88th Street Properties, LLC

IEC Engineered System Response Action Report

Denton 10 Main Street, LLC Propert
PI#00178
Case #15-04-17-1203-44
10 Main Street
Woodbridge, Middlesex County, New Jersey

February 2016

Tellurian Environmental Management
P.O. Box 148
Flemington, NJ 08822

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Denton 10 Main Street LLC
10 Main Street
Woodbridge, Middlesex County
New Jersey

February 2016

Program Interest #001783
Case # 15-04-17-1203-44

Prepared for:

88th Street Properties
50 East Loop Road
Staten Island, New York

Prepared by:

Tellurian Environmental Management LLC
P.O. Box 148
Flemington, New Jersey 08822

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1.0 INTRODUCTION AND BACKGROUND

1.1 Purpose

Tellurian Environmental Management, LLC (TEM) was retained by 88th Street Properties LLC ("Client") to conduct additional vapor intrusion (VI) investigation activities at 10 Main Street ("Site") in Woodbridge, Middlesex County, New Jersey in accordance with the *Vapor Intrusion Technical Guidance* documents following elevated indoor air sampling results in several leaseholds.

1.2 Site Location / Description

The Site is located at 10 Main Street in Woodbridge, Middlesex County, New Jersey (Figure 1) and is identified as Block 542.01, Lot 16. The indoor air investigation took place in several of the leaseholds in the single commercial building on the Site. The Site is bordered by Poillon Street to the north and Route 514 to the east and south. A separate commercial lot is located west of the Site.

The current building consists of a single-story, rectangular-shaped masonry building on the north side of the lot. In front of the building is a paved parking area with small areas of landscaping (Figure 2).

1.3 Surrounding Land Use

1.3.1 Neighboring Properties

Land use in the area of the Site is a combination of residential and mixed commercial. The adjacent properties and nearby land use, as observed by TEM at the time of the Site visit, are as follows:

- *North:* The Site is bounded by Poillon Street to the north, beyond which lies a commuter parking lot .
- *West*: The parcel west of the Site is a commercial building, beyond which lie tracks for NJ Transit.
- *South:* Across Route 514 to the south is the Woodbridge Township municipal building and a Quick Chek convenience store.
- *East*: The parcel east of the Site across Route 514 is a combination day care center and residential apartment building.

2.0 SITE HISTORY – INDOOR AIR

Samples were collected in March 2015 as part of a due diligence effort in advance of a property transaction at the Site. Viridian Environmental Field Services ("Viridian") collected three (3) sub-slab soil gas samples from within the US1 Cleaner leasehold at the Site and had them analyzed by analytical method TO-15. Results from the laboratory analysis indicated slight exceedances of the Non-Residential Soil Gas Screening Levels for trichloroethylene ("TCE") (160 µg/m3 versus 150 µg/m3) and tetrachloroethylene ("PCE") (2700 µg/m3 and 2800 µg/m3 versus 2400 µg/m3) in the US1 Cleaner leasehold space.

In April 2015, GZA Environmental ("GZA") conducted indoor air ("IA") sampling in all the leaseholds in the strip mall with the exception of the US1 Cleaner leasehold and Nails 7 leasehold (nail salon). GZA had all the samples analyzed by TO-15. No sub-slab soil gas samples were collected in any of the leaseholds.

Based on the results of the IA sampling (Figure 3), GZA identified an Immediate Environmental Concern ("IEC") condition in the currently vacant end unit, where TCE (120 µg/m3) and PCE (1400 µg/m3) exceeded their respective Non-Residential Rapid Action Levels ("RAL") of 18 µg/m3 and 360 µg/m3. GZA reported the IEC to the NJDEP Hotline and Case Number 15-04-17-1203-44 was assigned. Ms. Renee Wright was assigned as the Case Manager for the IEC.

Additional leaseholds had exceedances of the Non-Residential Indoor Air Screening Levels ("NRIASL") for TCE (3 µg/m3) including the UPS Store (6 µg/m3), One Main Financial (5 µg/m3), and Kumon Learning Center (7 µg/m3). No leaseholds exceeded the NRIASL for PCE.

The indoor air sample collected in Knot Just Bagels, near the west end of the mall, had exceedances of the NRIASL for 1,3-butadiene (2 µg/m3 versus 1 µg/m3) and benzene (4 µg/m3 versus 2 µg/m3).

After consulting with Ms. Wright, it was determined that the IA results from the Kumon Learning Center should have been compared to the Residential Rapid Action Level ("RRAL") for TCE of 4 µg/m3 rather than the Non-Residential RAL of 18 µg/m3. This created an IEC condition in the Kumon leasehold.

TEM pointed out to Ms. Wright that technically no IEC condition existed because the vapor intrusion pathway was not determined to be complete as no sub-slab soil gas sampling had been conducted. Ms. Wright agreed to allow sub-slab sampling in the leaseholds showing elevated IA results to determine if the pathway existed.

The Client retained Mr. Ed Jakubowski of TEM as the Licensed Site Remediation Professional ("LSRP") to address the outstanding VI issues on 26 August 2015. Mr. Jakubowski's license number is 594403.

3.0 RECEPTOR DELINEATION SUMMARY

This round of sampling did not identify any new receptors.

4.0 EVALUATION OF EXISTING LEASEHOLDS

TEM, in conjunction with Viridian, investigated potential sources of indoor air contamination from each of the leasehold spaces. With the consent of the tenants, TEM and Viridian personnel inspected all containers containing chemicals to determine the presence/absence of TCE as a component of said chemicals. The goal was to determine if any of the leaseholds could potentially be a source for the TCE.

TEM and Viridian inspected the UPS Store, One Main Financial, Kumon, Nails 7, and Knot Just Bagels.

While numerous cleaning products were identified in each space, most were commercial, off the shelf brands. Nails 7 did have air fresheners, which can reportedly contained TCE, but nothing definitive was present. Given the location of Nails 7 relative to the Kumon leasehold, it is unlikely to be a source.

5.0 SUB-SLAB SOIL GAS SAMPLING

5.1 Sampling

On 27-28 August 2015, Viridian collected ten (10) sub-slab ("SS") soil gas samples, two each, in Knot Just Bagels (BS-SS-1 and BS-SS-2), Kumon Learning Center (KUMON-SS-1 and KUMON-SS-2), One Main Financial (OMF-SS-1 and OMF-SS-2), the UPS Store (UPS-SS-1 and UPS-SS-2) and the vacant end unit, previously occupied by PNC Bank (PNC-SS-1 and PNC-SS-2). See Figure 4 for sample locations.

The samples were collected following NJDEP-approved standard operating procedures. Viridian performed helium tracer gas tests at each sub-slab point prior to sampling to ensure sample quality. The implants were allowed sufficient time (approximately 45+ minutes) to return to equilibrium before collecting the SS sampling in 1L Summa™ canisters.

Viridian transferred the samples to Alpha Analytical Laboratories (Certification # MA015) under chain of custody for analysis by method TO-15 (.

5.2 Sampling Results

TEM compared laboratory results to the NJDEP Non-Residential Soil Gas Screening Levels ("NRSGSL") for all the leaseholds with the exception of Kumon, which TEM compared to the more stringent Residential Soil Gas Screening Levels ("RSGSL") (Figure 5). All results were evaluated in µg/m3 (Table 1 & Table 2).

Referring to Table 1, there was an exceedance of the RSGSL for TCE (27 µg/m3) in Kumon sample KUMON-SS-1 at 100 µg/m3. The result did not exceed the NRSGSL of 150 µg/m3. This sample was collected near the front of the building, well away from the operating area of the dry cleaner. More significantly, while PCE was detected in the soil gas, it was present well below both the RSGSL and the NRSGSL. PCE was also below both the NRIASL and the RIASL in indoor air.

Referring to Table 2, there was an exceedance of the NRSGSL for chloroform (27 µg/m3) in Knot Just Bagels sample BS-SS-2 at 63 µg/m3. Chloroform is often associated with the volatilization of chlorinated tap water. The presence of chloroform is possibly due to leaky sewer pipes and/or the use of bleach or hot chlorinated tap water.

Referring to Table 2, there were no exceedances of the NRSGSL for PCE or TCE in the vacant space formerly occupied by PNC Bank. An IEC condition was identified in this leasehold as a result of the indoor air sampling results, where TCE (120 µg/m3) and PCE (1400 µg/m3) exceeded the NRRAL levels of 18 µg/m3 and 360 µg/m3, respectively. The IEC condition was identified based on the IA sampling results, prior to SSSG sampling. The SSSG sampling results suggest the VI pathway is not complete, as they do not exceed the screening levels; therefore the initial IEC designation was unwarranted. However, the presence of TCE and PCE in indoor air at such elevated levels and in SSSG indicates a likely connection, especially given the relationship

between TCE in IA and SSSG in the Kumon leasehold. This conclusion is consistent with guidance in the *Vapor Intrusion Mitigation Guidance* document.

Referring to Table 2, there were no exceedances of the NRSGSL for the SSSG samples collected in either the One Main Financial leasehold or the UPS Store leasehold. Both of these leaseholds were previously identified as vapor concerns due minor exceedances of the NRIASL for TCE. The lack of a completed pathway suggests a health concern but not a vapor intrusion concern.

6.0 INTERIM REMEDIAL MEASURES

In evaluating the SSSG sample results, the presence of TCE above the RSGSL beneath the Kumon leasehold, and the presence of TCE in indoor air above the Residential Rapid Action Level suggests a completed pathway for TCE. However, the source of TCE in both soil gas and indoor air is unclear, especially given the absence of PCE. The Environmental Protection Agency ("EPA") is reportedly evaluating an area wide plume associated with a PCE release nearby. TEM will gather information regarding that investigation to determine if it is a potential source.

In order to address the indoor air levels of TCE in the interim, Viridian installed an NJDEP approved air treatment unit in the Kumon leasehold. This air treatment unit mitigated indoor air levels of volatile organic compounds while the vapor intrusion mitigation system (VIMS) was being installed.

No interim remedial measures were taken in the vacant parcel to address elevated indoor air levels due to the lack of a tenant.

7.0 VAPOR INTRUSION MITIGATION SYSTEM – DIAGNOSTICS

Clean Vapor LLC (Clean Vapor) of Blairstown, New Jersey was retained by the property owner to design and install vapor intrusion mitigation systems (VIMS) in both the Kumon leasehold and the vacant leasehold (former PNC Bank) to address the SSSG and mitigate elevated levels of TCE and PCE in indoor air in both the Kumon space and the vacant leasehold.

7.1 Pre-Mitigation Diagnostic Activities

Clean Vapor was present at the Site to conduct pre-mitigation diagnostic activities on 23 December 2015 (Appendix C). The intent of the diagnostic activities was to evaluate the radius of influence throughout the spaces to determine the location and spacing of suction and monitoring points for the VIMS. Diagnostic activities took place in both the Kumon leasehold and the vacant space (former PNC Bank).

7.1.1 Kumon Leasehold

Referring to Appendix C, Clean Vapor utilized one suction point in the Kumon leasehold near the rear of the space (*Appendix B – Figure 1)*. Clean Vapor then installed three (3) monitoring points for the Kumon leasehold, two near the front of the parcel and one at the rear, to evaluate radius of influence and vacuum. According to the report, sufficient vacuum (greater than 0.004 inches of water) was achieved at all three monitoring points at 2.2 inches of water at an airflow rate of 89 cubic feet per minute at the suction point. It was determined that one suction point was sufficient to treat the entire leasehold.

7.1.2 Vacant Leasehold (former PNC Bank)

Referring to Appendix C, Clean Vapor utilized one suction point and sixteen (16) monitoring points for the vacant leasehold (three (3) in the current US1 Cleaners space and thirteen (13) in the vacant parcel) (see *Appendix B – Figure 1)*. Referring to the Clean Vapor report, sufficient vacuum (greater than 0.004 inches of water) was achieved at all three monitoring points in the US1 Cleaners' space at 10.6 inches of water at an airflow rate of 127 cubic feet per minute. Of the thirteen (13) locations in the vacant parcel, only seven (7) achieved sufficient vacuum based on the one suction point. Based on the radius of influence established during the diagnostic testing, Clean Vapor concluded that four (4) suction points were required to achieve the required vacuum for the VIMS.

Note: While the US1 Cleaners' leasehold is not currently subject to the NJDEP rules regarding vapor intrusion, TEM was informed by the Client of US1 Cleaners' intention to replace the current PCE-based dry cleaning with a non-PCE based system. The VIMS for the vacant leasehold was designed to also address the subsurface of US1 Cleaners' leasehold as well, hence the monitoring points. The VIMS will reduce any potential migration of soil gas to the interior of the US1 Cleaners' space as well. Once the US1 Cleaners' has replaced the current PCE-based system, indoor air samples will be collected to evaluate the indoor air quality.

8.0 VAPOR INTRUSION MITIGATION SYSTEM

Based on the results of the vapor mitigation system diagnostics, the property owner retained Clean Vapor to install the VIMS in both the Kumon leasehold and the vacant leasehold.

8.1 Kumon Leasehold

Clean Vapor installed the VIMS in accordance with the *Vapor Intrusion Mitigation Plan Design* (Appendix C) in January 2016. The depressurization blower servicing the Kumon leasehold was activated on 18 January 2016. All permits were filed in accordance with local municipal codes and final inspections are pending. The system is meeting all of the NJDEP defined requirements for a successful sub-slab depressurization system. The details of the system, including system commissioning measurements, suction point installation, vapor conveyance pipe installation, blower installation, photographs, figures, and specifications of the system components, are included in the *Report of Vapor Intrusion Mitigation* attached as Appendix C.

8.2 Vacant Parcel (former PNC Bank) Leasehold

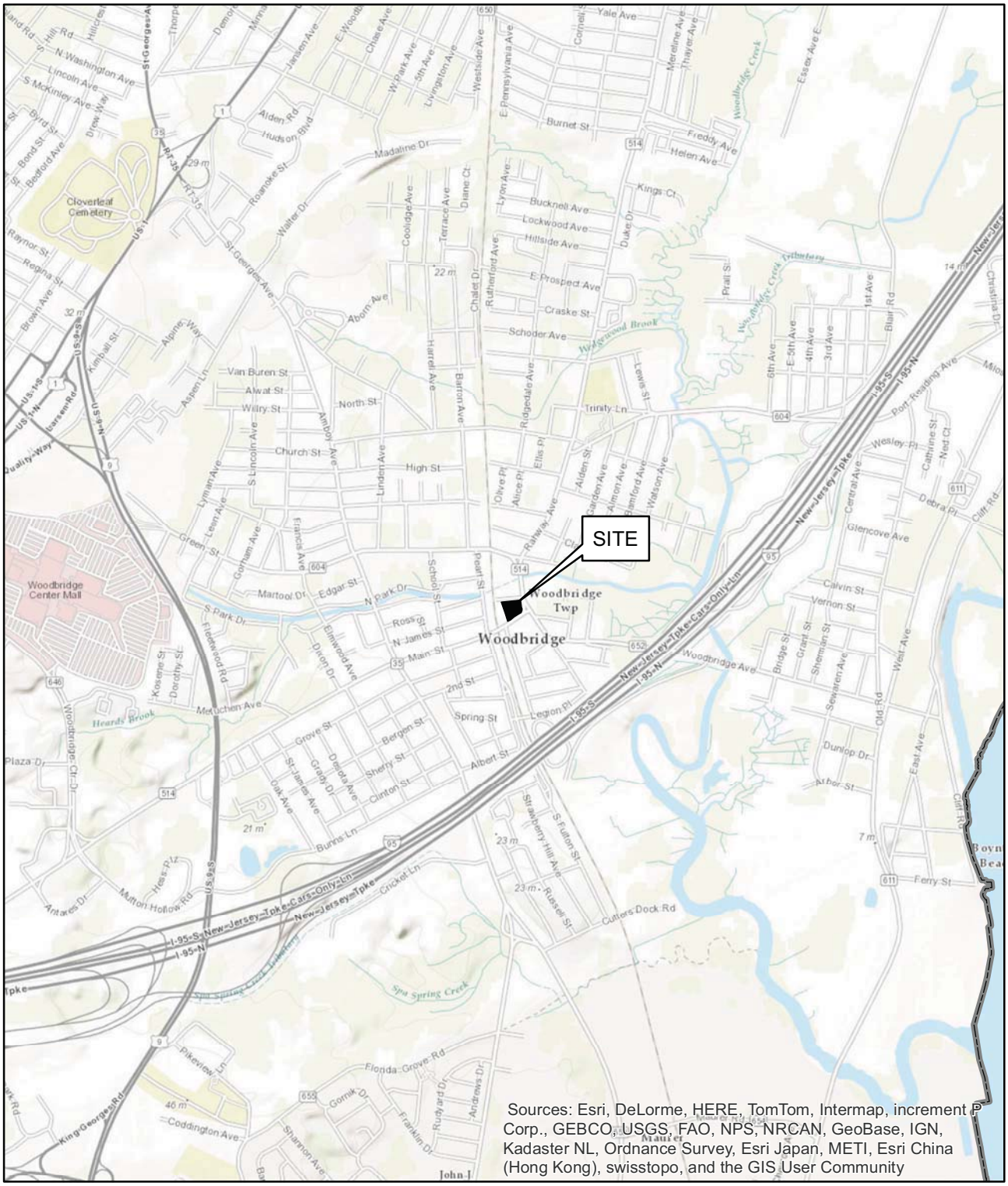
Clean Vapor installed the VIMS in accordance with the *Vapor Intrusion Mitigation Plan Design* (Appendix C) in January 2016. The depressurization blower servicing the Kumon leasehold was activated on 20 January 2016. All permits were filed in accordance with local municipal codes and final inspections are pending. The system is meeting all of the NJDEP defined requirements for a successful sub-slab depressurization system. The details of the system, including system commissioning measurements, suction point installation, vapor conveyance pipe installation, blower installation, photographs, figures, and specifications of the system components, are included in the *Report of Vapor Intrusion Mitigation* attached as Appendix C.

8.3 Post-Mitigation Sampling

Post-mitigation IA sampling is scheduled for mid-March 2016 in both leaseholds as required. Post-mitigation IA sampling results will be forwarded to the Department upon receipt.

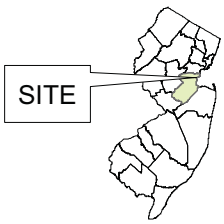
FIGURES

Figure 1. Topographic Site Location Map



2,000 1,000 0 2,000

Feet



Notes:
1. This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.
2. Basemap from ESRI GIS server.
3. Site boundary based on parcel layer for Middlesex County from the NJGIN server.

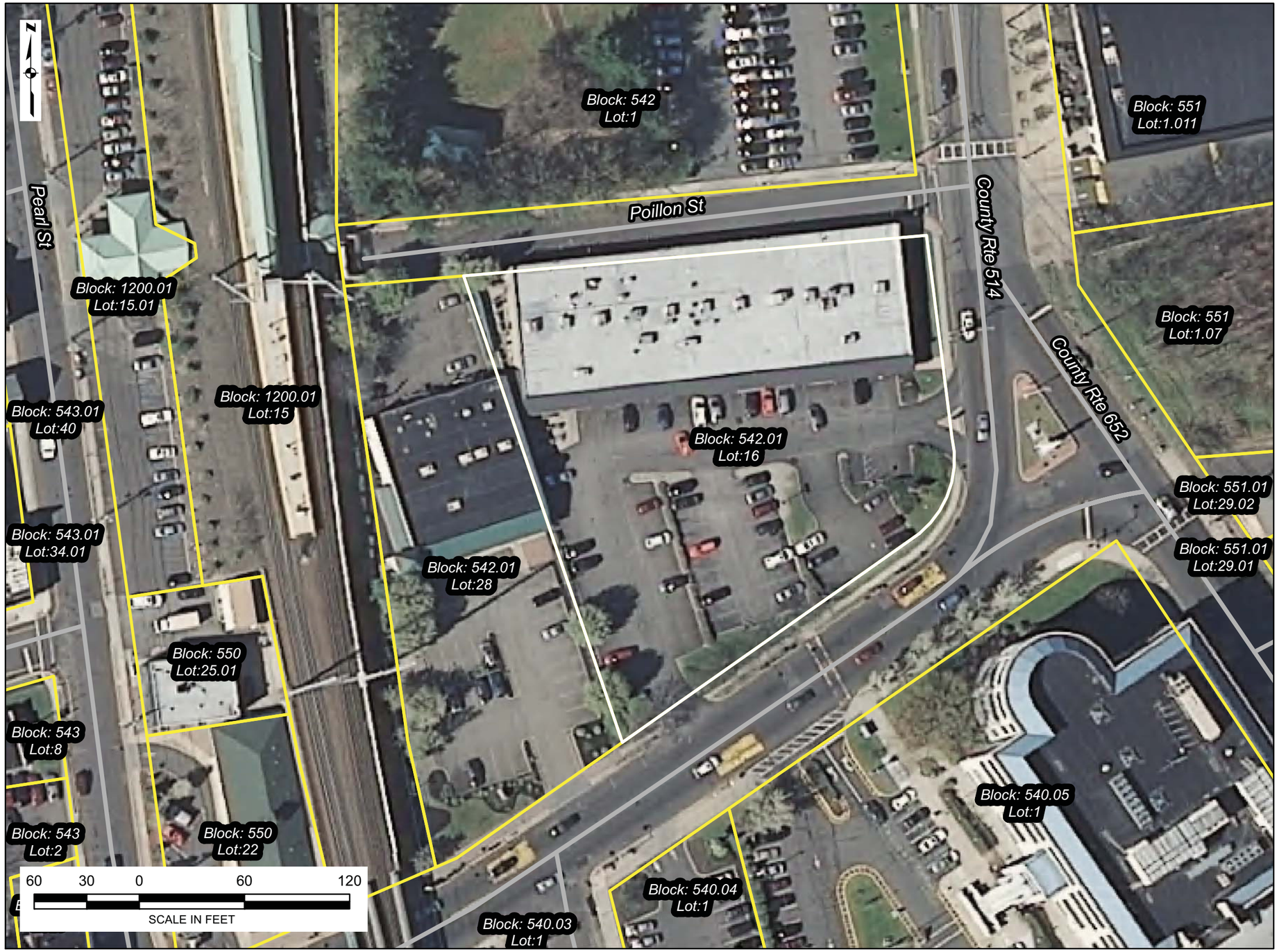
TELLURIAN ENVIRONMENTAL MANAGEMENT

TELLURIAN ENVIRONMENTAL MANAGEMENT
FLEMINGTON, NEW JERSEY

PROPERTY LOCATION MAP
DENTON 10 MAIN STREET LLC PROPERTY(PI# 001783)
10 MAIN STREET
WOODBRIDGE, MIDDLESEX COUNTY, NEW JERSEY

FIGURE NO.: 1
PROJECT NO.: 001783
DATE: NOV 2015

Figure 2. Tax Parcel/Orthoimagery Site Map



LEGEND

- Site Boundary (approx)
- Middlesex County Parcels

NOTES:
1. Orthoimagery data from NJGIN.
2. Property boundary approximate and from parcel data for Middlesex County from NJGIN.
3. This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.

Path: C:\TEM\Dropbox\TEM_GIS\Clients\MtoZ\US1Cleaners\MapDocuments\001783.002 orthoimagery map.mxd

TELLURIAN ENVIRONMENTAL MANAGEMENT

TELLURIAN ENVIRONMENTAL MANAGEMENT
FLEMINGTON, NJ 08822

TITLE:

TAX PARCEL / ORTHOIMAGERY SITE MAP
DENTON 10 MAIN STREET LLC (PI# 001783)
10 MAIN STREET (BLOCK 542.01 LOT 16)
WOODBRIDGE, MIDDLESEX COUNTY, NEW JERSEY

DWN: EMJ	DES.:	FIGURE NO.: 2
CHKD: EMJ	APRD: EMJ	PI NO.: 001783
DATE: 11/2015	REV.:	Drawing No.: 001783.002

Figure 3. Immediate Environmental Concern Map
GZA Environmental

Field Sample ID Sampling Date Lab Sample ID Sample Type			IA-07 4/3/2015 L1506683-07 Indoor Air
	NRRAL (ug/m3)	NRIASL (ug/m3)	Result (ug/m3)
Dichlorodifluoromethane	880	440	2
Chloromethane	780	390	1
Ethanol	-	-	47
Acetone	280,000	140,000	22
Trichlorofluoromethane	6,200	3,100	2
Isopropanol	-	-	7
Trichloroethene	18	3	2
Toluene	44,000	22,000	2
Tetrachloroethene	360	47	9

Field Sample ID Sampling Date Lab Sample ID Sample Type			AA-01 4/3/2015 L1506683-09 Ambient Air
	NRRAL (ug/m3)	NRIASL (ug/m3)	Result (ug/m3)
Dichlorodifluoromethane	880	440	2
Chloromethane	780	390	1
Ethanol	-	-	5
Acetone	280,000	140,000	6
Trichlorofluoromethane	6,200	3,100	1

Field Sample ID Sampling Date Lab Sample ID Sample Type			IA-06 4/3/2015 L1506683-06 Indoor Air
	NRRAL (ug/m3)	NRIASL (ug/m3)	Result (ug/m3)
Dichlorodifluoromethane	880	440	2
Chloromethane	780	390	1
Ethanol	-	-	300
Acetone	280,000	140,000	29
Trichlorofluoromethane	6,200	3,100	2
Isopropanol	-	-	5
2-Butanone	44,000	22,000	2
Benzene	200	2	0.7
Toluene	44,000	22,000	3
1,2,4-Trimethylbenzene	-	-	1

Field Sample ID Sampling Date Lab Sample ID Sample Type			IA-05 4/3/2015 L1506683-05 Indoor Air
	NRRAL (ug/m3)	NRIASL (ug/m3)	Result (ug/m3)
Dichlorodifluoromethane	880	440	2
Chloromethane	780	390	4
1,3-Butadiene	18	1	2
Ethanol	-	-	3000 E
Acetone	280,000	140,000	360
Trichlorofluoromethane	6,200	3,100	4
Isopropanol	-	-	52
2-Butanone	44,000	22,000	5
n-Hexane	6,200	3,100	1
Benzene	200	2	4
Methyl Methacrylate	-	-	26
Heptane	-	-	2
Toluene	44,000	22,000	8
Ethylbenzene	500	5	1
Styrene	8,800	4,400	2

Field Sample ID Sampling Date Lab Sample ID Sample Type			IA-02 4/3/2015 L1506683-02 Indoor Air
	NRRAL (ug/m3)	NRIASL (ug/m3)	Result (ug/m3)
Dichlorodifluoromethane	880	440	2
Chloromethane	780	390	1
Ethanol	-	-	240
Acetone	280,000	140,000	23
Trichlorofluoromethane	6,200	3,100	2
Isopropanol	-	-	59
Trichloroethene	18	3	7
Toluene	44,000	22,000	1
Tetrachloroethene	360	47	31

Field Sample ID Sampling Date Lab Sample ID Sample Type			IA-08 4/3/2015 L1506683-08 Indoor Air
	NRRAL (ug/m3)	NRIASL (ug/m3)	Result (ug/m3)
Dichlorodifluoromethane	880	440	2
Chloromethane	780	390	1
Ethanol	-	-	400
Acetone	280,000	140,000	17
Trichlorofluoromethane	6,200	3,100	2
Isopropanol	-	-	12
Methylene chloride	5,200	1,200	8
n-Hexane	6,200	3,100	1
Cyclohexane	52,000	26,000	1
Trichloroethene	18	3	5
Toluene	44,000	22,000	1
Tetrachloroethene	360	47	27
1,3,5-Trimethylbenzene	-	-	1
1,2,4-Trimethylbenzene	-	-	5

Field Sample ID Sampling Date Lab Sample ID Sample Type			SS-3 3/11/2015 L1504519-03 Sub-Slab
	NRSGS (ug/m3)	Result (ug/m3)	
Acetone	6800000	57	
Ethanol	-	90	
Isopropanol	-	9	
Tetrachloroethene	2400	2700	
Trichloroethene	150	160	

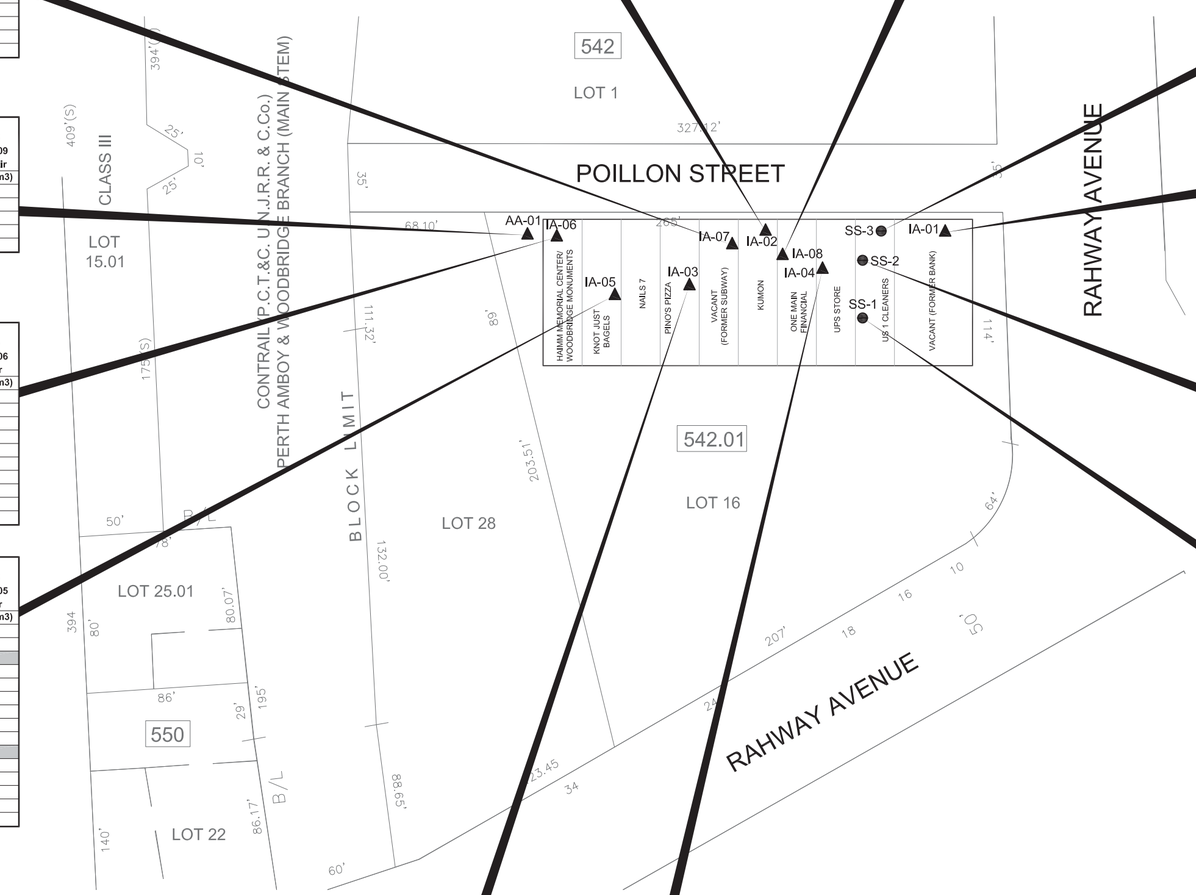
Field Sample ID Sampling Date Lab Sample ID Sample Type			IA-01 4/3/2015 L1506683-01 Indoor Air
	NRRAL (ug/m3)	NRIASL (ug/m3)	Result (ug/m3)
Ethanol	-	-	24
Acetone	280,000	140,000	15
Trichlorofluoromethane	6,200	3,100	10
Isopropanol	-	-	6
Methylene chloride	5,200	1,200	12
Trichloroethene	18	3	120
Tetrachloroethene	360	47	1,400

Field Sample ID Sampling Date Lab Sample ID Sample Type			SS-2 3/11/2015 L1504519-02 Sub-Slab
	NRSGS (ug/m3)	Result (ug/m3)	
2-Butanone	1100000	9	
Acetone	6800000	69	
Chloroform	27	10	
cis-1,2-Dichloroethene	-	16	
Ethanol	-	64	
Isopropanol	-	7	
Tertiary butyl Alcohol	-	10	
Tetrachloroethene	2400	2800	
Toluene	1100000	8	
Trichloroethene	150	160	

Field Sample ID Sampling Date Lab Sample ID Sample Type			SS-1 3/11/2015 L1504519-01 Sub-Slab
	NRSGS (ug/m3)	Result (ug/m3)	
1,2,4-Trimethylbenzene	-	4	
2-Butanone	1100000	20	
Acetone	6800000	120	
Benzene	79	2	
Dichlorodifluoromethane	22000	2	
Ethanol	-	79	
Ethylbenzene	250	4	
Isopropanol	-	11	
o-Xylene	-	3	
p/m-Xylene	-	10	
Tertiary butyl Alcohol	-	8	
Tetrachloroethene	2400	150	
Tetrahydrofuran	-	4	
Toluene	1100000	12	
Trichloroethene	150	13	

Field Sample ID Sampling Date Lab Sample ID Sample Type			IA-03 4/3/2015 L1506683-03 Indoor Air
	NRRAL (ug/m3)	NRIASL (ug/m3)	Result (ug/m3)
Dichlorodifluoromethane	880	440	2
Chloromethane	780	390	1
1,3-Butadiene	18	1	0.4
Ethanol	-	-	600
Acetone	280,000	140,000	570
Trichlorofluoromethane	6,200	3,100	3
Isopropanol	-	-	96
Benzene	200	2	0.9
Methyl Methacrylate	-	-	31
Toluene	44,000	22,000	3
Tetrachloroethene	360	47	2

Field Sample ID Sampling Date Lab Sample ID Sample Type			IA-04 4/3/2015 L1506683-04 Indoor Air
	NRRAL (ug/m3)	NRIASL (ug/m3)	Result (ug/m3)
Dichlorodifluoromethane	880	440	2
Chloromethane	780	390	1
Ethanol	-	-	34
Acetone	280,000	140,000	24
Trichlorofluoromethane	6,200	3,100	2
Isopropanol	-	-	4
Methylene chloride	5,200	1,200	45
Trichloroethene	18	3	6
Toluene	44,000	22,000	1
Tetrachloroethene	360	47	34



LEGEND:

- ▲ AIR SAMPLE LOCATION
- ● SUB-SLAB SAMPLE LOCATION
- 2 RESULT EXCEEDS THE NON-RESIDENTIAL INDOOR AIR OR SOIL GAS SCREENING LEVEL (NRIASL OR NRSGS)
- 7 RESULT EXCEEDS THE NON-RESIDENTIAL RAPID ACTION LEVEL (NRRAL)
- \- NO STANDARD
- E CONCENTRATION OF ANALYTE EXCEEDS THE RANGE OF THE CALIBRATION CURVE AND/OR LINEAR RANGE OF THE INSTRUMENT.

NOTES:

1) THE BASE MAP WAS DEVELOPED FROM A TAX MAP PROVIDED BY GZA PERSONNEL.

2) THE LOCATION OF THE SAMPLING LOCATIONS WERE APPROXIMATELY DETERMINED BY TAPE MEASUREMENTS FROM EXISTING TOPOGRAPHIC AND MAN-MADE FEATURES, THE DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.

3) ONLY DETECTED COMPOUNDS ARE SHOWN IN THE CHEMBOXES.

4) SOIL GAS SAMPLES WERE COLLECTED BY PRIOR INVESTIGATOR. FINAL DATA PACKAGE ASSOCIATED WITH THESE DATA HAS NOT BEEN PROVIDED TO LSRP.

5) MINDY SAYRES (LSRP #584525) IS THE LSRP FOR THIS CASE.

NO.	ISSUE/DESCRIPTION	BY	DATE

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10 MAIN STREET
WOODBRIDGE TOWNSHIP, NEW JERSEY

IMMEDIATE ENVIRONMENTAL CONCERN MAP
CASE # 15-04-17-1203-44

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com

PREPARED FOR: MENICUCCI VILLA CILMI

PROJ MGR: MS	REVIEWED BY: LS	CHECKED BY: MS	FIGURE
DESIGNED BY: LS	DRAWN BY: MT	SCALE: 1" = 60'	1
DATE: MAY 1, 2015	PROJECT NO. 12.0076322.00	REVISION NO.	SHEET NO.

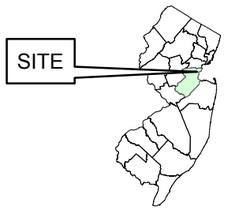
©2015 – GZA GeoEnvironmental, Inc. GZA–J:\76000's\12.0076322.00\Figures\CAD\76322.00.002.dwg [ANSI B – 17x11] May 01, 2015 – 2:34pm miguel.torres

Figure 4. Sub-Slab Soil Gas Sample Location Map

LEGEND

- Site Boundary (approx)
- Leasehold Space

NOTES:
1. Orthoimagery data from NJGIN.
2. Site boundary approximate and from parcel data for Middlesex County from NJGIN.
3. This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.



Path: C:\TEM\Dropbox\TEM_GIS\Clients\Mtoz\US1Cleaners\MapDocuments\001783.003 sample location map.mxd

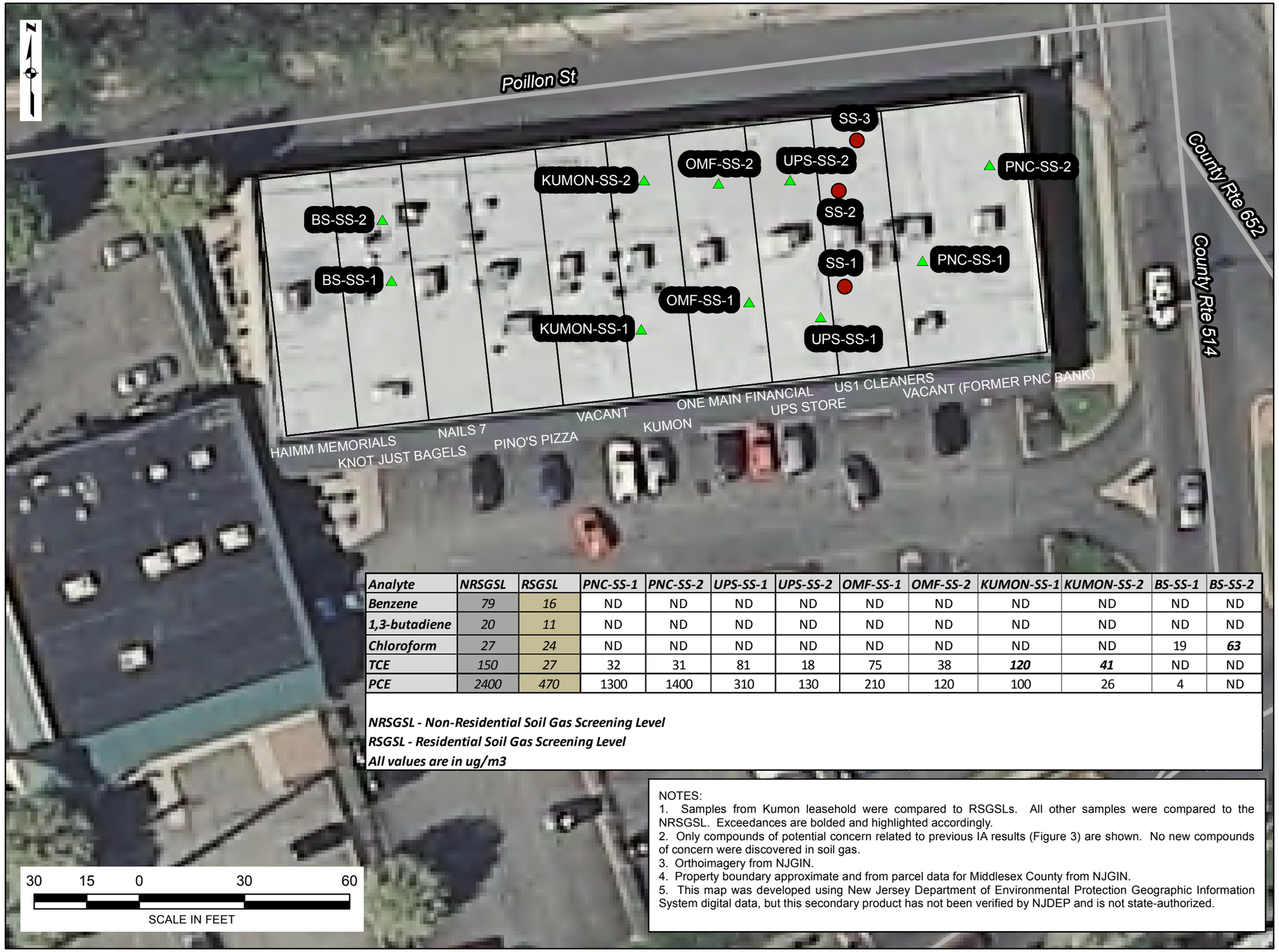
TELLURIAN ENVIRONMENTAL MANAGEMENT
FLEMINGTON, NJ 08822

TITLE:

SUB-SLAB SOIL GAS SAMPLE LOCATION MAP
DENTON 10 MAIN STREET LLC (PI# 001783)
10 MAIN STREET (BLOCK 542.01 LOT 16)
WOODBRIDGE, MIDDLESEX COUNTY, NEW JERSEY

DWN: EMJ	DES.:	FIGURE NO.: 4
CHKD: EMJ	APRD: EMJ	PI NO.: 001783
DATE: 11/2015	REV.:	Drawing No.: 001783.003

Figure 5. Sub-Slab Soil Gas Sample Results Map



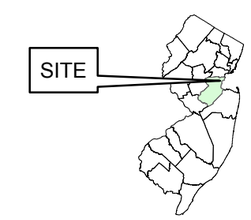
LEGEND

- Leasehold Space
- Soil Gas Sample - March 2015
- Soil Gas Sample - August 2015

Analyte	NRSGSL	RSGSL	PNC-SS-1	PNC-SS-2	UPS-SS-1	UPS-SS-2	OMF-SS-1	OMF-SS-2	KUMON-SS-1	KUMON-SS-2	BS-SS-1	BS-SS-2
Benzene	79	16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-butadiene	20	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	27	24	ND	ND	ND	ND	ND	ND	ND	ND	19	**63**
TCE	150	27	32	31	81	18	75	38	**120**	**41**	ND	ND
PCE	2400	470	1300	1400	310	130	210	120	100	26	4	ND

NRSGSL - Non-Residential Soil Gas Screening Level
RSGSL - Residential Soil Gas Screening Level
All values are in ug/m3

NOTES:
1. Samples from Kumon leasehold were compared to RSGSLs. All other samples were compared to the NRSGSL. Exceedances are bolded and highlighted accordingly.
2. Only compounds of potential concern related to previous IA results (Figure 3) are shown. No new compounds of concern were discovered in soil gas.
3. Orthoimagery from NJGIN.
4. Property boundary approximate and from parcel data for Middlesex County from NJGIN.
5. This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not state-authorized.



Path: C:\TEM\Dropbox\TEM_GIS\Clients\MtoZ\US1Cleaners\MapDocuments\001783.004 sample results map.mxd

TELLURIAN ENVIRONMENTAL MANAGEMENT

TELLURIAN ENVIRONMENTAL MANAGEMENT
FLEMINGTON, NJ 08822

TITLE:

SUB-SLAB SOIL GAS SAMPLE RESULTS
DENTON 10 MAIN STREET LLC (PI# 001783)
10 MAIN STREET (BLOCK 542.01 LOT 16)
WOODBRIDGE, MIDDLESEX COUNTY, NEW JERSEY

DWN: EMJ	DES.:	FIGURE NO.: 5	
CHKD: EMJ	APRD: EMJ	PI NO.: 001783	
DATE: 11/2015	REV.:	Drawing No.: 001783.003	

TABLES

Table 1. Residential Soil Gas Sampling Results Summary

Residential Soil Gas Sampling Results Summary Table

US1 Cleaners
10 Main Street Woodbridge, NJ 07095
Woodbridge Township, Middlesex County
NJDEP PI # 001783

US1 Cleaners 10 Main Street Woodbridge, NJ Woodbridge Township, Middlesex County	NJDEP Non-Residential Soil Gas Screening Levels	NJDEP Residential Soil Gas Screening Levels	Sub-Slab Soil Gas Kumon Learning Center KUMON-SS-1	Sub-Slab Soil Gas Kumon Learning Center KUMON-SS-2
Chemical			8/28/2015	8/28/2015
1,1,1-Trichloroethane	1100000	260000	ND	ND
1,1,2,2-Tetrachloroethane	34	34	ND	ND
1,1,2-Trichloroethane	38	27	ND	ND
1,1-Dichloroethane	380	76	ND	ND
1,1-Dichloroethene	44000	10000	ND	ND
1,2,4-Trichlorobenzene	440	100	ND	ND
1,2,4-Trimethylbenzene	NA	NA	ND	ND
1,2-Dibromoethane	38	38	ND	ND
1,2-Dichlorobenzene	44000	10000	ND	ND
1,2-Dichloroethane	24	20	ND	ND
1,2-Dichloropropane	61	23	ND	ND
1,3,5-Trimethybenzene	NA	NA	ND	ND
1,3-Butadiene	20	11	ND	ND
1,3-Dichlorobenzene	NA	NA	ND	ND
1,4-Dichlorobenzene	56	30	ND	ND
1,4-Dioxane	NA	NA	ND	ND
2,2,4-Trimethylpentane	NA	NA	ND	ND
2-Butanone	1100000	260000	ND	5
2-Chlorotoluene	NA	NA	ND	ND
3-Chloropropene	100	20	ND	ND
4-Ethyltoluene	NA	NA	ND	ND
4-Methyl-2-pentanone	660000	160000	ND	ND
Acetone	6800000	1600000	6	29
Benzene	79	16	ND	ND
Bromodichloromethane	34	34	ND	ND
Bromoform	560	110	ND	ND
Bromomethane	1100	260	ND	ND
Carbon disulfide	150000	36000	ND	ND
Carbon tetrachloride	100	31	ND	ND
Chlorobenzene	11000	2600	ND	ND
Chloroethane	2200000	520000	ND	ND
Chloroform	27	24	ND	ND
Chloromethane	20000	4700	ND	ND
cis-1,2-Dichloroethene	NA	NA	ND	ND
cis-1,3-Dichloropropene	150	30	ND	ND
Cyclohexane	1300000	310000	ND	ND
Dibromochloromethane	43	43	ND	ND
Dichlorodifluoromethane	22000	5200	2	2
Ethanol	NA	NA	19	55
Ethylbenzene	250	49	ND	ND
Freon-113	6600000	1600000	ND	ND
Freon-114	NA	NA	ND	ND
Heptane	NA	NA	ND	ND
Hexachlorobutadiene	53	53	ND	ND
Isopropanol	NA	NA	ND	6
Methyl Methacrylate	NA	NA	ND	ND
Methyl tert butyl ether	2400	470	ND	ND
Methylene chloride	61000	4800	ND	ND
n-Hexane	150000	36000	ND	ND
o-Xylene	NA	NA	ND	ND
p/m-Xylene	NA	NA	ND	ND
Styrene	220000	52000	ND	ND
Tertiary butyl Alcohol	NA	NA	ND	4
Tetrachloroethene	2400	470	120	41
Tetrahydrofuran	NA	NA	ND	ND
Toluene	1100000	260000	ND	ND
trans-1,2-Dichloroethene	13000	3100	ND	ND
trans-1,3-Dichloropropene	150	30	ND	ND
Trichloroethene	150	27	**100**	26
Trichlorofluoromethane	150000	36000	5	2
Vinyl bromide	22	22	ND	ND
Vinyl chloride	140	13	ND	ND

Notes:

All results are in micrograms per cubic meter ($\mu g/m^3$).

NA - A screening level is currently unavailable for this chemical.

ND - Not Detected

Screening Levels.

Table 2. Non-Residential Soil Gas Sampling Results Summary

Non-Residential Soil Gas Sampling Results Summary Table

US1 Cleaners
10 Main Street Woodbridge, NJ 07095
Woodbridge Township, Middlesex County
NJDEP PI # 001783

US1 Cleaners 10 Main Street Woodbridge, NJ Woodbridge Township, Middlesex County	NJDEP Non-Residential Soil Gas Screening Levels	Sub-Slab Soil Gas Knot Just Bagels BS-SS-1	Sub-Slab Soil Gas Knot Just Bagels BS-SS-2	Sub-Slab Soil Gas One Main Financial OMF-SS-1	Sub-Slab Soil Gas One Main Financial OMF-SS-2	Sub-Slab Soil Gas UPS Store UPS-SS-1	Sub-Slab Soil Gas UPS Store UPS-SS-2	Sub-Slab Soil Gas Vacant (formerly PNC bank) PNC-SS-1	Sub-Slab Soil Gas Vacant (formerly PNC bank) PNC-SS-2
Chemical		27-Aug-15	27-Aug-15	27-Aug-15	27-Aug-15	27-Aug-15	27-Aug-15	27-Aug-15	27-Aug-15
1,1,1-Trichloroethane	1100000	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	34	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	38	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	380	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	44000	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	440	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	NA	4	5	4	7	6	15	5	7
1,2-Dibromoethane	38	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	44000	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	24	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	61	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethybenzene	NA	ND	ND	ND	ND	ND	3	ND	ND
1,3-Butadiene	20	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	NA	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	56	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	NA	2	ND	ND	ND	ND	ND	ND	ND
2,2,4-Trimethylpentane	NA	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	1100000	4	ND	ND	12	ND	53	ND	ND
2-Chlorotoluene	NA	ND	ND	ND	ND	ND	ND	ND	ND
3-Chloropropene	100	ND	ND	ND	ND	ND	ND	ND	ND
4-Ethyltoluene	NA	ND	ND	ND	ND	ND	3	ND	ND
4-Methyl-2-pentanone	660000	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	6800000	74	12	10	78	9	310	ND	ND
Benzene	79	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	34	ND	15	ND	ND	ND	ND	ND	ND
Bromoform	560	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	1100	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	150000	ND	2	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	100	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	11000	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	2200000	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	27	19	**63**	ND	ND	ND	ND	ND	ND
Chloromethane	20000	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	NA	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	150	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	1300000	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	43	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	22000	ND	ND	2	ND	ND	ND	ND	ND
Ethanol	NA	280	ND	41	130	24	210	ND	ND
Ethylbenzene	250	ND	ND	ND	3	ND	4	ND	ND
Freon-113	6600000	ND	ND	ND	ND	ND	ND	ND	ND
Freon-114	NA	ND	ND	ND	ND	ND	ND	ND	ND
Heptane	NA	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	53	ND	ND	ND	ND	ND	ND	ND	ND
Isopropanol	NA	4	3	3	17	ND	39	ND	ND
Methyl Methacrylate	NA	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert butyl ether	2400	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	61000	ND	ND	ND	ND	ND	ND	ND	ND
n-Hexane	150000	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	NA	ND	ND	ND	3	2	5	ND	ND
p/m-Xylene	NA	ND	ND	4	10	5	13	ND	ND
Styrene	220000	ND	ND	ND	ND	ND	ND	ND	ND
Tertiary butyl Alcohol	NA	ND	ND	ND	4	ND	6	ND	ND
Tetrachloroethene	2400	4	ND	210	120	310	130	1300	1400
Tetrahydrofuran	NA	ND	ND	ND	ND	ND	6	ND	ND
Toluene	1100000	2	2	4	8	5	8	ND	ND
trans-1,2-Dichloroethene	13000	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	150	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	150	ND	ND	75	38	81	18	32	31
Trichlorofluoromethane	150000	3	ND	3	3	4	ND	ND	ND
Vinyl bromide	22	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	140	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

All results are in micrograms per cubic meter ($\mu g/m^3$).

NA - A screening level is currently not available for this chemical.

ND - Not Detect

Bolded and shaded results identify exceedances of the applicable NJDEP Non-ResidentialSoil Gas Screening Levels

APPENDICES

APPENDIX A
Viridian Environmental Field Services Summary Report

VIRIDIAN®
Environmental Field Services

September 28, 2015

Mr. Ed Jakubowski
Tellurian Environmental
PO Box 148
Flemington, NJ 08822

Re: Summary Report of Results
Vapor Intrusion Investigation
10 Main Street Woodbridge, NJ 07095
PI # 001783

Dear Mr. Jakubowski:

Viridian® Inc., Environmental Field Services (Viridian) was retained to collect soil gas samples to investigate the possibility of vapor intrusion into the structure at the captioned property. Indoor air samples were collected, by the previous consultant, and indoor IEC's were identified without collecting sub-slab samples to determine if vapor intrusion was occurring. This sampling event was designed to help determine the source of the elevated indoor air concentrations. Our work followed the NJ Department of Environmental Protection's (NJDEP) *Vapor Intrusion Technical Guidance Document* protocols. The contaminants of concern for the site are Tetrachloroethene (PCE) and its associated breakdown products (i.e, Trichloroethene [TCE]), due to the presence of an active dry cleaner within the strip mall. Viridian conducted the sampling event as described below.

8/27/2015 – 8/28/2015: Viridian collected ten Sub-Slab (SS) samples through the slab of the structure (commercial strip mall). Samples were collected from "Knot Just Bagels (BS-SS)", "Kumon Tutoring (KUMON-SS)", "One Main Financial (OMF-SS)", "the UPS Store (UPS-SS)", and a vacant space that used to be a PNC bank (PNC-SS). See attached site map for sample locations.

Viridian followed NJDEP- approved Standard Operating Procedures for collection of the samples. A helium tracer gas test was performed at each sub-slab point to assure sample quality. The implants were allowed sufficient time (approximately 45+ minutes) to return to equilibrium before we collected the SS samples in 1L Summa™ canisters.

Laboratory results in this summary report are compared to NJDEP's Non-Residential Soil Gas Screening Levels (NRSGSL). Laboratory results from Kumon Tutoring were also compared to NJDEP's more stringent Residential Soil Gas Screening Levels (RSGSL) since children occupy the space at various times. Results are shown in micrograms per cubic meter of air ($\mu g/m^3$).

Summary data tables consistent with NJDEP's vapor intrusion guidance showing results for all SS samples are attached.

PO Box 3009, Upper Montclair NJ 07043-3009
Phone 973•746•7600 Fax 973•746•7602 Email: Mail@ViridianInc.com

Our findings are:

Sub-Slab Soil Gas Samples: All contaminants of concern for the site associated with dry cleaning compounds were below the NRSGSL.

Chloroform was in exceedance under Knot Just Bagels, but it is most often associated with volatilized chlorinated water. The presence of chloroform is possibly due to leaking sewer pipes and/or the use of bleach or hot chlorinated tap water.

Samples collected within the Kumon Learning Center, KUMON-SS-1 and KUMON-SS-2, were also compared to RSGSL since a sensitive population (children) frequently occupies the space. Kumon-SS-1 exceeded the more conservative RSGSL for TCE; however, was below the NRSGSL. All other compounds were below the RSGSL.

Compound	RSGSL (ug/m^3)	NRSGSL (ug/m^3)	KUMON-SS-1 (ug/m^3)	KUMON-SS-2 (ug/m^3)
Trichloroethene	27	150	**100***	26

*Only exceeds the RSGSL

With the exception of chloroform; results indicate contaminants were not present at levels above the NRSGSL in the sub-slab soil gas. TCE exceeds the more stringent RSGSL in one sample collected beneath the Kumon Learning Center.

As an extra precaution of the RSGSL exceedance in the Kumon Learning Center sub-slab, Viridian installed an NJDEP approved air treatment unit to help alleviate the possibility of TCE entering the indoor air. Viridian also recommends increasing the amount of fresh air into the HVAC system and/or sealing potential openings between tenant spaces.

For Viridian® Inc., Environmental Field Services,

Flint Kinkade, CHMM
Director

Enclosed:
- Map with sample locations
- Residential Soil Gas Sampling Results Table
- Non-Residential Soil Gas Sampling Results Table
- Sample Collection Sheet
- Weather Data

PO Box 3009, Upper Montclair NJ 07043-3009
Phone 973•746•7600 Fax 973•746•7602 Email: Mail@ViridianInc.com

Poillon Street
Rahway Avenue
Rahway Avenue
Parking Lot
N
BS-SS-2
BS-SS-1
Knot Just Bagels
US 1 Cleaners
Kumon-SS-2
Kumon-SS-1
Kumon
OMF-SS-2
OMF-SS-1
One Main Financial
UPS-SS-2
UPS-SS-1
UPS Store
PNC-SS-2
PNC-SS-1
Vacant (Bank)
Legend
Sub-Slab Soil Gas Sample Location
Scale
0'
85'
*Scale is Approximate
VIRIDIAN®
PO Box 3009 Memorial Station Upper Montclair, NJ 07043
Sub-Slab Soil Gas Sample Locations
US 1 Cleaners
10 Main Street
Woodbridge, NJ 07095
FIG. NO.
1
PROJ. NO.:
0809-15
DATE:
Sept. 2015

Residential Soil Gas Sampling Results Summary Table

US1 Cleaners
10 Main Street Woodbridge, NJ 07095
Woodbridge Township, Middlesex County
NJDEP PI # 001783

US1 Cleaners 10 Main Street Woodbridge, NJ Woodbridge Township, Middlesex County	NJDEP Non-Residential Soil Gas Screening Levels	NJDEP Residential Soil Gas Screening Levels	Sub-Slab Soil Gas Kumon Learning Center KUMON-SS-1	Sub-Slab Soil Gas Kumon Learning Center KUMON-SS-2
Chemical			**8/28/2015**	**8/28/2015**
1,1,1-Trichloroethane	1100000	260000	ND	ND
1,1,2,2-Tetrachloroethane	34	34	ND	ND
1,1,2-Trichloroethane	38	27	ND	ND
1,1-Dichloroethane	380	76	ND	ND
1,1-Dichloroethene	44000	10000	ND	ND
1,2,4-Trichlorobenzene	440	100	ND	ND
1,2,4-Trimethylbenzene	NA	NA	ND	ND
1,2-Dibromoethane	38	38	ND	ND
1,2-Dichlorobenzene	44000	10000	ND	ND
1,2-Dichloroethane	24	20	ND	ND
1,2-Dichloropropane	61	23	ND	ND
1,3,5-Trimethybenzene	NA	NA	ND	ND
1,3-Butadiene	20	11	ND	ND
1,3-Dichlorobenzene	NA	NA	ND	ND
1,4-Dichlorobenzene	56	30	ND	ND
1,4-Dioxane	NA	NA	ND	ND
2,2,4-Trimethylpentane	NA	NA	ND	ND
2-Butanone	1100000	260000	ND	5
2-Chlorotoluene	NA	NA	ND	ND
3-Chloropropene	100	20	ND	ND
4-Ethyltoluene	NA	NA	ND	ND
4-Methyl-2-pentanone	660000	160000	ND	ND
Acetone	6800000	1600000	6	29
Benzene	79	16	ND	ND
Bromodichloromethane	34	34	ND	ND
Bromoform	560	110	ND	ND
Bromomethane	1100	260	ND	ND
Carbon disulfide	150000	36000	ND	ND
Carbon tetrachloride	100	31	ND	ND
Chlorobenzene	11000	2600	ND	ND
Chloroethane	2200000	520000	ND	ND
Chloroform	27	24	ND	ND
Chloromethane	20000	4700	ND	ND
cis-1,2-Dichloroethene	NA	NA	ND	ND
cis-1,3-Dichloropropene	150	30	ND	ND
Cyclohexane	1300000	310000	ND	ND
Dibromochloromethane	43	43	ND	ND
Dichlorodifluoromethane	22000	5200	2	2
Ethanol	NA	NA	19	55
Ethylbenzene	250	49	ND	ND
Freon-113	6600000	1600000	ND	ND
Freon-114	NA	NA	ND	ND
Heptane	NA	NA	ND	ND
Hexachlorobutadiene	53	53	ND	ND
Isopropanol	NA	NA	ND	6
Methyl Methacrylate	NA	NA	ND	ND
Methyl tert butyl ether	2400	470	ND	ND
Methylene chloride	61000	4800	ND	ND
n-Hexane	150000	36000	ND	ND
o-Xylene	NA	NA	ND	ND
p/m-Xylene	NA	NA	ND	ND
Styrene	220000	52000	ND	ND
Tertiary butyl Alcohol	NA	NA	ND	4
Tetrachloroethene	2400	470	120	41
Tetrahydrofuran	NA	NA	ND	ND
Toluene	1100000	260000	ND	ND
trans-1,2-Dichloroethene	13000	3100	ND	ND
trans-1,3-Dichloropropene	150	30	ND	ND
Trichloroethene	150	27	**100**	26
Trichlorofluoromethane	150000	36000	5	2
Vinyl bromide	22	22	ND	ND
Vinyl chloride	140	13	ND	ND

Notes:
All results are in micrograms per cubic meter ($\mu g/m^3$).
NA - A screening level is currently unavailable for this chemical.
ND - Not Detected
Screening Levels.

Non-Residential Soil Gas Sampling Results Summary Table

US1 Cleaners
10 Main Street Woodbridge, NJ 07095
Woodbridge Township, Middlesex County
NJDEP PI # 001783

US1 Cleaners 10 Main Street Woodbridge, NJ Woodbridge Township, Middlesex County	NJDEP Non-Residential Soil Gas Screening Levels	Sub-Slab Soil Gas Knot Just Bagels BS-SS-1	Sub-Slab Soil Gas Knot Just Bagels BS-SS-2	Sub-Slab Soil Gas One Main Financial OMF-SS-1	Sub-Slab Soil Gas One Main Financial OMF-SS-2	Sub-Slab Soil Gas UPS Store UPS-SS-1	Sub-Slab Soil Gas UPS Store UPS-SS-2	Sub-Slab Soil Gas Vacant (formerly PNC bank) PNC-SS-1	Sub-Slab Soil Gas Vacant (formerly PNC bank) PNC-SS-2
Chemical		**27-Aug-15**	**27-Aug-15**	**27-Aug-15**	**27-Aug-15**	**27-Aug-15**	**27-Aug-15**	**27-Aug-15**	**27-Aug-15**
1,1,1-Trichloroethane	1100000	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	34	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	38	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	380	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	44000	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	440	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	NA	4	5	4	7	6	15	5	7
1,2-Dibromoethane	38	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	44000	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	24	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	61	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethybenzene	NA	ND	ND	ND	ND	ND	3	ND	ND
1,3-Butadiene	20	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	NA	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	56	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	NA	2	ND	ND	ND	ND	ND	ND	ND
2,2,4-Trimethylpentane	NA	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	1100000	4	ND	ND	12	ND	53	ND	ND
2-Chlorotoluene	NA	ND	ND	ND	ND	ND	ND	ND	ND
3-Chloropropene	100	ND	ND	ND	ND	ND	ND	ND	ND
4-Ethyltoluene	NA	ND	ND	ND	ND	ND	3	ND	ND
4-Methyl-2-pentanone	660000	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	6800000	74	12	10	78	9	310	ND	ND
Benzene	79	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	34	ND	15	ND	ND	ND	ND	ND	ND
Bromoform	560	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	1100	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	150000	ND	2	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	100	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	11000	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	2200000	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	27	19	**63**	ND	ND	ND	ND	ND	ND
Chloromethane	20000	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	NA	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	150	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	1300000	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	43	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	22000	ND	ND	2	ND	ND	ND	ND	ND
Ethanol	NA	280	ND	41	130	24	210	ND	ND
Ethylbenzene	250	ND	ND	ND	3	ND	4	ND	ND
Freon-113	6600000	ND	ND	ND	ND	ND	ND	ND	ND
Freon-114	NA	ND	ND	ND	ND	ND	ND	ND	ND
Heptane	NA	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	53	ND	ND	ND	ND	ND	ND	ND	ND
Isopropanol	NA	4	3	3	17	ND	39	ND	ND
Methyl Methacrylate	NA	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert butyl ether	2400	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	61000	ND	ND	ND	ND	ND	ND	ND	ND
n-Hexane	150000	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	NA	ND	ND	ND	3	2	5	ND	ND
p/m-Xylene	NA	ND	ND	4	10	5	13	ND	ND
Styrene	220000	ND	ND	ND	ND	ND	ND	ND	ND
Tertiary butyl Alcohol	NA	ND	ND	ND	4	ND	6	ND	ND
Tetrachloroethene	2400	4	ND	210	120	310	130	1300	1400
Tetrahydrofuran	NA	ND	ND	ND	ND	ND	6	ND	ND
Toluene	1100000	2	2	4	8	5	8	ND	ND
trans-1,2-Dichloroethene	13000	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	150	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	150	ND	ND	75	38	81	18	32	31
Trichlorofluoromethane	150000	3	ND	3	3	4	ND	ND	ND
Vinyl bromide	22	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	140	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

All results are in micrograms per cubic meter ($\mu g/m^3$).

NA - A screening level is currently not available for this chemical.

ND - Not Detect

Bolded and shaded results identify exceedances of the applicable NJDEP Non-ResidentialSoil Gas Screening Levels

Sample Collection Sheet

Viridian Project No.

Site Name: US1 Cleaners-Tellurian	Date: 8/27/15	Date: 8/28/15	Date: 8/27/15	Date:8/28/15
Site Location: 10 Main Street, Woodbridge, NJ	On Site Time/Weather: 11:30 AM/PM 79 °	11:30 AM/PM °	Bar: 30.06”	30.19”
Date: 8/27/15-8/28/15	Off Site Time/Weather: 13:30 AM/PM 81 °	15:00 AM/PM °	Bar: 30.15”	30.15”

	Sample ID	Depth/ Height	He % Tracer in shroud	OK	Start Time/Date	Finish Time/Date	Start Pressure (“ Hg)	Final Pressure (“ Hg)	Flow Controller	Canister ID	Comments
1	UPS-SS-2	4”+4”	18.9	Yes	14:19 (8/ 27/15)	14:25 (8/27/15)	-30.6	0	0506	564	
2	KUMON-SS-1	4”+4”	25.8	Yes	12:56 (8/28/15)	13:04 (8/28/15)	-30.0	0	0508	662	
3	KUMON-SS-2	1” + 4”	17.4	Yes	12:57 (8/28/15)	13:05 (8/28/15)	-30.1	0	0514	735	
4	PNC-SS-1	4”+4”	21.2	Yes	14:30 (8/27/15)	14:35 (8/27/15)	-29.7	0	0540	1933	
5	PNC-SS-2	4”+4”	18.5	Yes	14:32 (8/27/15)	14:38 (8/27/15)	-29.1	0	0687	854	
6	OMF-SS-2	4”+4”	20.4	Yes	14:06 (8/27/15)	14:12 (8/27/15)	-29.8	0	0566	1951	
7	BS-SS-2	4”+4”	47.8	Yes	13:49 (8/27/15)	13:55 (8/27/15)	-30.3	0	0527	714	
8	BS-SS-1	4”+4”	15.4	Yes	13:43 (8/27/15)	13:49 (8/27/15)	-30.1	0	0669	1918	
9	UPS-SS-2	4”+4”	17.4	Yes	14:17 (8/27/15)	14:22 (8/27/15)	-29.8	0	0692	716	
10	OMF-SS-1	4”+4”	16.6	Yes	14:02 (8/27/15)	14:09 (8/27/15)	-29.8	0	0564	1959	
11					(/ /)	(/ /)					
12					(/ /)	(/ /)					

Notes:

KUMON-SS-2 (in back) had a thin slab under the tile, less than one inch. Void underneath too.

Shut-In Conducted? Yes

Work Completed By: CM, MK, JH, FK, EH

VIRIDIAN®
Environmental Field Services

weather.gov

Weather observations for the past three days

Newark, Newark International Airport

Enter Your "City, ST" or zip code [ ] Go

metric en español

Date	Time (edt)	Wind (mph)	Vis. (mi.)	Weather	Sky Cond.	Temperature (°F) Air	Dwpt	6 hour Max.	6 hour Min.	Relative Humidity	Wind Chill (°F)	Heat Index (°F)	Pressure altimeter (in)	Pressure sea level (mb)	Precipitation (in.) 1 hr	3 hr	6 hr
28	13:51	NW 9	10.00	A Few Clouds	FEW060	81	49	82	66	33%	NA	80	30.15	1021.0			
28	12:51	NW 13 G 21	10.00	Partly Cloudy	SCT060	80	49			34%	NA	79	30.17	1021.7			
28	11:51	NW 9 G 18	10.00	Partly Cloudy	SCT055	79	50			36%	NA	79	30.19	1022.1			
28	10:51	W 7	10.00	A Few Clouds	FEW045	77	52			42%	NA	78	30.19	1022.3			
28	09:51	N 10	10.00	A Few Clouds	FEW040	74	51			45%	NA	NA	30.19	1022.1			
28	08:51	N 5	10.00	Partly Cloudy	SCT060 SCT250	72	52			50%	NA	NA	30.18	1021.8			
28	07:51	NE 6	10.00	Partly Cloudy	SCT060 SCT250	66	54	68	63	65%	NA	NA	30.17	1021.6			
28	06:51	NW 7	10.00	Partly Cloudy	FEW050 SCT250	64	54			70%	NA	NA	30.16	1021.3			
28	05:51	N 6	10.00	A Few Clouds	FEW250	63	53			70%	NA	NA	30.14	1020.6			
28	04:51	N 7	10.00	A Few Clouds	FEW250	64	54			70%	NA	NA	30.14	1020.4			
28	03:51	W 5	10.00	A Few Clouds	FEW250	64	54			70%	NA	NA	30.13	1020.3			
28	02:51	NW 3	10.00	Partly Cloudy	FEW055 SCT250	66	54			65%	NA	NA	30.13	1020.4			
28	01:51	W 6	10.00	Partly Cloudy	FEW055 SCT250	67	54	74	67	63%	NA	NA	30.13	1020.3			
28	00:51	W 5	10.00	Partly Cloudy	FEW060 SCT250	68	54			61%	NA	NA	30.13	1020.4			
27	23:51	W 6	10.00	A Few Clouds	FEW250	69	54			59%	NA	NA	30.12	1020.0			
27	22:51	NW 7	10.00	A Few Clouds	FEW250	70	54			57%	NA	NA	30.11	1019.6			
27	21:51	NW 7	10.00	A Few Clouds	FEW250	72	53			52%	NA	NA	30.10	1019.3			
27	20:51	NW 8	10.00	Partly Cloudy	FEW055 SCT250	73	52			48%	NA	NA	30.09	1018.9			
27	19:51	NW 14 G 21	10.00	Partly Cloudy	FEW055 SCT250	74	53	84	74	48%	NA	NA	30.07	1018.2			
27	18:51	NW 10 G 18	10.00	Mostly Cloudy	FEW050 SCT065 BKN250	76	53			45%	NA	78	30.06	1017.9			
27	17:51	NW 13	10.00	Mostly Cloudy	FEW050 BKN065 BKN250	77	52			42%	NA	78	30.05	1017.7			

FINISH

27	16:51	NW 16 G 23	10.00	Mostly Cloudy	SCT055 BKN065 BKN250	81	52			37%	NA	80	30.04	1017.3	
27	15:51	NW 12 G 18	10.00	Mostly Cloudy	SCT055 BKN250	81	52			37%	NA	80	30.04	1017.0	
27	14:51	W 12 G 16	10.00	Mostly Cloudy	SCT055 BKN250	82	52			35%	NA	81	30.05	1017.5	
27	13:51	NW 8	10.00	Mostly Cloudy	SCT060 BKN250	81	53	82	69	38%	NA	80	30.05	1017.7	
27	12:51	NW 12 G 17	10.00	Mostly Cloudy	SCT050 BKN250	79	52			39%	NA	79	30.06	1017.7	START
27	11:51	NW 10 G 22	10.00	Mostly Cloudy	SCT048 BKN250	80	53			39%	NA	80	30.07	1018.1	
27	10:51	NW 12 G 18	10.00	Partly Cloudy	FEW050 SCT250	78	53			42%	NA	79	30.07	1018.3	
27	09:51	N 8 G 18	10.00	Partly Cloudy	FEW040 SCT250	75	54			48%	NA	NA	30.07	1018.2	
27	08:51	NW 16 G 21	10.00	Partly Cloudy	FEW080 SCT090 SCT250	72	55			55%	NA	NA	30.06	1018.0	
27	07:51	NW 10	10.00	Partly Cloudy	FEW080 SCT090 SCT250	71	56	71	64	59%	NA	NA	30.06	1017.9	
27	06:51	Calm	10.00	A Few Clouds	FEW080	66	56			70%	NA	NA	30.03	1017.0	
27	05:51	W 8	10.00	A Few Clouds	FEW080	64	56			75%	NA	NA	30.03	1016.7	
27	04:51	W 3	10.00	A Few Clouds	FEW080	66	56			70%	NA	NA	30.01	1016.3	
27	03:51	NW 7	10.00	A Few Clouds	FEW080	67	56			68%	NA	NA	30.01	1016.0	
27	02:51	W 3	10.00	A Few Clouds	FEW075	68	56			65%	NA	NA	30.01	1016.1	
27	01:51	NW 6	10.00	A Few Clouds	FEW075	69	56	77	69	63%	NA	NA	30.02	1016.4	
27	00:51	NW 7	10.00	A Few Clouds	FEW075	70	55			59%	NA	NA	30.02	1016.6	
26	23:51	NW 7	10.00	Partly Cloudy	SCT070 SCT250	72	55			55%	NA	NA	30.02	1016.4	
26	22:51	Vrbl 5	10.00	Partly Cloudy	SCT070 SCT250	74	54			50%	NA	NA	30.01	1016.3	
26	21:51	NW 10	10.00	Partly Cloudy	FEW060 SCT250	74	54			50%	NA	NA	30.00	1015.7	
26	20:51	W 8	10.00	Partly Cloudy	FEW060 SCT250	76	54			47%	NA	78	29.98	1015.0	
26	19:51	W 12	10.00	Partly Cloudy	FEW070 SCT250	77	53	85	77	43%	NA	78	29.95	1014.1	
26	18:51	W 15	10.00	Partly Cloudy	SCT070 SCT250	80	52			38%	NA	80	29.94	1013.8	
26	17:51	W 13	10.00	Mostly Cloudy	BKN070 BKN250	81	51			35%	NA	80	29.93	1013.6	
26	16:51	W 16 G 21	10.00	Mostly Cloudy	SCT060 BKN080	83	49			31%	NA	81	29.94	1013.7	
26	15:51	W 12 G 21	10.00	Mostly Cloudy	BKN070	81	51			35%	NA	80	29.95	1014.1	
26	14:51		10.00		BKN065	82	50			33%	NA	81	29.96	1014.3	

Date	Time (edt)	Wind (mph)	Vis. (mi.)	Weather	Sky Cond.	Air	Dwpt	Max. 6 hour	Min. 6 hour	Relative Humidity	Wind Chill (°F)	Heat Index (°F)	altimeter (in.)	sea level (mb)	1 hr	3 hr	6 hr
						Temperature (ºF)							Pressure		Precipitation (in.)		
		NW 15 G 24		Mostly Cloudy													
26	13:51	W 18 G 31	10.00	Partly Cloudy	SCT065	84	50	84	70	31%	NA	82	29.96	1014.5			
26	12:51	W 9 G 18	10.00	Partly Cloudy	FEW060 SCT250	83	50			32%	NA	81	29.97	1014.8			
26	11:51	W 10	10.00	Partly Cloudy	FEW055 SCT250	81	50			34%	NA	80	29.98	1015.3			
26	10:51	NW 9	10.00	Partly Cloudy	FEW045 SCT250	78	52			40%	NA	79	29.98	1015.3			
26	09:51	N 8	10.00	A Few Clouds	FEW250	77	52			42%	NA	78	29.98	1015.1			
26	08:51	N 6	10.00	A Few Clouds	FEW250	73	53			50%	NA	NA	29.98	1015.0			
26	07:51	NW 8	10.00	A Few Clouds	FEW250	70	54	70	66	57%	NA	NA	29.97	1014.7			
26	06:51	N 3	10.00	A Few Clouds	FEW090	68	54			61%	NA	NA	29.94	1013.8			
26	05:51	N 8	10.00	A Few Clouds	FEW080	67	54			63%	NA	NA	29.92	1013.3			
26	04:51	NW 5	10.00	Fair	CLR	68	54			61%	NA	NA	29.93	1013.3			
26	03:51	W 8	10.00	Fair	CLR	67	53			61%	NA	NA	29.92	1013.1			
26	02:51	NW 7	10.00	Fair	CLR	68	52			57%	NA	NA	29.92	1013.0			
26	01:51	W 7	10.00	Fair	CLR	69	52	82	69	55%	NA	NA	29.91	1012.9			
26	00:51	NW 8	10.00	Fair	CLR	73	51			46%	NA	NA	29.91	1012.8			
25	23:51	NW 10	10.00	Fair	CLR	74	50			43%	NA	NA	29.90	1012.5			
25	22:51	W 8	10.00	Fair	CLR	76	51			42%	NA	78	29.90	1012.5			
25	21:51	W 8	10.00	Fair	CLR	77	53			43%	NA	78	29.89	1012.1			
25	20:51	W 12	10.00	A Few Clouds	FEW075	79	53			41%	NA	79	29.87	1011.5			
25	19:51	W 16 G 22	10.00	A Few Clouds	FEW075	82	54	93	82	38%	NA	81	29.85	1010.6			
25	18:51	W 15	10.00	A Few Clouds	FEW075	86	55			35%	NA	85	29.82	1009.6			
25	17:51	W 14 G 23	10.00	Partly Cloudy	FEW075 SCT250	89	53			29%	NA	87	29.80	1009.2			
25	16:51	W 17 G 24	10.00	Partly Cloudy	FEW075 SCT250	92	53			27%	NA	90	29.80	1009.0			
25	15:51	S 12	10.00	Mostly Cloudy	FEW047 SCT075 BKN250	88	65			46%	NA	90	29.80	1009.0			
25	14:51	S 10 G 20	10.00	Partly Cloudy	SCT060 SCT250	86	69			57%	NA	90	29.81	1009.5			

National Weather Service
Southern Region Headquarters
Fort Worth, Texas
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APPENDIX B
Alpha Analytical Laboratory Data Package

ALPHA ANALYTICAL

World Class Chemistry

www.alphalab.com

Lab Number: L1521092

Client: Viridian, Inc.

ATTN: Erik Hughes

Project Name: US1 CLEANERS-TELLURIAN

Project Number: 0809-15

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Title Page - NJDEP Form A-1A

ANALYTICAL DATA PACKAGE FOR THE
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
TRENTON NEW JERSEY 08625

Agency/Division:	**Bureau/Office:**
Project No: 0809-15	**Contract No:**
Laboratory: Alpha Analytical	**Laboratory Location:** Mansfield, Ma
SDG No: L1521092	**NJDEP Certification #:** MA015
Date of First Sample Receipt: 08/28/2015	**Date of Last Sample Receipt:** 08/28/2015

Agency Sample Number	Laboratory Sample Number	Sample Location	Date/Time of Collection
UPS-SS-2	L1521092-01	US1 CLEANERS-TELLURIA	08/27/2015 14:25
KUMON-SS-1	L1521092-02	US1 CLEANERS-TELLURIA	08/28/2015 13:04
KUMON-SS-2	L1521092-03	US1 CLEANERS-TELLURIA	08/28/2015 13:05
PNC-SS-1	L1521092-04	US1 CLEANERS-TELLURIA	08/27/2015 14:35
PNC-SS-2	L1521092-05	US1 CLEANERS-TELLURIA	08/27/2015 14:38
OMF-SS-2	L1521092-06	US1 CLEANERS-TELLURIA	08/27/2015 14:12
BS-SS-2	L1521092-07	US1 CLEANERS-TELLURIA	08/27/2015 13:55
BS-SS-1	L1521092-08	US1 CLEANERS-TELLURIA	08/27/2015 13:49
UPS-SS-1	L1521092-09	US1 CLEANERS-TELLURIA	08/27/2015 14:22
OMF-SS-1	L1521092-10	US1 CLEANERS-TELLURIA	08/27/2015 14:09

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on disk or electronically has been authorized by the laboratory manager or his/her designee, as verified by the following signature.

Laboratory Manager (Typed)	Arin Jones	09/04/15
Laboratory Manager (Signature)	Arin Jones	
Quality Assurance Officer (Typed)	James Todaro	09/04/15
Quality Assurance Officer (Signature)	James C Todaro	

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Alpha Analytical
320 Forbes Blvd
Mansfield, MA 02048-1806
Tel: 508-822-9300
Fax: 508-822-3288

AIR Chain-of-Custody - NJ

Date Rec'd in Lab 8/29/15 | ALPHA Job# L1521092

1 of 2 COCs

Client Contact Information

Company: Viridian Environmental Inc.
Address: 7 Oak Pl.
City/State/Zip Montclair, NJ
Phone: 973-746-7600
FAX: 973-746-7602
Email: erik@viridianinc.com
Site Contact:
Site Contact Phone:

Project Information

Project Name: US1 Cleaners-Tellurian
Project No: 0809-15
Site/Location: 10 Main St. Woodbridge, NJ
Project Manager: Erik Hughes

Analysis Turn-Around Time

(Standard (Specify))
Rush (Specify)

NJ DEP Information

Bureau: Division: Contract No:

Report Information - Data Deliverables:

☐ FAX:
☐ ADEx ☐ Criteria Checker:
☐ [redacted]ail (standard pdf report)

Billing Information

☐ Same as Client Info PO #:

ALPHA LAB ID (Lab Use Only)	Sample Identification	Sample Date(s)	Time Start (24 hr clock)	Time Stop (24 hr clock)	Canister Pressure in Field (Hg) (Start)	Canister Pressure in Field (Hg) (Stop)	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Outgoing Canister Pressure (Hg) (Note1)	Incoming Canister Pressure (Hg) (Note 2)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout (ml/min) (Note1)	Batch Cert ID (Note 1)	TO-15	EPA 3C				Indoor /Ambient Air	Soil Gas		
21092-01	UPS-SS-2	8/27/15	14:19	14:25	-30.6	0	75	75	-29.5		0506	564	1L	220		X						X		
-02	Kumon-SS-1	8/28/15	12:56	13:04	-30.0	0	75	75	-29.4		0508	662		214		X						X		
-03	Kumon-SS-2	8/28/15	12:57	13:05	-30.1	0	75	75	-29.5		0514	735		215		X						X		
-04	PNC-SS-1	8/27/15	14:30	14:35	-29.7	0	75	75	-29.3		0540	1933		223		X						X		
-05	PNC-SS-2	8/27/15	14:32	14:38	-29.1	0	75	75	-29.5		0687	854		220		X						X		
-06	OMF-SS-2	8/27/15	14:06	14:12	-29.8	0	75	75	-29.6		0566	1951		219		X						X		

Custody Seals:
Outgoing Seal No: 147-148 (refer to crate seal)
Incoming Seal No: (if applicable)

Temperature (Fahrenheit)

	Ambient	Maximum	Minimum
Start	71	82	63
Stop	81	82	63

Pressure (inches of Hg)

	Ambient	Maximum	Minimum
Start	30.06	30.19	30.01
Stop	30.17	30.19	30.01

Individual Preparing Canister/Containers and Laboratory Canister Certification
Name: Lisa Barrett
Signature:

Footnotes:
(1) Refer to equipment tags for these readings.
(2) Readings provided in data deliverable package.

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:	Date/Time:
Samples Relinquished by:	Date/Time: 8/28/15 1600	Received by:	Date/Time: 8/28/15 1600
Relinquished by:	Date/Time: 8/28/15 0040	Received by: Tom Tober	Date/Time: 8-29-15 0040

Tom Tober 8-29-15 0040 Betty Bedard 8/29/15 0040

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until all ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

Note: Combined External Chain of Custody and NJDEP Field Test Data Sheet

Alpha Analytical
320 Forbes Blvd
Mansfield, MA 02048-1806
Tel: 508-822-9300
Fax: 508-822-3288

AIR Chain-of-Custody - NJ

Date Rec'd in Lab 8/29/15 | ALPHA Job# L1521092

2 of 2 COCs

Client Contact Information

Company: Viridian Environmental Inc.
Address: 7 Oak Pl
City/State/Zip Montclair NJ
Phone: 973-746-7600
FAX: 973-746-7602
Email: erik@viridianinc.com
Site Contact:
Site Contact Phone:

Project Information

Project Name: VS1 Cleaners - Tellurian
Project No: 0809-15
Site/Location: 10 main St. Woodbridge, NJ
Project Manager: Erik Hughes

Analysis Turn-Around Time

(Standard (Specify))
Rush (Specify)

NJ DEP Information

Bureau: Division: Contract No:

Report Information - Data Deliverables:

☐ FAX:
☐ ADEX ☐ Criteria Checker:
☐ [redacted]il (standard pdf report)

Billing Information

☐ Same as Client Info PO #:

ALPHA LAB ID (Lab Use Only)	Sample Identification	Sample Date(s)	Time Start (24 hr clock)	Time Stop (24 hr clock)	Canister Pressure in Field (Hg) (Start)	Canister Pressure in Field (Hg) (Stop)	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Outgoing Canister Pressure (Hg) (Note1)	Incoming Canister Pressure (Hg) (Note 2)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout (ml/min) (Note1)	Batch Cert ID (Note 1)	TO-15	EPA 3C				Indoor /Ambient Air	Soil Gas		
-07	BS-SS-2	8/27/15	13:49	13:55	-30.3	0	75	75	-29.5		0527	714	1L	220		X						X		
-08	BS-SS-1	|	13:43	13:49	-30.1	0	75	75	-29.1		0669	1918	|	218		X						X		
-09	UPS-SS-1	|	14:17	14:22	-29.8	0	75	75	-29.5		0892	716	|	223		X						X		
-10	OMF-SS-1	|	14:02	14:09	-29.8	0	75	75	-29.4		0564	1959	|	214		X						X		

Custody Seals:
Outgoing Seal No: 147-148 (refer to crate seal)
Incoming Seal No: (if applicable)

Temperature (Fahrenheit)

	Ambient	Maximum	Minimum	
Start	71	82	63	
Stop	81	82	63	

Pressure (inches of Hg)

	Ambient	Maximum	Minimum	
Start	30.06	30.19	30.01	
Stop	30.17	30.19	30.01	

Individual Preparing Canister/Containers and Laboratory Canister Certification
Name: Lisa Barrett
Signature: [signature]

Footnotes:
(1) Refer to equipment tags for these readings.
(2) Readings provided in data deliverable package.

