug/kg	ND	487	497	558	575	114	116	53-131	3	21	
Bromoform	ug/kg	ND	487	497	497	545	102	110	49-127	9	22	
Bromomethane	ug/kg	ND	487	497	613	566	126	114	15-168	8	22	N2
Carbon disulfide	ug/kg	ND	487	497	495	511	102	103	43-118	3	33	
Carbon tetrachloride	ug/kg	ND	487	497	547	562	112	113	39-121	3	23	
Chlorobenzene	ug/kg	ND	487	497	507	525	104	106	46-130	4	21	
Chloroethane	ug/kg	ND	487	497	634	568	130	114	6-154	11	86	
Chloroform	ug/kg	ND	487	497	522	513	107	103	62-128	2	19	
Chloromethane	ug/kg	ND	487	497	526	550	108	111	50-132	4	25	N2
cis-1,2-Dichloroethene	ug/kg	ND	487	497	481	512	99	103	61-127	6	20	
cis-1,3-Dichloropropene	ug/kg	ND	487	497	526	537	108	108	55-125	2	21	
Dibromochloromethane	ug/kg	ND	487	497	535	559	110	113	53-133	4	21	
Dibromomethane	ug/kg	ND	487	497	525	536	108	108	64-127	2	20	
Dichlorodifluoromethane	ug/kg	ND	487	497	466	518	96	104	10-184	10	69	
Ethyl acetate	ug/kg	ND	976	992	930	995	95	100	10-155	7	40	
Ethylbenzene	ug/kg	ND	487	497	482	514	99	104	40-129	7	23	
Isopropylbenzene (Cumene)	ug/kg	ND	487	497	415	443	85	89	42-121	6	24	
Methyl-tert-butyl ether	ug/kg	ND	487	497	478	510	98	103	60-132	6	27	
Methylene Chloride	ug/kg	ND	487	497	503	514	103	103	46-146	2	39	
n-Butylbenzene	ug/kg	ND	487	497	458	504	94	102	20-127	10	29	
n-Propylbenzene	ug/kg	ND	487	497	492	516	101	104	33-126	5	25	
Naphthalene	ug/kg	ND	487	497	341	401	70	81	8-150	16	31	
p-Isopropyltoluene	ug/kg	ND	487	497	392	445	80	90	27-131	13	26	
sec-Butylbenzene	ug/kg	ND	487	497	420	459	86	92	27-130	9	26	
Styrene	ug/kg	ND	487	497	420	457	86	92	41-132	9	22	
tert-Butylbenzene	ug/kg	ND	487	497	392	445	80	90	36-129	13	25	
Tetrachloroethene	ug/kg	ND	487	497	524	552	107	111	36-128	5	23	
Toluene	ug/kg	ND	487	497	509	526	104	106	50-125	3	20	
trans-1,2-Dichloroethene	ug/kg	ND	487	497	472	502	97	101	51-127	6	31	
trans-1,3-Dichloropropene	ug/kg	ND	487	497	526	536	108	108	55-126	2	21	
Trichloroethene	ug/kg	ND	487	497	531	547	109	110	47-132	3	20	
Trichlorofluoromethane	ug/kg	ND	487	497	590	532	121	107	14-140	10	24	
Vinyl acetate	ug/kg	ND	487	497	427	438	88	88	10-127	2	50	

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QUALITY CONTROL DATA

Project: Samples for Re-sample
Pace Project No.: 5249634

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 203634 203635

Parameter	Units	5249043001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Vinyl chloride	ug/kg	ND	487	497	448	504	92	101	35-130	12	54	
Xylene (Total)	ug/kg	ND	1460	1490	1330	1400	91	94	70-130	5	32	
1,2-Dichloroethane-d4 (S)	%.						101	102	76-127			
4-Bromofluorobenzene (S)	%.						100	100	80-120			
Dibromofluoromethane (S)	%.						102	96	78-126			
Toluene-d8 (S)	%.						100	100	80-120			

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QUALITY CONTROL DATA

Project: Samples for Re-sample
Pace Project No.: 5249634

QC Batch: 48556
QC Batch Method: EPA 5035A
Analysis Method: EPA 8260B
Analysis Description: 8260B MSV 5035A Med Level
Laboratory: Pace Analytical Services - Dayton