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:	Date/Time:
Samples Relinquished by: [signature]	Date/Time: 8/28/15 1600	Received by: [signature]	Date/Time: 8/29/15 1600
Relinquished by: [signature]	Date/Time: 8/29/15 0040	Received by: [signature]	Date/Time: 8-29-15 0040
Tom Tober 8-29-15 0040		[signature] Bedard 8/29/15 0040	

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until all ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

Note: Combined External Chain of Custody and NJDEP Field Test Data Sheet

ALPHA ANALYTICAL LABORATORIES
Container Tracking Report

Container ID Type	Status	Transaction Date	From Response	Location	Operator	To Response	Location	Operator
L1521092-01A Can-1	INTACT	03-SEP-15	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young	A2-CUSTODY	A2-AIR-CUSTODY	Robert Young
L1521092-01A Can-1	INTACT	02-SEP-15	A2-AIR	A2-AIR-CUSTODY	Robert Young	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young
L1521092-01A Can-1	INTACT	29-AUG-15	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-AIR-CUSTODY	A2-AIR-CUSTODY	Bethany Bedard
L1521092-02A Can-1	INTACT	03-SEP-15	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young	A2-CUSTODY	A2-AIR-CUSTODY	Robert Young
L1521092-02A Can-1	INTACT	02-SEP-15	A2-AIR	A2-AIR-CUSTODY	Robert Young	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young
L1521092-02A Can-1	INTACT	29-AUG-15	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-AIR-CUSTODY	A2-AIR-CUSTODY	Bethany Bedard
L1521092-03A Can-1	INTACT	03-SEP-15	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young	A2-CUSTODY	A2-AIR-CUSTODY	Robert Young
L1521092-03A Can-1	INTACT	02-SEP-15	A2-AIR	A2-AIR-CUSTODY	Robert Young	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young
L1521092-03A Can-1	INTACT	29-AUG-15	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-AIR-CUSTODY	A2-AIR-CUSTODY	Bethany Bedard
L1521092-04A Can-1	INTACT	03-SEP-15	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young	A2-CUSTODY	A2-AIR-CUSTODY	Robert Young
L1521092-04A Can-1	INTACT	02-SEP-15	A2-AIR	A2-AIR-CUSTODY	Robert Young	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young
L1521092-04A Can-1	INTACT	29-AUG-15	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-AIR-CUSTODY	A2-AIR-CUSTODY	Bethany Bedard
L1521092-05A Can-1	INTACT	03-SEP-15	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young	A2-CUSTODY	A2-AIR-CUSTODY	Robert Young
L1521092-05A Can-1	INTACT	02-SEP-15	A2-AIR	A2-AIR-CUSTODY	Robert Young	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young
L1521092-05A Can-1	INTACT	29-AUG-15	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-AIR-CUSTODY	A2-AIR-CUSTODY	Bethany Bedard
L1521092-06A Can-1	INTACT	03-SEP-15	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young	A2-CUSTODY	A2-AIR-CUSTODY	Robert Young
L1521092-06A Can-1	INTACT	02-SEP-15	A2-AIR	A2-AIR-CUSTODY	Robert Young	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young
L1521092-06A Can-1	INTACT	29-AUG-15	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-AIR-CUSTODY	A2-AIR-CUSTODY	Bethany Bedard
L1521092-07A Can-1	INTACT	03-SEP-15	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young	A2-CUSTODY	A2-AIR-CUSTODY	Robert Young
L1521092-07A Can-1	INTACT	02-SEP-15	A2-AIR	A2-AIR-CUSTODY	Robert Young	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young
L1521092-07A Can-1	INTACT	29-AUG-15	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-AIR-CUSTODY	A2-AIR-CUSTODY	Bethany Bedard
L1521092-08A Can-1	INTACT	03-SEP-15	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young	A2-CUSTODY	A2-AIR-CUSTODY	Robert Young
L1521092-08A Can-1	INTACT	02-SEP-15	A2-AIR	A2-AIR-CUSTODY	Robert Young	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young
L1521092-08A Can-1	INTACT	29-AUG-15	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-AIR-CUSTODY	A2-AIR-CUSTODY	Bethany Bedard
L1521092-09A Can-1	INTACT	03-SEP-15	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young	A2-CUSTODY	A2-AIR-CUSTODY	Robert Young

Container ID	Type	Status	Transaction Date	From Response	Location	To Operator	Response	Location	Operator
L1521092-09A	Can-1	INTACT	02-SEP-15	A2-AIR	A2-AIR-CUSTODY	Robert Young	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young
L1521092-09A	Can-1	INTACT	29-AUG-15	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-AIR-CUSTODY	A2-AIR-CUSTODY	Bethany Bedard
L1521092-10A	Can-1	INTACT	03-SEP-15	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young	A2-CUSTODY	A2-AIR-CUSTODY	Robert Young
L1521092-10A	Can-1	INTACT	02-SEP-15	A2-AIR	A2-AIR-CUSTODY	Robert Young	A2-VOA-ANALYSIS	A2-VOA-ANALYSIS	Robert Young
L1521092-10A	Can-1	INTACT	29-AUG-15	A2-LOGIN	A2-LOGIN	Bethany Bedard	A2-AIR-CUSTODY	A2-AIR-CUSTODY	Bethany Bedard

Shipping Documentation

Sample Delivery Group Form

Laboratory Job number: L1521092
Project Manager: Chris Anderson **Review Date:** 09/02/2015
Project Number: 0809-15
Project Name: US1 CLEANERS-TELLURIAN **Received:** 08/28/2015 16:00
Client Account: Viridian, Inc. **Received by:** BB

Samples Delivered by: COURIER **Call Tracker #**
Bill Of Laden N/A **Trackingnum**
Coc Present Present

Container Status Intact **Sample IDs**

All Containers Accounted For? Yes

Were Extra Samples Received? No

Do Sample Labels and COC agree? Yes

Are Samples in Appropriate Containers? Yes

Are Samples Received within Holding time? Yes

pH of Samples upon Receipt N/A **Are samples Properly Preserved?** Yes
Initial pH **preserved in house with** **Final pH**
Other Issues
Chlorine Check N/A

Are VOA/VPH Vials Present? No
Aqueous: Do Vials Contain Head Space? N/A
Soils: Is MeOHCovering the Soil? N/A
Reagent H2O Preserved vials Frozen on N/A
Frozen by Client N/A

Cooler	Seal	Ice Present	Blue Ice Present	Temp. (Celsius)	Frozen upon Receipt	Delivered Direct from Site
N/A	Present/Intact	No	No	-	No	No

STANDARD NAME:	TO15 ICAL STD	**Primary Standard ID#s :**	**1)**	**CSS14-011**	**Conc. 1.0 ppmV**
ROOT STANDARD ID#	SS15-024		**2)**	**CSS14-013**	**Conc. 1.0 ppmV**
Prepared by:	RY		**3)**	**CSS14-014**	**Conc. 1.0 ppmV**
Date Prepared:	7/23/2015		**4)**	**PS15-012(BAG)**	**Conc. 50.0 ppmV**
Expiration Date:	10/23/2015		**5)**		**Conc.**

Standard Letter ID	Canister Serial # or Tedlar Bag Size	Volume of Primary Standards Added	Flow Rate and Transer Time of Standard Gas *	Canister Volume, L	Final Canister Pressure, ATM **	Final Volume of Secondary Standard, L	Final Concentration
A	894	3000 mL	50 mL/ min for 60 min	15	2	30	100 ppbV
B1 & B2	703/ 1684	300 mL	50 mL/ min for 6 min	15	2	30	10 ppbV
C	1682	300 mL of can A	NA	15	2	30	1.0 ppbV
D	1803	30 mL of can A	NA	15	2	30	0.1 ppbV
E (NJ CC)	914	300 mL	50 mL/ min for 6 min	15	2	30	10 ppbV
F (NJ CC)	1683	300 mL	50 mL/ min for 6 min	15	2	30	10 ppbV

Notes: BAG INJ (PS15-012) A=60mL B,E,+F=6mL SOLID PHASE INJECTIONS -- SEE TABLE 3B IN SOP

* - Not applicable when using gas-tight syringe

** - To convert PSIA to ATM; Divide PSIA by 14.696

Diluent Gas: HUM N2

Lot #: BULK TANK

STANDARD NAME:	TO15-LCS STD	**Primary Standard ID#s :**	**1)**	**CSS15-003**	**Conc. 1.0 ppmV**
ROOT STANDARD ID#	SS15-026		**2)**	**CSS15-005**	**Conc. 1.0 ppmV**
Prepared by:	MB		**3)**	**CSS15-006**	**Conc. 1.0 ppmV**
Date Prepared:	08/14/15		**4)**	**PS15-013(BAG)**	**Conc. 50.0 ppmV**
Expiration Date:	11/14/15		**5)**		**Conc.**

Standard Letter ID	Canister Serial # or Tedlar Bag Size	Volume of Primary Standards Added	Flow Rate and Transer Time of Standard Gas *	Canister Volume, L	Final Canister Pressure, ATM **	Final Volume of Secondary Standard, L	Final Concentration
A	913	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV
B	1501	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV
C	895	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV
D	912	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV
E	916	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV
F	606	300 mL	50mL/ MIN FOR 6 MINS.	15.0	2.0	30.0	10 ppbV

Notes: 6mLs OF BAG STD. (PS15-013) ADDED VIA DIRECT INJECTION

* - Not applicable when using gas-tight syringe

** - To convert PSIA to ATM; Divide PSIA by 14.696

Diluent Gas: HUM. N2

Lot #: BULK TANK

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PAGE: 1 of 2

CERTIFICATE OF ANALYSIS

Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-256057
Certification Date:	Aug-21-2014	**Cylinder Pressure:**	1200 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	2400 Liters
Expiration Date:	Aug-21-2015	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
Freon-12	75-71-8	1.00 ppm	1.05 ppm
Chloromethane	74-87-3	1.00 ppm	1.04 ppm
Freon-114	76-14-2	1.00 ppm	1.03 ppm
Vinyl Chloride	75-01-4	1.00 ppm	1.03 ppm
Bromomethane	74-83-9	1.00 ppm	1.03 ppm
Chloroethane	75-00-3	1.00 ppm	1.03 ppm
Freon-11	75-69-4	1.00 ppm	1.07 ppm
1,1-Dichloroethene	75-35-4	1.00 ppm	0.99 ppm
Methylene Chloride	75-09-2	1.00 ppm	1.00 ppm
Freon-113	76-13-1	1.00 ppm	1.01 ppm
1,1-Dichloroethane	75-34-3	1.00 ppm	0.99 ppm
Cis-1,2-Dichloroethylene	156-59-2	1.00 ppm	1.02 ppm
Chloroform	67-66-3	1.00 ppm	1.03 ppm
1,2-Dichloroethane	107-06-2	1.00 ppm	1.00 ppm
1,1,1-Trichloroethane	71-55-6	1.00 ppm	1.01 ppm
Benzene	71-43-2	1.00 ppm	1.01 ppm
Carbon Tetrachloride	56-23-5	1.00 ppm	1.03 ppm
1,2-Dichloropropane	78-87-5	1.00 ppm	1.02 ppm
Trichloroethylene	79-01-6	1.00 ppm	1.05 ppm
Cis-1,3-Dichloropropene	10061-01-5	1.00 ppm	1.01 ppm
Trans-1,3-Dichloropropene	10061-02-6	1.00 ppm	1.05 ppm
1,1,2-Trichloroethane	79-00-5	1.00 ppm	1.02 ppm
Toluene	108-88-3	1.00 ppm	1.02 ppm
1,2-Dibromoethane	106-93-4	1.00 ppm	1.02 ppm
Tetrachloroethylene	127-18-4	1.00 ppm	1.00 ppm
Chlorobenzene	108-90-7	1.00 ppm	1.01 ppm
Ethylbenzene	100-41-4	1.00 ppm	1.02 ppm
P-Xylene	106-42-3	1.00 ppm	1.02 ppm

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PAGE: 2 of 2

CERTIFICATE OF ANALYSIS

Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-256057
Certification Date:	Aug-21-2014	**Cylinder Pressure:**	1200 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	2400 Liters
Expiration Date:	Aug-21-2015	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
M-Xylene	108-38-3	1.00 ppm	1.02 ppm
Styrene	100-42-5	1.00 ppm	1.01 ppm
O-Xylene	95-47-6	1.00 ppm	1.02 ppm
1,1,2,2-Tetrachloroethane	79-34-5	1.00 ppm	1.01 ppm
4-Ethyltoluene	622-96-8	1.00 ppm	1.04 ppm
1,2,4-Trimethylbenzene	95-63-6	1.00 ppm	1.02 ppm
1,3-Dichlorobenzene	541-73-1	1.00 ppm	1.02 ppm
1,4-Dichlorobenzene	106-46-7	1.00 ppm	1.03 ppm
1,2-Dichlorobenzene	95-50-1	1.00 ppm	1.00 ppm
1,2,4-Trichlorobenzene	120-82-1	1.00 ppm	0.98 ppm
Hexachloro-1,3-Butadiene	87-68-3	1.00 ppm	0.99 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: _____
Matthew Jackson

DATE: Aug-21-2014

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CERTIFICATE OF ANALYSIS

Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-256101
Certification Date:	Aug-21-2014	**Cylinder Pressure:**	1600 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	3200 Liters
Expiration Date:	Aug-21-2015	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
Propylene	115-07-1	1.00 ppm	0.97 ppm
1,3-Butadiene	106-99-0	1.00 ppm	0.96 ppm
Vinyl Bromide	593-60-2	1.00 ppm	1.04 ppm
Acetone	67-64-1	1.00 ppm	1.03 ppm
Isopropyl Alcohol	67-63-0	1.00 ppm	0.96 ppm
Carbon Disulfide (Analytical Accuracy ± 10%)	75-15-0	1.00 ppm	1.05 ppm
Allyl Chloride	107-05-1	1.00 ppm	0.99 ppm
Trans-1,2-Dichloroethene	156-60-5	1.00 ppm	1.08 ppm
Methyl Tert-Butyl Ether	1634-04-4	1.00 ppm	1.01 ppm
Vinyl Acetate	108-05-4	1.00 ppm	0.95 ppm
Methyl Ethyl Ketone	78-93-3	1.00 ppm	1.04 ppm
n-Hexane	110-54-3	1.00 ppm	1.02 ppm
Ethyl Acetate	141-78-6	1.00 ppm	1.03 ppm
Tetrahydrofuran	109-99-9	1.00 ppm	1.04 ppm
Cyclohexane	110-82-7	1.00 ppm	1.02 ppm
Bromodichloromethane	75-27-4	1.00 ppm	1.03 ppm
1,4-Dioxane	123-91-1	1.00 ppm	1.03 ppm
2,2,4-Trimethylpentane	540-84-1	1.00 ppm	1.03 ppm
n-Heptane	142-82-5	1.00 ppm	1.03 ppm
Methyl Isobutyl Ketone	108-10-1	1.00 ppm	1.02 ppm
Methyl Butyl Ketone	591-78-6	1.00 ppm	1.02 ppm
Dibromochloromethane	124-48-1	1.00 ppm	1.03 ppm
Bromoform	75-25-2	1.00 ppm	1.02 ppm

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CERTIFICATE OF ANALYSIS

Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-256101
Certification Date:	Aug-21-2014	**Cylinder Pressure:**	1600 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	3200 Liters
Expiration Date:	Aug-21-2015	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
4-Ethyltoluene	622-96-8	1.00 ppm	1.04 ppm
Benzyl Chloride (Analytical Accuracy ± 10%)	100-44-7	1.00 ppm	1.01 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: Justin Kutz

DATE: Aug-21-2014

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Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-197190
Certification Date:	Aug-15-2014	**Cylinder Pressure:**	1100 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	2200 Liters
Expiration Date:	Aug-15-2016	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
Propane	74-98-6	1.00 ppm	1.02 ppm
Chlorodifluoromethane	75-45-6	1.00 ppm	1.07 ppm
Methanol (No Stability Guarantee)	67-56-1	5.00 ppm	5.24 ppm
n-Butane	106-97-8	1.00 ppm	1.12 ppm
Dichlorofluoromethane	75-43-4	1.00 ppm	1.06 ppm
Ethanol (Analytical Accuracy +/- 10%)	64-17-5	5.00 ppm	4.91 ppm
Acetonitrile (No Stability Guarantee)	75-05-8	1.00 ppm	1.01 ppm
Acrolein	107-02-8	1.00 ppm	1.13 ppm
n-Pentane	109-66-0	1.00 ppm	1.01 ppm
Acrylonitrile	107-13-1	1.00 ppm	1.01 ppm
Ethyl Ether	60-29-7	1.00 ppm	1.08 ppm
Tert Butyl Alcohol	75-65-0	1.00 ppm	1.11 ppm
2,2-Dichloropropane	594-20-7	1.00 ppm	1.07 ppm
Di-isopropyl Ether	108-20-3	1.00 ppm	1.07 ppm
Ethyl Tert-Butyl Ether	637-92-3	1.00 ppm	1.06 ppm
1,1-Dichloropropene	563-58-6	1.00 ppm	1.06 ppm
Tert Amyl Methyl Ether	994-05-8	1.00 ppm	1.07 ppm
Dibromomethane	74-95-3	1.00 ppm	1.05 ppm
1,3-Dichloropropane	142-28-9	1.00 ppm	1.07 ppm
n-Butyl Acetate	123-86-4	1.00 ppm	1.12 ppm
n-Octane	111-65-9	1.00 ppm	1.07 ppm
1,1,1,2-Tetrachloroethane	630-20-6	1.00 ppm	1.08 ppm
1,2,3-Trichloropropane	96-18-4	1.00 ppm	1.05 ppm
Nonane	111-84-2	1.00 ppm	1.07 ppm
Isopropylbenzene	98-82-8	1.00 ppm	1.04 ppm
Bromobenzene	108-86-1	1.00 ppm	0.98 ppm
o-Chlorotoluene	95-49-8	1.00 ppm	1.08 ppm
n-Propylbenzene	103-65-1	1.00 ppm	1.04 ppm

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CERTIFICATE OF ANALYSIS

Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-197190
Certification Date:	Aug-15-2014	**Cylinder Pressure:**	1100 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	2200 Liters
Expiration Date:	Aug-15-2016	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
4-Chlorotoluene	106-43-4	1.00 ppm	1.04 ppm
Tert-Butyl Benzene	98-06-6	1.00 ppm	1.06 ppm
n-Decane	124-18-5	1.00 ppm	1.06 ppm
Sec-Butyl Benzene	135-98-8	1.00 ppm	1.06 ppm
p-Cymene	99-87-6	1.00 ppm	1.04 ppm
n-Butyl Benzene	104-51-8	1.00 ppm	1.09 ppm
1,2-Dibromo-3-Chloropropane	96-12-8	1.00 ppm	1.03 ppm
n-Undecane	1120-21-4	1.00 ppm	1.02 ppm
Naphthalene (No Stability Guarantee)	91-20-3	1.00 ppm	0.99 ppm
n-Dodecane	112-40-3	1.00 ppm	0.99 ppm
1,2,3-Trichlorobenzene	87-61-6	1.00 ppm	1.08 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: Lou Lorenzetti

Lou Lorenzetti

DATE: Aug-15-2014

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PAGE: 1 of 1

CERTIFICATE OF ANALYSIS

Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-267374
Certification Date:	Aug-15-2014	**Cylinder Pressure:**	2000 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	4000 Liters
Expiration Date:	Aug-15-2015	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
n-Butane	106-97-8	1.00 ppm	1.01 ppm
Ethanol	64-17-5	1.00 ppm	0.79 ppm
Tert-Butanol	75-65-0	1.00 ppm	1.02 ppm
Methyl Methacrylate	80-62-6	1.00 ppm	1.00 ppm
2-Chlorotoluene	95-49-8	1.00 ppm	1.04 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: Lou Lorenzetti

DATE: Aug-15-2014

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CERTIFICATE OF ANALYSIS

Sales#:	111826905	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2957830	**Cylinder # :**	CC-267249
Certification Date:	Aug-15-2014	**Cylinder Pressure:**	2000 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	4000 Liters
Expiration Date:	Aug-15-2015	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
n-Butane	106-97-8	1.00 ppm	1.06 ppm
Ethanol	64-17-5	1.00 ppm	0.89 ppm
Tert-Butanol	75-65-0	1.00 ppm	1.03 ppm
Methyl Methacrylate	80-62-6	1.00 ppm	1.00 ppm
2-Chlorotoluene	95-49-8	1.00 ppm	1.05 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: Lou Lorenzetti

DATE: Aug-15-2014

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CERTIFICATE OF ANALYSIS

Sales#:	112411164	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2969970	**Cylinder # :**	CC-349592
Certification Date:	Jan-15-2015	**Cylinder Pressure:**	1100 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	2200 Liters
Expiration Date:	Jan-15-2016	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
Propylene	115-07-1	1.00 ppm	1.04 ppm
1,3-Butadiene	106-99-0	1.00 ppm	1.02 ppm
Vinyl Bromide	593-60-2	1.00 ppm	1.05 ppm
Acetone	67-64-1	1.00 ppm	1.05 ppm
Isopropyl Alcohol	67-63-0	1.00 ppm	1.10 ppm
Carbon Disulfide (Analytical Accuracy ± 10%)	75-15-0	1.00 ppm	1.03 ppm
Allyl Chloride	107-05-1	1.00 ppm	1.07 ppm
Trans-1,2-Dichloroethene	156-60-5	1.00 ppm	1.01 ppm
Methyl Tert-Butyl Ether	1634-04-4	1.00 ppm	1.06 ppm
Vinyl Acetate	108-05-4	1.00 ppm	1.10 ppm
Methyl Ethyl Ketone	78-93-3	1.00 ppm	1.05 ppm
n-Hexane	110-54-3	1.00 ppm	1.03 ppm
Ethyl Acetate	141-78-6	1.00 ppm	1.04 ppm
Tetrahydrofuran	109-99-9	1.00 ppm	1.03 ppm
Cyclohexane	110-82-7	1.00 ppm	1.05 ppm
Bromodichloromethane	75-27-4	1.00 ppm	1.04 ppm
1,4-Dioxane	123-91-1	1.00 ppm	1.06 ppm
2,2,4-Trimethylpentane	540-84-1	1.00 ppm	1.03 ppm
n-Heptane	142-82-5	1.00 ppm	1.05 ppm
Methyl Isobutyl Ketone	108-10-1	1.00 ppm	1.04 ppm
Methyl Butyl Ketone	591-78-6	1.00 ppm	1.05 ppm
Dibromochloromethane	124-48-1	1.00 ppm	1.03 ppm
Bromoform	75-25-2	1.00 ppm	1.02 ppm

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CERTIFICATE OF ANALYSIS

Sales#:	112411164	**Cylinder Size:**	2A (8" X 47.5")
Production#:	2969970	**Cylinder # :**	CC-349592
Certification Date:	Jan-15-2015	**Cylinder Pressure:**	1100 psig
P.O.# :	R9194	**Cylinder Valve:**	CGA 350 / Steel
Blend Type:	CERTIFIED	**Cylinder Volume:**	29.5 Liter
Material#:	14004551	**Cylinder Material:**	Aluminum
Traceability:	NIST by weight	**Gas Volume:**	2200 Liters
Expiration Date:	Jan-15-2016	**Blend Tolerance:**	10% Relative
Do NOT use under:	150 psig	**Analytical Accuracy:**	5% Relative

COMPONENT	CAS NUMBER	REQUESTED CONC	CERTIFIED CONC
4-Ethyltoluene	622-96-8	1.00 ppm	1.01 ppm
Benzyl Chloride (Analytical Accuracy ± 10%)	100-44-7	1.00 ppm	1.07 ppm
Nitrogen	7727-37-9	Balance	Balance

ANALYST: Justin Kutz

DATE: Jan-15-2015

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Methodology Summary NJDEP Form A-4

Laboratory:	Alpha Analytical	**Project No:**	0809-15
Location:	US1 CLEANERS-TELLURIAN	**SDG No:**	L1521092

Name	Required Methodology	Indicate Method
Volatile Organics	EPATO-15	EPATO-15

NJ DEP
Data of Known Quality Protocols Conformance/Non-Conformance Summary Questionnaire

NJ DEP Data of Known Quality Protocols
Conformance/Non-Conformance
Summary Questionnaire

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	YES
1a	Were the method specified handling, preservation, and holding time requirements met?	YES
1b	EPH Method: Was the EPH Method conducted without significant modifications (see Section 11.3 of respective DKQ methods)?	N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	YES
3	Were all samples received at an appropriate temperature (4 ± 2° C)?	N/A
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	YES
5a	Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt?	YES
5b	Were these reporting limits met?	YES
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	YES
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	NO

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1a or #1b is "No", the data package does not meet the requirements for "Data of Known Quality".

Case Narrative Documentation

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted.

Results contained within this Data Deliverable Package relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this Data Deliverable Package is organized by parameter (i.e. VOC, SVOC, etc.). If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.
Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted.

The performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC tables. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Customer Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Customer Services at 800-624-9220 with any questions.

NJDEP Volatile Organics in Air

Canisters were released from the laboratory on August 26, 2015. The canister certification results are provided as an addendum.

Any Manual integrations that were performed on L1521092 as well as its associated quality control samples and are noted on the individual quantitation reports. A listing of all manual integrations performed and the integration code definitions are provided in manual integration documentation section of the data package.

Case Narrative (continued)

Please note, dilution analysis due to exceedance of the calibration range is not required for Ethanol or Isopropyl Alcohol.

GC column and trap information utilized for the analysis of this sample delivery group is detailed below:
Column Type: Restek RTX-1
Column Length: 60 Meters
Internal diameter: 0.52 mm
Film thickness: 1.00 um
Trap 1: Entech Cold Trap - no packing material
Trap 2: Entech Tenax - 20 cm packing material

Gaseous calibration standards were utilized for system calibration and quality control standards associated with this sample delivery group. These standards were purchased from Linde (formerly Spectra Gases).

Laboratory standard procedure for QC (i.e. method blanks, LCS) and sample analysis is to withdraw a 250 mL aliquot from the canister as the "1X" analysis. For some calibration levels and samples, subsequent dilutions will be performed as needed by decreasing aliquot volumes via the instrumentation, or performing a dilution using a second canister. Make-up air is not routinely added to canisters prior to sample analysis.

Samples L1521092-01 through -10: Prior to sample analysis, the canisters were pressurized with UHP Nitrogen due to canister size. The pressurization resulted in a dilution of the samples. The reporting limits have been elevated accordingly.

Samples L1521092-04 and -05: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

The WG817978-3 LCS recovery for cis-1,3-Dichloropropene (200%) is above the upper 130% acceptance limit. The response for this compound was elevated however it was not detected in any of the associated

Case Narrative (continued)

samples therefore no further action was taken.

Sample Receipt

The sample designated UPS-SS-1 (L1521092-09) had a RPD for the pre- and post-flow controller calibration check (41% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 223 mL/minute; the final flow rate was 147 mL/minute. The final pressure recorded by the laboratory of the associated canister was -0.3 inches of mercury.

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer readable data submitted on CD/diskette and by electronic mail has been authorized by the laboratory manager or his/her designee, as verified by the following signature.

Authorized Signature: Christopher J Anderson

Title: Technical Director/Representative Date: 09/04/15

Manual Integration Summary

Sample Type	Lab Id	Analyte	Manual Integration Code
Field Sample	WG817978-2	propylene	M6
Field Sample	WG817978-2	Tetrahydrofuran	M6
Field Sample	WG817978-3	propylene	M6
Field Sample	WG817978-3	Tetrahydrofuran	M6
Field Sample	WG817978-3	4-ethyl toluene	M6
Field Sample	WG817978-4	naphthalene	M1
Field Sample	L1521092-02D	4-ethyl toluene	M3
Field Sample	L1521092-07D	4-ethyl toluene	M3
Field Sample	L1521092-08D	4-ethyl toluene	M3

M1 - Split or tailing peak, auto integration stopped early resulting in false low area count.
M2 - Peak not found by automatic integration algorithm.
M3 - Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.
M4 - Poor automated baseline construction.
M5 - Manual integration over a retention time range required, i.e. for hydrocarbon range methods.
M6 - Misassignment of peak valley by automated integration (poor split of 2 peaks).
M7 - A qualifier ion was manually integrated (only for GC/MS data).
M8 - Integration of individual analyte eluting on top of an unresolved complex.
M9 - Other- Explain on chromatogram

Manual Integration Codes

Flag	Reason
M1	Split or tailing peak, auto integration stopped early resulting in false low area count.
M2	Peak not found by automatic integration algorithm.
M3	Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.
M4	Poor automated baseline construction.
M5	Manual integration over a retention time range required, i.e. for hydrocarbon range methods.
M6	Misassignment of peak valley by automated integration (poor split of 2 peaks).
M7	A qualifier ion was manually integrated (only for GC/MS data).
M8	Integration of individual analyte eluting on top of an unresolved complex.
M9	Other- Explain on chromatogram

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Dichlorodifluoromethane	75-71-8	120.9	0.44	U	2			
Chloromethane	74-87-3	50.5	0.44	U	0.9			
Freon-114	76-14-2	170.9	0.44	U	3			
Vinyl chloride	75-01-4	62.5	0.44	U	1			
1,3-Butadiene	106-99-0	54.1	0.44	U	1			
Bromomethane	74-83-9	94.9	0.44	U	2			
Chloroethane	75-00-3	64.5	0.44	U	1			
Ethanol	64-17-5	46.1	110		210			
Vinyl bromide	593-60-2	106.9	0.44	U	2			
Acetone	67-64-1	58.1	130		310			
Trichlorofluoromethane	75-69-4	137.4	0.44	U	2			
Isopropanol	67-63-0	60.1	16		39			
1,1-Dichloroethene	75-35-4	96.9	0.44	U	2			
Tertiary butyl Alcohol	75-65-0	74.1	1.9		6			
Methylene chloride	75-09-2	84.9	1.1	U	4			
3-Chloropropene	107-05-1	76.5	0.44	U	1			
Carbon disulfide	75-15-0	76.1	0.44	U	1			
Freon-113	76-13-1	187.4	0.44	U	3			
trans-1,2-Dichloroethene	156-60-5	96.9	0.44	U	2			
1,1-Dichloroethane	75-34-3	99.0	0.44	U	2			
Methyl tert butyl ether	1634-04-4	88.2	0.44	U	2			
2-Butanone	78-93-3	72.1	18		53			
cis-1,2-Dichloroethene	156-59-2	96.9	0.44	U	2			
Chloroform	67-66-3	119.4	0.44	U	2			
Tetrahydrofuran	109-99-9	72.1	2.0		6			
1,2-Dichloroethane	107-06-2	99.0	0.44	U	2			
n-Hexane	110-54-3	86.2	0.44	U	2			
1,1,1-Trichloroethane	71-55-6	133.4	0.44	U	2			
Benzene	71-43-2	78.1	0.44	U	1			
Carbon tetrachloride	56-23-5	153.8	0.44	U	3			
Cyclohexane	110-82-7	84.2	0.44	U	2			
1,2-Dichloropropane	78-87-5	113.0	0.44	U	2			
Bromodichloromethane	75-27-4	163.8	0.44	U	3			
1,4-Dioxane	123-91-1	88.1	0.44	U	2			
Trichloroethene	79-01-6	131.4	3.4		18			
2,2,4-Trimethylpentane	540-84-1	114.2	0.44	U	2			
Methyl Methacrylate	80-62-6	100.1	1.1	U	5			
Heptane	142-82-5	100.2	0.44	U	2			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.44	U	2			
4-Methyl-2-pentanone	108-10-1	100.2	1.1	U	5			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.44	U	2			
1,1,2-Trichloroethane	79-00-5	133.4	0.44	U	2			
Toluene	108-88-3	92.1	2.0		8			
Dibromochloromethane	124-48-1	208.3	0.44	U	4			
1,2-Dibromoethane	106-93-4	187.9	0.44	U	3			
Tetrachloroethene	127-18-4	165.8	19		130			
Chlorobenzene	108-90-7	112.6	0.44	U	2			
Ethylbenzene	100-41-4	106.2	0.82		4			
p/m-Xylene	179601-23-1	106.2	2.9		13			
Bromoform	75-25-2	252.8	0.44	U	5			
Styrene	100-42-5	104.1	0.44	U	2			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.44	U	3			
o-Xylene	95-47-6	106.2	1.1		5			
2-Chlorotoluene	95-49-8	126.6	0.44	U	2			
4-Ethyltoluene	622-96-8	120.2	0.68		3			
1.3.5-Trimethylbenzene	108-67-8	120.2	0.70		3			
1,2,4-Trimethylbenzene	95-63-6	120.2	3.0		15			
1,3-Dichlorobenzene	541-73-1	147.0	0.44	U	3			
1,4-Dichlorobenzene	106-46-7	147.0	0.44	U	3			
1,2-Dichlorobenzene	95-50-1	147.0	0.44	U	3			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.44	U	3			
Hexachlorobutadiene	87-68-3	260.8	0.44	U	5			

Project: 0809-15
Field ID Number: UPS-SS-2
Laboratory ID Number: L1521092-01 D

TARGET ANALYTES
AIR RESULTS

Sampling Date: 08/27/15
Analysis Date: 09/02/15

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Volatile Tentatively Identified Compounds								
Methyl Alcohol	67-56-1		3.6	NJ		4.47		
Silanol, Trimethyl-	1066-40-6		3.5	NJ		8.86		
Unknown	NONE		2.4	J		10.81		
Cyclotrisiloxane, Hexamethyl-	541-05-9		3.0	NJ		16.29		
Undecane	1120-21-4		2.8	NJ		19.78		
unknown siloxane			2.6	J		20.18		

Laboratory Name: Alpha Analytical
Laboratory City: Mansfield, Ma

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Dichlorodifluoromethane	75-71-8	120.9	0.46		2			
Chloromethane	74-87-3	50.5	0.43	U	0.9			
Freon-114	76-14-2	170.9	0.43	U	3			
Vinyl chloride	75-01-4	62.5	0.43	U	1			
1,3-Butadiene	106-99-0	54.1	0.43	U	1			
Bromomethane	74-83-9	94.9	0.43	U	2			
Chloroethane	75-00-3	64.5	0.43	U	1			
Ethanol	64-17-5	46.1	10		19			
Vinyl bromide	593-60-2	106.9	0.43	U	2			
Acetone	67-64-1	58.1	2.5		6			
Trichlorofluoromethane	75-69-4	137.4	0.90		5			
Isopropanol	67-63-0	60.1	1.1	U	3			
1,1-Dichloroethene	75-35-4	96.9	0.43	U	2			
Tertiary butyl Alcohol	75-65-0	74.1	1.1	U	3			
Methylene chloride	75-09-2	84.9	1.1	U	4			
3-Chloropropene	107-05-1	76.5	0.43	U	1			
Carbon disulfide	75-15-0	76.1	0.43	U	1			
Freon-113	76-13-1	187.4	0.43	U	3			
trans-1,2-Dichloroethene	156-60-5	96.9	0.43	U	2			
1,1-Dichloroethane	75-34-3	99.0	0.43	U	2			
Methyl tert butyl ether	1634-04-4	88.2	0.43	U	2			
2-Butanone	78-93-3	72.1	1.1	U	3			
cis-1,2-Dichloroethene	156-59-2	96.9	0.43	U	2			
Chloroform	67-66-3	119.4	0.43	U	2			
Tetrahydrofuran	109-99-9	72.1	1.1	U	3			
1,2-Dichloroethane	107-06-2	99.0	0.43	U	2			
n-Hexane	110-54-3	86.2	0.43	U	2			
1,1,1-Trichloroethane	71-55-6	133.4	0.43	U	2			
Benzene	71-43-2	78.1	0.43	U	1			
Carbon tetrachloride	56-23-5	153.8	0.43	U	3			
Cyclohexane	110-82-7	84.2	0.43	U	1			
1,2-Dichloropropane	78-87-5	113.0	0.43	U	2			
Bromodichloromethane	75-27-4	163.8	0.43	U	3			
1,4-Dioxane	123-91-1	88.1	0.43	U	2			
Trichloroethene	79-01-6	131.4	19		100			
2,2,4-Trimethylpentane	540-84-1	114.2	0.43	U	2			
Methyl Methacrylate	80-62-6	100.1	1.1	U	5			
Heptane	142-82-5	100.2	0.43	U	2			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.43	U	2			
4-Methyl-2-pentanone	108-10-1	100.2	1.1	U	5			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.43	U	2			
1,1,2-Trichloroethane	79-00-5	133.4	0.43	U	2			
Toluene	108-88-3	92.1	0.43	U	2			
Dibromochloromethane	124-48-1	208.3	0.43	U	4			
1,2-Dibromoethane	106-93-4	187.9	0.43	U	3			
Tetrachloroethene	127-18-4	165.8	18		120			
Chlorobenzene	108-90-7	112.6	0.43	U	2			
Ethylbenzene	100-41-4	106.2	0.43	U	2			
p/m-Xylene	179601-23-1	106.2	0.86	U	4			
Bromoform	75-25-2	252.8	0.43	U	4			
Styrene	100-42-5	104.1	0.43	U	2			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.43	U	3			
o-Xylene	95-47-6	106.2	0.43	U	2			
2-Chlorotoluene	95-49-8	126.6	0.43	U	2			
4-Ethyltoluene	622-96-8	120.2	0.43	U	2			
1.3.5-Trimethylbenzene	108-67-8	120.2	0.43	U	2			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.43	U	2			
1,3-Dichlorobenzene	541-73-1	147.0	0.43	U	3			
1,4-Dichlorobenzene	106-46-7	147.0	0.43	U	3			
1,2-Dichlorobenzene	95-50-1	147.0	0.43	U	3			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.43	U	3			
Hexachlorobutadiene	87-68-3	260.8	0.43	U	5			

TARGET ANALYTES
AIR RESULTS

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Volatile Tentatively Identified Compounds								
Unknown	NONE		3.8	J		10.82		
Cyclopentanone	120-92-3		4.2	NJ		15.14		
Cyclotrisiloxane, Hexamethyl-	541-05-9		8.0	NJ		16.29		
unknown siloxane			4.1	J		20.18		

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Dichlorodifluoromethane	75-71-8	120.9	0.48		2			
Chloromethane	74-87-3	50.5	0.43	U	0.9			
Freon-114	76-14-2	170.9	0.43	U	3			
Vinyl chloride	75-01-4	62.5	0.43	U	1			
1,3-Butadiene	106-99-0	54.1	0.43	U	1			
Bromomethane	74-83-9	94.9	0.43	U	2			
Chloroethane	75-00-3	64.5	0.43	U	1			
Ethanol	64-17-5	46.1	29		55			
Vinyl bromide	593-60-2	106.9	0.43	U	2			
Acetone	67-64-1	58.1	12		29			
Trichlorofluoromethane	75-69-4	137.4	0.44		2			
Isopropanol	67-63-0	60.1	2.4		6			
1,1-Dichloroethene	75-35-4	96.9	0.43	U	2			
Tertiary butyl Alcohol	75-65-0	74.1	1.2		4			
Methylene chloride	75-09-2	84.9	1.1	U	4			
3-Chloropropene	107-05-1	76.5	0.43	U	1			
Carbon disulfide	75-15-0	76.1	0.43	U	1			
Freon-113	76-13-1	187.4	0.43	U	3			
trans-1,2-Dichloroethene	156-60-5	96.9	0.43	U	2			
1,1-Dichloroethane	75-34-3	99.0	0.43	U	2			
Methyl tert butyl ether	1634-04-4	88.2	0.43	U	2			
2-Butanone	78-93-3	72.1	1.7		5			
cis-1,2-Dichloroethene	156-59-2	96.9	0.43	U	2			
Chloroform	67-66-3	119.4	0.43	U	2			
Tetrahydrofuran	109-99-9	72.1	1.1	U	3			
1,2-Dichloroethane	107-06-2	99.0	0.43	U	2			
n-Hexane	110-54-3	86.2	0.43	U	2			
1,1,1-Trichloroethane	71-55-6	133.4	0.43	U	2			
Benzene	71-43-2	78.1	0.43	U	1			
Carbon tetrachloride	56-23-5	153.8	0.43	U	3			
Cyclohexane	110-82-7	84.2	0.43	U	1			
1,2-Dichloropropane	78-87-5	113.0	0.43	U	2			
Bromodichloromethane	75-27-4	163.8	0.43	U	3			
1,4-Dioxane	123-91-1	88.1	0.43	U	2			
Trichloroethene	79-01-6	131.4	4.9		26			
2,2,4-Trimethylpentane	540-84-1	114.2	0.43	U	2			
Methyl Methacrylate	80-62-6	100.1	1.1	U	5			
Heptane	142-82-5	100.2	0.43	U	2			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.43	U	2			
4-Methyl-2-pentanone	108-10-1	100.2	1.1	U	5			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.43	U	2			
1,1,2-Trichloroethane	79-00-5	133.4	0.43	U	2			
Toluene	108-88-3	92.1	0.43	U	2			
Dibromochloromethane	124-48-1	208.3	0.43	U	4			
1,2-Dibromoethane	106-93-4	187.9	0.43	U	3			
Tetrachloroethene	127-18-4	165.8	6.0		41			
Chlorobenzene	108-90-7	112.6	0.43	U	2			
Ethylbenzene	100-41-4	106.2	0.43	U	2			
p/m-Xylene	179601-23-1	106.2	0.86	U	4			
Bromoform	75-25-2	252.8	0.43	U	4			
Styrene	100-42-5	104.1	0.43	U	2			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.43	U	3			
o-Xylene	95-47-6	106.2	0.43	U	2			
2-Chlorotoluene	95-49-8	126.6	0.43	U	2			
4-Ethyltoluene	622-96-8	120.2	0.43	U	2			
1.3.5-Trimethylbenzene	108-67-8	120.2	0.43	U	2			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.43	U	2			
1,3-Dichlorobenzene	541-73-1	147.0	0.43	U	3			
1,4-Dichlorobenzene	106-46-7	147.0	0.43	U	3			
1,2-Dichlorobenzene	95-50-1	147.0	0.43	U	3			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.43	U	3			
Hexachlorobutadiene	87-68-3	260.8	0.43	U	5			

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Volatile Tentatively Identified Compounds								
Silanol, Trimethyl-	1066-40-6		4.3	NJ		8.86		
Cyclotrisiloxane, Hexamethyl-	541-05-9		3.2	NJ		16.29		
unknown siloxane			3.7	J		18.7		
Nonanal	124-19-6		2.4	NJ		19.7		
unknown siloxane			8.8	J		20.18		

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			ppbv		ug/m3			
Dichlorodifluoromethane	75-71-8	120.9	0.89	U	4			
Chloromethane	74-87-3	50.5	0.89	U	2			
Freon-114	76-14-2	170.9	0.89	U	6			
Vinyl chloride	75-01-4	62.5	0.89	U	2			
1,3-Butadiene	106-99-0	54.1	0.89	U	2			
Bromomethane	74-83-9	94.9	0.89	U	3			
Chloroethane	75-00-3	64.5	0.89	U	2			
Ethanol	64-17-5	46.1	11	U	21			
Vinyl bromide	593-60-2	106.9	0.89	U	4			
Acetone	67-64-1	58.1	4.4	U	10			
Trichlorofluoromethane	75-69-4	137.4	0.89	U	5			
Isopropanol	67-63-0	60.1	2.2	U	5			
1,1-Dichloroethene	75-35-4	96.9	0.89	U	4			
Tertiary butyl Alcohol	75-65-0	74.1	2.2	U	7			
Methylene chloride	75-09-2	84.9	2.2	U	8			
3-Chloropropene	107-05-1	76.5	0.89	U	3			
Carbon disulfide	75-15-0	76.1	0.89	U	3			
Freon-113	76-13-1	187.4	0.89	U	7			
trans-1,2-Dichloroethene	156-60-5	96.9	0.89	U	4			
1,1-Dichloroethane	75-34-3	99.0	0.89	U	4			
Methyl tert butyl ether	1634-04-4	88.2	0.89	U	3			
2-Butanone	78-93-3	72.1	2.2	U	6			
cis-1,2-Dichloroethene	156-59-2	96.9	0.89	U	4			
Chloroform	67-66-3	119.4	0.89	U	4			
Tetrahydrofuran	109-99-9	72.1	2.2	U	6			
1,2-Dichloroethane	107-06-2	99.0	0.89	U	4			
n-Hexane	110-54-3	86.2	0.89	U	3			
1,1,1-Trichloroethane	71-55-6	133.4	0.89	U	5			
Benzene	71-43-2	78.1	0.89	U	3			
Carbon tetrachloride	56-23-5	153.8	0.89	U	6			
Cyclohexane	110-82-7	84.2	0.89	U	3			
1,2-Dichloropropane	78-87-5	113.0	0.89	U	4			
Bromodichloromethane	75-27-4	163.8	0.89	U	6			
1,4-Dioxane	123-91-1	88.1	0.89	U	3			
Trichloroethene	79-01-6	131.4	5.9		32			
2,2,4-Trimethylpentane	540-84-1	114.2	0.89	U	4			
Methyl Methacrylate	80-62-6	100.1	2.2	U	9			
Heptane	142-82-5	100.2	0.89	U	4			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.89	U	4			
4-Methyl-2-pentanone	108-10-1	100.2	2.2	U	9			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.89	U	4			
1,1,2-Trichloroethane	79-00-5	133.4	0.89	U	5			
Toluene	108-88-3	92.1	0.89	U	3			
Dibromochloromethane	124-48-1	208.3	0.89	U	8			
1,2-Dibromoethane	106-93-4	187.9	0.89	U	7			
Tetrachloroethene	127-18-4	165.8	190		1300			
Chlorobenzene	108-90-7	112.6	0.89	U	4			
Ethylbenzene	100-41-4	106.2	0.89	U	4			
p/m-Xylene	179601-23-1	106.2	1.8	U	8			
Bromoform	75-25-2	252.8	0.89	U	9			
Styrene	100-42-5	104.1	0.89	U	4			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.89	U	6			
o-Xylene	95-47-6	106.2	0.89	U	4			
2-Chlorotoluene	95-49-8	126.6	0.89	U	5			
4-Ethyltoluene	622-96-8	120.2	0.89	U	4			
1.3.5-Trimethylbenzene	108-67-8	120.2	0.89	U	4			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.94		5			
1,3-Dichlorobenzene	541-73-1	147.0	0.89	U	5			
1,4-Dichlorobenzene	106-46-7	147.0	0.89	U	5			
1,2-Dichlorobenzene	95-50-1	147.0	0.89	U	5			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.89	U	7			
Hexachlorobutadiene	87-68-3	260.8	0.89	U	9			

TARGET ANALYTES
AIR RESULTS

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Volatile Tentatively Identified Compounds								
Cyclotrisiloxane, Hexamethyl-	541-05-9		15	NJ		16.29		
unknown siloxane			16	J		18.7		
Nonanal	124-19-6		5.3	NJ		19.71		
unknown siloxane			17	J		20.18		

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Dichlorodifluoromethane	75-71-8	120.9	0.90	U	4			
Chloromethane	74-87-3	50.5	0.90	U	2			
Freon-114	76-14-2	170.9	0.90	U	6			
Vinyl chloride	75-01-4	62.5	0.90	U	2			
1,3-Butadiene	106-99-0	54.1	0.90	U	2			
Bromomethane	74-83-9	94.9	0.90	U	3			
Chloroethane	75-00-3	64.5	0.90	U	2			
Ethanol	64-17-5	46.1	11	U	21			
Vinyl bromide	593-60-2	106.9	0.90	U	4			
Acetone	67-64-1	58.1	4.5	U	10			
Trichlorofluoromethane	75-69-4	137.4	0.90	U	5			
Isopropanol	67-63-0	60.1	2.2	U	5			
1,1-Dichloroethene	75-35-4	96.9	0.90	U	4			
Tertiary butyl Alcohol	75-65-0	74.1	2.2	U	7			
Methylene chloride	75-09-2	84.9	2.2	U	8			
3-Chloropropene	107-05-1	76.5	0.90	U	3			
Carbon disulfide	75-15-0	76.1	0.90	U	3			
Freon-113	76-13-1	187.4	0.90	U	7			
trans-1,2-Dichloroethene	156-60-5	96.9	0.90	U	4			
1,1-Dichloroethane	75-34-3	99.0	0.90	U	4			
Methyl tert butyl ether	1634-04-4	88.2	0.90	U	3			
2-Butanone	78-93-3	72.1	2.2	U	6			
cis-1,2-Dichloroethene	156-59-2	96.9	0.90	U	4			
Chloroform	67-66-3	119.4	0.90	U	4			
Tetrahydrofuran	109-99-9	72.1	2.2	U	6			
1,2-Dichloroethane	107-06-2	99.0	0.90	U	4			
n-Hexane	110-54-3	86.2	0.90	U	3			
1,1,1-Trichloroethane	71-55-6	133.4	0.90	U	5			
Benzene	71-43-2	78.1	0.90	U	3			
Carbon tetrachloride	56-23-5	153.8	0.90	U	6			
Cyclohexane	110-82-7	84.2	0.90	U	3			
1,2-Dichloropropane	78-87-5	113.0	0.90	U	4			
Bromodichloromethane	75-27-4	163.8	0.90	U	6			
1,4-Dioxane	123-91-1	88.1	0.90	U	3			
Trichloroethene	79-01-6	131.4	5.8		31			
2,2,4-Trimethylpentane	540-84-1	114.2	0.90	U	4			
Methyl Methacrylate	80-62-6	100.1	2.2	U	9			
Heptane	142-82-5	100.2	0.90	U	4			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.90	U	4			
4-Methyl-2-pentanone	108-10-1	100.2	2.2	U	9			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.90	U	4			
1,1,2-Trichloroethane	79-00-5	133.4	0.90	U	5			
Toluene	108-88-3	92.1	0.90	U	3			
Dibromochloromethane	124-48-1	208.3	0.90	U	8			
1,2-Dibromoethane	106-93-4	187.9	0.90	U	7			
Tetrachloroethene	127-18-4	165.8	210		1400			
Chlorobenzene	108-90-7	112.6	0.90	U	4			
Ethylbenzene	100-41-4	106.2	0.90	U	4			
p/m-Xylene	179601-23-1	106.2	1.8	U	8			
Bromoform	75-25-2	252.8	0.90	U	9			
Styrene	100-42-5	104.1	0.90	U	4			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.90	U	6			
o-Xylene	95-47-6	106.2	0.90	U	4			
2-Chlorotoluene	95-49-8	126.6	0.90	U	5			
4-Ethyltoluene	622-96-8	120.2	0.90	U	4			
1.3.5-Trimethylbenzene	108-67-8	120.2	0.90	U	4			
1,2,4-Trimethylbenzene	95-63-6	120.2	1.4		7			
1,3-Dichlorobenzene	541-73-1	147.0	0.90	U	5			
1,4-Dichlorobenzene	106-46-7	147.0	0.90	U	5			
1,2-Dichlorobenzene	95-50-1	147.0	0.90	U	5			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.90	U	7			
Hexachlorobutadiene	87-68-3	260.8	0.90	U	10			

Project: 0809-15
Field ID Number: PNC-SS-2
Laboratory ID Number: L1521092-05 D

TARGET ANALYTES
AIR RESULTS

Sampling Date: 08/27/15
Analysis Date: 09/03/15

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Volatile Tentatively Identified Compounds								
Cyclotrisiloxane, Hexamethyl-	541-05-9		5.4	NJ		16.29		
Nonanal	124-19-6		4.8	NJ		19.7		
unknown siloxane			11	J		20.18		

Laboratory Name: Alpha Analytical
Laboratory City: Mansfield, Ma

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Dichlorodifluoromethane	75-71-8	120.9	0.44	U	2			
Chloromethane	74-87-3	50.5	0.44	U	0.9			
Freon-114	76-14-2	170.9	0.44	U	3			
Vinyl chloride	75-01-4	62.5	0.44	U	1			
1,3-Butadiene	106-99-0	54.1	0.44	U	1			
Bromomethane	74-83-9	94.9	0.44	U	2			
Chloroethane	75-00-3	64.5	0.44	U	1			
Ethanol	64-17-5	46.1	69		130			
Vinyl bromide	593-60-2	106.9	0.44	U	2			
Acetone	67-64-1	58.1	33		78			
Trichlorofluoromethane	75-69-4	137.4	0.54		3			
Isopropanol	67-63-0	60.1	7.0		17			
1,1-Dichloroethene	75-35-4	96.9	0.44	U	2			
Tertiary butyl Alcohol	75-65-0	74.1	1.2		4			
Methylene chloride	75-09-2	84.9	1.1	U	4			
3-Chloropropene	107-05-1	76.5	0.44	U	1			
Carbon disulfide	75-15-0	76.1	0.44	U	1			
Freon-113	76-13-1	187.4	0.44	U	3			
trans-1,2-Dichloroethene	156-60-5	96.9	0.44	U	2			
1,1-Dichloroethane	75-34-3	99.0	0.44	U	2			
Methyl tert butyl ether	1634-04-4	88.2	0.44	U	2			
2-Butanone	78-93-3	72.1	4.0		12			
cis-1,2-Dichloroethene	156-59-2	96.9	0.44	U	2			
Chloroform	67-66-3	119.4	0.44	U	2			
Tetrahydrofuran	109-99-9	72.1	1.1	U	3			
1,2-Dichloroethane	107-06-2	99.0	0.44	U	2			
n-Hexane	110-54-3	86.2	0.44	U	2			
1,1,1-Trichloroethane	71-55-6	133.4	0.44	U	2			
Benzene	71-43-2	78.1	0.44	U	1			
Carbon tetrachloride	56-23-5	153.8	0.44	U	3			
Cyclohexane	110-82-7	84.2	0.44	U	2			
1,2-Dichloropropane	78-87-5	113.0	0.44	U	2			
Bromodichloromethane	75-27-4	163.8	0.44	U	3			
1,4-Dioxane	123-91-1	88.1	0.44	U	2			
Trichloroethene	79-01-6	131.4	7.0		38			
2,2,4-Trimethylpentane	540-84-1	114.2	0.44	U	2			
Methyl Methacrylate	80-62-6	100.1	1.1	U	5			
Heptane	142-82-5	100.2	0.44	U	2			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.44	U	2			
4-Methyl-2-pentanone	108-10-1	100.2	1.1	U	5			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.44	U	2			
1,1,2-Trichloroethane	79-00-5	133.4	0.44	U	2			
Toluene	108-88-3	92.1	2.0		8			
Dibromochloromethane	124-48-1	208.3	0.44	U	4			
1,2-Dibromoethane	106-93-4	187.9	0.44	U	3			
Tetrachloroethene	127-18-4	165.8	18		120			
Chlorobenzene	108-90-7	112.6	0.44	U	2			
Ethylbenzene	100-41-4	106.2	0.72		3			
p/m-Xylene	179601-23-1	106.2	2.4		10			
Bromoform	75-25-2	252.8	0.44	U	5			
Styrene	100-42-5	104.1	0.44	U	2			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.44	U	3			
o-Xylene	95-47-6	106.2	0.77		3			
2-Chlorotoluene	95-49-8	126.6	0.44	U	2			
4-Ethyltoluene	622-96-8	120.2	0.44	U	2			
1.3.5-Trimethylbenzene	108-67-8	120.2	0.44	U	2			
1,2,4-Trimethylbenzene	95-63-6	120.2	1.4		7			
1,3-Dichlorobenzene	541-73-1	147.0	0.44	U	3			
1,4-Dichlorobenzene	106-46-7	147.0	0.44	U	3			
1,2-Dichlorobenzene	95-50-1	147.0	0.44	U	3			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.44	U	3			
Hexachlorobutadiene	87-68-3	260.8	0.44	U	5			

TARGET ANALYTES
AIR RESULTS

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Volatile Tentatively Identified Compounds								
Acetaldehyde	75-07-0		5.1	NJ		4.39		
Methyl Alcohol	67-56-1		2.2	NJ		4.47		
Silanol, Trimethyl-	1066-40-6		4.7	NJ		8.86		
Cyclotrisiloxane, Hexamethyl-	541-05-9		9.4	NJ		16.29		
unknown siloxane			3.5	J		18.7		
unknown siloxane			3.4	J		20.18		

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			ppbv		ug/m3			
Dichlorodifluoromethane	75-71-8	120.9	0.44	U	2			
Chloromethane	74-87-3	50.5	0.44	U	0.9			
Freon-114	76-14-2	170.9	0.44	U	3			
Vinyl chloride	75-01-4	62.5	0.44	U	1			
1,3-Butadiene	106-99-0	54.1	0.44	U	1			
Bromomethane	74-83-9	94.9	0.44	U	2			
Chloroethane	75-00-3	64.5	0.44	U	1			
Ethanol	64-17-5	46.1	5.5	U	10			
Vinyl bromide	593-60-2	106.9	0.44	U	2			
Acetone	67-64-1	58.1	5.0		12			
Trichlorofluoromethane	75-69-4	137.4	0.44	U	2			
Isopropanol	67-63-0	60.1	1.1		3			
1,1-Dichloroethene	75-35-4	96.9	0.44	U	2			
Tertiary butyl Alcohol	75-65-0	74.1	1.1	U	3			
Methylene chloride	75-09-2	84.9	1.1	U	4			
3-Chloropropene	107-05-1	76.5	0.44	U	1			
Carbon disulfide	75-15-0	76.1	0.59		2			
Freon-113	76-13-1	187.4	0.44	U	3			
trans-1,2-Dichloroethene	156-60-5	96.9	0.44	U	2			
1,1-Dichloroethane	75-34-3	99.0	0.44	U	2			
Methyl tert butyl ether	1634-04-4	88.2	0.44	U	2			
2-Butanone	78-93-3	72.1	1.1	U	3			
cis-1,2-Dichloroethene	156-59-2	96.9	0.44	U	2			
Chloroform	67-66-3	119.4	13		63			
Tetrahydrofuran	109-99-9	72.1	1.1	U	3			
1,2-Dichloroethane	107-06-2	99.0	0.44	U	2			
n-Hexane	110-54-3	86.2	0.44	U	2			
1,1,1-Trichloroethane	71-55-6	133.4	0.44	U	2			
Benzene	71-43-2	78.1	0.44	U	1			
Carbon tetrachloride	56-23-5	153.8	0.44	U	3			
Cyclohexane	110-82-7	84.2	0.44	U	2			
1,2-Dichloropropane	78-87-5	113.0	0.44	U	2			
Bromodichloromethane	75-27-4	163.8	2.2		15			
1,4-Dioxane	123-91-1	88.1	0.44	U	2			
Trichloroethene	79-01-6	131.4	0.44	U	2			
2,2,4-Trimethylpentane	540-84-1	114.2	0.44	U	2			
Methyl Methacrylate	80-62-6	100.1	1.1	U	5			
Heptane	142-82-5	100.2	0.44	U	2			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.44	U	2			
4-Methyl-2-pentanone	108-10-1	100.2	1.1	U	5			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.44	U	2			
1,1,2-Trichloroethane	79-00-5	133.4	0.44	U	2			
Toluene	108-88-3	92.1	0.58		2			
Dibromochloromethane	124-48-1	208.3	0.44	U	4			
1,2-Dibromoethane	106-93-4	187.9	0.44	U	3			
Tetrachloroethene	127-18-4	165.8	0.44	U	3			
Chlorobenzene	108-90-7	112.6	0.44	U	2			
Ethylbenzene	100-41-4	106.2	0.44	U	2			
p/m-Xylene	179601-23-1	106.2	0.88	U	4			
Bromoform	75-25-2	252.8	0.44	U	5			
Styrene	100-42-5	104.1	0.44	U	2			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.44	U	3			
o-Xylene	95-47-6	106.2	0.44	U	2			
2-Chlorotoluene	95-49-8	126.6	0.44	U	2			
4-Ethyltoluene	622-96-8	120.2	0.44	U	2			
1.3.5-Trimethylbenzene	108-67-8	120.2	0.44	U	2			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.92		5			
1,3-Dichlorobenzene	541-73-1	147.0	0.44	U	3			
1,4-Dichlorobenzene	106-46-7	147.0	0.44	U	3			
1,2-Dichlorobenzene	95-50-1	147.0	0.44	U	3			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.44	U	3			
Hexachlorobutadiene	87-68-3	260.8	0.44	U	5			

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Volatile Tentatively Identified Compounds								
Cyclopentanone	120-92-3		6.0	NJ		15.14		
unknown siloxane			4.3	J		20.18		

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Dichlorodifluoromethane	75-71-8	120.9	0.44	U	2			
Chloromethane	74-87-3	50.5	0.44	U	0.9			
Freon-114	76-14-2	170.9	0.44	U	3			
Vinyl chloride	75-01-4	62.5	0.44	U	1			
1,3-Butadiene	106-99-0	54.1	0.44	U	1			
Bromomethane	74-83-9	94.9	0.44	U	2			
Chloroethane	75-00-3	64.5	0.44	U	1			
Ethanol	64-17-5	46.1	150		280			
Vinyl bromide	593-60-2	106.9	0.44	U	2			
Acetone	67-64-1	58.1	31		74			
Trichlorofluoromethane	75-69-4	137.4	0.46		3			
Isopropanol	67-63-0	60.1	1.8		4			
1,1-Dichloroethene	75-35-4	96.9	0.44	U	2			
Tertiary butyl Alcohol	75-65-0	74.1	1.1	U	3			
Methylene chloride	75-09-2	84.9	1.1	U	4			
3-Chloropropene	107-05-1	76.5	0.44	U	1			
Carbon disulfide	75-15-0	76.1	0.44	U	1			
Freon-113	76-13-1	187.4	0.44	U	3			
trans-1,2-Dichloroethene	156-60-5	96.9	0.44	U	2			
1,1-Dichloroethane	75-34-3	99.0	0.44	U	2			
Methyl tert butyl ether	1634-04-4	88.2	0.44	U	2			
2-Butanone	78-93-3	72.1	1.5		4			
cis-1,2-Dichloroethene	156-59-2	96.9	0.44	U	2			
Chloroform	67-66-3	119.4	3.9		19			
Tetrahydrofuran	109-99-9	72.1	1.1	U	3			
1,2-Dichloroethane	107-06-2	99.0	0.44	U	2			
n-Hexane	110-54-3	86.2	0.44	U	2			
1,1,1-Trichloroethane	71-55-6	133.4	0.44	U	2			
Benzene	71-43-2	78.1	0.44	U	1			
Carbon tetrachloride	56-23-5	153.8	0.44	U	3			
Cyclohexane	110-82-7	84.2	0.44	U	2			
1,2-Dichloropropane	78-87-5	113.0	0.44	U	2			
Bromodichloromethane	75-27-4	163.8	0.44	U	3			
1,4-Dioxane	123-91-1	88.1	0.56		2			
Trichloroethene	79-01-6	131.4	0.44	U	2			
2,2,4-Trimethylpentane	540-84-1	114.2	0.44	U	2			
Methyl Methacrylate	80-62-6	100.1	1.1	U	5			
Heptane	142-82-5	100.2	0.44	U	2			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.44	U	2			
4-Methyl-2-pentanone	108-10-1	100.2	1.1	U	5			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.44	U	2			
1,1,2-Trichloroethane	79-00-5	133.4	0.44	U	2			
Toluene	108-88-3	92.1	0.55		2			
Dibromochloromethane	124-48-1	208.3	0.44	U	4			
1,2-Dibromoethane	106-93-4	187.9	0.44	U	3			
Tetrachloroethene	127-18-4	165.8	0.56		4			
Chlorobenzene	108-90-7	112.6	0.44	U	2			
Ethylbenzene	100-41-4	106.2	0.44	U	2			
p/m-Xylene	179601-23-1	106.2	0.87	U	4			
Bromoform	75-25-2	252.8	0.44	U	5			
Styrene	100-42-5	104.1	0.44	U	2			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.44	U	3			
o-Xylene	95-47-6	106.2	0.44	U	2			
2-Chlorotoluene	95-49-8	126.6	0.44	U	2			
4-Ethyltoluene	622-96-8	120.2	0.44	U	2			
1.3.5-Trimethylbenzene	108-67-8	120.2	0.44	U	2			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.74		4			
1,3-Dichlorobenzene	541-73-1	147.0	0.44	U	3			
1,4-Dichlorobenzene	106-46-7	147.0	0.44	U	3			
1,2-Dichlorobenzene	95-50-1	147.0	0.44	U	3			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.44	U	3			
Hexachlorobutadiene	87-68-3	260.8	0.44	U	5			

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Volatile Tentatively Identified Compounds								
Acetaldehyde	75-07-0		6.3	NJ		4.39		
Methyl Alcohol	67-56-1		11	NJ		4.46		
Silanol, Trimethyl-	1066-40-6		2.2	NJ		8.86		
Unknown	NONE		2.4	J		10.81		
Cyclopentanone	120-92-3		8.3	NJ		15.14		
Cyclotrisiloxane, Hexamethyl-	541-05-9		2.6	NJ		16.29		
Nonanal	124-19-6		2.6	NJ		19.7		
unknown siloxane			3.9	J		20.18		

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Dichlorodifluoromethane	75-71-8	120.9	0.44	U	2			
Chloromethane	74-87-3	50.5	0.44	U	0.9			
Freon-114	76-14-2	170.9	0.44	U	3			
Vinyl chloride	75-01-4	62.5	0.44	U	1			
1,3-Butadiene	106-99-0	54.1	0.44	U	1			
Bromomethane	74-83-9	94.9	0.44	U	2			
Chloroethane	75-00-3	64.5	0.44	U	1			
Ethanol	64-17-5	46.1	13		24			
Vinyl bromide	593-60-2	106.9	0.44	U	2			
Acetone	67-64-1	58.1	3.6		9			
Trichlorofluoromethane	75-69-4	137.4	0.80		4			
Isopropanol	67-63-0	60.1	1.1	U	3			
1,1-Dichloroethene	75-35-4	96.9	0.44	U	2			
Tertiary butyl Alcohol	75-65-0	74.1	1.1	U	3			
Methylene chloride	75-09-2	84.9	1.1	U	4			
3-Chloropropene	107-05-1	76.5	0.44	U	1			
Carbon disulfide	75-15-0	76.1	0.44	U	1			
Freon-113	76-13-1	187.4	0.44	U	3			
trans-1,2-Dichloroethene	156-60-5	96.9	0.44	U	2			
1,1-Dichloroethane	75-34-3	99.0	0.44	U	2			
Methyl tert butyl ether	1634-04-4	88.2	0.44	U	2			
2-Butanone	78-93-3	72.1	1.1	U	3			
cis-1,2-Dichloroethene	156-59-2	96.9	0.44	U	2			
Chloroform	67-66-3	119.4	0.44	U	2			
Tetrahydrofuran	109-99-9	72.1	1.1	U	3			
1,2-Dichloroethane	107-06-2	99.0	0.44	U	2			
n-Hexane	110-54-3	86.2	0.44	U	2			
1,1,1-Trichloroethane	71-55-6	133.4	0.44	U	2			
Benzene	71-43-2	78.1	0.44	U	1			
Carbon tetrachloride	56-23-5	153.8	0.44	U	3			
Cyclohexane	110-82-7	84.2	0.44	U	2			
1,2-Dichloropropane	78-87-5	113.0	0.44	U	2			
Bromodichloromethane	75-27-4	163.8	0.44	U	3			
1,4-Dioxane	123-91-1	88.1	0.44	U	2			
Trichloroethene	79-01-6	131.4	15		81			
2,2,4-Trimethylpentane	540-84-1	114.2	0.44	U	2			
Methyl Methacrylate	80-62-6	100.1	1.1	U	5			
Heptane	142-82-5	100.2	0.44	U	2			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.44	U	2			
4-Methyl-2-pentanone	108-10-1	100.2	1.1	U	5			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.44	U	2			
1,1,2-Trichloroethane	79-00-5	133.4	0.44	U	2			
Toluene	108-88-3	92.1	1.3		5			
Dibromochloromethane	124-48-1	208.3	0.44	U	4			
1,2-Dibromoethane	106-93-4	187.9	0.44	U	3			
Tetrachloroethene	127-18-4	165.8	46		310			
Chlorobenzene	108-90-7	112.6	0.44	U	2			
Ethylbenzene	100-41-4	106.2	0.44	U	2			
p/m-Xylene	179601-23-1	106.2	1.1		5			
Bromoform	75-25-2	252.8	0.44	U	5			
Styrene	100-42-5	104.1	0.44	U	2			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.44	U	3			
o-Xylene	95-47-6	106.2	0.44		2			
2-Chlorotoluene	95-49-8	126.6	0.44	U	2			
4-Ethyltoluene	622-96-8	120.2	0.44	U	2			
1.3.5-Trimethylbenzene	108-67-8	120.2	0.44	U	2			
1,2,4-Trimethylbenzene	95-63-6	120.2	1.3		6			
1,3-Dichlorobenzene	541-73-1	147.0	0.44	U	3			
1,4-Dichlorobenzene	106-46-7	147.0	0.44	U	3			
1,2-Dichlorobenzene	95-50-1	147.0	0.44	U	3			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.44	U	3			
Hexachlorobutadiene	87-68-3	260.8	0.44	U	5			

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Volatile Tentatively Identified Compounds								
Silanol, Trimethyl-	1066-40-6		9.7	NJ		8.86		
Cyclotrisiloxane, Hexamethyl-	541-05-9		3.0	NJ		16.29		
unknown siloxane			2.9	J		18.7		
Nonanal	124-19-6		4.3	NJ		19.7		
unknown siloxane			5.2	J		20.18		

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Dichlorodifluoromethane	75-71-8	120.9	0.46		2			
Chloromethane	74-87-3	50.5	0.42	U	0.9			
Freon-114	76-14-2	170.9	0.42	U	3			
Vinyl chloride	75-01-4	62.5	0.42	U	1			
1,3-Butadiene	106-99-0	54.1	0.42	U	0.9			
Bromomethane	74-83-9	94.9	0.42	U	2			
Chloroethane	75-00-3	64.5	0.42	U	1			
Ethanol	64-17-5	46.1	22		41			
Vinyl bromide	593-60-2	106.9	0.42	U	2			
Acetone	67-64-1	58.1	4.4		10			
Trichlorofluoromethane	75-69-4	137.4	0.62		3			
Isopropanol	67-63-0	60.1	1.2		3			
1,1-Dichloroethene	75-35-4	96.9	0.42	U	2			
Tertiary butyl Alcohol	75-65-0	74.1	1.1	U	3			
Methylene chloride	75-09-2	84.9	1.1	U	4			
3-Chloropropene	107-05-1	76.5	0.42	U	1			
Carbon disulfide	75-15-0	76.1	0.42	U	1			
Freon-113	76-13-1	187.4	0.42	U	3			
trans-1,2-Dichloroethene	156-60-5	96.9	0.42	U	2			
1,1-Dichloroethane	75-34-3	99.0	0.42	U	2			
Methyl tert butyl ether	1634-04-4	88.2	0.42	U	2			
2-Butanone	78-93-3	72.1	1.1	U	3			
cis-1,2-Dichloroethene	156-59-2	96.9	0.42	U	2			
Chloroform	67-66-3	119.4	0.42	U	2			
Tetrahydrofuran	109-99-9	72.1	1.1	U	3			
1,2-Dichloroethane	107-06-2	99.0	0.42	U	2			
n-Hexane	110-54-3	86.2	0.42	U	1			
1,1,1-Trichloroethane	71-55-6	133.4	0.42	U	2			
Benzene	71-43-2	78.1	0.42	U	1			
Carbon tetrachloride	56-23-5	153.8	0.42	U	3			
Cyclohexane	110-82-7	84.2	0.42	U	1			
1,2-Dichloropropane	78-87-5	113.0	0.42	U	2			
Bromodichloromethane	75-27-4	163.8	0.42	U	3			
1,4-Dioxane	123-91-1	88.1	0.42	U	2			
Trichloroethene	79-01-6	131.4	14		75			
2,2,4-Trimethylpentane	540-84-1	114.2	0.42	U	2			
Methyl Methacrylate	80-62-6	100.1	1.1	U	5			
Heptane	142-82-5	100.2	0.42	U	2			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.42	U	2			
4-Methyl-2-pentanone	108-10-1	100.2	1.1	U	5			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.42	U	2			
1,1,2-Trichloroethane	79-00-5	133.4	0.42	U	2			
Toluene	108-88-3	92.1	1.0		4			
Dibromochloromethane	124-48-1	208.3	0.42	U	4			
1,2-Dibromoethane	106-93-4	187.9	0.42	U	3			
Tetrachloroethene	127-18-4	165.8	31		210			
Chlorobenzene	108-90-7	112.6	0.42	U	2			
Ethylbenzene	100-41-4	106.2	0.42	U	2			
p/m-Xylene	179601-23-1	106.2	0.86		4			
Bromoform	75-25-2	252.8	0.42	U	4			
Styrene	100-42-5	104.1	0.42	U	2			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.42	U	3			
o-Xylene	95-47-6	106.2	0.42	U	2			
2-Chlorotoluene	95-49-8	126.6	0.42	U	2			
4-Ethyltoluene	622-96-8	120.2	0.42	U	2			
1.3.5-Trimethylbenzene	108-67-8	120.2	0.42	U	2			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.89		4			
1,3-Dichlorobenzene	541-73-1	147.0	0.42	U	3			
1,4-Dichlorobenzene	106-46-7	147.0	0.42	U	3			
1,2-Dichlorobenzene	95-50-1	147.0	0.42	U	3			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.42	U	3			
Hexachlorobutadiene	87-68-3	260.8	0.42	U	4			

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Volatile Tentatively Identified Compounds								
Silanol, Trimethyl-	1066-40-6		27	NJ		8.84		
Cyclopentanone	120-92-3		2.3	NJ		15.14		
Unknown	NONE		4.0	J		15.55		
Cyclotrisiloxane, Hexamethyl-	541-05-9		13	NJ		16.29		
unknown siloxane			4.1	J		18.7		
unknown siloxane			3.6	J		20.18		

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			ppbv		ug/m3			
Dichlorodifluoromethane	75-71-8	120.9	0.20	U	1			
Chloromethane	74-87-3	50.5	0.20	U	0.4			
Freon-114	76-14-2	170.9	0.20	U	1			
Vinyl chloride	75-01-4	62.5	0.20	U	0.5			
1,3-Butadiene	106-99-0	54.1	0.20	U	0.4			
Butane	106-97-8	58.1	0.20	U	0.5			
Bromomethane	74-83-9	94.9	0.20	U	0.8			
Chloroethane	75-00-3	64.5	0.20	U	0.5			
Ethanol	64-17-5	46.1	2.5	U	5			
Vinyl bromide	593-60-2	106.9	0.20	U	0.9			
Acetone	67-64-1	58.1	1.0	U	2			
Trichlorofluoromethane	75-69-4	137.4	0.20	U	1			
Isopropanol	67-63-0	60.1	0.50	U	1			
1,1-Dichloroethene	75-35-4	96.9	0.20	U	0.8			
Tertiary butyl Alcohol	75-65-0	74.1	0.50	U	2			
Methylene chloride	75-09-2	84.9	0.50	U	2			
3-Chloropropene	107-05-1	76.5	0.20	U	0.6			
Carbon disulfide	75-15-0	76.1	0.20	U	0.6			
Freon-113	76-13-1	187.4	0.20	U	2			
trans-1,2-Dichloroethene	156-60-5	96.9	0.20	U	0.8			
1,1-Dichloroethane	75-34-3	99.0	0.20	U	0.8			
Methyl tert butyl ether	1634-04-4	88.2	0.20	U	0.7			
2-Butanone	78-93-3	72.1	0.50	U	1			
cis-1,2-Dichloroethene	156-59-2	96.9	0.20	U	0.8			
Chloroform	67-66-3	119.4	0.20	U	1			
Tetrahydrofuran	109-99-9	72.1	0.50	U	1			
1,2-Dichloroethane	107-06-2	99.0	0.20	U	0.8			
n-Hexane	110-54-3	86.2	0.20	U	0.7			
1,1,1-Trichloroethane	71-55-6	133.4	0.20	U	1			
Benzene	71-43-2	78.1	0.20	U	0.6			
Carbon tetrachloride	56-23-5	153.8	0.20	U	1			
Cyclohexane	110-82-7	84.2	0.20	U	0.7			
1,2-Dichloropropane	78-87-5	113.0	0.20	U	0.9			
Bromodichloromethane	75-27-4	163.8	0.20	U	1			
1,4-Dioxane	123-91-1	88.1	0.20	U	0.7			
Trichloroethene	79-01-6	131.4	0.20	U	1			
2,2,4-Trimethylpentane	540-84-1	114.2	0.20	U	0.9			
Methyl Methacrylate	80-62-6	100.1	0.50	U	2			
Heptane	142-82-5	100.2	0.20	U	0.8			
cis-1,3-Dichloropropene	10061-01-5	111.0	0.20	U	0.9			
4-Methyl-2-pentanone	108-10-1	100.2	0.50	U	2			
trans-1,3-Dichloropropene	10061-02-6	111.0	0.20	U	0.9			
1,1,2-Trichloroethane	79-00-5	133.4	0.20	U	1			
Toluene	108-88-3	92.1	0.20	U	0.8			
Dibromochloromethane	124-48-1	208.3	0.20	U	2			
1,2-Dibromoethane	106-93-4	187.9	0.20	U	2			
Tetrachloroethene	127-18-4	165.8	0.20	U	1			
Chlorobenzene	108-90-7	112.6	0.20	U	0.9			
Ethylbenzene	100-41-4	106.2	0.20	U	0.9			
p/m-Xylene	179601-23-1	106.2	0.40	U	2			
Bromoform	75-25-2	252.8	0.20	U	2			
Styrene	100-42-5	104.1	0.20	U	0.9			
1,1,2,2-Tetrachloroethane	79-34-5	167.9	0.20	U	1			
o-Xylene	95-47-6	106.2	0.20	U	0.9			
2-Chlorotoluene	95-49-8	126.6	0.20	U	1			
4-Ethyltoluene	622-96-8	120.2	0.20	U	1			
1.3.5-Trimethylbenzene	108-67-8	120.2	0.20	U	1			
1,2,4-Trimethylbenzene	95-63-6	120.2	0.20	U	1			
1,3-Dichlorobenzene	541-73-1	147.0	0.20	U	1			
1,4-Dichlorobenzene	106-46-7	147.0	0.20	U	1			
1,2-Dichlorobenzene	95-50-1	147.0	0.20	U	1			
1,2,4-Trichlorobenzene	120-82-1	181.5	0.20	U	1			
Hexachlorobutadiene	87-68-3	260.8	0.20	U	2			

Chemical	CAS Number	Molecular Weight	Lab Results	Q	Corrected Results	Retention Time NT Only	QAS Decision	Foot-notes
NJDEP TO-15			**ppbv**		**ug/m3**			
Volatile Tentatively Identified Compounds								
No Tentatively Identified Compounds	NONE			U				

DATA QUALIFIERS

CODE	DESCRIPTION
A	Spectra identified as "Aldol Condensation Product".
B	The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
C	Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
DL	Sample was re-analyzed at a dilution. Qualifier applied to sample number.
E	Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	The lower value for the two columns has been reported due to obvious interference.
J	Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
M	Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
ND	Not detected at the reporting limit (RL) for the sample.
NJ	Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
P	The RPD between the results for the two columns exceeds the method-specified criteria.
Q	The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
R	Analytical results are from sample re-analysis.
RE	Analytical results are from sample re-extraction.

v.091814

Method Detection Limit Studies

Approved

Determination of Method Detection Limits

Alpha Analytical Inc.
Mansfield, MA

Page 1 of 4	
Analyst:	AR
Date:	4/6, 4/19, 4/23/2012
Instrument ID:	Airlab 11
Column ID:	RTX-1
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 **2012**

GC/MS Volatile Organic Compounds Air

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	T value used for calculating MDL: 3.143					
		Date Analyzed	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012						
No.	Analytes	Target conc. (ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	Mean (ppbV)	Mean Accuracy	Standard Deviation	Calc. MDL (ppbV)	Current RL (ppbV)	Comment
1	acetone	0.50	0.661	0.643	0.602	0.658	0.518	0.645	0.579	0.615	123%	0.0525	0.1649	1.0	
2	methylene chloride	0.50	0.646	0.633	0.598	0.638	0.380	0.643	0.581	0.588	118%	0.0952	0.2991	1.0	
3	1,1-dichloropropene	0.10	0.095	0.094	0.102	0.100	0.094	0.094	0.099	0.097	97%	0.0034	0.0106	0.20	
4	benzene	0.10	0.115	0.107	0.112	0.108	0.112	0.114	0.107	0.111	111%	0.0034	0.0105	0.20	
5	cyclohexane	0.10	0.108	0.107	0.109	0.096	0.109	0.096	0.099	0.103	103%	0.0061	0.0193	0.20	
6	tert-amyl methyl ether	0.10	0.104	0.106	0.103	0.100	0.094	0.099	0.104	0.101	101%	0.0041	0.0128	0.20	
7	1,2-dichloropropane	0.10	0.106	0.113	0.111	0.112	0.111	0.099	0.104	0.108	108%	0.0052	0.0162	0.20	
8	heptane	0.10	0.102	0.107	0.105	0.100	0.097	0.100	0.108	0.103	103%	0.0041	0.0128	0.20	
9	2,4,4-trimethyl-1-pentene	0.10	0.109	0.108	0.106	0.101	0.101	0.100	0.108	0.105	105%	0.0039	0.0123	0.50	
10	cis-1,3-dichloropropene	0.10	0.096	0.095	0.096	0.092	0.090	0.099	0.089	0.094	94%	0.0036	0.0114	0.20	
11	2,4,4-trimethyl-2-pentene	0.10	0.104	0.094	0.102	0.101	0.100	0.105	0.103	0.101	101%	0.0036	0.0114	0.50	
12	trans-1,3-dichloropropene	0.10	0.093	0.086	0.093	0.086	0.086	0.094	0.082	0.089	89%	0.0047	0.0147	0.20	
13	toluene	0.10	0.133	0.127	0.122	0.130	0.131	0.131	0.124	0.128	128%	0.0041	0.0128	0.20	
14	2-methylthiophene	0.10	0.106	0.099	0.104	0.107	0.098	0.095	0.097	0.101	101%	0.0047	0.0149	0.20	
15	2-hexanone	0.10	0.098	0.090	0.085	0.089	0.090	0.087	0.085	0.089	89%	0.0045	0.0140	0.20	
16	octane	0.10	0.089	0.099	0.088	0.103	0.102	0.098	0.089	0.095	95%	0.0066	0.0206	0.20	
17	1,1,1,2-tetrachloroethane	0.10	0.093	0.095	0.089	0.099	0.091	0.088	0.090	0.092	92%	0.0038	0.0121	0.20	
18	chlorobenzene	0.10	0.108	0.111	0.109	0.106	0.108	0.107	0.096	0.106	106%	0.0049	0.0153	0.20	
19	2-ethylthiophene	0.10	0.100	0.097	0.092	0.094	0.101	0.087	0.093	0.095	95%	0.0049	0.0153	0.20	
20	1,2,3-trichloropropane	0.10	0.106	0.104	0.098	0.110	0.108	0.107	0.113	0.107	107%	0.0048	0.0149	0.20	
21	nonane	0.10	0.116	0.115	0.109	0.118	0.121	0.121	0.121	0.117	117%	0.0044	0.0139	0.20	
22	isopropylbenzene	0.10	0.084	0.093	0.106	0.085	0.098	0.106	0.105	0.097	97%	0.0096	0.0302	0.20	
23	2-chlorotoluene	0.10	0.074	0.096	0.100	0.100	0.093	0.093	0.096	0.093	93%	0.0089	0.0280	0.20	
24	n-propylbenzene	0.10	0.071	0.096	0.097	0.097	0.093	0.097	0.098	0.093	93%	0.0097	0.0305	0.20	
25	decane	0.10	0.106	0.097	0.103	0.097	0.099	0.098	0.098	0.100	100%	0.0035	0.0108	0.20	
26	1,3-dichlorobenzene	0.10	0.105	0.091	0.096	0.098	0.095	0.092	0.095	0.096	96%	0.0046	0.0145	0.20	
27	1,4-dichlorobenzene	0.10	0.102	0.091	0.098	0.095	0.091	0.090	0.090	0.094	94%	0.0047	0.0147	0.20	
28	n-butylbenzene	0.10	0.102	0.091	0.091	0.089	0.091	0.087	0.088	0.091	91%	0.0050	0.0157	0.20	
29	indan	0.10	0.096	0.090	0.094	0.095	0.086	0.091	0.089	0.092	92%	0.0036	0.0113	0.20	
30	indene	0.10	0.093	0.088	0.088	0.086	0.089	0.083	0.083	0.087	87%	0.0035	0.0111	0.20	
31	1,2-dibromo-3-chloropropane	0.10	0.088	0.073	0.070	0.077	0.073	0.075	0.074	0.076	76%	0.0058	0.0183	0.20	
32	dodecane	0.10	0.088	0.073	0.074	0.077	0.076	0.071	0.071	0.076	76%	0.0059	0.0185	0.20	

Comments: _____

Form No.: 08-66 3/30/2009

Technical Director: _____ Date Effective: 4-27-12

Determination of Method Detection Limits

Alpha Analytical Inc.
Mansfield, MA

Page 2 of 4	
Analyst:	AR
Date:	4/6, 4/19, 4/23/2012
Instrument ID:	Airlab 11
Column ID:	RTX-1
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 **2012**

GC/MS **Volatile Organic Compounds** **Air**

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	T value used for calculating MDL: 3.143					
		Date Analyzed	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012						
No.	Analytes	Target conc. (ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	Mean (ppbV)	Mean Accuracy	Standard Deviation	Calc. MDL (ppbV)	Current RL (ppbV)	Comment
33	propane	0.20	0.278	0.317	0.308	0.306	0.324	0.316	0.287	0.305	153%	0.0168	0.0527	0.20	
34	isopropyl alcohol	0.20	0.313	0.353	0.350	0.343	0.316	0.351	0.340	0.338	169%	0.0167	0.0525	0.50	
35	acrylonitrile	0.20	0.243	0.276	0.247	0.243	0.227	0.260	0.248	0.249	125%	0.0153	0.0482	0.20	
36	tertiary butyl alcohol	0.20	0.230	0.264	0.257	0.242	0.223	0.257	0.251	0.246	123%	0.0152	0.0479	0.20	
37	2-butanone	0.20	0.298	0.337	0.320	0.319	0.294	0.324	0.320	0.316	158%	0.0150	0.0472	0.20	
38	Tetrahydrofuran	0.20	0.241	0.239	0.227	0.252	0.242	0.267	0.284	0.250	125%	0.0193	0.0608	0.20	
39	diisopropyl ether	0.20	0.243	0.252	0.236	0.249	0.244	0.230	0.231	0.241	120%	0.0086	0.0270	0.20	
40	m+p-xylene	0.40	0.455	0.445	0.440	0.432	0.420	0.434	0.436	0.437	109%	0.0110	0.0344	0.40	
41	4-chlorotoluene	0.20	0.219	0.210	0.221	0.162	0.207	0.208	0.188	0.202	101%	0.0207	0.0651	0.20	

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	T value used for calculating MDL: 2.998					
		Date Analyzed	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012						
No.	Analytes	Target conc. (ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	Mean (ppbV)	Mean Accuracy	Standard Deviation	Calc. MDL (ppbV)	Current RL (ppbV)	Comment
42	chlorodifluoromethane	0.20	0.240	0.275	0.275	0.277	0.254	0.232	0.265	0.263	0.260	130%	0.0169	0.0506	0.20	
43	propylene	0.20	0.274	0.283	0.318	0.246	0.314	0.254	0.306	0.293	0.286	143%	0.0268	0.0804	0.50	
44	dichlorodifluoromethane	0.20	0.247	0.225	0.249	0.225	0.212	0.238	0.214	0.214	0.228	114%	0.0150	0.0449	0.20	
45	chloromethane	0.20	0.246	0.279	0.276	0.254	0.258	0.243	0.257	0.256	0.259	129%	0.0128	0.0385	0.20	
46	Freon-114	0.20	0.247	0.267	0.260	0.273	0.268	0.231	0.269	0.259	0.259	130%	0.0140	0.0419	0.20	
47	methanol	1.00	1.537	1.837	1.742	1.797	1.744	1.616	1.770	1.795	1.730	173%	0.1017	0.3048	5.0	
48	vinyl chloride	0.20	0.222	0.247	0.246	0.264	0.237	0.231	0.240	0.234	0.240	120%	0.0126	0.0378	0.20	
49	1,3-butadiene	0.20	0.237	0.264	0.251	0.237	0.227	0.209	0.239	0.247	0.239	119%	0.0164	0.0492	0.20	
50	butane	0.20	0.258	0.281	0.271	0.289	0.280	0.244	0.282	0.275	0.273	136%	0.0147	0.0442	0.20	
51	acetaldehyde	1.00	1.606	1.833	1.715	1.858	1.696	1.515	1.770	1.813	1.726	173%	0.1184	0.3551	2.5	
52	bromomethane	0.20	0.245	0.254	0.253	0.254	0.252	0.222	0.256	0.247	0.248	124%	0.0111	0.0333	0.20	
53	chloroethane	0.20	0.223	0.252	0.251	0.231	0.252	0.204	0.232	0.256	0.238	119%	0.0183	0.0549	0.20	
54	ethanol	1.00	1.276	1.358	1.363	1.405	1.360	1.259	1.360	1.372	1.344	134%	0.0499	0.1496	1.0	
55	dichlorofluoromethane	0.20	0.250	0.268	0.271	0.261	0.270	0.233	0.262	0.262	0.260	130%	0.0127	0.0380	0.20	
56	vinyl bromide	0.20	0.215	0.246	0.243	0.261	0.243	0.218	0.239	0.243	0.239	119%	0.0151	0.0453	0.20	
57	acrolein	0.20	0.236	0.260	0.235	0.248	0.251	0.211	0.242	0.225	0.239	119%	0.0155	0.0464	0.50	
58	acetonitrile	0.20	0.249	0.286	0.263	0.268	0.269	0.231	0.280	0.273	0.267	134%	0.0194	0.0583	0.20	
59	trichlorofluoromethane	0.20	0.246	0.260	0.261	0.258	0.266	0.226	0.266	0.266	0.256	128%	0.0139	0.0416	0.20	
60	pentane	0.20	0.255	0.288	0.274	0.287	0.276	0.242	0.280	0.274	0.272	136%	0.0158	0.0475	0.20	
61	ethyl ether	0.20	0.259	0.248	0.249	0.275	0.251	0.214	0.242	0.259	0.249	125%	0.0176	0.0527	0.20	
62	1,1-dichloroethene	0.20	0.250	0.260	0.252	0.249	0.252	0.226	0.267	0.258	0.252	126%	0.0120	0.0361	0.20	
63	3-chloropropene	0.20	0.277	0.317	0.313	0.322	0.318	0.282	0.297	0.285	0.301	151%	0.0183	0.0548	0.20	
64	carbon disulfide	0.20	0.248	0.264	0.261	0.256	0.257	0.227	0.257	0.253	0.253	126%	0.0115	0.0345	0.20	

Comments: _____

Technical Director: [signature] Date Effective: 4-23-12

Determination of Method Detection Limits

Alpha Analytical Inc.
Mansfield, MA

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Analyst:	AR
Date:	4/6, 4/19, 4/23/2012
Instrument ID:	Airlab 11
Column ID:	RTX-1
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 2012

GC/MS Volatile Organic Compounds Air

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	T value used for calculating MDL: 2.998					
		Date Analyzed	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012						
No.	Analytes	Target conc. (ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	Mean (ppbV)	Mean Accuracy	Standard Deviation	Calc. MDL (ppbV)	Current RL (ppbV)	Comment
65	Freon 113	0.20	0.252	0.269	0.263	0.270	0.263	0.233	0.258	0.264	0.259	130%	0.0120	0.0359	0.20	
66	trans-1,2-dichloroethene	0.20	0.233	0.261	0.255	0.237	0.250	0.222	0.247	0.245	0.244	122%	0.0126	0.0377	0.20	
67	1,1-dichloroethane	0.20	0.241	0.262	0.259	0.249	0.255	0.234	0.268	0.271	0.255	127%	0.0129	0.0386	0.20	
68	MTBE	0.20	0.241	0.265	0.257	0.247	0.257	0.229	0.256	0.249	0.250	125%	0.0113	0.0338	0.20	
69	vinyl acetate	0.20	0.256	0.298	0.286	0.274	0.261	0.238	0.278	0.261	0.274	137%	0.0189	0.0567	0.20	
70	cis-1,2-dichloroethene	0.20	0.229	0.257	0.254	0.258	0.242	0.215	0.242	0.239	0.242	121%	0.0148	0.0444	0.20	
71	Ethyl Acetate	0.20	0.263	0.222	0.258	0.249	0.170	0.234	0.283	0.300	0.247	124%	0.0400	0.1200	0.50	
72	chloroform	0.20	0.250	0.272	0.254	0.264	0.269	0.224	0.259	0.262	0.257	128%	0.0151	0.0452	0.20	
73	2,2-dichloropropane	0.20	0.236	0.266	0.258	0.255	0.254	0.217	0.242	0.249	0.247	124%	0.0153	0.0460	0.20	
74	1,2-dichloroethane	0.20	0.247	0.276	0.269	0.253	0.259	0.222	0.260	0.259	0.256	128%	0.0162	0.0487	0.20	
75	hexane	0.20	0.226	0.202	0.212	0.206	0.212	0.224	0.213	0.210	0.213	107%	0.0082	0.0246	0.20	
76	dibromomethane	0.20	0.231	0.223	0.217	0.205	0.224	0.220	0.227	0.230	0.222	111%	0.0084	0.0252	0.20	
77	1,4-dioxane	0.20	0.188	0.213	0.195	0.204	0.196	0.166	0.185	0.174	0.190	95%	0.0153	0.0460	0.20	
78	trichloroethene	0.20	0.228	0.218	0.225	0.219	0.215	0.220	0.220	0.201	0.218	109%	0.0081	0.0242	0.20	
79	1,1,2-trichloroethane	0.20	0.203	0.210	0.203	0.208	0.210	0.215	0.220	0.228	0.212	106%	0.0086	0.0257	0.20	
80	3-methylthiophene	0.20	0.182	0.234	0.226	0.220	0.223	0.171	0.213	0.219	0.211	106%	0.0223	0.0669	0.20	
81	1,2-dibromoethane	0.20	0.225	0.223	0.218	0.211	0.205	0.212	0.214	0.211	0.215	107%	0.0067	0.0201	0.20	
82	butyl acetate	0.20	0.193	0.199	0.202	0.185	0.092	0.184	0.197	0.213	0.183	92%	0.0380	0.1139	0.50	
83	bromoform	0.20	0.170	0.167	0.159	0.156	0.161	0.149	0.156	0.156	0.159	80%	0.0067	0.0201	0.20	
84	styrene	0.20	0.210	0.208	0.207	0.198	0.197	0.190	0.204	0.201	0.202	101%	0.0067	0.0201	0.20	
85	o-xylene	0.20	0.234	0.221	0.236	0.219	0.221	0.227	0.217	0.222	0.225	112%	0.0070	0.0211	0.20	
86	bromobenzene	0.20	0.183	0.165	0.163	0.153	0.159	0.155	0.156	0.154	0.161	81%	0.0099	0.0296	0.20	
87	4-ethyl toluene	0.20	0.219	0.213	0.213	0.201	0.204	0.203	0.202	0.157	0.202	101%	0.0191	0.0573	0.20	
88	1,3,5-trimethylbenzene	0.20	0.220	0.214	0.208	0.207	0.205	0.206	0.209	0.186	0.207	103%	0.0098	0.0293	0.20	
89	1,2,4-trimethylbenzene	0.20	0.230	0.225	0.222	0.213	0.215	0.217	0.214	0.210	0.218	109%	0.0068	0.0204	0.20	
90	Benzyl Chloride	0.20	0.165	0.167	0.163	0.159	0.155	0.149	0.151	0.150	0.157	79%	0.0071	0.0214	0.20	
91	1,2,4,5-tetramethylbenzene	0.20	0.194	0.194	0.187	0.181	0.182	0.177	0.178	0.180	0.184	92%	0.0068	0.0204	0.20	
92	1,2,4-trichlorobenzene	0.20	0.178	0.189	0.169	0.169	0.176	0.160	0.169	0.167	0.172	86%	0.0088	0.0263	0.20	
93	naphthalene	0.20	0.190	0.185	0.179	0.170	0.161	0.162	0.164	0.166	0.172	86%	0.0111	0.0334	0.20	
94	1,2,3-trichlorobenzene	0.20	0.200	0.182	0.177	0.172	0.178	0.162	0.164	0.169	0.176	88%	0.0121	0.0362	0.20	
95	benzothiophene	0.20	0.211	0.224	0.211	0.213	0.204	0.183	0.208	0.186	0.205	103%	0.0139	0.0417	0.50	
96	hexachlorobutadiene	0.20	0.228	0.214	0.216	0.191	0.195	0.196	0.194	0.194	0.204	102%	0.0137	0.0409	0.20	
97	2-methylnaphthalene	0.20	0.118	0.119	0.115	0.123	0.102	0.106	0.099	0.110	0.112	56%	0.0086	0.0259	1.0	
98	1-methylnaphthalene	0.20	0.166	0.173	0.156	0.155	0.146	0.137	0.136	0.142	0.151	76%	0.0135	0.0405	1.0	
1	1,2-dichloroethane-D4	10.00	9.690	9.756	9.650	9.565	9.631	9.467	9.467	9.529	9.59	96%				
2	toluene-D8	10.00	9.693	9.574	9.622	9.394	9.434	9.338	9.355	9.297	9.46	95%				
3	bromofluorobenzene	10.00	8.069	7.956	7.862	7.854	7.824	7.750	7.802	7.650	7.85	78%				

Comments: _____

Form No.: 08-66 3/30/2009

Technical Director: R Date Effective: 4-23-12

Determination of Method Detection Limits

Alpha Analytical Inc.
Mansfield, MA

Page 4 of 4	
Analyst:	AR
Date:	4/6, 4/19, 4/23/2012
Instrument ID:	Airlab 11
Column ID:	RTX-1
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 **2012**

GC/MS **Volatile Organic Compounds** **Air**

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	T value used for calculating MDL: 2.821					
		Date Analyzed	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/19/2012	4/19/2012	4/19/2012						
No.	Analytes	Target conc. (ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	Mean (ppbV)	Mean Accuracy	Standard Deviation	Calc. MDL (ppbV)	Current RL (ppbV)	Comment
99	tert-butyl ethyl ether	0.10	0.099	0.101	0.099	0.102	0.098	0.100	0.096	0.089	0.091	0.087	0.096	96%	0.0053	0.0151	0.20	
100	thiophene	0.10	0.095	0.100	0.093	0.098	0.096	0.098	0.097	0.083	0.087	0.085	0.093	93%	0.0060	0.0170	0.20	
101	carbon tetrachloride	0.10	0.096	0.092	0.094	0.098	0.091	0.093	0.092	0.083	0.083	0.088	0.091	91%	0.0050	0.0141	0.20	
102	bromodichloromethane	0.10	0.091	0.099	0.093	0.092	0.096	0.094	0.095	0.095	0.086	0.090	0.093	93%	0.0036	0.0102	0.20	
103	2,2,4-trimethylpentane	0.10	0.108	0.104	0.108	0.104	0.106	0.109	0.103	0.091	0.091	0.093	0.102	102%	0.0072	0.0203	0.20	
104	4-methyl-2-pentanone	0.10	0.103	0.107	0.100	0.107	0.104	0.101	0.101	0.075	0.084	0.078	0.096	96%	0.0122	0.0343	0.20	
105	1,3-dichloropropane	0.10	0.109	0.103	0.100	0.105	0.104	0.104	0.101	0.108	0.095	0.107	0.104	104%	0.0042	0.0118	0.20	
106	dibromochloromethane	0.10	0.088	0.082	0.086	0.081	0.082	0.086	0.081	0.090	0.090	0.085	0.085	85%	0.0035	0.0099	0.20	
107	tetrachloroethene	0.10	0.105	0.103	0.101	0.099	0.104	0.101	0.107	0.115	0.113	0.114	0.106	106%	0.0058	0.0165	0.20	
108	1,1,2,2-tetrachloroethane	0.10	0.105	0.112	0.108	0.111	0.114	0.110	0.108	0.106	0.108	0.126	0.111	111%	0.0060	0.0169	0.20	
109	1,2-dichlorobenzene	0.10	0.100	0.093	0.092	0.092	0.095	0.092	0.093	0.095	0.097	0.106	0.096	96%	0.0045	0.0127	0.20	
110	undecane	0.10	0.091	0.086	0.088	0.085	0.087	0.087	0.082	0.074	0.070	0.069	0.082	82%	0.0080	0.0224	0.20	

Table (MDL)		Data File	MDL 01	MDL 02	MDL 03	MDL 04	MDL 05	MDL 06	MDL 07	MDL 08	MDL 09	MDL 10	MDL 11	MDL 12	T value used for calculating MDL: 2.718					
		Date Analyzed	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/6/2012	4/19/2012	4/19/2012	4/19/2012	4/23/2012	4/23/2012						
No.	Analytes	Target conc. (ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	(ppbV)	Mean (ppbV)	Mean Accuracy	Standard Deviation	Calc. MDL (ppbV)	Current RL (ppbV)	Comment
111	1,1,1-trichloroethane	0.10	0.104	0.103	0.103	0.104	0.103	0.098	0.102	0.097	0.096	0.097	0.114	0.110	0.103	103%	0.0054	0.0146	0.20	
112	ethylbenzene	0.10	0.107	0.102	0.103	0.099	0.101	0.103	0.103	0.106	0.098	0.103	0.105	0.101	0.103	103%	0.0026	0.0072	0.20	
113	tert-butylbenzene	0.10	0.104	0.096	0.100	0.099	0.100	0.096	0.100	0.105	0.104	0.106	0.109	0.105	0.102	102%	0.0039	0.0105	0.20	
114	sec-butylbenzene	0.10	0.104	0.097	0.097	0.100	0.097	0.098	0.096	0.103	0.099	0.103	0.103	0.099	0.100	100%	0.0029	0.0078	0.20	
115	1,2,3-trimethylbenzene	0.10	0.103	0.097	0.098	0.096	0.099	0.096	0.097	0.097	0.101	0.102	0.101	0.105	0.099	99%	0.0030	0.0081	0.20	
116	p-isopropyltoluene	0.10	0.099	0.095	0.095	0.094	0.095	0.092	0.094	0.097	0.095	0.097	0.103	0.100	0.096	96%	0.0031	0.0083	0.20	

Comments:

Technical Director: AR Date Effective: 4-23-12

Approved

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 1 of 4	
Analyst:	MB
Date:	2/21/2013
Instrument ID:	Airlab11
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 2013

GC Toxic Organic Air Pollutants Air

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
1	methyl methacrylate	0.0221	0.065	0.130	0.1	Verified - JRH	0.5	
2	tert-butlybenzene	0.0307	0.069	0.138	0.1	Verified - JRH	0.2	
3	carbon disulfide	0.0345	0.076	0.151	0.1	Verified - JRH	0.2	
4	1,4-dichlorobenzene	0.0361	0.076	0.152	0.1	Verified - JRH	0.2	
5	vinyl chloride	0.0378	0.078	0.156	0.1	Verified - JRH	0.2	
6	isopropylbenzene	0.0410	0.083	0.166	0.1	Verified - JRH	0.2	
7	trichlorofluoromethane	0.0416	0.084	0.168	0.1	Verified - JRH	0.2	
8	Freon-114	0.0419	0.084	0.168	0.1	Verified - JRH	0.2	
9	octane	0.0421	0.088	0.177	0.1	Verified - JRH	0.2	
10	naphthalene	0.0425	0.090	0.181	0.1	Verified - JRH	0.2	
11	1,2,3-trichlorobenzene	0.0436	0.093	0.185	0.1	Verified - JRH	0.2	
12	dichlorodifluoromethane	0.0466	0.093	0.186	0.1	Verified - JRH	0.2	
13	benzothiophene	0.0468	0.094	0.187	0.1	Verified - JRH	0.5	
14	carbon tetrachloride	0.0471	0.094	0.188	0.1	Verified - JRH	0.2	
15	2-butanone	0.0472	0.095	0.190	0.1	Verified - JRH	0.2	
16	pentane	0.0475	0.097	0.193	0.1	Verified - JRH	0.2	
17	dibromomethane	0.0476	0.097	0.195	0.1	Verified - JRH	0.2	
18	2-chlorotoluene	0.0487	0.101	0.200	0.2	Verified - JRH	0.2	
19	Freon 113	0.0511	0.102	0.200	0.2	Verified - JRH	0.2	
20	tert-butyl ethyl ether	0.0515	0.103	0.200	0.2	Verified - JRH	0.2	
21	hexane	0.0518	0.104	0.200	0.2	Verified - JRH	0.2	
22	bromoform	0.0523	0.105	0.200	0.2	Verified - JRH	0.2	
23	isopropyl alcohol	0.0525	0.106	0.211	0.2	Verified - JRH	0.5	
24	thiophene	0.0528	0.107	0.200	0.2	Verified - JRH	0.2	
25	MTBE	0.0528	0.107	0.200	0.2	Verified - JRH	0.2	
26	chloroform	0.0531	0.108	0.200	0.2	Verified - JRH	0.2	
27	benzene	0.0537	0.109	0.200	0.2	Verified - JRH	0.2	
28	n-propylbenzene	0.0540	0.109	0.200	0.2	Verified - JRH	0.2	
29	1,1,1,2-tetrachloroethane	0.0547	0.110	0.200	0.2	Verified - JRH	0.2	
30	1,1,2,2-tetrachloroethane	0.0548	0.110	0.200	0.2	Verified - JRH	0.2	
31	1,2-dichloroethane	0.0552	0.111	0.200	0.2	Verified - JRH	0.2	
32	heptane	0.0553	0.111	0.200	0.2	Verified - JRH	0.2	
33	ethylbenzene	0.0555	0.113	0.200	0.2	Verified - JRH	0.2	
34	1,1-dichloroethene	0.0566	0.113	0.200	0.2	Verified - JRH	0.2	
35	vinyl acetate	0.0567	0.114	0.200	0.2	Verified - JRH	0.2	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 2 of 4	
Analyst:	MB
Date:	2/21/2013
Instrument ID:	Airlab11
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 2013

GC Toxic Organic Air Pollutants Air

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
36	1,1,1-trichloroethane	0.0570	0.114	0.200	0.2	Verified - JRH	0.2	
37	2-Ethylthiophene	0.0571	0.114	0.200	0.2	Verified - JRH	0.2	
38	dichlorofluoromethane	0.0572	0.116	0.200	0.2	Verified - JRH	0.2	
39	2,2-dichloropropane	0.0581	0.117	0.200	0.2	Verified - JRH	0.2	
40	1,3,5-trimethylbenzene	0.0584	0.117	0.200	0.2	Verified - JRH	0.2	
41	cis-1,2-dichloroethene	0.0587	0.121	0.200	0.2	Verified - JRH	0.2	
42	ethyl ether	0.0591	0.122	0.200	0.2	Verified - JRH	0.2	
43	2-hexanone	0.0604	0.122	0.200	0.2	Verified - JRH	0.2	
44	4-methyl-2-pentanone	0.0607	0.122	0.200	0.2	Verified - JRH	0.2	
45	tetrahydrofuran	0.0608	0.122	0.200	0.2	Verified - JRH	0.2	
46	p-isopropyltoluene	0.0608	0.123	0.200	0.2	Verified - JRH	0.2	
47	indene	0.0608	0.125	0.200	0.2	Verified - JRH	0.2	
48	1,2,4-trichlorobenzene	0.0611	0.126	0.200	0.2	Verified - JRH	0.2	
49	1,2-dichlorobenzene	0.0614	0.126	0.200	0.2	Verified - JRH	0.2	
50	chlorodifluoromethane	0.0626	0.127	0.200	0.2	Verified - JRH	0.2	
51	toluene	0.0628	0.127	0.200	0.2	Verified - JRH	0.2	
52	o-xylene	0.0631	0.128	0.200	0.2	Verified - JRH	0.2	
53	1,3-dichlorobenzene	0.0637	0.129	0.200	0.2	Verified - JRH	0.2	
54	n-butylbenzene	0.0639	0.131	0.200	0.2	Verified - JRH	0.2	
55	benzyl chloride	0.0645	0.131	0.200	0.2	Verified - JRH	0.2	
56	bromodichloromethane	0.0656	0.131	0.200	0.2	Verified - JRH	0.2	
57	cyclohexane	0.0656	0.132	0.200	0.2	Verified - JRH	0.2	
58	diisopropyl ether	0.0656	0.133	0.200	0.2	Verified - JRH	0.2	
59	2,2,4-trimethylpentane	0.0659	0.133	0.200	0.2	Verified - JRH	0.2	
60	1,1,2-trichloroethane	0.0667	0.134	0.200	0.2	Verified - JRH	0.2	
61	3-methylthiophene	0.0669	0.139	0.200	0.2	Verified - JRH	0.2	
62	trans-1,3-dichloropropene	0.0693	0.139	0.200	0.2	Verified - JRH	0.2	
63	1,2,4-trimethylbenzene	0.0694	0.139	0.200	0.2	Verified - JRH	0.2	
64	bromomethane	0.0696	0.139	0.200	0.2	Verified - JRH	0.2	
65	1,2-dichloropropane	0.0697	0.140	0.200	0.2	Verified - JRH	0.2	
66	vinyl bromide	0.0699	0.142	0.200	0.2	Verified - JRH	0.2	
67	trichloroethene	0.0710	0.143	0.200	0.2	Verified - JRH	0.2	
68	1,1-dichloropropene	0.0715	0.146	0.200	0.2	Verified - JRH	0.2	
69	sec-butylbenzene	0.0731	0.146	0.200	0.2	Verified - JRH	0.2	
70	hexachlorobutadiene	0.0732	0.148	0.200	0.2	Verified - JRH	0.2	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 3 of 4	
Analyst:	MB
Date:	2/21/2013
Instrument ID:	Airlab11
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 2013

GC Toxic Organic Air Pollutants Air

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
71	trans-1,2-dichloroethene	0.0740	0.149	0.200	0.2	Verified - JRH	0.2	
72	1,2-dibromo-3-chloropropane	0.0744	0.149	0.200	0.2	Verified - JRH	0.2	
73	cis-1,3-dichloropropene	0.0745	0.149	0.200	0.2	Verified - JRH	0.2	
74	dibromochloromethane	0.0747	0.150	0.200	0.2	Verified - JRH	0.2	
75	1,2,3-Trimethylbenzene	0.0751	0.152	0.200	0.2	Verified - JRH	0.2	
76	tetrachloroethene	0.0758	0.152	0.200	0.2	Verified - JRH	0.2	
77	acetonitrile	0.0761	0.153	0.200	0.2	Verified - JRH	0.2	
78	4-chlorotoluene	0.0764	0.153	0.200	0.2	Verified - JRH	0.2	
79	1,2,3-trichloropropane	0.0767	0.153	0.200	0.2	Verified - JRH	0.2	
80	chloroethane	0.0767	0.154	0.200	0.2	Verified - JRH	0.2	
81	1,1-dichloroethane	0.0771	0.155	0.200	0.2	Verified - JRH	0.2	
82	1,3-dichloropropane	0.0776	0.155	0.200	0.2	Verified - JRH	0.2	
83	4-ethyl toluene	0.0776	0.156	0.200	0.2	Verified - JRH	0.2	
84	1,2-dibromoethane	0.0779	0.156	0.200	0.2	Verified - JRH	0.2	
85	1,4-dioxane	0.0780	0.158	0.200	0.2	Verified - JRH	0.2	
86	chlorobenzene	0.0789	0.158	0.200	0.2	Verified - JRH	0.2	
87	2-methylthiophene	0.0789	0.158	0.200	0.2	Verified - JRH	0.2	
88	acrylonitrile	0.0790	0.158	0.200	0.2	Verified - JRH	0.2	
89	bromobenzene	0.0790	0.159	0.200	0.2	Verified - JRH	0.2	
90	1,2,4,5-Tetramethylbenzene	0.0795	0.159	0.200	0.2	Verified - JRH	0.2	
91	tert-amyl methyl ether	0.0795	0.159	0.200	0.2	Verified - JRH	0.2	
92	indan	0.0795	0.160	0.200	0.2	Verified - JRH	0.2	
93	styrene	0.0799	0.160	0.200	0.2	Verified - JRH	0.2	
94	1,3-butadiene	0.0799	0.162	0.200	0.2	Verified - JRH	0.2	
95	3-chloropropene	0.0812	0.186	0.200	0.2	Verified - JRH	0.2	
96	propylene	0.0929	0.192	0.383	0.2	Verified - JRH	0.5	
97	chloromethane	0.0958	0.227	0.200	0.2	Verified - JRH	0.2	
98	propane	0.1137	0.228	0.200	0.2	Verified - JRH	0.2	
99	acrolein	0.1138	0.262	0.500	0.5	Verified - JRH	0.5	
100	ethyl acetate	0.1310	0.278	0.500	0.5	Verified - JRH	0.5	
101	m+p-xylene	0.1388	0.295	0.400	0.4	Verified - JRH	0.4	
102	acetone	0.1649	0.330	0.660	0.5	Verified - JRH	1.0	
103	1-methylnaphthalene	0.2495	0.499	0.998	1	Verified - JRH	1.0	
104	2-methylnaphthalene	0.2725	0.545	1.000	1	Verified - JRH	1.0	
105	methylene chloride	0.2991	0.598	1.000	1	Verified - JRH	1.0	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 4 of 4	
Analyst:	MB
Date:	2/21/2013
Instrument ID:	Airlab11
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 2013

GC **Toxic Organic Air Pollutants** **Air**

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
106	ethanol	0.5416	1.08	2.17	1	Verified - JRH	2.5	
107	acetaldehyde	0.5466	1.09	2.19	1	Verified - JRH	5.0	
108	methanol	0.7359	1.47	2.94	2.5	Verified - JRH	5.0	
	Additional Analytes							
1	undecane	0.0528	0.106	0.200	0.2	Verified - JRH	0.2	
2	dodecane	0.0478	0.127	0.200	0.2	Verified - JRH	0.2	
3	decane	0.0484	0.097	0.194	0.1	Verified - JRH	0.2	
4	nonane	0.0625	0.075	0.150	0.1	Verified - JRH	0.2	
5	butane	0.0442	0.088	0.177	0.1	Verified - JRH	0.2	
6	Tertiary butyl Alcohol	0.0599	0.120	0.239	0.2	Verified - JRH	0.5	
7	butyl acetate	0.1139	0.228	0.455	0.2	Verified - JRH	0.5	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Determination of Method Detection Limits

Alpha Analytical, Inc.