Associated Lab Samples: 5249198005

METHOD BLANK: 204024
Matrix: Solid
Associated Lab Samples: 5249198005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	25.0	0.60	08/25/20 12:23	
1,1,1-Trichloroethane	ug/kg	ND	25.0	1.2	08/25/20 12:23	
1,1,2,2-Tetrachloroethane	ug/kg	ND	25.0	0.56	08/25/20 12:23	
1,1,2-Trichloroethane	ug/kg	ND	25.0	0.80	08/25/20 12:23	
1,1-Dichloroethane	ug/kg	ND	25.0	1.1	08/25/20 12:23	
1,1-Dichloroethene	ug/kg	ND	25.0	1.7	08/25/20 12:23	N2
1,1-Dichloropropene	ug/kg	ND	25.0	1.3	08/25/20 12:23	
1,2,3-Trichlorobenzene	ug/kg	ND	25.0	0.58	08/25/20 12:23	N2
1,2,3-Trichloropropane	ug/kg	ND	25.0	1.3	08/25/20 12:23	
1,2,4-Trichlorobenzene	ug/kg	ND	25.0	0.67	08/25/20 12:23	
1,2,4-Trimethylbenzene	ug/kg	ND	25.0	0.83	08/25/20 12:23	
1,2-Dibromo-3-chloropropane	ug/kg	ND	50.0	0.80	08/25/20 12:23	
1,2-Dibromoethane (EDB)	ug/kg	ND	25.0	0.57	08/25/20 12:23	
1,2-Dichlorobenzene	ug/kg	ND	25.0	0.69	08/25/20 12:23	
1,2-Dichloroethane	ug/kg	2.9J	25.0	1.0	08/25/20 12:23	
1,2-Dichloropropane	ug/kg	ND	25.0	0.71	08/25/20 12:23	
1,3,5-Trimethylbenzene	ug/kg	ND	25.0	0.92	08/25/20 12:23	
1,3-Dichlorobenzene	ug/kg	ND	25.0	0.69	08/25/20 12:23	
1,3-Dichloropropane	ug/kg	ND	25.0	0.63	08/25/20 12:23	
1,4-Dichlorobenzene	ug/kg	ND	25.0	0.57	08/25/20 12:23	
2,2-Dichloropropane	ug/kg	ND	25.0	1.5	08/25/20 12:23	
2-Butanone (MEK)	ug/kg	ND	100	1.4	08/25/20 12:23	
2-Chlorotoluene	ug/kg	ND	25.0	0.81	08/25/20 12:23	
2-Hexanone	ug/kg	ND	100	4.5	08/25/20 12:23	N2
4-Chlorotoluene	ug/kg	ND	25.0	0.81	08/25/20 12:23	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	100	2.9	08/25/20 12:23	N2
Acetone	ug/kg	ND	250	13.6	08/25/20 12:23	
Acetonitrile	ug/kg	ND	200	9.9	08/25/20 12:23	
Acrolein	ug/kg	ND	250	7.4	08/25/20 12:23	
Acrylonitrile	ug/kg	ND	100	1.1	08/25/20 12:23	
Benzene	ug/kg	ND	5.0	0.81	08/25/20 12:23	
Bromobenzene	ug/kg	ND	25.0	0.78	08/25/20 12:23	
Bromochloromethane	ug/kg	ND	25.0	0.61	08/25/20 12:23	
Bromodichloromethane	ug/kg	ND	25.0	0.79	08/25/20 12:23	
Bromoform	ug/kg	ND	25.0	0.60	08/25/20 12:23	
Bromomethane	ug/kg	ND	125	0.78	08/25/20 12:23	N2
Carbon disulfide	ug/kg	ND	100	1.6	08/25/20 12:23	
Carbon tetrachloride	ug/kg	ND	25.0	1.4	08/25/20 12:23	
Chlorobenzene	ug/kg	ND	25.0	0.76	08/25/20 12:23	
Chloroethane	ug/kg	ND	25.0	1.4	08/25/20 12:23	

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QUALITY CONTROL DATA

Project: Samples for Re-sample
Pace Project No.: 5249634

METHOD BLANK: 204024 Matrix: Solid
Associated Lab Samples: 5249198005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloroform	ug/kg	ND	25.0	1.0	08/25/20 12:23	
Chloromethane	ug/kg	ND	25.0	0.78	08/25/20 12:23	N2
cis-1,2-Dichloroethene	ug/kg	ND	25.0	0.91	08/25/20 12:23	
cis-1,3-Dichloropropene	ug/kg	ND	25.0	0.65	08/25/20 12:23	
Dibromochloromethane	ug/kg	ND	25.0	0.61	08/25/20 12:23	
Dibromomethane	ug/kg	ND	25.0	0.78	08/25/20 12:23	
Dichlorodifluoromethane	ug/kg	ND	25.0	2.1	08/25/20 12:23	
Ethyl acetate	ug/kg	ND	50.0	1.7	08/25/20 12:23	
Ethylbenzene	ug/kg	ND	25.0	1.2	08/25/20 12:23	
Isopropylbenzene (Cumene)	ug/kg	ND	25.0	1.0	08/25/20 12:23	
Methyl-tert-butyl ether	ug/kg	ND	50.0	1.2	08/25/20 12:23	
Methylene Chloride	ug/kg	ND	125	1.6	08/25/20 12:23	
n-Butylbenzene	ug/kg	ND	25.0	1.6	08/25/20 12:23	
n-Propylbenzene	ug/kg	ND	25.0	1.1	08/25/20 12:23	
Naphthalene	ug/kg	ND	25.0	0.63	08/25/20 12:23	
p-Isopropyltoluene	ug/kg	ND	25.0	5.0	08/25/20 12:23	
sec-Butylbenzene	ug/kg	ND	25.0	1.4	08/25/20 12:23	
Styrene	ug/kg	ND	25.0	0.96	08/25/20 12:23	
tert-Butylbenzene	ug/kg	ND	25.0	1.2	08/25/20 12:23	
Tetrachloroethene	ug/kg	ND	25.0	1.4	08/25/20 12:23	
Toluene	ug/kg	ND	25.0	0.87	08/25/20 12:23	
trans-1,2-Dichloroethene	ug/kg	ND	25.0	1.2	08/25/20 12:23	
trans-1,3-Dichloropropene	ug/kg	ND	25.0	0.86	08/25/20 12:23	
Trichloroethene	ug/kg	ND	25.0	1.1	08/25/20 12:23	
Trichlorofluoromethane	ug/kg	ND	25.0	1.8	08/25/20 12:23	
Vinyl acetate	ug/kg	ND	50.0	1.9	08/25/20 12:23	
Vinyl chloride	ug/kg	ND	25.0	1.8	08/25/20 12:23	
Xylene (Total)	ug/kg	ND	50.0	2.6	08/25/20 12:23	
1,2-Dichloroethane-d4 (S)	%.	111	76-127		08/25/20 12:23	
4-Bromofluorobenzene (S)	%.	94	80-120		08/25/20 12:23	
Dibromofluoromethane (S)	%.	112	78-126		08/25/20 12:23	
Toluene-d8 (S)	%.	97	80-120		08/25/20 12:23	

LABORATORY CONTROL SAMPLE: 204025

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	500	498	100	70-130	
1,1,1-Trichloroethane	ug/kg	500	524	105	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	500	495	99	70-130	
1,1,2-Trichloroethane	ug/kg	500	471	94	70-130	
1,1-Dichloroethane	ug/kg	500	488	98	70-130	
1,1-Dichloroethene	ug/kg	500	471	94	70-130	N2
1,1-Dichloropropene	ug/kg	500	485	97	70-130	
1,2,3-Trichlorobenzene	ug/kg	500	417	83	70-130	N2