Mansfield, MA

Approved

Page 1 of 3	
Analyst:	AJ
Date:	12/22-23, 12/29/2008, 6/23, 7/6-7/2009
Instrument	Airpiano 1
Column ID:	RTX-1

Method: TO-15 (TALL) 2008-2009

GC/MS Toxic Organic Air Pollutants

	MDL Table	Data file	MDL1	MDL2	MDL3	MDL4	MDL5	MDL6	MDL7	T-value used to calculate MDL value: 3.143					
		Date	12/22/08	12/22/08	12/22/08	12/23/08	12/23/08	12/23/08	12/29/08						
	Analyte	Spike Conc.	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Mean	Mean	Std Dev	MDL	RL	Comments
		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	Accuracy		ppbv	ppbv	
1	chlorodifluoromethane	0.2	0.241	0.217	0.215	0.236	0.217	0.182	0.202	0.216	108%	0.020	0.06	0.2	
2	propylene	0.2	0.247	0.17	0.254	0.248	0.219	0.209	0.215	0.223	112%	0.030	0.09	0.5	6/23/2009
3	propane	0.2	0.217	0.244	0.169	0.211	0.277	0.262	0.244	0.232	116%	0.036	0.11	0.5	6/23/2009
4	dichlorodifluoromethane	0.2	0.242	0.222	0.232	0.223	0.215	0.237	0.259	0.233	116%	0.015	0.05	0.2	
5	chloromethane	0.2	0.244	0.268	0.286	0.261	0.269	0.239	0.33	0.271	136%	0.030	0.10	0.5	
6	Freon-114	0.2	0.183	0.205	0.175	0.19	0.188	0.19	0.176	0.187	93%	0.010	0.03	0.2	
7	methanol	5	5.0799	4.5532	4.6465	5.174	5.0552	5.02	4.9599	4.927	99%	0.234	0.74	5	7/6-7/2009
8	vinyl chloride	0.2	0.174	0.177	0.175	0.191	0.179	0.18	0.18	0.179	90%	0.006	0.02	0.2	
9	1,3-butadiene	0.2	0.174	0.215	0.188	0.157	0.197	0.195	0.141	0.181	91%	0.025	0.08	0.2	
10	butane	0.2	0.219	0.198	0.202	0.193	0.198	0.172	0.196	0.197	98%	0.014	0.04	0.2	6/23/2009
11	bromomethane	0.2	0.272	0.26	0.24	0.247	0.256	0.235	0.3	0.259	129%	0.022	0.07	0.2	6/23/2009
12	chloroethane	0.5	0.407	0.444	0.443	0.491	0.449	0.449	0.45	0.448	90%	0.024	0.08	0.2	
13	dichlorofluoromethane	0.2	0.197	0.215	0.197	0.163	0.168	0.196	0.185	0.189	94%	0.018	0.06	0.2	
14	ethanol	1	1.284	1.451	1.362	1.318	1.501	1.359	1.79	1.438	144%	0.172	0.54	2	
15	acetonitrile	0.2	0.192	0.243	0.221	0.207	0.225	0.223	0.205	0.217	108%	0.017	0.05	0.2	
16	vinyl bromide	0.2	0.177	0.165	0.197	0.16	0.142	0.152	0.13	0.160	80%	0.022	0.07	0.2	
17	acrolein	0.2	0.199	0.265	0.181	0.204	0.192	0.204	0.229	0.211	105%	0.028	0.09	0.5	6/23/2009
18	acetone	0.4051	0.348	0.372	0.367	0.365	0.379	0.355	0.413	0.371	92%	0.021	0.07	0.5	7/6-7/2009
19	trichlorofluoromethane	0.2	0.205	0.211	0.203	0.178	0.195	0.2	0.18	0.196	98%	0.013	0.04	0.2	
20	isopropyl alcohol	0.2	0.278	0.299	0.278	0.265	0.298	0.292	0.302	0.287	144%	0.014	0.04	0.2	
21	acrylonitrile	0.2	0.193	0.199	0.252	0.238	0.245	0.197	0.209	0.219	110%	0.025	0.08	0.2	6/23/2009
22	pentane	0.2	0.205	0.211	0.229	0.203	0.229	0.214	0.226	0.217	108%	0.011	0.04	0.2	
23	ethyl ether	0.2	0.207	0.215	0.246	0.208	0.235	0.239	0.197	0.221	111%	0.019	0.06	0.2	
24	1,1-dichloroethene	0.2	0.174	0.187	0.193	0.167	0.178	0.193	0.142	0.176	88%	0.018	0.06	0.2	
25	Tertiary butyl Alcohol	0.2	0.198	0.178	0.221	0.229	0.19	0.218	0.22	0.208	104%	0.019	0.06	0.2	6/23/2009
26	methylene chloride	0.2	0.226	0.262	0.246	0.263	0.227	0.236	0.257	0.245	123%	0.016	0.05	0.2	6/23/2009
27	3-chloropropene	0.2	0.159	0.214	0.2	0.159	0.208	0.164	0.157	0.180	90%	0.026	0.08	0.2	
28	carbon disulfide	0.2	0.205	0.212	0.209	0.186	0.203	0.201	0.205	0.203	102%	0.008	0.03	0.2	
29	Freon 113	0.2	0.199	0.177	0.167	0.181	0.205	0.191	0.161	0.183	92%	0.016	0.05	0.2	
30	trans-1,2-dichloroethene	0.2	0.195	0.177	0.158	0.171	0.162	0.212	0.142	0.174	87%	0.024	0.07	0.2	
31	1,1-dichloroethane	0.2	0.172	0.234	0.192	0.2	0.216	0.195	0.162	0.196	98%	0.025	0.08	0.2	
32	MTBE	0.2	0.207	0.223	0.22	0.227	0.229	0.227	0.208	0.220	110%	0.009	0.03	0.2	
33	vinyl acetate	0.2	0.217	0.22	0.236	0.224	0.24	0.241	0.222	0.229	114%	0.010	0.03	0.2	
34	2-butanone	0.2	0.218	0.228	0.237	0.231	0.255	0.239	0.251	0.237	119%	0.013	0.04	0.2	
35	cis-1,2-dichloroethene	0.2	0.168	0.186	0.198	0.196	0.209	0.199	0.157	0.188	94%	0.019	0.06	0.2	
36	chloroform	0.2	0.175	0.193	0.193	0.184	0.18	0.187	0.175	0.184	92%	0.008	0.02	0.2	
37	1,2-dichloroethane	0.2	0.202	0.224	0.205	0.187	0.238	0.2	0.196	0.207	104%	0.018	0.06	0.2	
38	hexane	0.2	0.19	0.221	0.21	0.219	0.182	0.213	0.186	0.203	102%	0.016	0.05	0.2	
39	diisopropyl ether	0.2	0.222	0.277	0.229	0.23	0.214	0.244	0.247	0.238	119%	0.021	0.07	0.2	6/23/2009
40	ethyl acetate	0.2	0.17	0.284	0.194	0.197	0.198	0.151	0.194	0.198	99%	0.042	0.13	0.5	6/23/2009
41	2,2-dichloropropane	0.2	0.167	0.186	0.155	0.198	0.198	0.198	0.164	0.181	90%	0.018	0.06	0.2	
42	tetrahydrofuran	0.2	0.193	0.186	0.173	0.201	0.165	0.178	0.211	0.187	93%	0.016	0.05	0.2	6/23/2009
43	tert-butyl ethyl ether	0.2	0.199	0.198	0.192	0.196	0.224	0.215	0.173	0.200	100%	0.016	0.05	0.2	
44	1,1,1-trichloroethane	0.2	0.17	0.197	0.199	0.18	0.198	0.219	0.169	0.190	95%	0.018	0.06	0.2	
45	1,1-dichloropropene	0.2	0.181	0.217	0.18	0.145	0.158	0.17	0.184	0.176	88%	0.023	0.07	0.2	6/23/2009
46	benzene	0.2	0.18	0.217	0.201	0.213	0.23	0.227	0.205	0.210	105%	0.017	0.05	0.2	

Technical Director: KD Date Effective: 7/23/2009

Determination of Method Detection Limits

Alpha Analytical, Inc.

Mansfield, MA

Page 2 of 3	
Analyst:	AJ
Date:	12/22-23, 12/29/2008, 6/23, 7/6-7/2009
Instrument	Airpiano 1
Column ID:	RTX-1

Method: TO-15 (TALL) 2008-2009

GC/MS Toxic Organic Air Pollutants

	MDL Table	Data file	MDL1	MDL2	MDL3	MDL4	MDL5	MDL6	MDL7	T-value used to calculate MDL value: 3.143					
		Date	12/22/08	12/22/08	12/22/08	12/23/08	12/23/08	12/23/08	12/29/08						
	Analyte	Spike Conc.	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Mean	Mean	Std Dev	MDL	RL	Comments
		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	Accuracy		ppbv	ppbv	
47	carbon tetrachloride	0.2	0.171	0.212	0.192	0.186	0.183	0.178	0.167	0.184	92%	0.015	0.05	0.2	
48	cyclohexane	0.2	0.168	0.174	0.152	0.208	0.188	0.191	0.152	0.176	88%	0.021	0.07	0.2	
49	tert-amyl methyl ether	0.2	0.171	0.224	0.245	0.202	0.204	0.228	0.188	0.209	104%	0.025	0.08	0.2	
50	dibromomethane	0.2	0.189	0.194	0.217	0.193	0.212	0.203	0.172	0.197	99%	0.015	0.05	0.2	
51	1,2-dichloropropane	0.2	0.16	0.203	0.174	0.219	0.207	0.183	0.168	0.188	94%	0.022	0.07	0.2	6/23/2009
52	bromodichloromethane	0.2	0.174	0.183	0.155	0.185	0.18	0.189	0.131	0.171	86%	0.021	0.07	0.2	
53	trichloroethene	0.2	0.165	0.201	0.208	0.165	0.149	0.196	0.195	0.183	91%	0.023	0.07	0.2	
54	1,4-dioxane	0.2	0.181	0.208	0.141	0.153	0.202	0.193	0.177	0.179	90%	0.025	0.08	0.2	6/23/2009
55	2,2,4-trimethylpentane	0.2	0.169	0.218	0.182	0.202	0.213	0.18	0.166	0.190	95%	0.021	0.07	0.2	
56	heptane	0.2	0.165	0.212	0.171	0.207	0.199	0.191	0.186	0.190	95%	0.018	0.06	0.2	
57	cis-1,3-dichloropropene	0.2	0.166	0.201	0.173	0.182	0.217	0.224	0.169	0.190	95%	0.024	0.07	0.2	
58	4-methyl-2-pentanone	0.2	0.21	0.228	0.181	0.198	0.219	0.207	0.175	0.203	101%	0.019	0.06	0.2	
59	trans-1,3-dichloropropene	0.2	0.141	0.186	0.194	0.183	0.193	0.188	0.148	0.176	88%	0.022	0.07	0.2	
60	1,1,2-trichloroethane	0.2	0.193	0.23	0.212	0.212	0.229	0.217	0.17	0.209	105%	0.021	0.07	0.2	
61	toluene	0.2	0.212	0.23	0.228	0.226	0.271	0.233	0.211	0.230	115%	0.020	0.06	0.2	
62	1,3-dichloropropane	0.2	0.178	0.203	0.14	0.197	0.186	0.16	0.146	0.173	86%	0.025	0.08	0.2	
63	2-hexanone	0.2	0.198	0.189	0.203	0.178	0.205	0.215	0.158	0.192	96%	0.019	0.06	0.2	
64	dibromochloromethane	0.2	0.166	0.175	0.163	0.177	0.225	0.183	0.15	0.177	89%	0.024	0.07	0.2	
65	1,2-dibromoethane	0.2	0.172	0.215	0.193	0.178	0.211	0.205	0.146	0.189	94%	0.025	0.08	0.2	
66	butyl acetate	0.2	0.235	0.206	0.228	0.254	0.223	0.186	0.191	0.218	109%	0.025	0.08	0.2	6/23/2009
67	octane	0.2	0.172	0.196	0.169	0.186	0.193	0.198	0.167	0.183	92%	0.013	0.04	0.2	6/23/2009
68	tetrachloroethene	0.2	0.188	0.188	0.177	0.236	0.19	0.182	0.231	0.199	99%	0.024	0.08	0.2	
69	1,1,1,2-tetrachloroethane	0.2	0.193	0.207	0.171	0.201	0.192	0.199	0.159	0.189	94%	0.017	0.05	0.2	
70	chlorobenzene	0.2	0.198	0.219	0.211	0.226	0.23	0.214	0.156	0.208	104%	0.025	0.08	0.2	
71	ethylbenzene	0.2	0.194	0.204	0.203	0.203	0.232	0.204	0.172	0.202	101%	0.018	0.06	0.2	
72	m+p-xylene	0.4	0.327	0.418	0.424	0.397	0.442	0.403	0.336	0.392	98%	0.044	0.14	0.4	
73	bromoform	0.2	0.172	0.159	0.155	0.193	0.178	0.18	0.145	0.169	84%	0.017	0.05	0.2	
74	styrene	0.2	0.141	0.172	0.182	0.179	0.207	0.202	0.145	0.175	88%	0.025	0.08	0.2	
75	1,1,2,2-tetrachloroethane	0.2	0.168	0.18	0.187	0.194	0.209	0.16	0.166	0.181	90%	0.017	0.05	0.2	
76	o-xylene	0.2	0.159	0.2	0.192	0.188	0.214	0.201	0.164	0.188	94%	0.020	0.06	0.2	
77	1,2,3-trichloropropane	0.2	0.171	0.203	0.192	0.22	0.198	0.197	0.145	0.189	95%	0.024	0.08	0.2	
78	nonane	0.2	0.186	0.191	0.215	0.201	0.211	0.193	0.185	0.197	99%	0.012	0.04	0.2	
79	isopropylbenzene	0.2	0.163	0.183	0.159	0.169	0.147	0.183	0.162	0.167	83%	0.013	0.04	0.2	6/23/2009
80	bromobenzene	0.2	0.175	0.212	0.21	0.182	0.201	0.195	0.14	0.188	94%	0.025	0.08	0.2	
81	2-chlorotoluene	0.2	0.16	0.205	0.161	0.166	0.167	0.177	0.175	0.173	87%	0.016	0.05	0.2	6/23/2009
82	n-propylbenzene	0.2	0.189	0.173	0.159	0.171	0.134	0.16	0.155	0.163	82%	0.017	0.05	0.2	
83	4-chlorotoluene	0.2	0.177	0.193	0.2	0.168	0.211	0.219	0.151	0.188	94%	0.024	0.08	0.2	
84	4-ethyl toluene	0.2	0.166	0.187	0.186	0.169	0.219	0.181	0.138	0.178	89%	0.025	0.08	0.2	
85	1,3,5-trimethylbenzene	0.2	0.16	0.179	0.179	0.179	0.185	0.185	0.134	0.172	86%	0.019	0.06	0.2	
86	tert-butlybenzene	0.2	0.16	0.164	0.155	0.163	0.176	0.157	0.144	0.160	80%	0.010	0.03	0.2	
87	1,2,4-trimethylbenzene	0.2	0.144	0.183	0.177	0.192	0.189	0.187	0.139	0.173	87%	0.022	0.07	0.2	
88	decane	0.2	0.155	0.179	0.174	0.169	0.2	0.172	0.155	0.172	86%	0.015	0.05	0.2	
89	benzyl chloride	0.2	0.164	0.166	0.191	0.157	0.196	0.18	0.137	0.170	85%	0.021	0.06	0.2	
90	1,3-dichlorobenzene	0.2	0.163	0.191	0.177	0.148	0.194	0.197	0.153	0.175	87%	0.020	0.06	0.2	
91	1,4-dichlorobenzene	0.2	0.173	0.171	0.194	0.178	0.17	0.19	0.168	0.178	89%	0.010	0.03	0.2	
92	sec-butylbenzene	0.2	0.149	0.171	0.191	0.157	0.206	0.169	0.14	0.169	85%	0.023	0.07	0.2	

Determination of Method Detection Limits

Alpha Analytical, Inc.

Mansfield, MA

Page 3 of 3	
Analyst:	AJ
Date:	12/22-23, 12/29/2008, 6/23, 7/6-7/2009
Instrument	Airpiano 1
Column ID:	RTX-1

Method: TO-15 (TALL) 2008-2009

GC/MS **Toxic Organic Air Pollutants**

	MDL Table	Data file	MDL1	MDL2	MDL3	MDL4	MDL5	MDL6	MDL7	T-value used to calculate MDL value: 3.143					
		Date	12/22/08	12/22/08	12/22/08	12/23/08	12/23/08	12/23/08	12/29/08						
	Analyte	Spike Conc.	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Mean	Mean	Std Dev	MDL	RL	Comments
		ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	ppbv	Accuracy		ppbv	ppbv	
93	p-isopropyltoluene	0.2	0.178	0.177	0.161	0.160	0.191	0.166	0.130	0.166	83%	0.019	0.06	0.2	
94	1,2-dichlorobenzene	0.2	0.148	0.152	0.175	0.180	0.166	0.152	0.122	0.156	78%	0.020	0.06	0.2	
95	n-butylbenzene	0.2	0.148	0.173	0.178	0.145	0.155	0.177	0.123	0.157	79%	0.020	0.06	0.2	
96	1,2-dibromo-3-chloropropane	0.2	0.156	0.181	0.160	0.113	0.139	0.175	0.137	0.152	76%	0.024	0.07	0.2	
97	undecane	0.2	0.153	0.169	0.176	0.143	0.179	0.184	0.189	0.170	85%	0.017	0.05	0.2	
98	dodecane	0.2	0.128	0.152	0.132	0.128	0.116	0.125	0.132	0.130	65%	0.011	0.03	0.2	6/23/2009
99	1,2,4-trichlorobenzene	0.2	0.151	0.145	0.122	0.121	0.123	0.092	0.135	0.127	64%	0.019	0.06	0.2	6/23/2009
100	naphthalene	0.2	0.131	0.155	0.123	0.132	0.110	0.128	0.126	0.129	65%	0.014	0.04	0.2	
101	1,2,3-trichlorobenzene	0.2	0.129	0.132	0.111	0.150	0.112	0.120	0.128	0.126	63%	0.013	0.04	0.2	
102	hexachlorobutadiene	0.2	0.156	0.208	0.179	0.156	0.155	0.137	0.179	0.167	84%	0.023	0.07	0.2	6/23/2009
103	thiophene	0.2	0.146	0.190	0.159	0.160	0.157	0.179	0.144	0.162	81%	0.017	0.05	0.2	
104	2-methylthiophene	0.2	0.198	0.229	0.202	0.207	0.221	0.215	0.208	0.211	106%	0.011	0.03	0.2	
105	3-methylthiophene	0.2	0.179	0.200	0.171	0.178	0.148	0.165	0.167	0.173	86%	0.016	0.05	0.2	
106	indan	0.2	0.187	0.204	0.157	0.184	0.127	0.187	0.177	0.175	87%	0.025	0.08	0.2	6/23/2009
107	indene	0.2	0.158	0.187	0.135	0.172	0.132	0.155	0.160	0.157	79%	0.019	0.06	0.2	6/23/2009
108	benzothiophene	0.2	0.113	0.147	0.119	0.129	0.135	0.121	0.153	0.131	66%	0.015	0.05	2.5	
109	2-methylnaphthalene	1	0.742	0.744	0.649	0.651	0.533	0.791	0.726	0.691	69%	0.087	0.27	2.5	7/6-7/2009
110	1-methylnaphthalene	1	0.877	0.851	0.785	0.750	0.640	0.834	0.809	0.792	79%	0.079	0.25	2.5	7/6-7/2009
	Surrogates														
1	1,2-dichloroethane-D4	10	9.435	9.458	9.978	10.052	11.192	9.292	10.425	9.976	100%				
2	toluene-D8	10	9.879	10.102	10.321	10.258	12.64	9.302	10.222	10.389	104%				
3	bromofluorobenzene	10	9.18	9.343	8.91	8.73	10.452	7.691	9.39	9.099	91%				

Comments: _____

Technical Director:_____ Date Effective:_____

Approved

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 1 of 4	
Analyst:	RY
Date:	2/22/2013
Instrument ID:	Airpiano1
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 2013

GC Toxic Organic Air Pollutants Air

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
1	methyl methacrylate	0.0221	0.065	0.130	0.1	Verified - JRH	0.5	
2	tert-butlybenzene	0.0307	0.069	0.138	0.1	Verified - JRH	0.2	
3	carbon disulfide	0.0345	0.076	0.151	0.1	Verified - JRH	0.2	
4	1,4-dichlorobenzene	0.0361	0.076	0.152	0.1	Verified - JRH	0.2	
5	vinyl chloride	0.0378	0.078	0.156	0.1	Verified - JRH	0.2	
6	isopropylbenzene	0.0410	0.083	0.166	0.1	Verified - JRH	0.2	
7	trichlorofluoromethane	0.0416	0.084	0.168	0.1	Verified - JRH	0.2	
8	Freon-114	0.0419	0.084	0.168	0.1	Verified - JRH	0.2	
9	octane	0.0421	0.088	0.177	0.1	Verified - JRH	0.2	
10	naphthalene	0.0425	0.090	0.181	0.1	Verified - JRH	0.2	
11	1,2,3-trichlorobenzene	0.0436	0.093	0.185	0.1	Verified - JRH	0.2	
12	dichlorodifluoromethane	0.0466	0.093	0.186	0.1	Verified - JRH	0.2	
13	benzothiophene	0.0468	0.094	0.187	0.1	Verified - JRH	0.5	
14	carbon tetrachloride	0.0471	0.094	0.188	0.1	Verified - JRH	0.2	
15	2-butanone	0.0472	0.095	0.190	0.1	Verified - JRH	0.2	
16	pentane	0.0475	0.097	0.193	0.1	Verified - JRH	0.2	
17	dibromomethane	0.0476	0.097	0.195	0.1	Verified - JRH	0.2	
18	2-chlorotoluene	0.0487	0.101	0.200	0.2	Verified - JRH	0.2	
19	Freon 113	0.0511	0.102	0.200	0.2	Verified - JRH	0.2	
20	tert-butyl ethyl ether	0.0515	0.103	0.200	0.2	Verified - JRH	0.2	
21	hexane	0.0518	0.104	0.200	0.2	Verified - JRH	0.2	
22	bromoform	0.0523	0.105	0.200	0.2	Verified - JRH	0.2	
23	isopropyl alcohol	0.0525	0.106	0.211	0.2	Verified - JRH	0.5	
24	thiophene	0.0528	0.107	0.200	0.2	Verified - JRH	0.2	
25	MTBE	0.0528	0.107	0.200	0.2	Verified - JRH	0.2	
26	chloroform	0.0531	0.108	0.200	0.2	Verified - JRH	0.2	
27	benzene	0.0537	0.109	0.200	0.2	Verified - JRH	0.2	
28	n-propylbenzene	0.0540	0.109	0.200	0.2	Verified - JRH	0.2	
29	1,1,1,2-tetrachloroethane	0.0547	0.110	0.200	0.2	Verified - JRH	0.2	
30	1,1,2,2-tetrachloroethane	0.0548	0.110	0.200	0.2	Verified - JRH	0.2	
31	1,2-dichloroethane	0.0552	0.111	0.200	0.2	Verified - JRH	0.2	
32	heptane	0.0553	0.111	0.200	0.2	Verified - JRH	0.2	
33	ethylbenzene	0.0555	0.113	0.200	0.2	Verified - JRH	0.2	
34	1,1-dichloroethene	0.0566	0.113	0.200	0.2	Verified - JRH	0.2	
35	vinyl acetate	0.0567	0.114	0.200	0.2	Verified - JRH	0.2	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 2 of 4	
Analyst:	RY
Date:	2/22/2013
Instrument ID:	Airpiano1
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 2013

GC Toxic Organic Air Pollutants Air

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
36	1,1,1-trichloroethane	0.0570	0.114	0.200	0.2	Verified - JRH	0.2	
37	2-Ethylthiophene	0.0571	0.114	0.200	0.2	Verified - JRH	0.2	
38	dichlorofluoromethane	0.0572	0.116	0.200	0.2	Verified - JRH	0.2	
39	2,2-dichloropropane	0.0581	0.117	0.200	0.2	Verified - JRH	0.2	
40	1,3,5-trimethylbenzene	0.0584	0.117	0.200	0.2	Verified - JRH	0.2	
41	cis-1,2-dichloroethene	0.0587	0.121	0.200	0.2	Verified - JRH	0.2	
42	ethyl ether	0.0591	0.122	0.200	0.2	Verified - JRH	0.2	
43	2-hexanone	0.0604	0.122	0.200	0.2	Verified - JRH	0.2	
44	4-methyl-2-pentanone	0.0607	0.122	0.200	0.2	Verified - JRH	0.2	
45	tetrahydrofuran	0.0608	0.122	0.200	0.2	Verified - JRH	0.2	
46	p-isopropyltoluene	0.0608	0.123	0.200	0.2	Verified - JRH	0.2	
47	indene	0.0608	0.125	0.200	0.2	Verified - JRH	0.2	
48	1,2,4-trichlorobenzene	0.0611	0.126	0.200	0.2	Verified - JRH	0.2	
49	1,2-dichlorobenzene	0.0614	0.126	0.200	0.2	Verified - JRH	0.2	
50	chlorodifluoromethane	0.0626	0.127	0.200	0.2	Verified - JRH	0.2	
51	toluene	0.0628	0.127	0.200	0.2	Verified - JRH	0.2	
52	o-xylene	0.0631	0.128	0.200	0.2	Verified - JRH	0.2	
53	1,3-dichlorobenzene	0.0637	0.129	0.200	0.2	Verified - JRH	0.2	
54	n-butylbenzene	0.0639	0.131	0.200	0.2	Verified - JRH	0.2	
55	benzyl chloride	0.0645	0.131	0.200	0.2	Verified - JRH	0.2	
56	bromodichloromethane	0.0656	0.131	0.200	0.2	Verified - JRH	0.2	
57	cyclohexane	0.0656	0.132	0.200	0.2	Verified - JRH	0.2	
58	diisopropyl ether	0.0656	0.133	0.200	0.2	Verified - JRH	0.2	
59	2,2,4-trimethylpentane	0.0659	0.133	0.200	0.2	Verified - JRH	0.2	
60	1,1,2-trichloroethane	0.0667	0.134	0.200	0.2	Verified - JRH	0.2	
61	3-methylthiophene	0.0669	0.139	0.200	0.2	Verified - JRH	0.2	
62	trans-1,3-dichloropropene	0.0693	0.139	0.200	0.2	Verified - JRH	0.2	
63	1,2,4-trimethylbenzene	0.0694	0.139	0.200	0.2	Verified - JRH	0.2	
64	bromomethane	0.0696	0.139	0.200	0.2	Verified - JRH	0.2	
65	1,2-dichloropropane	0.0697	0.140	0.200	0.2	Verified - JRH	0.2	
66	vinyl bromide	0.0699	0.142	0.200	0.2	Verified - JRH	0.2	
67	trichloroethene	0.0710	0.143	0.200	0.2	Verified - JRH	0.2	
68	1,1-dichloropropene	0.0715	0.146	0.200	0.2	Verified - JRH	0.2	
69	sec-butylbenzene	0.0731	0.146	0.200	0.2	Verified - JRH	0.2	
70	hexachlorobutadiene	0.0732	0.148	0.200	0.2	Verified - JRH	0.2	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 3 of 4	
Analyst:	RY
Date:	2/22/2013
Instrument ID:	Airpiano1
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 2013

GC Toxic Organic Air Pollutants Air

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
71	trans-1,2-dichloroethene	0.0740	0.149	0.200	0.2	Verified - JRH	0.2	
72	1,2-dibromo-3-chloropropane	0.0744	0.149	0.200	0.2	Verified - JRH	0.2	
73	cis-1,3-dichloropropene	0.0745	0.149	0.200	0.2	Verified - JRH	0.2	
74	dibromochloromethane	0.0747	0.150	0.200	0.2	Verified - JRH	0.2	
75	1,2,3-Trimethylbenzene	0.0751	0.152	0.200	0.2	Verified - JRH	0.2	
76	tetrachloroethene	0.0758	0.152	0.200	0.2	Verified - JRH	0.2	
77	acetonitrile	0.0761	0.153	0.200	0.2	Verified - JRH	0.2	
78	4-chlorotoluene	0.0764	0.153	0.200	0.2	Verified - JRH	0.2	
79	1,2,3-trichloropropane	0.0767	0.153	0.200	0.2	Verified - JRH	0.2	
80	chloroethane	0.0767	0.154	0.200	0.2	Verified - JRH	0.2	
81	1,1-dichloroethane	0.0771	0.155	0.200	0.2	Verified - JRH	0.2	
82	1,3-dichloropropane	0.0776	0.155	0.200	0.2	Verified - JRH	0.2	
83	4-ethyl toluene	0.0776	0.156	0.200	0.2	Verified - JRH	0.2	
84	1,2-dibromoethane	0.0779	0.156	0.200	0.2	Verified - JRH	0.2	
85	1,4-dioxane	0.0780	0.158	0.200	0.2	Verified - JRH	0.2	
86	chlorobenzene	0.0789	0.158	0.200	0.2	Verified - JRH	0.2	
87	2-methylthiophene	0.0789	0.158	0.200	0.2	Verified - JRH	0.2	
88	acrylonitrile	0.0790	0.158	0.200	0.2	Verified - JRH	0.2	
89	bromobenzene	0.0790	0.159	0.200	0.2	Verified - JRH	0.2	
90	1,2,4,5-Tetramethylbenzene	0.0795	0.159	0.200	0.2	Verified - JRH	0.2	
91	tert-amyl methyl ether	0.0795	0.159	0.200	0.2	Verified - JRH	0.2	
92	indan	0.0795	0.160	0.200	0.2	Verified - JRH	0.2	
93	styrene	0.0799	0.160	0.200	0.2	Verified - JRH	0.2	
94	1,3-butadiene	0.0799	0.162	0.200	0.2	Verified - JRH	0.2	
95	3-chloropropene	0.0812	0.186	0.200	0.2	Verified - JRH	0.2	
96	propylene	0.0929	0.192	0.383	0.2	Verified - JRH	0.5	
97	chloromethane	0.0958	0.227	0.200	0.2	Verified - JRH	0.2	
98	propane	0.1137	0.228	0.200	0.2	Verified - JRH	0.2	
99	acrolein	0.1138	0.262	0.500	0.5	Verified - JRH	0.5	
100	ethyl acetate	0.1310	0.278	0.500	0.5	Verified - JRH	0.5	
101	m+p-xylene	0.1388	0.295	0.400	0.4	Verified - JRH	0.4	
102	acetone	0.1649	0.330	0.660	0.5	Verified - JRH	1.0	
103	1-methylnaphthalene	0.2495	0.499	0.998	1	Verified - JRH	1.0	
104	2-methylnaphthalene	0.2725	0.545	1.000	1	Verified - JRH	1.0	
105	methylene chloride	0.2991	0.598	1.000	1	Verified - JRH	1.0	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Limit of Detection Study

Alpha Analytical, Inc.
Mansfield, MA

Page 4 of 4	
Analyst:	RY
Date:	2/22/2013
Instrument ID:	Airpiano1
Prep Method:	N/A
Prep Chemist:	N/A

Method: EPA TO-15 2013

GC Toxic Organic Air Pollutants Air

	Compounds	DL*	Bottom of LOD Range	Top of LOD Range	Concentration Run at	Results Verified	RL	Comments
		ppbV	ppbV	ppbV	ppbV		ppbV	
106	ethanol	0.5416	1.08	2.17	1	Verified - JRH	2.5	
107	acetaldehyde	0.5466	1.09	2.19	1	Verified - JRH	5.0	
108	methanol	0.7359	1.47	2.94	2.5	Verified - JRH	5.0	
	Additional Analytes							
1	undecane	0.0528	0.106	0.200	0.2	Verified - JRH	0.2	
2	dodecane	0.0478	0.127	0.200	0.2	Verified - JRH	0.2	
3	decane	0.0484	0.097	0.194	0.1	Verified - JRH	0.2	
4	nonane	0.0625	0.075	0.150	0.1	Verified - JRH	0.2	
5	butane	0.0442	0.088	0.177	0.1	Verified - JRH	0.2	
6	Tertiary butyl Alcohol	0.0599	0.120	0.239	0.2	Verified - JRH	0.5	
7	butyl acetate	0.1139	0.228	0.455	0.2	Verified - JRH	0.5	

Comments: * Airpiano 1 '08, Airpiano2 '09, Airlab11 '12, Airlab13 '13 - highest MDL

Organics

New Jersey TO-15 Methods

Quality Control Data Summary

3
LAB DUPLICATE
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1521092 Matrix: Air
Lab Sample ID : WG817978-5 Injected: 09/02/15 21:33 Lab File ID: R1111402
Client Sample ID : UPS-SS-2

COMPOUND	SAMPLE CONCENTRATION (ppbV)	DUP CONCENTRATION (ppbV)	DUP % RPD	DUP RPD LIMIT
Dichlorodifluoromethane	ND	0.53	NC	25
Chloromethane	ND	ND	NC	25
Freon-114	ND	ND	NC	25
Vinyl chloride	ND	ND	NC	25
1,3-Butadiene	ND	ND	NC	25
Bromomethane	ND	ND	NC	25
Chloroethane	ND	ND	NC	25
Ethanol	110	110	0	25
Vinyl bromide	ND	ND	NC	25
Acetone	130	140	7	25
Trichlorofluoromethane	ND	ND	NC	25
Isopropanol	16	16	0	25
1,1-Dichloroethene	ND	ND	NC	25
Tertiary butyl Alcohol	1.9	2.0	5	25
Methylene chloride	ND	ND	NC	25
3-Chloropropene	ND	ND	NC	25
Carbon disulfide	ND	ND	NC	25
Freon-113	ND	ND	NC	25
trans-1,2-Dichloroethene	ND	ND	NC	25
1,1-Dichloroethane	ND	ND	NC	25
Methyl tert butyl ether	ND	ND	NC	25
2-Butanone	18	19	5	25
cis-1,2-Dichloroethene	ND	ND	NC	25
Chloroform	ND	ND	NC	25
Tetrahydrofuran	2.0	2.2	10	25
1,2-Dichloroethane	ND	ND	NC	25
n-Hexane	ND	ND	NC	25
1,1,1-Trichloroethane	ND	ND	NC	25
Benzene	ND	ND	NC	25
Carbon tetrachloride	ND	ND	NC	25
Cyclohexane	ND	ND	NC	25
1,2-Dichloropropane	ND	ND	NC	25
Bromodichloromethane	ND	ND	NC	25
1,4-Dioxane	ND	ND	NC	25
Trichloroethene	3.4	3.7	8	25
2,2,4-Trimethylpentane	ND	ND	NC	25
Methyl Methacrylate	ND	ND	NC	25
Heptane	ND	ND	NC	25
cis-1,3-Dichloropropene	ND	ND	NC	25
4-Methyl-2-pentanone	ND	ND	NC	25

* Values outside of QC limits.

COMMENTS: _____

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FORM III NJ-TO15

3
LAB DUPLICATE
AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs
SDG No.: L1521092 Matrix: Air
Lab Sample ID : WG817978-5 Injected: 09/02/15 21:33 Lab File ID: R1111402
Client Sample ID : UPS-SS-2

COMPOUND	SAMPLE CONCENTRATION (ppbV)	DUP CONCENTRATION (ppbV)	DUP % RPD	DUP RPD LIMIT
trans-1,3-Dichloropropen	ND	ND	NC	25
1,1,2-Trichloroethane	ND	ND	NC	25
Toluene	2.0	2.1	5	25
Dibromochloromethane	ND	ND	NC	25
1,2-Dibromoethane	ND	ND	NC	25
Tetrachloroethene	19	20	5	25
Chlorobenzene	ND	ND	NC	25
Ethylbenzene	0.82	0.86	5	25
p/m-Xylene	2.9	3.1	7	25
Bromoform	ND	ND	NC	25
Styrene	ND	ND	NC	25
1,1,2,2-Tetrachloroethan	ND	ND	NC	25
o-Xylene	1.1	1.1	0	25
2-Chlorotoluene	ND	ND	NC	25
4-Ethyltoluene	0.68	0.73	7	25
1,3,5-Trimethybenzene	0.70	0.73	4	25
1,2,4-Trimethylbenzene	3.0	3.2	6	25
1,3-Dichlorobenzene	ND	ND	NC	25
1,4-Dichlorobenzene	ND	ND	NC	25
1,2-Dichlorobenzene	ND	ND	NC	25
1,2,4-Trichlorobenzene	ND	ND	NC	25
Hexachlorobutadiene	ND	ND	NC	25

* Values outside of QC limits.

COMMENTS: _____

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FORM III NJ-TO15

3

LAB CONTROL SAMPLE RECOVERY

AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1521092 Matrix: Air

Lab Control Sample: WG817978-3LCS Injected: 09/02/15 14:13 Lab File ID: R1111394

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Chlorodifluoromethane	10	NA	7.4	74	-	-	-		70-130
Propylene	10	NA	8.4	84	-	-	-		70-130
Dichlorodifluoromethane	10	NA	8.0	80	-	-	-		40-160
Chloromethane	10	NA	8.4	84	-	-	-		70-130
Freon-114	10	NA	8.7	87	-	-	-		70-130
Methanol	50	NA	38	76	-	-	-		70-130
Vinyl chloride	10	NA	8.6	86	-	-	-		70-130
1,3-Butadiene	10	NA	9.0	90	-	-	-		70-130
Butane	10	NA	7.7	77	-	-	-		70-130
Bromomethane	10	NA	8.5	85	-	-	-		70-130
Chloroethane	10	NA	8.8	88	-	-	-		70-130
Ethanol	50	NA	41	82	-	-	-		70-130
Dichlorofluoromethane	10	NA	8.1	81	-	-	-		70-130
Vinyl bromide	10	NA	8.5	85	-	-	-		70-130
Acrolein	10	NA	7.8	78	-	-	-		70-130
Acetone	50	NA	42	84	-	-	-		40-160
Acetonitrile	10	NA	7.8	78	-	-	-		70-130
Trichlorofluoromethane	10	NA	8.8	88	-	-	-		70-130
Isopropanol	25	NA	21	84	-	-	-		70-130
Acrylonitrile	10	NA	8.2	82	-	-	-		70-130
Pentane	10	NA	7.6	76	-	-	-		70-130
Ethyl ether	10	NA	7.8	78	-	-	-		70-130
1,1-Dichloroethene	10	NA	8.5	85	-	-	-		70-130
Tertiary butyl Alcohol	10	NA	7.9	79	-	-	-		70-130
Methylene chloride	10	NA	8.6	86	-	-	-		70-130
3-Chloropropene	10	NA	8.7	87	-	-	-		70-130
Carbon disulfide	10	NA	8.7	87	-	-	-		70-130
Freon-113	10	NA	8.7	87	-	-	-		70-130
trans-1,2-Dichloroethene	10	NA	7.6	76	-	-	-		70-130
1,1-Dichloroethane	10	NA	8.3	83	-	-	-		70-130
Methyl tert butyl ether	10	NA	8.3	83	-	-	-		70-130
Vinyl acetate	10	NA	9.6	96	-	-	-		70-130
2-Butanone	10	NA	8.2	82	-	-	-		70-130
cis-1,2-Dichloroethene	10	NA	9.6	96	-	-	-		70-130
Ethyl Acetate	10	NA	8.5	85	-	-	-		70-130
Chloroform	10	NA	8.6	86	-	-	-		70-130
Tetrahydrofuran	10	NA	8.0	80	-	-	-		70-130
2,2-Dichloropropane	10	NA	7.8	78	-	-	-		70-130
1,2-Dichloroethane	10	NA	8.2	82	-	-	-		70-130
n-Hexane	10	NA	8.4	84	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III NJ-TO15

3

LAB CONTROL SAMPLE RECOVERY

AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1521092 Matrix: Air

Lab Control Sample: WG817978-3LCS Injected: 09/02/15 14:13 Lab File ID: R1111394

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Diisopropyl Ether	10	NA	8.0	80	-	-	-		70-130
tert-Butyl ethyl ether	10	NA	7.7	77	-	-	-		70-130
1,1,1-Trichloroethane	10	NA	8.8	88	-	-	-		70-130
1,1-Dichloropropene	10	NA	8.5	85	-	-	-		70-130
Benzene	10	NA	8.4	84	-	-	-		70-130
Carbon tetrachloride	10	NA	8.9	89	-	-	-		70-130
Cyclohexane	10	NA	8.5	85	-	-	-		70-130
tert-amyl methyl ether	10	NA	7.8	78	-	-	-		70-130
Dibromomethane	10	NA	8.1	81	-	-	-		70-130
1,2-Dichloropropane	10	NA	8.6	86	-	-	-		70-130
Bromodichloromethane	10	NA	8.8	88	-	-	-		70-130
1,4-Dioxane	10	NA	8.4	84	-	-	-		40-160
Trichloroethene	10	NA	8.8	88	-	-	-		70-130
2,2,4-Trimethylpentane	10	NA	8.4	84	-	-	-		70-130
Methyl Methacrylate	10	NA	8.7	87	-	-	-		70-130
Heptane	10	NA	8.4	84	-	-	-		70-130
cis-1,3-Dichloropropene	10	NA	20	200 *	-	-	-		70-130
4-Methyl-2-pentanone	10	NA	7.5	75	-	-	-		70-130
trans-1,3-Dichloropropen	10	NA	7.7	77	-	-	-		70-130
1,1,2-Trichloroethane	10	NA	9.1	91	-	-	-		70-130
Toluene	10	NA	9.0	90	-	-	-		70-130
1,3-Dichloropropane	10	NA	8.3	83	-	-	-		70-130
2-Hexanone	10	NA	9.4	94	-	-	-		70-130
Dibromochloromethane	10	NA	9.2	92	-	-	-		70-130
1,2-Dibromoethane	10	NA	9.3	93	-	-	-		70-130
Butyl Acetate	10	NA	8.5	85	-	-	-		70-130
Octane	10	NA	8.2	82	-	-	-		70-130
Tetrachloroethene	10	NA	9.0	90	-	-	-		70-130
1,1,1,2-Tetrachloroethan	10	NA	8.6	86	-	-	-		70-130
Chlorobenzene	10	NA	9.0	90	-	-	-		70-130
Ethylbenzene	10	NA	9.1	91	-	-	-		70-130
p/m-Xylene	20	NA	18	90	-	-	-		70-130
Bromoform	10	NA	9.4	94	-	-	-		70-130
Styrene	10	NA	9.2	92	-	-	-		70-130
1,1,2,2-Tetrachloroethan	10	NA	9.2	92	-	-	-		70-130
o-Xylene	10	NA	9.2	92	-	-	-		70-130
1,2,3-Trichloropropane	10	NA	8.3	83	-	-	-		70-130
Nonane	10	NA	8.2	82	-	-	-		70-130
Isopropylbenzene	10	NA	8.6	86	-	-	-		70-130
Bromobenzene	10	NA	8.4	84	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III NJ-TO15

3

LAB CONTROL SAMPLE RECOVERY

AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1521092 Matrix: Air

Lab Control Sample: WG817978-3LCS Injected: 09/02/15 14:13 Lab File ID: R1111394

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
2-Chlorotoluene	10	NA	8.4	84	-	-	-		70-130
n-Propylbenzene	10	NA	8.5	85	-	-	-		70-130
4-Chlorotoluene	10	NA	8.2	82	-	-	-		70-130
4-Ethyltoluene	10	NA	8.5	85	-	-	-		70-130
1,3,5-Trimethybenzene	10	NA	9.0	90	-	-	-		70-130
tert-Butylbenzene	10	NA	8.5	85	-	-	-		70-130
1,2,4-Trimethylbenzene	10	NA	9.4	94	-	-	-		70-130
Decane	10	NA	8.3	83	-	-	-		70-130
Benzyl chloride	10	NA	9.6	96	-	-	-		70-130
1,3-Dichlorobenzene	10	NA	9.2	92	-	-	-		70-130
1,4-Dichlorobenzene	10	NA	9.2	92	-	-	-		70-130
sec-Butylbenzene	10	NA	8.5	85	-	-	-		70-130
p-Isopropyltoluene	10	NA	8.2	82	-	-	-		70-130
1,2-Dichlorobenzene	10	NA	9.2	92	-	-	-		70-130
n-Butylbenzene	10	NA	8.8	88	-	-	-		70-130
1,2-Dibromo-3-chloroprop	10	NA	8.5	85	-	-	-		70-130
Undecane	10	NA	8.8	88	-	-	-		70-130
Dodecane	10	NA	9.6	96	-	-	-		70-130
1,2,4-Trichlorobenzene	10	NA	9.9	99	-	-	-		40-160
Naphthalene	10	NA	9.5	95	-	-	-		40-160
1,2,3-Trichlorobenzene	10	NA	9.3	93	-	-	-		70-130
Hexachlorobutadiene	10	NA	9.6	96	-	-	-		40-160

* Values outside of QC limits.

COMMENTS: _____

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FORM III NJ-TO15

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG817978-4BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1521092

Lab File ID: R1111396 Lab Sample ID: WG817978-4

Date Analyzed: 09/02/15 Time Analyzed: 16:19

Instrument ID: AIRLAB11

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WG817978-3LCS	WG817978-3	R1111394	09/02/15 14:13
02	UPS-SS-2	L1521092-01D	R1111401	09/02/15 20:52
03	UPS-SS-2DUP	WG817978-5D	R1111402	09/02/15 21:33
04	KUMON-SS-1	L1521092-02D	R1111403	09/02/15 22:15
05	KUMON-SS-2	L1521092-03D	R1111404	09/02/15 22:56
06	PNC-SS-1	L1521092-04D	R1111405	09/02/15 23:37
07	PNC-SS-2	L1521092-05D	R1111406	09/03/15 00:18
08	OMF-SS-2	L1521092-06D	R1111407	09/03/15 01:01
09	BS-SS-2	L1521092-07D	R1111408	09/03/15 01:43
10	BS-SS-1	L1521092-08D	R1111409	09/03/15 02:24
11	UPS-SS-1	L1521092-09D	R1111410	09/03/15 03:06
12	OMF-SS-1	L1521092-10D	R1111411	09/03/15 03:46

COMMENTS: _____

page 1 of 1

FORM IV NJ-TO15 LOW

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1521092

Lab File ID: R1111305_tune BFB Injection Date: 08/27/15

Instrument ID: AIRLAB11 BFB Injection Time: 23:38

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	15.0 - 40.0% of mass 95	14.3
75	30.0 - 60.0% of mass 95	47.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0 (0)1
174	Greater than 50.0 of mass 95	110.2
175	5.0 - 9.0% of mass 174	8.2 (7.4)1
176	95.0 - 101% of mass 174	108 (98)1
177	5.0 - 9.0% of mass 176	7.1 (6.6)2

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

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	0.2	0.2	R1111309	08/28/15	02:21
02	0.5	0.5	R1111310	08/28/15	03:01
03	1.0	1.0	R1111311	08/28/15	03:43
04	5.0	5.0	R1111312	08/28/15	04:23
05	10	10	R1111313	08/28/15	05:05
06	20	20	R1111314	08/28/15	05:44
07	50.0	50.0	R1111315	08/28/15	06:26
08	100.0	100.0	R1111316	08/28/15	07:10
09	ICV Quant	ICV Quant	R1111321	08/28/15	11:58

page 1 of 1

FORM V NJ-TO15

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1521092

Lab File ID: R1111392_tune BFB Injection Date: 09/02/15

Instrument ID: AIRLAB11 BFB Injection Time: 12:24

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	15.0 - 40.0% of mass 95	14.2
75	30.0 - 60.0% of mass 95	48.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0 (0)1
174	Greater than 50.0 of mass 95	113.2
175	5.0 - 9.0% of mass 174	8.5 (7.5)1
176	95.0 - 101% of mass 174	111.2 (98.2)1
177	5.0 - 9.0% of mass 176	7.3 (6.6)2

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

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCAL	WG817978-2	R1111393	09/02/15	13:06
02	WG817978-3LCS	WG817978-3	R1111394	09/02/15	14:13
03	WG817978-4BLANK	WG817978-4	R1111396	09/02/15	16:19
04	UPS-SS-2	L1521092-01D	R1111401	09/02/15	20:52
05	Duplicate Sample	WG817978-5D	R1111402	09/02/15	21:33
06	KUMON-SS-1	L1521092-02D	R1111403	09/02/15	22:15
07	KUMON-SS-2	L1521092-03D	R1111404	09/02/15	22:56
08	PNC-SS-1	L1521092-04D	R1111405	09/02/15	23:37
09	PNC-SS-2	L1521092-05D	R1111406	09/03/15	00:18
10	OMF-SS-2	L1521092-06D	R1111407	09/03/15	01:01
11	BS-SS-2	L1521092-07D	R1111408	09/03/15	01:43
12	BS-SS-1	L1521092-08D	R1111409	09/03/15	02:24
13	UPS-SS-1	L1521092-09D	R1111410	09/03/15	03:06
14	OMF-SS-1	L1521092-10D	R1111411	09/03/15	03:46

page 1 of 1

FORM V NJ-TO15

8A

VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1521092

Lab File ID (Standard): R1111393 Date Analyzed: 09/02/15

Instrument ID : AIRLAB11 Time Analyzed: 13:06

		IS1 AREA	RT	IS2 AREA	RT	IS3 AREA	RT
	24 HOUR STD	81084	9.94	489060	12.15	80649	16.63
	UPPER LIMIT	113518	10.27	684684	12.48	112909	16.96
	LOWER LIMIT	48650	9.61	293436	11.82	48389	16.30
	EPA SAMPLE NO.						
01	WG817978-3LCS	83999	9.94	493823	12.15	81616	16.63
02	WG817978-4BLANK	80143	9.94	492154	12.15	79484	16.63
03	UPS-SS-2	69174	9.94	417059	12.15	68057	16.63
04	WG817978-5DUP	63748	9.94	381258	12.16	63935	16.63
05	KUMON-SS-1	60317	9.95	359698	12.16	59404	16.63
06	KUMON-SS-2	72628	9.94	432254	12.15	70063	16.63
07	PNC-SS-1	69795	9.95	426882	12.16	71157	16.63
08	PNC-SS-2	70481	9.94	422950	12.15	71326	16.63
09	OMF-SS-2	77603	9.94	461027	12.16	75923	16.63
10	BS-SS-2	71406	9.94	427089	12.16	69165	16.63
11	BS-SS-1	66958	9.94	409104	12.15	67141	16.63
12	UPS-SS-1	72154	9.94	434443	12.16	71946	16.63
13	OMF-SS-1	70923	9.93	431893	12.15	72031	16.63

IS1 = BROMOCHLOROMETHANE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = + 40% of internal standard area
AREA LOWER LIMIT = - 40 % of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

* Values outside of QC limits.

page 1 of 1 FORM VIII - NJ-TO15

Sample Data Summary

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-01DL	Date Collected :	08/27/15 14:25
Client ID	: UPS-SS-2	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/02/15 20:52
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.193
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111401	Instrument ID	: AIRLAB11
Sample Amount	: 114 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	ND	0.44	--	ND	2	--	U
74-87-3	Chloromethane	ND	0.44	--	ND	0.9	--	U
76-14-2	Freon-114	ND	0.44	--	ND	3.	--	U
75-01-4	Vinyl chloride	ND	0.44	--	ND	1.	--	U
106-99-0	1,3-Butadiene	ND	0.44	--	ND	1.	--	U
74-83-9	Bromomethane	ND	0.44	--	ND	2.	--	U
75-00-3	Chloroethane	ND	0.44	--	ND	1.	--	U
64-17-5	Ethanol	110	5.5	--	210	10	--	
593-60-2	Vinyl bromide	ND	0.44	--	ND	2.	--	U
67-64-1	Acetone	130	2.2	--	310	5.2	--	
75-69-4	Trichlorofluoromethane	ND	0.44	--	ND	2	--	U
67-63-0	Isopropanol	16	1.1	--	39	2.7	--	
75-35-4	1,1-Dichloroethene	ND	0.44	--	ND	2.	--	U
75-65-0	Tertiary butyl Alcohol	1.9	1.1	--	6	3	--	
75-09-2	Methylene chloride	ND	1.1	--	ND	4	--	U
107-05-1	3-Chloropropene	ND	0.44	--	ND	1.	--	U
75-15-0	Carbon disulfide	ND	0.44	--	ND	1	--	U
76-13-1	Freon-113	ND	0.44	--	ND	3.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.44	--	ND	2.	--	U
75-34-3	1,1-Dichloroethane	ND	0.44	--	ND	2.	--	U
1634-04-4	Methyl tert butyl ether	ND	0.44	--	ND	2.	--	U
78-93-3	2-Butanone	18	1.1	--	53	3.2	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.44	--	ND	2.	--	U
67-66-3	Chloroform	ND	0.44	--	ND	2.	--	U
109-99-9	Tetrahydrofuran	2.0	1.1	--	6	3	--	
107-06-2	1,2-Dichloroethane	ND	0.44	--	ND	2.	--	U
110-54-3	n-Hexane	ND	0.44	--	ND	2.	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.44	--	ND	2.	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-01DL	Date Collected :	08/27/15 14:25
Client ID	: UPS-SS-2	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/02/15 20:52
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.193
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111401	Instrument ID	: AIRLAB11
Sample Amount	: 114 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	ND	0.44	--	ND	1	--	U
56-23-5	Carbon tetrachloride	ND	0.44	--	ND	3.	--	U
110-82-7	Cyclohexane	ND	0.44	--	ND	2	--	U
78-87-5	1,2-Dichloropropane	ND	0.44	--	ND	2.	--	U
75-27-4	Bromodichloromethane	ND	0.44	--	ND	3.	--	U
123-91-1	1,4-Dioxane	ND	0.44	--	ND	2.	--	U
79-01-6	Trichloroethene	3.4	0.44	--	18	2.4	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.44	--	ND	2.	--	U
80-62-6	Methyl Methacrylate	ND	1.1	--	ND	5.	--	U
142-82-5	Heptane	ND	0.44	--	ND	2.	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.44	--	ND	2.	--	U
108-10-1	4-Methyl-2-pentanone	ND	1.1	--	ND	5	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.44	--	ND	2.	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.44	--	ND	2.	--	U
108-88-3	Toluene	2.0	0.44	--	8	2	--	
124-48-1	Dibromochloromethane	ND	0.44	--	ND	4.	--	U
106-93-4	1,2-Dibromoethane	ND	0.44	--	ND	3.	--	U
127-18-4	Tetrachloroethene	19	0.44	--	130	3.0	--	
108-90-7	Chlorobenzene	ND	0.44	--	ND	2.	--	U
100-41-4	Ethylbenzene	0.82	0.44	--	4	2	--	
179601-23-1	p/m-Xylene	2.9	0.88	--	13	3.8	--	
75-25-2	Bromoform	ND	0.44	--	ND	5.	--	U
100-42-5	Styrene	ND	0.44	--	ND	2.	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.44	--	ND	3.	--	U
95-47-6	o-Xylene	1.1	0.44	--	5	2	--	
95-49-8	2-Chlorotoluene	ND	0.44	--	ND	2.	--	U
622-96-8	4-Ethyltoluene	0.68	0.44	--	3	2	--	
108-67-8	1,3,5-Trimethybenzene	0.70	0.44	--	3	2	--	

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-01DL	Date Collected :	08/27/15 14:25
Client ID	: UPS-SS-2	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/02/15 20:52
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.193
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111401	Instrument ID	: AIRLAB11
Sample Amount	: 114 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	3.0	0.44	--	15	2.2	--	
541-73-1	1,3-Dichlorobenzene	ND	0.44	--	ND	3.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.44	--	ND	3.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.44	--	ND	3.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.44	--	ND	3.	--	U
87-68-3	Hexachlorobutadiene	ND	0.44	--	ND	5.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111401.d
Acq On : 2 Sep 2015 8:52 pm
Operator : AIRLAB11:RY
Sample : L1521092-01D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 03 16:39:41 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.94	49	69174	10.000	ppbV	0.00
Standard Area = 81084			Recovery =		85.31%	
43) 1,4-difluorobenzene	12.15	114	417059	10.000	ppbV	0.00
Standard Area = 489060			Recovery =		85.28%	
67) chlorobenzene-D5	16.63	54	68057	10.000	ppbV	0.00
Standard Area = 80649			Recovery =		84.39%	
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.03	85	5564	0.189	ppbV	98
6) chloromethane	4.23		0	N.D.		
7) Freon-114	4.37		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	0.00		0	N.D.		
13) bromomethane	0.00		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	5.54	31	153154	49.091	ppbV	98
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.15	43	676876	58.687	ppbV	99
21) trichlorofluoromethane	6.36	101	5132	0.124	ppbV	99
22) isopropyl alcohol	6.54	45	78856	7.142	ppbV	99
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	7.33	59	17597	0.880	ppbV #	91
28) methylene chloride	7.35	49	2421	0.278	ppbV	82
29) 3-chloropropene	0.00		0	N.D.		
30) carbon disulfide	7.66	76	1650	0.056	ppbV #	1
31) Freon 113	7.70		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	8.87		0	N.D.		
36) 2-butanone	9.27	43	118377	8.310	ppbV	99
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	10.10		0	N.D.		
40) Tetrahydrofuran	10.62	42	6376	0.913	ppbV #	84
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	9.99		0	N.D.		
48) 1,1,1-trichloroethane	0.00		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111401.d
Acq On : 2 Sep 2015 8:52 pm
Operator : AIRLAB11:RY
Sample : L1521092-01D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 03 16:39:41 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
50)	benzene	11.75	78	1842	0.057	ppbV	#	67
52)	carbon tetrachloride	11.91		0	N.D.			
53)	cyclohexane	12.04	56	901	0.070	ppbV	#	73
56)	1,2-dichloropropane	0.00		0	N.D.			
57)	bromodichloromethane	12.95		0	N.D.			
58)	1,4-dioxane	0.00		0	N.D.			
59)	trichloroethene	12.94	130	33059	1.566	ppbV		99
60)	2,2,4-trimethylpentane	12.97		0	N.D.			
61)	methyl methacrylate	0.00		0	N.D.			
62)	heptane	13.28		0	N.D.			
63)	cis-1,3-dichloropropene	0.00		0	N.D.			
64)	4-methyl-2-pentanone	14.00	43	1770	0.069	ppbV	#	65
65)	trans-1,3-dichloropropene	0.00		0	N.D.			
66)	1,1,2-trichloroethane	0.00		0	N.D.			
68)	toluene	15.00	91	38315	0.898	ppbV		94
74)	dibromochloromethane	0.00		0	N.D.			
75)	1,2-dibromoethane	0.00		0	N.D.			
78)	tetrachloroethene	16.08	166	285671	8.724	ppbV		98
80)	chlorobenzene	16.67		0	N.D.			
81)	ethylbenzene	16.97	91	21745	0.372	ppbV		95
83)	m+p-xylene	17.11	91	65099	1.341	ppbV		96
84)	bromoform	0.00		0	N.D.			
85)	styrene	17.40		0	N.D.			
86)	1,1,2,2-tetrachloroethane	0.00		0	N.D.			
87)	o-xylene	17.49	91	24152	0.492	ppbV		100
93)	2-chlorotoluene	18.16		0	N.D.			
96)	4-ethyl toluene	18.42	105	24361	0.308	ppbV		96
97)	1,3,5-trimethylbenzene	18.48	105	21220	0.320	ppbV		98
99)	1,2,4-trimethylbenzene	18.79	105	86622	1.369	ppbV	#	55
102)	1,3-dichlorobenzene	0.00		0	N.D.	d		
103)	1,4-dichlorobenzene	18.97		0	N.D.			
107)	1,2-dichlorobenzene	19.23		0	N.D.			
115)	1,2,4-trichlorobenzene	20.65		0	N.D.			
119)	hexachlorobutadiene	0.00		0	N.D.			

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111401.d
Acq On : 2 Sep 2015 8:52 pm
Operator : AIRLAB11:RY
Sample : L1521092-01D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 03 16:39:41 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

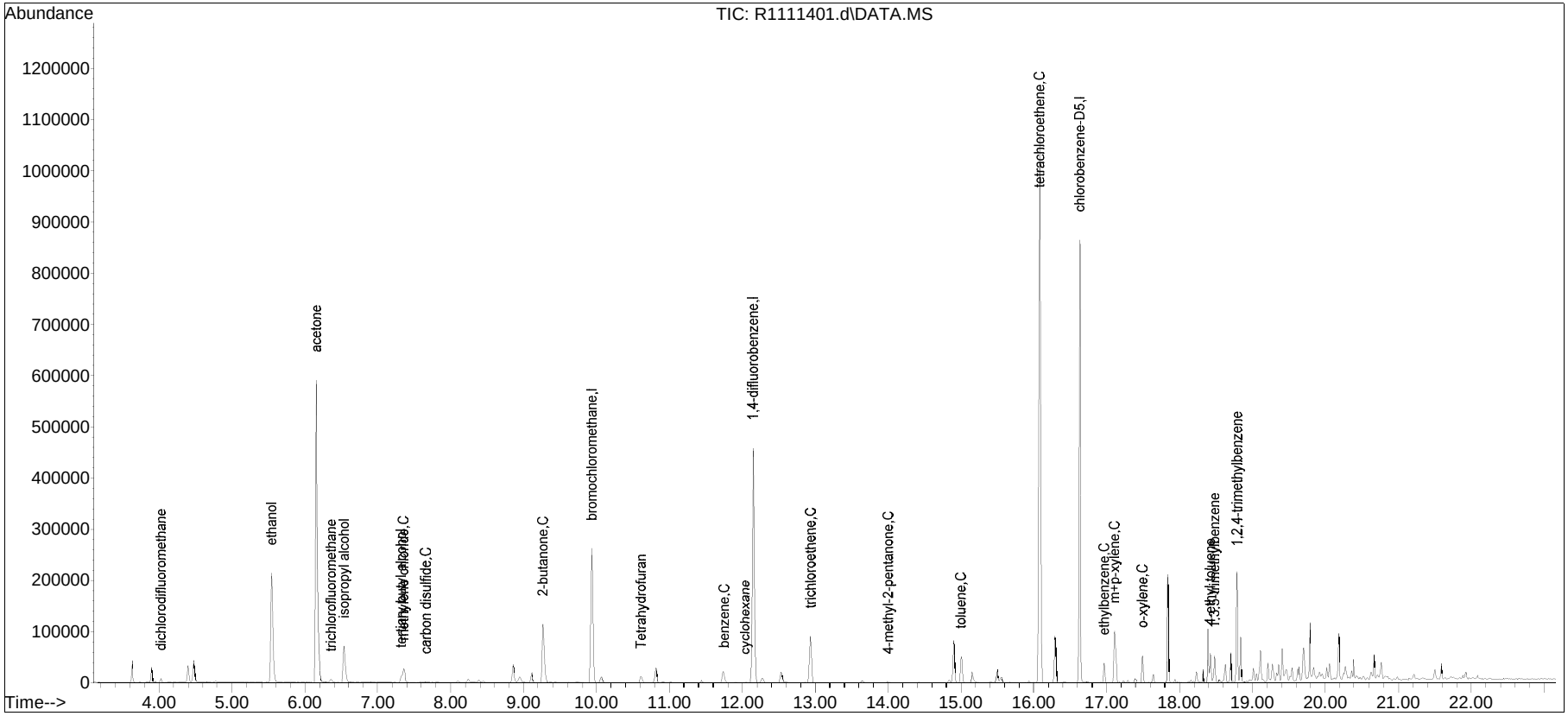
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Quantitation Report (QT Reviewed)

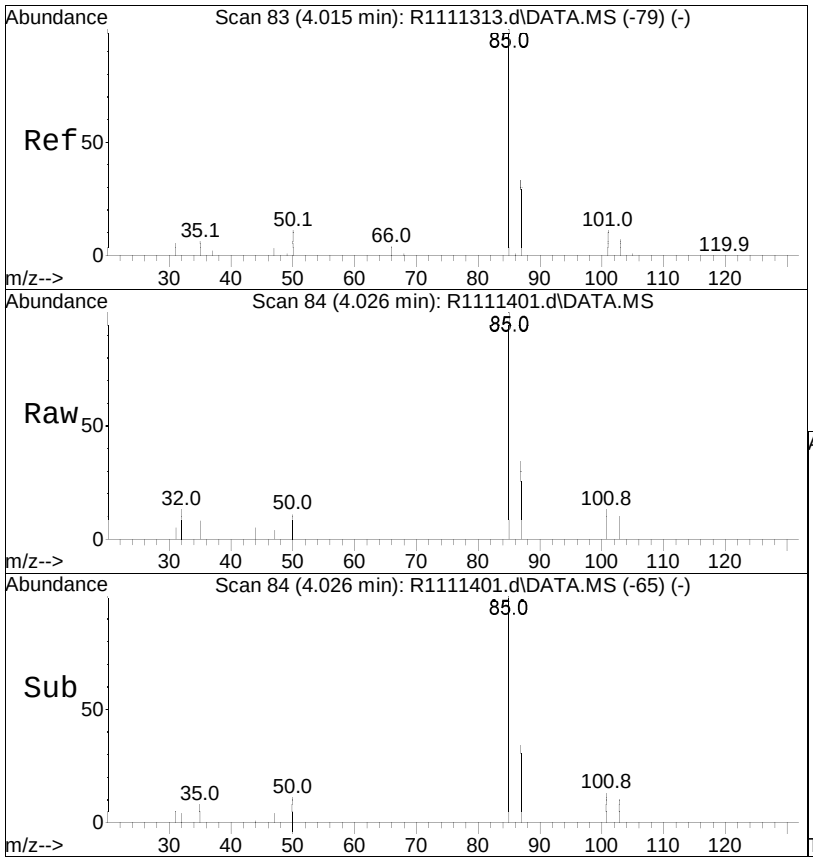
Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111401.d
Acq On : 2 Sep 2015 8:52 pm
Operator : AIRLAB11:RY
Sample : L1521092-01D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 03 16:39:41 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

Sub List : NJ-LL_New - .Data\Airlab11\2015\150902T\R1111393.d



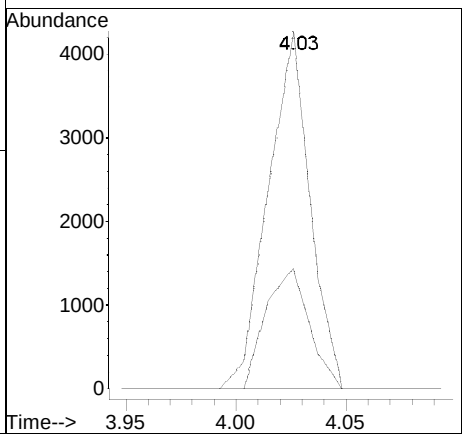
TALL150827.M Thu Sep 03 16:39:50 2015

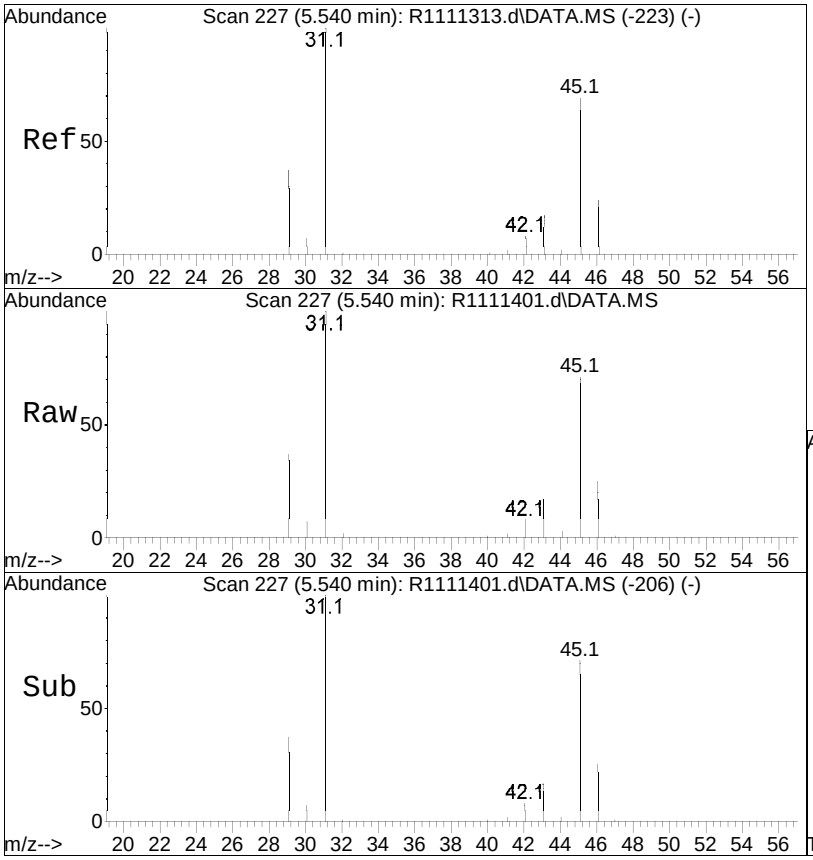


#5
dichlorodifluoromethane
Concen: 0.19 ppbV
RT: 4.03 min Scan# 84
Delta R.T. 0.011 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion: 85 Resp: 5564

Ion	Ratio	Lower	Upper
85	100		
87	33.8	26.1	39.1

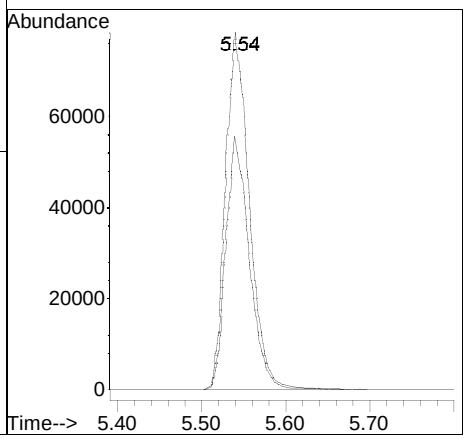


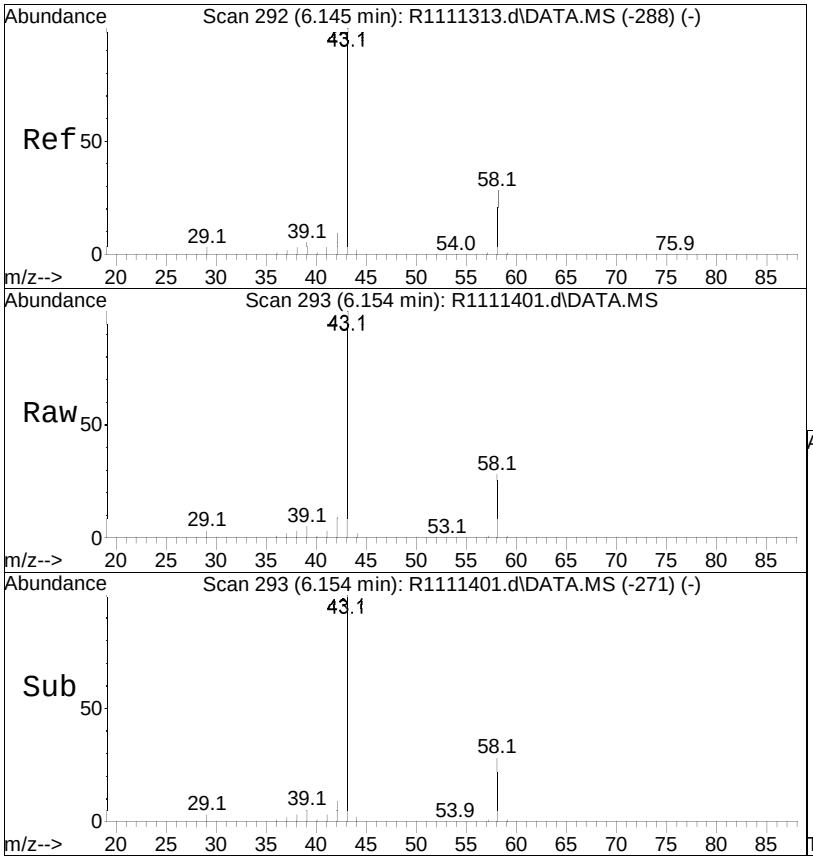


#15
ethanol
Concen: 49.09 ppbV
RT: 5.54 min Scan# 227
Delta R.T. -0.000 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion: 31 Resp: 153154

Ion	Ratio	Lower	Upper
31	100		
45	71.1	55.4	83.2

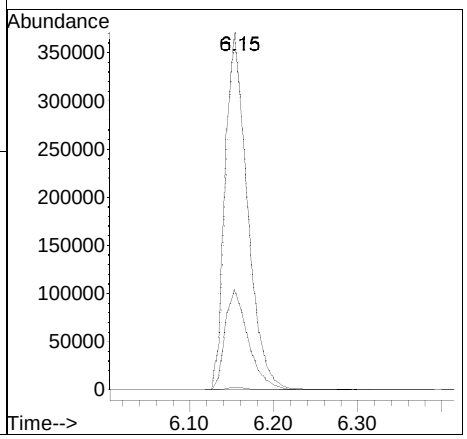


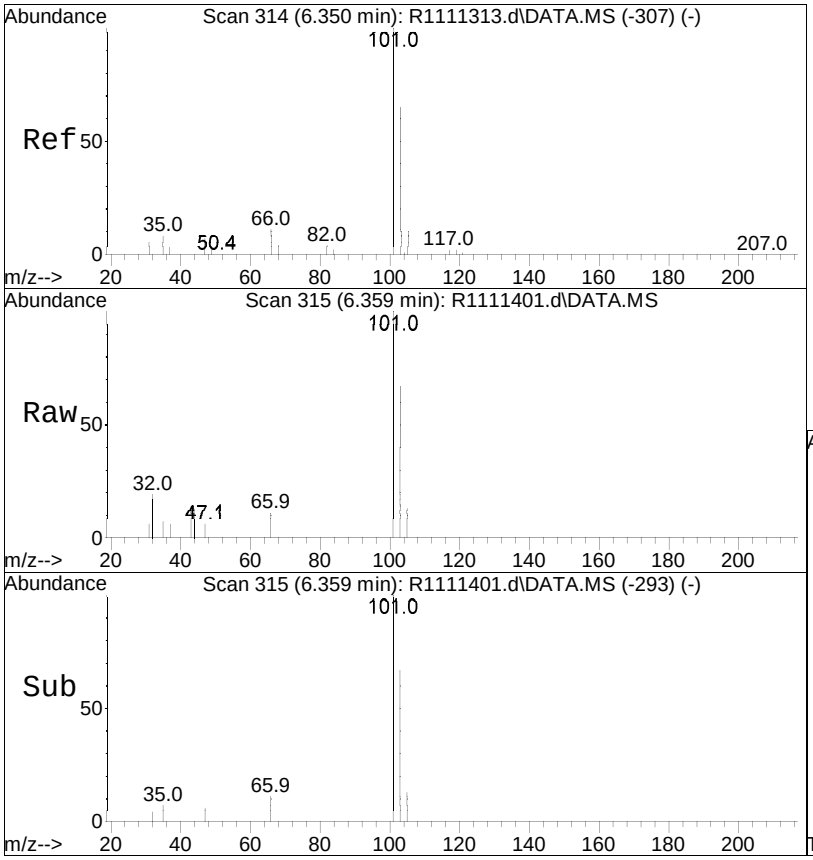


#19
acetone
Concen: 58.69 ppbV
RT: 6.15 min Scan# 293
Delta R.T. 0.009 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion: 43 Resp: 676876

Ion	Ratio	Lower	Upper
43	100		
58	28.1	22.2	33.2
57	0.9	0.6	1.0

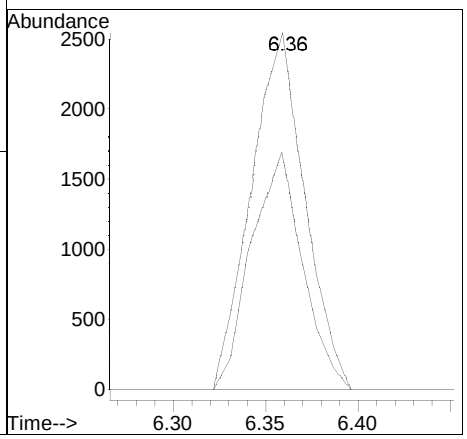


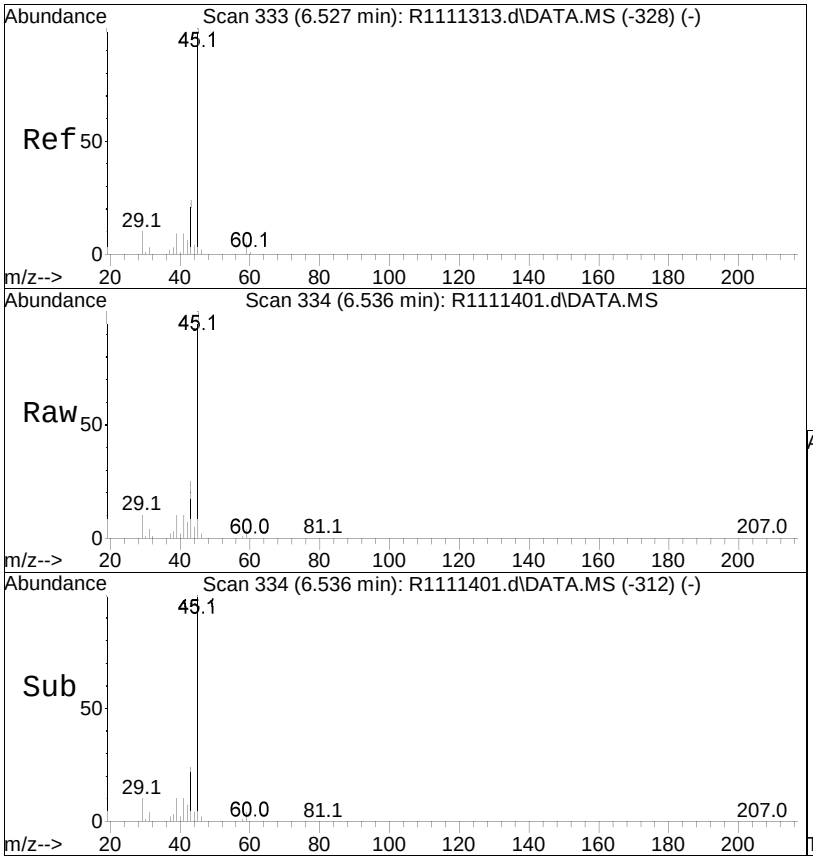


#21
trichlorofluoromethane
Concen: 0.12 ppbV
RT: 6.36 min Scan# 315
Delta R.T. 0.009 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion:101 Resp: 5132

Ion	Ratio	Lower	Upper
101	100		
103	66.5	52.3	78.5

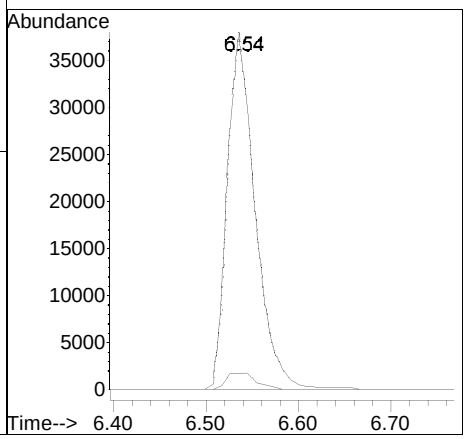


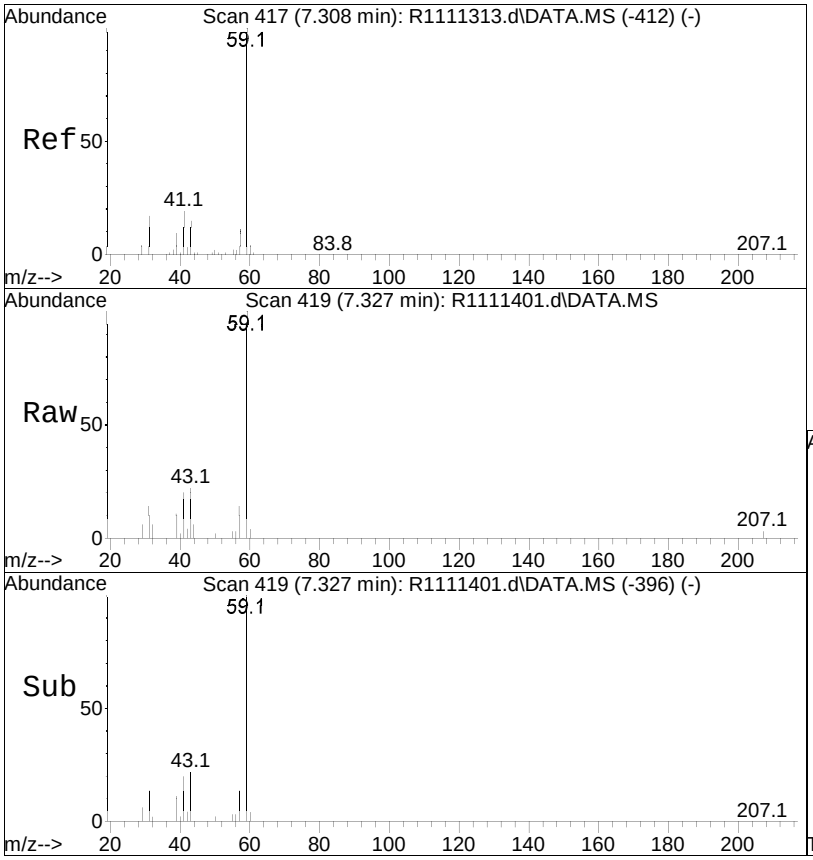


#22
isopropyl alcohol
Concen: 7.14 ppbV
RT: 6.54 min Scan# 334
Delta R.T. 0.009 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion: 45 Resp: 78856

Ion	Ratio	Lower	Upper
45	100		
59	4.5	3.8	5.6

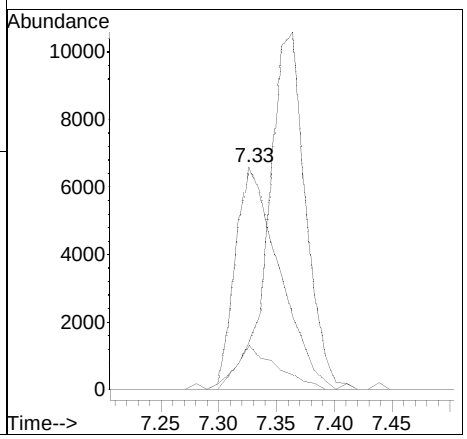


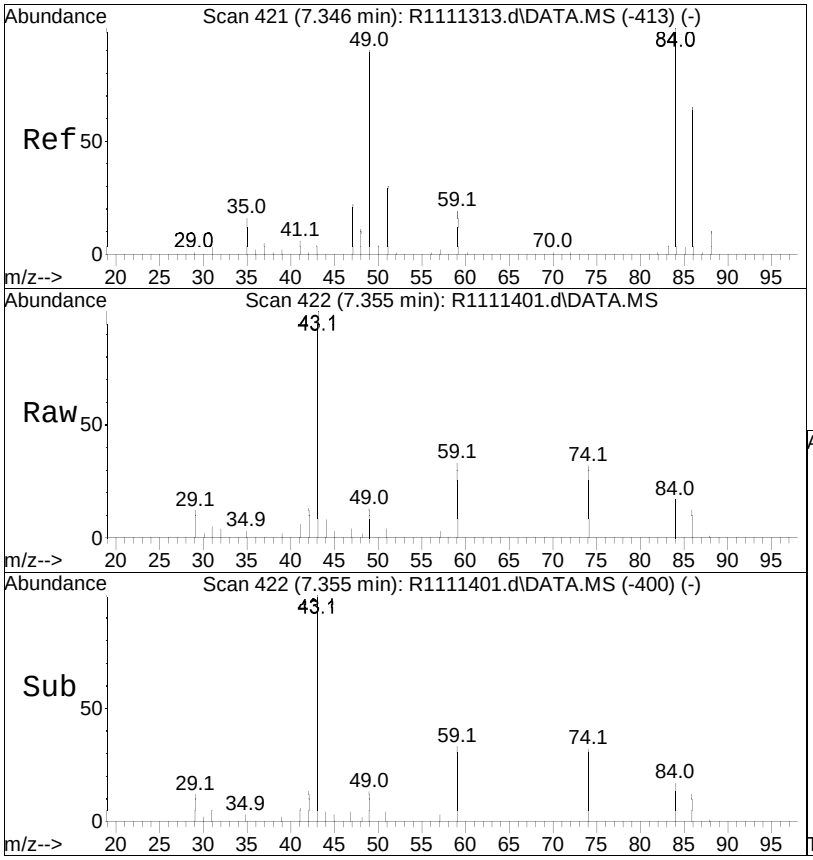


#27
tertiary butyl alcohol
Concen: 0.88 ppbV
RT: 7.33 min Scan# 419
Delta R.T. 0.018 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion: 59 Resp: 17597

Ion	Ratio	Lower	Upper
59	100		
41	20.2	15.1	22.7
43	21.6	11.8	17.6#

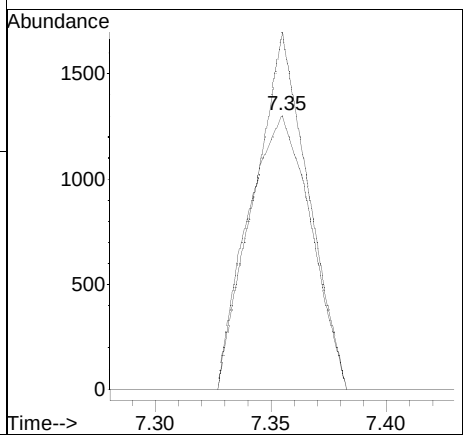


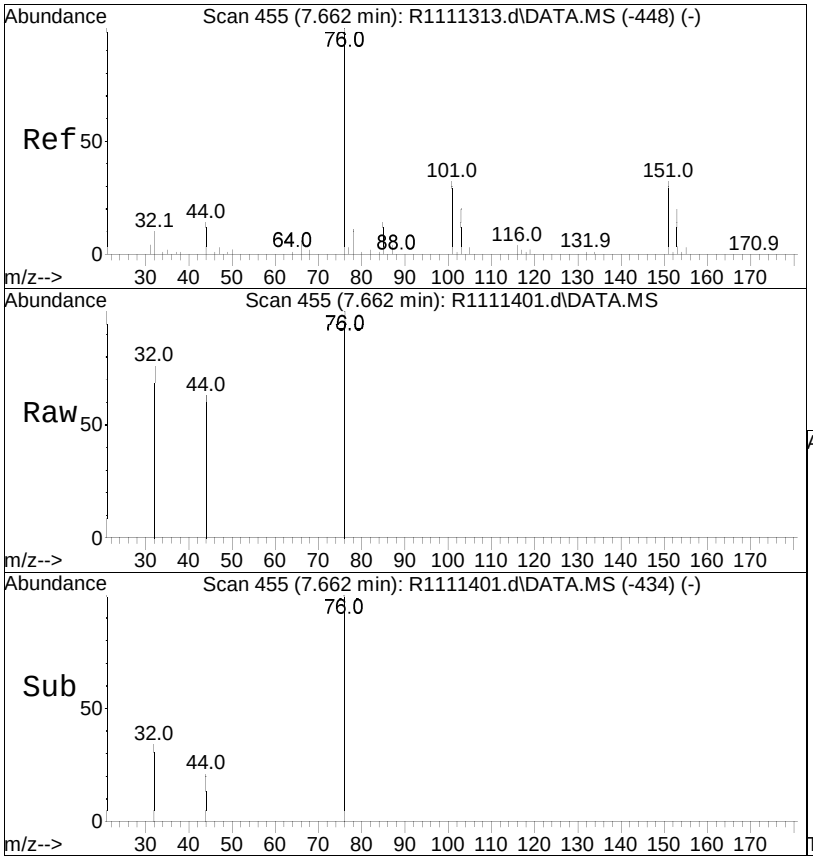


#28
methylene chloride
Concen: 0.28 ppbV
RT: 7.35 min Scan# 422
Delta R.T. 0.009 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion: 49 Resp: 2421

Ion	Ratio	Lower	Upper
49	100		
84	130.1	89.0	133.4

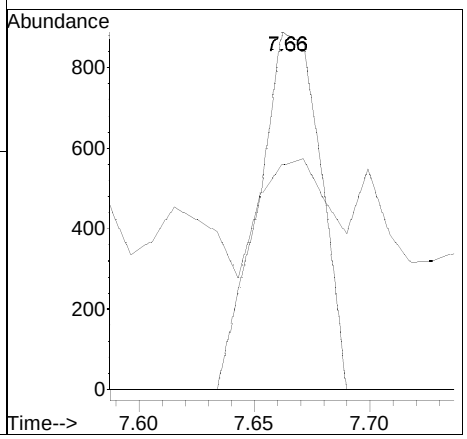


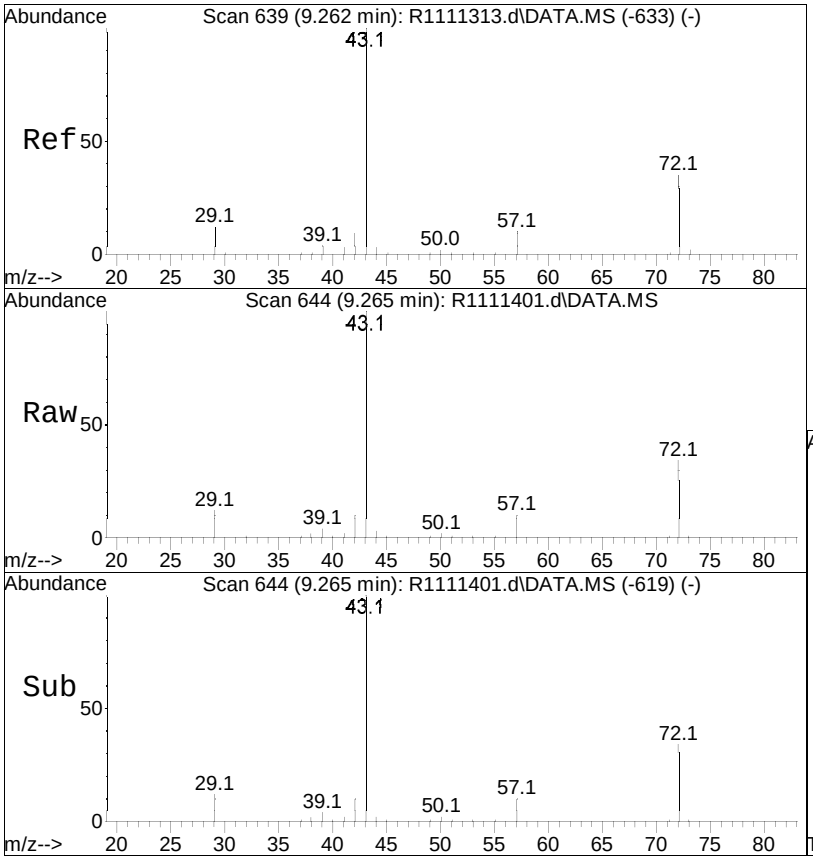


#30
carbon disulfide
Concen: 0.06 ppbV
RT: 7.66 min Scan# 455
Delta R.T. -0.000 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion: 76 Resp: 1650

Ion	Ratio	Lower	Upper
76	100		
44	62.9	11.0	16.6#

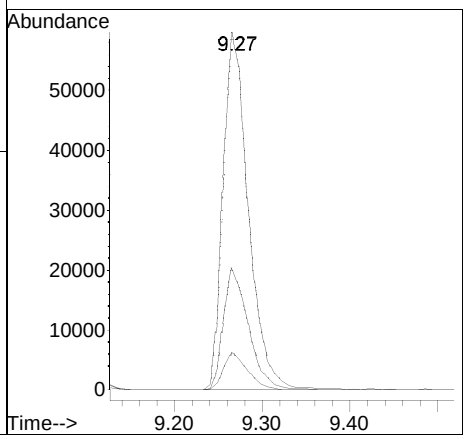


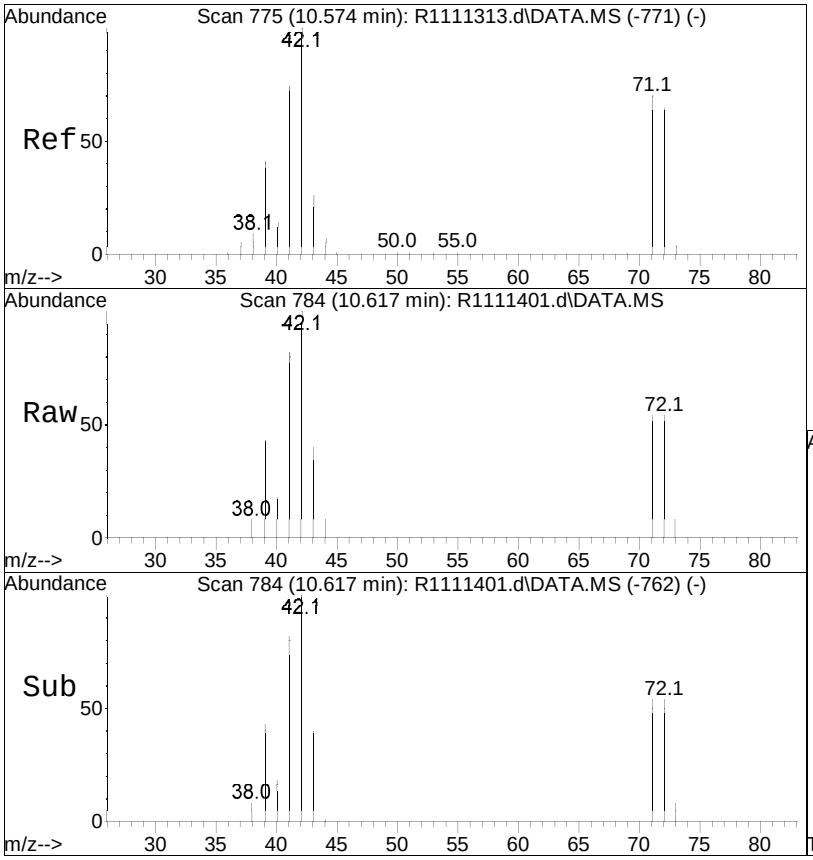


#36
2-butanone
Concen: 8.31 ppbV
RT: 9.27 min Scan# 644
Delta R.T. 0.003 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion: 43 Resp: 118377

Ion	Ratio	Lower	Upper
43	100		
72	34.3	28.1	42.1
57	10.5	8.3	12.5

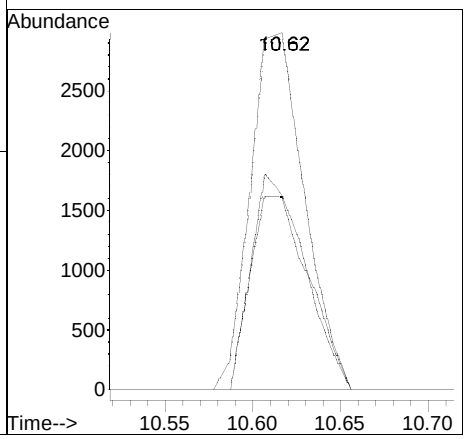


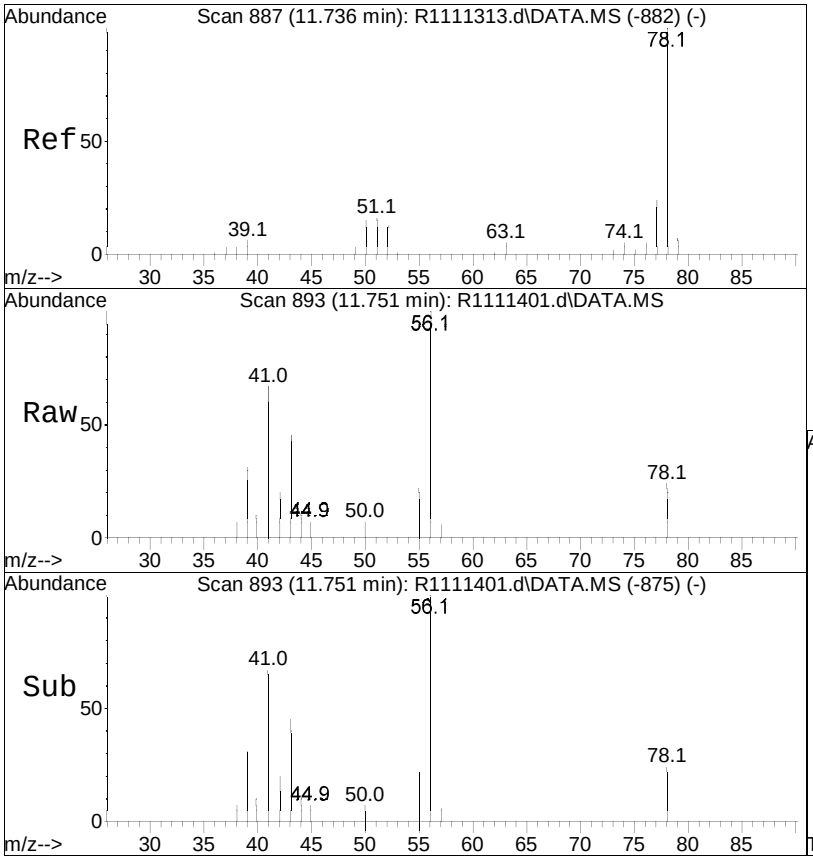


#40
Tetrahydrofuran
Concen: 0.91 ppbV
RT: 10.62 min Scan# 784
Delta R.T. 0.043 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion: 42 Resp: 6376

Ion	Ratio	Lower	Upper
42	100		
71	54.4	56.0	84.0#
72	54.1	51.8	77.6

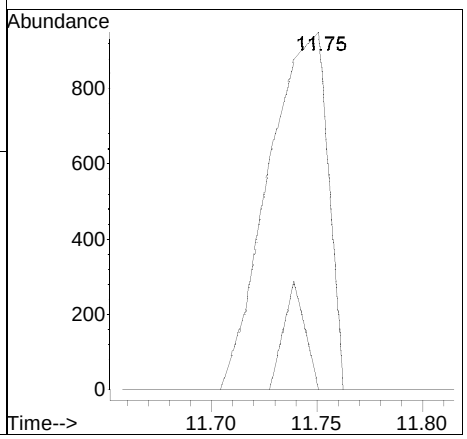


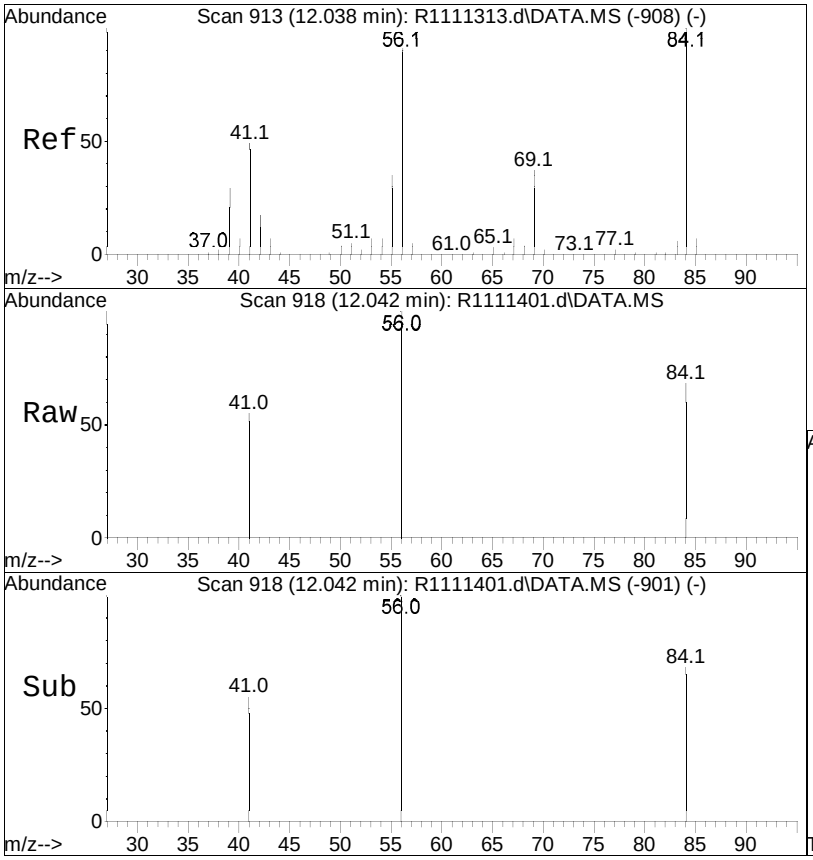


#50
benzene
Concen: 0.06 ppbV
RT: 11.75 min Scan# 893
Delta R.T. 0.015 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion: 78 Resp: 1842

Ion	Ratio	Lower	Upper
78	100		
52	0.0	10.6	16.0#

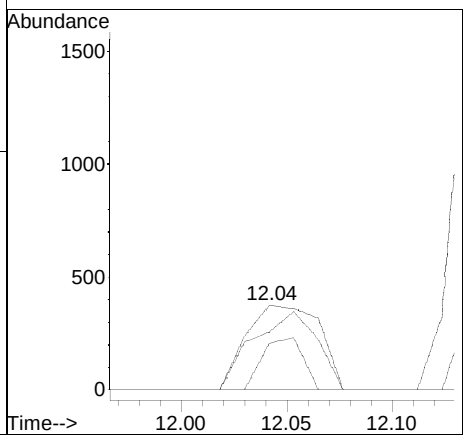


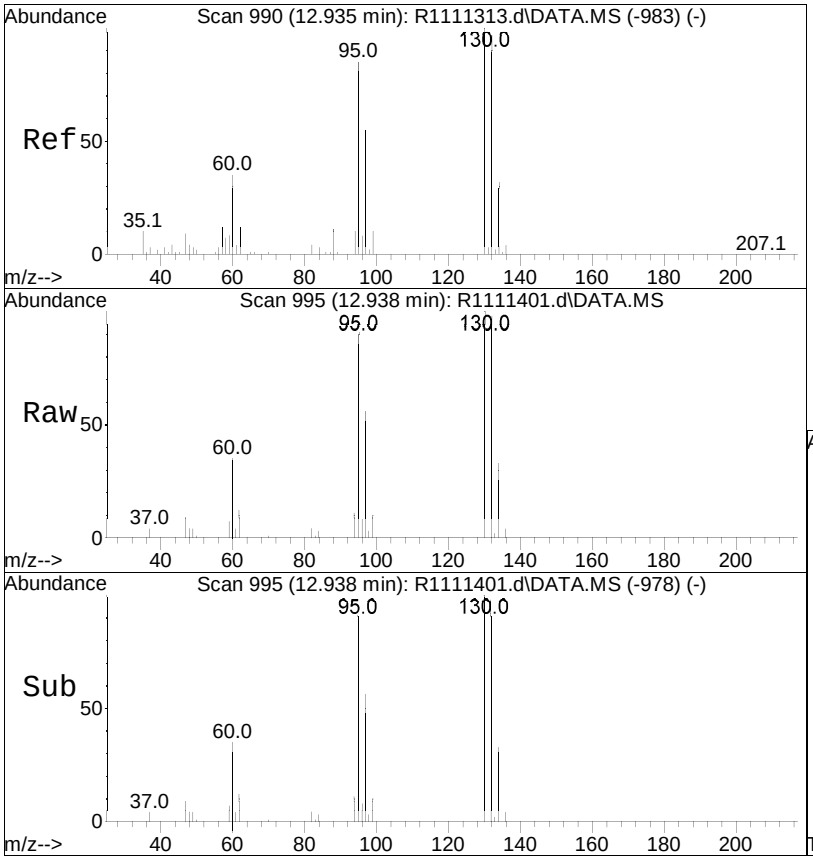


#53
cyclohexane
Concen: 0.07 ppbV
RT: 12.04 min Scan# 918
Delta R.T. 0.003 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion: 56 Resp: 901

Ion	Ratio	Lower	Upper
56	100		
84	68.0	88.4	132.6#
41	54.7	43.4	65.0

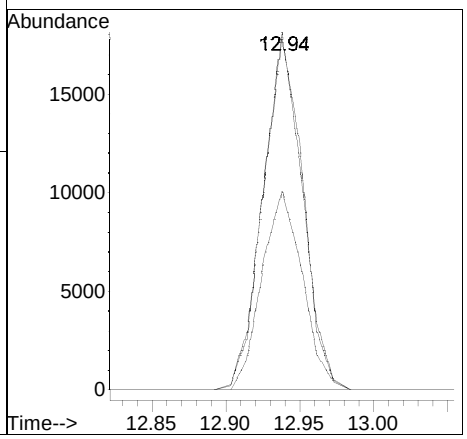


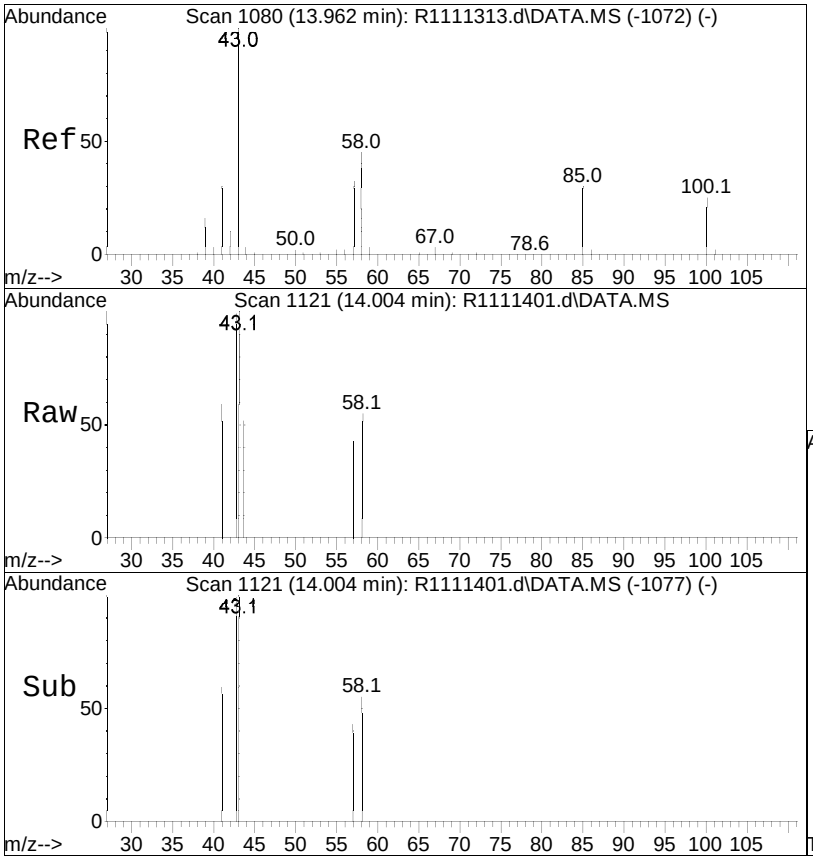


#59
trichloroethene
Concen: 1.57 ppbV
RT: 12.94 min Scan# 995
Delta R.T. 0.003 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion:130 Resp: 33059

Ion	Ratio	Lower	Upper
130	100		
132	98.2	77.6	116.4
97	55.7	44.0	66.0

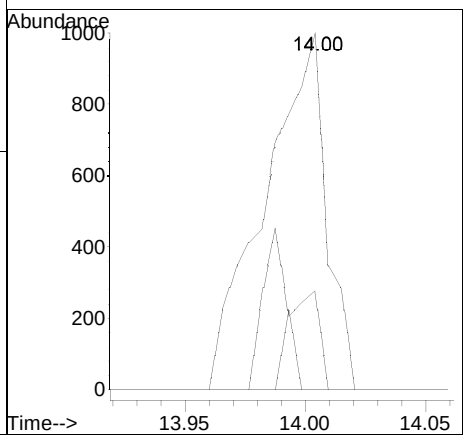


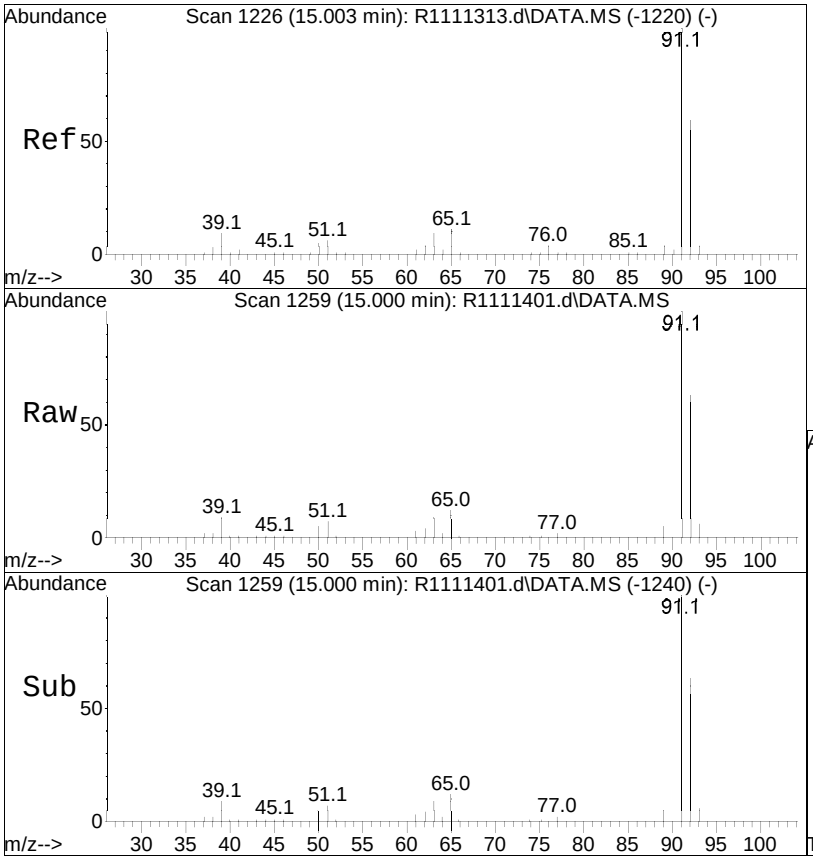


#64
4-methyl-2-pentanone
Concen: 0.07 ppbV
RT: 14.00 min Scan# 1121
Delta R.T. 0.042 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion: 43 Resp: 1770

Ion	Ratio	Lower	Upper
43	100		
58	27.6	35.8	53.6#
100	0.0	19.8	29.6#

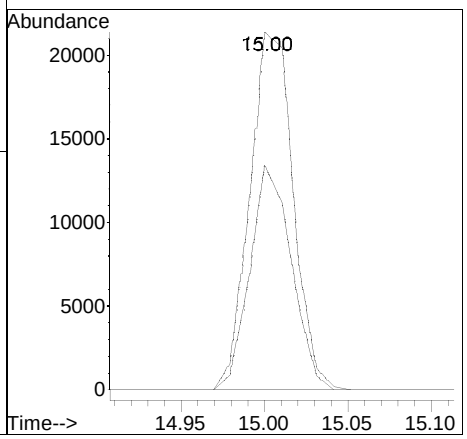


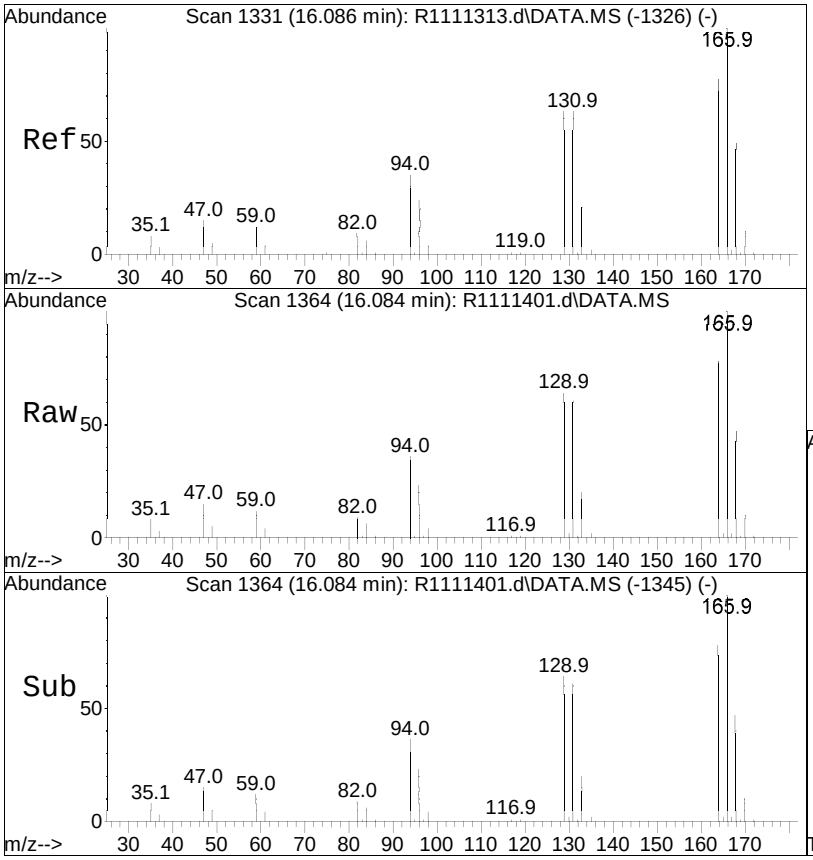


#68
toluene
Concen: 0.90 ppbV
RT: 15.00 min Scan# 1259
Delta R.T. -0.002 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion: 91 Resp: 38315

Ion	Ratio	Lower	Upper
91	100		
92	62.9	47.0	70.6

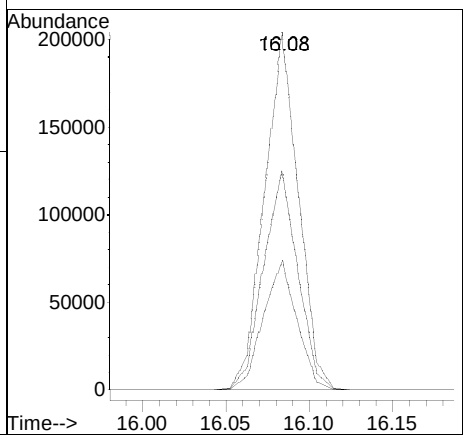


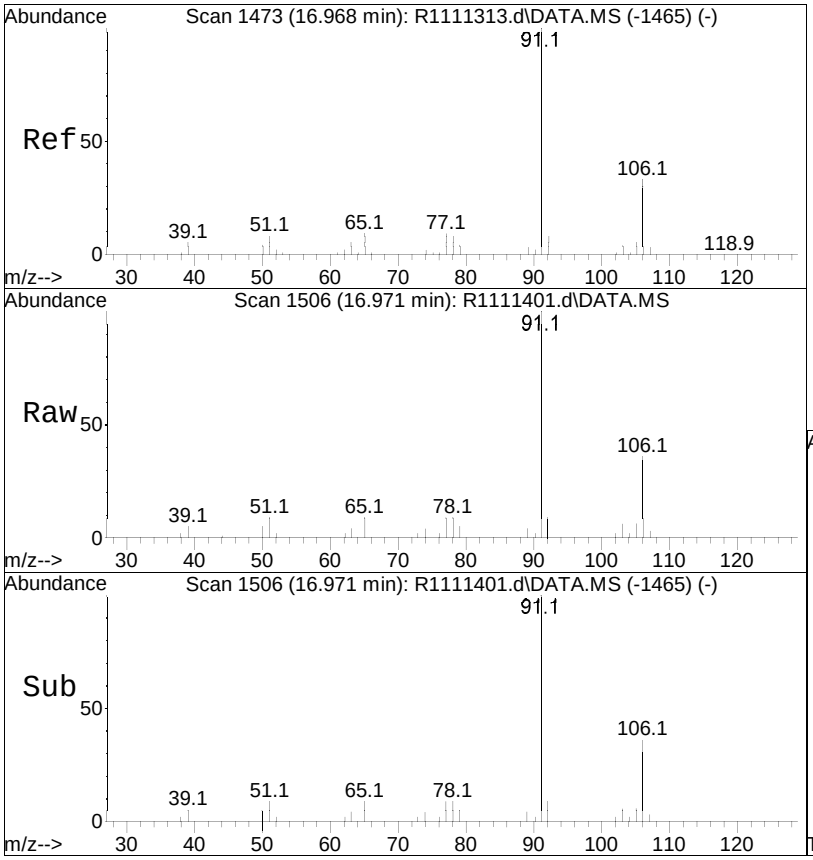


#78
tetrachloroethene
Concen: 8.72 ppbV
RT: 16.08 min Scan# 1364
Delta R.T. -0.002 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion:166 Resp: 285671

Ion	Ratio	Lower	Upper
166	100		
131	61.4	50.1	75.1
94	36.3	28.2	42.4

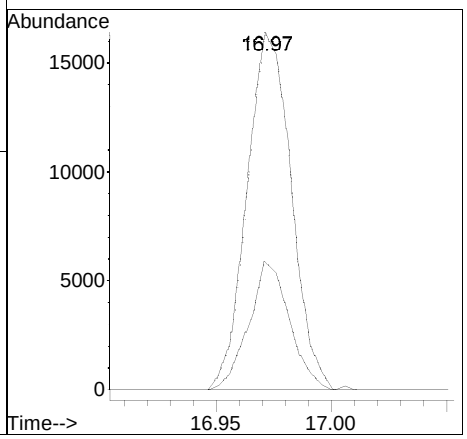


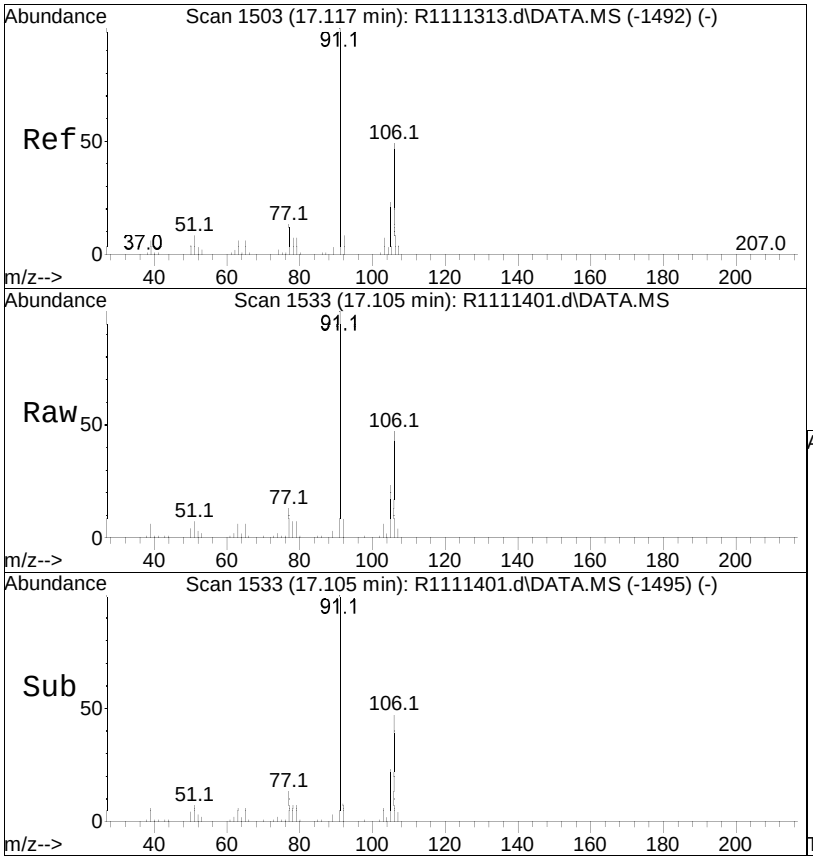


#81
ethylbenzene
Concen: 0.37 ppbV
RT: 16.97 min Scan# 1506
Delta R.T. 0.003 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion: 91 Resp: 21745

Ion	Ratio	Lower	Upper
91	100		
106	36.0	26.6	39.8

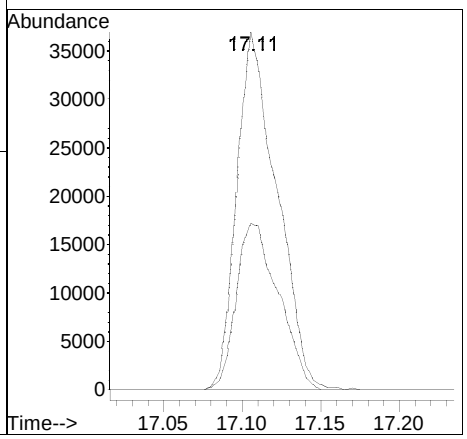


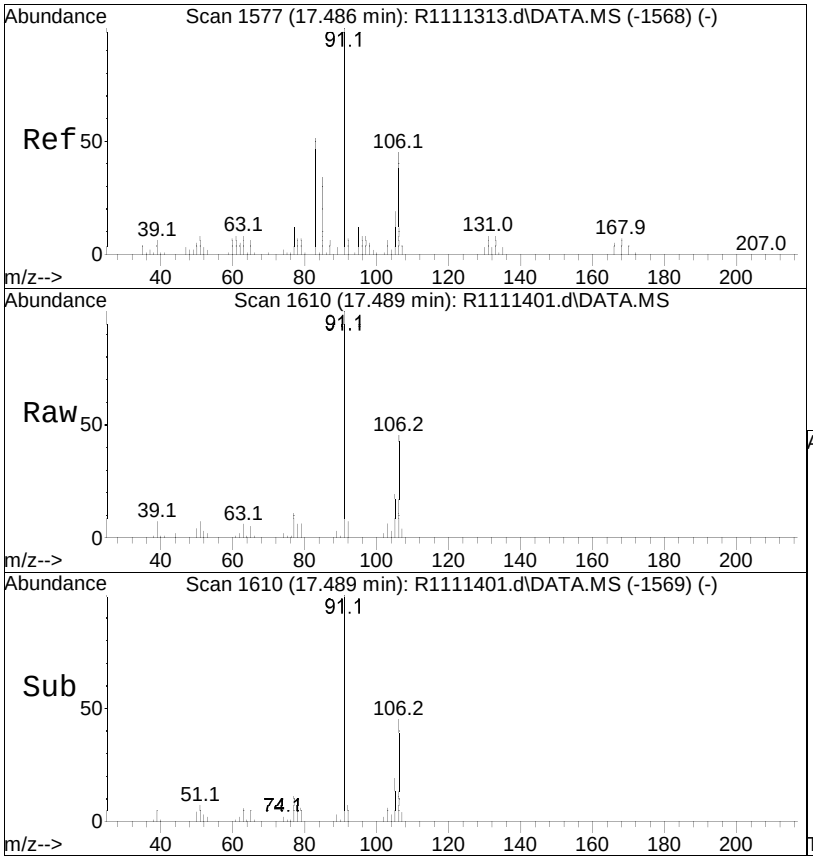


#83
m+p-xylene
Concen: 1.34 ppbV
RT: 17.11 min Scan# 1533
Delta R.T. -0.012 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion: 91 Resp: 65099

Ion	Ratio	Lower	Upper
91	100		
106	46.7	39.4	59.0

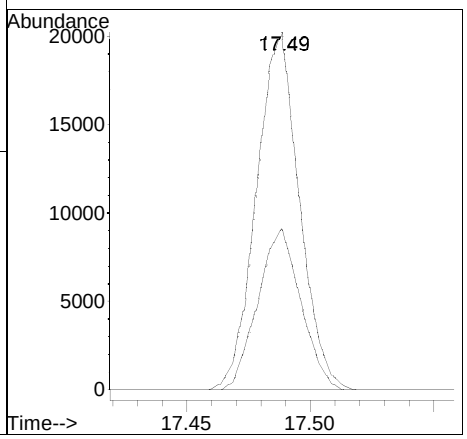


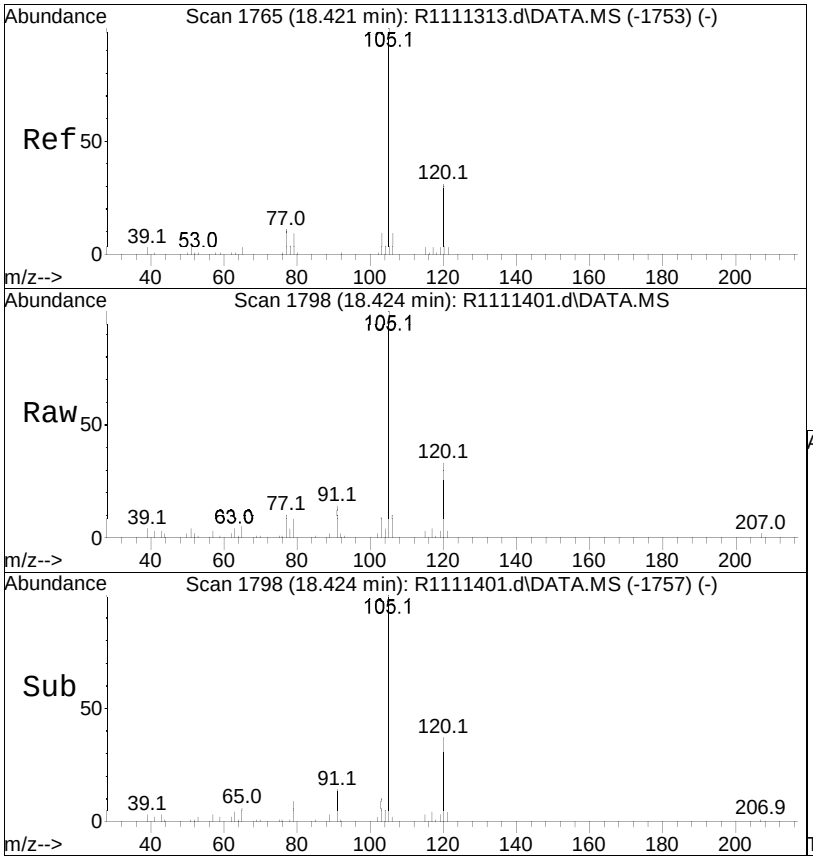


#87
o-xylene
Concen: 0.49 ppbV
RT: 17.49 min Scan# 1610
Delta R.T. 0.003 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion: 91 Resp: 24152

Ion	Ratio	Lower	Upper
91	100		
106	45.2	36.3	54.5

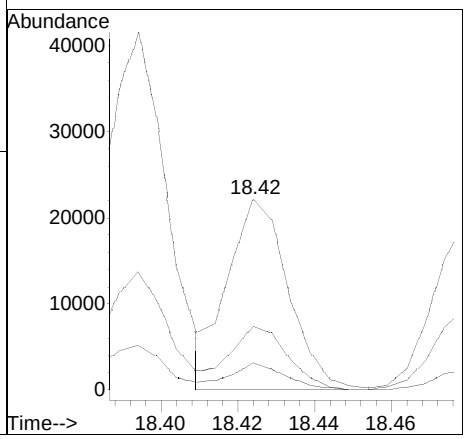


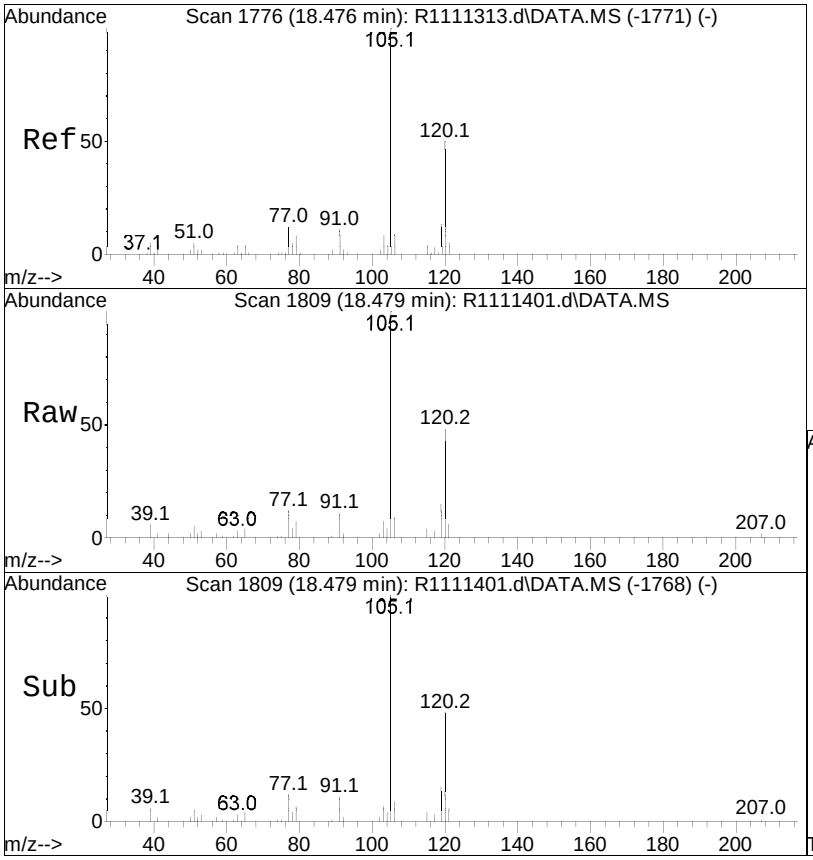


#96
4-ethyl toluene
Concen: 0.31 ppbV
RT: 18.42 min Scan# 1798
Delta R.T. 0.003 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion:105 Resp: 24361

Ion	Ratio	Lower	Upper
105	100		
120	33.3	25.0	37.6
91	14.1	9.5	14.3

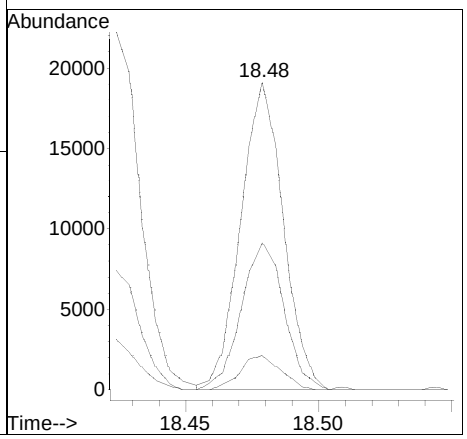


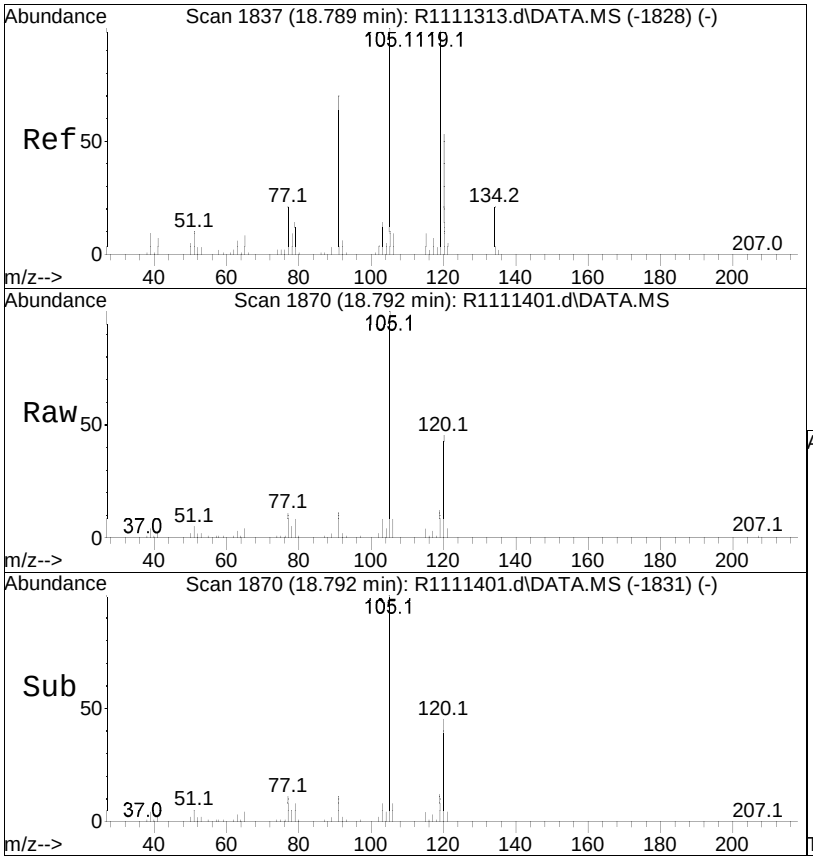


#97
1,3,5-trimethylbenzene
Concen: 0.32 ppbV
RT: 18.48 min Scan# 1809
Delta R.T. 0.003 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion:105 Resp: 21220

Ion	Ratio	Lower	Upper
105	100		
120	47.6	39.7	59.5
91	11.1	8.9	13.3

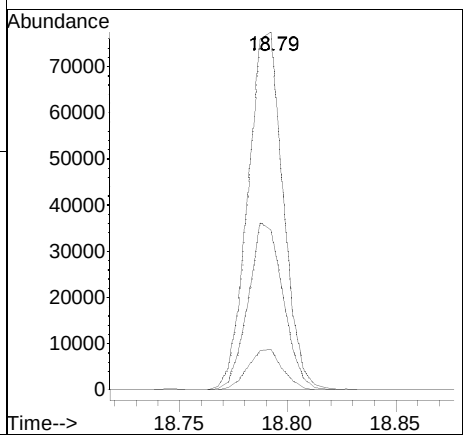




#99
1,2,4-trimethylbenzene
Concen: 1.37 ppbV
RT: 18.79 min Scan# 1870
Delta R.T. 0.003 min
Lab File: R1111401.d
Acq: 2 Sep 2015 8:52 pm

Tgt Ion:105 Resp: 86622

Ion	Ratio	Lower	Upper
105	100		
120	44.8	42.2	63.2
91	11.3	55.8	83.6#



Manual Integration/Negative Proof Report

```
Data Path   : O:\Forensics\Data\Airlab11\QMethod     : TALL150827.M
Data File   : R1111401.d                 Operator    : AIRLAB11:RY
Date Inj'd  : 9/2/2015  8:52 pm          Instrument  : Airlab 11
Sample      : L1521092-01D,3,114.0203,250Quant Date  : 9/3/2015  8:51 am
```

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-01DL	Date Collected :	08/27/15 14:25
Client ID	: UPS-SS-2	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/02/15 20:52
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.193
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111401	Instrument ID	: AIRLAB11
Sample Amount	: 114 ml	GC Column	: RTX-1

Number TICS found: 6

Concentration Units: ppbV

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
000067-56-1	Methyl Alcohol	4.47	3.6	NJD
001066-40-6	Silanol, trimethyl-	8.86	3.5	NJD
	unknown	10.81	2.4	JD
000541-05-9	Cyclotrisiloxane, hexamethyl-	16.29	3	NJD
001120-21-4	Undecane	19.78	2.8	NJD
	unknown siloxane	20.18	2.6	JD
	Total TIC Compounds		17.9	

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111401.d
Acq On : 2 Sep 2015 8:52 pm
Operator : AIRLAB11:RY
Sample : L1521092-01D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R1111401.d\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.395	114	117	120	rBV	31618	45460	3.02%	0.468%
2	4.473	120	124	130	rVB	41134	78717	5.23%	0.810%
3	5.540	223	227	239	rBV	213287	414115	27.49%	4.260%
4	6.154	289	293	303	rBV	589616	1098058	72.89%	11.296%
5	6.536	330	334	345	rVB	71172	146950	9.75%	1.512%
6	7.355	415	422	427	rBV2	27354	75976	5.04%	0.782%
7	8.857	588	594	601	rBV	34353	76154	5.06%	0.783%
8	8.947	601	605	612	rVB	10133	23274	1.54%	0.239%
9	9.110	620	625	631	rVB	18455	37309	2.48%	0.384%
10	9.265	640	644	653	rBV	113727	221251	14.69%	2.276%
11	9.941	717	721	729	rBB	263086	477649	31.71%	4.914%
12	10.069	729	733	738	rBB2	11052	22892	1.52%	0.235%
13	10.617	780	784	791	rBB	12411	27187	1.80%	0.280%
14	10.813	800	804	809	rVB	28298	52302	3.47%	0.538%
15	11.739	888	892	898	rBB	22459	47897	3.18%	0.493%
16	12.147	923	927	932	rBV	458236	881692	58.53%	9.070%
17	12.275	935	938	943	rBV	8875	17821	1.18%	0.183%
18	12.531	957	960	964	rBV	20013	38246	2.54%	0.393%
19	12.938	991	995	1000	rVB	91628	168471	11.18%	1.733%
20	14.897	1246	1249	1256	rVB	81428	148258	9.84%	1.525%
21	15.000	1256	1259	1264	rBB	51517	87038	5.78%	0.895%
22	15.155	1270	1274	1284	rVB	20758	39122	2.60%	0.402%
23	15.496	1304	1307	1310	rBV	25393	41285	2.74%	0.425%
24	15.547	1310	1312	1318	rVB2	10519	21747	1.44%	0.224%
25	16.084	1360	1364	1368	rBV	1073568	1506447	100.00%	15.497%
26	16.290	1380	1384	1390	rVB	90257	153730	10.20%	1.581%
27	16.633	1430	1438	1452	rBV	866074	1130487	75.04%	11.629%
28	16.971	1501	1506	1513	rVB	38744	47027	3.12%	0.484%

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111401.d
Acq On : 2 Sep 2015 8:52 pm
Operator : AIRLAB11:RY
Sample : L1521092-01D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	17.105	1526	1533	1542	rBV	101011	180666	11.99%	1.859%
30	17.489	1603	1610	1616	rBV	52868	62589	4.15%	0.644%
31	17.638	1635	1640	1645	rVB	16062	18308	1.22%	0.188%
32	17.842	1675	1681	1692	rBV	211435	255585	16.97%	2.629%
33	18.230	1754	1759	1768	rBV	19754	25468	1.69%	0.262%
34	18.320	1771	1777	1785	rBV	24719	28334	1.88%	0.291%
35	18.394	1785	1792	1795	rBV	104321	120867	8.02%	1.243%
36	18.424	1795	1798	1803	rVV	56754	66388	4.41%	0.683%
37	18.479	1803	1809	1816	rVV	51895	65401	4.34%	0.673%
38	18.628	1835	1837	1842	rVB	35479	42032	2.79%	0.432%
39	18.698	1842	1851	1857	rBV2	57756	74434	4.94%	0.766%
40	18.787	1863	1869	1874	rBV	214879	242587	16.10%	2.496%
41	18.837	1874	1879	1888	rVB	87540	95381	6.33%	0.981%
42	19.016	1908	1915	1920	rBV3	24869	29070	1.93%	0.299%
43	19.110	1927	1934	1939	rVV2	59065	86883	5.77%	0.894%
44	19.215	1950	1955	1959	rBV	36224	40473	2.69%	0.416%
45	19.274	1962	1967	1974	rVB2	33305	53345	3.54%	0.549%
46	19.329	1974	1978	1981	rBV2	16075	19846	1.32%	0.204%
47	19.359	1981	1984	1988	rVV	32131	33531	2.23%	0.345%
48	19.409	1988	1994	1998	rVV3	62449	82510	5.48%	0.849%
49	19.458	1998	2004	2011	rVV5	22314	50662	3.36%	0.521%
50	19.543	2017	2021	2025	rVB2	25506	30086	2.00%	0.309%
51	19.617	2032	2036	2038	rBV2	22841	24467	1.62%	0.252%
52	19.642	2038	2041	2046	rVV	27452	31889	2.12%	0.328%
53	19.702	2046	2053	2061	rVV3	63359	106728	7.08%	1.098%
54	19.781	2063	2069	2075	rVV2	111052	142386	9.45%	1.465%
55	19.846	2077	2082	2089	rVB7	22124	35860	2.38%	0.369%
56	19.920	2094	2097	2101	rVV5	12793	17679	1.17%	0.182%
57	20.020	2113	2117	2121	rVV	24373	28792	1.91%	0.296%
58	20.059	2121	2125	2130	rVB	31058	39381	2.61%	0.405%
59	20.184	2142	2150	2160	rVB	90136	135441	8.99%	1.393%
60	20.278	2166	2169	2175	rVB6	22913	33286	2.21%	0.342%

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111401.d
Acq On : 2 Sep 2015 8:52 pm
Operator : AIRLAB11:RY
Sample : L1521092-01D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

61	20.363	2181	2186	2189	rBV5	14254	15250	1.01%	0.157%
62	20.392	2189	2192	2197	rVB2	36593	38319	2.54%	0.394%
63	20.630	2223	2226	2228	rBV3	14452	28456	1.89%	0.293%
64	20.669	2228	2230	2232	rVB	46214	54894	3.64%	0.565%
65	20.768	2237	2240	2242	rVB	31721	45375	3.01%	0.467%
66	21.496	2310	2314	2317	rBV2	19186	30075	2.00%	0.309%
67	21.585	2320	2323	2326	rVB	30700	42022	2.79%	0.432%
68	21.920	2355	2357	2361	rVB	13974	24212	1.61%	0.249%
69	22.087	2371	2374	2380	rBV5	7081	15436	1.02%	0.159%

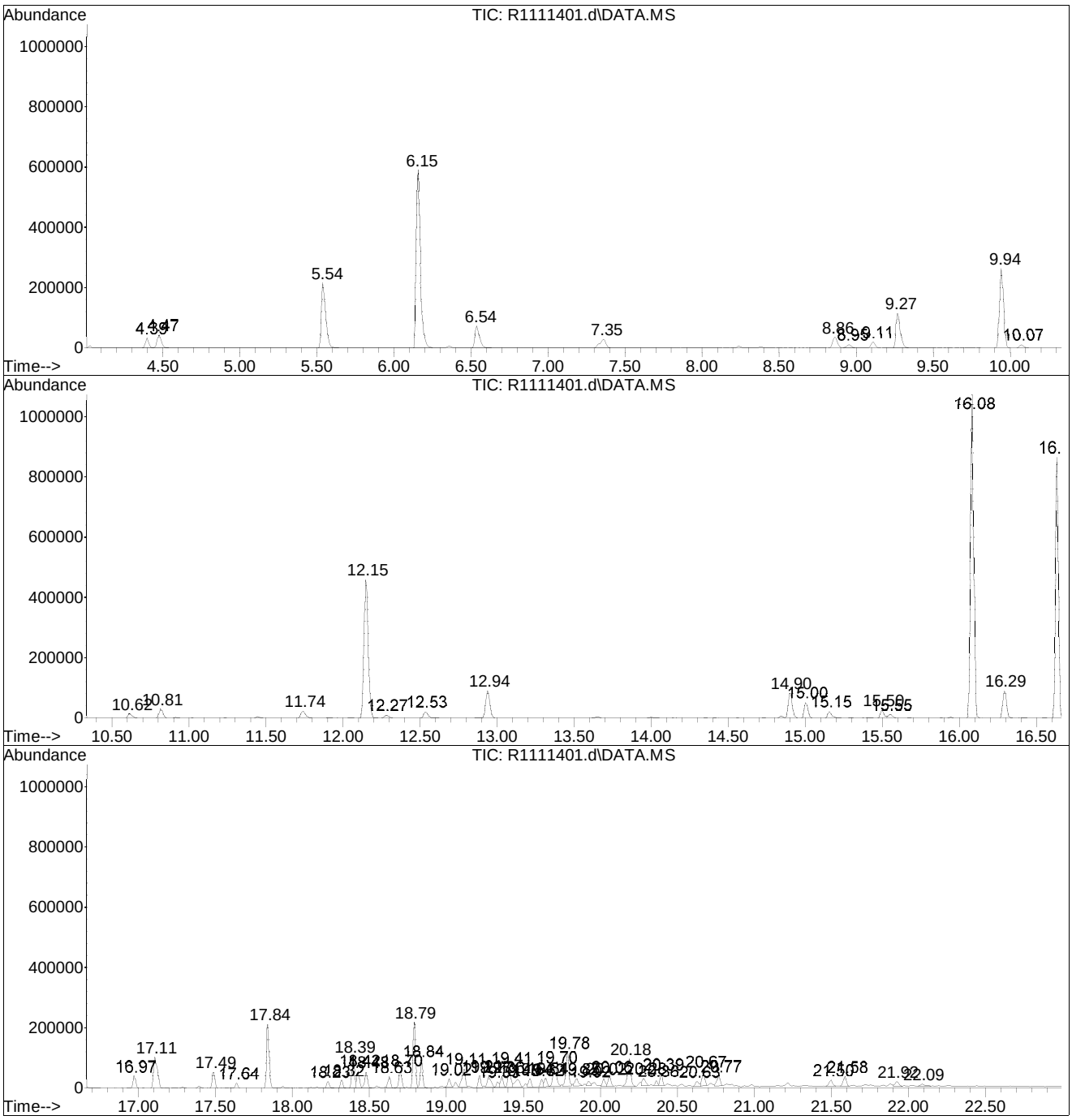
Sum of corrected areas: 9720956

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111401.d
Acq On : 2 Sep 2015 8:52 pm
Operator : AIRLAB11:RY
Sample : L1521092-01D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111401.d
Acq On : 2 Sep 2015 8:52 pm
Operator : AIRLAB11:RY
Sample : L1521092-01D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

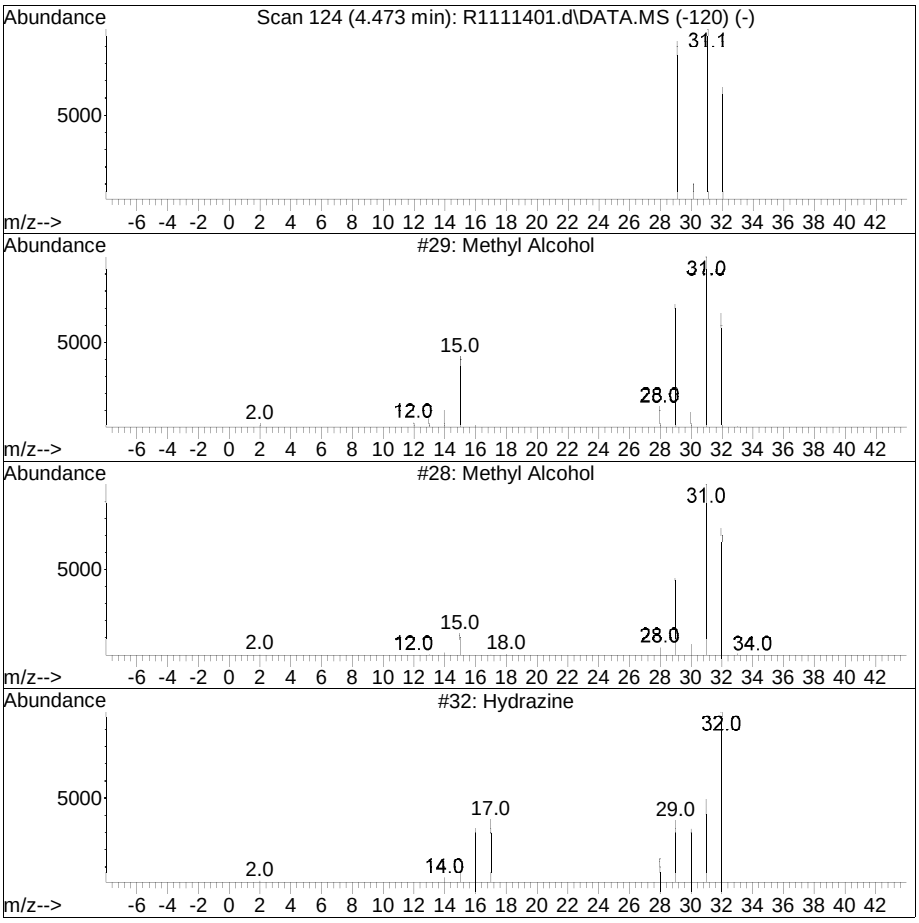
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

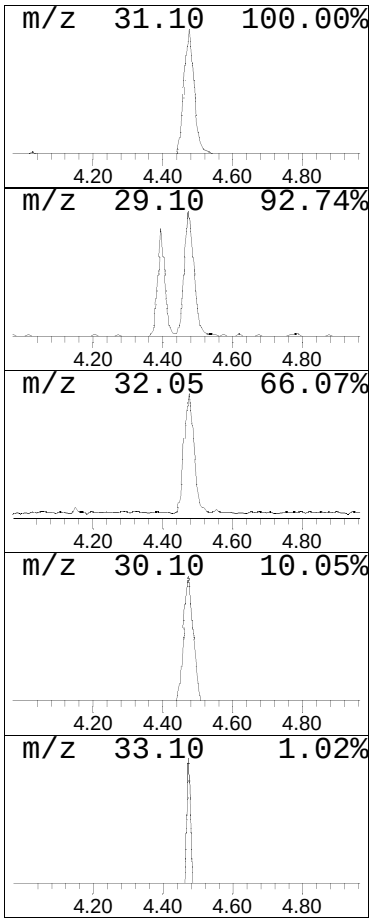
****

Peak Number 1 Methyl Alcohol Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.47	1.65 ppbV	78717	bromochloromethane	9.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methyl Alcohol	32	CH4O	000067-56-1	4
2	Methyl Alcohol	32	CH4O	000067-56-1	2
3	Hydrazine	32	H4N2	000302-01-2	2
4	Hydrazine	32	H4N2	000302-01-2	2
5	Ethane, nitro-	75	C2H5NO2	000079-24-3	1





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111401.d
Acq On : 2 Sep 2015 8:52 pm
Operator : AIRLAB11:RY
Sample : L1521092-01D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

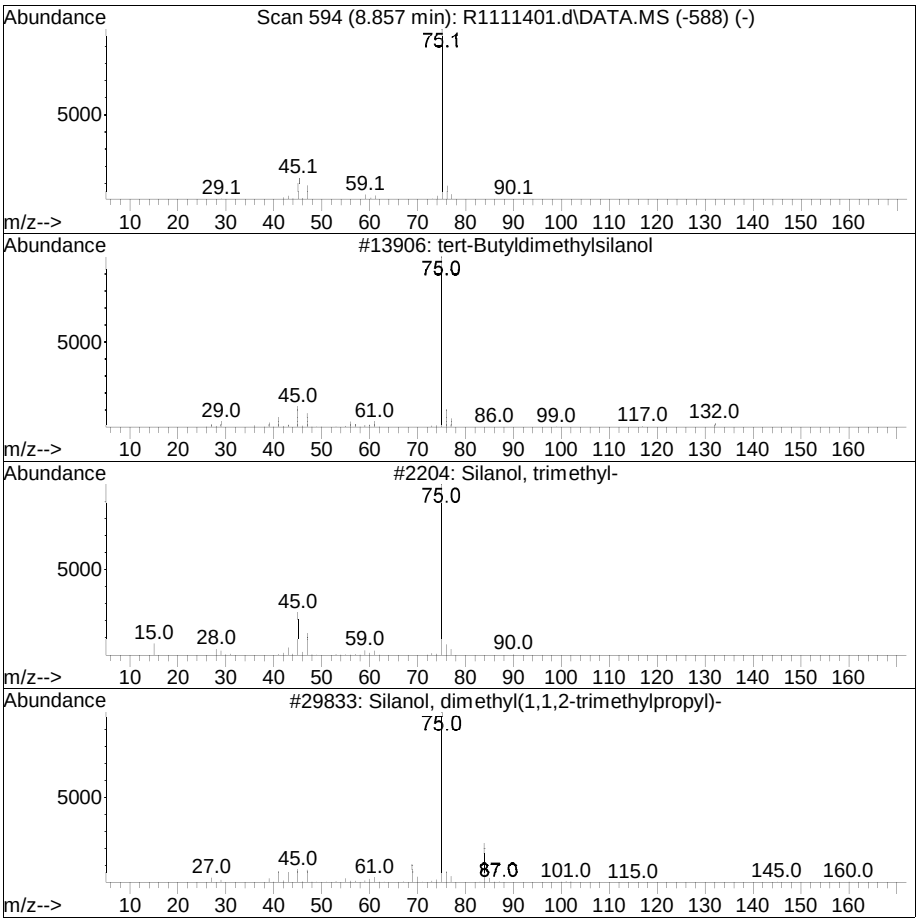
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

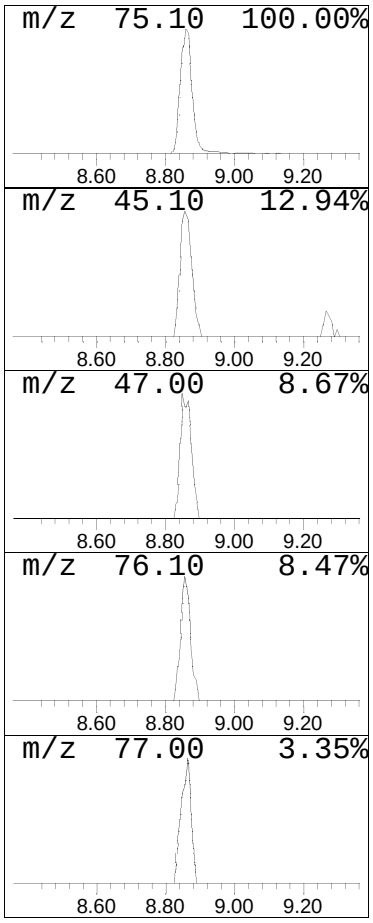
****

Peak Number 2 Silanol, trimethyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.86	1.59 ppbV	76154	bromochloromethane	9.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	tert-Butyldimethylsilanol	132	C6H16OSi	018173-64-3	83
2	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	83
3	Silanol, dimethyl(1,1,2-trimethy...	160	C8H20OSi	055644-10-5	78
4	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	78
5	Ethanol, 2-(trimethylsilyl)-	118	C5H14OSi	002916-68-9	43





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111401.d
Acq On : 2 Sep 2015 8:52 pm
Operator : AIRLAB11:RY
Sample : L1521092-01D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

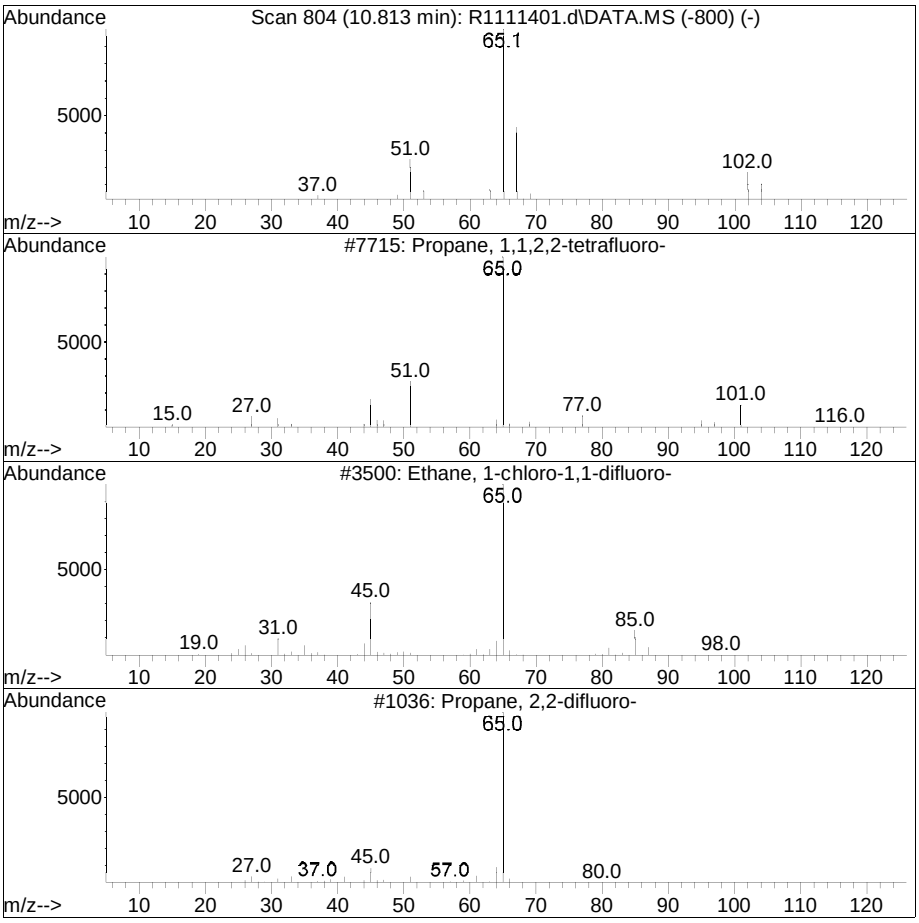
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

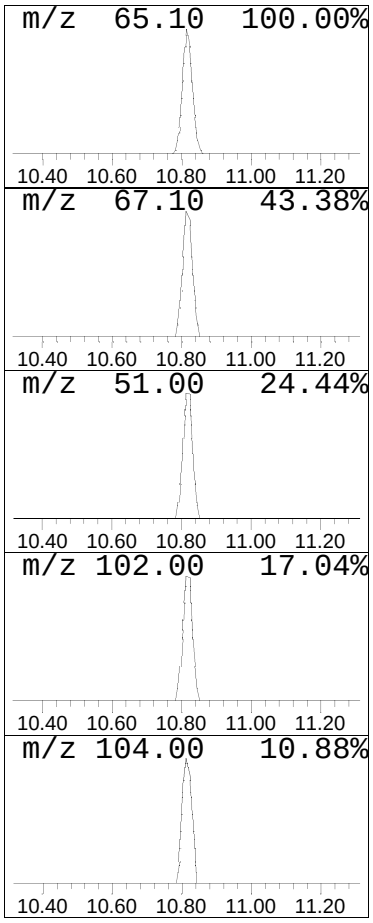
****

Peak Number 3 unknown Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.81	1.09 ppbV	52302	bromochloromethane	9.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propane, 1,1,2,2-tetrafluoro-	116	C3H4F4	040723-63-5	2
2	Ethane, 1-chloro-1,1-difluoro-	100	C2H3ClF2	000075-68-3	1
3	Propane, 2,2-difluoro-	80	C3H6F2	000420-45-1	1
4	Propane, 2,2-difluoro-	80	C3H6F2	000420-45-1	1
5	Benzene, 1-nitro-2-(p-methylphen...	247	C13H10FNO3	028987-57-7	1





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111401.d
Acq On : 2 Sep 2015 8:52 pm
Operator : AIRLAB11:RY
Sample : L1521092-01D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

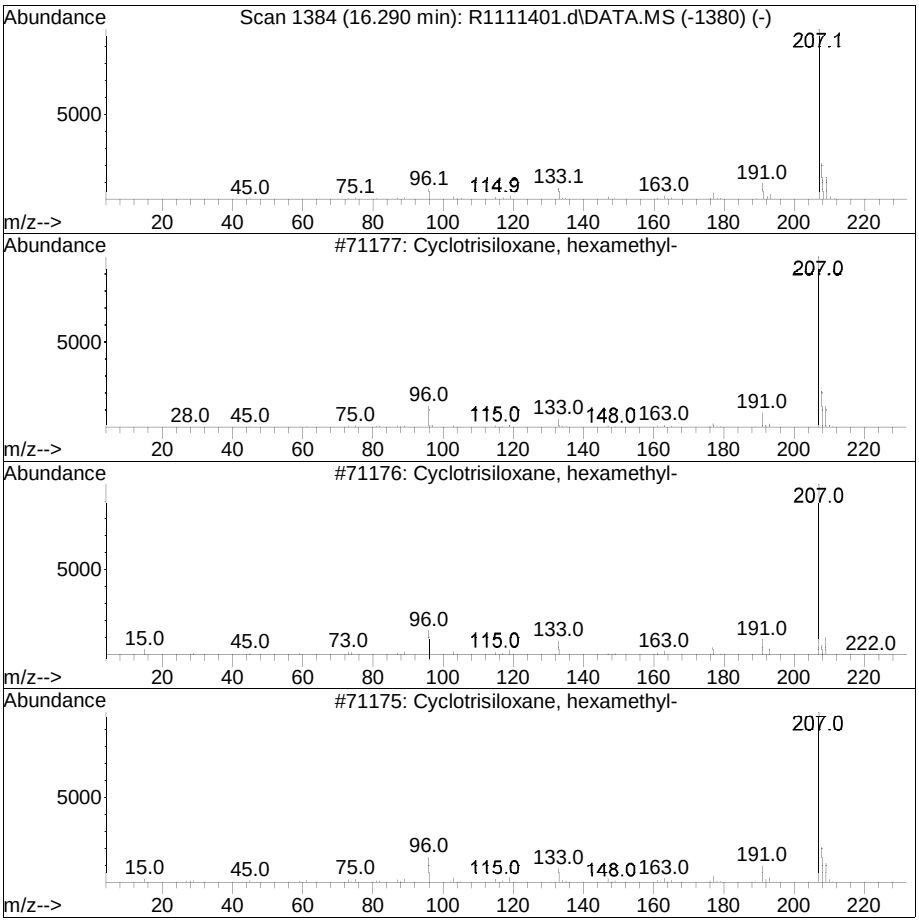
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

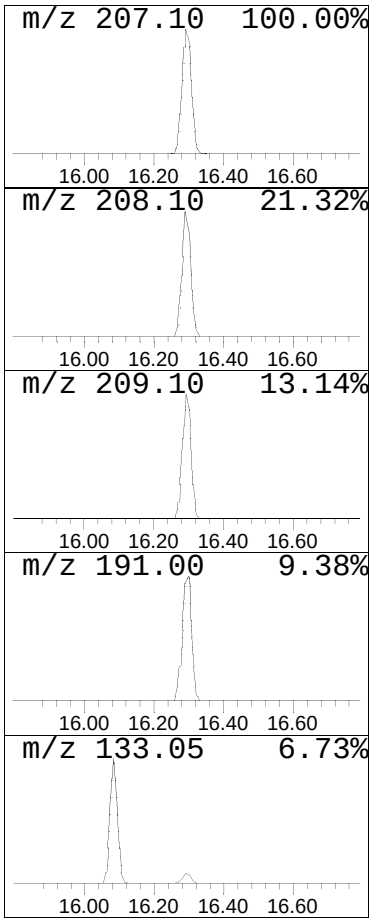
****

Peak Number 5 Cyclotrisiloxane, hexamethyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.29	1.36 ppbV	153730	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	72
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	47
4	Benzo[h]quinoline, 2,4-dimethyl-	207	C15H13N	000605-67-4	39
5	5-Methyl-2-phenylindolizine	207	C15H13N	036944-99-7	39





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111401.d
Acq On : 2 Sep 2015 8:52 pm
Operator : AIRLAB11:RY
Sample : L1521092-01D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

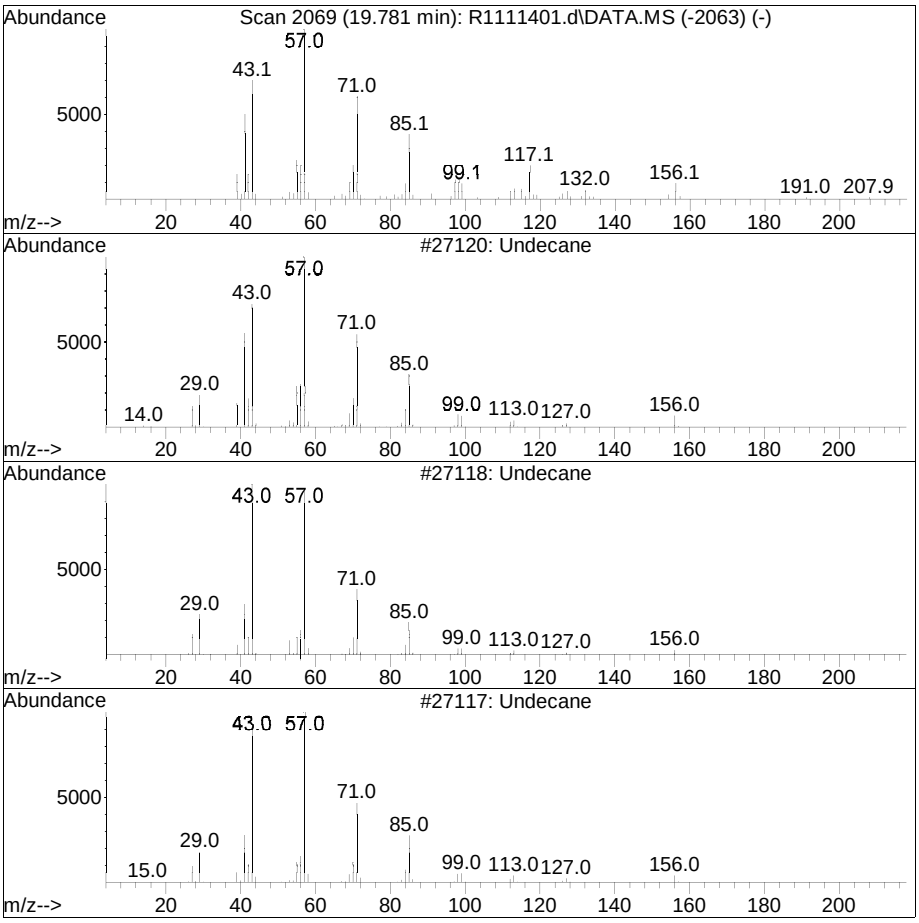
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

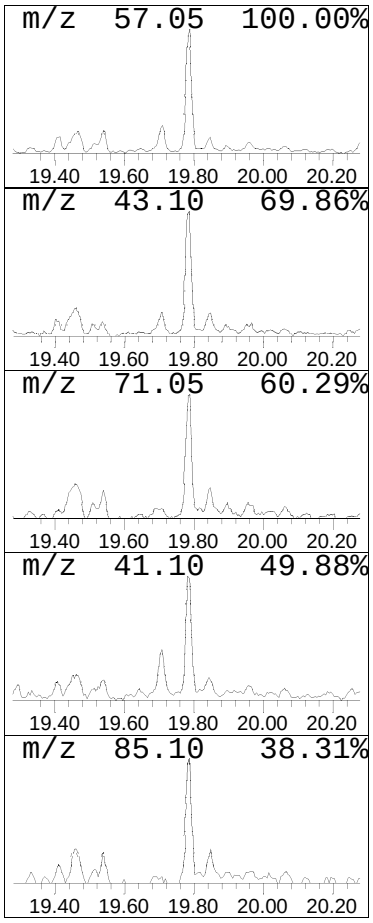
****

Peak Number 7 Undecane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.78	1.26 ppbV	142386	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Undecane	156	C11H24	001120-21-4	93
2	Undecane	156	C11H24	001120-21-4	76
3	Undecane	156	C11H24	001120-21-4	70
4	Undecane	156	C11H24	001120-21-4	70
5	Methoxyacetic acid, 2-tetradecyl...	286	C17H34O3	1000282-04-8	64





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111401.d
Acq On : 2 Sep 2015 8:52 pm
Operator : AIRLAB11:RY
Sample : L1521092-01D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

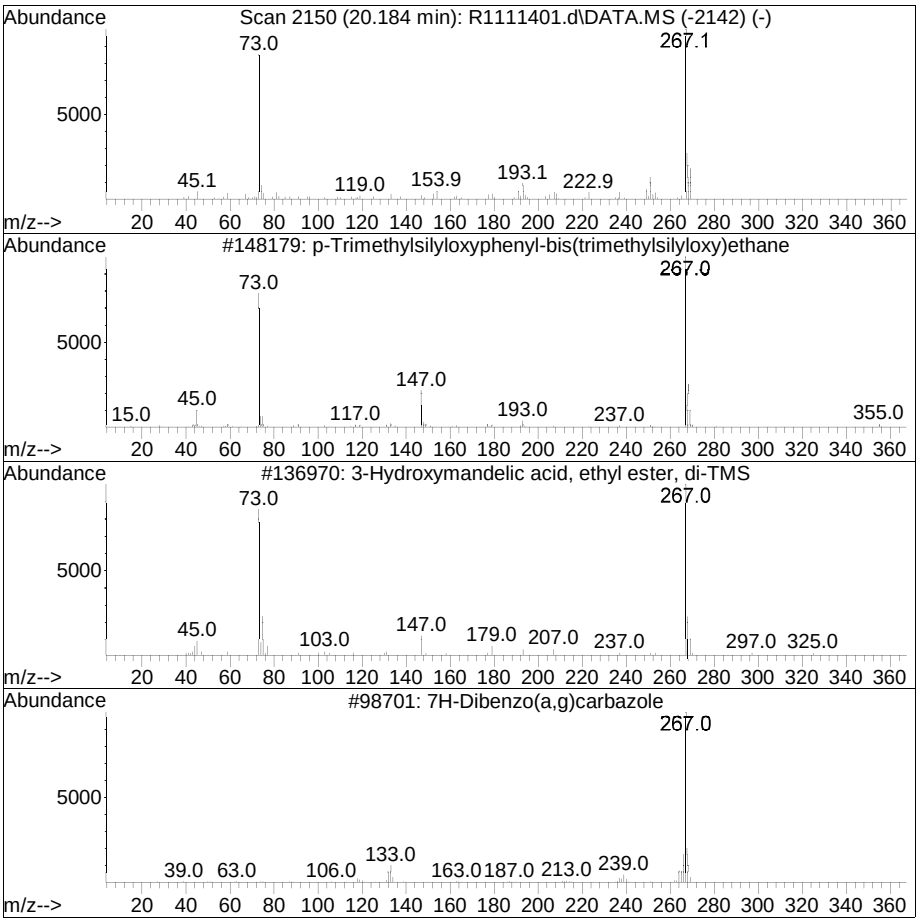
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

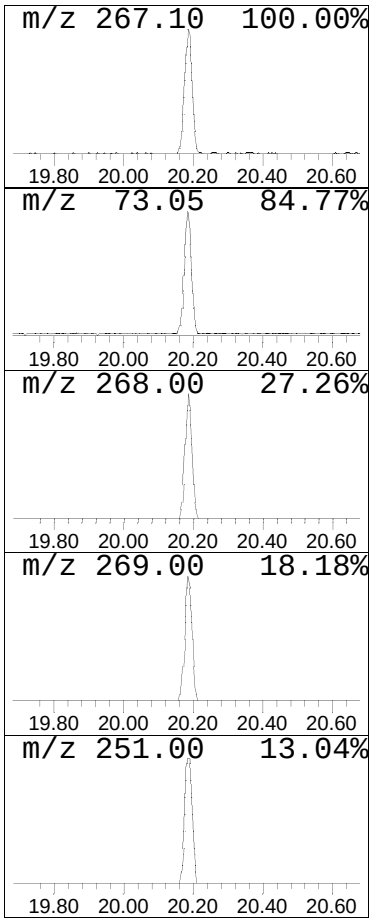
****

Peak Number 8 unknown siloxane Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.18	1.20 ppbV	135441	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	p-Trimethylsilyloxyphenyl-bis(tr...	370	C17H34O3Si3	1000079-08-1	59
2	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-88-9	56
3	7H-Dibenzo(a,g)carbazole	267	C20H13N	000207-84-1	50
4	3,6-Bis(N,N-dimethylamino)-9-met...	267	C17H21N3	119046-55-8	42
5	p-Trimethylsilyloxyphenyl-(trime...	398	C18H34O4Si3	1000079-05-1	39





Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111401.d
Acq On : 2 Sep 2015 8:52 pm
Operator : AIRLAB11:RY
Sample : L1521092-01D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc
Methyl Alcohol	4.47	1.6	ppbV	78717	1	9.94	477649	10.0
Silanol, trimet...	8.86	1.6	ppbV	76154	1	9.94	477649	10.0
unknown	10.81	1.1	ppbV	52302	1	9.94	477649	10.0
Cyclotrisiloxan...	16.29	1.4	ppbV	153730	3	16.63	1130490	10.0
Undecane	19.78	1.3	ppbV	142386	3	16.63	1130490	10.0
unknown siloxane	20.18	1.2	ppbV	135441	3	16.63	1130490	10.0

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-02DL	Date Collected :	08/28/15 13:04
Client ID	: KUMON-SS-1	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/02/15 22:15
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.161
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111403	Instrument ID	: AIRLAB11
Sample Amount	: 116 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	0.46	0.43	--	2	2	--	
74-87-3	Chloromethane	ND	0.43	--	ND	0.9	--	U
76-14-2	Freon-114	ND	0.43	--	ND	3.	--	U
75-01-4	Vinyl chloride	ND	0.43	--	ND	1.	--	U
106-99-0	1,3-Butadiene	ND	0.43	--	ND	1.	--	U
74-83-9	Bromomethane	ND	0.43	--	ND	2.	--	U
75-00-3	Chloroethane	ND	0.43	--	ND	1.	--	U
64-17-5	Ethanol	10	5.4	--	19	10	--	
593-60-2	Vinyl bromide	ND	0.43	--	ND	2.	--	U
67-64-1	Acetone	2.5	2.2	--	6	5	--	
75-69-4	Trichlorofluoromethane	0.90	0.43	--	5	2	--	
67-63-0	Isopropanol	ND	1.1	--	ND	3.	--	U
75-35-4	1,1-Dichloroethene	ND	0.43	--	ND	2.	--	U
75-65-0	Tertiary butyl Alcohol	ND	1.1	--	ND	3	--	U
75-09-2	Methylene chloride	ND	1.1	--	ND	4	--	U
107-05-1	3-Chloropropene	ND	0.43	--	ND	1.	--	U
75-15-0	Carbon disulfide	ND	0.43	--	ND	1.	--	U
76-13-1	Freon-113	ND	0.43	--	ND	3.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.43	--	ND	2.	--	U
75-34-3	1,1-Dichloroethane	ND	0.43	--	ND	2.	--	U
1634-04-4	Methyl tert butyl ether	ND	0.43	--	ND	2.	--	U
78-93-3	2-Butanone	ND	1.1	--	ND	3	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.43	--	ND	2.	--	U
67-66-3	Chloroform	ND	0.43	--	ND	2	--	U
109-99-9	Tetrahydrofuran	ND	1.1	--	ND	3.	--	U
107-06-2	1,2-Dichloroethane	ND	0.43	--	ND	2.	--	U
110-54-3	n-Hexane	ND	0.43	--	ND	2.	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.43	--	ND	2.	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-02DL	Date Collected :	08/28/15 13:04
Client ID	: KUMON-SS-1	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/02/15 22:15
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.161
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111403	Instrument ID	: AIRLAB11
Sample Amount	: 116 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	ND	0.43	--	ND	1.	--	U
56-23-5	Carbon tetrachloride	ND	0.43	--	ND	3.	--	U
110-82-7	Cyclohexane	ND	0.43	--	ND	1	--	U
78-87-5	1,2-Dichloropropane	ND	0.43	--	ND	2.	--	U
75-27-4	Bromodichloromethane	ND	0.43	--	ND	3.	--	U
123-91-1	1,4-Dioxane	ND	0.43	--	ND	2.	--	U
79-01-6	Trichloroethene	19	0.43	--	100	2.3	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.43	--	ND	2.	--	U
80-62-6	Methyl Methacrylate	ND	1.1	--	ND	5.	--	U
142-82-5	Heptane	ND	0.43	--	ND	2.	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.43	--	ND	2.	--	U
108-10-1	4-Methyl-2-pentanone	ND	1.1	--	ND	5.	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.43	--	ND	2.	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.43	--	ND	2.	--	U
108-88-3	Toluene	ND	0.43	--	ND	2	--	U
124-48-1	Dibromochloromethane	ND	0.43	--	ND	4.	--	U
106-93-4	1,2-Dibromoethane	ND	0.43	--	ND	3.	--	U
127-18-4	Tetrachloroethene	18	0.43	--	120	2.9	--	
108-90-7	Chlorobenzene	ND	0.43	--	ND	2.	--	U
100-41-4	Ethylbenzene	ND	0.43	--	ND	2	--	U
179601-23-1	p/m-Xylene	ND	0.86	--	ND	4.	--	U
75-25-2	Bromoform	ND	0.43	--	ND	4.	--	U
100-42-5	Styrene	ND	0.43	--	ND	2.	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.43	--	ND	3.	--	U
95-47-6	o-Xylene	ND	0.43	--	ND	2.	--	U
95-49-8	2-Chlorotoluene	ND	0.43	--	ND	2.	--	U
622-96-8	4-Ethyltoluene	ND	0.43	--	ND	2.	--	U
108-67-8	1,3,5-Trimethybenzene	ND	0.43	--	ND	2.	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-02DL	Date Collected :	08/28/15 13:04
Client ID	: KUMON-SS-1	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/02/15 22:15
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.161
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111403	Instrument ID	: AIRLAB11
Sample Amount	: 116 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	ND	0.43	--	ND	2	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.43	--	ND	3.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.43	--	ND	3.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.43	--	ND	3.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.43	--	ND	3.	--	U
87-68-3	Hexachlorobutadiene	ND	0.43	--	ND	5.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111403.d
Acq On : 2 Sep 2015 10:15 pm
Operator : AIRLAB11:RY
Sample : L1521092-02D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 03 16:45:08 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.95	49	60317	10.000	ppbV	0.01
Standard Area = 81084			Recovery	=	74.39%	
43) 1,4-difluorobenzene	12.16	114	359698	10.000	ppbV	0.02
Standard Area = 489060			Recovery	=	73.55%	
67) chlorobenzene-D5	16.63	54	59404	10.000	ppbV	0.00
Standard Area = 80649			Recovery	=	73.66%	
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.03	85	5455	0.213	ppbV	89
6) chloromethane	0.00		0	N.D.		
7) Freon-114	0.00		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	0.00		0	N.D.		
13) bromomethane	0.00		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	5.56	31	13202	4.853	ppbV	93
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.20	43	11572	1.151	ppbV #	97
21) trichlorofluoromethane	6.37	101	15116	0.419	ppbV	97
22) isopropyl alcohol	0.00		0	N.D.	d	
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	7.36	59	1882	0.108	ppbV #	78
28) methylene chloride	7.36	49	1941	0.255	ppbV	92
29) 3-chloropropene	7.36		0	N.D.		
30) carbon disulfide	7.67		0	N.D.		
31) Freon 113	7.69		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	8.87		0	N.D.		
36) 2-butanone	9.31	43	2033	0.164	ppbV #	91
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	10.10	83	2092	0.091	ppbV #	84
40) Tetrahydrofuran	0.00		0	N.D.		
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	10.01		0	N.D.		
48) 1,1,1-trichloroethane	0.00		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111403.d
Acq On : 2 Sep 2015 10:15 pm
Operator : AIRLAB11:RY
Sample : L1521092-02D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 03 16:45:08 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50)	benzene	11.75		0	N.D.		
52)	carbon tetrachloride	11.91		0	N.D.		
53)	cyclohexane	12.05	56	632	0.057	ppbV #	74
56)	1,2-dichloropropane	0.00		0	N.D.		
57)	bromodichloromethane	0.00		0	N.D.	d	
58)	1,4-dioxane	0.00		0	N.D.		
59)	trichloroethene	12.94	130	162997	8.951	ppbV	98
60)	2,2,4-trimethylpentane	12.98		0	N.D.		
61)	methyl methacrylate	0.00		0	N.D.		
62)	heptane	0.00		0	N.D.		
63)	cis-1,3-dichloropropene	0.00		0	N.D.		
64)	4-methyl-2-pentanone	0.00		0	N.D.		
65)	trans-1,3-dichloropropene	0.00		0	N.D.		
66)	1,1,2-trichloroethane	0.00		0	N.D.		
68)	toluene	15.01	91	5765	0.155	ppbV	97
74)	dibromochloromethane	0.00		0	N.D.		
75)	1,2-dibromoethane	0.00		0	N.D.		
78)	tetrachloroethene	16.08	166	235353	8.234	ppbV	98
80)	chlorobenzene	0.00		0	N.D.		
81)	ethylbenzene	16.98	91	5257	0.103	ppbV	95
83)	m+p-xylene	17.11	91	7131	0.168	ppbV	93
84)	bromoform	0.00		0	N.D.		
85)	styrene	17.41		0	N.D.		
86)	1,1,2,2-tetrachloroethane	0.00		0	N.D.		
87)	o-xylene	17.49	91	3034	0.071	ppbV	94
93)	2-chlorotoluene	0.00		0	N.D.		
96)	4-ethyl toluene	18.43		0	N.D.		
97)	1,3,5-trimethylbenzene	18.48		0	N.D.		
99)	1,2,4-trimethylbenzene	18.79	105	10726	0.194	ppbV #	58
102)	1,3-dichlorobenzene	18.98		0	N.D.		
103)	1,4-dichlorobenzene	18.98		0	N.D.		
107)	1,2-dichlorobenzene	19.24		0	N.D.		
115)	1,2,4-trichlorobenzene	20.65		0	N.D.		
119)	hexachlorobutadiene	0.00		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111403.d
Acq On : 2 Sep 2015 10:15 pm
Operator : AIRLAB11:RY
Sample : L1521092-02D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 03 16:45:08 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