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QUALITY CONTROL DATA

Project: Samples for Re-sample
Pace Project No.: 5249634

LABORATORY CONTROL SAMPLE: 204025

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,3-Trichloropropane	ug/kg	500	489	98	70-130	
1,2,4-Trichlorobenzene	ug/kg	500	401	80	70-130	
1,2,4-Trimethylbenzene	ug/kg	500	403	81	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	500	416	83	70-130	
1,2-Dibromoethane (EDB)	ug/kg	500	485	97	70-130	
1,2-Dichlorobenzene	ug/kg	500	435	87	70-130	
1,2-Dichloroethane	ug/kg	500	471	94	70-130	
1,2-Dichloropropane	ug/kg	500	494	99	70-130	
1,3,5-Trimethylbenzene	ug/kg	500	459	92	70-130	
1,3-Dichlorobenzene	ug/kg	500	456	91	50-150	
1,3-Dichloropropane	ug/kg	500	514	103	70-130	
1,4-Dichlorobenzene	ug/kg	500	448	90	50-150	
2,2-Dichloropropane	ug/kg	500	498	100	70-130	
2-Butanone (MEK)	ug/kg	1000	963	96	50-150	
2-Chlorotoluene	ug/kg	500	441	88	70-130	
2-Hexanone	ug/kg	1000	1110	111	50-150	N2
4-Chlorotoluene	ug/kg	500	437	87	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	1000	937	94	70-130	N2
Acetone	ug/kg	1000	1050	105	50-150	
Acetonitrile	ug/kg	1000	1530	153	70-130	L1
Acrolein	ug/kg	1000	884	88	70-130	
Acrylonitrile	ug/kg	1000	971	97	70-130	
Benzene	ug/kg	500	494	99	70-130	
Bromobenzene	ug/kg	500	474	95	70-130	
Bromochloromethane	ug/kg	500	487	97	70-130	
Bromodichloromethane	ug/kg	500	539	108	70-130	
Bromoform	ug/kg	500	481	96	70-130	
Bromomethane	ug/kg	500	612	122	50-150	N2
Carbon disulfide	ug/kg	500	460	92	70-130	
Carbon tetrachloride	ug/kg	500	550	110	70-130	
Chlorobenzene	ug/kg	500	473	95	70-130	
Chloroethane	ug/kg	500	664	133	50-150	
Chloroform	ug/kg	500	486	97	70-130	
Chloromethane	ug/kg	500	520	104	50-150	N2
cis-1,2-Dichloroethene	ug/kg	500	473	95	70-130	
cis-1,3-Dichloropropene	ug/kg	500	497	99	70-130	
Dibromochloromethane	ug/kg	500	514	103	70-130	
Dibromomethane	ug/kg	500	517	103	70-130	
Dichlorodifluoromethane	ug/kg	500	475	95	50-150	
Ethyl acetate	ug/kg	1000	875	88	70-130	
Ethylbenzene	ug/kg	500	458	92	70-130	
Isopropylbenzene (Cumene)	ug/kg	500	391	78	70-130	
Methyl-tert-butyl ether	ug/kg	500	450	90	70-130	
Methylene Chloride	ug/kg	500	471	94	70-130	
n-Butylbenzene	ug/kg	500	445	89	70-130	
n-Propylbenzene	ug/kg	500	467	93	70-130	
Naphthalene	ug/kg	500	336	67	50-150	

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QUALITY CONTROL DATA

Project: Samples for Re-sample
Pace Project No.: 5249634

LABORATORY CONTROL SAMPLE: 204025

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Isopropyltoluene	ug/kg	500	369	74	70-130	
sec-Butylbenzene	ug/kg	500	400	80	70-130	
Styrene	ug/kg	500	379	76	70-130	
tert-Butylbenzene	ug/kg	500	369	74	70-130	
Tetrachloroethene	ug/kg	500	500	100	70-130	
Toluene	ug/kg	500	497	99	70-130	
trans-1,2-Dichloroethene	ug/kg	500	457	91	70-130	
trans-1,3-Dichloropropene	ug/kg	500	498	100	70-130	
Trichloroethene	ug/kg	500	512	102	70-130	
Trichlorofluoromethane	ug/kg	500	557	111	50-150	
Vinyl acetate	ug/kg	500	471	94	70-130	
Vinyl chloride	ug/kg	500	465	93	50-150	
Xylene (Total)	ug/kg	1500	1260	84	70-130	
1,2-Dichloroethane-d4 (S)	%.			102	76-127	
4-Bromofluorobenzene (S)	%.			96	80-120	
Dibromofluoromethane (S)	%.			100	78-126	
Toluene-d8 (S)	%.			102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 204026 204027

Parameter	Units	5249083001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/kg	ND	592	561	569	584	96	104	48-135	3	20	
1,1,1-Trichloroethane	ug/kg	ND	592	561	597	609	101	109	49-123	2	23	
1,1,2,2-Tetrachloroethane	ug/kg	ND	592	561	561	557	95	99	43-135	1	26	
1,1,2-Trichloroethane	ug/kg	ND	592	561	546	556	92	99	52-138	2	21	
1,1-Dichloroethane	ug/kg	ND	592	561	568	566	96	101	61-129	0	20	
1,1-Dichloroethene	ug/kg	ND	592	561	557	550	94	98	41-127	1	28	N2
1,1-Dichloropropene	ug/kg	ND	592	561	578	566	98	101	44-119	2	25	
1,2,3-Trichlorobenzene	ug/kg	ND	592	561	497	500	84	89	10-110	1	30	N2
1,2,3-Trichloropropane	ug/kg	ND	592	561	547	560	92	100	46-128	2	24	
1,2,4-Trichlorobenzene	ug/kg	ND	592	561	477	498	81	89	11-130	4	38	
1,2,4-Trimethylbenzene	ug/kg	ND	592	561	483	481	82	86	24-153	1	25	
1,2-Dibromo-3-chloropropane	ug/kg	ND	592	561	499	506	84	90	30-146	1	26	
1,2-Dibromoethane (EDB)	ug/kg	ND	592	561	562	564	95	101	51-136	0	20	
1,2-Dichlorobenzene	ug/kg	ND	592	561	526	522	89	93	31-137	1	25	
1,2-Dichloroethane	ug/kg	ND	592	561	541	555	91	99	65-124	3	20	
1,2-Dichloropropane	ug/kg	ND	592	561	559	560	95	100	64-124	0	20	
1,3,5-Trimethylbenzene	ug/kg	ND	592	561	542	554	92	99	31-140	2	24	
1,3-Dichlorobenzene	ug/kg	ND	592	561	553	559	93	100	30-136	1	25	
1,3-Dichloropropane	ug/kg	ND	592	561	558	572	94	102	57-127	2	21	
1,4-Dichlorobenzene	ug/kg	ND	592	561	546	527	92	94	36-131	3	24	
2,2-Dichloropropane	ug/kg	ND	592	561	536	521	91	93	45-124	3	17	
2-Butanone (MEK)	ug/kg	ND	1180	1120	1050	1060	89	95	35-149	1	22	