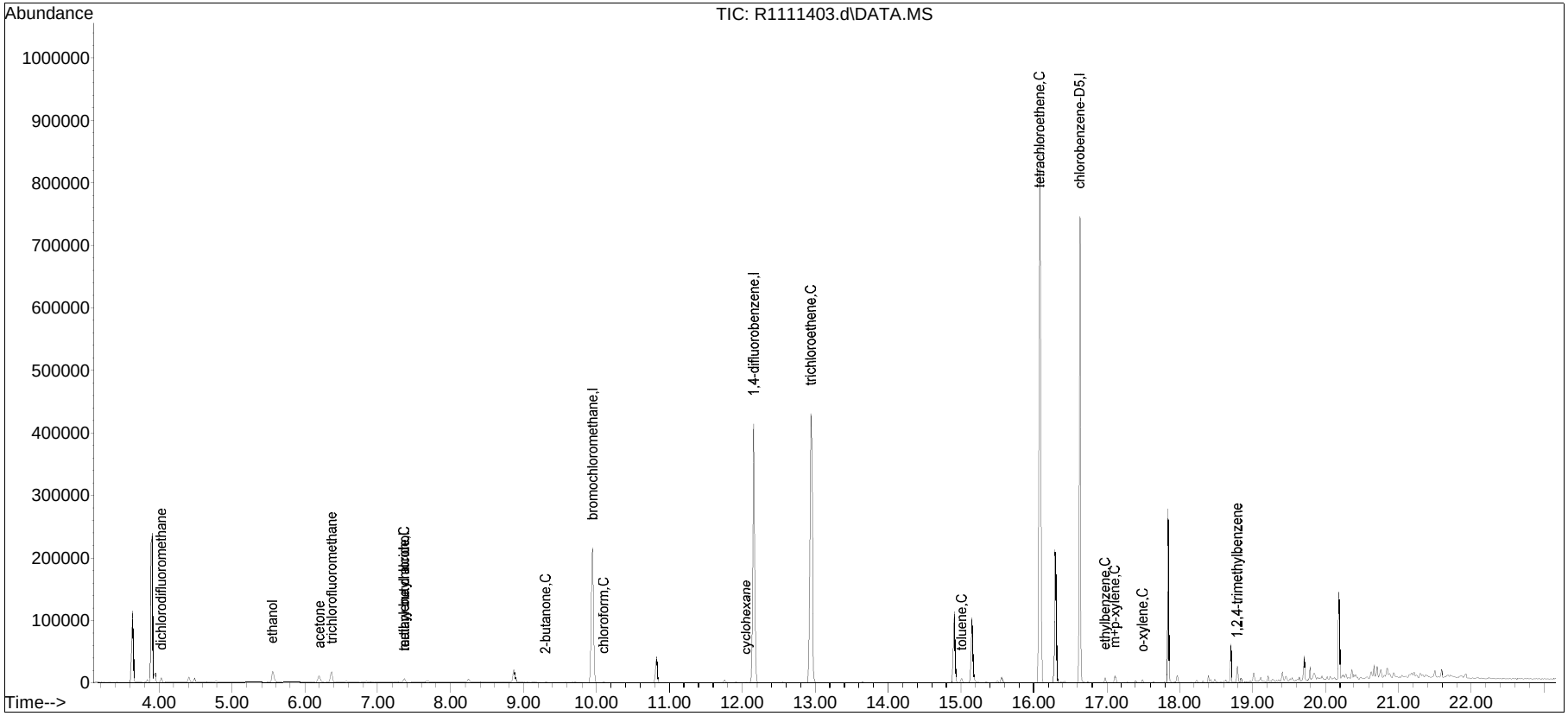
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Quantitation Report (QT Reviewed)

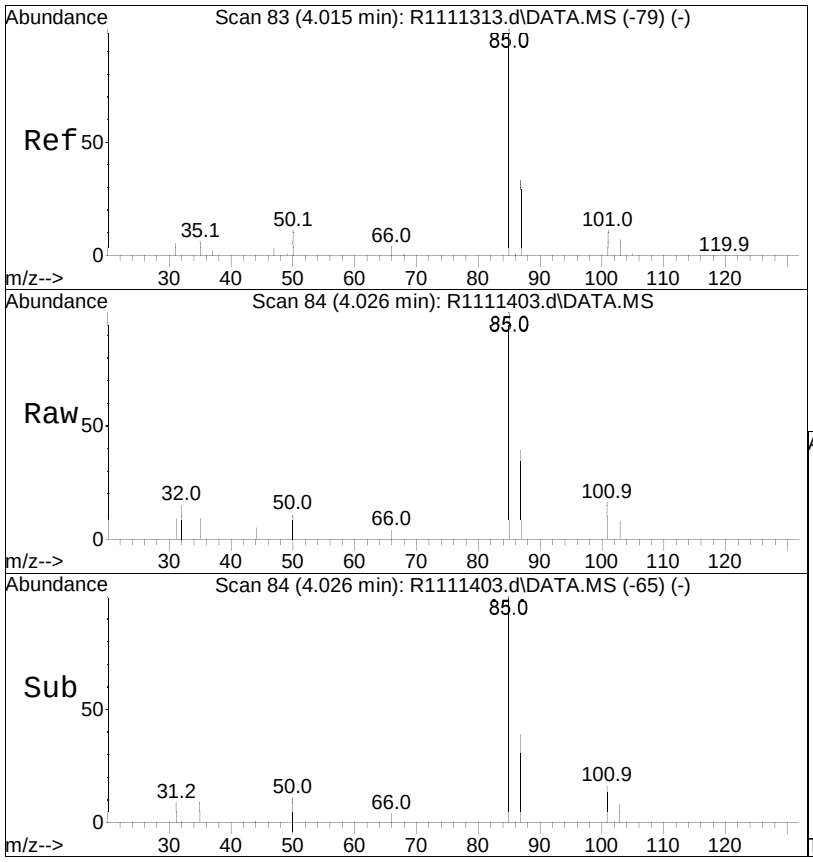
Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111403.d
Acq On : 2 Sep 2015 10:15 pm
Operator : AIRLAB11:RY
Sample : L1521092-02D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 03 16:45:08 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

Sub List : NJ-LL_New - .Data\Airlab11\2015\150902T\R1111393.d



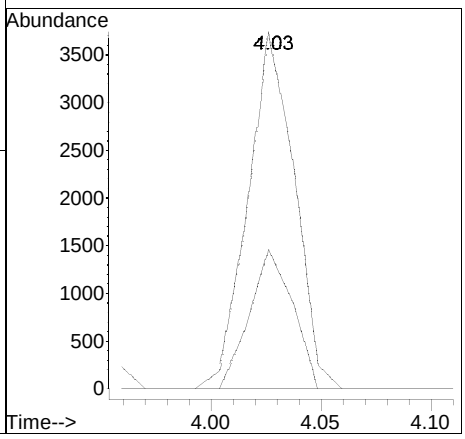
TALL150827.M Thu Sep 03 16:45:21 2015

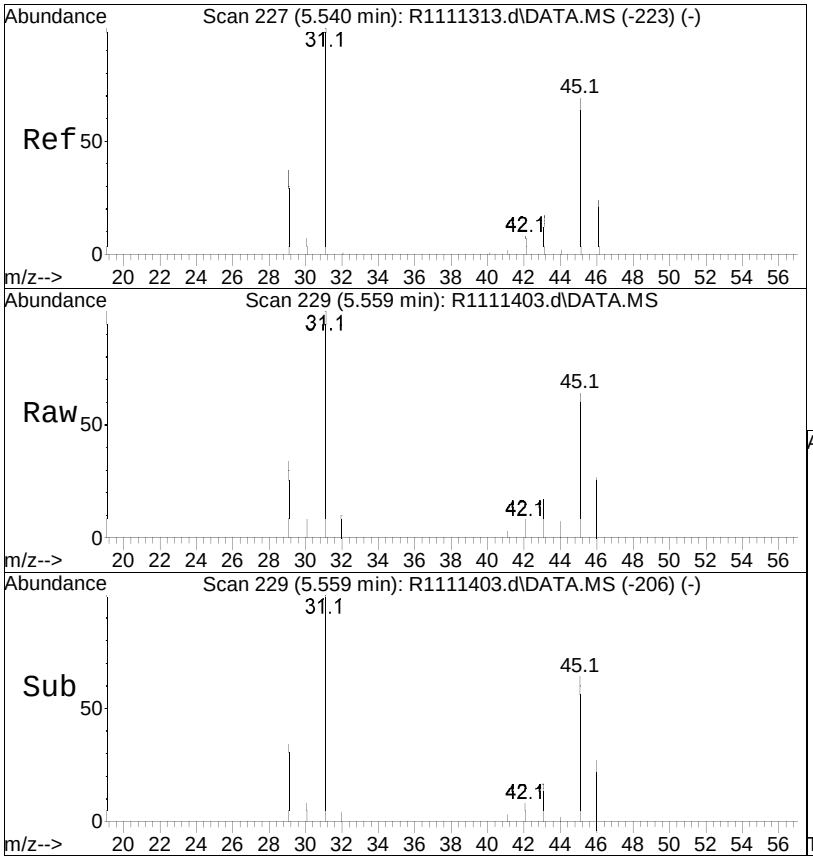


#5
dichlorodifluoromethane
Concen: 0.21 ppbV
RT: 4.03 min Scan# 84
Delta R.T. 0.011 min
Lab File: R1111403.d
Acq: 2 Sep 2015 10:15 pm

Tgt Ion: 85 Resp: 5455

Ion	Ratio	Lower	Upper
85	100		
87	39.0	26.1	39.1

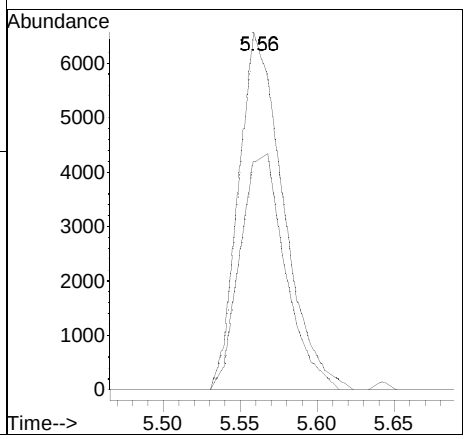


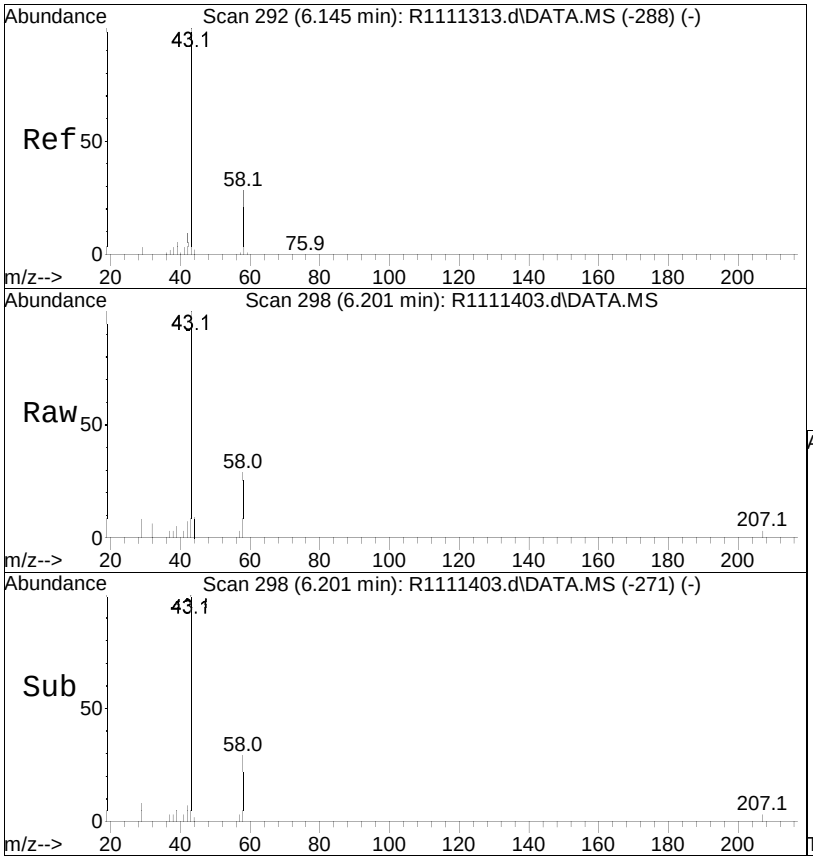


#15
ethanol
Concen: 4.85 ppbV
RT: 5.56 min Scan# 229
Delta R.T. 0.019 min
Lab File: R1111403.d
Acq: 2 Sep 2015 10:15 pm

Tgt Ion: 31 Resp: 13202

Ion	Ratio	Lower	Upper
31	100		
45	63.7	55.4	83.2

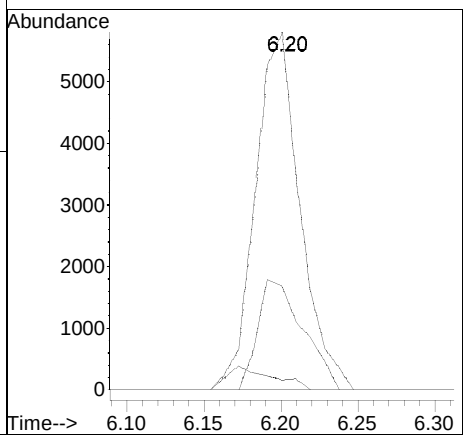


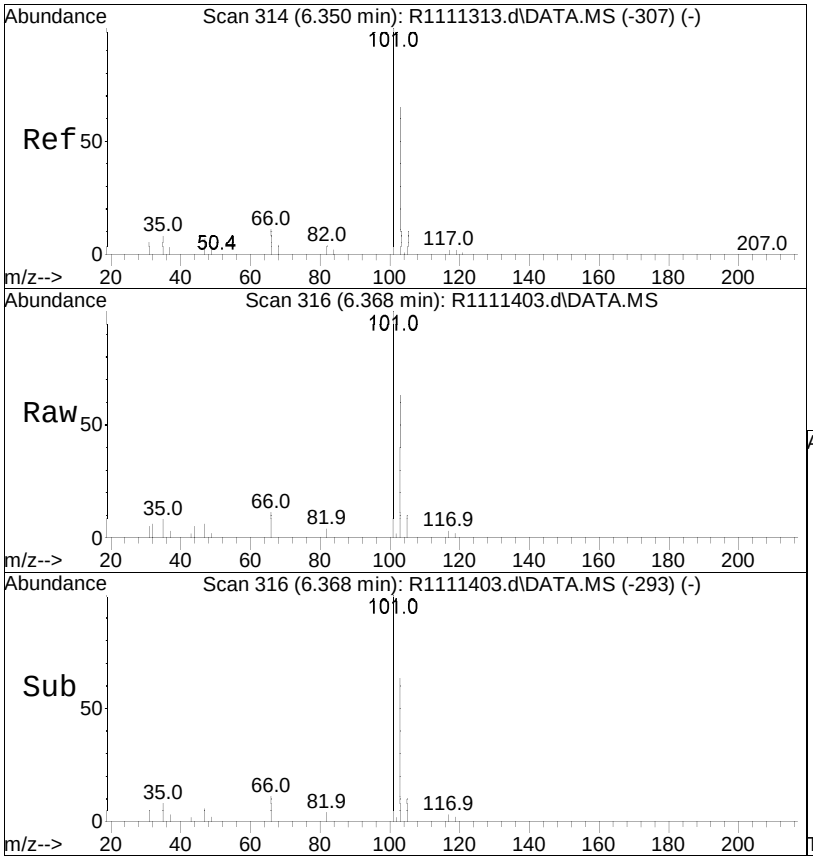


#19
acetone
Concen: 1.15 ppbV
RT: 6.20 min Scan# 298
Delta R.T. 0.056 min
Lab File: R1111403.d
Acq: 2 Sep 2015 10:15 pm

Tgt Ion: 43 Resp: 11572

Ion	Ratio	Lower	Upper
43	100		
58	29.3	22.2	33.2
57	2.7	0.6	1.0#

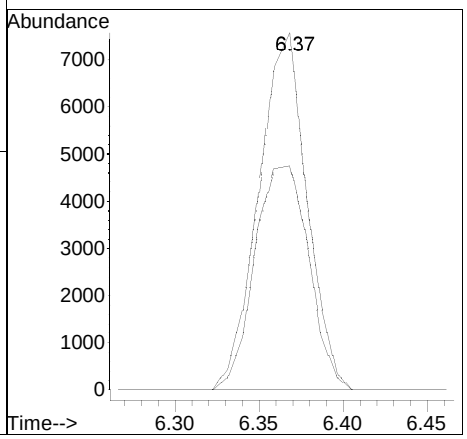


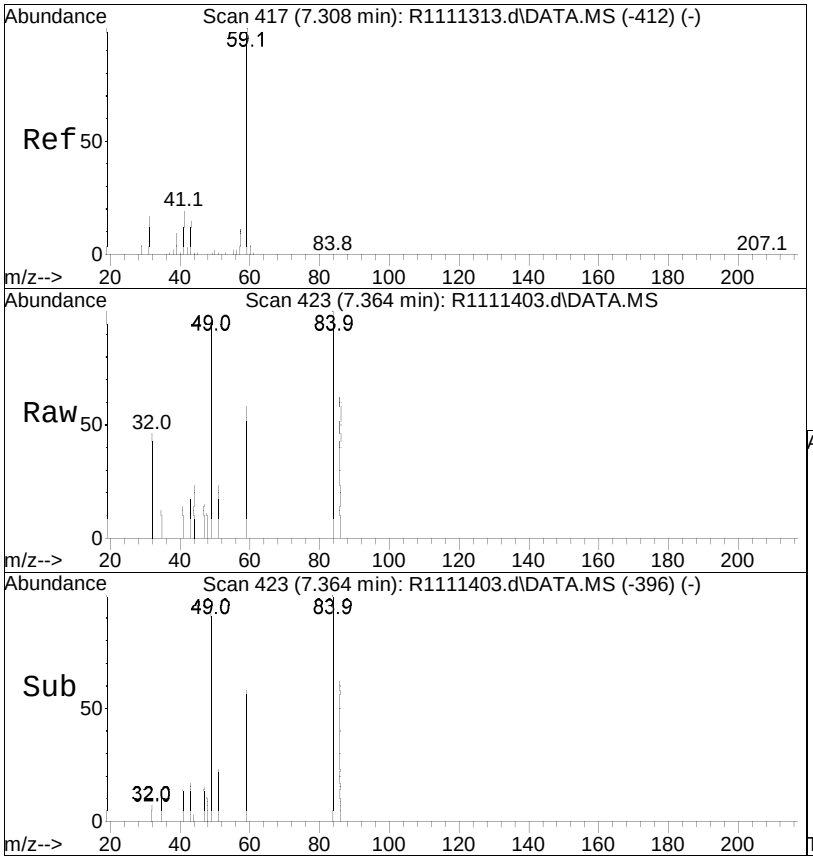


#21
trichlorofluoromethane
Concen: 0.42 ppbV
RT: 6.37 min Scan# 316
Delta R.T. 0.019 min
Lab File: R1111403.d
Acq: 2 Sep 2015 10:15 pm

Tgt Ion:101 Resp: 15116

Ion	Ratio	Lower	Upper
101	100		
103	62.6	52.3	78.5

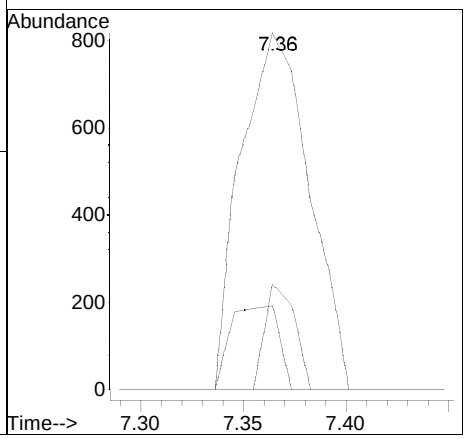


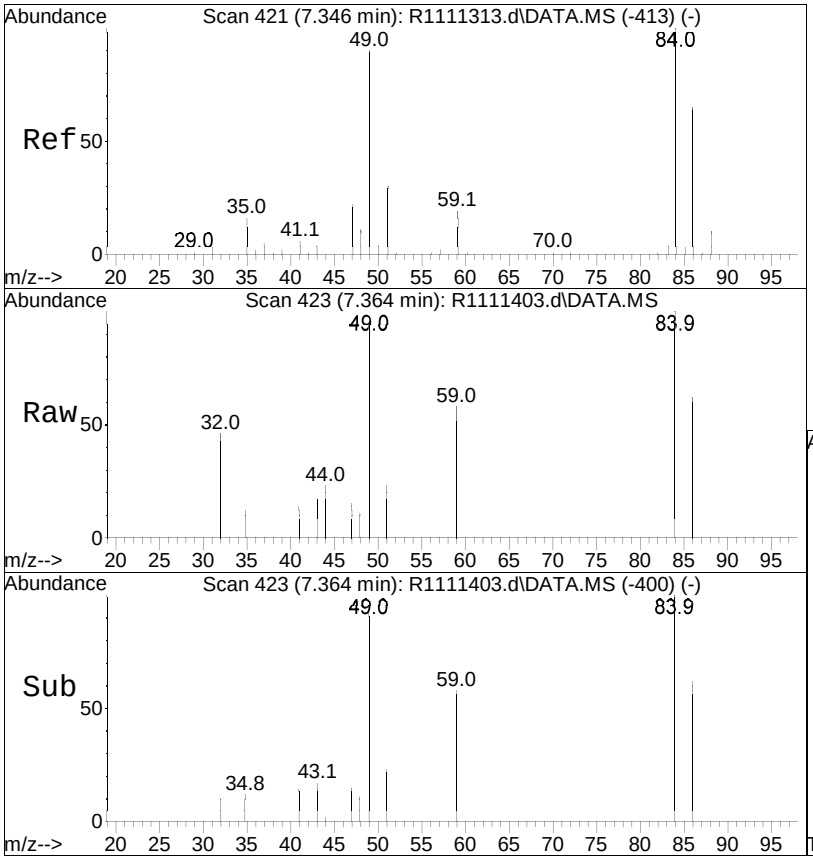


#27
tertiary butyl alcohol
Concen: 0.11 ppbV
RT: 7.36 min Scan# 423
Delta R.T. 0.056 min
Lab File: R1111403.d
Acq: 2 Sep 2015 10:15 pm

Tgt Ion: 59 Resp: 1882

Ion	Ratio	Lower	Upper
59	100		
41	23.5	15.1	22.7#
43	29.6	11.8	17.6#

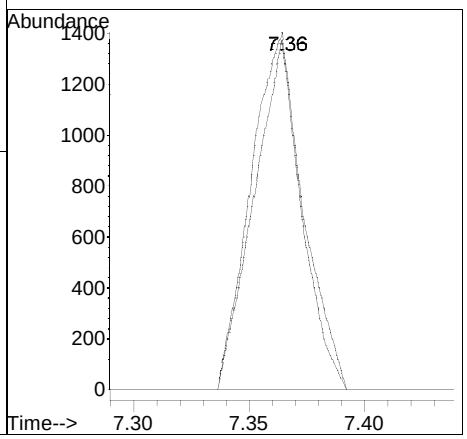


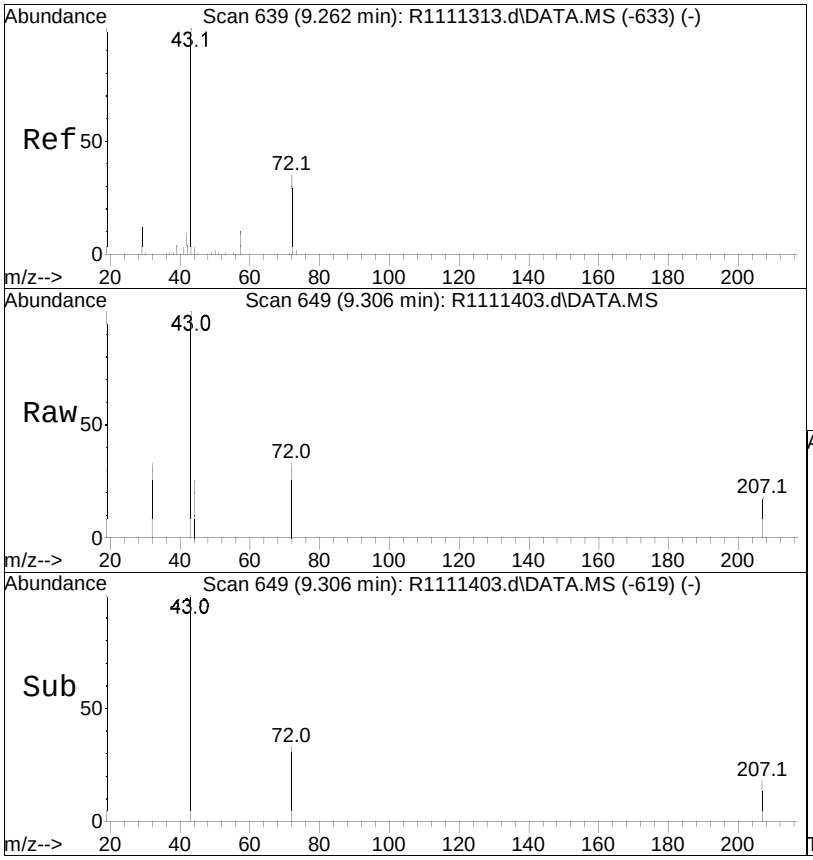


#28
methylene chloride
Concen: 0.26 ppbV
RT: 7.36 min Scan# 423
Delta R.T. 0.019 min
Lab File: R1111403.d
Acq: 2 Sep 2015 10:15 pm

Tgt Ion: 49 Resp: 1941

Ion	Ratio	Lower	Upper
49	100		
84	102.3	89.0	133.4

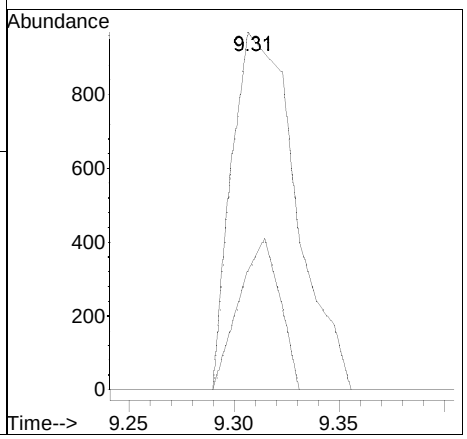


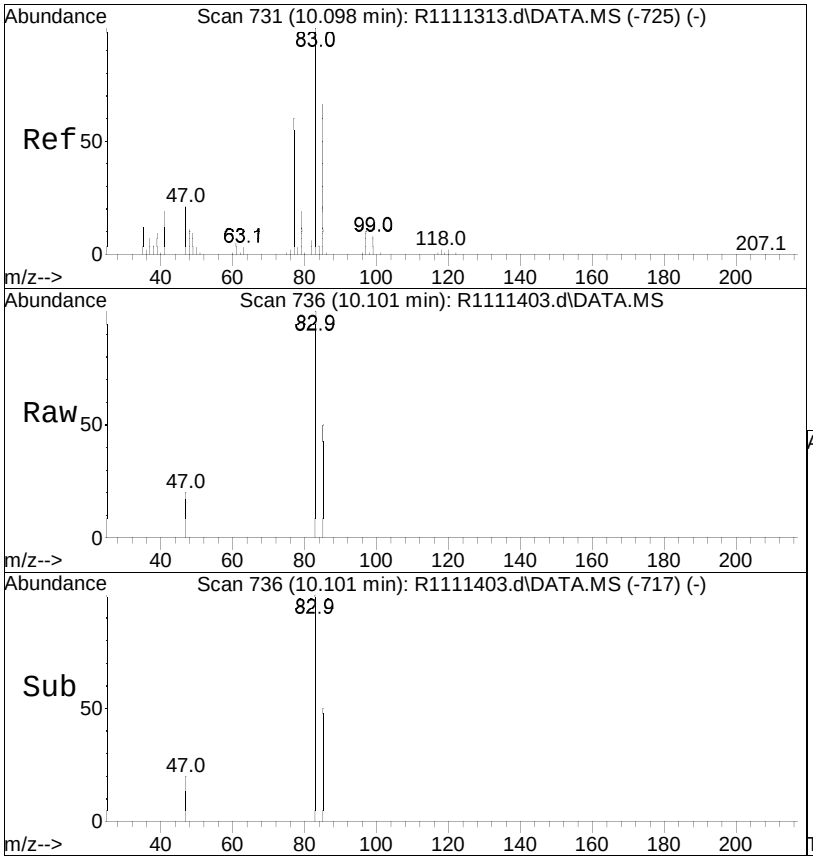


#36
2-butanone
Concen: 0.16 ppbV
RT: 9.31 min Scan# 649
Delta R.T. 0.044 min
Lab File: R1111403.d
Acq: 2 Sep 2015 10:15 pm

Tgt Ion: 43 Resp: 2033

Ion	Ratio	Lower	Upper
43	100		
72	32.7	28.1	42.1
57	0.0	8.3	12.5#

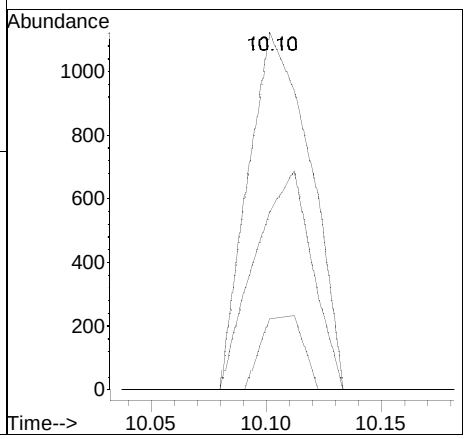


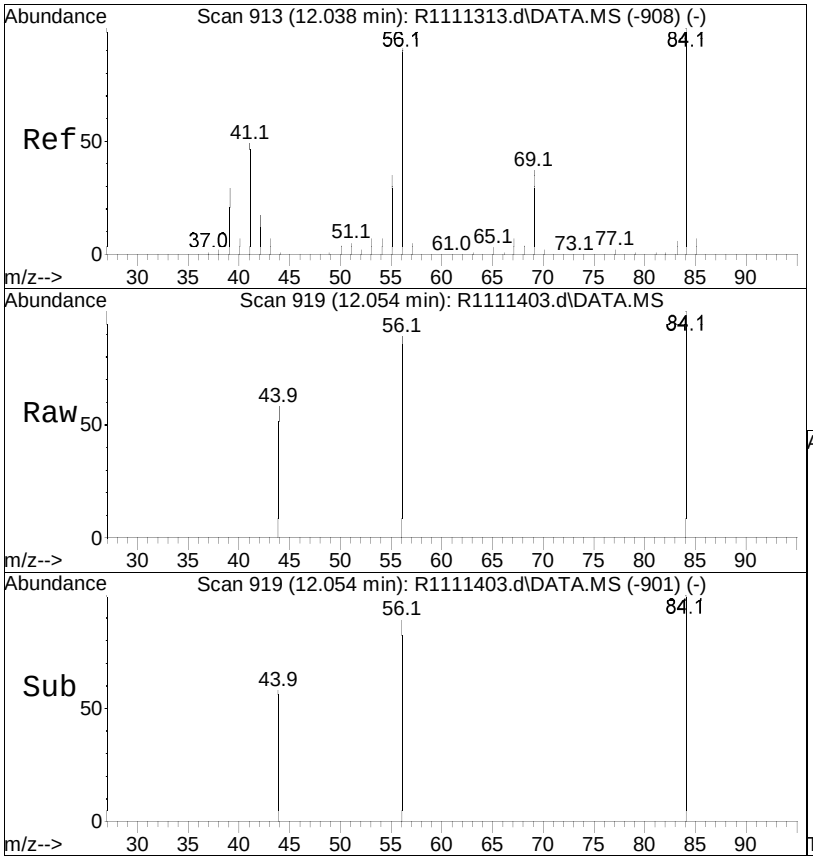


#39
chloroform
Concen: 0.09 ppbV
RT: 10.10 min Scan# 736
Delta R.T. 0.004 min
Lab File: R1111403.d
Acq: 2 Sep 2015 10:15 pm

Tgt Ion: 83 Resp: 2092

Ion	Ratio	Lower	Upper
83	100		
85	49.6	52.4	78.6#
47	19.8	16.5	24.7

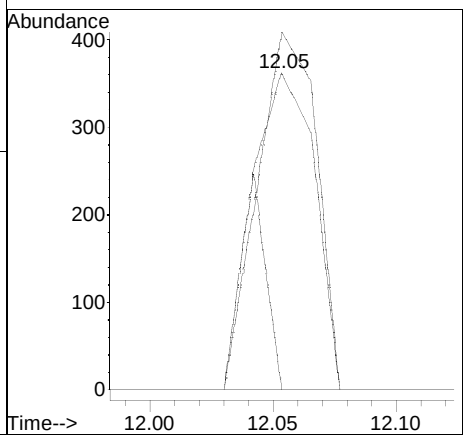


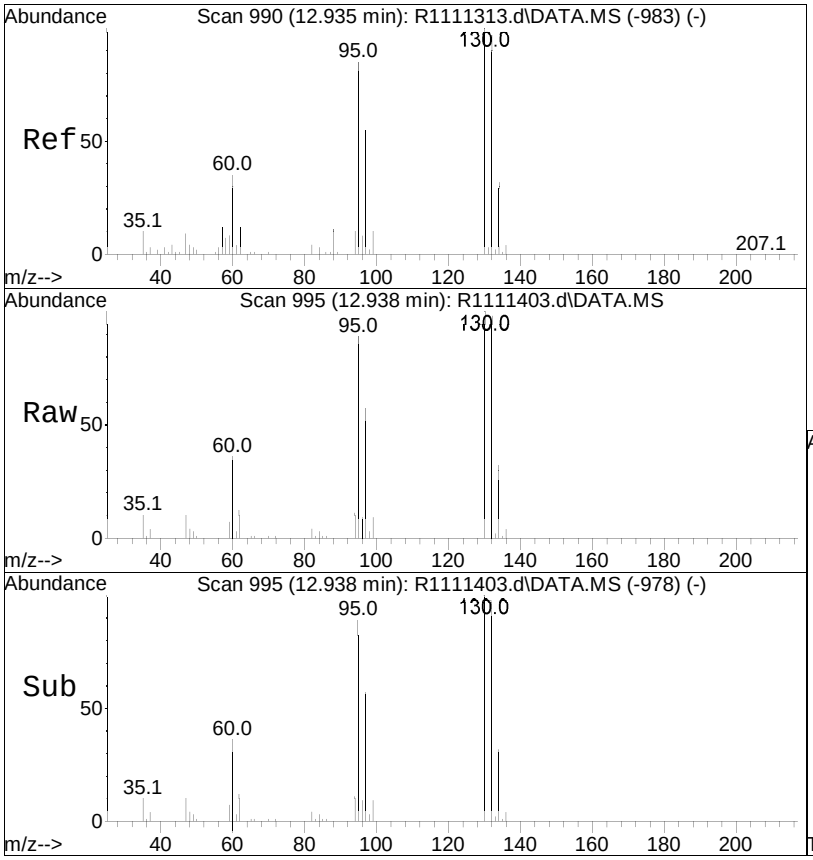


#53
cyclohexane
Concen: 0.06 ppbV
RT: 12.05 min Scan# 919
Delta R.T. 0.015 min
Lab File: R1111403.d
Acq: 2 Sep 2015 10:15 pm

Tgt Ion: 56 Resp: 632

Ion	Ratio	Lower	Upper
56	100		
84	112.7	88.4	132.6
41	0.0	43.4	65.0#

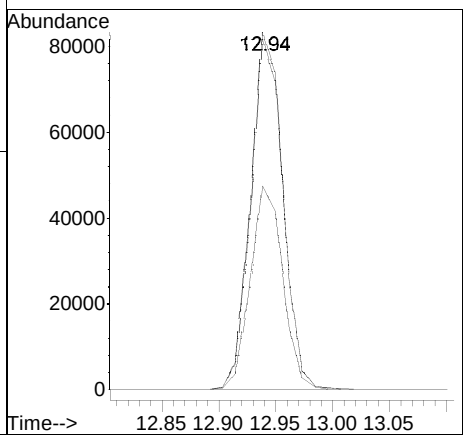


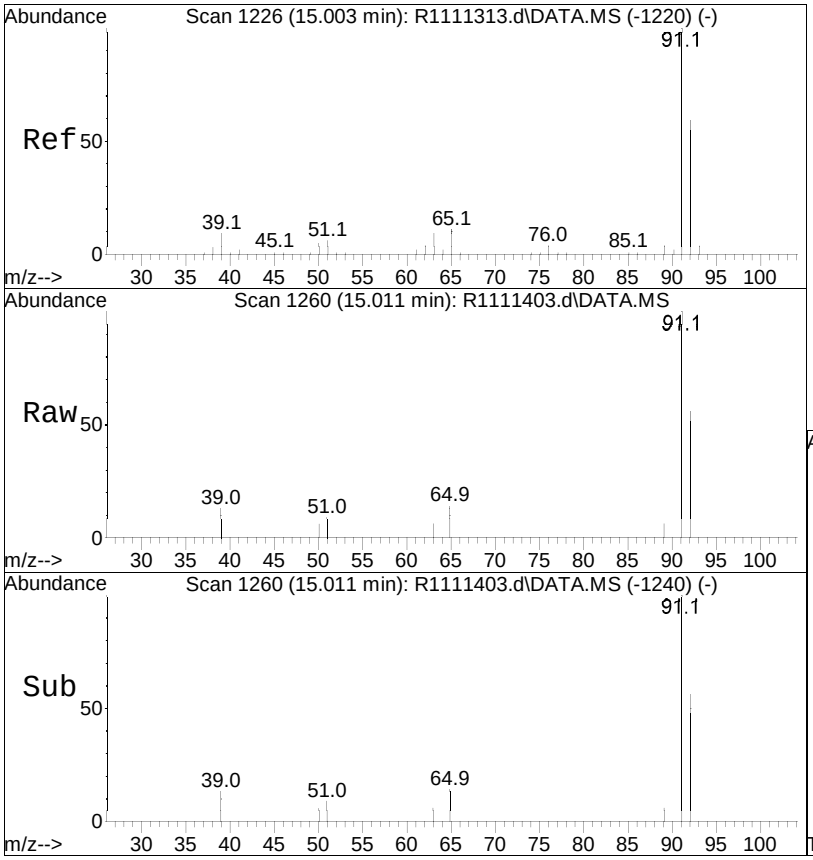


#59
trichloroethene
Concen: 8.95 ppbV
RT: 12.94 min Scan# 995
Delta R.T. 0.004 min
Lab File: R1111403.d
Acq: 2 Sep 2015 10:15 pm

Tgt Ion:130 Resp: 162997

Ion	Ratio	Lower	Upper
130	100		
132	98.4	77.6	116.4
97	57.1	44.0	66.0

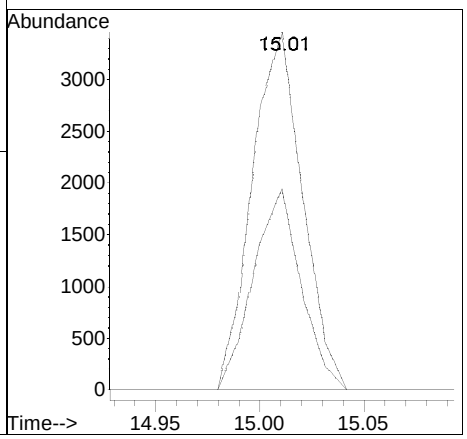


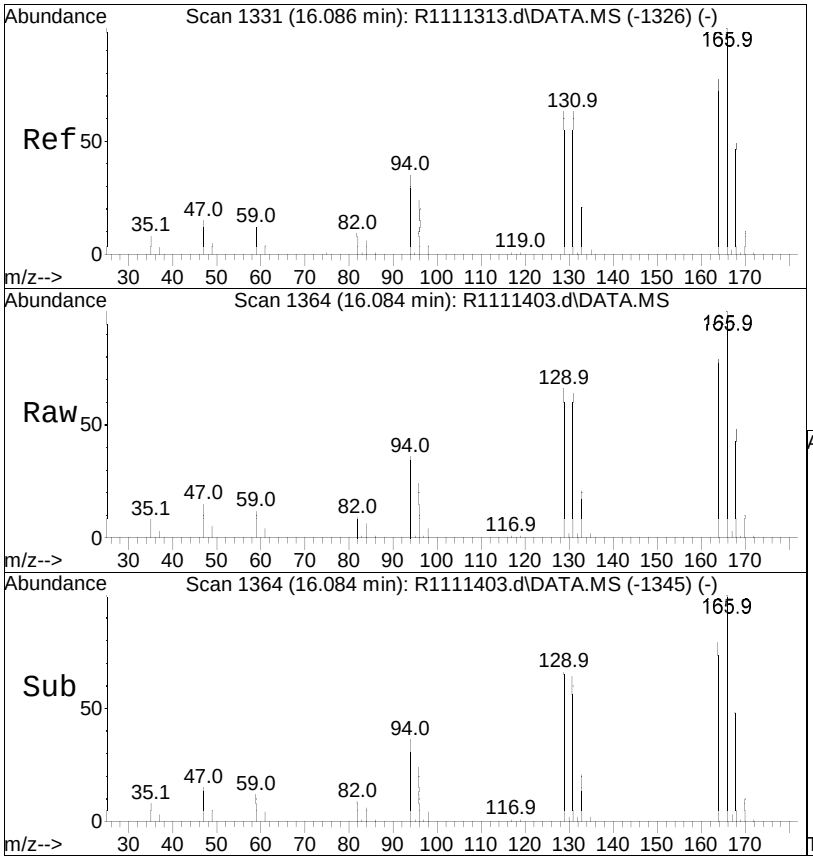


#68
toluene
Concen: 0.15 ppbV
RT: 15.01 min Scan# 1260
Delta R.T. 0.008 min
Lab File: R1111403.d
Acq: 2 Sep 2015 10:15 pm

Tgt Ion: 91 Resp: 5765

Ion	Ratio	Lower	Upper
91	100		
92	56.3	47.0	70.6

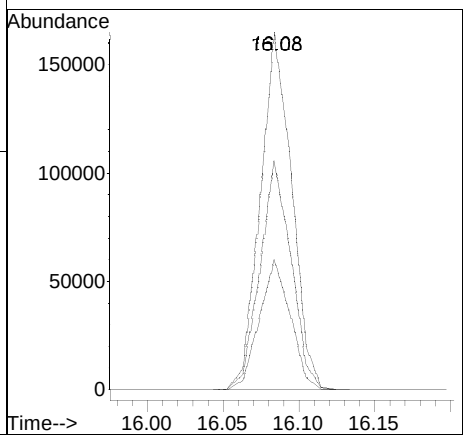


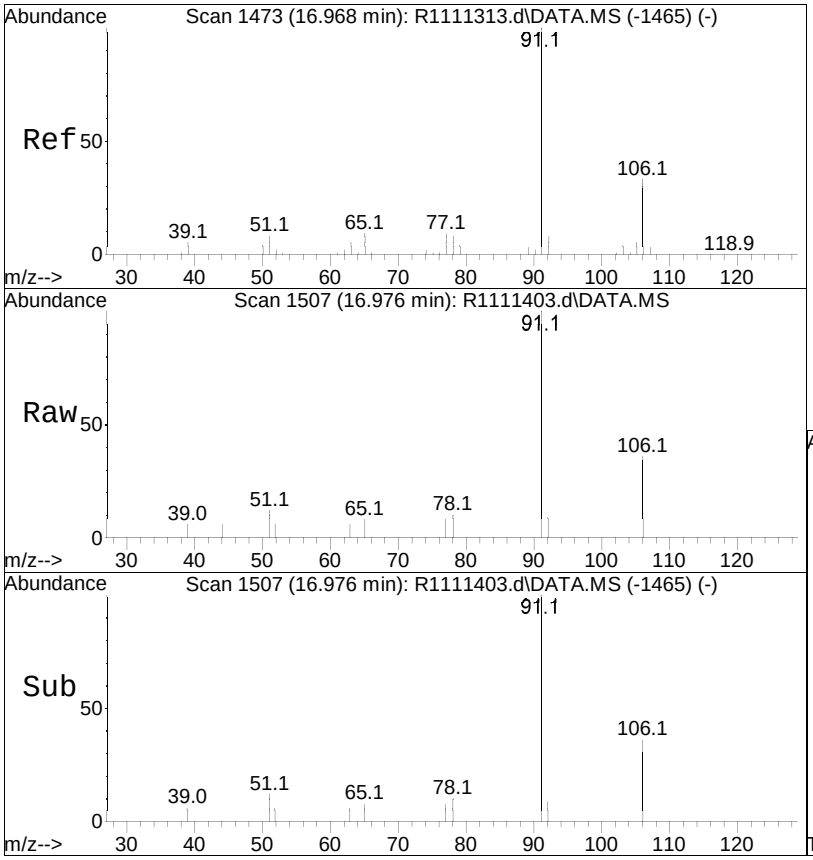


#78
tetrachloroethene
Concen: 8.23 ppbV
RT: 16.08 min Scan# 1364
Delta R.T. -0.002 min
Lab File: R1111403.d
Acq: 2 Sep 2015 10:15 pm

Tgt Ion:166 Resp: 235353

Ion	Ratio	Lower	Upper
166	100		
131	64.3	50.1	75.1
94	36.4	28.2	42.4

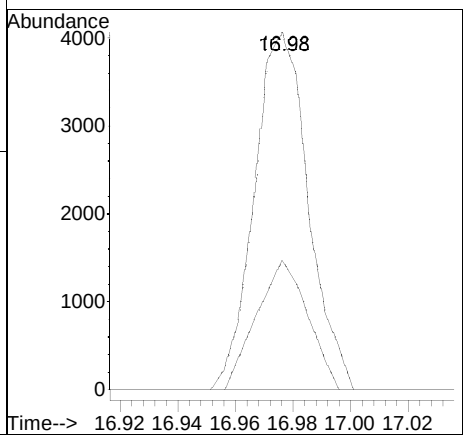


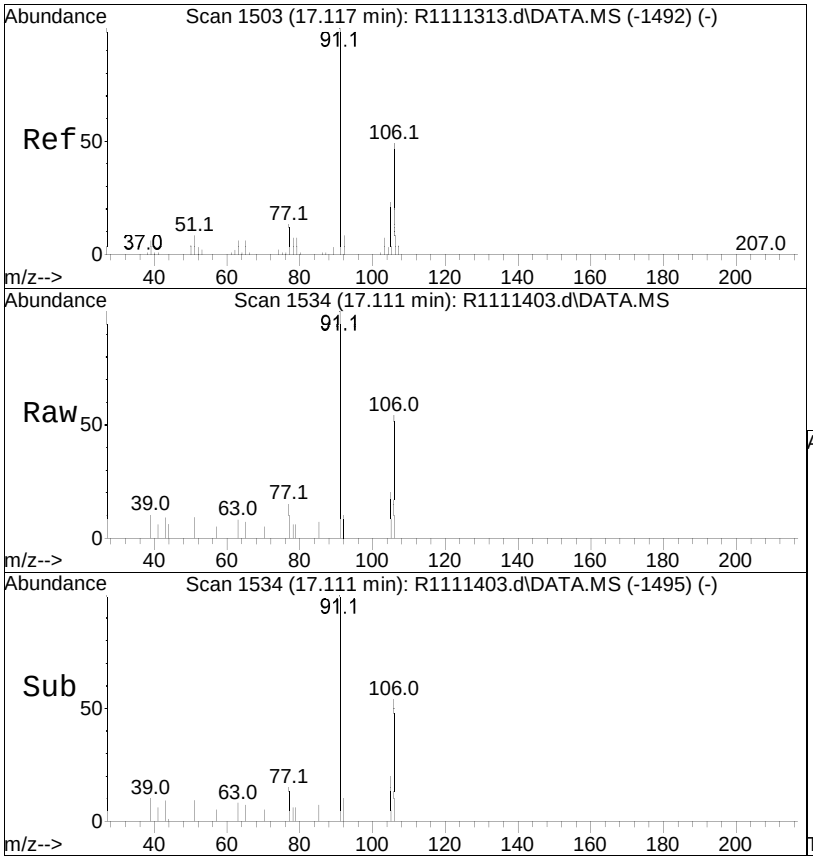


#81
ethylbenzene
Concen: 0.10 ppbV
RT: 16.98 min Scan# 1507
Delta R.T. 0.008 min
Lab File: R1111403.d
Acq: 2 Sep 2015 10:15 pm

Tgt Ion: 91 Resp: 5257

Ion	Ratio	Lower	Upper
91	100		
106	36.3	26.6	39.8

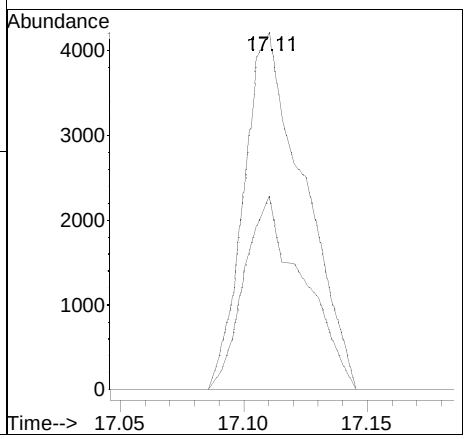


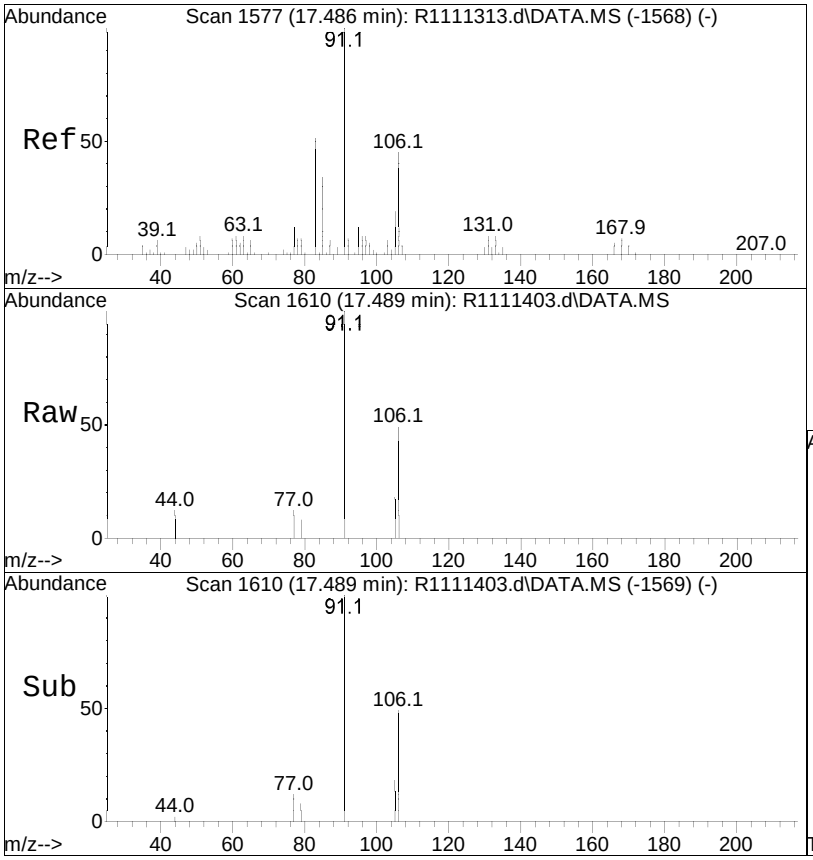


#83
m+p-xylene
Concen: 0.17 ppbV
RT: 17.11 min Scan# 1534
Delta R.T. -0.007 min
Lab File: R1111403.d
Acq: 2 Sep 2015 10:15 pm

Tgt Ion: 91 Resp: 7131

Ion	Ratio	Lower	Upper
91	100		
106	54.2	39.4	59.0

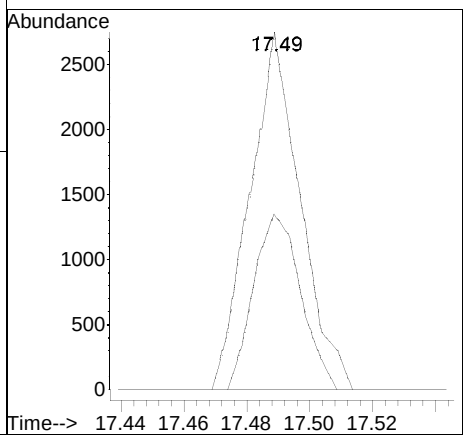


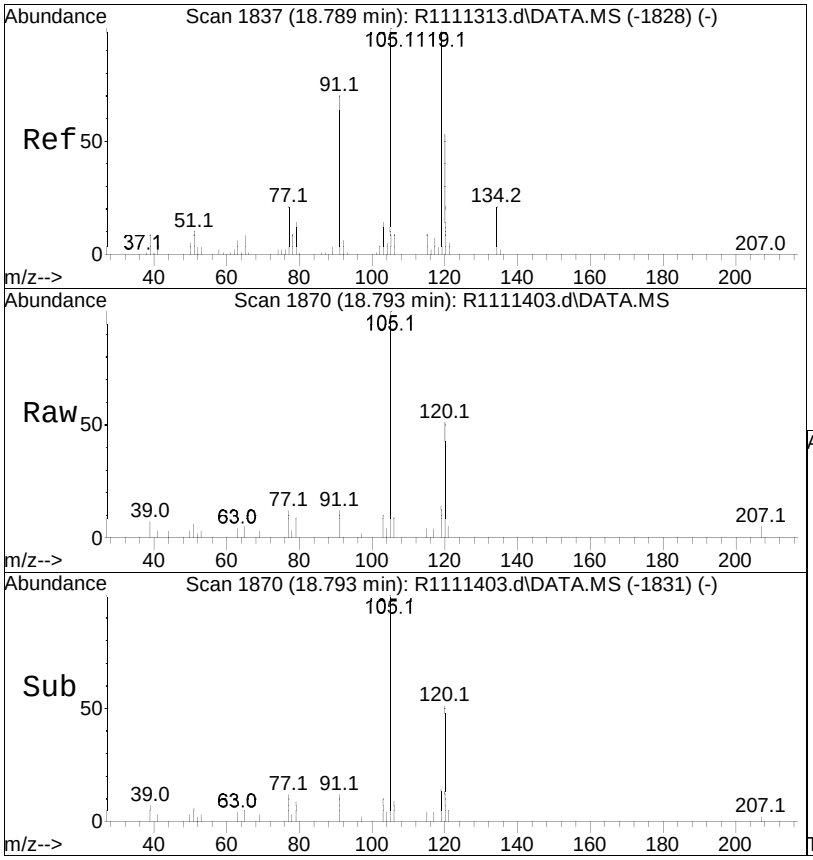


#87
o-xylene
Concen: 0.07 ppbV
RT: 17.49 min Scan# 1610
Delta R.T. 0.003 min
Lab File: R1111403.d
Acq: 2 Sep 2015 10:15 pm

Tgt Ion: 91 Resp: 3034

Ion	Ratio	Lower	Upper
91	100		
106	49.4	36.3	54.5

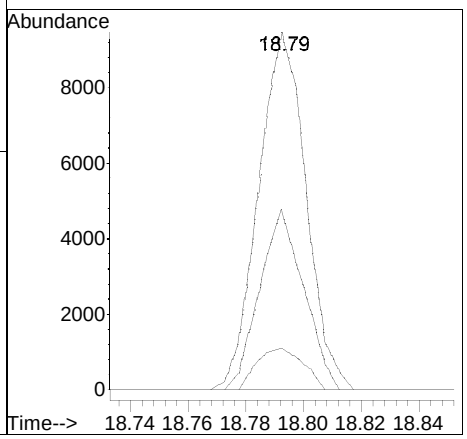




#99
1,2,4-trimethylbenzene
Concen: 0.19 ppbV
RT: 18.79 min Scan# 1870
Delta R.T. 0.003 min
Lab File: R1111403.d
Acq: 2 Sep 2015 10:15 pm

Tgt Ion:105 Resp: 10726

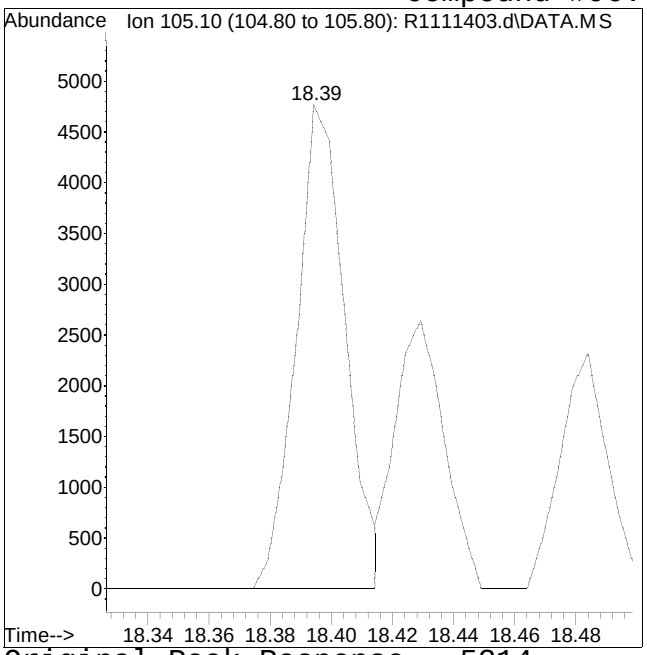
Ion	Ratio	Lower	Upper
105	100		
120	50.5	42.2	63.2
91	11.7	55.8	83.6#

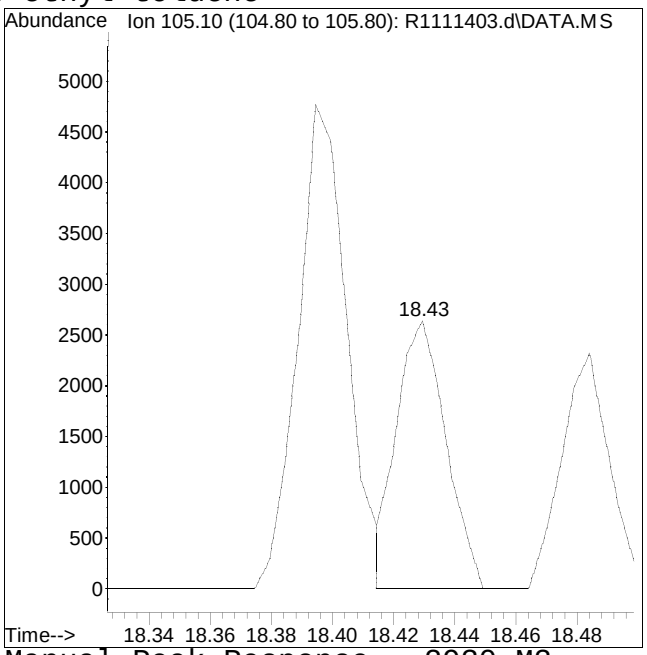


Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\QMethod : TALL150827.M
Data File : R1111403.d Operator : AIRLAB11:RY
Date Inj'd : 9/2/2015 10:15 pm Instrument : Airlab 11
Sample : L1521092-02D,3,115.7095,250Quant Date : 9/3/2015 8:52 am

Compound #96: 4-ethyl toluene





Original Peak Response = 5314 Manual Peak Response = 2930 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number	: 0809-15
Lab ID	: L1521092-02DL	Date Collected	: 08/28/15 13:04
Client ID	: KUMON-SS-1	Date Received	: 08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed	: 09/02/15 22:15
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 2.161
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111403	Instrument ID	: AIRLAB11
Sample Amount	: 116 ml	GC Column	: RTX-1

Number TICS found: 4

Concentration Units: ppbV

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	unknown	10.82	3.8	JD
000120-92-3	Cyclopentanone	15.14	4.2	NJD
000541-05-9	Cyclotrisiloxane, hexamethyl-	16.29	8	NJD
	unknown siloxane	20.18	4.1	JD
	Total TIC Compounds		20.1	

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111403.d
Acq On : 2 Sep 2015 10:15 pm
Operator : AIRLAB11:RY
Sample : L1521092-02D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 2 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R1111403.d\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.559	226	229	237	rVB	17392	36107	2.90%	0.579%
2	6.201	293	298	303	rVB	9544	21709	1.74%	0.348%
3	6.368	311	316	320	rVB	16835	34328	2.76%	0.551%
4	8.865	589	595	605	rBV	18845	41561	3.34%	0.667%
5	9.952	717	722	726	rBV	216075	419935	33.73%	6.739%
6	10.823	801	805	810	rBB	40977	74582	5.99%	1.197%
7	12.158	924	928	932	rBV	414073	765880	61.52%	12.290%
8	12.938	991	995	1002	rVB	430993	835409	67.11%	13.406%
9	14.907	1246	1250	1256	rBB	112913	199936	16.06%	3.208%
10	15.145	1270	1273	1281	rBV	103763	191911	15.42%	3.080%
11	15.558	1310	1313	1318	rVB	8885	15882	1.28%	0.255%
12	16.084	1360	1364	1368	rBV	879683	1244841	100.00%	19.977%
13	16.290	1380	1384	1390	rBV	211749	369292	29.67%	5.926%
14	16.633	1431	1438	1449	rBV	746904	993099	79.78%	15.937%
15	17.111	1529	1534	1542	rBV2	11925	19409	1.56%	0.311%
16	17.842	1675	1681	1692	rBV	277263	330059	26.51%	5.297%
17	17.971	1703	1707	1713	rVB2	11465	15324	1.23%	0.246%
18	18.703	1844	1852	1861	rVB	60762	77021	6.19%	1.236%
19	18.793	1865	1870	1876	rVB	26071	28378	2.28%	0.455%
20	19.021	1909	1916	1921	rBV5	14460	21863	1.76%	0.351%
21	19.409	1987	1994	1999	rBV4	14476	18586	1.49%	0.298%
22	19.707	2046	2054	2062	rBV2	37631	50608	4.07%	0.812%
23	19.786	2066	2070	2074	rVB2	21325	22933	1.84%	0.368%
24	19.851	2077	2083	2088	rVB6	9363	17800	1.43%	0.286%
25	20.184	2144	2150	2156	rBV	139245	188255	15.12%	3.021%
26	20.363	2182	2186	2189	rBV5	13622	15196	1.22%	0.244%
27	20.630	2223	2226	2227	rBV2	10775	16402	1.32%	0.263%
28	20.669	2227	2230	2232	rVV	21223	30963	2.49%	0.497%

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111403.d
Acq On : 2 Sep 2015 10:15 pm
Operator : AIRLAB11:RY
Sample : L1521092-02D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 2 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	20.709	2232	2234	2237	rVV2	19109	30816	2.48%	0.495%
30	20.768	2237	2240	2243	rVV	13169	20848	1.67%	0.335%
31	20.856	2246	2249	2250	rVV2	14546	22330	1.79%	0.358%
32	20.935	2255	2257	2260	rBV3	8382	13980	1.12%	0.224%
33	21.496	2311	2314	2317	rVB	10728	13216	1.06%	0.212%
34	21.585	2320	2323	2327	rVB3	13100	20316	1.63%	0.326%
35	21.930	2354	2358	2361	rVB3	6329	12706	1.02%	0.204%

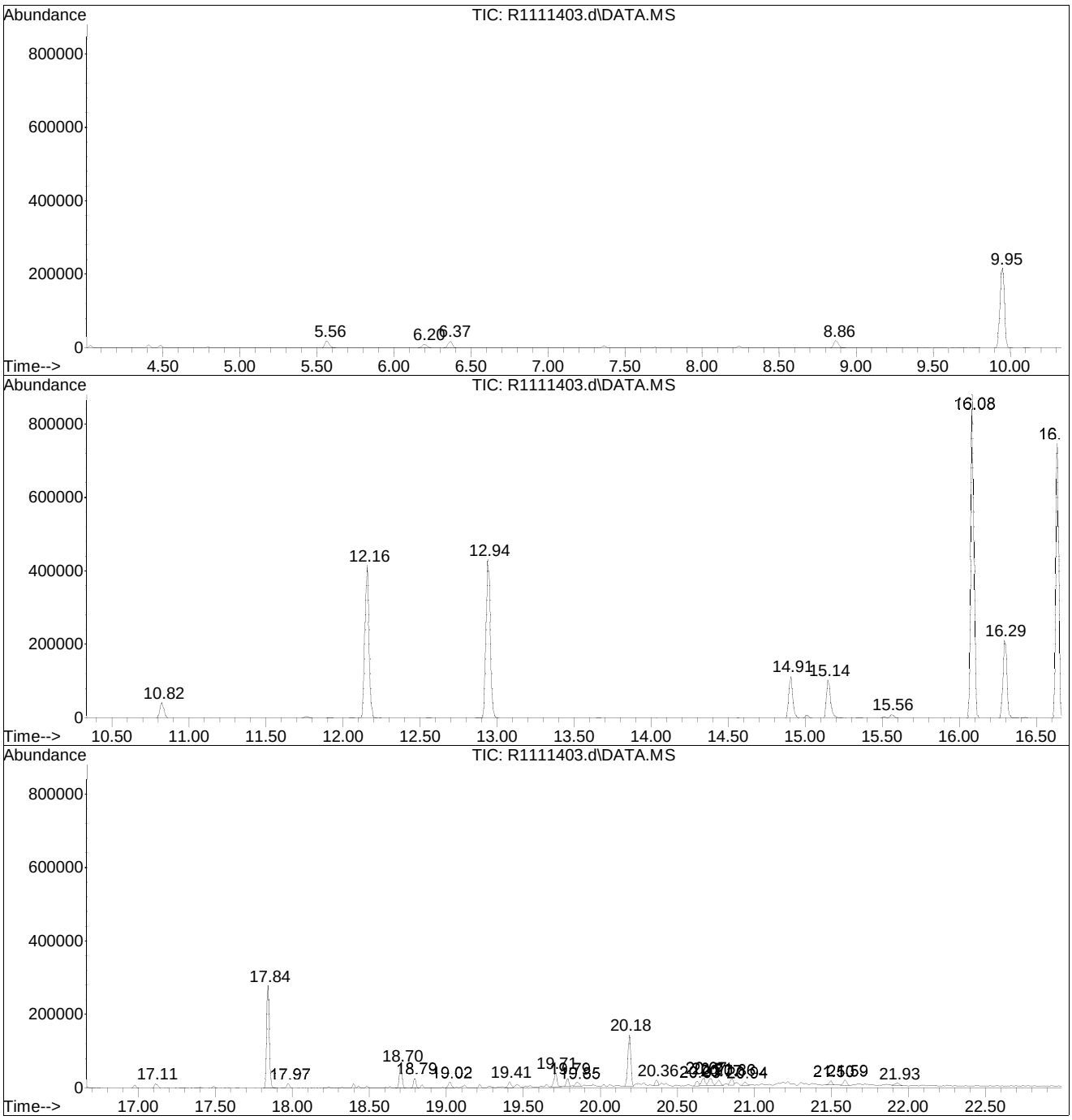
Sum of corrected areas: 6231481

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111403.d
Acq On : 2 Sep 2015 10:15 pm
Operator : AIRLAB11:RY
Sample : L1521092-02D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 2 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111403.d
Acq On : 2 Sep 2015 10:15 pm
Operator : AIRLAB11:RY
Sample : L1521092-02D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 2 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

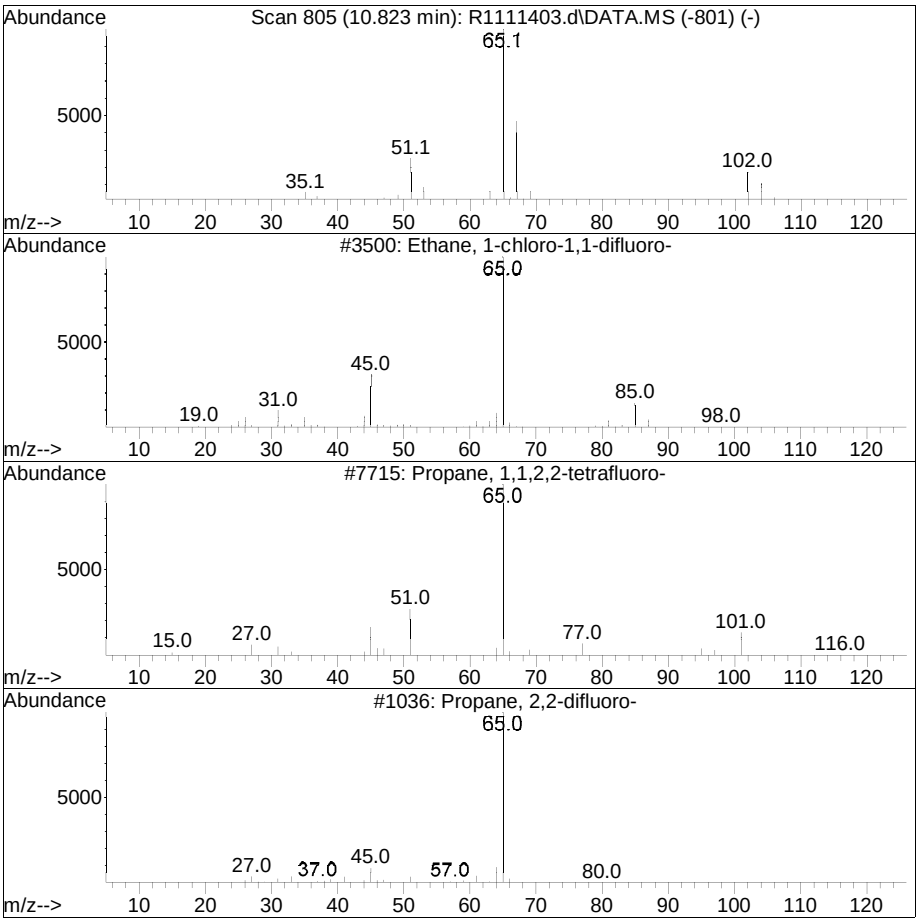
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

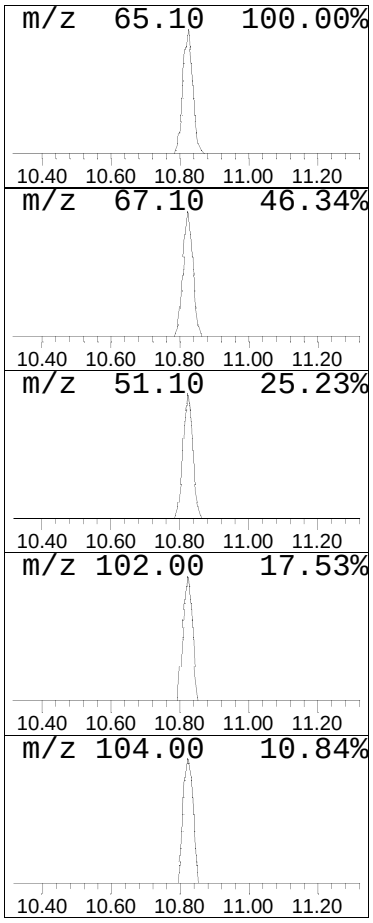
****

Peak Number 1 unknown Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.82	1.78 ppbV	74582	bromochloromethane	9.95

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Ethane, 1-chloro-1,1-difluoro-	100	C2H3ClF2	000075-68-3	9
2	Propane, 1,1,2,2-tetrafluoro-	116	C3H4F4	040723-63-5	4
3	Propane, 2,2-difluoro-	80	C3H6F2	000420-45-1	2
4	Propane, 2,2-difluoro-	80	C3H6F2	000420-45-1	2
5	Ethanamine, N-chloro-N,1,1-trifl...	133	C2H3ClF3N	016276-45-2	2





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111403.d
Acq On : 2 Sep 2015 10:15 pm
Operator : AIRLAB11:RY
Sample : L1521092-02D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 2 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

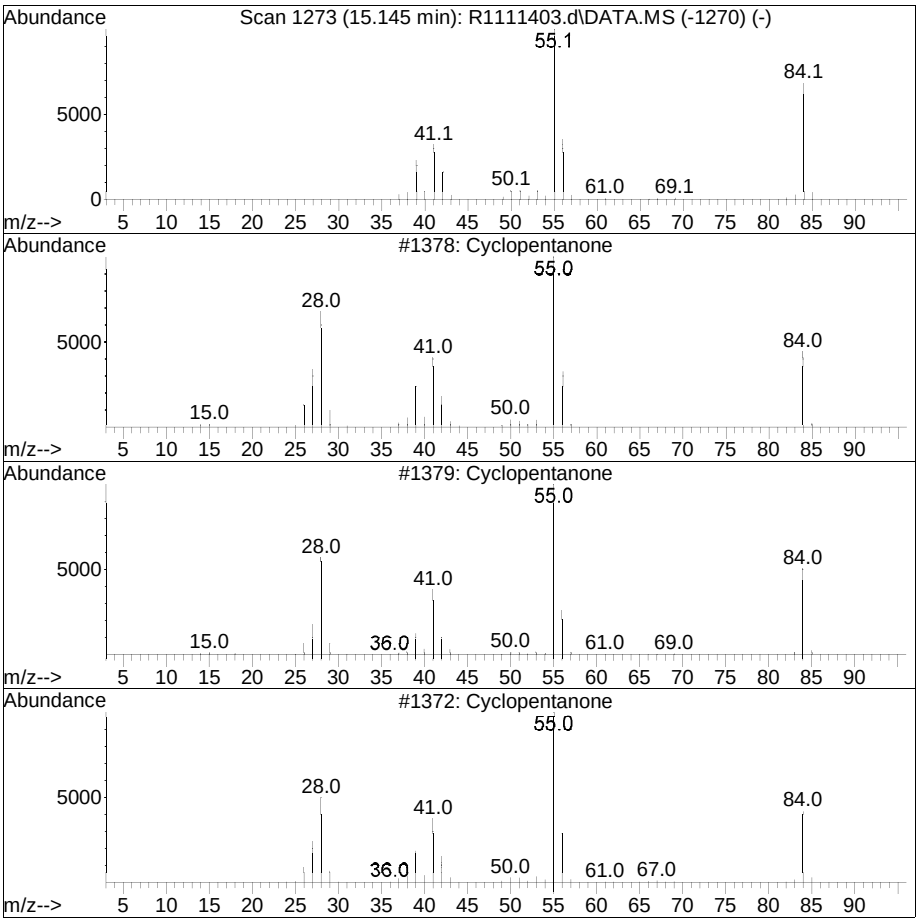
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

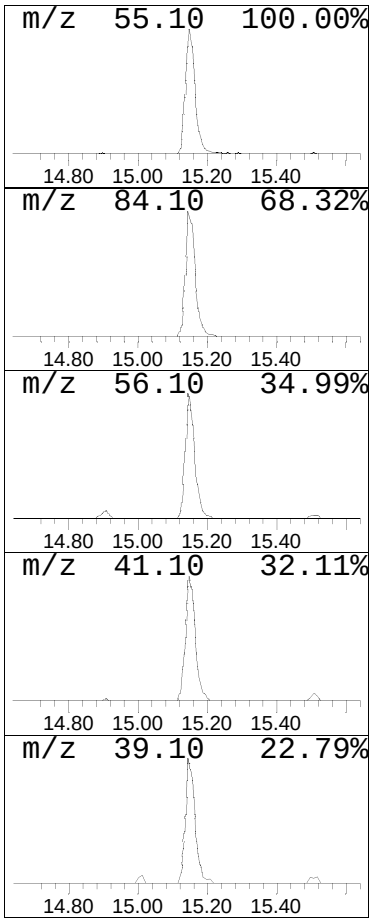
****

Peak Number 3 Cyclopentanone Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.14	1.93 ppbV	191911	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentanone	84	C5H8O	000120-92-3	91
2	Cyclopentanone	84	C5H8O	000120-92-3	64
3	Cyclopentanone	84	C5H8O	000120-92-3	58
4	2-Butenal, 2-methyl-	84	C5H8O	001115-11-3	58
5	2-Amino-oxazole	84	C3H4N2O	004570-45-0	53





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111403.d
Acq On : 2 Sep 2015 10:15 pm
Operator : AIRLAB11:RY
Sample : L1521092-02D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 2 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

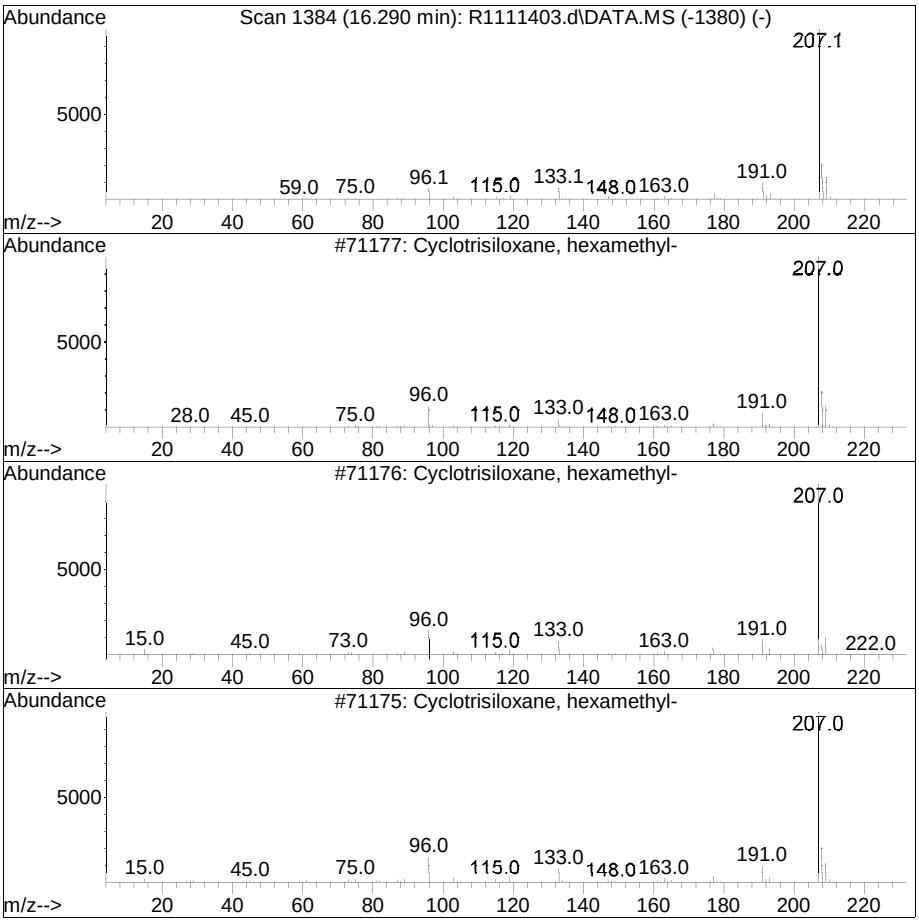
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

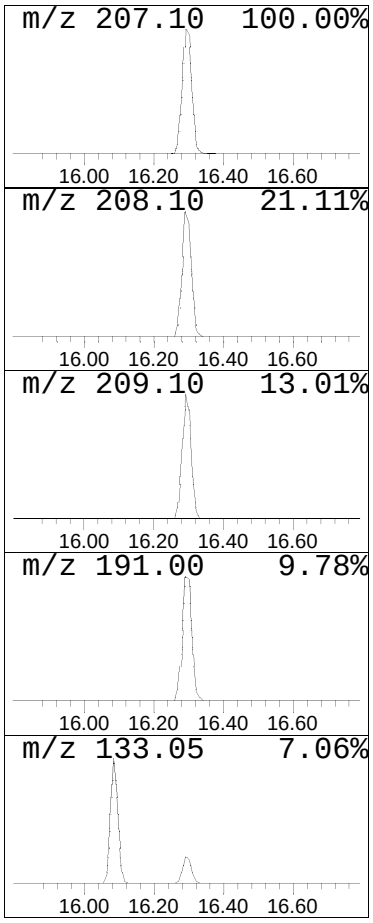
****

Peak Number 4 Cyclotrisiloxane, hexamethyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.29	3.72 ppbV	369292	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	72
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	47
4	Benzo[h]quinoline, 2,4-dimethyl-	207	C15H13N	000605-67-4	39
5	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	39





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111403.d
Acq On : 2 Sep 2015 10:15 pm
Operator : AIRLAB11:RY
Sample : L1521092-02D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 2 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

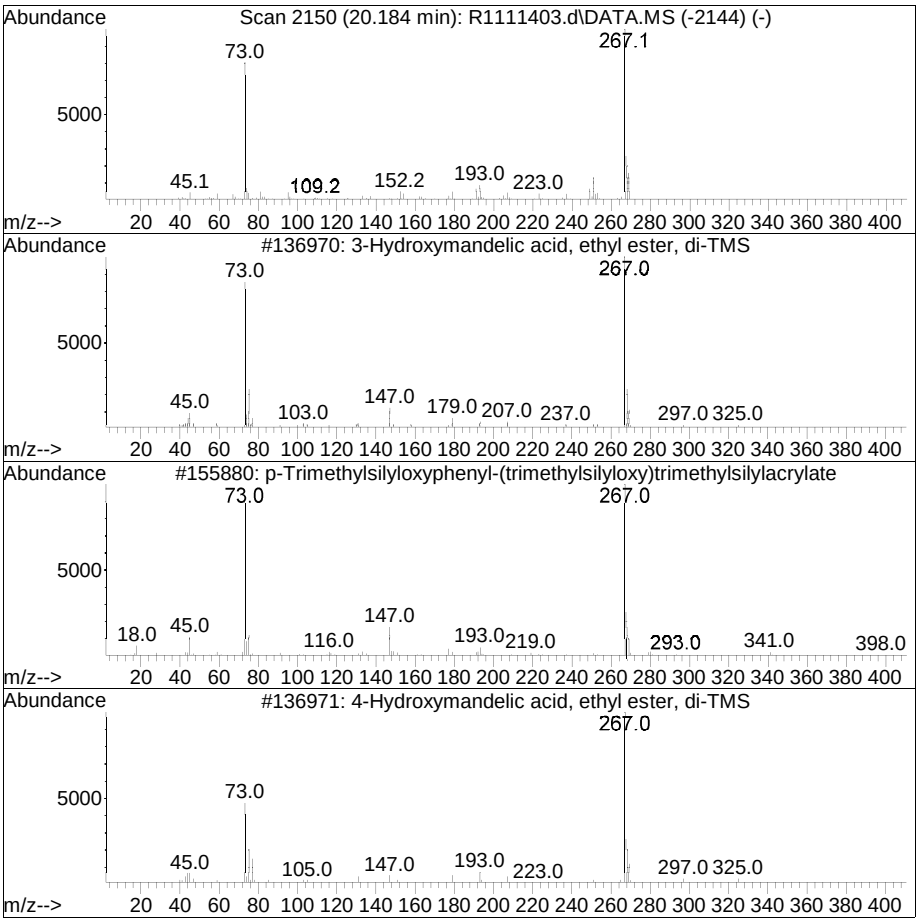
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

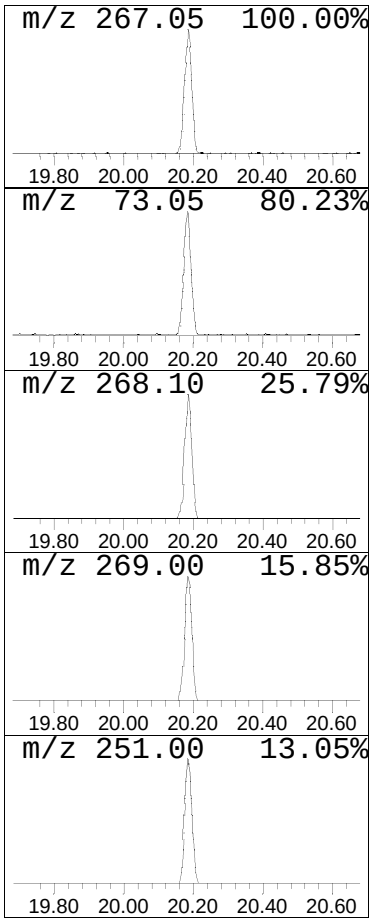
****

Peak Number 6 unknown siloxane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.18	1.90 ppbV	188255	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-88-9	56
2	p-Trimethylsilyloxyphenyl-(trime...	398	C18H34O4Si3	1000079-05-1	56
3	4-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-53-3	56
4	2-Methyl-5-(3,4-methylenedioxyci...	267	C16H13NO3	094298-70-1	50
5	4'-Nitroflavone	267	C15H9NO4	019725-49-6	47





Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111403.d
Acq On : 2 Sep 2015 10:15 pm
Operator : AIRLAB11:RY
Sample : L1521092-02D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 2 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc
unknown	10.82	1.8	ppbV	74582	1	9.95	419935	10.0
Cyclopentanone	15.14	1.9	ppbV	191911	3	16.63	993099	10.0
Cyclotrisiloxan...	16.29	3.7	ppbV	369292	3	16.63	993099	10.0
unknown siloxane	20.18	1.9	ppbV	188255	3	16.63	993099	10.0

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-03DL	Date Collected :	08/28/15 13:05
Client ID	: KUMON-SS-2	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/02/15 22:56
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.161
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111404	Instrument ID	: AIRLAB11
Sample Amount	: 116 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	0.48	0.43	--	2	2	--	
74-87-3	Chloromethane	ND	0.43	--	ND	0.9	--	U
76-14-2	Freon-114	ND	0.43	--	ND	3.	--	U
75-01-4	Vinyl chloride	ND	0.43	--	ND	1.	--	U
106-99-0	1,3-Butadiene	ND	0.43	--	ND	1.	--	U
74-83-9	Bromomethane	ND	0.43	--	ND	2.	--	U
75-00-3	Chloroethane	ND	0.43	--	ND	1.	--	U
64-17-5	Ethanol	29	5.4	--	55	10	--	
593-60-2	Vinyl bromide	ND	0.43	--	ND	2.	--	U
67-64-1	Acetone	12	2.2	--	29	5.2	--	
75-69-4	Trichlorofluoromethane	0.44	0.43	--	2	2	--	
67-63-0	Isopropanol	2.4	1.1	--	6	3	--	
75-35-4	1,1-Dichloroethene	ND	0.43	--	ND	2.	--	U
75-65-0	Tertiary butyl Alcohol	1.2	1.1	--	4	3	--	
75-09-2	Methylene chloride	ND	1.1	--	ND	4	--	U
107-05-1	3-Chloropropene	ND	0.43	--	ND	1.	--	U
75-15-0	Carbon disulfide	ND	0.43	--	ND	1.	--	U
76-13-1	Freon-113	ND	0.43	--	ND	3.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.43	--	ND	2.	--	U
75-34-3	1,1-Dichloroethane	ND	0.43	--	ND	2.	--	U
1634-04-4	Methyl tert butyl ether	ND	0.43	--	ND	2.	--	U
78-93-3	2-Butanone	1.7	1.1	--	5	3	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.43	--	ND	2.	--	U
67-66-3	Chloroform	ND	0.43	--	ND	2.	--	U
109-99-9	Tetrahydrofuran	ND	1.1	--	ND	3.	--	U
107-06-2	1,2-Dichloroethane	ND	0.43	--	ND	2.	--	U
110-54-3	n-Hexane	ND	0.43	--	ND	2.	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.43	--	ND	2.	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-03DL	Date Collected :	08/28/15 13:05
Client ID	: KUMON-SS-2	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/02/15 22:56
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.161
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111404	Instrument ID	: AIRLAB11
Sample Amount	: 116 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	ND	0.43	--	ND	1.	--	U
56-23-5	Carbon tetrachloride	ND	0.43	--	ND	3.	--	U
110-82-7	Cyclohexane	ND	0.43	--	ND	1	--	U
78-87-5	1,2-Dichloropropane	ND	0.43	--	ND	2.	--	U
75-27-4	Bromodichloromethane	ND	0.43	--	ND	3.	--	U
123-91-1	1,4-Dioxane	ND	0.43	--	ND	2.	--	U
79-01-6	Trichloroethene	4.9	0.43	--	26	2.3	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.43	--	ND	2.	--	U
80-62-6	Methyl Methacrylate	ND	1.1	--	ND	5.	--	U
142-82-5	Heptane	ND	0.43	--	ND	2.	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.43	--	ND	2.	--	U
108-10-1	4-Methyl-2-pentanone	ND	1.1	--	ND	5.	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.43	--	ND	2.	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.43	--	ND	2.	--	U
108-88-3	Toluene	ND	0.43	--	ND	2	--	U
124-48-1	Dibromochloromethane	ND	0.43	--	ND	4.	--	U
106-93-4	1,2-Dibromoethane	ND	0.43	--	ND	3.	--	U
127-18-4	Tetrachloroethene	6.0	0.43	--	41	2.9	--	
108-90-7	Chlorobenzene	ND	0.43	--	ND	2.	--	U
100-41-4	Ethylbenzene	ND	0.43	--	ND	2	--	U
179601-23-1	p/m-Xylene	ND	0.86	--	ND	4.	--	U
75-25-2	Bromoform	ND	0.43	--	ND	4.	--	U
100-42-5	Styrene	ND	0.43	--	ND	2.	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.43	--	ND	3.	--	U
95-47-6	o-Xylene	ND	0.43	--	ND	2.	--	U
95-49-8	2-Chlorotoluene	ND	0.43	--	ND	2.	--	U
622-96-8	4-Ethyltoluene	ND	0.43	--	ND	2.	--	U
108-67-8	1,3,5-Trimethybenzene	ND	0.43	--	ND	2.	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-03DL	Date Collected :	08/28/15 13:05
Client ID	: KUMON-SS-2	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/02/15 22:56
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.161
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111404	Instrument ID	: AIRLAB11
Sample Amount	: 116 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	ND	0.43	--	ND	2	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.43	--	ND	3.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.43	--	ND	3.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.43	--	ND	3	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.43	--	ND	3.	--	U
87-68-3	Hexachlorobutadiene	ND	0.43	--	ND	5.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111404.d
Acq On : 2 Sep 2015 10:56 pm
Operator : AIRLAB11:RY
Sample : L1521092-03D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 03 08:52:29 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.94	49	72628	10.000	ppbV	0.00
Standard Area = 81084			Recovery =		89.57%	
43) 1,4-difluorobenzene	12.15	114	432254	10.000	ppbV	0.00
Standard Area = 489060			Recovery =		88.38%	
67) chlorobenzene-D5	16.63	54	70063	10.000	ppbV	0.00
Standard Area = 80649			Recovery =		86.87%	
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.01	85	6786	0.220	ppbV	99
6) chloromethane	0.00		0	N.D.		
7) Freon-114	4.36		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	0.00		0	N.D.		
13) bromomethane	0.00		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	5.54	31	44493	13.583	ppbV	94
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.17	43	67963	5.612	ppbV #	97
21) trichlorofluoromethane	6.35	101	8781	0.202	ppbV	92
22) isopropyl alcohol	6.55	45	12734	1.099	ppbV	99
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	7.33	59	12021	0.573	ppbV	99
28) methylene chloride	7.35	49	3339	0.365	ppbV	90
29) 3-chloropropene	0.00		0	N.D.		
30) carbon disulfide	7.66		0	N.D.		
31) Freon 113	7.68		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	8.86		0	N.D.		
36) 2-butanone	9.29	43	11842	0.792	ppbV	100
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	10.10		0	N.D.		
40) Tetrahydrofuran	10.65		0	N.D.		
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	9.99		0	N.D.		
48) 1,1,1-trichloroethane	0.00		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111404.d
Acq On : 2 Sep 2015 10:56 pm
Operator : AIRLAB11:RY
Sample : L1521092-03D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 03 08:52:29 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50)	benzene	11.74		0	N.D.		
52)	carbon tetrachloride	11.91		0	N.D.		
53)	cyclohexane	12.05	56	2121	0.158	ppbV	93
56)	1,2-dichloropropane	0.00		0	N.D.		
57)	bromodichloromethane	12.95		0	N.D.		
58)	1,4-dioxane	13.01		0	N.D.		
59)	trichloroethene	12.94	130	49353	2.255	ppbV	99
60)	2,2,4-trimethylpentane	13.00		0	N.D.		
61)	methyl methacrylate	0.00		0	N.D.		
62)	heptane	0.00		0	N.D.		
63)	cis-1,3-dichloropropene	0.00		0	N.D.		
64)	4-methyl-2-pentanone	14.01		0	N.D.		
65)	trans-1,3-dichloropropene	0.00		0	N.D.		
66)	1,1,2-trichloroethane	0.00		0	N.D.		
68)	toluene	15.01	91	8663	0.197	ppbV	96
74)	dibromochloromethane	0.00		0	N.D.		
75)	1,2-dibromoethane	0.00		0	N.D.		
78)	tetrachloroethene	16.08	166	94141	2.793	ppbV	98
80)	chlorobenzene	16.67		0	N.D.		
81)	ethylbenzene	16.98	91	5164	0.086	ppbV	96
83)	m+p-xylene	17.11	91	9665	0.193	ppbV	92
84)	bromoform	0.00		0	N.D.		
85)	styrene	17.40		0	N.D.		
86)	1,1,2,2-tetrachloroethane	0.00		0	N.D.		
87)	o-xylene	17.49	91	3672	0.073	ppbV	93
93)	2-chlorotoluene	0.00		0	N.D.		
96)	4-ethyl toluene	18.43		0	N.D.		
97)	1,3,5-trimethylbenzene	18.48		0	N.D.		
99)	1,2,4-trimethylbenzene	18.79	105	10631	0.163	ppbV #	60
102)	1,3-dichlorobenzene	18.92		0	N.D.		
103)	1,4-dichlorobenzene	18.97		0	N.D.		
107)	1,2-dichlorobenzene	19.23	146	5610	0.110	ppbV #	92
115)	1,2,4-trichlorobenzene	20.65		0	N.D.		
119)	hexachlorobutadiene	0.00		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111404.d
Acq On : 2 Sep 2015 10:56 pm
Operator : AIRLAB11:RY
Sample : L1521092-03D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 03 08:52:29 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