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QUALITY CONTROL DATA

Project: Samples for Re-sample
Pace Project No.: 5249634

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 204026 204027

Parameter	Units	5249083001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2-Chlorotoluene	ug/kg	ND	592	561	541	534	91	95	37-129	1	24	
2-Hexanone	ug/kg	ND	1180	1120	1130	1170	96	104	34-134	3	23	N2
4-Chlorotoluene	ug/kg	ND	592	561	506	514	85	92	32-131	2	23	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	1180	1120	967	1030	82	92	49-137	6	24	N2
Acetone	ug/kg	ND	1180	1120	1070	1090	91	97	12-177	1	34	
Acetonitrile	ug/kg	ND	1180	1120	1530	1510	129	135	41-152	1	38	
Acrolein	ug/kg	ND	1180	1120	1040	866	87	77	10-200	18	48	
Acrylonitrile	ug/kg	ND	1180	1120	1120	1030	94	92	54-136	8	26	
Benzene	ug/kg	ND	592	561	582	579	98	103	61-122	1	20	
Bromobenzene	ug/kg	ND	592	561	589	581	100	104	38-133	1	21	
Bromochloromethane	ug/kg	ND	592	561	565	573	96	102	70-130	1	19	
Bromodichloromethane	ug/kg	ND	592	561	629	628	106	112	53-131	0	21	
Bromoform	ug/kg	ND	592	561	566	587	96	105	49-127	4	22	
Bromomethane	ug/kg	ND	592	561	697	640	118	114	15-168	8	22	N2
Carbon disulfide	ug/kg	ND	592	561	534	524	90	93	43-118	2	33	
Carbon tetrachloride	ug/kg	ND	592	561	626	625	106	112	39-121	0	23	
Chlorobenzene	ug/kg	ND	592	561	574	574	97	102	46-130	0	21	
Chloroethane	ug/kg	ND	592	561	847	707	143	126	6-154	18	86	
Chloroform	ug/kg	ND	592	561	586	574	99	102	62-128	2	19	
Chloromethane	ug/kg	ND	592	561	582	577	98	103	50-132	1	25	N2
cis-1,2-Dichloroethene	ug/kg	ND	592	561	518	528	88	94	61-127	2	20	
cis-1,3-Dichloropropene	ug/kg	ND	592	561	552	561	93	100	55-125	2	21	
Dibromochloromethane	ug/kg	ND	592	561	598	613	101	109	53-133	2	21	
Dibromomethane	ug/kg	ND	592	561	581	564	98	101	64-127	3	20	
Dichlorodifluoromethane	ug/kg	ND	592	561	568	550	96	98	10-184	3	69	
Ethyl acetate	ug/kg	ND	1180	1120	1020	999	86	89	10-155	2	40	
Ethylbenzene	ug/kg	ND	592	561	521	547	88	97	40-129	5	23	
Isopropylbenzene (Cumene)	ug/kg	ND	592	561	451	474	76	85	42-121	5	24	
Methyl-tert-butyl ether	ug/kg	ND	592	561	536	540	91	96	60-132	1	27	
Methylene Chloride	ug/kg	ND	592	561	533	525	90	94	46-146	2	39	
n-Butylbenzene	ug/kg	ND	592	561	516	527	87	94	20-127	2	29	
n-Propylbenzene	ug/kg	ND	592	561	542	548	92	98	33-126	1	25	
Naphthalene	ug/kg	ND	592	561	396	403	67	72	8-150	2	31	
p-Isopropyltoluene	ug/kg	ND	592	561	454	461	77	82	27-131	1	26	
sec-Butylbenzene	ug/kg	ND	592	561	476	482	80	86	27-130	1	26	
Styrene	ug/kg	ND	592	561	459	490	78	87	41-132	7	22	
tert-Butylbenzene	ug/kg	ND	592	561	454	461	77	82	36-129	1	25	
Tetrachloroethene	ug/kg	ND	592	561	590	621	97	108	36-128	5	23	
Toluene	ug/kg	ND	592	561	567	573	96	102	50-125	1	20	
trans-1,2-Dichloroethene	ug/kg	ND	592	561	541	517	91	92	51-127	5	31	
trans-1,3-Dichloropropene	ug/kg	ND	592	561	552	562	93	100	55-126	2	21	
Trichloroethene	ug/kg	ND	592	561	590	610	100	109	47-132	3	20	
Trichlorofluoromethane	ug/kg	ND	592	561	649	606	110	108	14-140	7	24	
Vinyl acetate	ug/kg	ND	592	561	418	383	71	68	10-127	9	50	

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QUALITY CONTROL DATA

Project: Samples for Re-sample
Pace Project No.: 5249634

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 204026 204027

Parameter	Units	5249083001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Vinyl chloride	ug/kg	ND	592	561	562	537	95	96	35-130	5	54	
Xylene (Total)	ug/kg	ND	1780	1690	1460	1500	82	89	70-130	3	32	
1,2-Dichloroethane-d4 (S)	%.						95	92	76-127			
4-Bromofluorobenzene (S)	%.						96	98	80-120			
Dibromofluoromethane (S)	%.						99	97	78-126			
Toluene-d8 (S)	%.						99	101	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Pace Analytical Services, LLC
25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALIFIERS

Project: Samples for Re-sample
Pace Project No.: 5249634

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

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25 Holiday Drive
Englewood, OH 45322
(937)832-8242

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Samples for Re-sample
Pace Project No.: 5249634

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
5249143002	**BLA6WNSS**	EPA 5035A	48453	EPA 8260B	48554
5249143005	**BLB6PBWSS**	EPA 5035A	48453	EPA 8260B	48554
5249143006	**BLB6WNSS**	EPA 5035A	48453	EPA 8260B	48554
5249143007	**BLB6PBESS**	EPA 5035A	48453	EPA 8260B	48554
5249143008	**BLB6WESS**	EPA 5035A	48453	EPA 8260B	48554
5249143009	**BLB6WSSS**	EPA 5035A	48453	EPA 8260B	48554
5249198005	**BR8WE2SS**	EPA 5035A	48556	EPA 8260B	48630
5249143002	**BLA6WNSS**	ASTM D2216	48589		
5249143005	**BLB6PBWSS**	ASTM D2216	48589		
5249143006	**BLB6WNSS**	ASTM D2216	48589		
5249143007	**BLB6PBESS**	ASTM D2216	48589		
5249143008	**BLB6WESS**	ASTM D2216	48589		
5249143009	**BLB6WSSS**	ASTM D2216	48589		
5249198005	**BR8WE2SS**	ASTM D2216	48616		