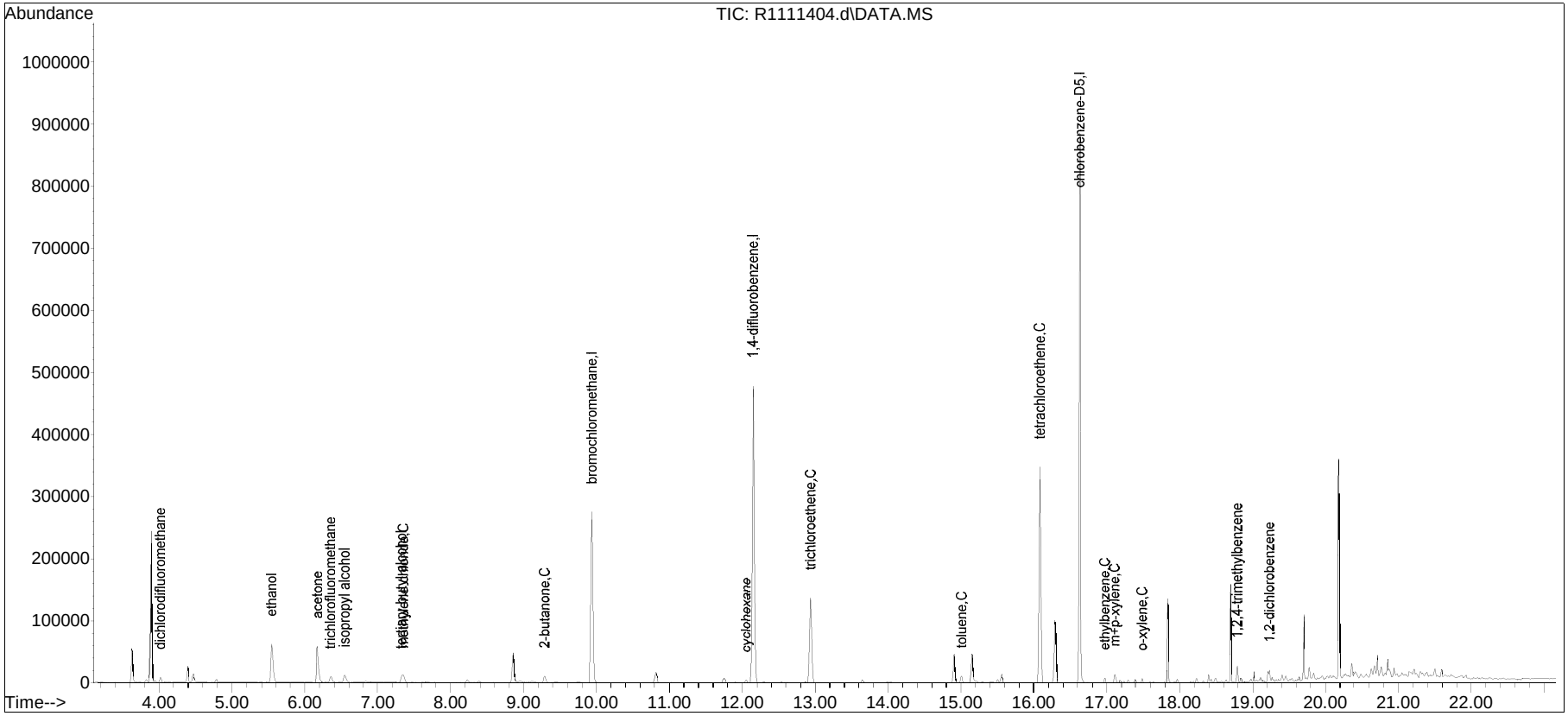
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Quantitation Report (QT Reviewed)

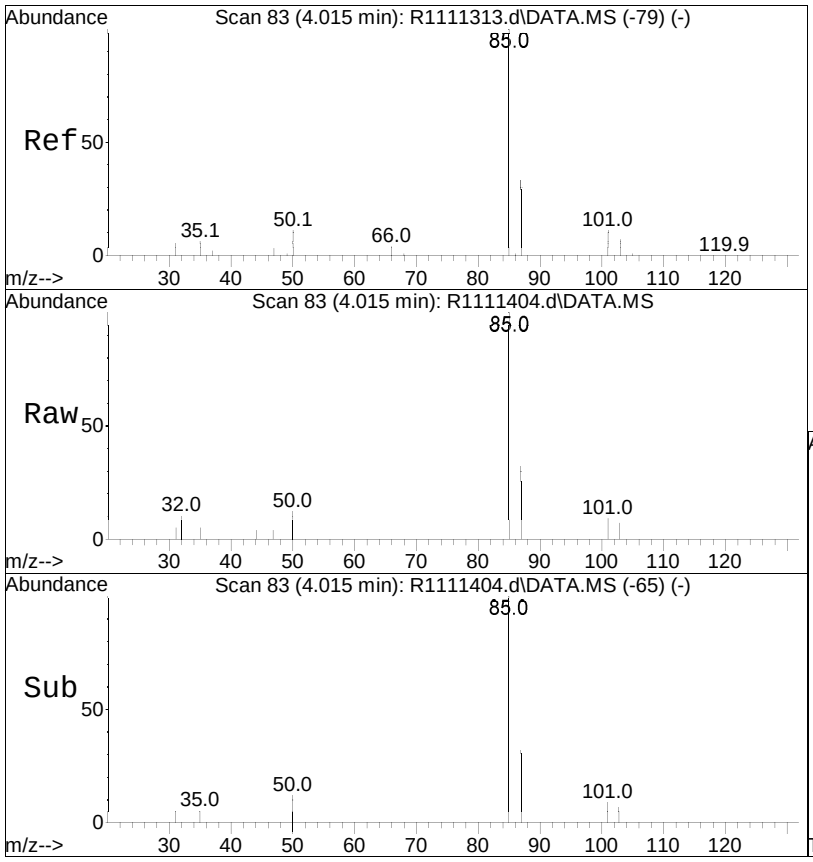
Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111404.d
Acq On : 2 Sep 2015 10:56 pm
Operator : AIRLAB11:RY
Sample : L1521092-03D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 03 08:52:29 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

Sub List : NJ-LL_New - .Data\Airlab11\2015\150902T\R1111393.d



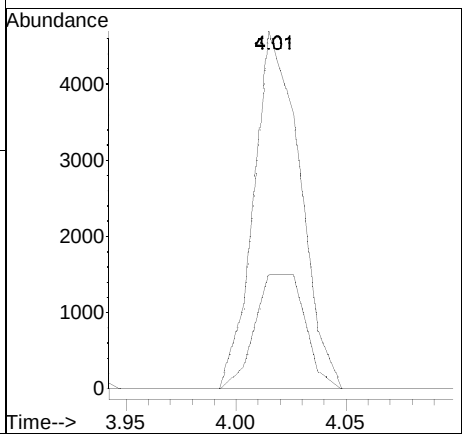
TALL150827.M Thu Sep 03 16:47:00 2015

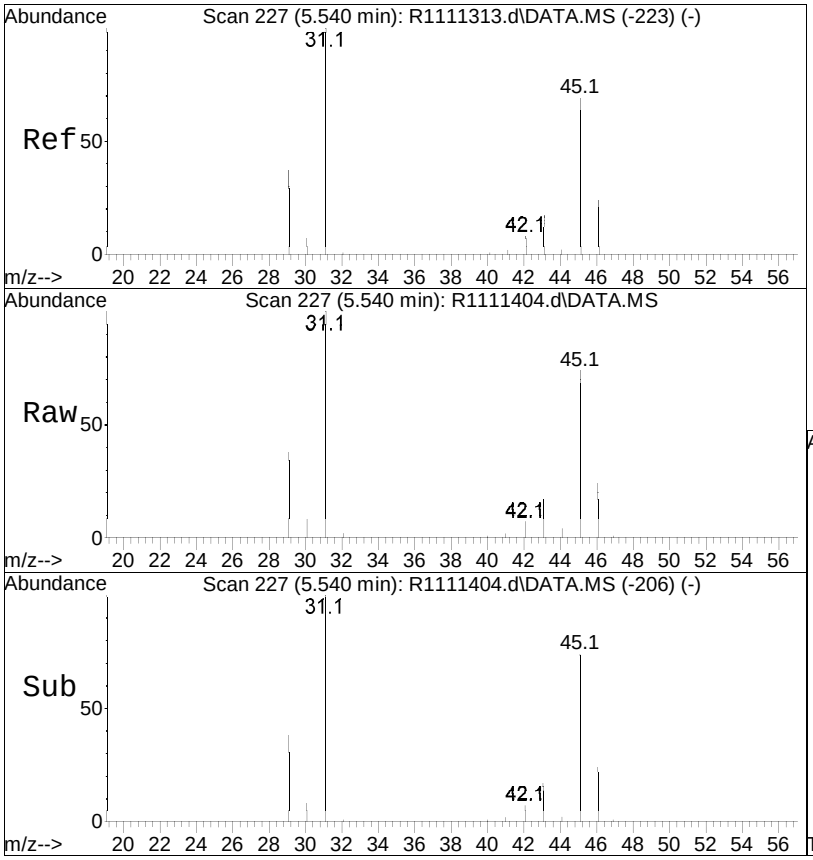


#5
dichlorodifluoromethane
Concen: 0.22 ppbV
RT: 4.01 min Scan# 83
Delta R.T. -0.000 min
Lab File: R1111404.d
Acq: 2 Sep 2015 10:56 pm

Tgt Ion: 85 Resp: 6786

Ion	Ratio	Lower	Upper
85	100		
87	32.1	26.1	39.1

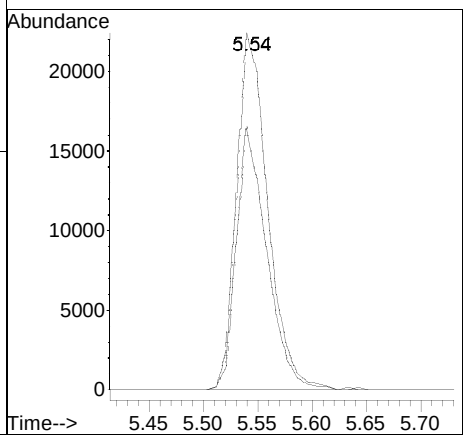


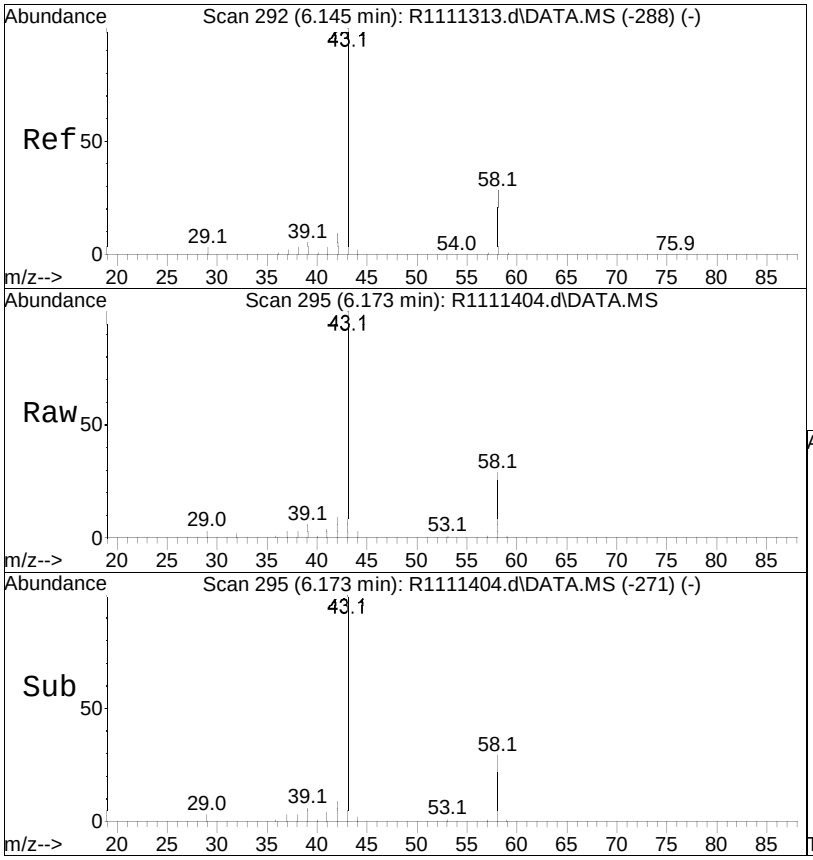


#15
ethanol
Concen: 13.58 ppbV
RT: 5.54 min Scan# 227
Delta R.T. -0.000 min
Lab File: R1111404.d
Acq: 2 Sep 2015 10:56 pm

Tgt Ion: 31 Resp: 44493

Ion	Ratio	Lower	Upper
31	100		
45	73.9	55.4	83.2

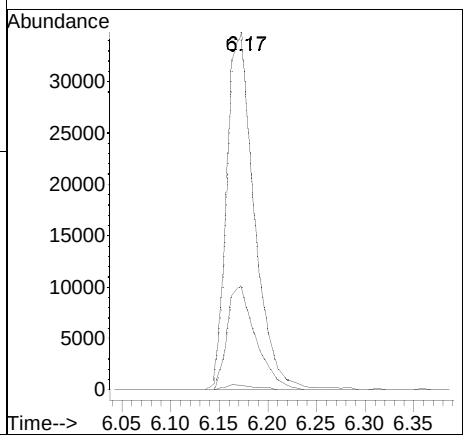


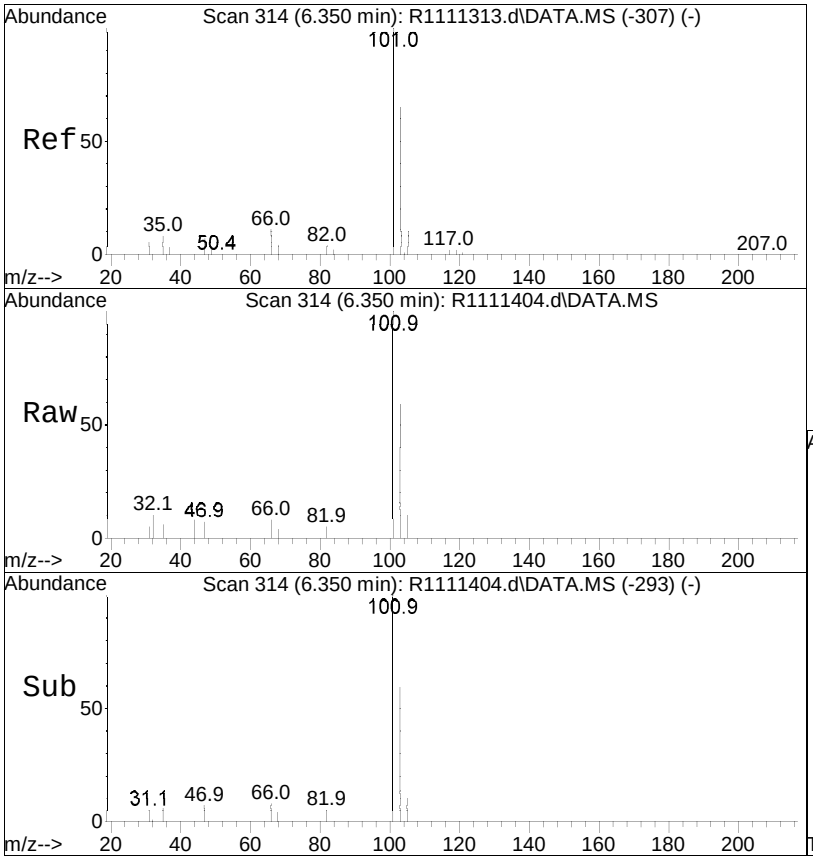


#19
acetone
Concen: 5.61 ppbV
RT: 6.17 min Scan# 295
Delta R.T. 0.028 min
Lab File: R1111404.d
Acq: 2 Sep 2015 10:56 pm

Tgt Ion: 43 Resp: 67963

Ion	Ratio	Lower	Upper
43	100		
58	29.4	22.2	33.2
57	1.4	0.6	1.0#

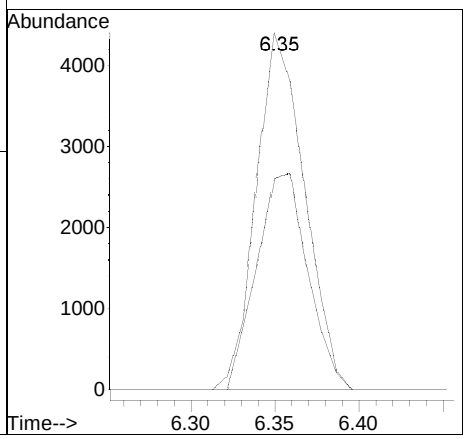


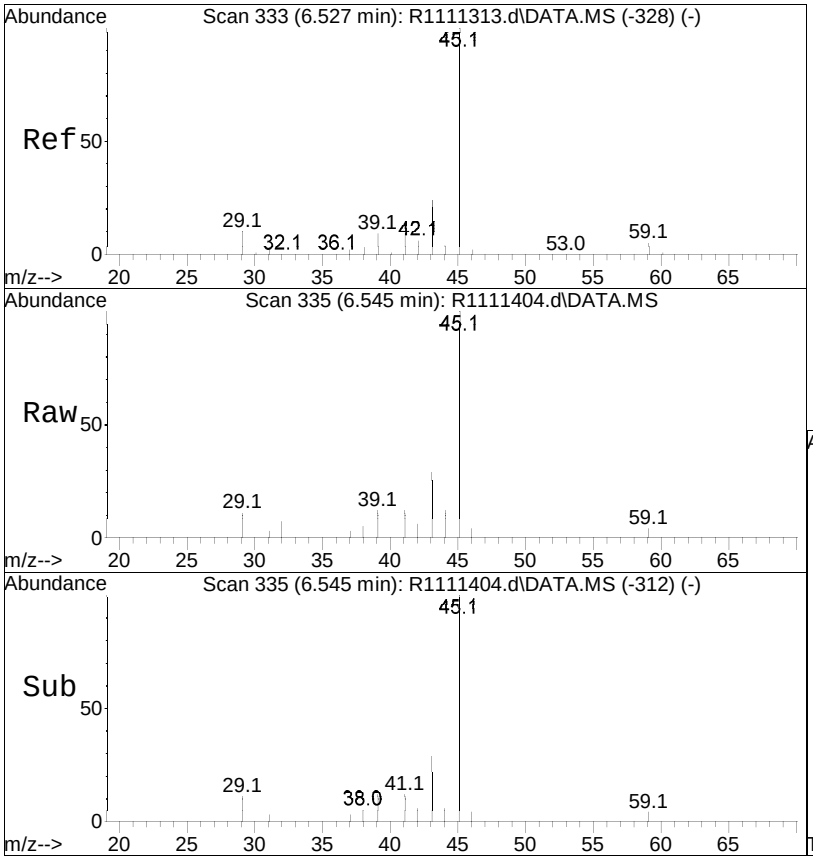


#21
trichlorofluoromethane
Concen: 0.20 ppbV
RT: 6.35 min Scan# 314
Delta R.T. -0.000 min
Lab File: R1111404.d
Acq: 2 Sep 2015 10:56 pm

Tgt Ion:101 Resp: 8781

Ion	Ratio	Lower	Upper
101	100		
103	59.0	52.3	78.5

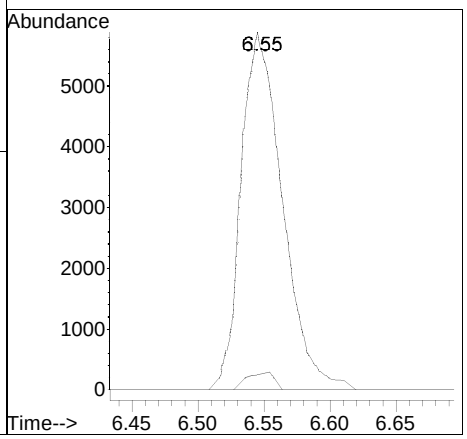


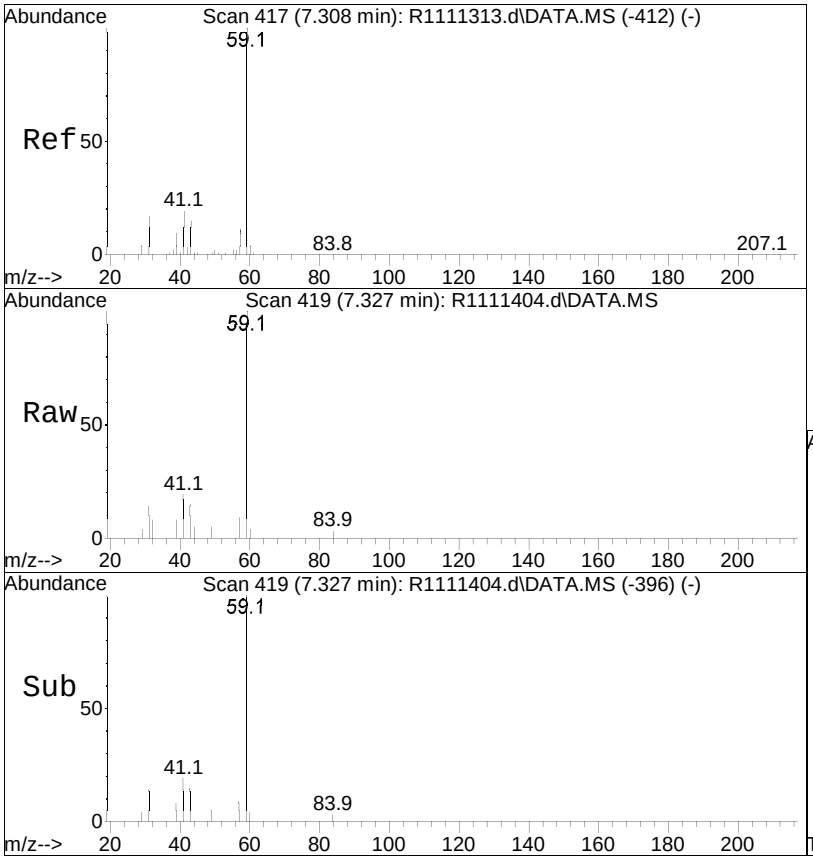


#22
isopropyl alcohol
Concen: 1.10 ppbV
RT: 6.55 min Scan# 335
Delta R.T. 0.018 min
Lab File: R1111404.d
Acq: 2 Sep 2015 10:56 pm

Tgt Ion: 45 Resp: 12734

Ion	Ratio	Lower	Upper
45	100		
59	4.3	3.8	5.6

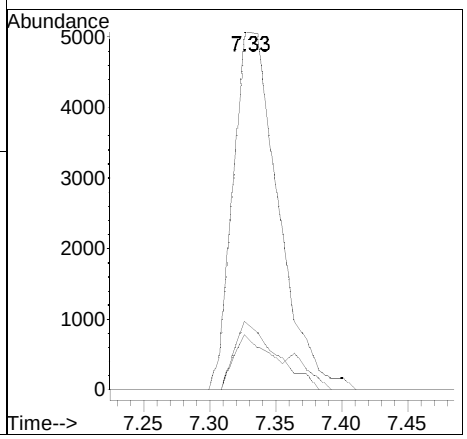


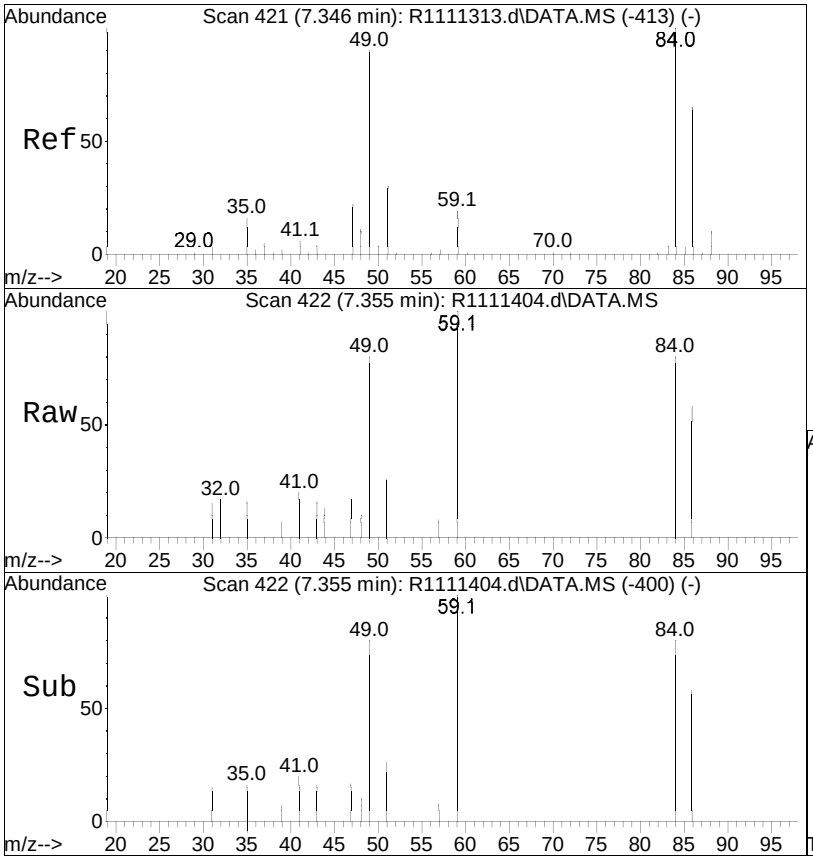


#27
tertiary butyl alcohol
Concen: 0.57 ppbV
RT: 7.33 min Scan# 419
Delta R.T. 0.018 min
Lab File: R1111404.d
Acq: 2 Sep 2015 10:56 pm

Tgt Ion: 59 Resp: 12021

Ion	Ratio	Lower	Upper
59	100		
41	19.1	15.1	22.7
43	15.3	11.8	17.6

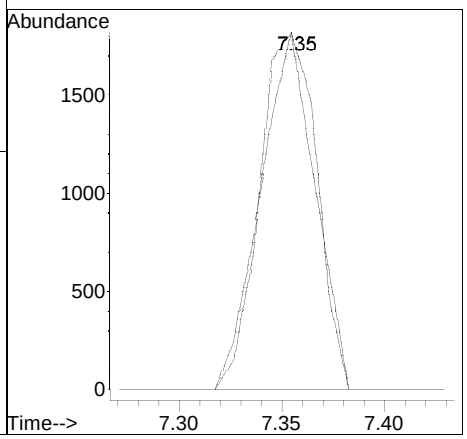


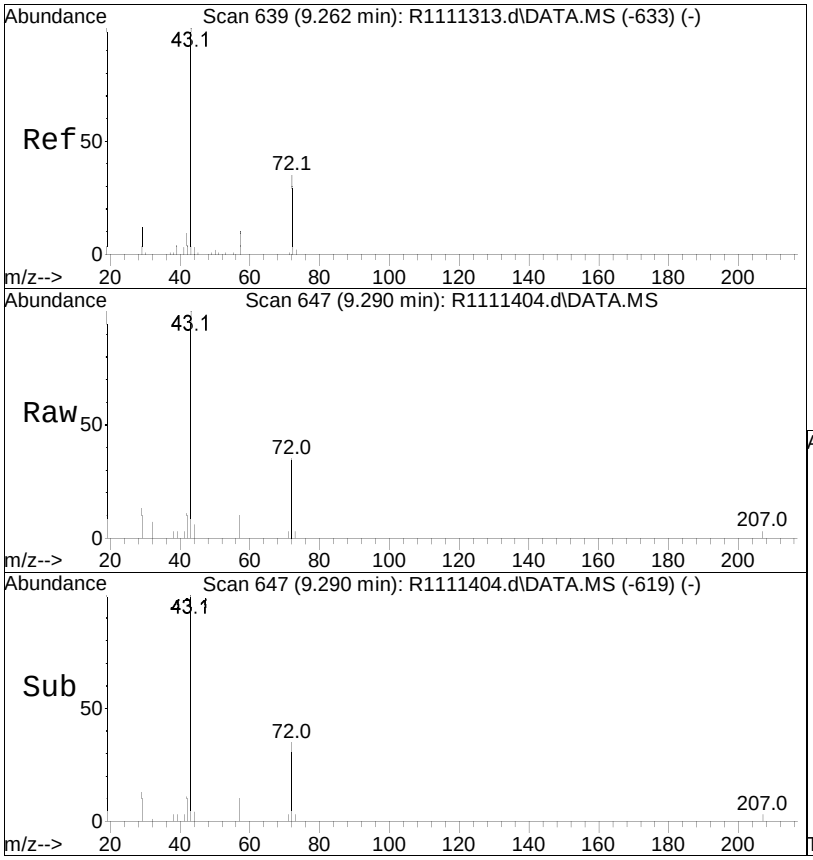


#28
methylene chloride
Concen: 0.36 ppbV
RT: 7.35 min Scan# 422
Delta R.T. 0.009 min
Lab File: R1111404.d
Acq: 2 Sep 2015 10:56 pm

Tgt Ion: 49 Resp: 3339

Ion	Ratio	Lower	Upper
49	100		
84	100.1	89.0	133.4

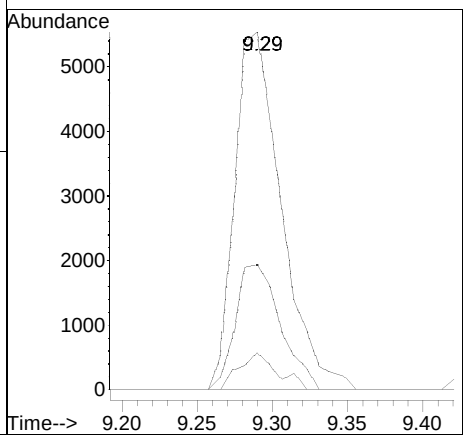


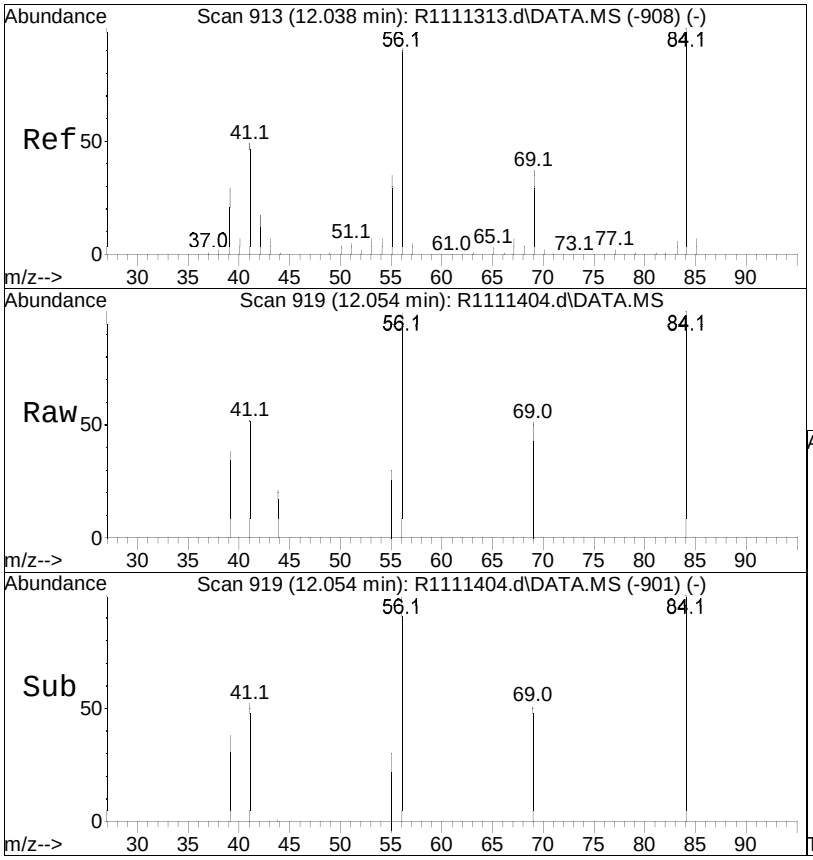


#36
2-butanone
Concen: 0.79 ppbV
RT: 9.29 min Scan# 647
Delta R.T. 0.028 min
Lab File: R1111404.d
Acq: 2 Sep 2015 10:56 pm

Tgt Ion: 43 Resp: 11842

Ion	Ratio	Lower	Upper
43	100		
72	35.0	28.1	42.1
57	10.5	8.3	12.5

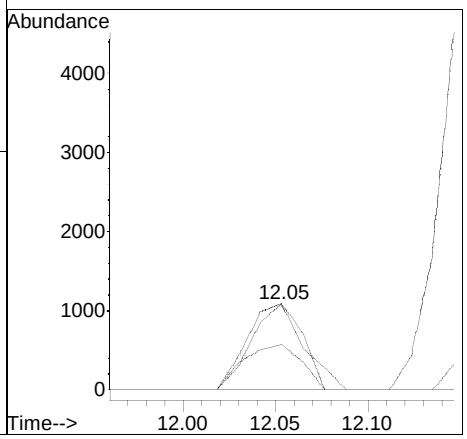


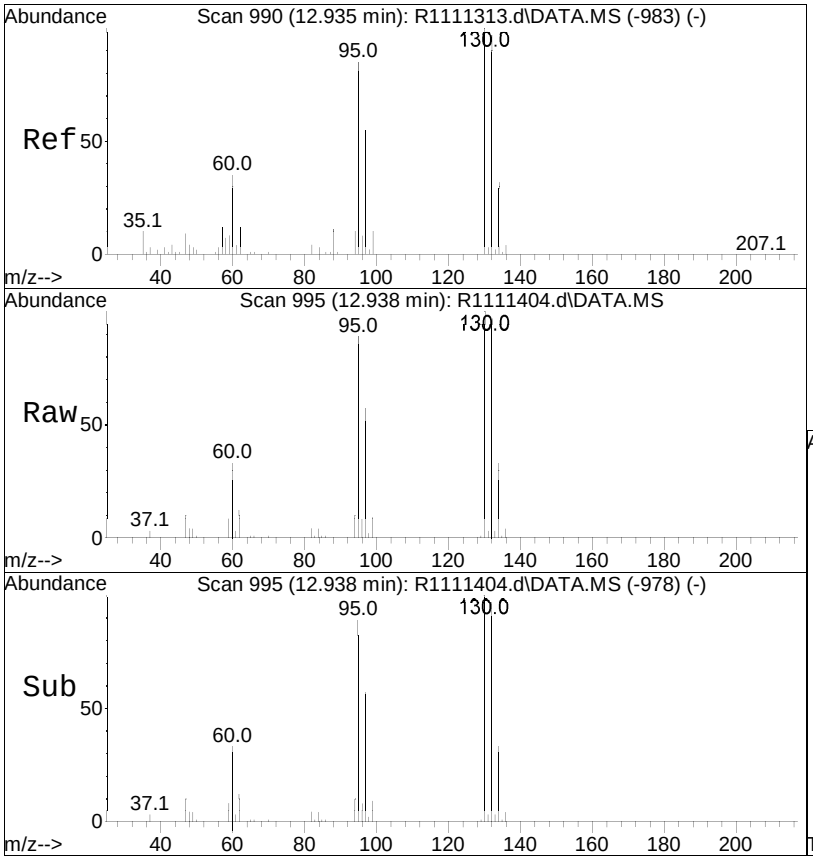


#53
cyclohexane
Concen: 0.16 ppbV
RT: 12.05 min Scan# 919
Delta R.T. 0.015 min
Lab File: R1111404.d
Acq: 2 Sep 2015 10:56 pm

Tgt Ion: 56 Resp: 2121

Ion	Ratio	Lower	Upper
56	100		
84	100.9	88.4	132.6
41	52.7	43.4	65.0

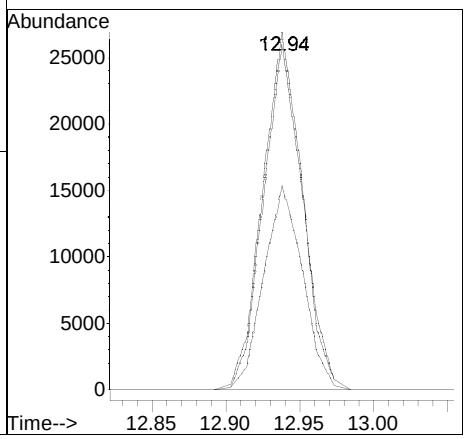


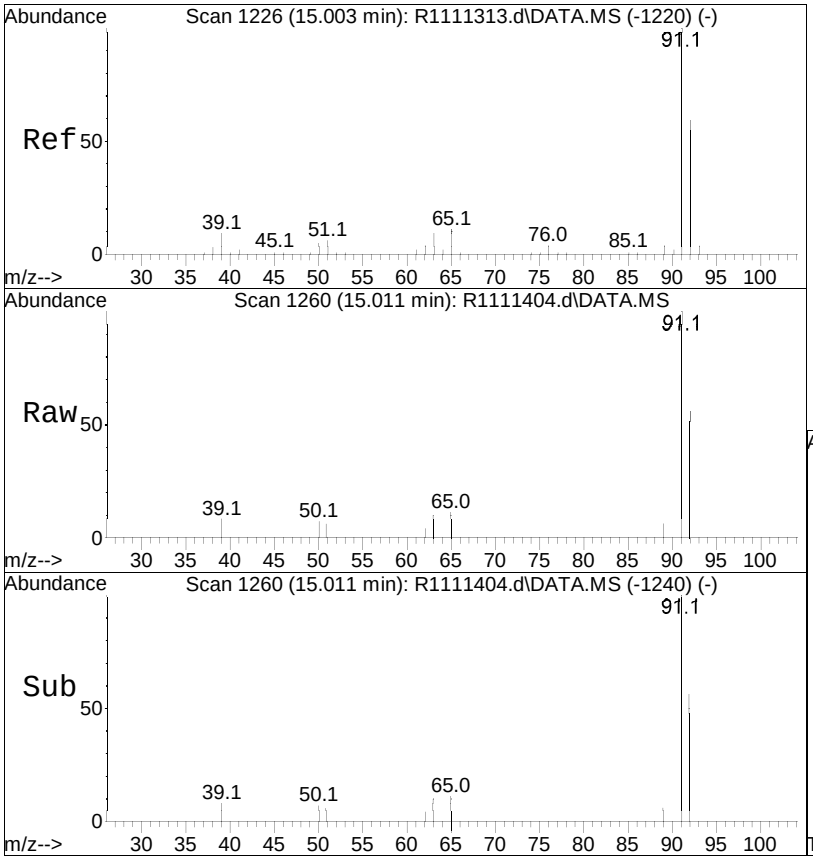


#59
trichloroethene
Concen: 2.26 ppbV
RT: 12.94 min Scan# 995
Delta R.T. 0.003 min
Lab File: R1111404.d
Acq: 2 Sep 2015 10:56 pm

Tgt Ion:130 Resp: 49353

Ion	Ratio	Lower	Upper
130	100		
132	96.8	77.6	116.4
97	57.2	44.0	66.0

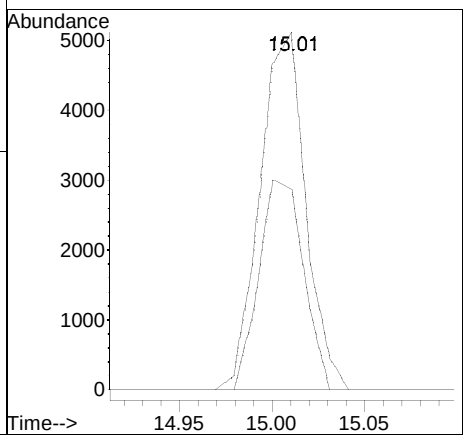


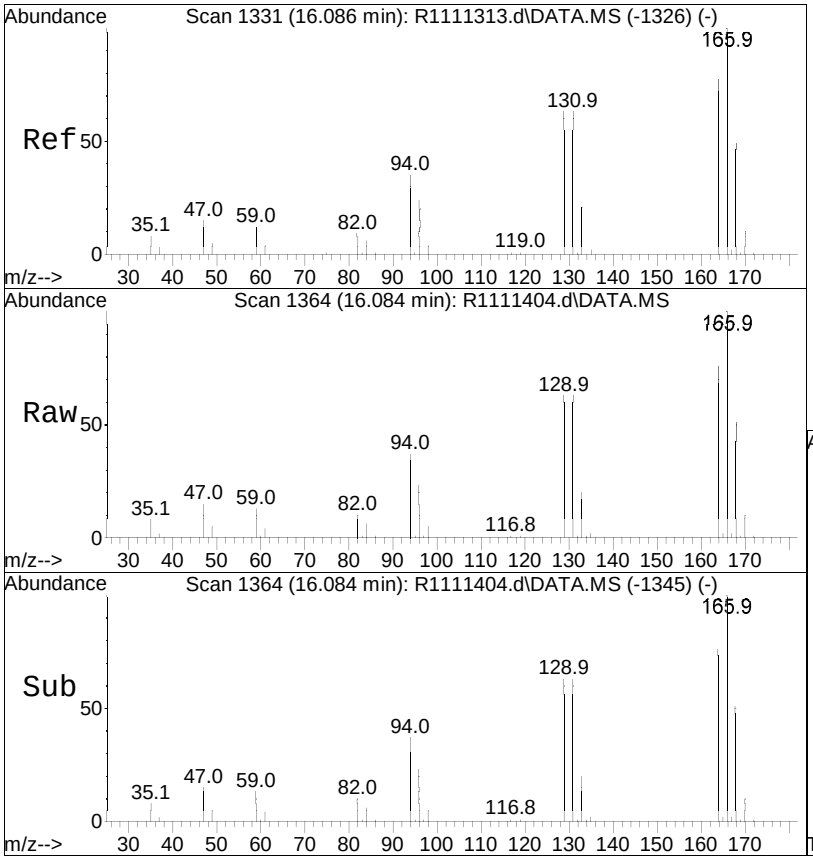


#68
toluene
Concen: 0.20 ppbV
RT: 15.01 min Scan# 1260
Delta R.T. 0.008 min
Lab File: R1111404.d
Acq: 2 Sep 2015 10:56 pm

Tgt Ion: 91 Resp: 8663

Ion	Ratio	Lower	Upper
91	100		
92	56.1	47.0	70.6

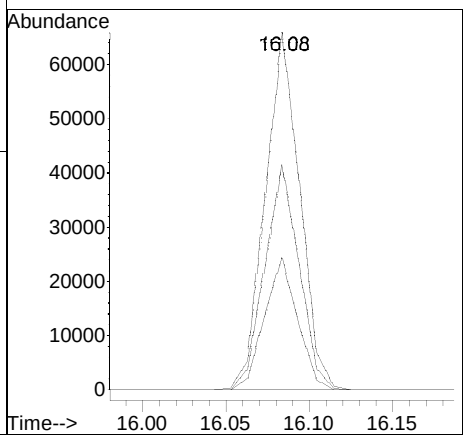


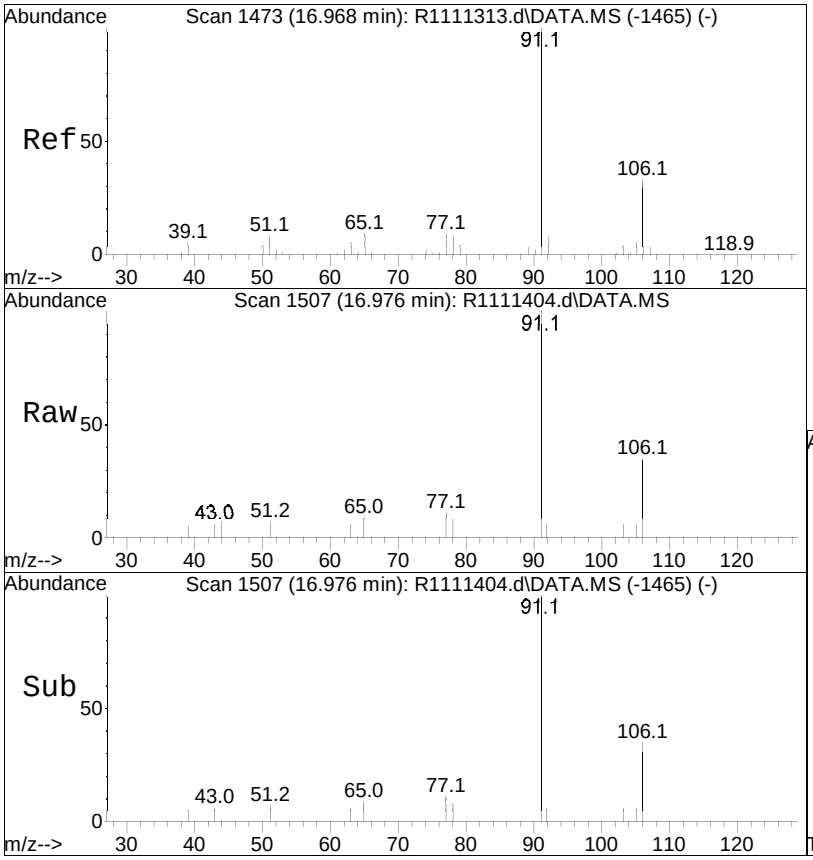


#78
tetrachloroethene
Concen: 2.79 ppbV
RT: 16.08 min Scan# 1364
Delta R.T. -0.002 min
Lab File: R1111404.d
Acq: 2 Sep 2015 10:56 pm

Tgt Ion:166 Resp: 94141

Ion	Ratio	Lower	Upper
166	100		
131	63.0	50.1	75.1
94	37.3	28.2	42.4

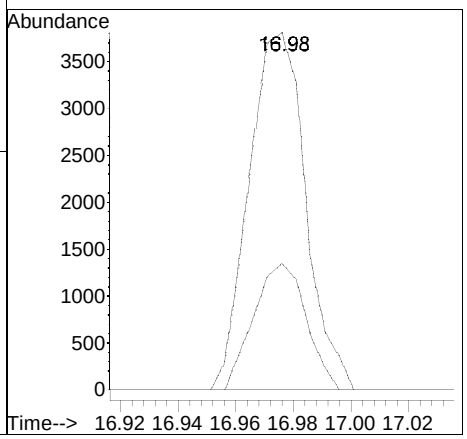


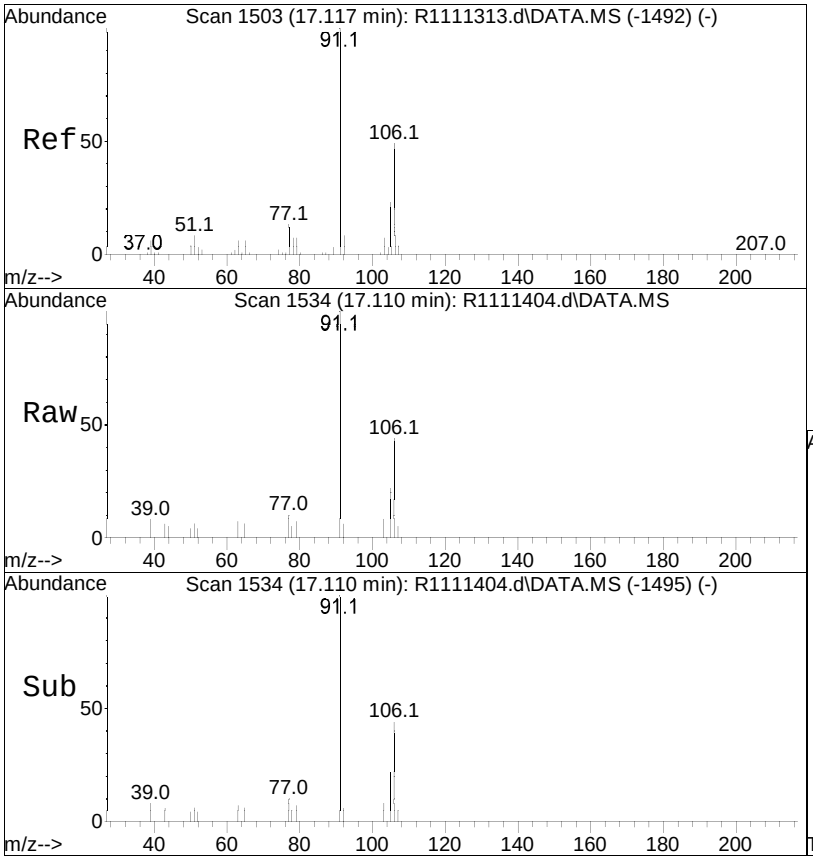


#81
ethylbenzene
Concen: 0.09 ppbV
RT: 16.98 min Scan# 1507
Delta R.T. 0.008 min
Lab File: R1111404.d
Acq: 2 Sep 2015 10:56 pm

Tgt Ion: 91 Resp: 5164

Ion	Ratio	Lower	Upper
91	100		
106	35.4	26.6	39.8

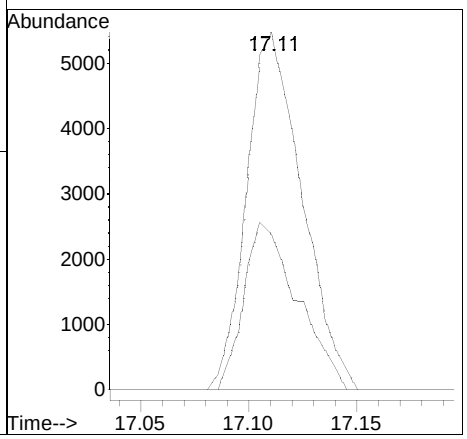


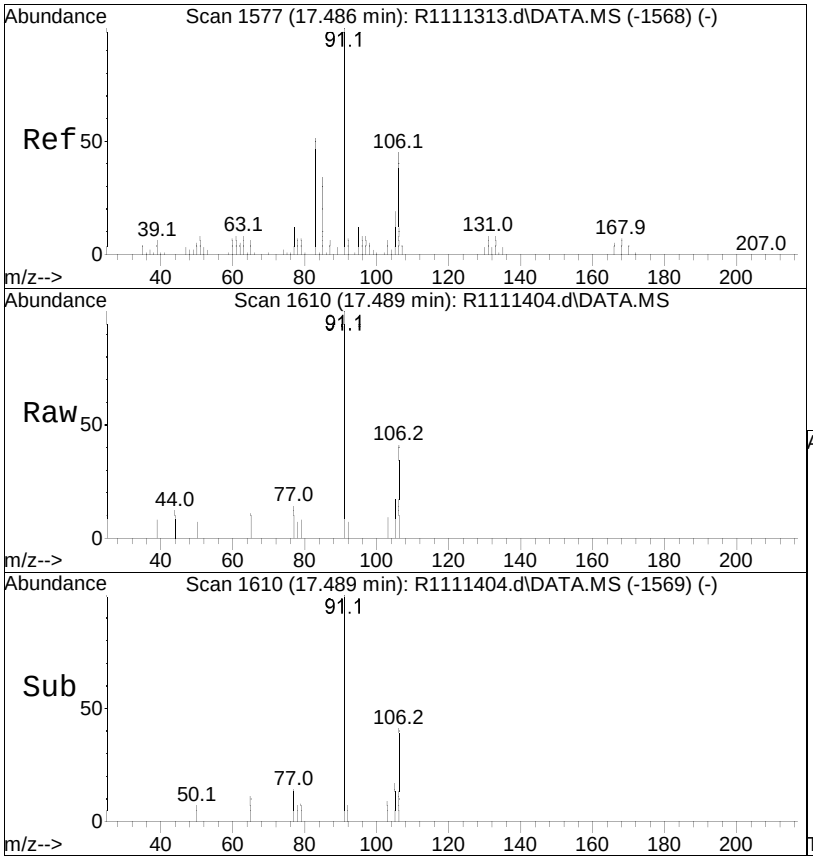


#83
m+p-xylene
Concen: 0.19 ppbV
RT: 17.11 min Scan# 1534
Delta R.T. -0.007 min
Lab File: R1111404.d
Acq: 2 Sep 2015 10:56 pm

Tgt Ion: 91 Resp: 9665

Ion	Ratio	Lower	Upper
91	100		
106	43.9	39.4	59.0

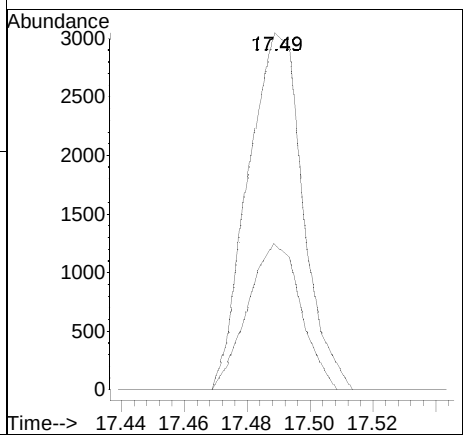


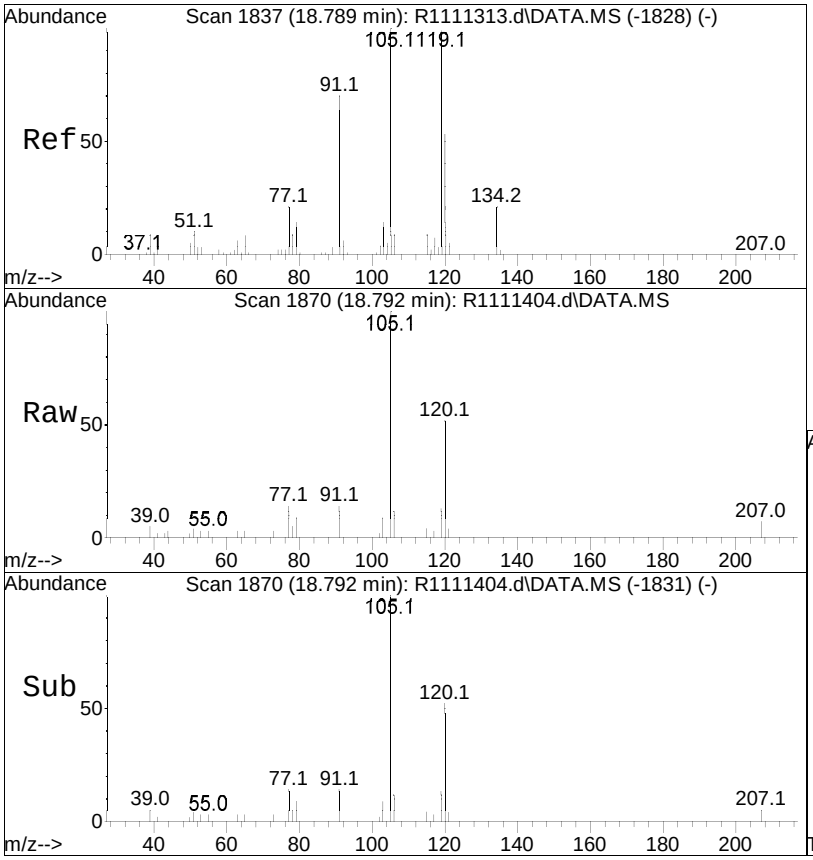


#87
o-xylene
Concen: 0.07 ppbV
RT: 17.49 min Scan# 1610
Delta R.T. 0.003 min
Lab File: R1111404.d
Acq: 2 Sep 2015 10:56 pm

Tgt Ion: 91 Resp: 3672

Ion	Ratio	Lower	Upper
91	100		
106	41.0	36.3	54.5

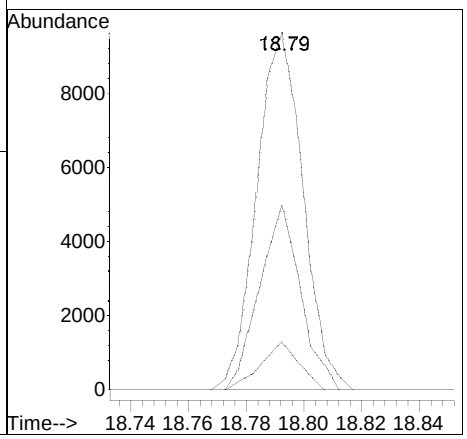


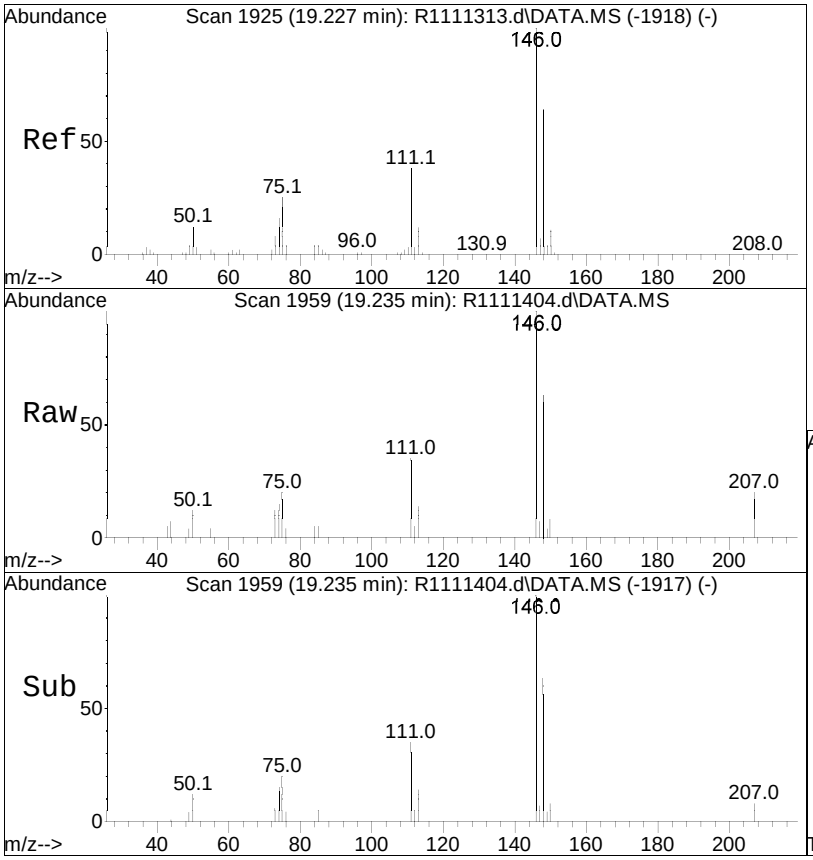


#99
1,2,4-trimethylbenzene
Concen: 0.16 ppbV
RT: 18.79 min Scan# 1870
Delta R.T. 0.003 min
Lab File: R1111404.d
Acq: 2 Sep 2015 10:56 pm

Tgt Ion:105 Resp: 10631

Ion	Ratio	Lower	Upper
105	100		
120	51.8	42.2	63.2
91	13.6	55.8	83.6#

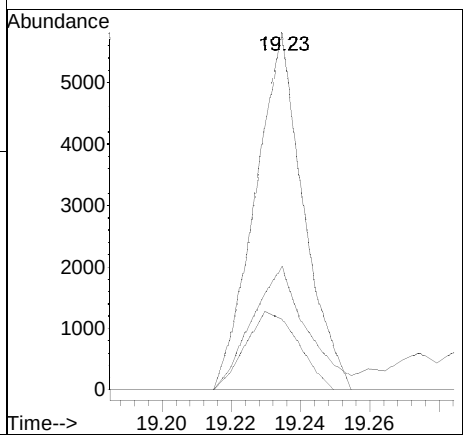




#107
1,2-dichlorobenzene
Concen: 0.11 ppbV
RT: 19.23 min Scan# 1959
Delta R.T. 0.008 min
Lab File: R1111404.d
Acq: 2 Sep 2015 10:56 pm

Tgt Ion:146 Resp: 5610

Ion	Ratio	Lower	Upper
146	100		
111	34.7	30.4	45.6
75	19.9	20.2	30.2#



Manual Integration/Negative Proof Report

```
Data Path   : O:\Forensics\Data\Airlab11\QMethod     : TALL150827.M
Data File   : R1111404.d                 Operator    : AIRLAB11:RY
Date Inj'd  : 9/2/2015 10:56 pm          Instrument  : Airlab 11
Sample      : L1521092-03D,3,115.7095,250Quant Date  : 9/3/2015  8:52 am
```

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-03DL	Date Collected :	08/28/15 13:05
Client ID	: KUMON-SS-2	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/02/15 22:56
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.161
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111404	Instrument ID	: AIRLAB11
Sample Amount	: 116 ml	GC Column	: RTX-1

Number TICS found: 5

Concentration Units: ppbV

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
001066-40-6	Silanol, trimethyl-	8.86	4.3	NJD
000541-05-9	Cyclotrisiloxane, hexamethyl-	16.29	3.2	NJD
	unknown siloxane	18.70	3.7	JD
000124-19-6	Nonanal	19.70	2.4	NJD
	unknown siloxane	20.18	8.8	JD
	Total TIC Compounds		22.4	

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111404.d
Acq On : 2 Sep 2015 10:56 pm
Operator : AIRLAB11:RY
Sample : L1521092-03D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 3 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R1111404.d\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.395	113	117	121	rBV	25876	38238	3.25%	0.662%
2	4.473	121	124	128	rVB	12305	22212	1.89%	0.385%
3	5.540	223	227	236	rVB	61606	122219	10.38%	2.117%
4	6.173	291	295	305	rBV	57924	115257	9.79%	1.997%
5	6.350	311	314	319	rVB	8955	17806	1.51%	0.308%
6	6.545	331	335	343	rVB	11601	25110	2.13%	0.435%
7	7.345	416	421	427	rVB2	12419	33778	2.87%	0.585%
8	8.857	589	594	602	rBV	47552	101241	8.60%	1.754%
9	9.290	642	647	659	rVB	10750	21829	1.85%	0.378%
10	9.941	717	721	726	rBV	275315	503400	42.76%	8.722%
11	10.813	800	804	810	rBB	16370	30890	2.62%	0.535%
12	11.751	890	893	897	rBB	6734	14044	1.19%	0.243%
13	12.147	923	927	932	rBV	477630	921790	78.30%	15.970%
14	12.938	991	995	999	rVB	136334	242464	20.60%	4.201%
15	13.652	1052	1057	1064	rBV3	5374	12825	1.09%	0.222%
16	14.907	1246	1250	1256	rVB	44953	85368	7.25%	1.479%
17	15.011	1256	1260	1263	rBB	10662	17157	1.46%	0.297%
18	15.145	1270	1273	1283	rBV	45952	93811	7.97%	1.625%
19	15.557	1310	1313	1317	rVB	12787	22075	1.88%	0.382%
20	16.084	1360	1364	1368	rBB	347712	487855	41.44%	8.452%
21	16.290	1380	1384	1389	rBV	99628	173891	14.77%	3.013%
22	16.633	1431	1438	1449	rBV	885283	1177219	100.00%	20.396%
23	17.110	1528	1534	1544	rVB	13832	23461	1.99%	0.406%
24	17.842	1675	1681	1690	rVB	135004	158078	13.43%	2.739%
25	18.394	1788	1792	1796	rBV	12580	13541	1.15%	0.235%
26	18.698	1845	1851	1858	rBV	157423	201676	17.13%	3.494%
27	18.792	1864	1870	1875	rBV	26383	28444	2.42%	0.493%
28	19.016	1910	1915	1919	rBV2	15898	18818	1.60%	0.326%

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111404.d
Acq On : 2 Sep 2015 10:56 pm
Operator : AIRLAB11:RY
Sample : L1521092-03D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 3 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	19.215	1951	1955	1957	rBV3	16532	19522	1.66%	0.338%
30	19.235	1957	1959	1963	rVV	18452	17111	1.45%	0.296%
31	19.269	1963	1966	1974	rVB6	7561	14048	1.19%	0.243%
32	19.458	1999	2004	2010	rVB4	8699	13865	1.18%	0.240%
33	19.702	2045	2053	2060	rBV	105611	129490	11.00%	2.243%
34	19.786	2065	2070	2075	rVV2	19707	26089	2.22%	0.452%
35	19.841	2077	2081	2088	rVB7	10397	15012	1.28%	0.260%
36	20.184	2143	2150	2159	rBV	354153	478424	40.64%	8.289%
37	20.363	2181	2186	2190	rBV3	21291	26980	2.29%	0.467%
38	20.417	2195	2197	2207	rVB7	10055	19653	1.67%	0.340%
39	20.487	2207	2211	2215	rBV4	6237	12752	1.08%	0.221%
40	20.630	2222	2226	2228	rBV2	13680	24491	2.08%	0.424%
41	20.669	2228	2230	2232	rVV	15572	21746	1.85%	0.377%
42	20.709	2232	2234	2237	rVB2	32558	48594	4.13%	0.842%
43	20.768	2237	2240	2243	rBV3	14553	20767	1.76%	0.360%
44	20.846	2246	2248	2250	rBV3	24825	36568	3.11%	0.634%
45	20.935	2255	2257	2260	rBV3	13659	20583	1.75%	0.357%
46	21.152	2276	2279	2281	rBV3	7895	17619	1.50%	0.305%
47	21.299	2292	2294	2296	rBV3	9906	17626	1.50%	0.305%
48	21.388	2299	2303	2305	rVB5	7272	13682	1.16%	0.237%
49	21.496	2311	2314	2316	rVB	12532	17873	1.52%	0.310%
50	21.585	2320	2323	2326	rVB2	12573	20438	1.74%	0.354%
51	21.930	2355	2358	2365	rVB7	5808	14435	1.23%	0.250%

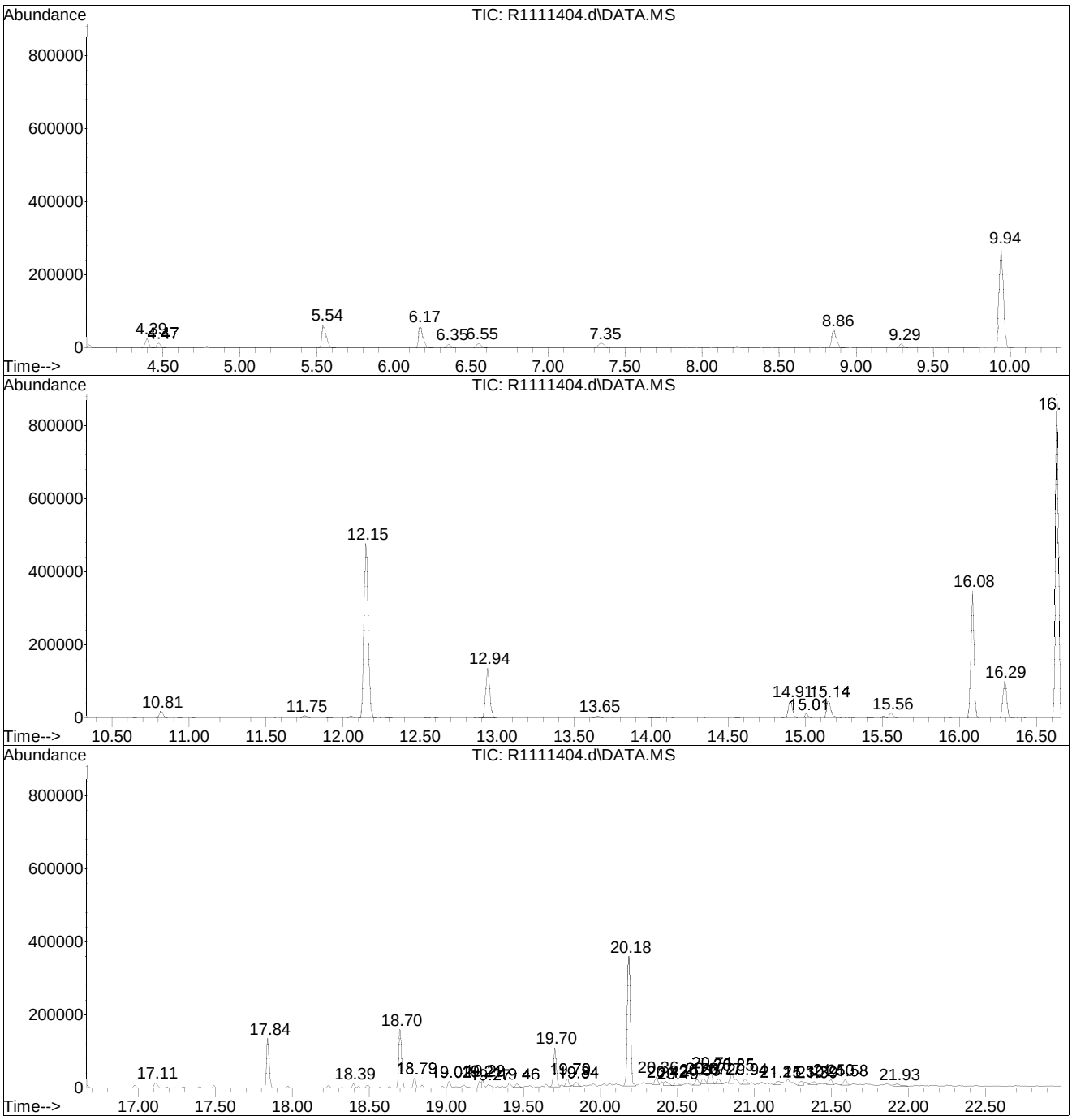
Sum of corrected areas: 5771865

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111404.d
Acq On : 2 Sep 2015 10:56 pm
Operator : AIRLAB11:RY
Sample : L1521092-03D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 3 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111404.d
Acq On : 2 Sep 2015 10:56 pm
Operator : AIRLAB11:RY
Sample : L1521092-03D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 3 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

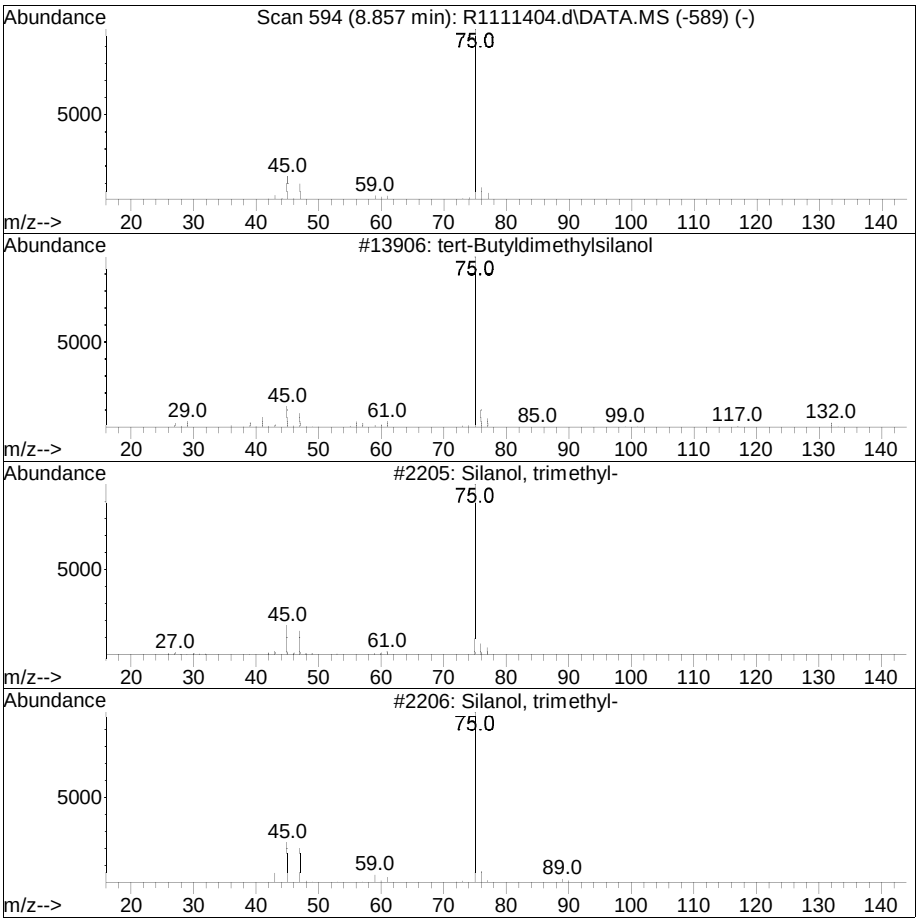
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

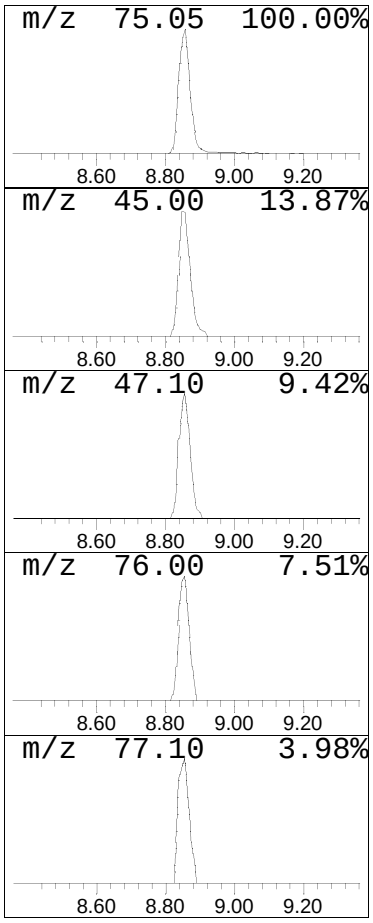
****

Peak Number 1 Silanol, trimethyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.86	2.01 ppbV	101241	bromochloromethane	9.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	tert-Butyldimethylsilanol	132	C6H16OSi	018173-64-3	83
2	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	78
3	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	64
4	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	64
5	Ethanol, 2-(trimethylsilyl)-	118	C5H14OSi	002916-68-9	64





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111404.d
Acq On : 2 Sep 2015 10:56 pm
Operator : AIRLAB11:RY
Sample : L1521092-03D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 3 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

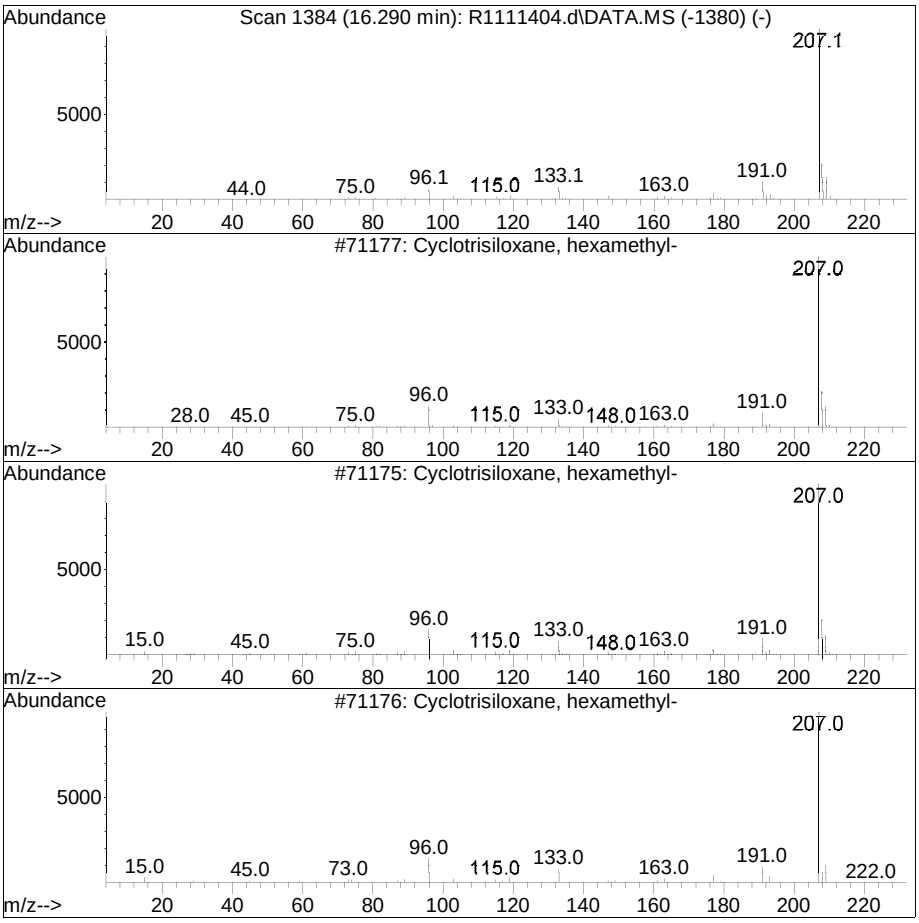
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

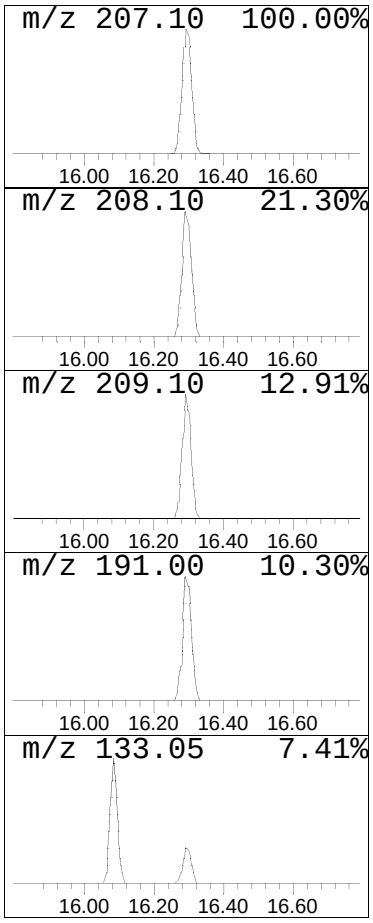
****

Peak Number 2 Cyclotrisiloxane, hexamethyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.29	1.48 ppbV	173891	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	90
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	72
4	2-Ethylacridine	207	C15H13N	055751-83-2	42
5	Benzo[h]quinoline, 2,4-dimethyl-	207	C15H13N	000605-67-4	39





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111404.d
Acq On : 2 Sep 2015 10:56 pm
Operator : AIRLAB11:RY
Sample : L1521092-03D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 3 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

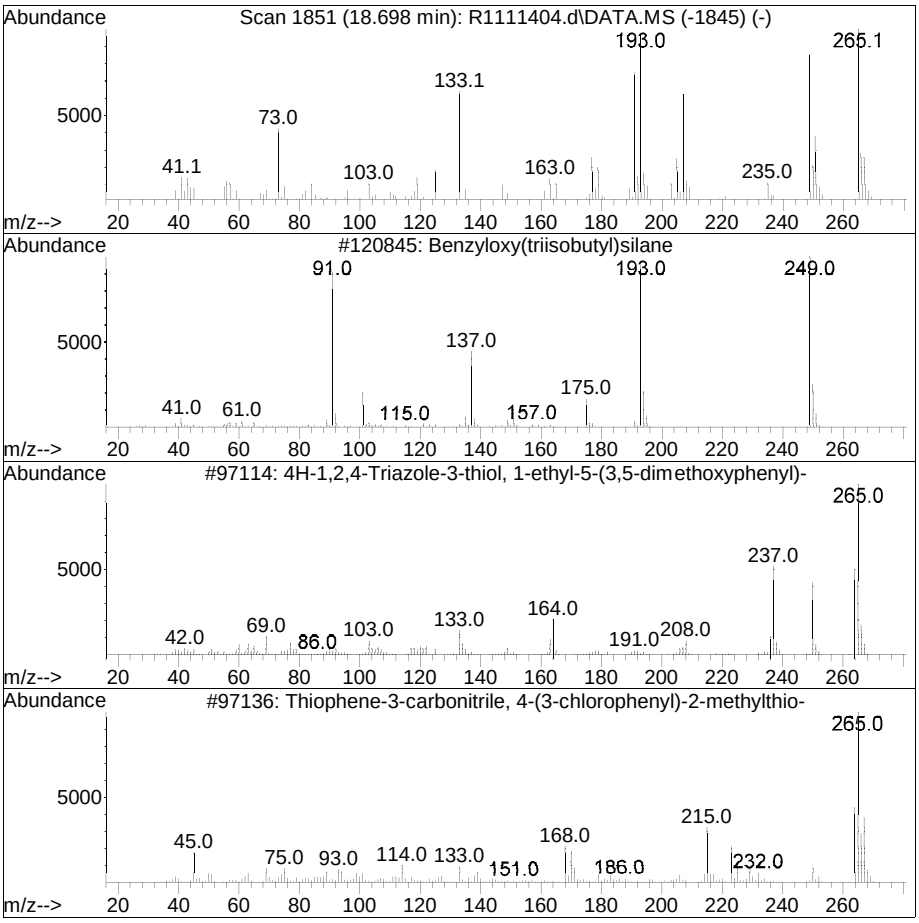
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

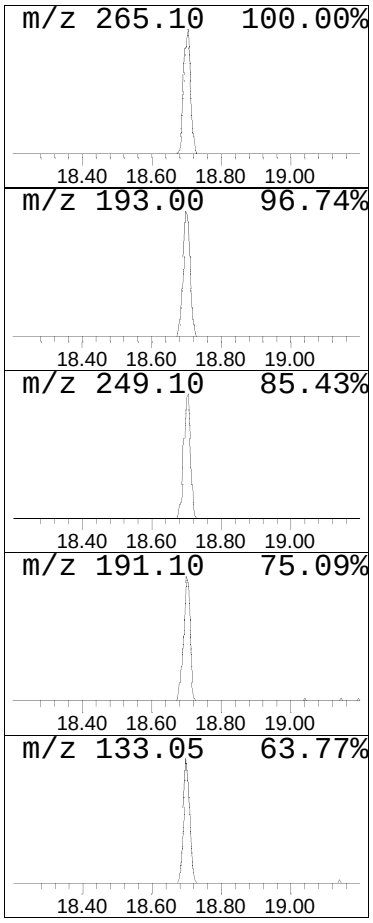
****

Peak Number 4 unknown siloxane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.70	1.71 ppbV	201676	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzyloxy(triisobutyl)silane	306	C19H34OSi	1000282-18-0	27
2	4H-1,2,4-Triazole-3-thiol, 1-eth...	265	C12H15N3O2S	1000276-48-0	14
3	Thiophene-3-carbonitrile, 4-(3-c...	265	C12H8ClNS2	116526-47-7	11
4	Benzene-1,4-diamine, N-(2-methyl...	249	C16H15N3	1000269-06-5	11
5	Clopidol	191	C7H7Cl2NO	002971-90-6	11





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111404.d
Acq On : 2 Sep 2015 10:56 pm
Operator : AIRLAB11:RY
Sample : L1521092-03D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 3 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

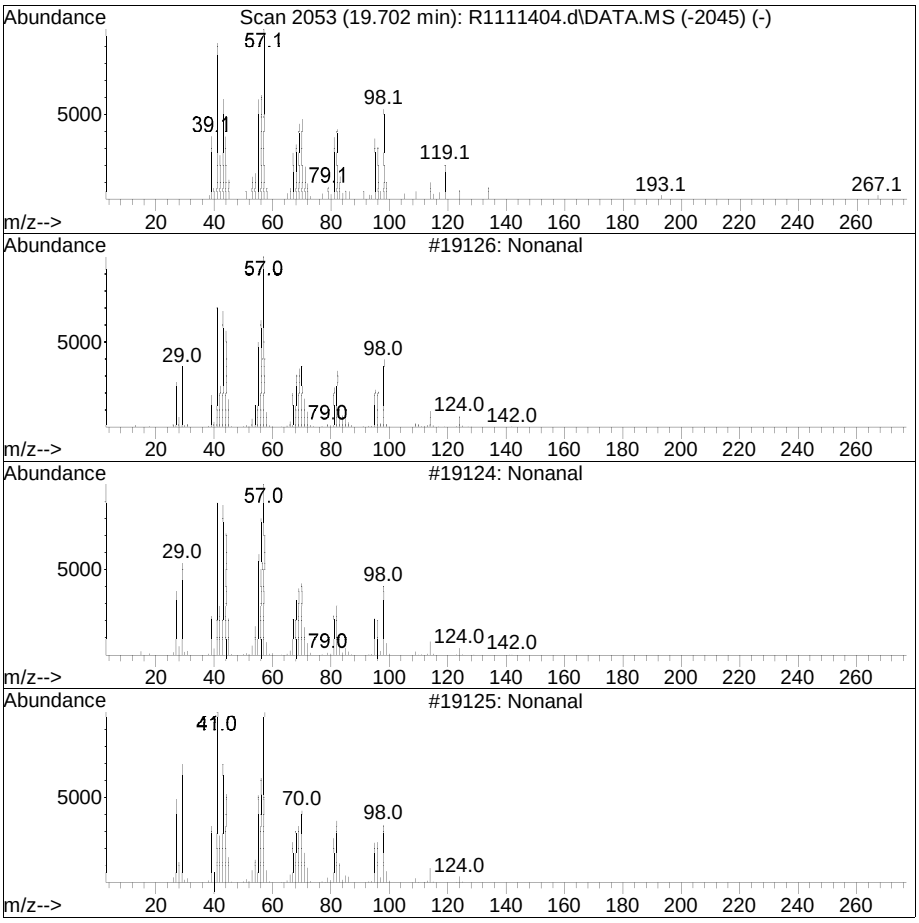
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

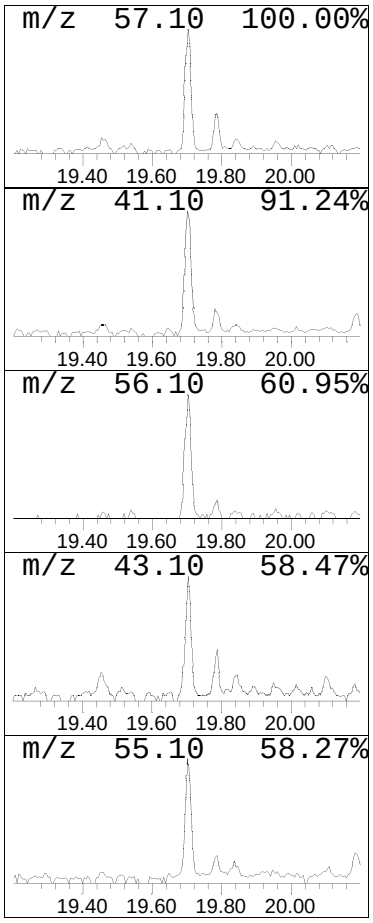
****

Peak Number 5 Nonanal Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.70	1.10 ppbV	129490	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonanal	142	C9H18O	000124-19-6	80
2	Nonanal	142	C9H18O	000124-19-6	72
3	Nonanal	142	C9H18O	000124-19-6	72
4	Cycloheptane	98	C7H14	000291-64-5	38
5	Heptane, 4-chloro-	134	C7H15Cl	000998-95-8	38





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111404.d
Acq On : 2 Sep 2015 10:56 pm
Operator : AIRLAB11:RY
Sample : L1521092-03D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 3 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

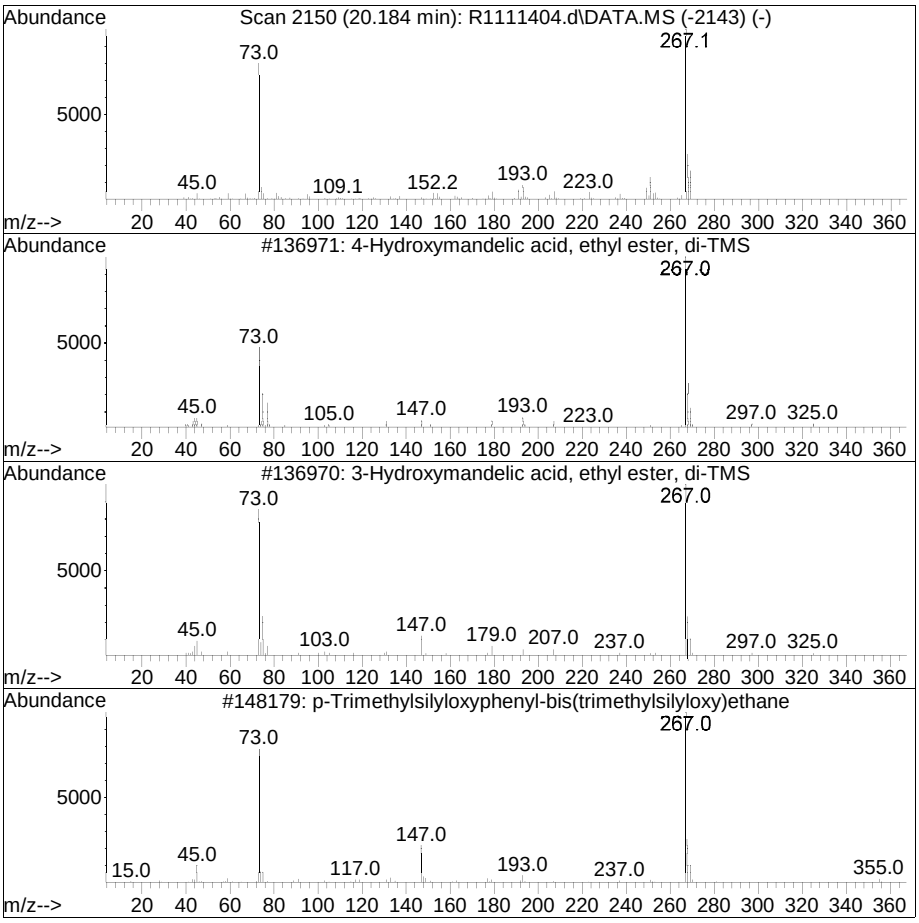
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

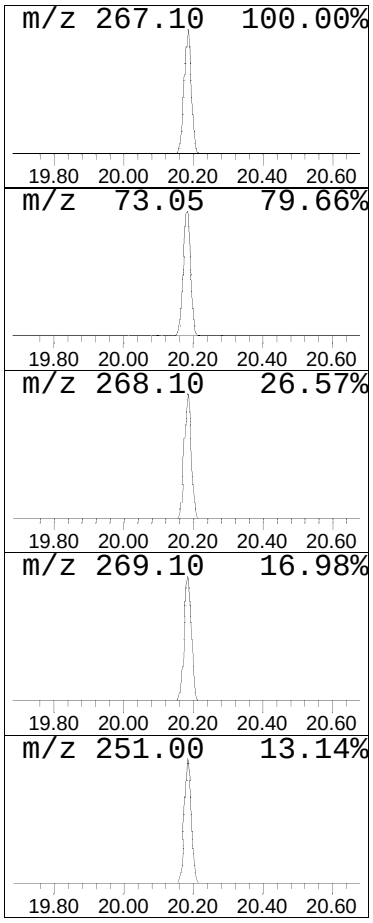
****

Peak Number 6 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.18	4.06 ppbV	478424	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-53-3	72
2	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-88-9	56
3	p-Trimethylsilyloxyphenyl-bis(tr...	370	C17H34O3Si3	1000079-08-1	56
4	7H-Dibenzo(a,g)carbazole	267	C20H13N	000207-84-1	52
5	2-Methyl-5-(3,4-methylenedioxyci...	267	C16H13NO3	094298-70-1	50





Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111404.d
Acq On : 2 Sep 2015 10:56 pm
Operator : AIRLAB11:RY
Sample : L1521092-03D,3,115.7095,250
Misc : WG817978,ICAL11393
ALS Vial : 3 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc
Silanol, trimet...	8.86	2.0	ppbV	101241	1	9.94	503400	10.0
Cyclotrisiloxan...	16.29	1.5	ppbV	173891	3	16.63	1177220	10.0
unknown siloxane	18.70	1.7	ppbV	201676	3	16.63	1177220	10.0
Nonanal	19.70	1.1	ppbV	129490	3	16.63	1177220	10.0
unknown siloxane	20.18	4.1	ppbV	478424	3	16.63	1177220	10.0