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CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Wor

ALL SHAD

WO# : 5249143

5249143

Company: MAKSolve

Billing Information: 261 Regency Ridge Dr. Dayton, OH 45459

Address: 261 Regency Ridge Drive

Report To: barb@maksolve.com

Email To: barb@maksolve.com

Copy To: john@maksolve.com

Site Collection Info/Address: Spinnaker

Customer Project Name/Number: Spinnaker Ø84-2Ø

State: OH County/City: Troy Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET

Phone: 3072516465 Email:

Site/Facility ID #:

Compliance Monitoring? [ ] Yes [X] No

Collected By (print): Barb McGavern

Purchase Order #:

Quote #: 00076550

DW PWS ID #:

DW Location Code:

Collected By (signature): Barb McGavern

Turnaround Date Required: RUSH 8am on 8/25/20

Immediately Packed on Ice: [X] Yes [ ] No

Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [X] Hold: 20 days

Rush: [ ] Same Day [X] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis: _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Ty

U U

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Analyses

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	TCE (8260)	PCE (8260)
BLA6WWSS	SL	Grab	8/24/20	1220					X	X
BLA6WNSS				1223					X	X
BLA6WESS				1226					X	X
BLA6PBSS				1231					X	X
BLB6PBWSS				1234					X	X
BLB6WNSS				1237					X	X
BLB6PBESS				1240					X	X
BLB6WESS				1242					X	X
BLB6WSSS				1244					X	X

Collected only one (1) jar per sample.

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signature Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
Cl Strips: _____			
Sample pH Acceptable	Y	N	NA
pH Strips: _____			
Sulfide Present	Y	N	NA
Lead Acetate Strips: _____			

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards: Level 4 data pkg. RUSH analysis

Type of Ice Used: Wet Blue Dry None

Packing Material Used: Plastic bag

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2519615

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: _____
Cooler 1 Temp Upon Receipt: 17 oC
Cooler 1 Therm Corr. Factor: _____ oC
Cooler 1 Corrected Temp: _____ oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
[signature]	8/24/2020 1433	Matt	8/24 1430
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: _____ of: _____

APPENDIX C

Disposal Solutions Soil Excavation and Backfill
Trucking Logs/Manifests

Spinnaker Coating

Backfill to 518 E Water St. Troy, OH

8/28/2020 Thru 9/2/2020

Stone Fill

Date	Truck #	Ticket #	Tons
8.28.2020	636	6388622	19.87
	651	6388623	19.75
	629	6388621	20.03
	638	6388614	21.68
	629	6388612	18.97
	636	6388613	19.17
	627	6388610	20.35
	638	6388595	23.93
	651	6388608	19.82
	646	6388609	21.54
	646	6388589	23.30
	629	6388593	21.19
	636	6388594	20.81
	651	6388598	20.20
	646	6388599	21.80
	651	6388588	21.67
	638	6388607	23.28
	636	6388605	21.23
	629	6388604	21.00
	651	6388615	17.48
	646	6388616	21.17
	627	6388618	20.08
9.1.2020	638	6388697	23.93
	646	6388696	22.52
	651	6388695	21.37
	629	6388693	20.91
	4	6388694	25.09
	646	6388690	21.99
	638	6388688	23.17
	651	6388687	20.92
	4	6388685	24.70
	629	6388684	21.18
	646	6388682	22.61
	651	6388681	21.60
	638	6388680	23.55
	629	6388677	21.45
	4	6388678	24.56
	646	6388676	22.38
	651	6388675	20.99

		638		6388674		25.14	
		4		6388672		25.13	
		651		6388671		21.46	
		638		6388670		23.93	
		4		6388662		24.96	
		4		6388668		24.81	
		651		6388667		21.50	
		638		6388661		24.38	
		651		6388660		21.47	
		4		6388658		24.38	
		638		6388657		23.89	
		651		6388656		21.03	
		4		6388653		24.75	
		638		6388707		23.62	
		4		6388703		25.41	
		4		6388713		24.56	
		651		6388702		21.15	
		629		6388701		21.30	
		646		6388704		22.85	
		627		6388673		21.95	
		627		6388669		22.00	
		627		6388663		22.00	
		627		6388655		22.13	
		627		6388679		21.79	
		627		6388686		22.02	
		627		6388700		22.10	
		627		6388692		21.85	
		627		6388709		21.83	
		651		6388711		21.19	
		629		6388712		20.70	
		638		6388714		23.86	
9.2.2020		638		6388728		24.47	
		651		6388727		21.08	
		646		6388725		22.35	
		638		6388776		23.38	
		5		6388774		23.97	
		5		6388765		22.69	
		5		6388750		24.17	
		5		6388734		23.97	
		5		6388724		23.66	
		646		6388773		22.80	
		4		6388772		24.84	
		651		6388770		20.81	
		629		6388768		21.27	

		629		6388754		21.01	
		629		6388746		21.06	
		629		6388731		20.88	
		629		6388723		21.00	
		627		6388767		21.63	
		627		6388753		22.05	
		627		6388745		21.67	
		627		6388730		21.69	
		627		6388722		22.47	
		638		6388766		23.94	
		646		6388764		23.05	
		4		6388761		24.64	
		651		6388760		21.62	
		638		6388752		24.43	
		646		6388749		22.92	
		651		6388748		20.92	
		4		6388747		24.88	
		638		6388742		23.93	
		646		6388735		21.77	
		651		6388736		21.25	
		4		6388721		24.87	
		4		6388732		24.76	
		651		6388784		21.25	
		4		6388785		24.76	
				Top Soil			
		651		64		22.00	
		627		73		22.00	
		629		75		22.00	
		646		76		22.00	
						2480.29	
					Total Yards:	1,654	

Spinnaker Coating

Contaminated Soil to New Paris Pike LF

8/24/2020 Thru 8/28/2020

Date	Truck #	Manifest #	Tons
8.24.2020	651	411604	17.76
	627	411607	21.93
	4	411606	27.17
	6	411605	22.23
	646	411608	19.58
	7	411609	23.09
	7	411610	23.90
	15	411611	23.89
	14	411612	21.56
	629	411614	21.21
	651	411618	21.03
	638	411613	34.41
	3	411615	21.54
	4	411619	21.22
	184	411616	20.87
	86	411617	17.05
	627	411620	23.22
	6	411621	20.44
	646	411622	22.50
	7	411623	21.21
	7	411624	17.43
	15	411625	22.86
	14	411626	26.86
	638	411627	23.14
	86	411628	18.88
	651	411629	21.06
	3	411630	18.95
	184	411631	18.77
	4	411632	29.53
	627	411633	22.07
	629	411634	17.96
	646	411637	21.10
	6	411635	21.51
	7	411636	25.99
8.25.2020	646	411638	18.89
	638	411639	23.30
	7	411640	21.21
	86	411641	20.18
	4	411642	28.68

		89		411643	23.25	
		15		411644	20.28	
		627		411645	21.83	
		7		411646	21.85	
		6		411647	24.81	
		646		411648	23.56	
		7		411649	23.27	
		629		411650	20.23	
		86		411651	19.82	
		638		411652	23.73	
		4		411653	27.37	
		89		411654	22.64	
		15		411655	24.45	
		7		411656	27.14	
		627		411657	22.57	
		6		411658	21.25	
		7		411659	27.09	
		646		411660	22.22	
		629		411661	23.00	
		86		411662	19.73	
		638		411663	26.02	
		4		411664	28.67	
		89		411665	20.91	
		15		411666	20.88	
		627		411667	25.02	
		7		411668	24.93	
		6		411669	18.38	
8.27.2020		627		411670	25.71	
		646		411671	20.42	
		4		411672	28.68	
		17		411674	22.51	
		2135		411673	23.40	
		14		411675	22.65	
		638		411677	22.84	
		629		411676	20.61	
		627		411678	26.15	
		646		411679	26.83	
		4		411680	26.35	
		2135		411681	24.77	
		14		411682	20.50	
		17		411683	20.04	
		627		411685	22.29	
		638		411684	25.01	
		646		411687	21.98	

		4		411688		30.85	
		629		411686		17.13	
		2135		411689		23.26	
		14		411690		27.63	
		17		411691		25.88	
		638		411692		24.20	
		627		411693		21.92	
8.28.2020		627		411694		26.05	
		646		411695		24.07	
		651		411696		22.91	
		629		411697		19.79	
		636		411698		16.22	
		638		411699		24.15	
		627		411700		25.44	
						2219.32	
					Total Yards:	**1,480**	