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-04DL	Date Collected :	08/27/15 14:35
Client ID	: PNC-SS-1	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/02/15 23:37
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	4.433
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111405	Instrument ID	: AIRLAB11
Sample Amount	: 56.4 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	ND	0.89	--	ND	4	--	U
74-87-3	Chloromethane	ND	0.89	--	ND	2.	--	U
76-14-2	Freon-114	ND	0.89	--	ND	6.	--	U
75-01-4	Vinyl chloride	ND	0.89	--	ND	2.	--	U
106-99-0	1,3-Butadiene	ND	0.89	--	ND	2.	--	U
74-83-9	Bromomethane	ND	0.89	--	ND	3.	--	U
75-00-3	Chloroethane	ND	0.89	--	ND	2.	--	U
64-17-5	Ethanol	ND	11	--	ND	21	--	U
593-60-2	Vinyl bromide	ND	0.89	--	ND	4.	--	U
67-64-1	Acetone	ND	4.4	--	ND	10	--	U
75-69-4	Trichlorofluoromethane	ND	0.89	--	ND	5	--	U
67-63-0	Isopropanol	ND	2.2	--	ND	5.	--	U
75-35-4	1,1-Dichloroethene	ND	0.89	--	ND	4.	--	U
75-65-0	Tertiary butyl Alcohol	ND	2.2	--	ND	7	--	U
75-09-2	Methylene chloride	ND	2.2	--	ND	8	--	U
107-05-1	3-Chloropropene	ND	0.89	--	ND	3.	--	U
75-15-0	Carbon disulfide	ND	0.89	--	ND	3.	--	U
76-13-1	Freon-113	ND	0.89	--	ND	7.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.89	--	ND	4.	--	U
75-34-3	1,1-Dichloroethane	ND	0.89	--	ND	4.	--	U
1634-04-4	Methyl tert butyl ether	ND	0.89	--	ND	3.	--	U
78-93-3	2-Butanone	ND	2.2	--	ND	6	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.89	--	ND	4.	--	U
67-66-3	Chloroform	ND	0.89	--	ND	4.	--	U
109-99-9	Tetrahydrofuran	ND	2.2	--	ND	6.	--	U
107-06-2	1,2-Dichloroethane	ND	0.89	--	ND	4.	--	U
110-54-3	n-Hexane	ND	0.89	--	ND	3.	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.89	--	ND	5.	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-04DL	Date Collected :	08/27/15 14:35
Client ID	: PNC-SS-1	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/02/15 23:37
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	4.433
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111405	Instrument ID	: AIRLAB11
Sample Amount	: 56.4 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	ND	0.89	--	ND	3.	--	U
56-23-5	Carbon tetrachloride	ND	0.89	--	ND	6.	--	U
110-82-7	Cyclohexane	ND	0.89	--	ND	3.	--	U
78-87-5	1,2-Dichloropropane	ND	0.89	--	ND	4.	--	U
75-27-4	Bromodichloromethane	ND	0.89	--	ND	6.	--	U
123-91-1	1,4-Dioxane	ND	0.89	--	ND	3.	--	U
79-01-6	Trichloroethene	5.9	0.89	--	32	4.8	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.89	--	ND	4.	--	U
80-62-6	Methyl Methacrylate	ND	2.2	--	ND	9.	--	U
142-82-5	Heptane	ND	0.89	--	ND	4.	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.89	--	ND	4.	--	U
108-10-1	4-Methyl-2-pentanone	ND	2.2	--	ND	9.	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.89	--	ND	4.	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.89	--	ND	5.	--	U
108-88-3	Toluene	ND	0.89	--	ND	3	--	U
124-48-1	Dibromochloromethane	ND	0.89	--	ND	8.	--	U
106-93-4	1,2-Dibromoethane	ND	0.89	--	ND	7.	--	U
127-18-4	Tetrachloroethene	190	0.89	--	1300	6.0	--	
108-90-7	Chlorobenzene	ND	0.89	--	ND	4.	--	U
100-41-4	Ethylbenzene	ND	0.89	--	ND	4	--	U
179601-23-1	p/m-Xylene	ND	1.8	--	ND	8.	--	U
75-25-2	Bromoform	ND	0.89	--	ND	9.	--	U
100-42-5	Styrene	ND	0.89	--	ND	4.	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.89	--	ND	6.	--	U
95-47-6	o-Xylene	ND	0.89	--	ND	4.	--	U
95-49-8	2-Chlorotoluene	ND	0.89	--	ND	5.	--	U
622-96-8	4-Ethyltoluene	ND	0.89	--	ND	4.	--	U
108-67-8	1,3,5-Trimethybenzene	ND	0.89	--	ND	4.	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-04DL	Date Collected :	08/27/15 14:35
Client ID	: PNC-SS-1	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/02/15 23:37
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	4.433
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111405	Instrument ID	: AIRLAB11
Sample Amount	: 56.4 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	0.94	0.89	--	5	4	--	
541-73-1	1,3-Dichlorobenzene	ND	0.89	--	ND	5.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.89	--	ND	5.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.89	--	ND	5.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.89	--	ND	7.	--	U
87-68-3	Hexachlorobutadiene	ND	0.89	--	ND	9.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111405.d
Acq On : 2 Sep 2015 11:37 pm
Operator : AIRLAB11:RY
Sample : L1521092-04D,3,56.3973,250
Misc : WG817978,ICAL11393
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 03 16:50:13 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.95	49	69795	10.000	ppbV	0.01
Standard Area = 81084			Recovery =		86.08%	
43) 1,4-difluorobenzene	12.16	114	426882	10.000	ppbV	0.02
Standard Area = 489060			Recovery =		87.29%	
67) chlorobenzene-D5	16.63	54	71157	10.000	ppbV	0.00
Standard Area = 80649			Recovery =		88.23%	
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.03	85	4475	0.151	ppbV	96
6) chloromethane	0.00		0	N.D.		
7) Freon-114	0.00		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	0.00		0	N.D.		
13) bromomethane	0.00		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	5.57	31	6742	2.142	ppbV	97
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.19	43	11441	0.983	ppbV #	92
21) trichlorofluoromethane	6.36	101	4322	0.103	ppbV #	83
22) isopropyl alcohol	0.00		0	N.D.	d	
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	7.37	59	2312	0.115	ppbV #	90
28) methylene chloride	7.36	49	1838	0.209	ppbV #	74
29) 3-chloropropene	7.35		0	N.D.		
30) carbon disulfide	7.68		0	N.D.		
31) Freon 113	7.69		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	0.00		0	N.D.		
36) 2-butanone	9.31	43	1921	0.134	ppbV #	88
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	10.10		0	N.D.		
40) Tetrahydrofuran	0.00		0	N.D.		
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	0.00		0	N.D.		
48) 1,1,1-trichloroethane	11.22		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111405.d
Acq On : 2 Sep 2015 11:37 pm
Operator : AIRLAB11:RY
Sample : L1521092-04D,3,56.3973,250
Misc : WG817978,ICAL11393
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 03 16:50:13 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50)	benzene	11.75		0	N.D.		
52)	carbon tetrachloride	11.91		0	N.D.		
53)	cyclohexane	12.05		0	N.D.		
56)	1,2-dichloropropane	0.00		0	N.D.		
57)	bromodichloromethane	0.00		0	N.D.		
58)	1,4-dioxane	13.01		0	N.D.		
59)	trichloroethene	12.95	130	28614	1.324	ppbV	99
60)	2,2,4-trimethylpentane	0.00		0	N.D.		
61)	methyl methacrylate	0.00		0	N.D.		
62)	heptane	0.00		0	N.D.		
63)	cis-1,3-dichloropropene	0.00		0	N.D.		
64)	4-methyl-2-pentanone	14.01		0	N.D.		
65)	trans-1,3-dichloropropene	0.00		0	N.D.		
66)	1,1,2-trichloroethane	0.00		0	N.D.		
68)	toluene	15.01	91	5313	0.119	ppbV	94
74)	dibromochloromethane	0.00		0	N.D.		
75)	1,2-dibromoethane	0.00		0	N.D.		
78)	tetrachloroethene	16.08	166	1479421	43.211	ppbV	96
80)	chlorobenzene	0.00		0	N.D.		
81)	ethylbenzene	16.98	91	5812	0.095	ppbV	100
83)	m+p-xylene	17.11	91	8342	0.164	ppbV	100
84)	bromoform	0.00		0	N.D.		
85)	styrene	17.41		0	N.D.		
86)	1,1,2,2-tetrachloroethane	0.00		0	N.D.		
87)	o-xylene	17.49	91	3602	0.070	ppbV	98
93)	2-chlorotoluene	0.00		0	N.D.		
96)	4-ethyl toluene	18.43		0	N.D.		
97)	1,3,5-trimethylbenzene	18.48		0	N.D.		
99)	1,2,4-trimethylbenzene	18.79	105	13979	0.211	ppbV #	56
102)	1,3-dichlorobenzene	0.00		0	N.D.		
103)	1,4-dichlorobenzene	0.00		0	N.D.		
107)	1,2-dichlorobenzene	0.00		0	N.D.		
115)	1,2,4-trichlorobenzene	20.66		0	N.D.		
119)	hexachlorobutadiene	0.00		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111405.d
Acq On : 2 Sep 2015 11:37 pm
Operator : AIRLAB11:RY
Sample : L1521092-04D,3,56.3973,250
Misc : WG817978,ICAL11393
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 03 16:50:13 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

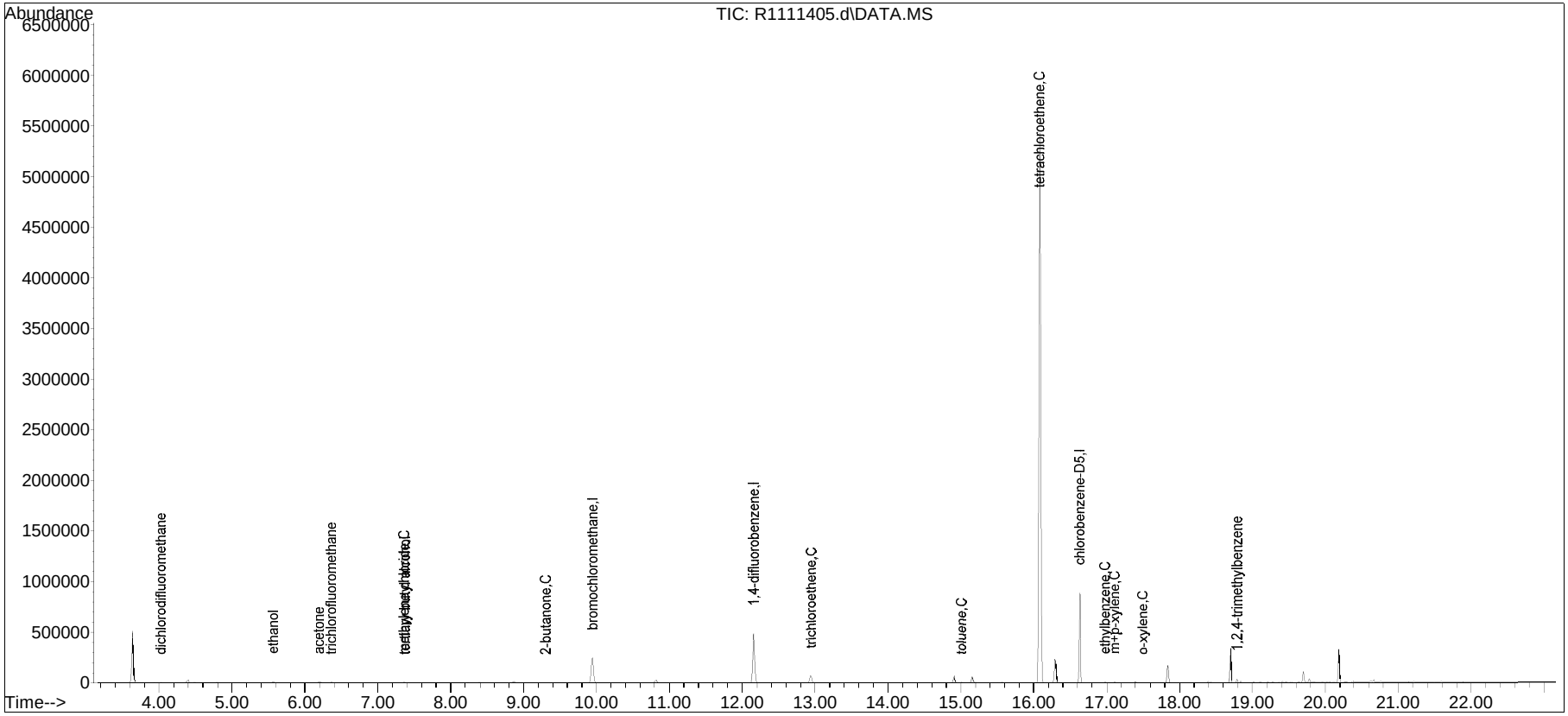
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Quantitation Report (QT Reviewed)

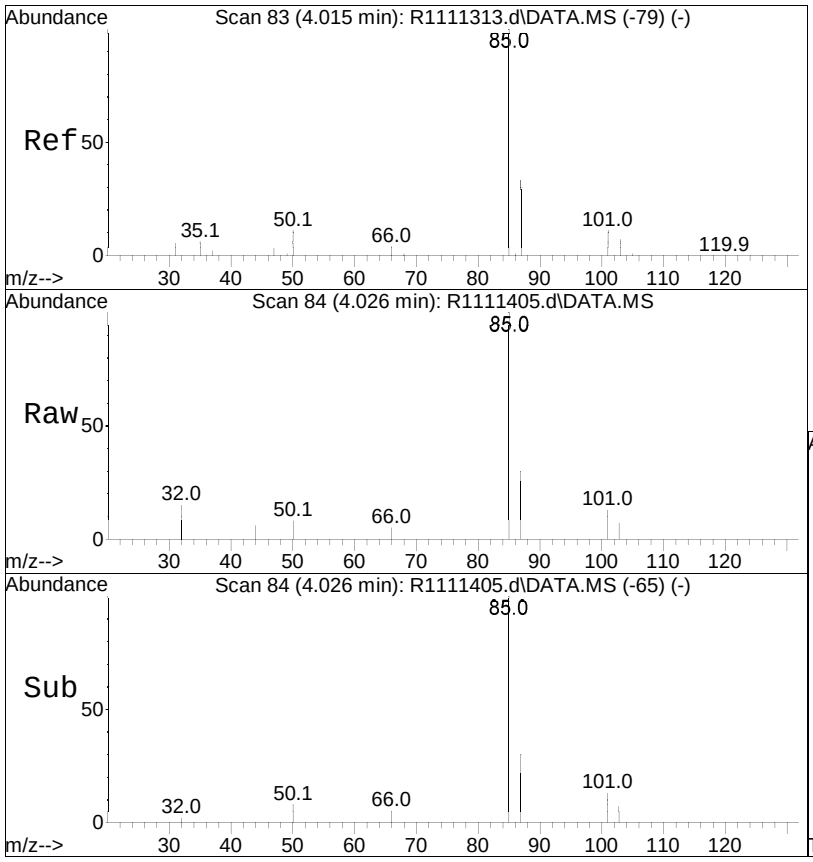
Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111405.d
Acq On : 2 Sep 2015 11:37 pm
Operator : AIRLAB11:RY
Sample : L1521092-04D,3,56.3973,250
Misc : WG817978,ICAL11393
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 03 16:50:13 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

Sub List : NJ-LL_New - .Data\Airlab11\2015\150902T\R1111393.d



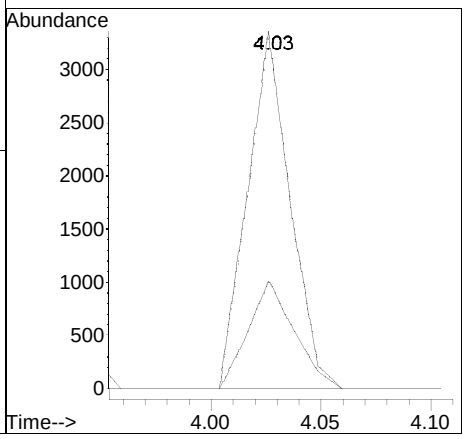
TALL150827.M Thu Sep 03 16:50:43 2015

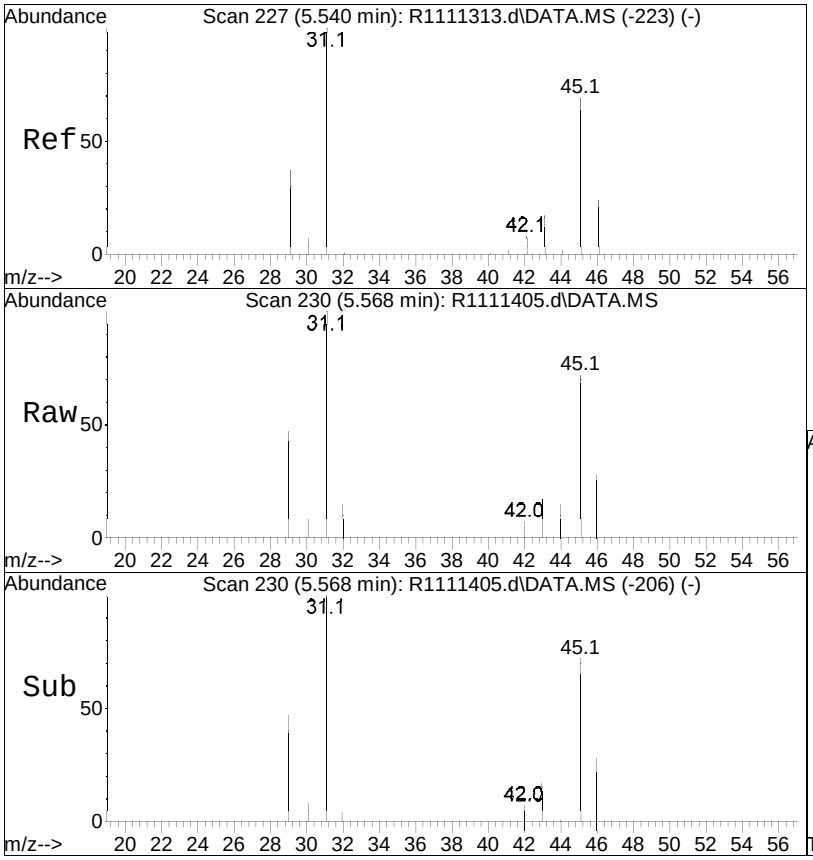


#5
dichlorodifluoromethane
Concen: 0.15 ppbV
RT: 4.03 min Scan# 84
Delta R.T. 0.011 min
Lab File: R1111405.d
Acq: 2 Sep 2015 11:37 pm

Tgt Ion: 85 Resp: 4475

Ion	Ratio	Lower	Upper
85	100		
87	30.4	26.1	39.1

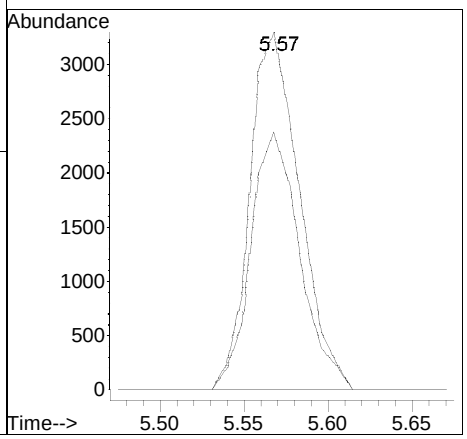


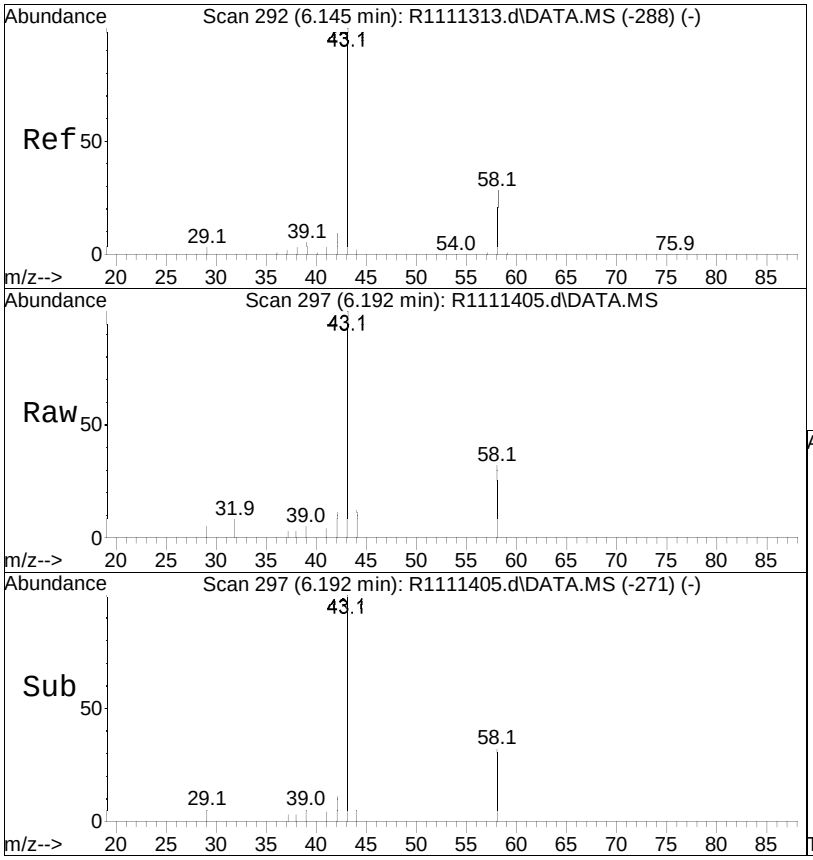


#15
ethanol
Concen: 2.14 ppbV
RT: 5.57 min Scan# 230
Delta R.T. 0.028 min
Lab File: R1111405.d
Acq: 2 Sep 2015 11:37 pm

Tgt Ion: 31 Resp: 6742

Ion	Ratio	Lower	Upper
31	100		
45	72.1	55.4	83.2

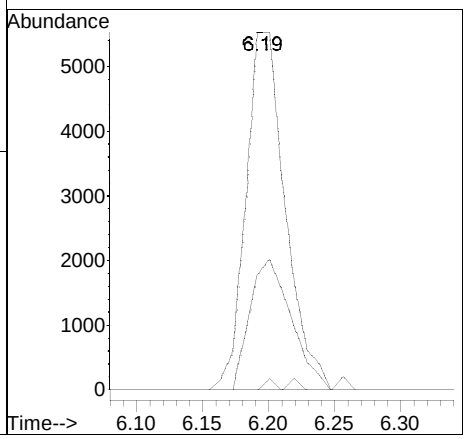


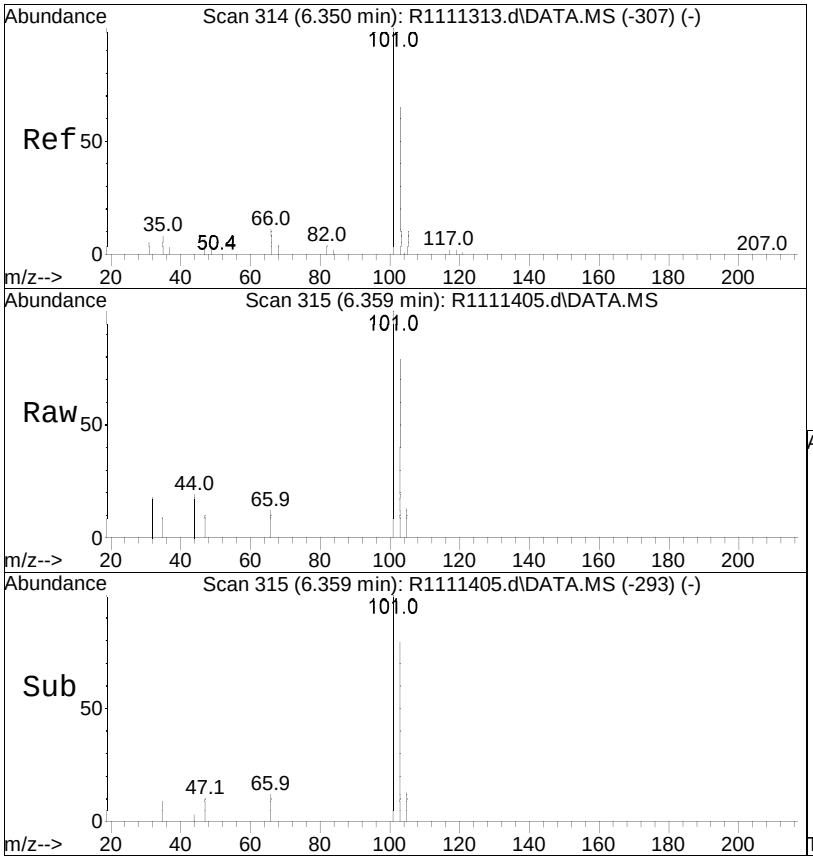


#19
acetone
Concen: 0.98 ppbV
RT: 6.19 min Scan# 297
Delta R.T. 0.047 min
Lab File: R1111405.d
Acq: 2 Sep 2015 11:37 pm

Tgt Ion: 43 Resp: 11441

Ion	Ratio	Lower	Upper
43	100		
58	31.8	22.2	33.2
57	0.0	0.6	1.0#

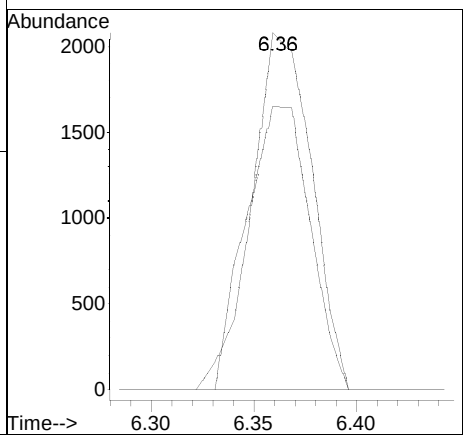


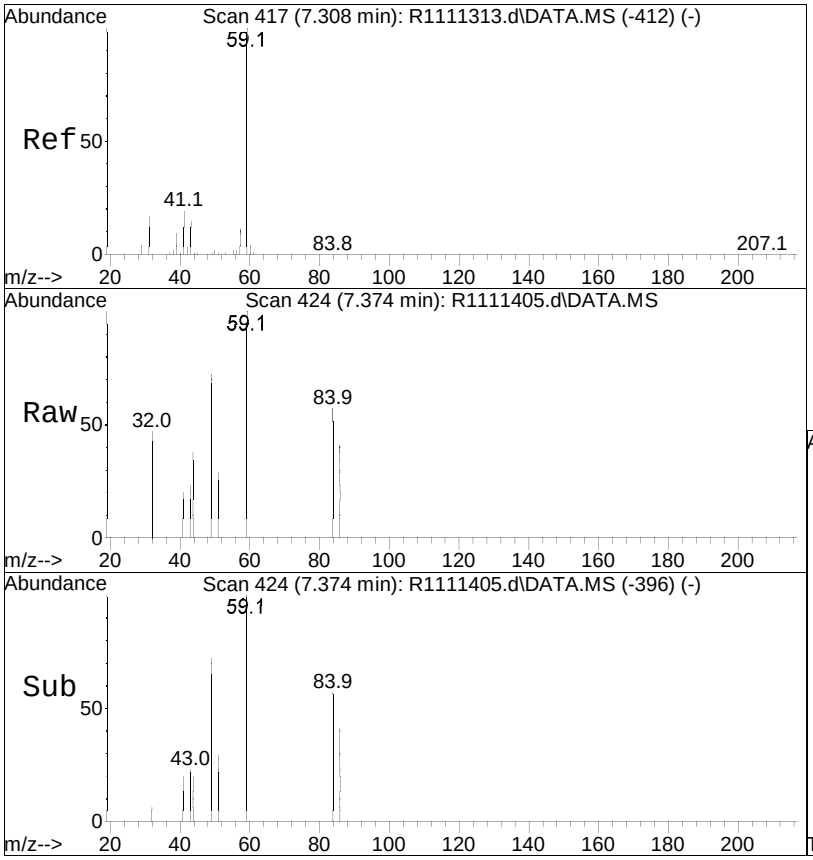


#21
trichlorofluoromethane
Concen: 0.10 ppbV
RT: 6.36 min Scan# 315
Delta R.T. 0.009 min
Lab File: R1111405.d
Acq: 2 Sep 2015 11:37 pm

Tgt Ion:101 Resp: 4322

Ion	Ratio	Lower	Upper
101	100		
103	79.2	52.3	78.5#

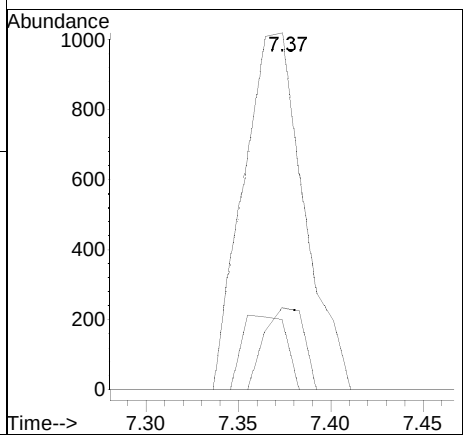


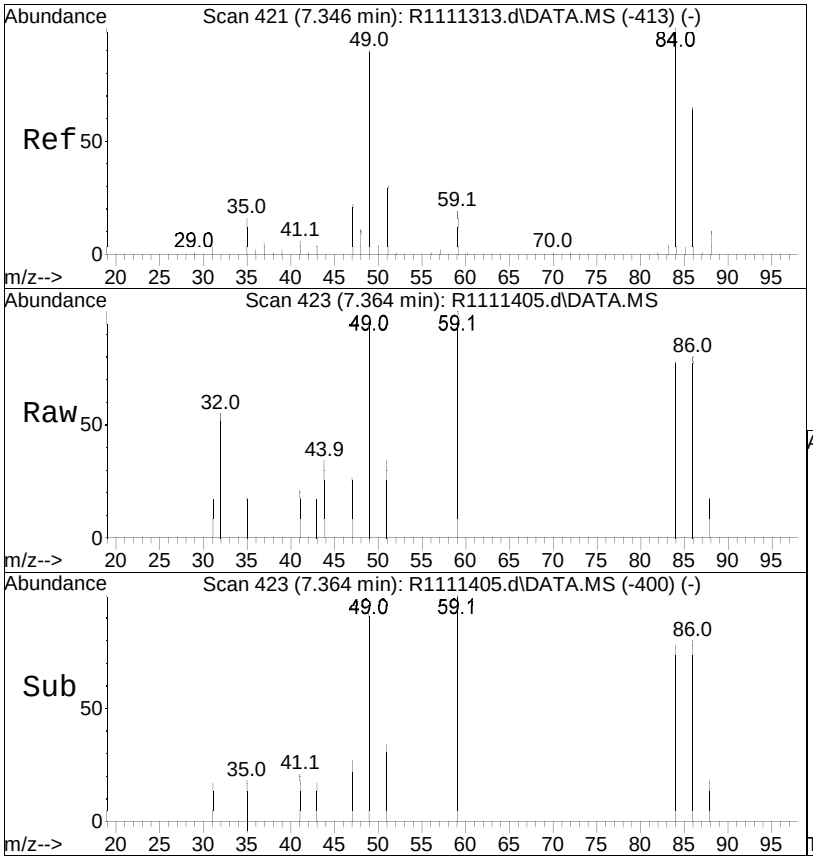


#27
tertiary butyl alcohol
Concen: 0.11 ppbV
RT: 7.37 min Scan# 424
Delta R.T. 0.065 min
Lab File: R1111405.d
Acq: 2 Sep 2015 11:37 pm

Tgt Ion: 59 Resp: 2312

Ion	Ratio	Lower	Upper
59	100		
41	19.7	15.1	22.7
43	22.8	11.8	17.6#

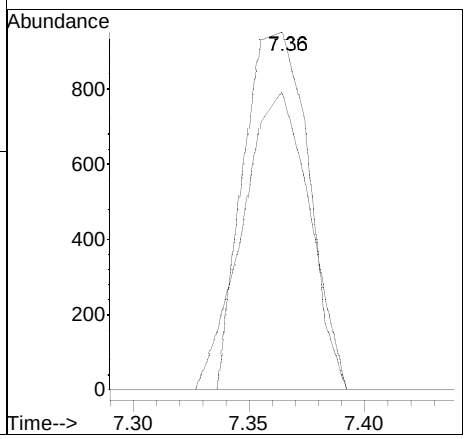


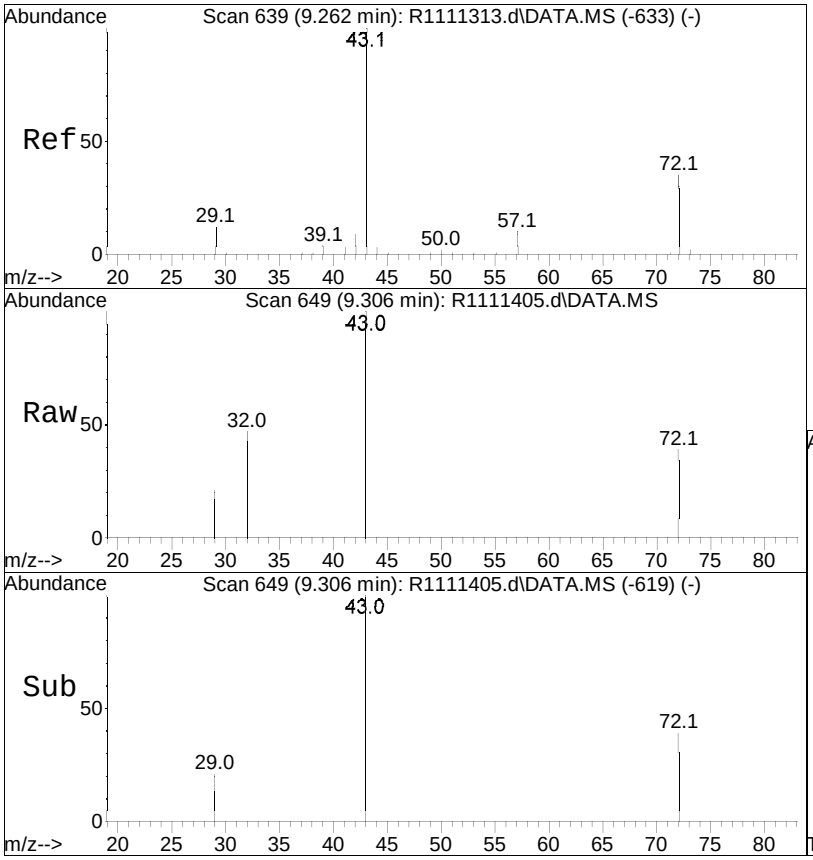


#28
methylene chloride
Concen: 0.21 ppbV
RT: 7.36 min Scan# 423
Delta R.T. 0.019 min
Lab File: R1111405.d
Acq: 2 Sep 2015 11:37 pm

Tgt Ion: 49 Resp: 1838

Ion	Ratio	Lower	Upper
49	100		
84	83.5	89.0	133.4#

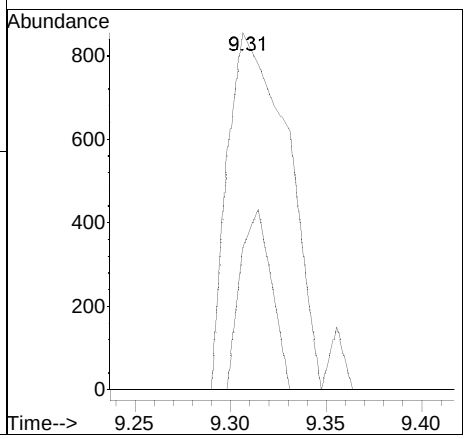


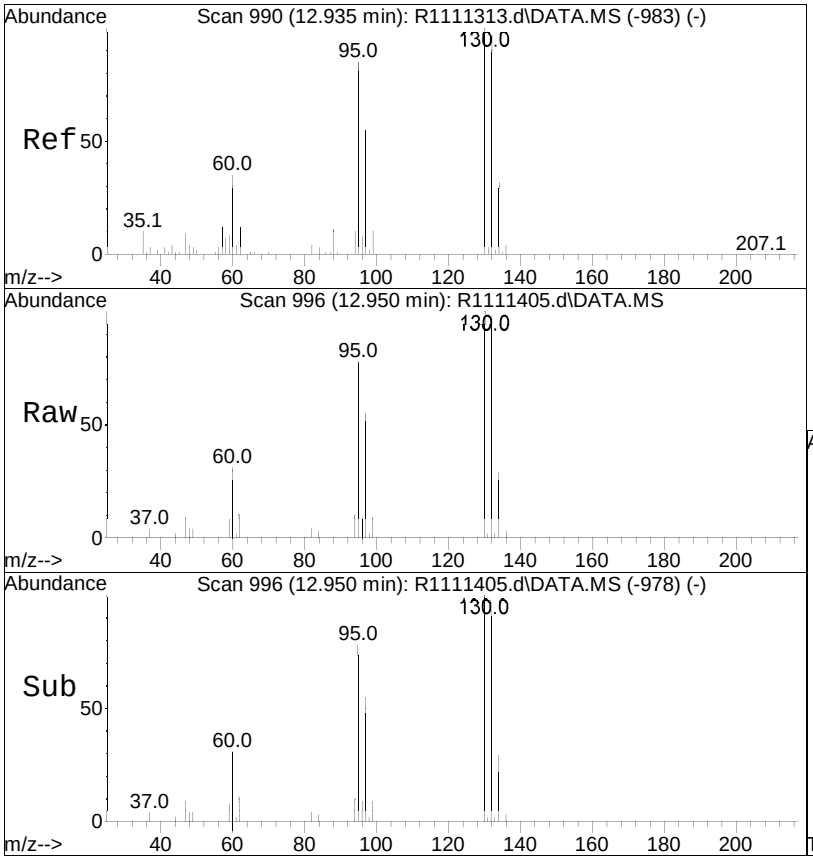


#36
2-butanone
Concen: 0.13 ppbV
RT: 9.31 min Scan# 649
Delta R.T. 0.044 min
Lab File: R1111405.d
Acq: 2 Sep 2015 11:37 pm

Tgt Ion: 43 Resp: 1921

Ion	Ratio	Lower	Upper
43	100		
72	39.4	28.1	42.1
57	0.0	8.3	12.5#

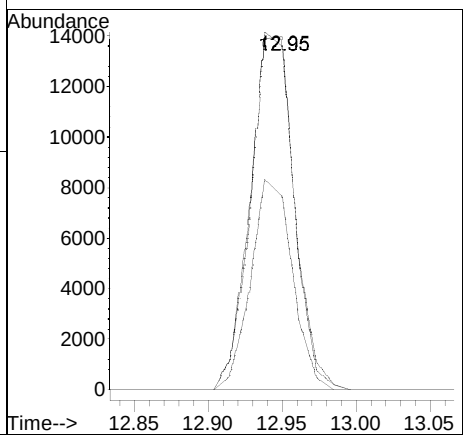


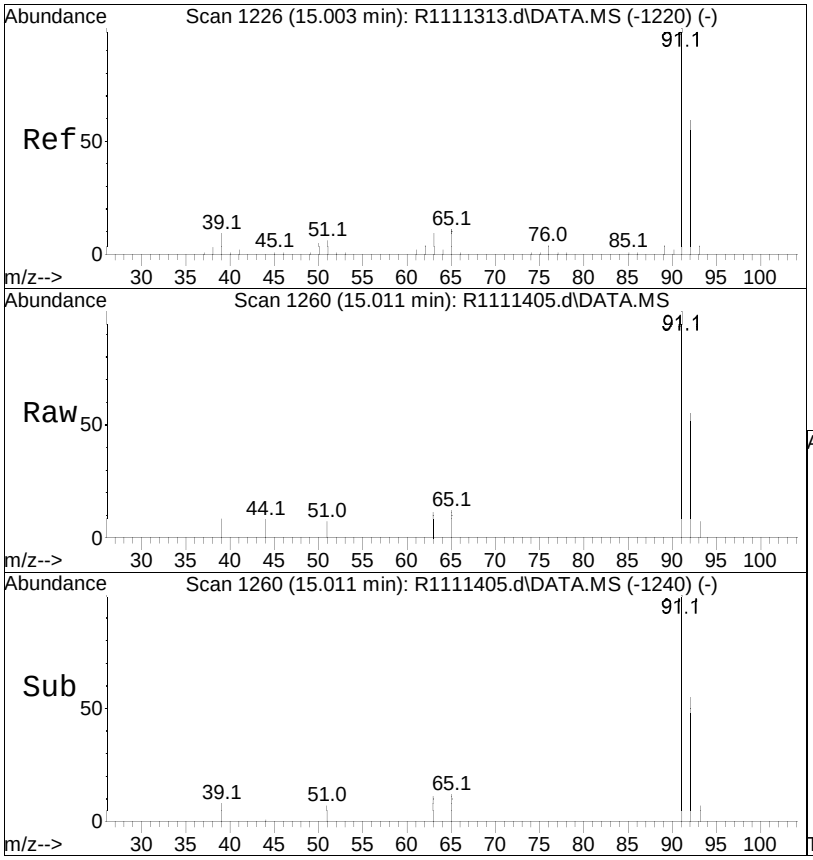


#59
trichloroethene
Concen: 1.32 ppbV
RT: 12.95 min Scan# 996
Delta R.T. 0.015 min
Lab File: R1111405.d
Acq: 2 Sep 2015 11:37 pm

Tgt Ion:130 Resp: 28614

Ion	Ratio	Lower	Upper
130	100		
132	97.7	77.6	116.4
97	55.2	44.0	66.0

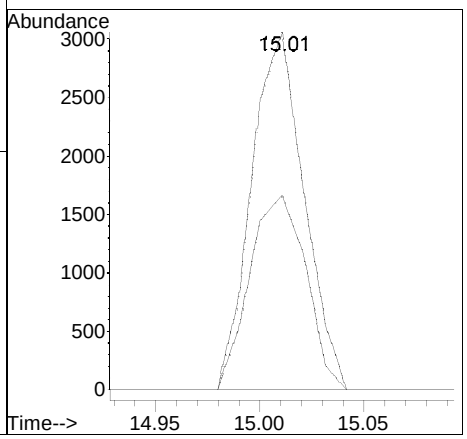


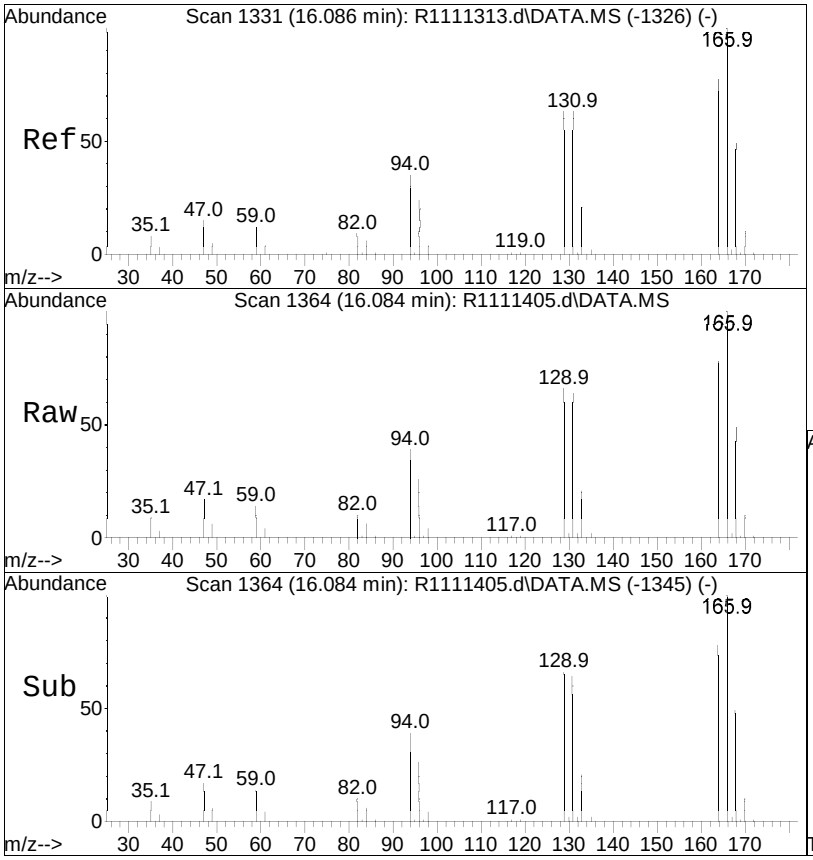


#68
toluene
Concen: 0.12 ppbV
RT: 15.01 min Scan# 1260
Delta R.T. 0.008 min
Lab File: R1111405.d
Acq: 2 Sep 2015 11:37 pm

Tgt Ion: 91 Resp: 5313

Ion	Ratio	Lower	Upper
91	100		
92	54.5	47.0	70.6

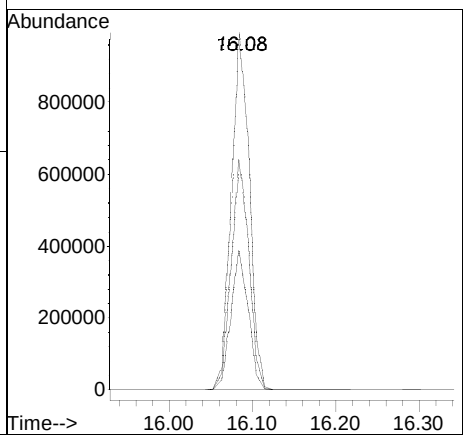


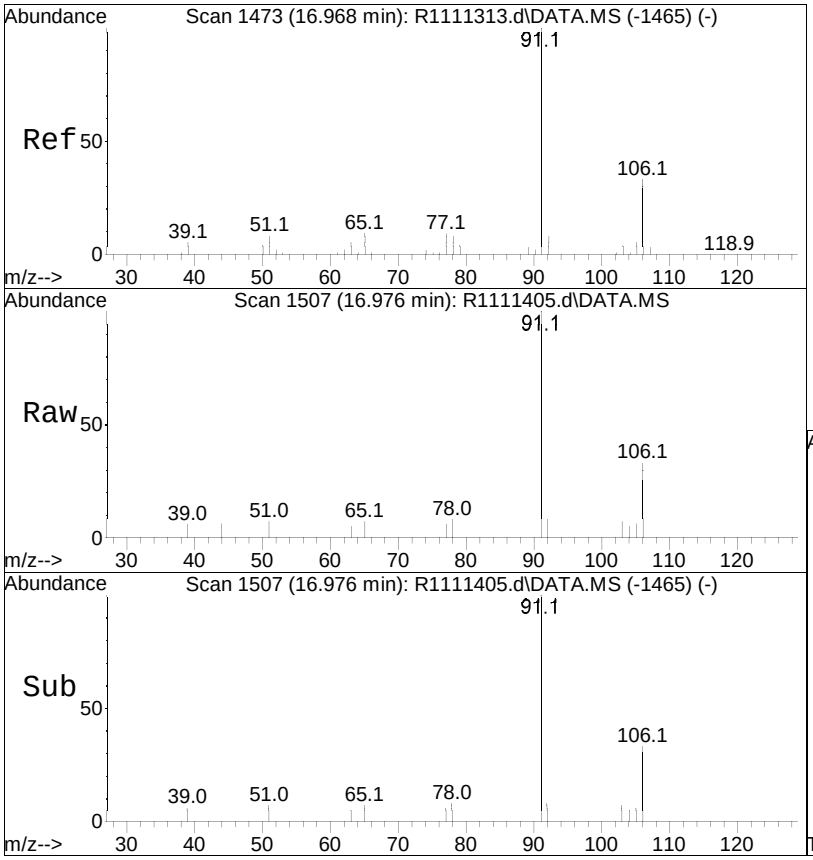


#78
tetrachloroethene
Concen: 43.21 ppbV
RT: 16.08 min Scan# 1364
Delta R.T. -0.002 min
Lab File: R1111405.d
Acq: 2 Sep 2015 11:37 pm

Tgt Ion:166 Resp: 1479421

Ion	Ratio	Lower	Upper
166	100		
131	64.4	50.1	75.1
94	39.2	28.2	42.4

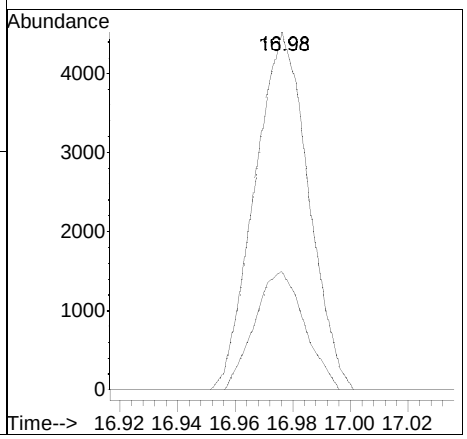


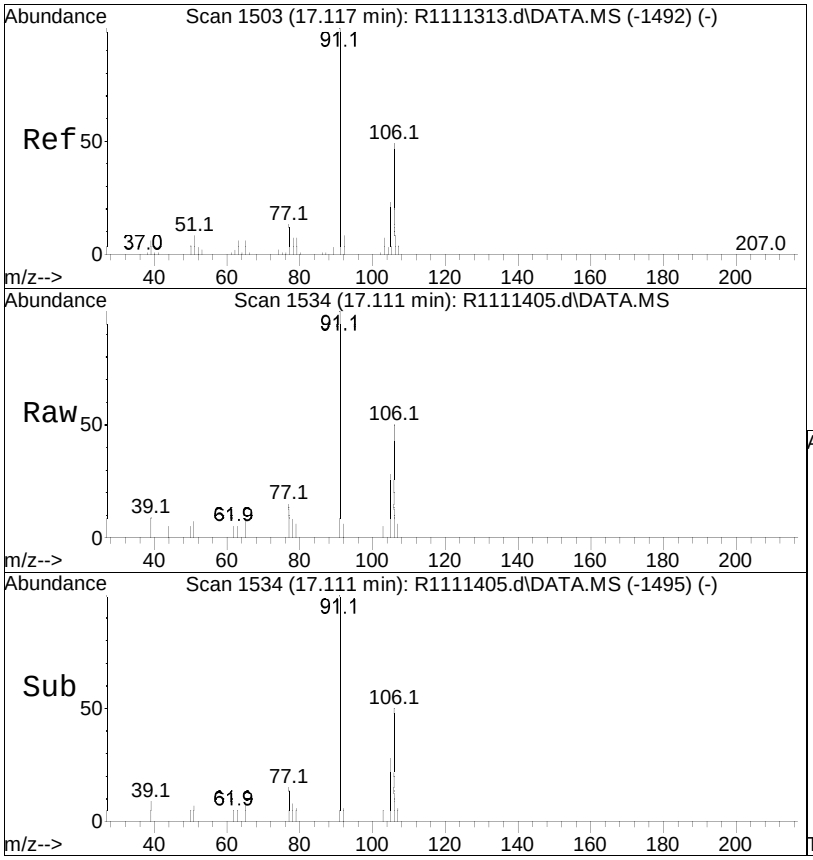


#81
ethylbenzene
Concen: 0.10 ppbV
RT: 16.98 min Scan# 1507
Delta R.T. 0.008 min
Lab File: R1111405.d
Acq: 2 Sep 2015 11:37 pm

Tgt Ion: 91 Resp: 5812

Ion	Ratio	Lower	Upper
91	100		
106	33.2	26.6	39.8

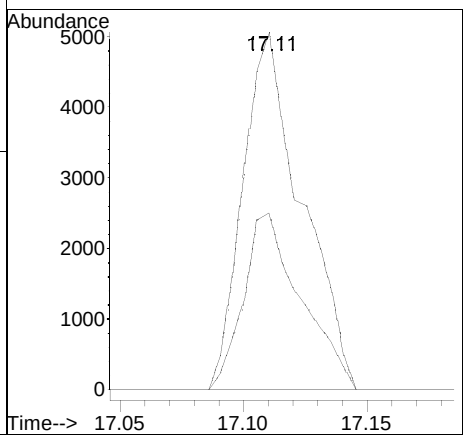


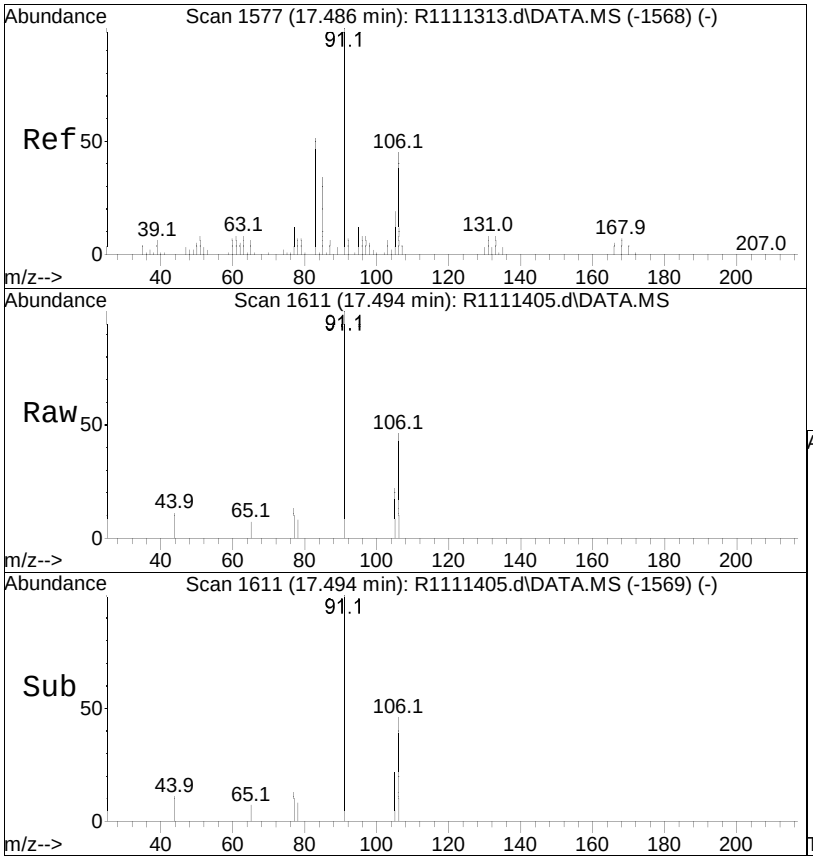


#83
m+p-xylene
Concen: 0.16 ppbV
RT: 17.11 min Scan# 1534
Delta R.T. -0.007 min
Lab File: R1111405.d
Acq: 2 Sep 2015 11:37 pm

Tgt Ion: 91 Resp: 8342

Ion	Ratio	Lower	Upper
91	100		
106	49.5	39.4	59.0

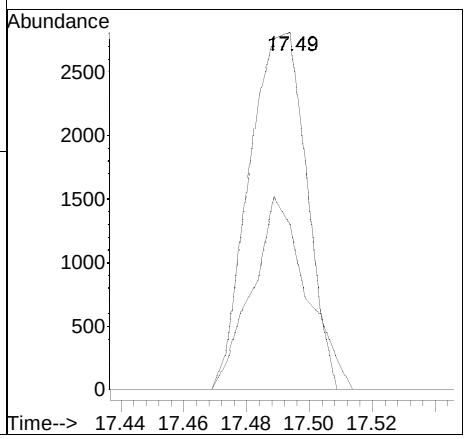


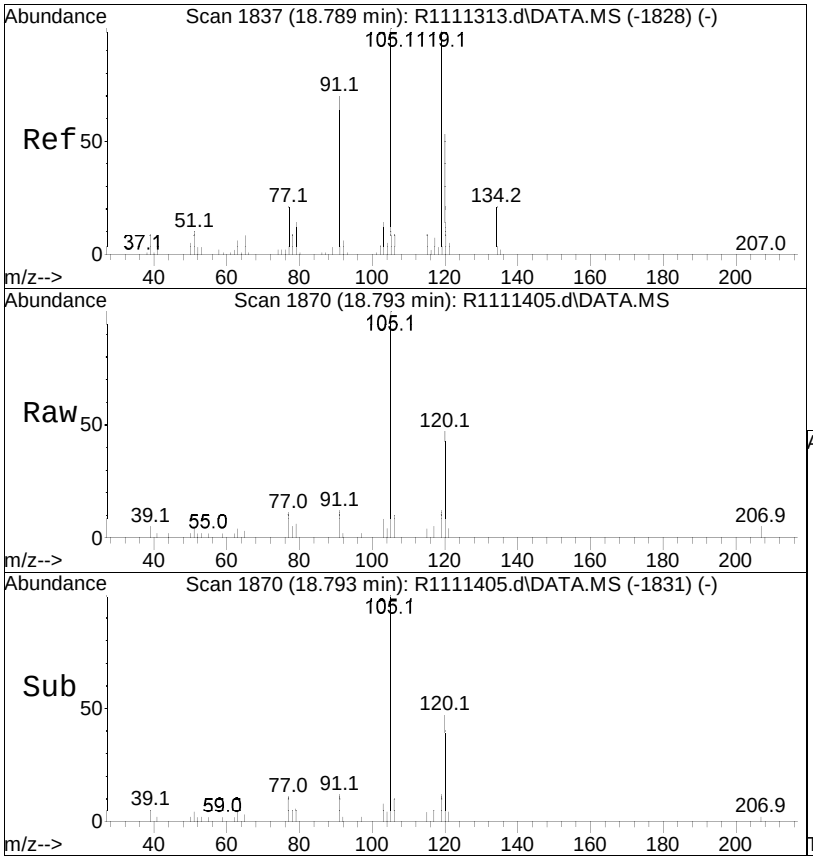


#87
o-xylene
Concen: 0.07 ppbV
RT: 17.49 min Scan# 1611
Delta R.T. 0.008 min
Lab File: R1111405.d
Acq: 2 Sep 2015 11:37 pm

Tgt Ion: 91 Resp: 3602

Ion	Ratio	Lower	Upper
91	100		
106	46.5	36.3	54.5

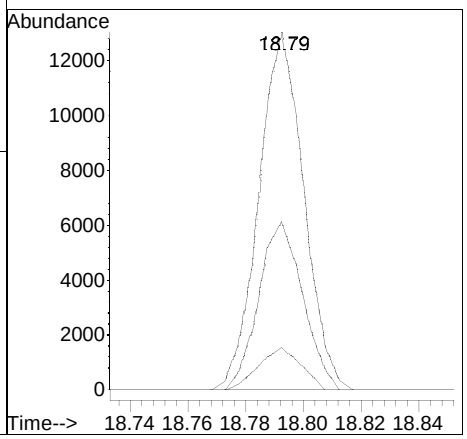




#99
1,2,4-trimethylbenzene
Concen: 0.21 ppbV
RT: 18.79 min Scan# 1870
Delta R.T. 0.003 min
Lab File: R1111405.d
Acq: 2 Sep 2015 11:37 pm

Tgt Ion:105 Resp: 13979

Ion	Ratio	Lower	Upper
105	100		
120	47.1	42.2	63.2
91	11.8	55.8	83.6#



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\Airlab11\	QMethod	: TALL150827.M
Data File	: R1111405.d	Operator	: AIRLAB11:RY
Date Inj'd	: 9/2/2015 11:37 pm	Instrument	: Airlab 11
Sample	: L1521092-04D,3,56.3973,250	Quant Date	: 9/3/2015 8:52 am

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number	: 0809-15
Lab ID	: L1521092-04DL	Date Collected	: 08/27/15 14:35
Client ID	: PNC-SS-1	Date Received	: 08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed	: 09/02/15 23:37
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 4.433
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111405	Instrument ID	: AIRLAB11
Sample Amount	: 56.4 ml	GC Column	: RTX-1

Number TICS found: 4

Concentration Units: ppbV

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
000541-05-9	Cyclotrisiloxane, hexamethyl-	16.29	15	NJD
	unknown siloxane	18.70	16	JD
000124-19-6	Nonanal	19.71	5.3	NJD
	unknown siloxane	20.18	17	JD
	Total TIC Compounds		53.3	

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111405.d
Acq On : 2 Sep 2015 11:37 pm
Operator : AIRLAB11:RY
Sample : L1521092-04D,3,56.3973,250
Misc : WG817978,ICAL11393
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R1111405.d\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.952	717	722	726	rBV	247341	487785	6.13%	3.898%
2	12.158	924	928	932	rBV	484897	900382	11.32%	7.195%
3	12.938	992	995	1000	rBB	73392	141446	1.78%	1.130%
4	14.908	1246	1250	1255	rBV2	61898	109119	1.37%	0.872%
5	15.155	1270	1274	1280	rBV	54613	107611	1.35%	0.860%
6	16.084	1360	1364	1368	rBV	5431397	7957295	100.00%	63.589%
7	16.290	1380	1384	1389	rBV	228331	404099	5.08%	3.229%
8	16.633	1431	1438	1450	rBV	887332	1174556	14.76%	9.386%
9	17.842	1675	1681	1690	rBV	173659	201769	2.54%	1.612%
10	18.698	1844	1851	1858	rBV	344144	438496	5.51%	3.504%
11	19.707	2048	2054	2062	rBV2	106591	141262	1.78%	1.129%
12	20.184	2142	2150	2159	rBV	330210	449762	5.65%	3.594%

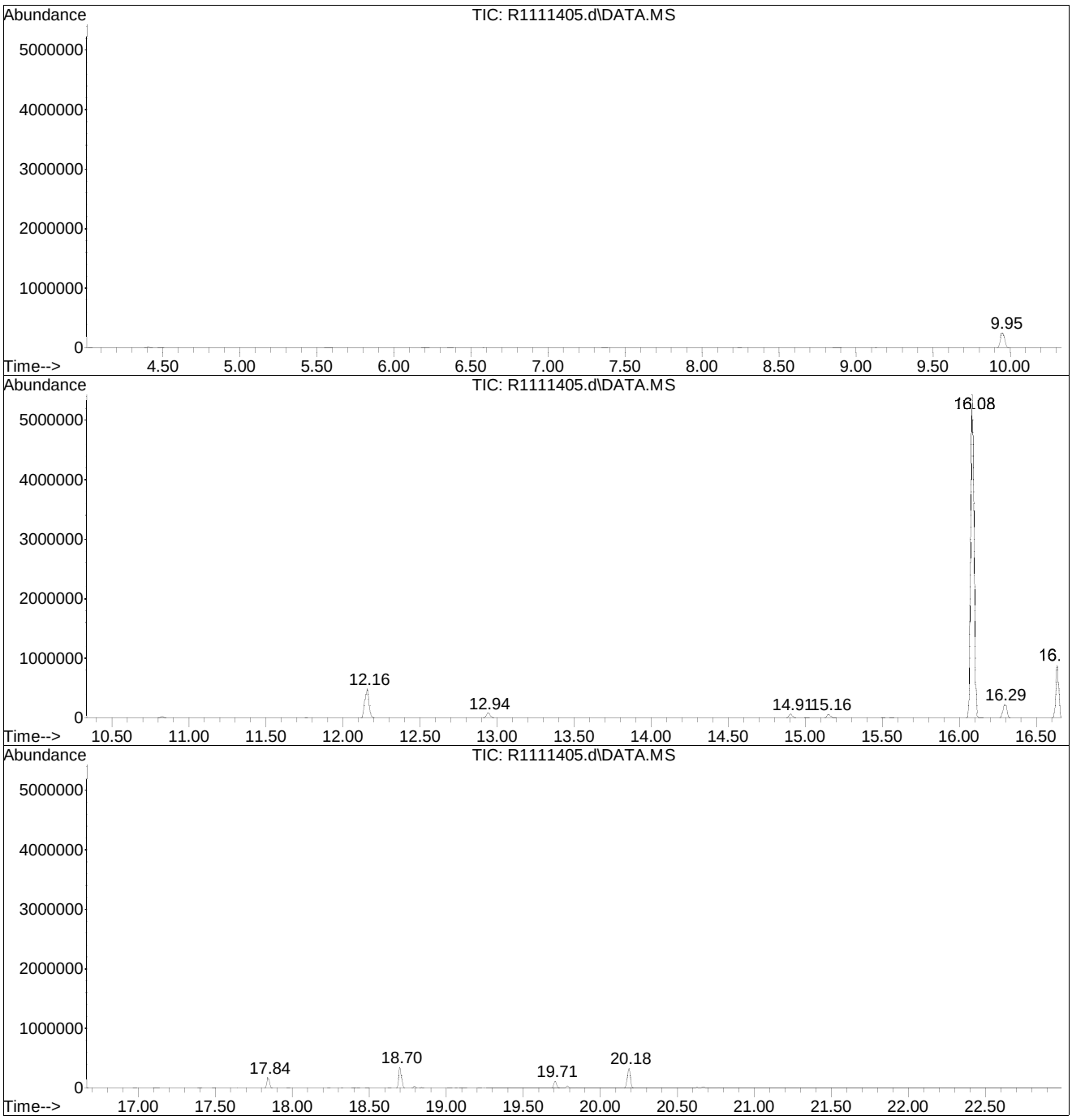
Sum of corrected areas: 12513582

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111405.d
Acq On : 2 Sep 2015 11:37 pm
Operator : AIRLAB11:RY
Sample : L1521092-04D,3,56.3973,250
Misc : WG817978,ICAL11393
ALS Vial : 4 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111405.d
Acq On : 2 Sep 2015 11:37 pm
Operator : AIRLAB11:RY
Sample : L1521092-04D,3,56.3973,250
Misc : WG817978,ICAL11393
ALS Vial : 4 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

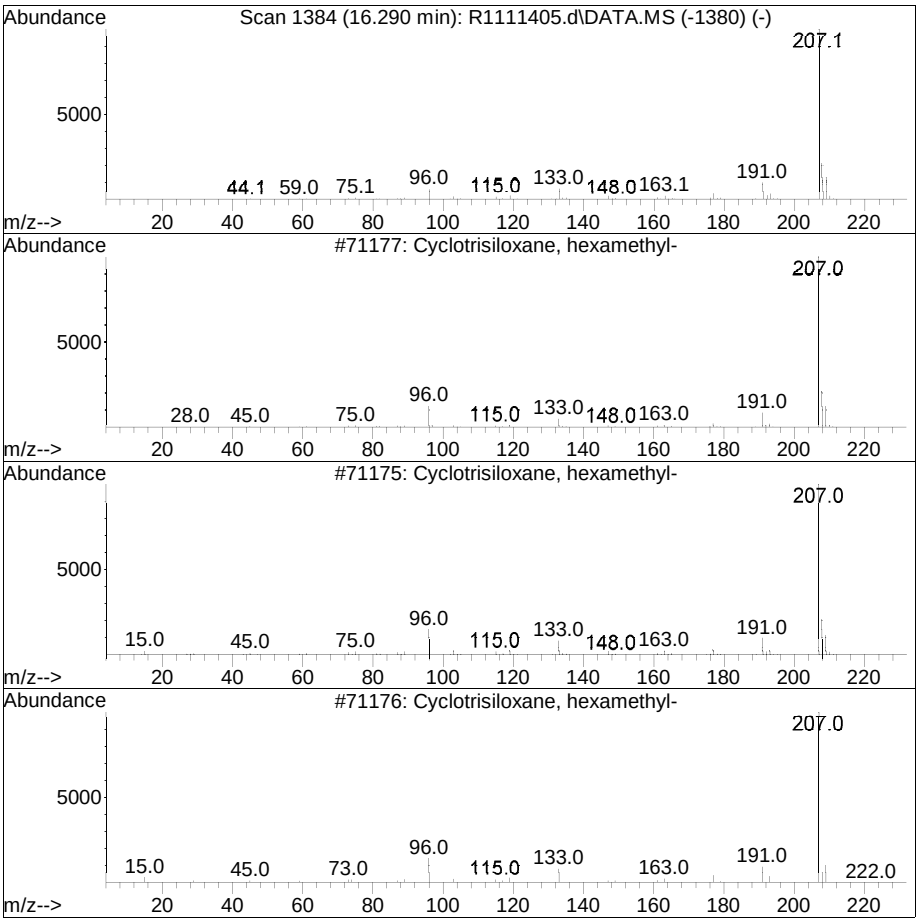
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

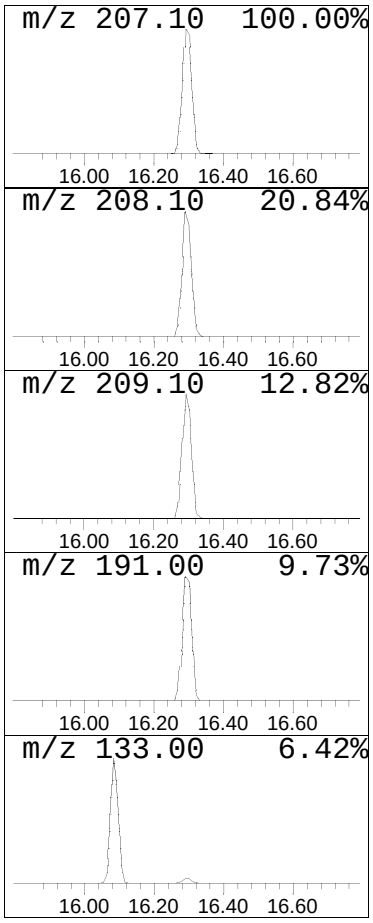
****

Peak Number 1 Cyclotrisiloxane, hexamethyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.29	3.44 ppbV	404099	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	90
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	64
4	Benzo[h]quinoline, 2,4-dimethyl-	207	C15H13N	000605-67-4	39
5	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	39





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111405.d
Acq On : 2 Sep 2015 11:37 pm
Operator : AIRLAB11:RY
Sample : L1521092-04D,3,56.3973,250
Misc : WG817978,ICAL11393
ALS Vial : 4 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

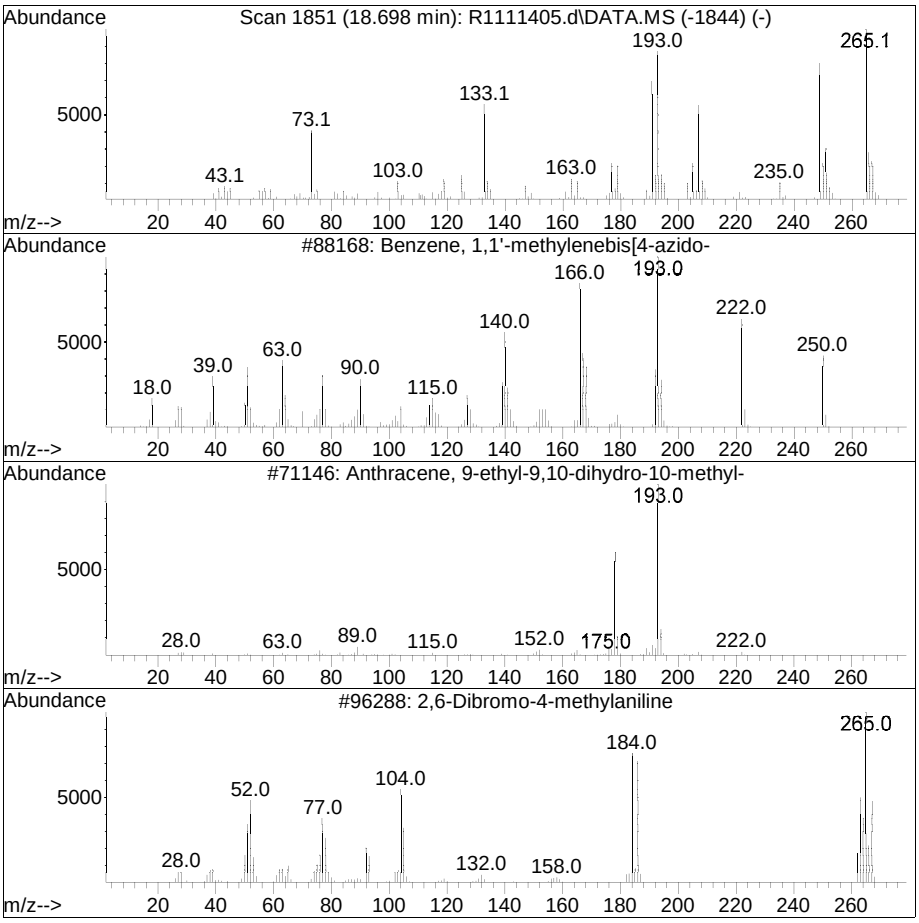
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

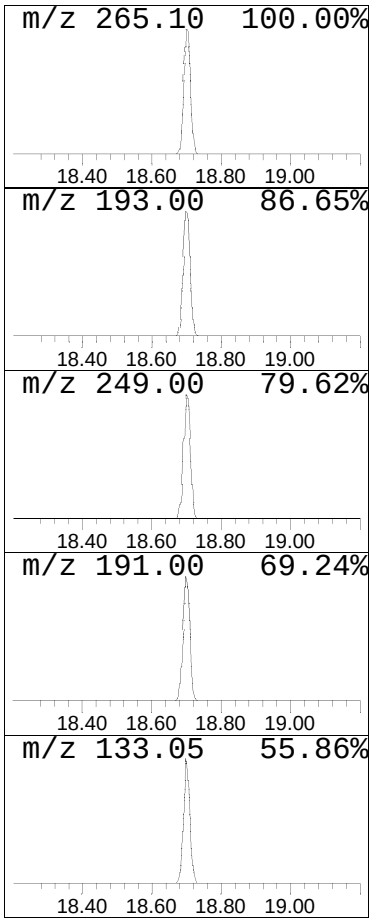
****

Peak Number 3 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.70	3.73 ppbV	438496	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1,1'-methylenebis[4-azido-	250	C13H10N6	002915-44-8	11
2	Anthracene, 9-ethyl-9,10-dihydro...	222	C17H18	036778-20-8	11
3	2,6-Dibromo-4-methylaniline	263	C7H7Br2N	006968-24-7	11
4	4H-Pyrido[1,2-a]pyrimidine-3-ace...	266	C12H11ClN2O3	050609-68-2	11
5	Propenamide, 2-cyano-3-phenyl-N-...	249	C15H11N3O	341935-47-5	11





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111405.d
Acq On : 2 Sep 2015 11:37 pm
Operator : AIRLAB11:RY
Sample : L1521092-04D,3,56.3973,250
Misc : WG817978,ICAL11393
ALS Vial : 4 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

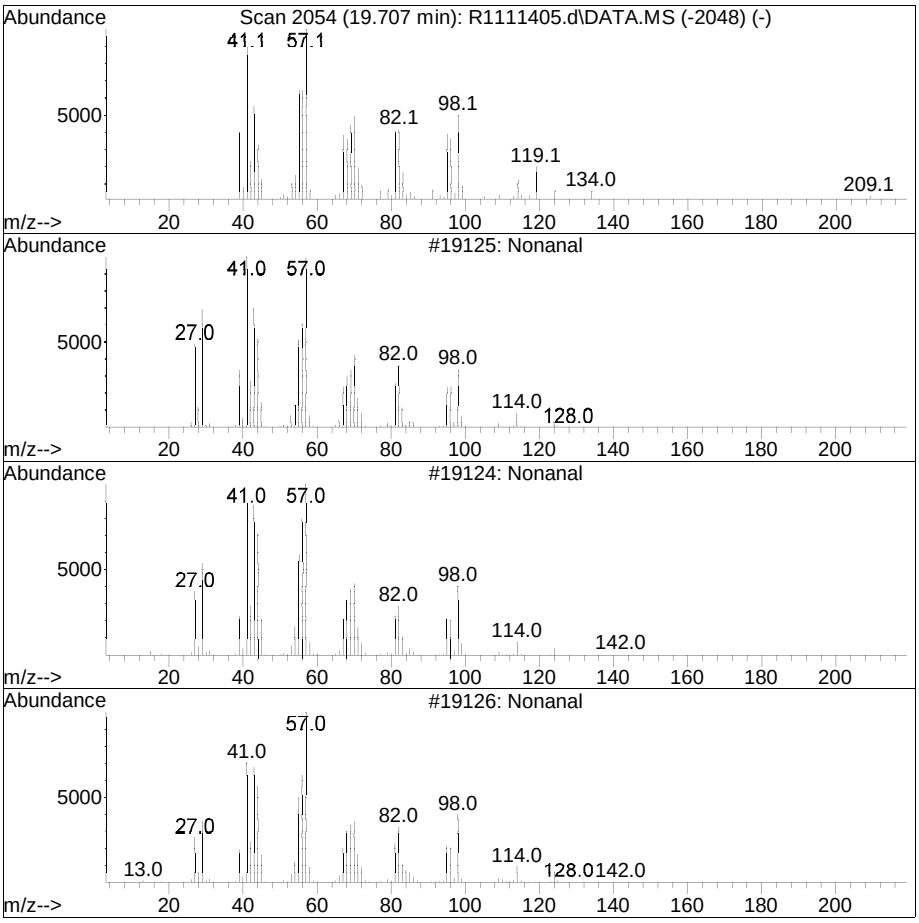
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

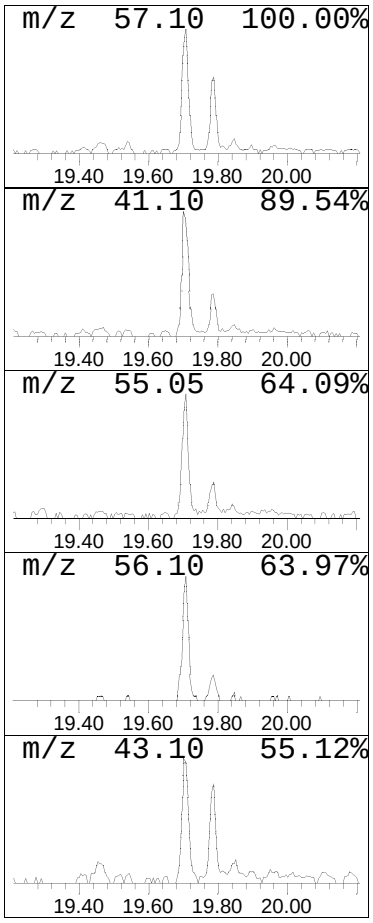
****

Peak Number 4 Nonanal Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.71	1.20 ppbV	141262	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonanal	142	C9H18O	000124-19-6	64
2	Nonanal	142	C9H18O	000124-19-6	59
3	Nonanal	142	C9H18O	000124-19-6	59
4	Cyclohexane, methyl-	98	C7H14	000108-87-2	46
5	Cycloheptane	98	C7H14	000291-64-5	38





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111405.d
Acq On : 2 Sep 2015 11:37 pm
Operator : AIRLAB11:RY
Sample : L1521092-04D,3,56.3973,250
Misc : WG817978,ICAL11393
ALS Vial : 4 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

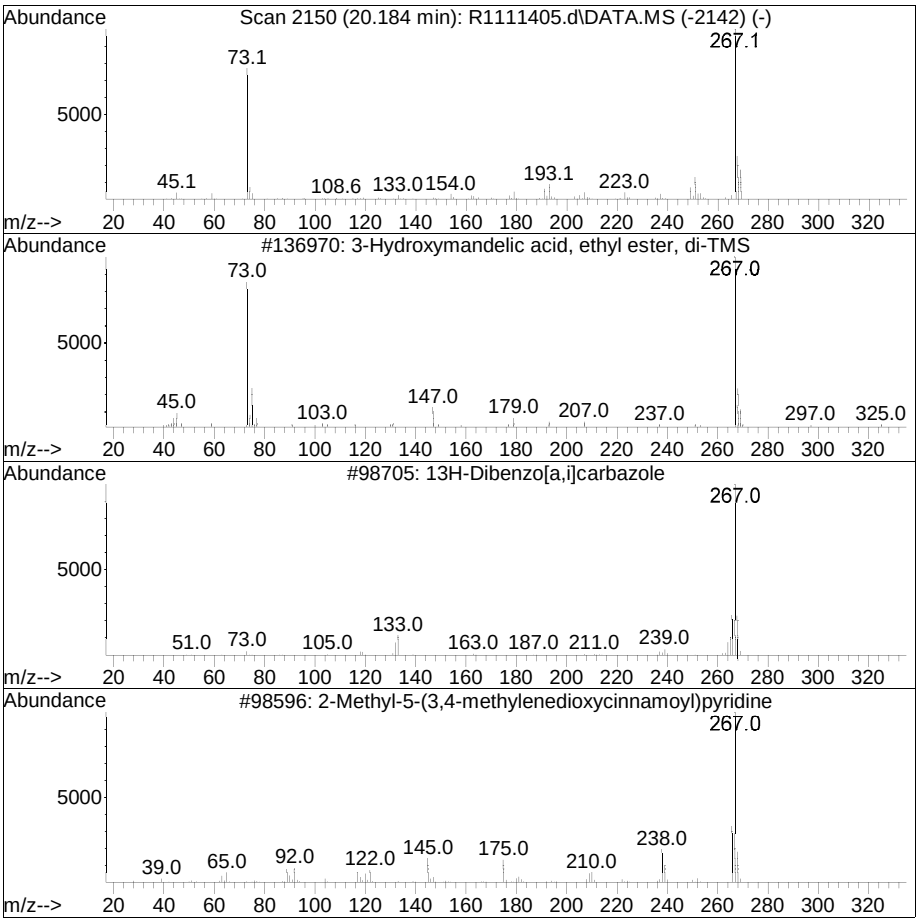
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

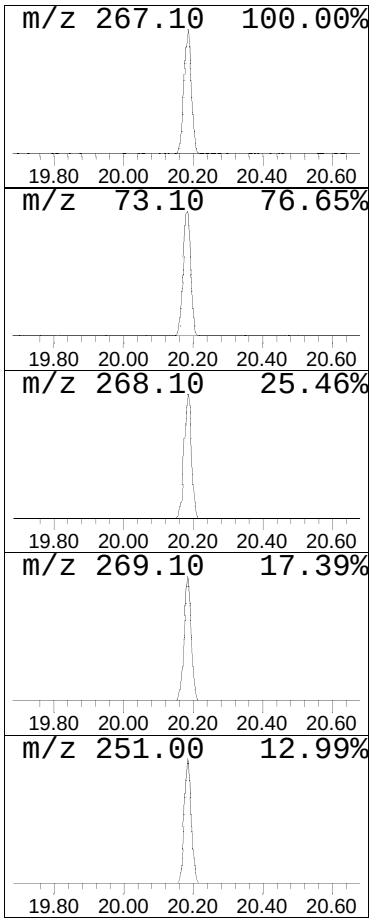
****

Peak Number 5 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.18	3.83 ppbV	449762	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-88-9	72
2	13H-Dibenzo[a,i]carbazole	267	C20H13N	000239-64-5	53
3	2-Methyl-5-(3,4-methylenedioxyci...	267	C16H13NO3	094298-70-1	50
4	13H-Dibenzo[a,i]carbazole	267	C20H13N	000239-64-5	50
5	Benzonitrile, 3-(2-hydroxy-5-nit...	267	C14H9N3O3	304454-14-6	47





Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111405.d
Acq On : 2 Sep 2015 11:37 pm
Operator : AIRLAB11:RY
Sample : L1521092-04D,3,56.3973,250
Misc : WG817978,ICAL11393
ALS Vial : 4 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc
Cyclotrisiloxan...	16.29	3.4	ppbV	404099	3	16.63	1174560	10.0
unknown siloxane	18.70	3.7	ppbV	438496	3	16.63	1174560	10.0
Nonanal	19.71	1.2	ppbV	141262	3	16.63	1174560	10.0
unknown siloxane	20.18	3.8	ppbV	449762	3	16.63	1174560	10.0

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-05DL	Date Collected :	08/27/15 14:38
Client ID	: PNC-SS-2	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 00:18
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	4.515
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111406	Instrument ID	: AIRLAB11
Sample Amount	: 55.4 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	ND	0.90	--	ND	4	--	U
74-87-3	Chloromethane	ND	0.90	--	ND	2.	--	U
76-14-2	Freon-114	ND	0.90	--	ND	6.	--	U
75-01-4	Vinyl chloride	ND	0.90	--	ND	2.	--	U
106-99-0	1,3-Butadiene	ND	0.90	--	ND	2.	--	U
74-83-9	Bromomethane	ND	0.90	--	ND	3.	--	U
75-00-3	Chloroethane	ND	0.90	--	ND	2.	--	U
64-17-5	Ethanol	ND	11	--	ND	21	--	U
593-60-2	Vinyl bromide	ND	0.90	--	ND	4.	--	U
67-64-1	Acetone	ND	4.5	--	ND	10	--	U
75-69-4	Trichlorofluoromethane	ND	0.90	--	ND	5	--	U
67-63-0	Isopropanol	ND	2.2	--	ND	5.	--	U
75-35-4	1,1-Dichloroethene	ND	0.90	--	ND	4.	--	U
75-65-0	Tertiary butyl Alcohol	ND	2.2	--	ND	7	--	U
75-09-2	Methylene chloride	ND	2.2	--	ND	8	--	U
107-05-1	3-Chloropropene	ND	0.90	--	ND	3.	--	U
75-15-0	Carbon disulfide	ND	0.90	--	ND	3.	--	U
76-13-1	Freon-113	ND	0.90	--	ND	7.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.90	--	ND	4.	--	U
75-34-3	1,1-Dichloroethane	ND	0.90	--	ND	4.	--	U
1634-04-4	Methyl tert butyl ether	ND	0.90	--	ND	3.	--	U
78-93-3	2-Butanone	ND	2.2	--	ND	6	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.90	--	ND	4.	--	U
67-66-3	Chloroform	ND	0.90	--	ND	4.	--	U
109-99-9	Tetrahydrofuran	ND	2.2	--	ND	6.	--	U
107-06-2	1,2-Dichloroethane	ND	0.90	--	ND	4.	--	U
110-54-3	n-Hexane	ND	0.90	--	ND	3.	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.90	--	ND	5	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-05DL	Date Collected :	08/27/15 14:38
Client ID	: PNC-SS-2	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 00:18
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	4.515
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111406	Instrument ID	: AIRLAB11
Sample Amount	: 55.4 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	ND	0.90	--	ND	3.	--	U
56-23-5	Carbon tetrachloride	ND	0.90	--	ND	6.	--	U
110-82-7	Cyclohexane	ND	0.90	--	ND	3	--	U
78-87-5	1,2-Dichloropropane	ND	0.90	--	ND	4.	--	U
75-27-4	Bromodichloromethane	ND	0.90	--	ND	6.	--	U
123-91-1	1,4-Dioxane	ND	0.90	--	ND	3.	--	U
79-01-6	Trichloroethene	5.8	0.90	--	31	4.8	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.90	--	ND	4.	--	U
80-62-6	Methyl Methacrylate	ND	2.2	--	ND	9.	--	U
142-82-5	Heptane	ND	0.90	--	ND	4.	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.90	--	ND	4.	--	U
108-10-1	4-Methyl-2-pentanone	ND	2.2	--	ND	9.	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.90	--	ND	4.	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.90	--	ND	5.	--	U
108-88-3	Toluene	ND	0.90	--	ND	3	--	U
124-48-1	Dibromochloromethane	ND	0.90	--	ND	8.	--	U
106-93-4	1,2-Dibromoethane	ND	0.90	--	ND	7.	--	U
127-18-4	Tetrachloroethene	210	0.90	--	1400	6.1	--	
108-90-7	Chlorobenzene	ND	0.90	--	ND	4.	--	U
100-41-4	Ethylbenzene	ND	0.90	--	ND	4	--	U
179601-23-1	p/m-Xylene	ND	1.8	--	ND	8.	--	U
75-25-2	Bromoform	ND	0.90	--	ND	9.	--	U
100-42-5	Styrene	ND	0.90	--	ND	4.	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.90	--	ND	6.	--	U
95-47-6	o-Xylene	ND	0.90	--	ND	4.	--	U
95-49-8	2-Chlorotoluene	ND	0.90	--	ND	5.	--	U
622-96-8	4-Ethyltoluene	ND	0.90	--	ND	4	--	U
108-67-8	1,3,5-Trimethybenzene	ND	0.90	--	ND	4	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-05DL	Date Collected :	08/27/15 14:38
Client ID	: PNC-SS-2	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 00:18
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	4.515
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111406	Instrument ID	: AIRLAB11
Sample Amount	: 55.4 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	1.4	0.90	--	7	4	--	
541-73-1	1,3-Dichlorobenzene	ND	0.90	--	ND	5.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.90	--	ND	5.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.90	--	ND	5.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.90	--	ND	7.	--	U
87-68-3	Hexachlorobutadiene	ND	0.90	--	ND	10	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111406.d
Acq On : 3 Sep 2015 12:18 am
Operator : AIRLAB11:RY
Sample : L1521092-05D,3,55.3691,250
Misc : WG817978,ICAL11393
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 16:52:57 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.94	49	70481	10.000	ppbV	0.00
Standard Area = 81084			Recovery =		86.92%	
43) 1,4-difluorobenzene	12.15	114	422950	10.000	ppbV	0.00
Standard Area = 489060			Recovery =		86.48%	
67) chlorobenzene-D5	16.63	54	71326	10.000	ppbV	0.00
Standard Area = 80649			Recovery =		88.44%	
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.03	85	4251	0.142	ppbV	94
6) chloromethane	0.00		0	N.D.		
7) Freon-114	0.00		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	0.00		0	N.D.		
13) bromomethane	0.00		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	5.56	31	4121	1.296	ppbV	90
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.20	43	7684	0.654	ppbV #	75
21) trichlorofluoromethane	6.36	101	4261	0.101	ppbV	87
22) isopropyl alcohol	0.00		0	N.D.	d	
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	7.35	59	2840	0.139	ppbV #	90
28) methylene chloride	7.36	49	1764	0.199	ppbV	93
29) 3-chloropropene	0.00		0	N.D.	d	
30) carbon disulfide	7.67		0	N.D.		
31) Freon 113	7.69		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	8.86		0	N.D.		
36) 2-butanone	9.31	43	1674	0.115	ppbV #	83
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	0.00		0	N.D.		
40) Tetrahydrofuran	0.00		0	N.D.		
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	0.00		0	N.D.		
48) 1,1,1-trichloroethane	11.22	97	1751	0.053	ppbV #	86

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111406.d
Acq On : 3 Sep 2015 12:18 am
Operator : AIRLAB11:RY
Sample : L1521092-05D,3,55.3691,250
Misc : WG817978,ICAL11393
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 16:52:57 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50)	benzene	11.74		0	N.D.		
52)	carbon tetrachloride	11.91		0	N.D.		
53)	cyclohexane	12.05	56	2089	0.159	ppbV	88
56)	1,2-dichloropropane	0.00		0	N.D.		
57)	bromodichloromethane	0.00		0	N.D.		
58)	1,4-dioxane	0.00		0	N.D.		
59)	trichloroethene	12.94	130	27317	1.276	ppbV	98
60)	2,2,4-trimethylpentane	12.98		0	N.D.		
61)	methyl methacrylate	0.00		0	N.D.		
62)	heptane	0.00		0	N.D.		
63)	cis-1,3-dichloropropene	0.00		0	N.D.		
64)	4-methyl-2-pentanone	0.00		0	N.D.		
65)	trans-1,3-dichloropropene	0.00		0	N.D.		
66)	1,1,2-trichloroethane	0.00		0	N.D.		
68)	toluene	15.01	91	8421	0.188	ppbV	94
74)	dibromochloromethane	0.00		0	N.D.		
75)	1,2-dibromoethane	0.00		0	N.D.		
78)	tetrachloroethene	16.08	166	1613208	47.007	ppbV	97
80)	chlorobenzene	16.68		0	N.D.		
81)	ethylbenzene	16.98	91	5968	0.098	ppbV	96
83)	m+p-xylene	17.11	91	12202	0.240	ppbV	94
84)	bromoform	0.00		0	N.D.		
85)	styrene	17.40		0	N.D.		
86)	1,1,2,2-tetrachloroethane	0.00		0	N.D.		
87)	o-xylene	17.49	91	5073	0.099	ppbV	95
93)	2-chlorotoluene	0.00		0	N.D.		
96)	4-ethyl toluene	18.43	105	4753	0.057	ppbV	93
97)	1,3,5-trimethylbenzene	18.48	105	5193	0.075	ppbV #	98
99)	1,2,4-trimethylbenzene	18.79	105	21355	0.322	ppbV #	53
102)	1,3-dichlorobenzene	18.97		0	N.D.		
103)	1,4-dichlorobenzene	18.97		0	N.D.		
107)	1,2-dichlorobenzene	19.23		0	N.D.		
115)	1,2,4-trichlorobenzene	20.65		0	N.D.		
119)	hexachlorobutadiene	0.00		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111406.d
Acq On : 3 Sep 2015 12:18 am
Operator : AIRLAB11:RY
Sample : L1521092-05D,3,55.3691,250
Misc : WG817978,ICAL11393
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 16:52:57 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

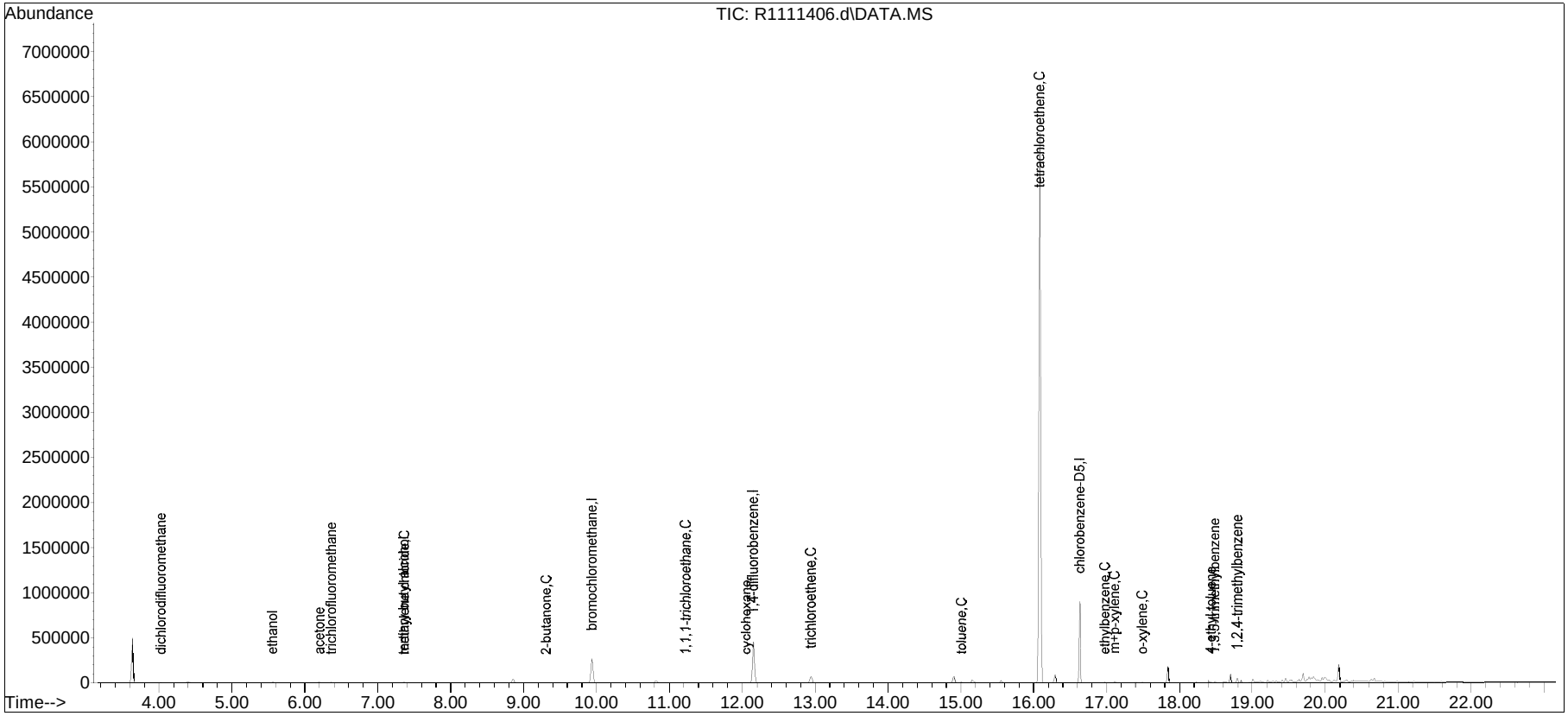
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111406.d
Acq On : 3 Sep 2015 12:18 am
Operator : AIRLAB11:RY
Sample : L1521092-05D,3,55.3691,250
Misc : WG817978,ICAL11393
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 16:52:57 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

Sub List : NJ-LL_New - .Data\Airlab11\2015\150902T\R1111393.d



TALL150827.M Thu Sep 03 16:53:21 2015

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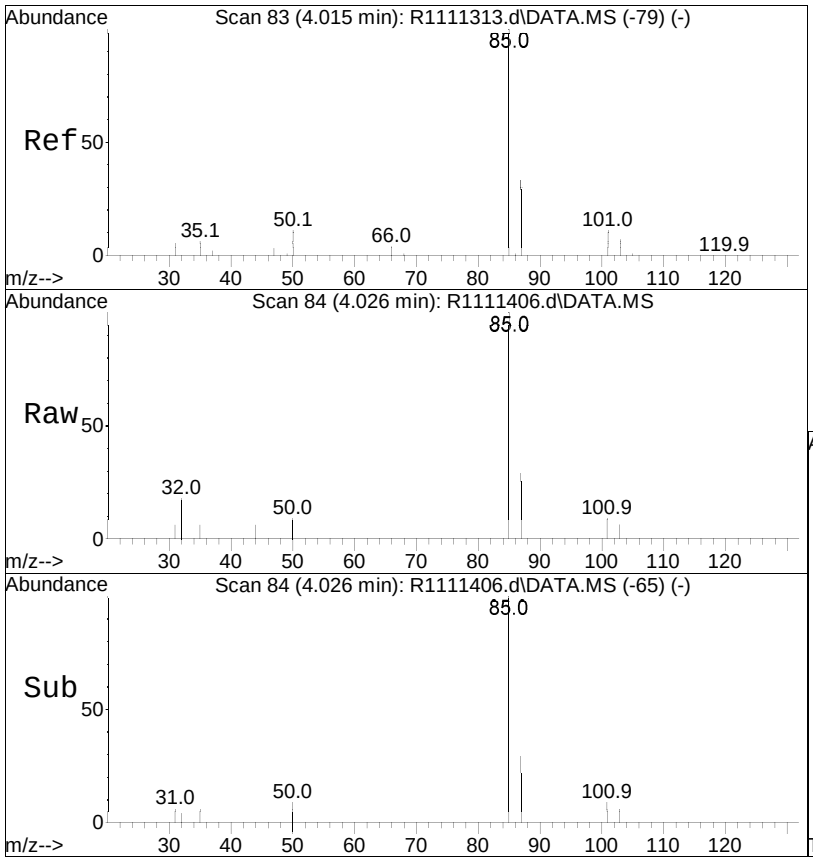
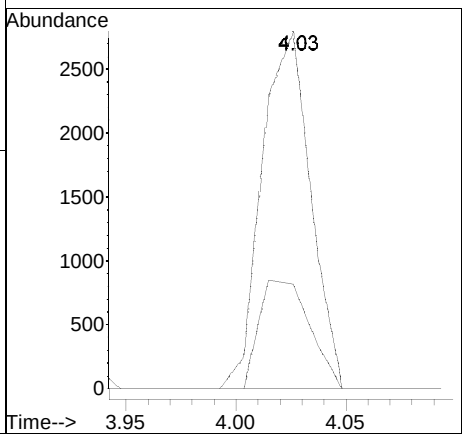
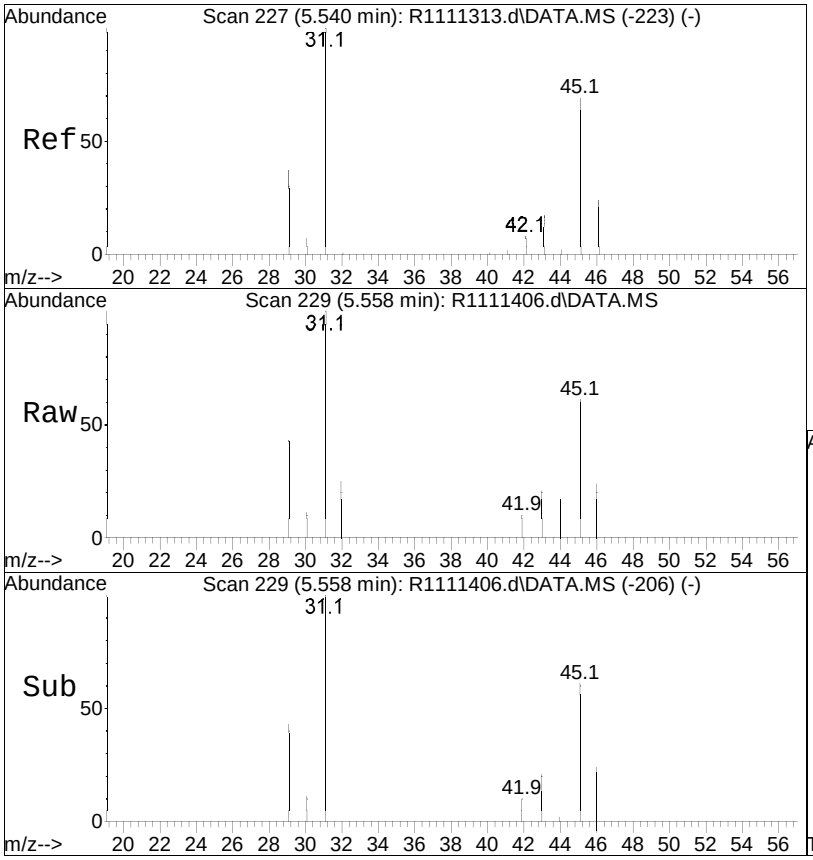


#5
dichlorodifluoromethane
Concen: 0.14 ppbV
RT: 4.03 min Scan# 84
Delta R.T. 0.011 min
Lab File: R1111406.d
Acq: 3 Sep 2015 12:18 am

Tgt Ion: 85 Resp: 4251

Ion	Ratio	Lower	Upper
85	100		
87	29.4	26.1	39.1

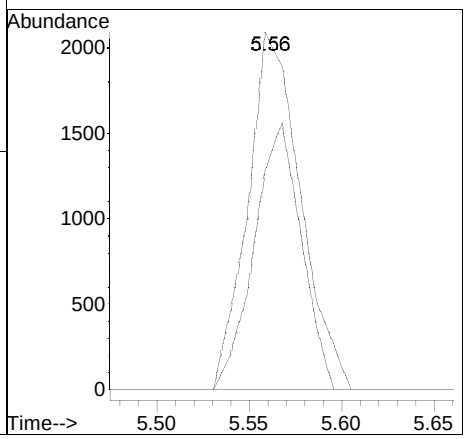


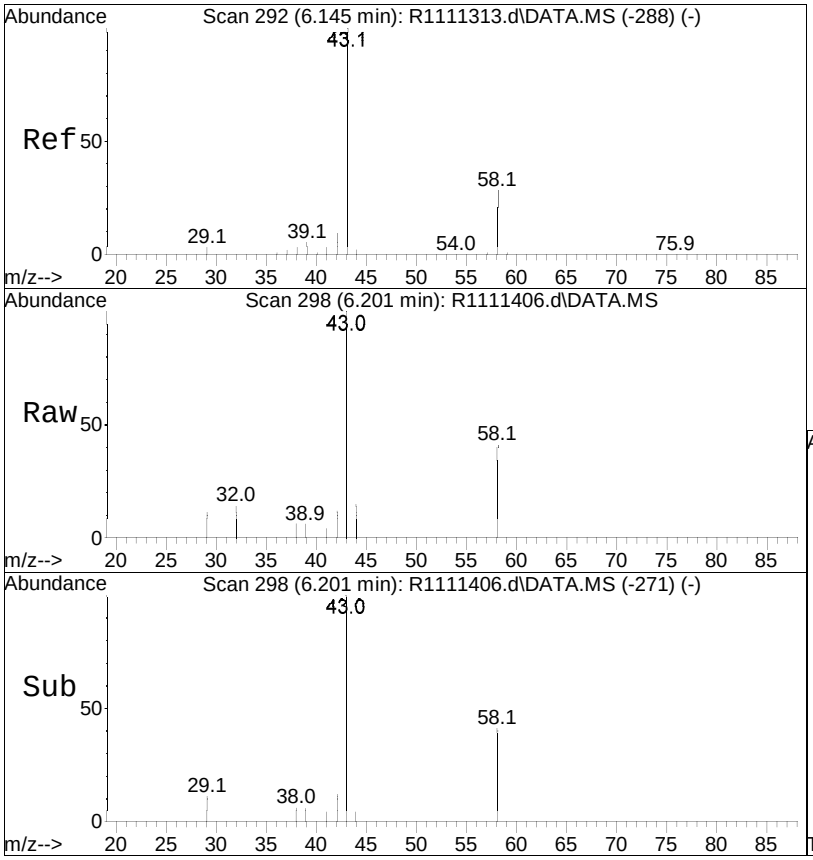


#15
ethanol
Concen: 1.30 ppbV
RT: 5.56 min Scan# 229
Delta R.T. 0.018 min
Lab File: R1111406.d
Acq: 3 Sep 2015 12:18 am

Tgt Ion: 31 Resp: 4121

Ion	Ratio	Lower	Upper
31	100		
45	60.8	55.4	83.2

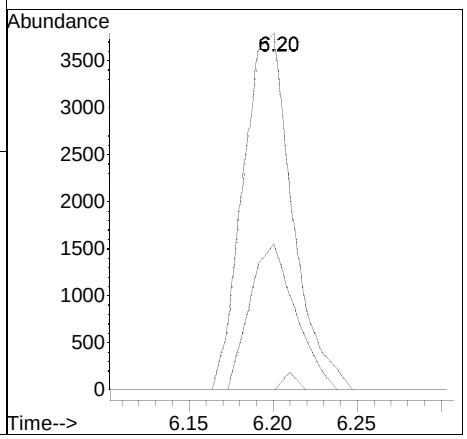


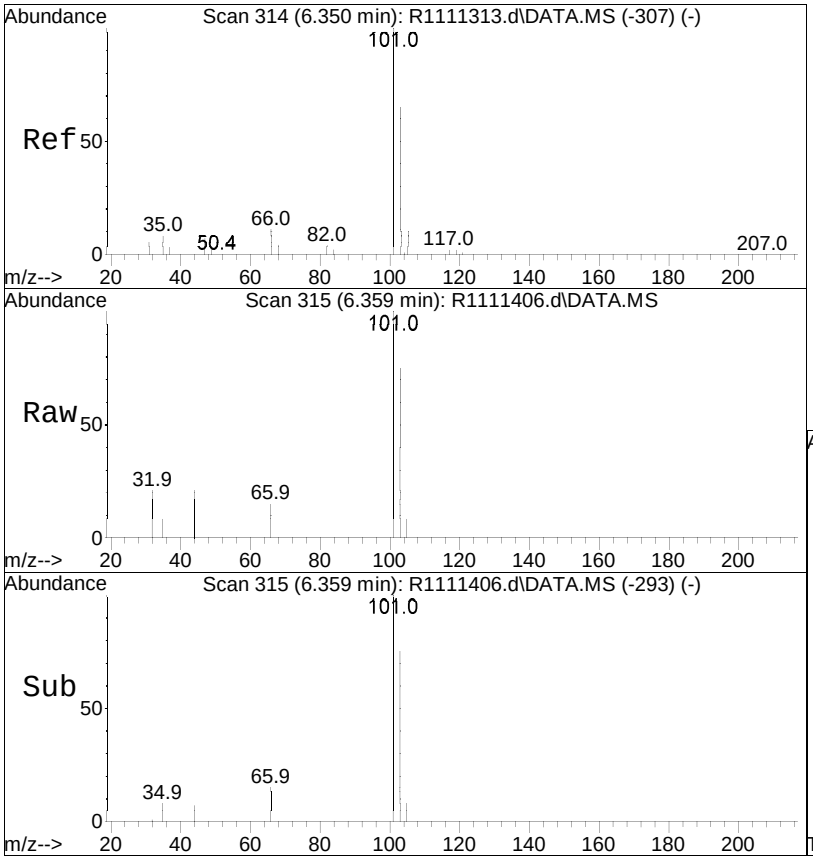


#19
acetone
Concen: 0.65 ppbV
RT: 6.20 min Scan# 298
Delta R.T. 0.056 min
Lab File: R1111406.d
Acq: 3 Sep 2015 12:18 am

Tgt Ion: 43 Resp: 7684

Ion	Ratio	Lower	Upper
43	100		
58	40.9	22.2	33.2#
57	0.0	0.6	1.0#

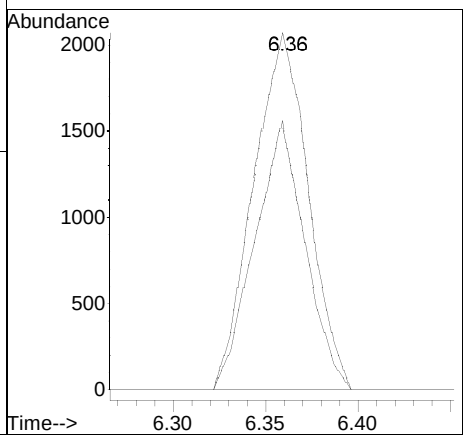


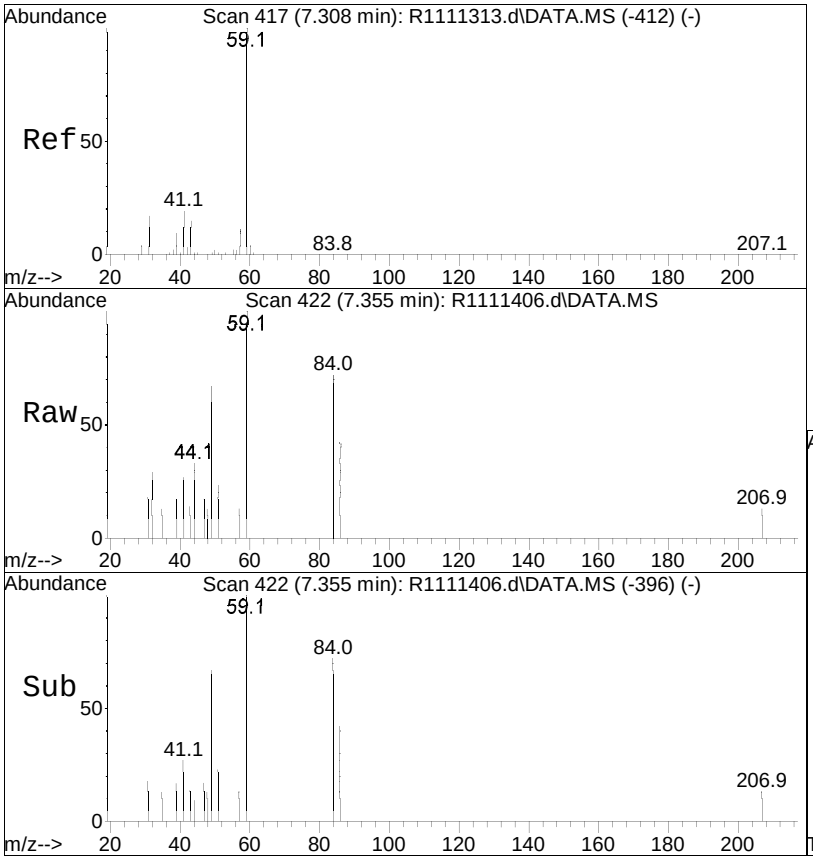


#21
trichlorofluoromethane
Concen: 0.10 ppbV
RT: 6.36 min Scan# 315
Delta R.T. 0.009 min
Lab File: R1111406.d
Acq: 3 Sep 2015 12:18 am

Tgt Ion:101 Resp: 4261

Ion	Ratio	Lower	Upper
101	100		
103	75.3	52.3	78.5

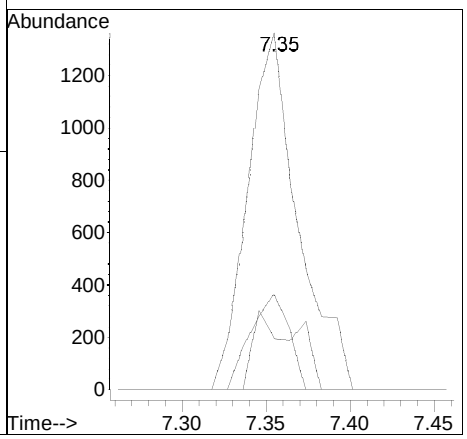


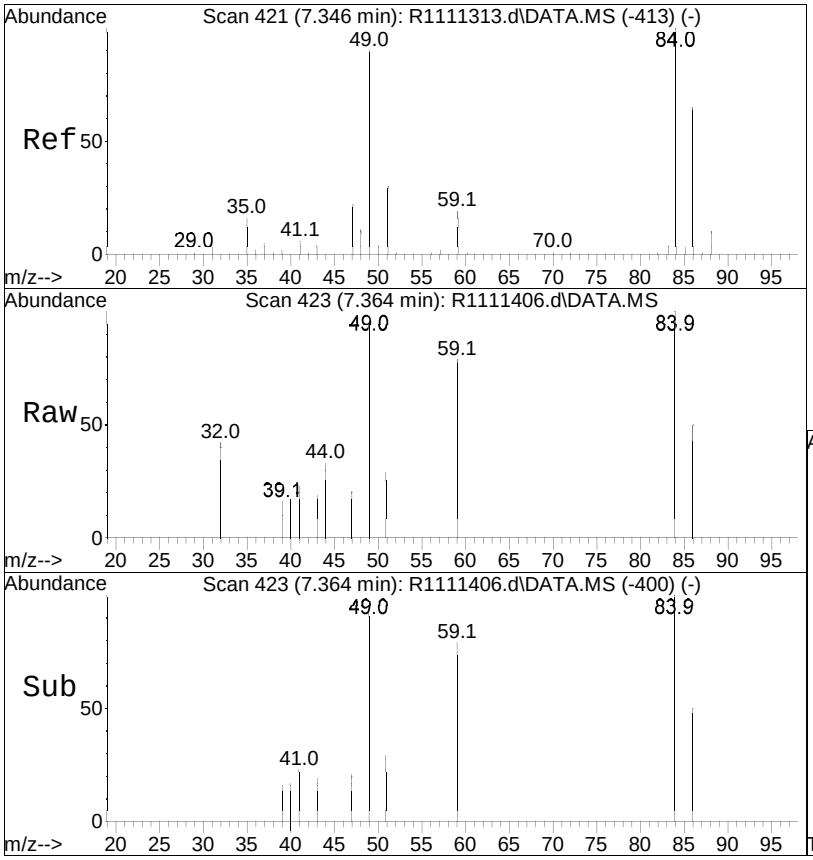


#27
tertiary butyl alcohol
Concen: 0.14 ppbV
RT: 7.35 min Scan# 422
Delta R.T. 0.046 min
Lab File: R1111406.d
Acq: 3 Sep 2015 12:18 am

Tgt Ion: 59 Resp: 2840

Ion	Ratio	Lower	Upper
59	100		
41	26.9	15.1	22.7#
43	14.5	11.8	17.6

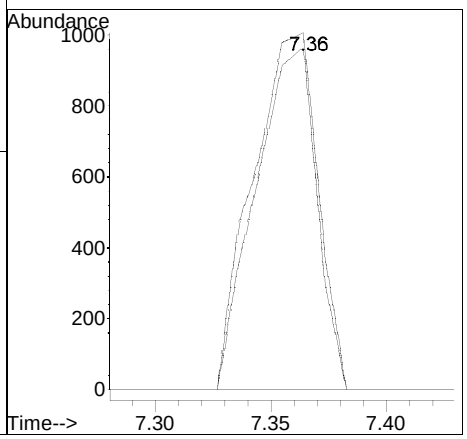


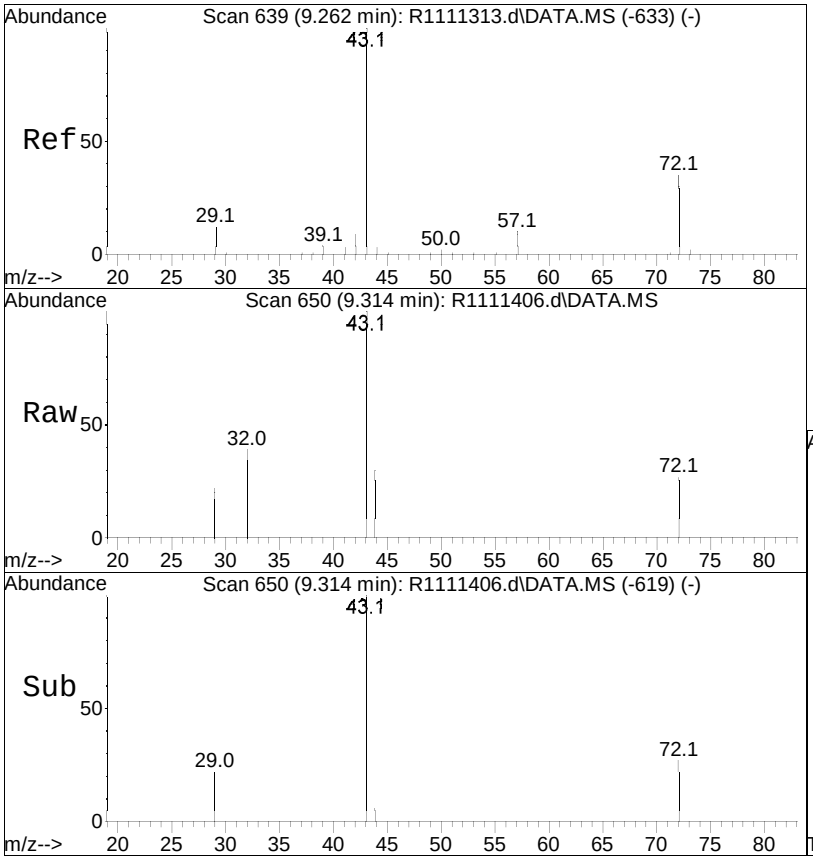


#28
methylene chloride
Concen: 0.20 ppbV
RT: 7.36 min Scan# 423
Delta R.T. 0.018 min
Lab File: R1111406.d
Acq: 3 Sep 2015 12:18 am

Tgt Ion: 49 Resp: 1764

Ion	Ratio	Lower	Upper
49	100		
84	104.2	89.0	133.4

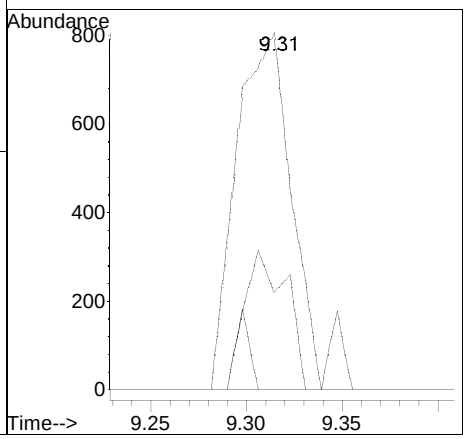


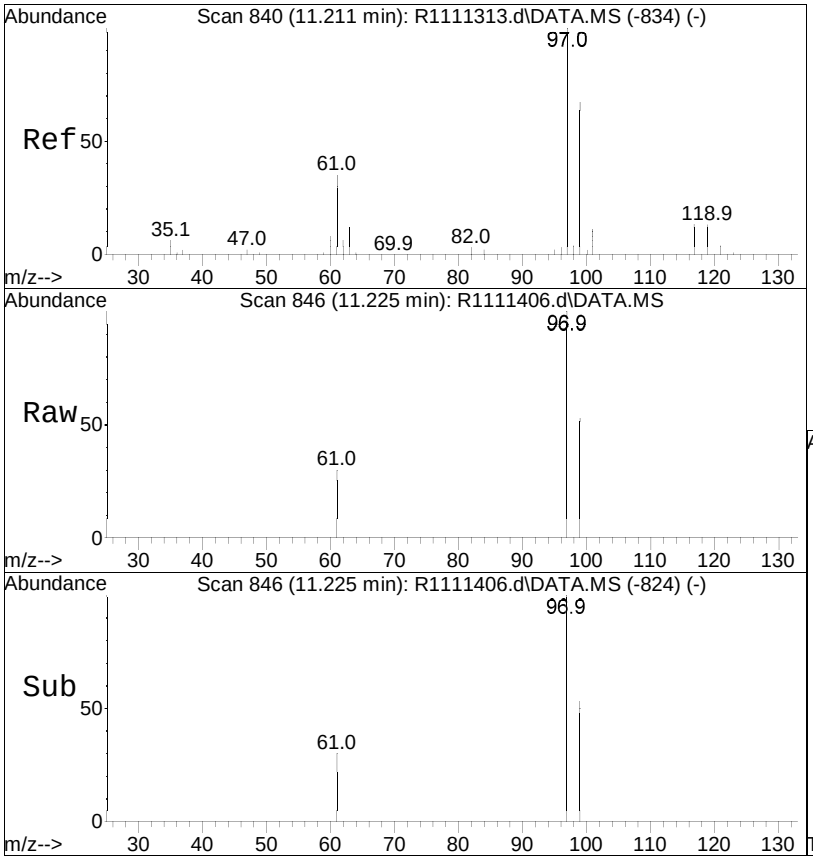


#36
2-butanone
Concen: 0.12 ppbV
RT: 9.31 min Scan# 650
Delta R.T. 0.052 min
Lab File: R1111406.d
Acq: 3 Sep 2015 12:18 am

Tgt Ion: 43 Resp: 1674

Ion	Ratio	Lower	Upper
43	100		
72	27.2	28.1	42.1#
57	0.0	8.3	12.5#

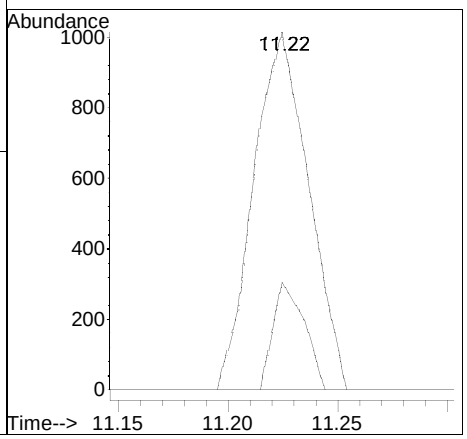


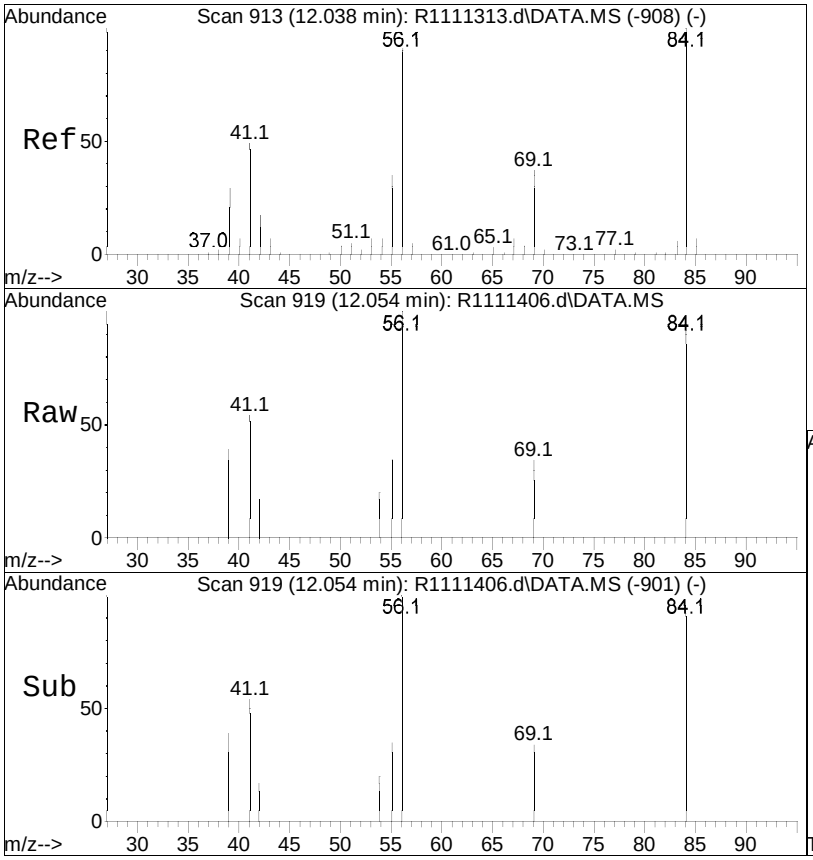


#48
1,1,1-trichloroethane
Concen: 0.05 ppbV
RT: 11.22 min Scan# 846
Delta R.T. 0.013 min
Lab File: R1111406.d
Acq: 3 Sep 2015 12:18 am

Tgt Ion: 97 Resp: 1751

Ion	Ratio	Lower	Upper
97	100		
61	30.1	27.7	41.5
119	0.0	10.2	15.2#

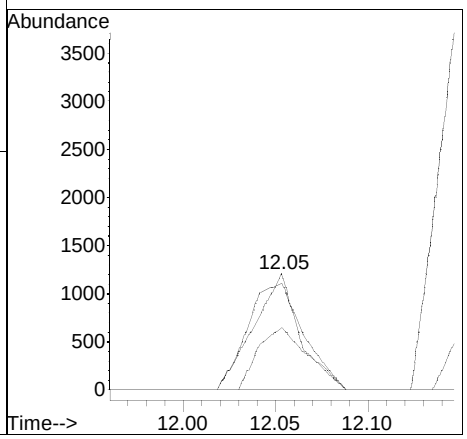


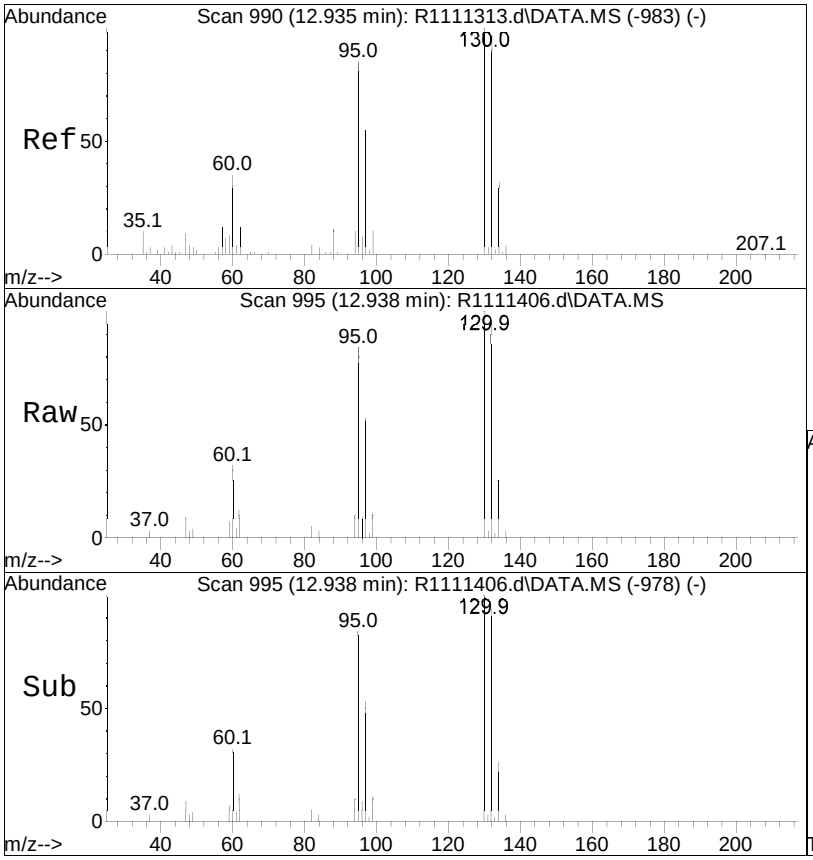


#53
cyclohexane
Concen: 0.16 ppbV
RT: 12.05 min Scan# 919
Delta R.T. 0.015 min
Lab File: R1111406.d
Acq: 3 Sep 2015 12:18 am

Tgt Ion: 56 Resp: 2089

Ion	Ratio	Lower	Upper
56	100		
84	92.0	88.4	132.6
41	54.1	43.4	65.0

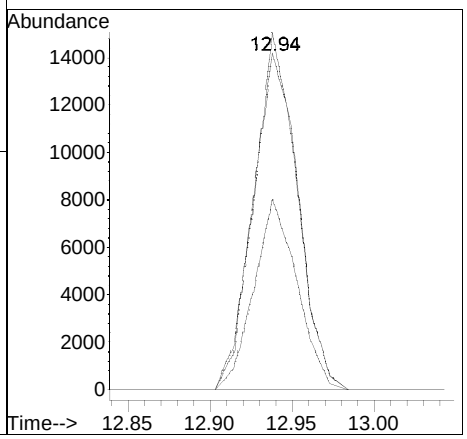


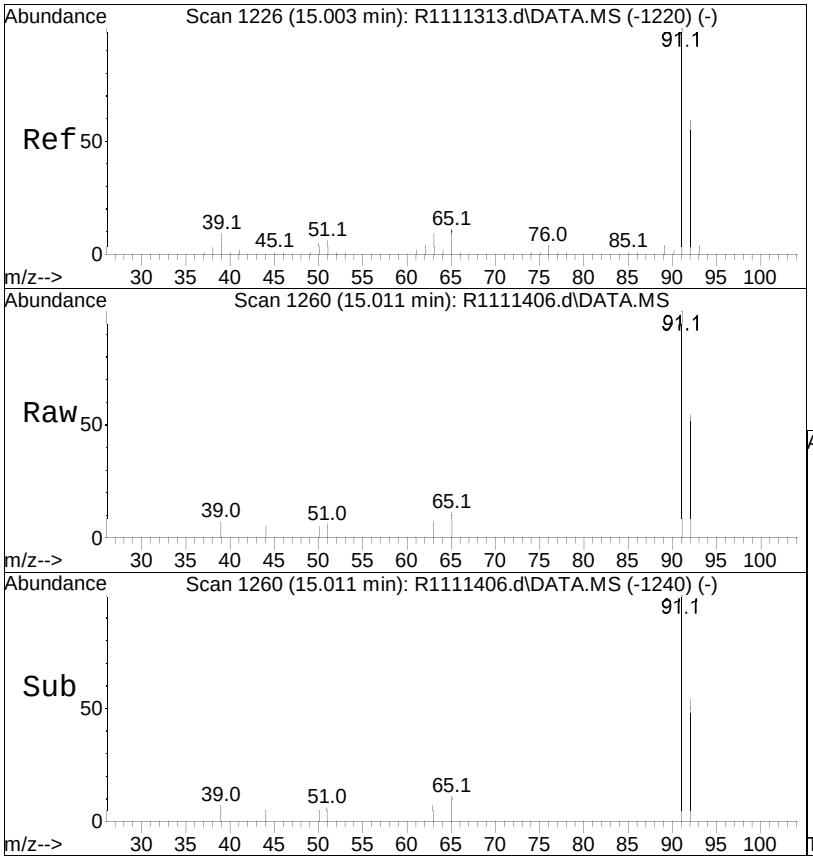


#59
trichloroethene
Concen: 1.28 ppbV
RT: 12.94 min Scan# 995
Delta R.T. 0.003 min
Lab File: R1111406.d
Acq: 3 Sep 2015 12:18 am

Tgt Ion:130 Resp: 27317

Ion	Ratio	Lower	Upper
130	100		
132	94.4	77.6	116.4
97	53.4	44.0	66.0

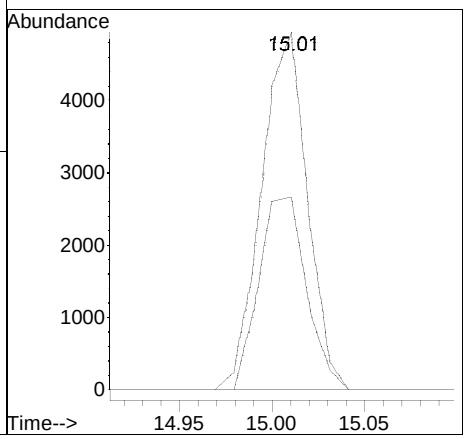


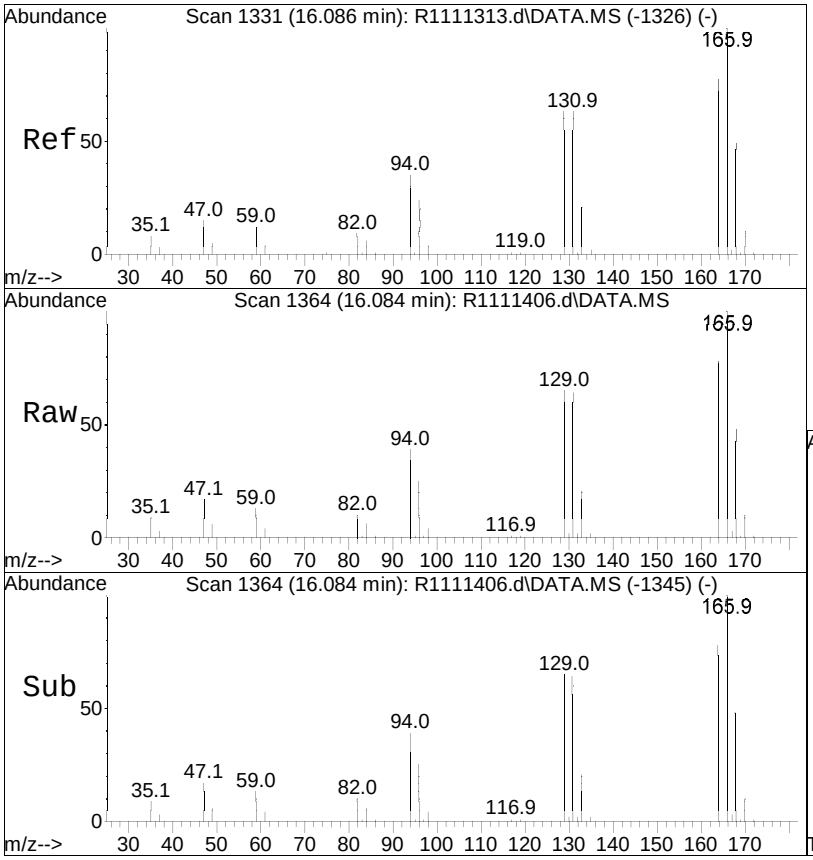


#68
toluene
Concen: 0.19 ppbV
RT: 15.01 min Scan# 1260
Delta R.T. 0.008 min
Lab File: R1111406.d
Acq: 3 Sep 2015 12:18 am

Tgt Ion: 91 Resp: 8421

Ion	Ratio	Lower	Upper
91	100		
92	54.0	47.0	70.6

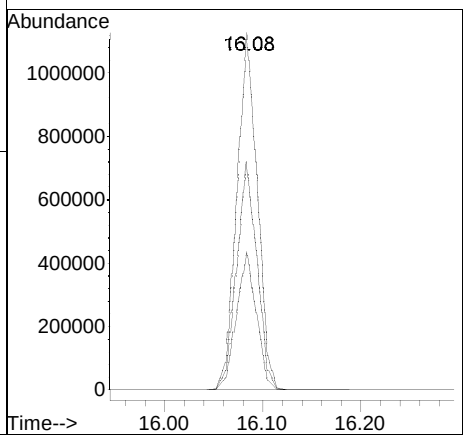


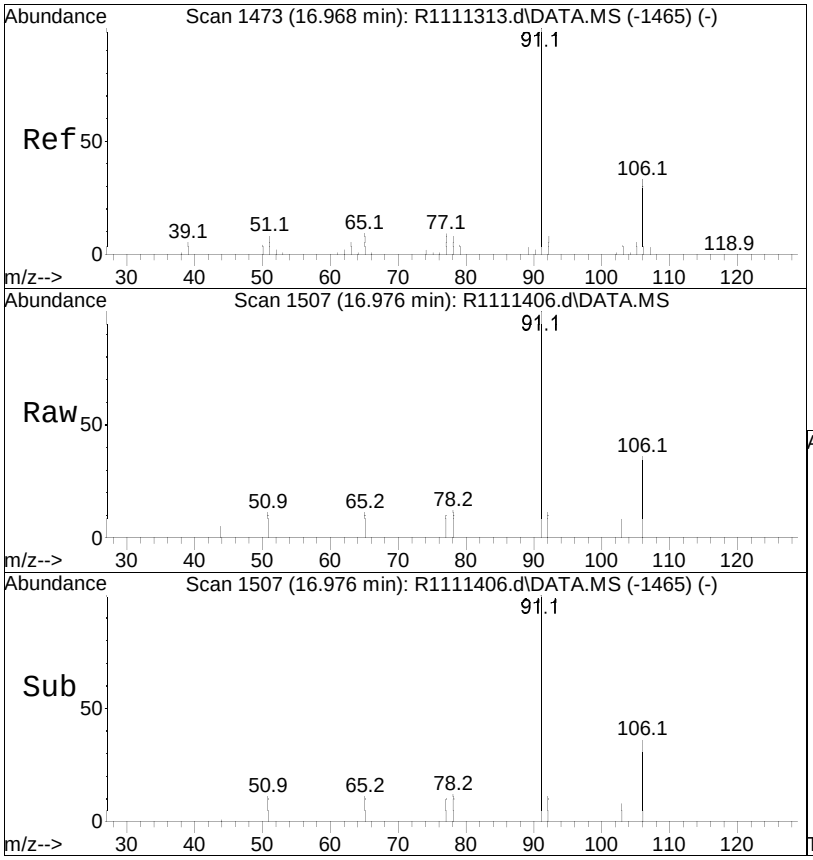


#78
tetrachloroethene
Concen: 47.01 ppbV
RT: 16.08 min Scan# 1364
Delta R.T. -0.002 min
Lab File: R1111406.d
Acq: 3 Sep 2015 12:18 am

Tgt Ion:166 Resp: 1613208

Ion	Ratio	Lower	Upper
166	100		
131	63.8	50.1	75.1
94	38.6	28.2	42.4

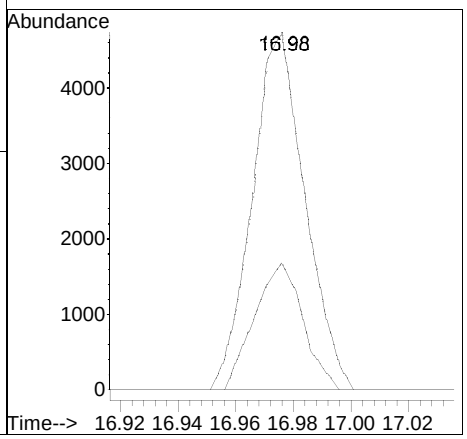


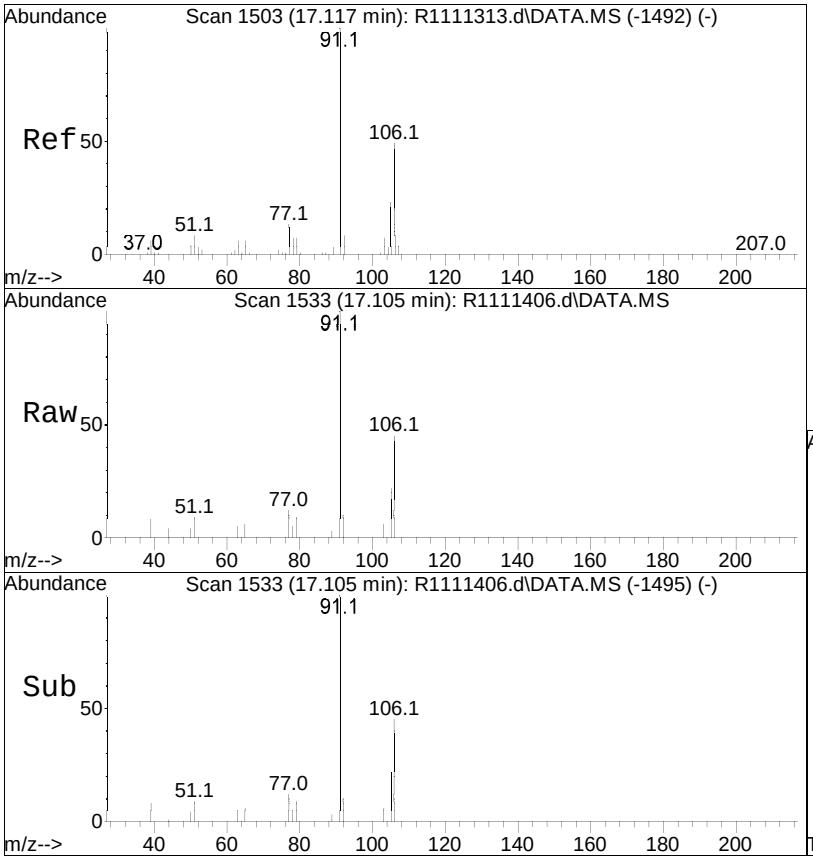


#81
ethylbenzene
Concen: 0.10 ppbV
RT: 16.98 min Scan# 1507
Delta R.T. 0.008 min
Lab File: R1111406.d
Acq: 3 Sep 2015 12:18 am

Tgt Ion: 91 Resp: 5968

Ion	Ratio	Lower	Upper
91	100		
106	35.6	26.6	39.8

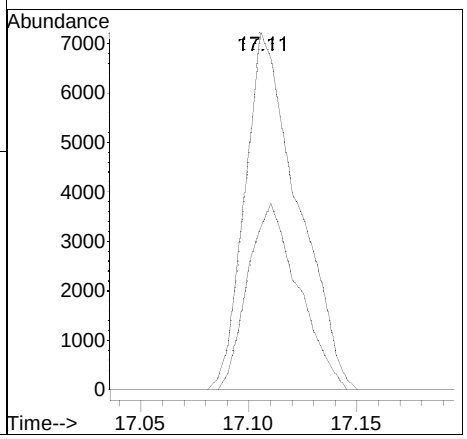


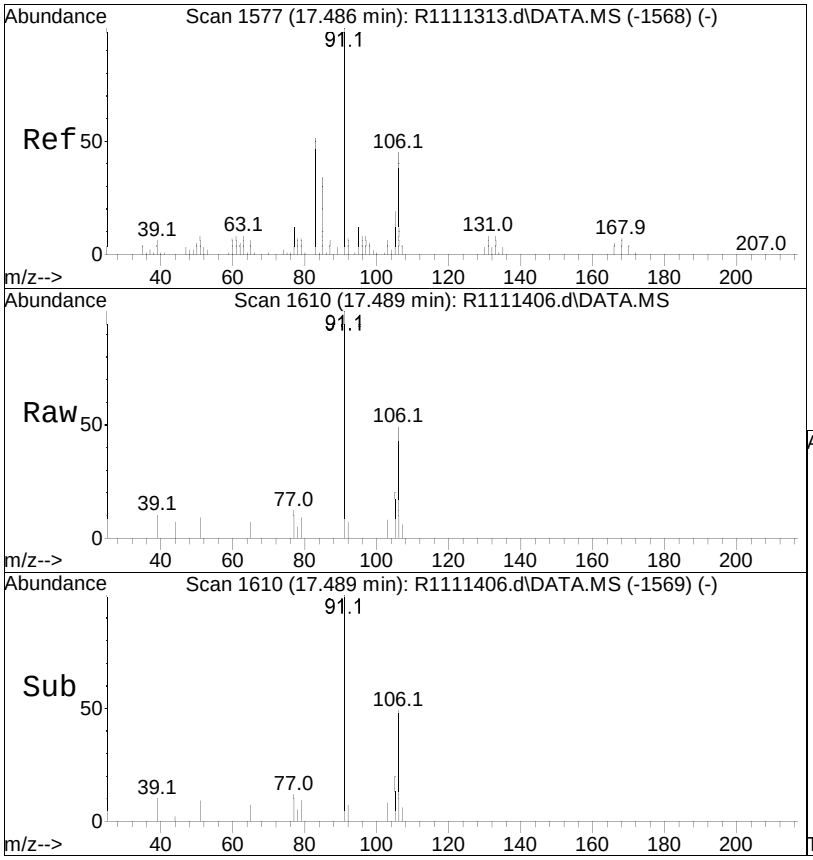


#83
m+p-xylene
Concen: 0.24 ppbV
RT: 17.11 min Scan# 1533
Delta R.T. -0.012 min
Lab File: R1111406.d
Acq: 3 Sep 2015 12:18 am

Tgt Ion: 91 Resp: 12202

Ion	Ratio	Lower	Upper
91	100		
106	45.1	39.4	59.0

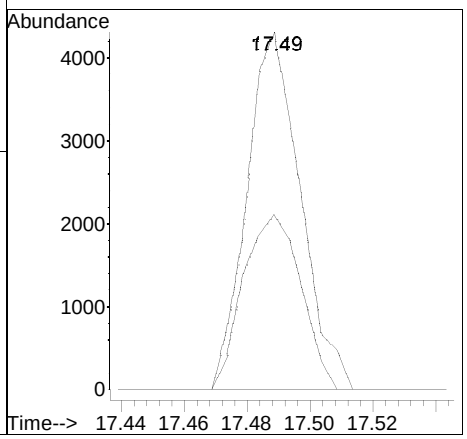


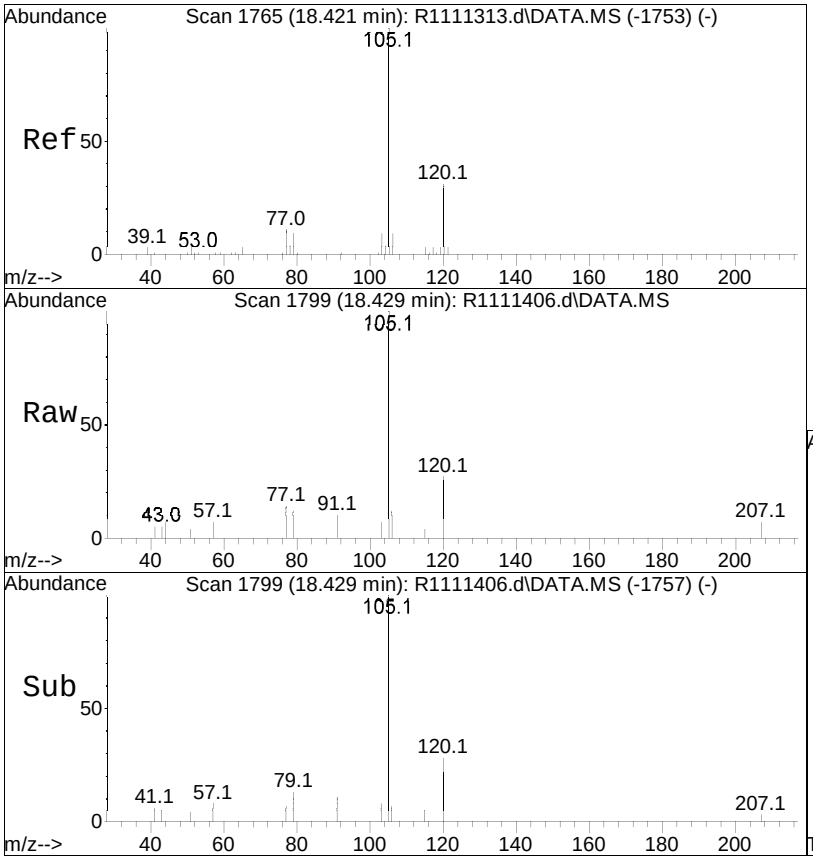


#87
o-xylene
Concen: 0.10 ppbV
RT: 17.49 min Scan# 1610
Delta R.T. 0.003 min
Lab File: R1111406.d
Acq: 3 Sep 2015 12:18 am

Tgt Ion: 91 Resp: 5073

Ion	Ratio	Lower	Upper
91	100		
106	49.0	36.3	54.5

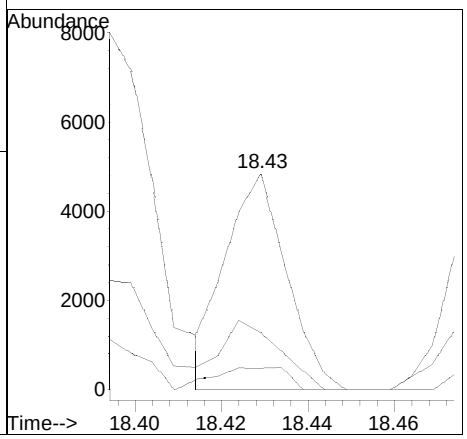


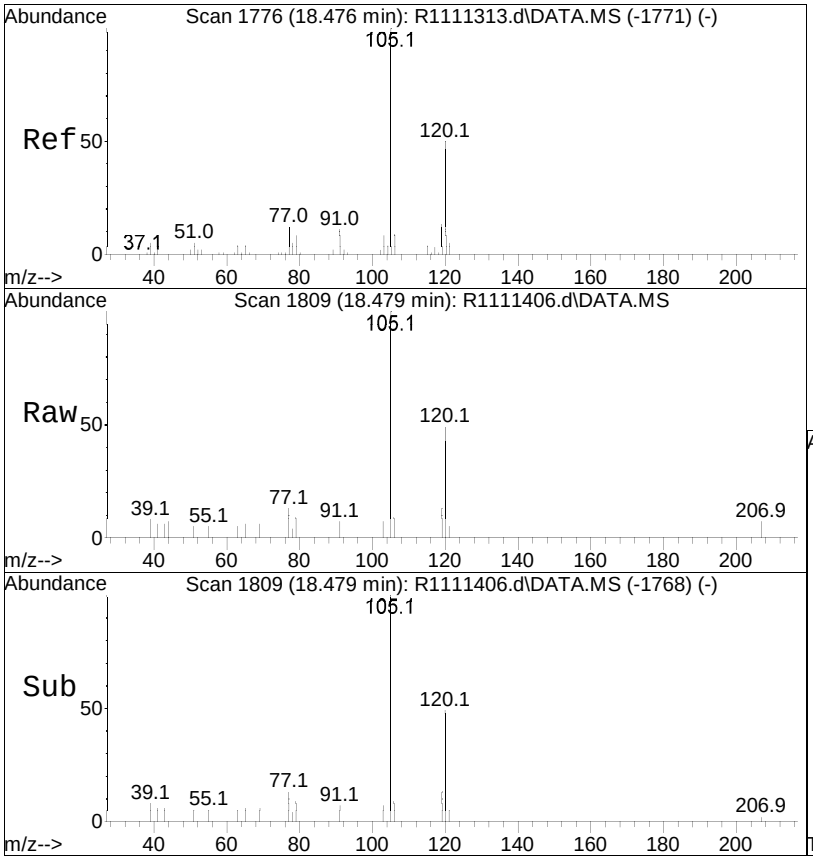


#96
4-ethyl toluene
Concen: 0.06 ppbV
RT: 18.43 min Scan# 1799
Delta R.T. 0.008 min
Lab File: R1111406.d
Acq: 3 Sep 2015 12:18 am

Tgt Ion:105 Resp: 4753

Ion	Ratio	Lower	Upper
105	100		
120	26.7	25.0	37.6
91	10.2	9.5	14.3

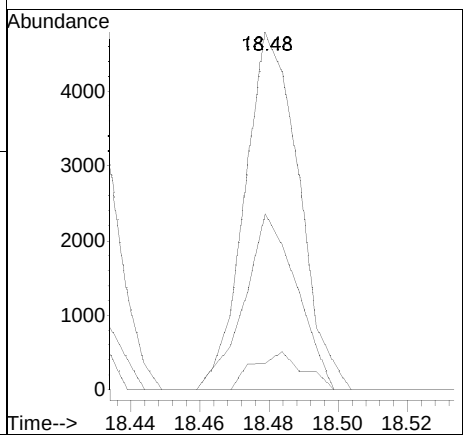


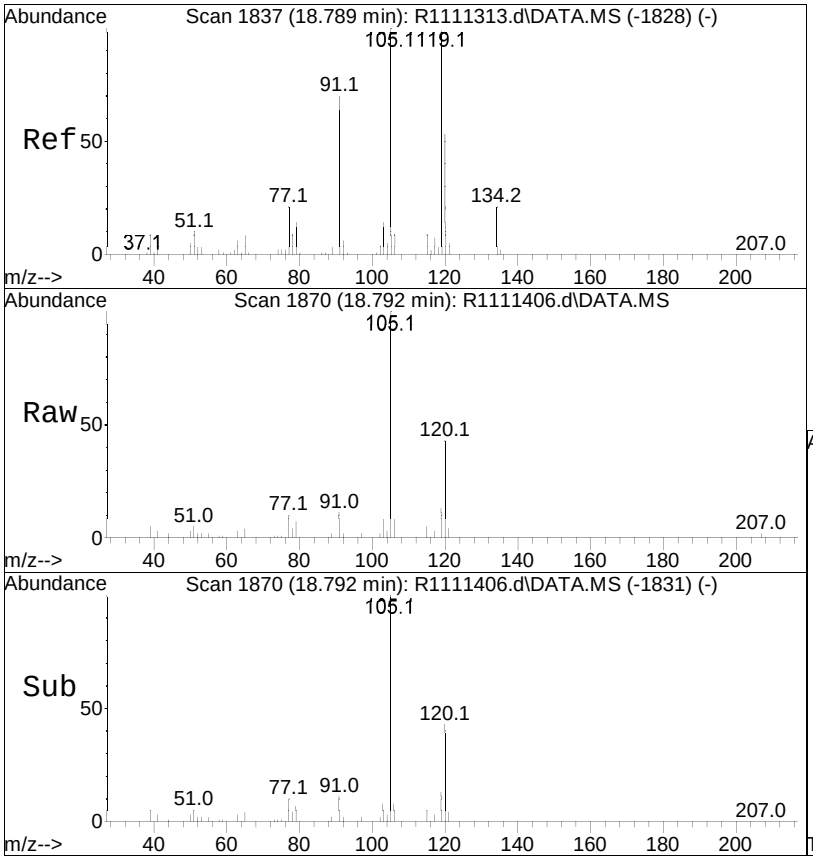


#97
1,3,5-trimethylbenzene
Concen: 0.07 ppbV
RT: 18.48 min Scan# 1809
Delta R.T. 0.003 min
Lab File: R1111406.d
Acq: 3 Sep 2015 12:18 am

Tgt Ion:105 Resp: 5193

Ion	Ratio	Lower	Upper
105	100		
120	49.3	39.7	59.5
91	7.2	8.9	13.3#

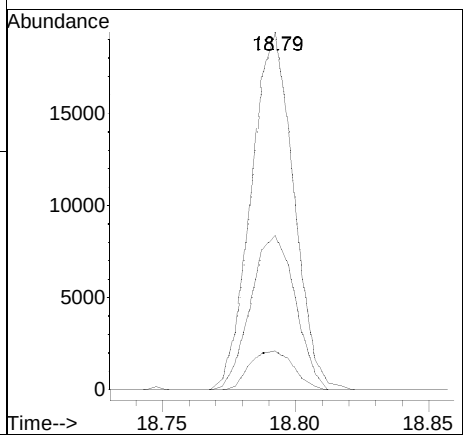




#99
1,2,4-trimethylbenzene
Concen: 0.32 ppbV
RT: 18.79 min Scan# 1870
Delta R.T. 0.003 min
Lab File: R1111406.d
Acq: 3 Sep 2015 12:18 am

Tgt Ion:105 Resp: 21355

Ion	Ratio	Lower	Upper
105	100		
120	43.3	42.2	63.2
91	10.9	55.8	83.6#



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\Airlab11\	QMethod	: TALL150827.M
Data File	: R1111406.d	Operator	: AIRLAB11:RY
Date Inj'd	: 9/3/2015 12:18 am	Instrument	: Airlab 11
Sample	: L1521092-05D,3,55.3691,250	Quant Date	: 9/3/2015 8:52 am

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number	: 0809-15
Lab ID	: L1521092-05DL	Date Collected	: 08/27/15 14:38
Client ID	: PNC-SS-2	Date Received	: 08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed	: 09/03/15 00:18
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 4.515
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111406	Instrument ID	: AIRLAB11
Sample Amount	: 55.4 ml	GC Column	: RTX-1

Number TICS found: 3

Concentration Units: ppbV

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
000541-05-9	Cyclotrisiloxane, hexamethyl-	16.29	5.4	NJD
000124-19-6	Nonanal	19.70	4.8	NJD
	unknown siloxane	20.18	11	JD
	Total TIC Compounds		21.2	

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111406.d
Acq On : 3 Sep 2015 12:18 am
Operator : AIRLAB11:RY
Sample : L1521092-05D,3,55.3691,250
Misc : WG817978,ICAL11393
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R1111406.d\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.941	717	721	729	rBV	270103	497717	5.73%	3.987%
2	12.147	923	927	932	rBV	452319	909933	10.47%	7.289%
3	12.938	992	995	999	rBV	71963	131737	1.52%	1.055%
4	14.907	1245	1250	1255	rBB	62790	118202	1.36%	0.947%
5	16.084	1360	1364	1368	rBV	6097699	8690021	100.00%	69.611%
6	16.290	1381	1384	1389	rBV	78315	141616	1.63%	1.134%
7	16.633	1431	1438	1446	rBV	902185	1183391	13.62%	9.480%
8	17.842	1674	1681	1687	rBV	181392	210626	2.42%	1.687%
9	18.698	1845	1851	1858	rVB2	85654	105669	1.22%	0.846%
10	19.702	2046	2053	2060	rBV3	86577	125626	1.45%	1.006%
11	19.995	2107	2112	2122	rVB4	37312	90581	1.04%	0.726%
12	20.184	2143	2150	2157	rVB	190202	278487	3.20%	2.231%

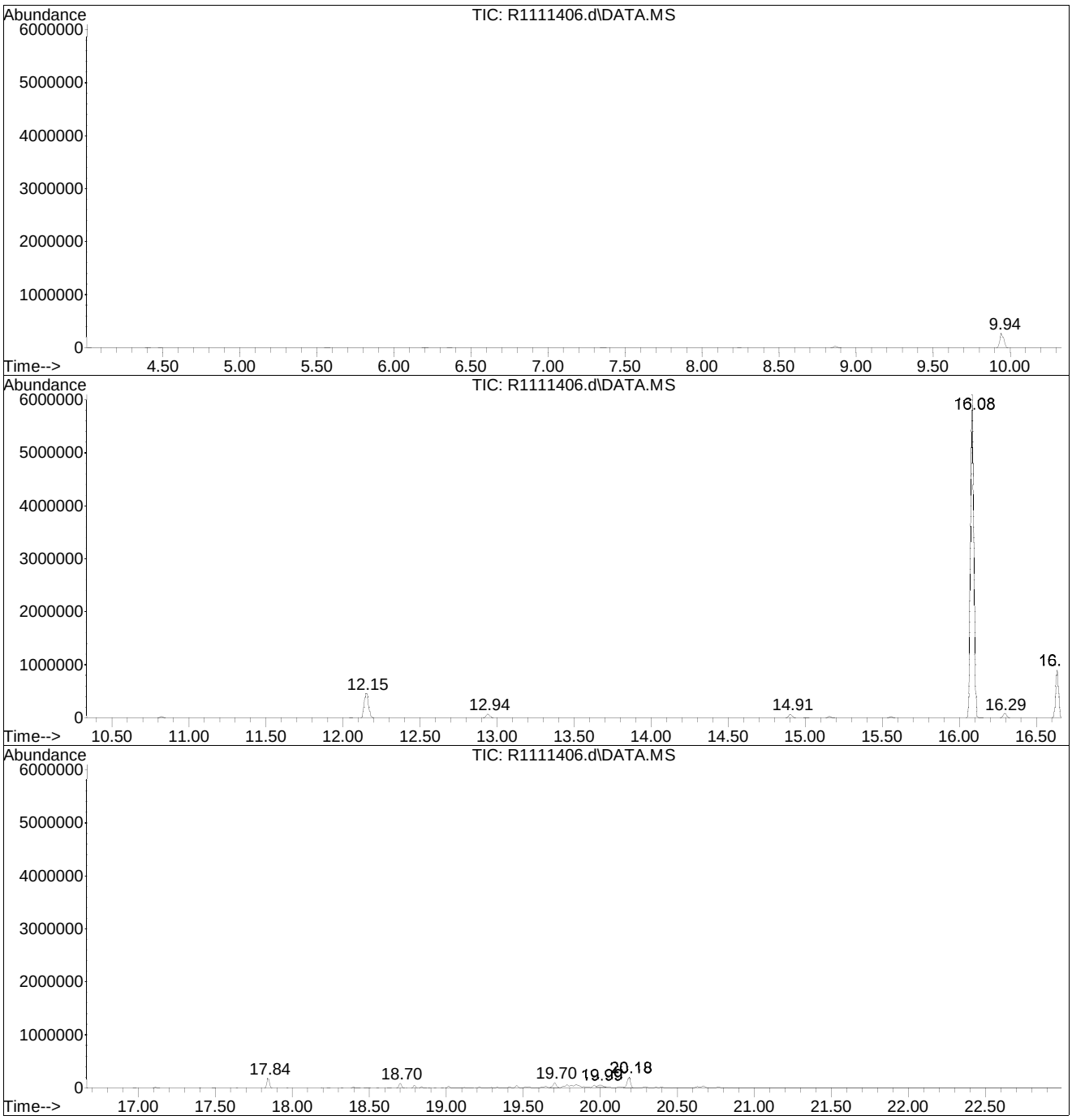
Sum of corrected areas: 12483606

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111406.d
Acq On : 3 Sep 2015 12:18 am
Operator : AIRLAB11:RY
Sample : L1521092-05D,3,55.3691,250
Misc : WG817978,ICAL11393
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111406.d
Acq On : 3 Sep 2015 12:18 am
Operator : AIRLAB11:RY
Sample : L1521092-05D,3,55.3691,250
Misc : WG817978,ICAL11393
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

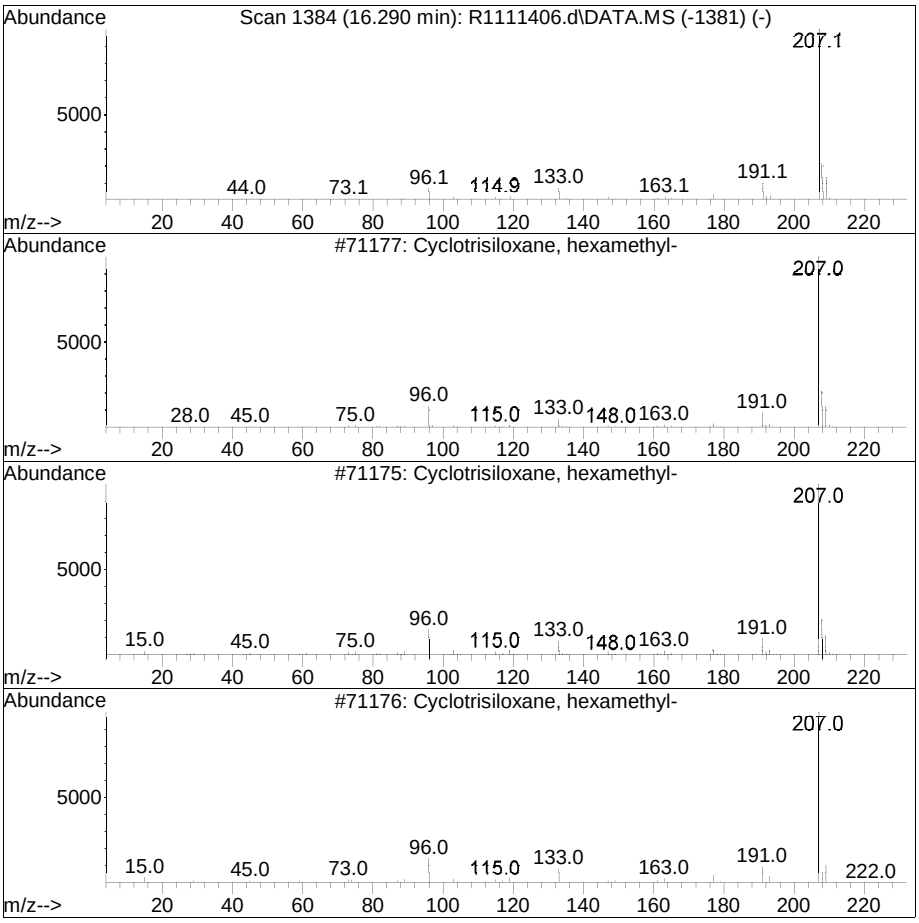
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

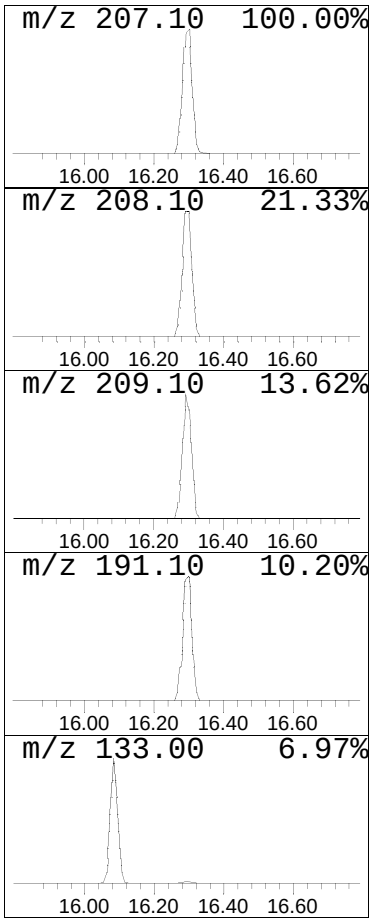
****

Peak Number 1 Cyclotrisiloxane, hexamethyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.29	1.20 ppbV	141616	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	90
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	90
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	72
4	Benzo[h]quinoline, 2,4-dimethyl-	207	C15H13N	000605-67-4	39
5	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	39





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111406.d
Acq On : 3 Sep 2015 12:18 am
Operator : AIRLAB11:RY
Sample : L1521092-05D,3,55.3691,250
Misc : WG817978,ICAL11393
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

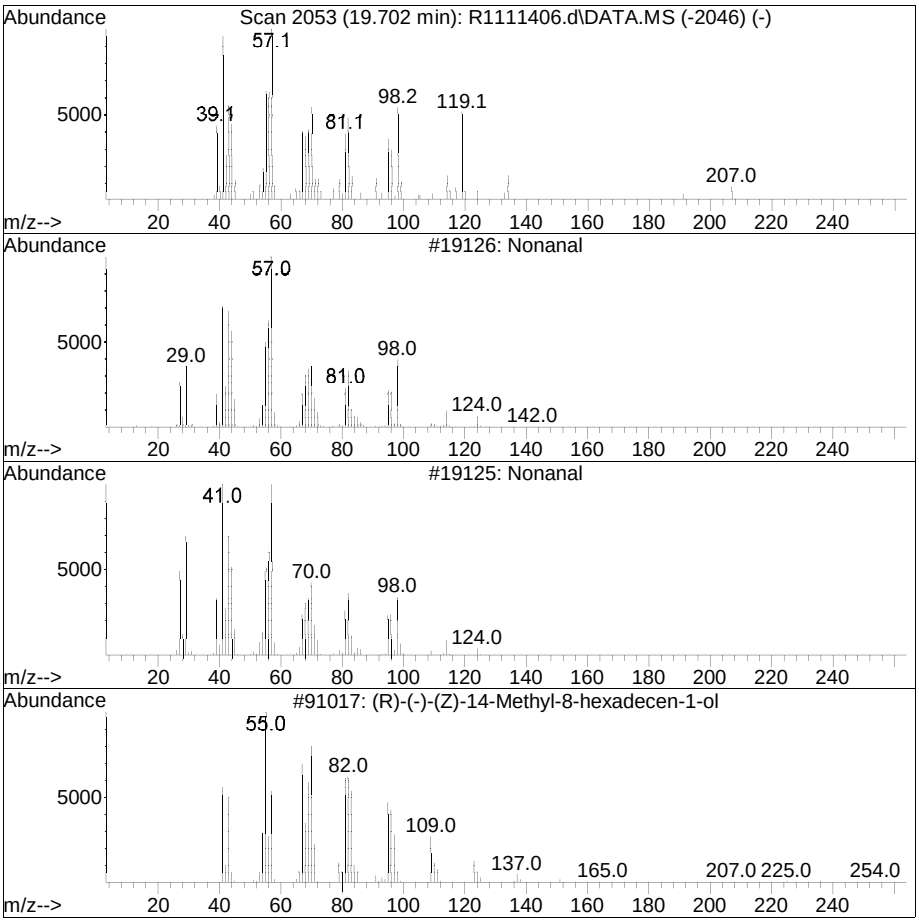
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

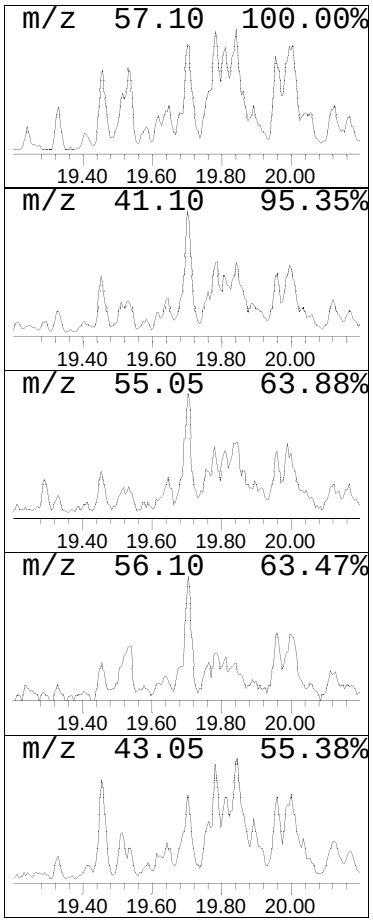
****

Peak Number 3 Nonanal Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.70	1.06 ppbV	125626	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonanal	142	C9H18O	000124-19-6	72
2	Nonanal	142	C9H18O	000124-19-6	58
3	(R)-(-)-(Z)-14-Methyl-8-hexadece...	254	C17H34O	030689-78-2	38
4	Cycloheptane	98	C7H14	000291-64-5	30
5	Cycloheptane	98	C7H14	000291-64-5	25





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111406.d
Acq On : 3 Sep 2015 12:18 am
Operator : AIRLAB11:RY
Sample : L1521092-05D,3,55.3691,250
Misc : WG817978,ICAL11393
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

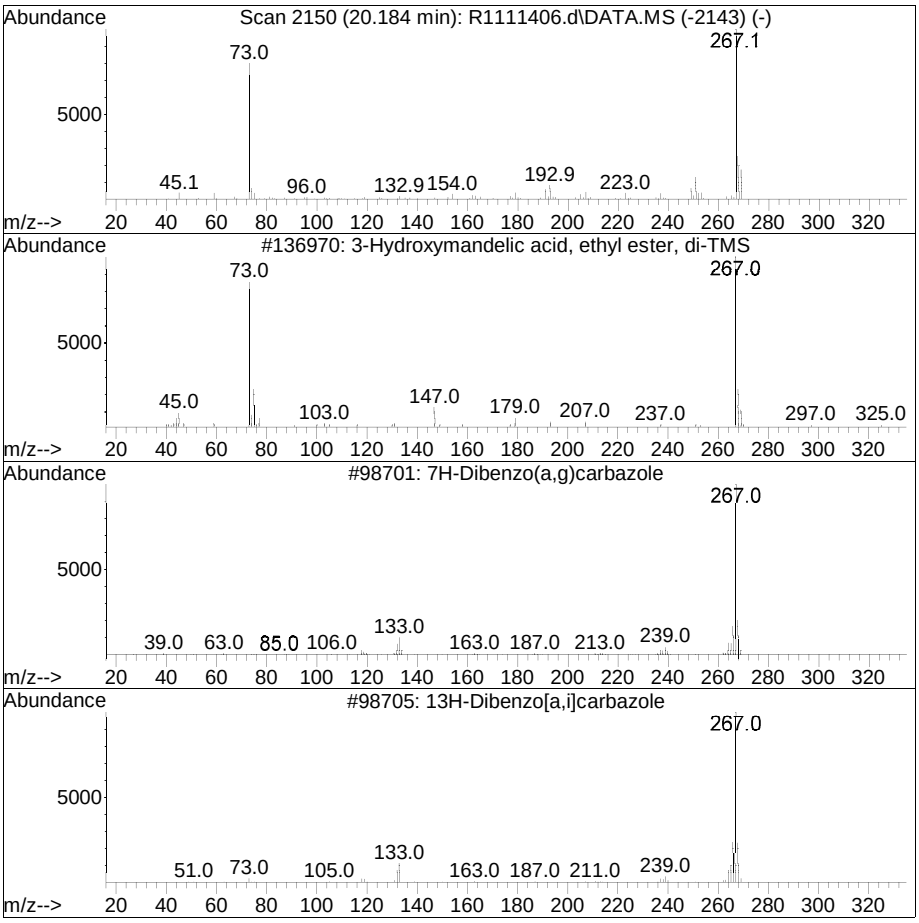
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

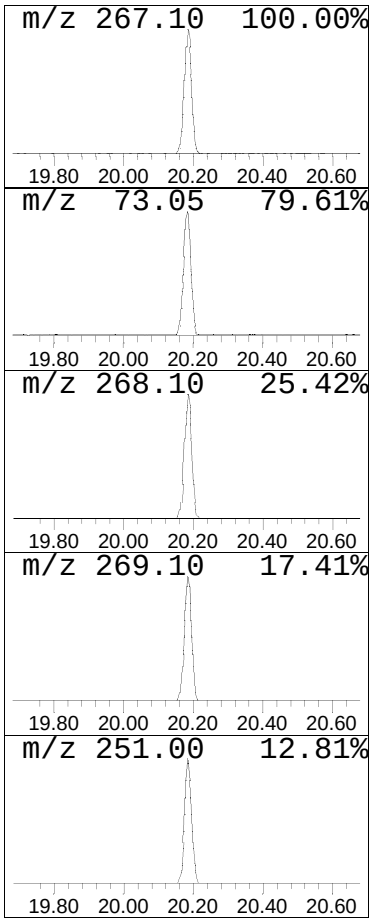
****

Peak Number 4 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.18	2.35 ppbV	278487	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-88-9	56
2	7H-Dibenzo(a,g)carbazole	267	C20H13N	000207-84-1	52
3	13H-Dibenzo[a,i]carbazole	267	C20H13N	000239-64-5	50
4	2-Methyl-5-(3,4-methylenedioxyci...	267	C16H13NO3	094298-70-1	50
5	4-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-53-3	50





Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111406.d
Acq On : 3 Sep 2015 12:18 am
Operator : AIRLAB11:RY
Sample : L1521092-05D,3,55.3691,250
Misc : WG817978,ICAL11393
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc
Cyclotrisiloxan...	16.29	1.2	ppbV	141616	3	16.63	1183390	10.0
Nonanal	19.70	1.1	ppbV	125626	3	16.63	1183390	10.0
unknown siloxane	20.18	2.4	ppbV	278487	3	16.63	1183390	10.0

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-06DL	Date Collected :	08/27/15 14:12
Client ID	: OMF-SS-2	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 01:01
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.176
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111407	Instrument ID	: AIRLAB11
Sample Amount	: 115 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	ND	0.44	--	ND	2	--	U
74-87-3	Chloromethane	ND	0.44	--	ND	0.9	--	U
76-14-2	Freon-114	ND	0.44	--	ND	3.	--	U
75-01-4	Vinyl chloride	ND	0.44	--	ND	1.	--	U
106-99-0	1,3-Butadiene	ND	0.44	--	ND	1.	--	U
74-83-9	Bromomethane	ND	0.44	--	ND	2.	--	U
75-00-3	Chloroethane	ND	0.44	--	ND	1.	--	U
64-17-5	Ethanol	69	5.4	--	130	10	--	
593-60-2	Vinyl bromide	ND	0.44	--	ND	2.	--	U
67-64-1	Acetone	33	2.2	--	78	5.2	--	
75-69-4	Trichlorofluoromethane	0.54	0.44	--	3	2	--	
67-63-0	Isopropanol	7.0	1.1	--	17	2.7	--	
75-35-4	1,1-Dichloroethene	ND	0.44	--	ND	2.	--	U
75-65-0	Tertiary butyl Alcohol	1.2	1.1	--	4	3	--	
75-09-2	Methylene chloride	ND	1.1	--	ND	4	--	U
107-05-1	3-Chloropropene	ND	0.44	--	ND	1.	--	U
75-15-0	Carbon disulfide	ND	0.44	--	ND	1	--	U
76-13-1	Freon-113	ND	0.44	--	ND	3.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.44	--	ND	2.	--	U
75-34-3	1,1-Dichloroethane	ND	0.44	--	ND	2.	--	U
1634-04-4	Methyl tert butyl ether	ND	0.44	--	ND	2.	--	U
78-93-3	2-Butanone	4.0	1.1	--	12	3.2	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.44	--	ND	2.	--	U
67-66-3	Chloroform	ND	0.44	--	ND	2.	--	U
109-99-9	Tetrahydrofuran	ND	1.1	--	ND	3	--	U
107-06-2	1,2-Dichloroethane	ND	0.44	--	ND	2.	--	U
110-54-3	n-Hexane	ND	0.44	--	ND	2.	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.44	--	ND	2.	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-06DL	Date Collected :	08/27/15 14:12
Client ID	: OMF-SS-2	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 01:01
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.176
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111407	Instrument ID	: AIRLAB11
Sample Amount	: 115 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	ND	0.44	--	ND	1	--	U
56-23-5	Carbon tetrachloride	ND	0.44	--	ND	3.	--	U
110-82-7	Cyclohexane	ND	0.44	--	ND	2.	--	U
78-87-5	1,2-Dichloropropane	ND	0.44	--	ND	2.	--	U
75-27-4	Bromodichloromethane	ND	0.44	--	ND	3.	--	U
123-91-1	1,4-Dioxane	ND	0.44	--	ND	2.	--	U
79-01-6	Trichloroethene	7.0	0.44	--	38	2.4	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.44	--	ND	2.	--	U
80-62-6	Methyl Methacrylate	ND	1.1	--	ND	5.	--	U
142-82-5	Heptane	ND	0.44	--	ND	2.	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.44	--	ND	2.	--	U
108-10-1	4-Methyl-2-pentanone	ND	1.1	--	ND	5.	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.44	--	ND	2.	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.44	--	ND	2.	--	U
108-88-3	Toluene	2.0	0.44	--	8	2	--	
124-48-1	Dibromochloromethane	ND	0.44	--	ND	4.	--	U
106-93-4	1,2-Dibromoethane	ND	0.44	--	ND	3.	--	U
127-18-4	Tetrachloroethene	18	0.44	--	120	3.0	--	
108-90-7	Chlorobenzene	ND	0.44	--	ND	2.	--	U
100-41-4	Ethylbenzene	0.72	0.44	--	3	2	--	
179601-23-1	p/m-Xylene	2.4	0.87	--	10	3.8	--	
75-25-2	Bromoform	ND	0.44	--	ND	5.	--	U
100-42-5	Styrene	ND	0.44	--	ND	2.	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.44	--	ND	3.	--	U
95-47-6	o-Xylene	0.77	0.44	--	3	2	--	
95-49-8	2-Chlorotoluene	ND	0.44	--	ND	2.	--	U
622-96-8	4-Ethyltoluene	ND	0.44	--	ND	2	--	U
108-67-8	1,3,5-Trimethybenzene	ND	0.44	--	ND	2	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-06DL	Date Collected :	08/27/15 14:12
Client ID	: OMF-SS-2	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 01:01
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.176
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111407	Instrument ID	: AIRLAB11
Sample Amount	: 115 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	1.4	0.44	--	7	2	--	
541-73-1	1,3-Dichlorobenzene	ND	0.44	--	ND	3.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.44	--	ND	3.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.44	--	ND	3.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.44	--	ND	3.	--	U
87-68-3	Hexachlorobutadiene	ND	0.44	--	ND	5.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111407.d
Acq On : 3 Sep 2015 1:01 am
Operator : AIRLAB11:RY
Sample : L1521092-06D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 03 16:54:21 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.94	49	77603	10.000	ppbV	0.00
Standard Area = 81084			Recovery	=	95.71%	
43) 1,4-difluorobenzene	12.16	114	461027	10.000	ppbV	0.02
Standard Area = 489060			Recovery	=	94.27%	
67) chlorobenzene-D5	16.63	54	75923	10.000	ppbV	0.00
Standard Area = 80649			Recovery	=	94.14%	
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.03	85	6230	0.189	ppbV	89
6) chloromethane	0.00		0	N.D.		
7) Freon-114	0.00		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	0.00		0	N.D.		
13) bromomethane	0.00		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	5.54	31	110957	31.703	ppbV	98
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.16	43	195195	15.086	ppbV	97
21) trichlorofluoromethane	6.36	101	11475	0.247	ppbV	99
22) isopropyl alcohol	6.55	45	39841	3.217	ppbV	98
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	7.34	59	12579	0.561	ppbV #	94
28) methylene chloride	7.35	49	2887	0.295	ppbV	80
29) 3-chloropropene	0.00		0	N.D.	d	
30) carbon disulfide	7.67	76	1852	0.056	ppbV #	34
31) Freon 113	7.69		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	8.86		0	N.D.		
36) 2-butanone	9.28	43	29313	1.834	ppbV	96
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	10.10		0	N.D.		
40) Tetrahydrofuran	10.63	42	2857	0.365	ppbV #	86
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	10.01		0	N.D.		
48) 1,1,1-trichloroethane	0.00		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111407.d
Acq On : 3 Sep 2015 1:01 am
Operator : AIRLAB11:RY
Sample : L1521092-06D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 03 16:54:21 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50)	benzene	11.74	78	2376	0.066	ppbV #	86
52)	carbon tetrachloride	11.91		0	N.D.		
53)	cyclohexane	12.04		0	N.D.		
56)	1,2-dichloropropane	0.00		0	N.D.		
57)	bromodichloromethane	0.00		0	N.D.	d	
58)	1,4-dioxane	0.00		0	N.D.		
59)	trichloroethene	12.94	130	75599	3.239	ppbV	99
60)	2,2,4-trimethylpentane	12.98		0	N.D.		
61)	methyl methacrylate	13.29		0	N.D.		
62)	heptane	13.29		0	N.D.		
63)	cis-1,3-dichloropropene	0.00		0	N.D.		
64)	4-methyl-2-pentanone	14.00		0	N.D.		
65)	trans-1,3-dichloropropene	0.00		0	N.D.		
66)	1,1,2-trichloroethane	0.00		0	N.D.		
68)	toluene	15.01	91	42944	0.902	ppbV	99
74)	dibromochloromethane	0.00		0	N.D.		
75)	1,2-dibromoethane	0.00		0	N.D.		
78)	tetrachloroethene	16.08	166	310138	8.490	ppbV	99
80)	chlorobenzene	0.00		0	N.D.		
81)	ethylbenzene	16.98	91	21574	0.331	ppbV	97
83)	m+p-xylene	17.11	91	58547	1.081	ppbV	98
84)	bromoform	0.00		0	N.D.		
85)	styrene	17.41		0	N.D.		
86)	1,1,2,2-tetrachloroethane	0.00		0	N.D.		
87)	o-xylene	17.49	91	19522	0.356	ppbV	94
93)	2-chlorotoluene	18.16		0	N.D.		
96)	4-ethyl toluene	18.42	105	15319	0.174	ppbV	97
97)	1,3,5-trimethylbenzene	18.48	105	12954	0.175	ppbV	99
99)	1,2,4-trimethylbenzene	18.79	105	46740	0.662	ppbV #	54
102)	1,3-dichlorobenzene	18.98		0	N.D.		
103)	1,4-dichlorobenzene	18.98		0	N.D.		
107)	1,2-dichlorobenzene	0.00		0	N.D.		
115)	1,2,4-trichlorobenzene	20.65		0	N.D.		
119)	hexachlorobutadiene	0.00		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111407.d
Acq On : 3 Sep 2015 1:01 am
Operator : AIRLAB11:RY
Sample : L1521092-06D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 03 16:54:21 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

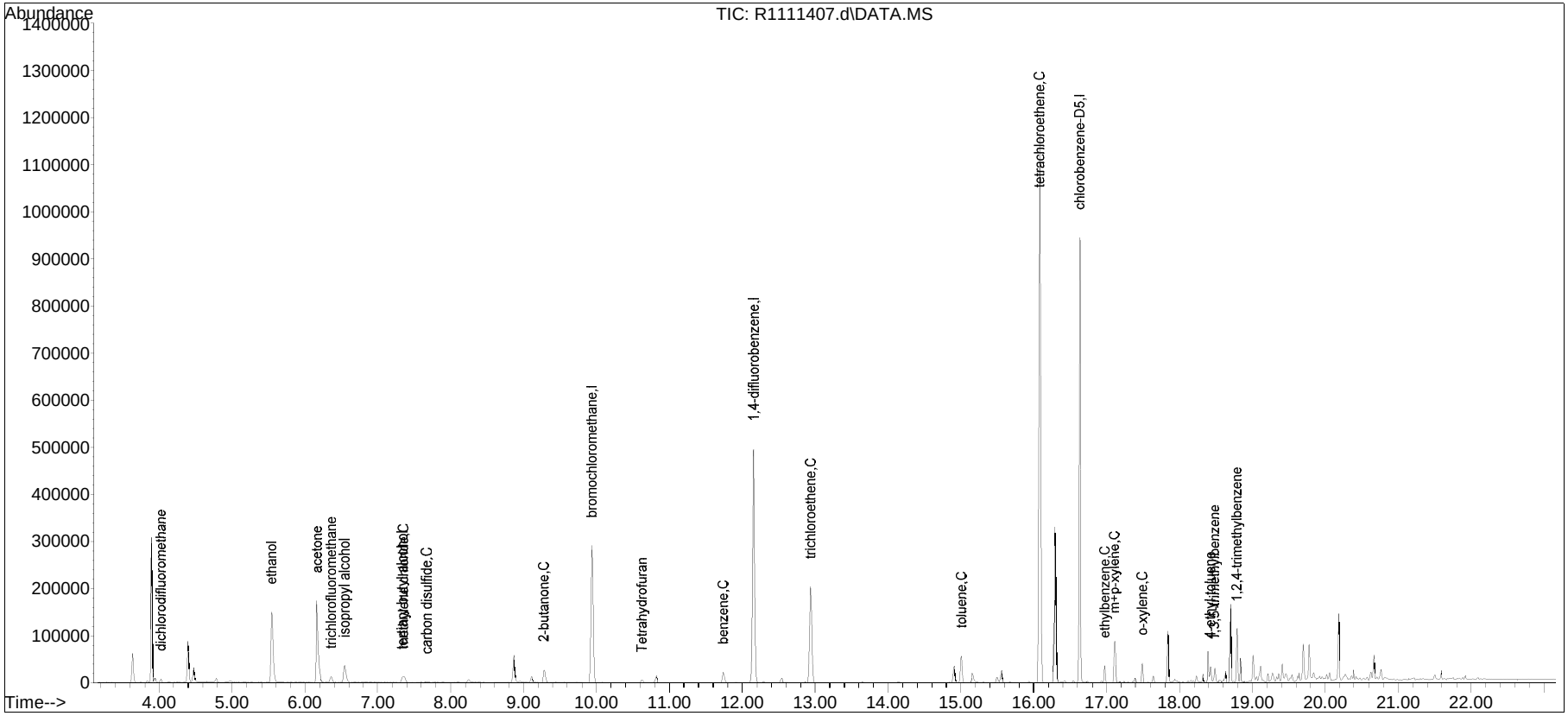
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Quantitation Report (QT Reviewed)

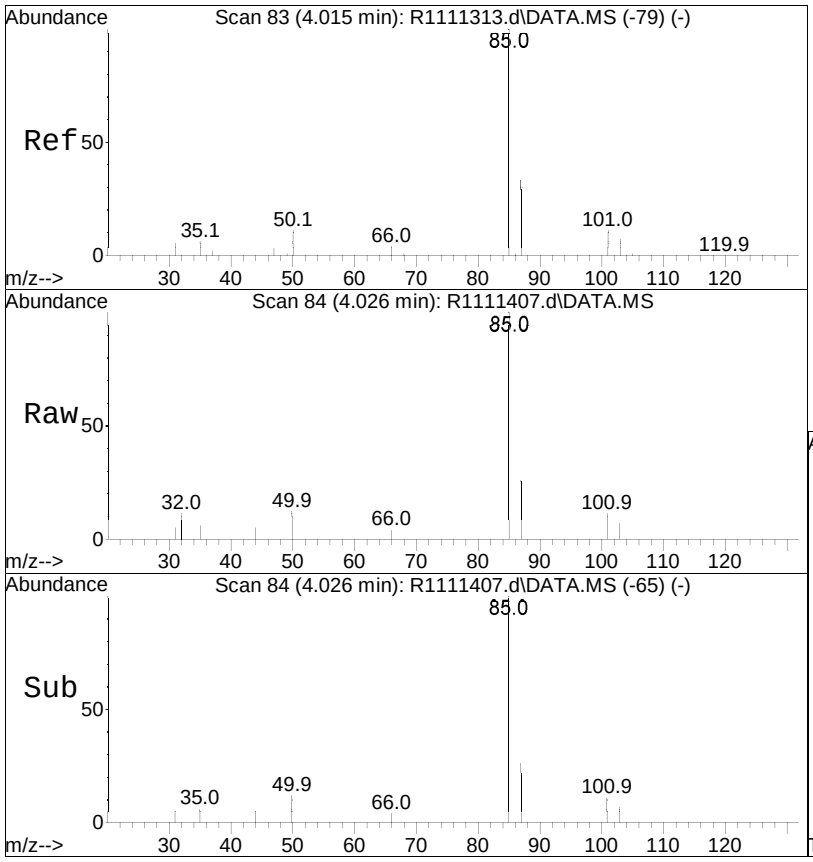
Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111407.d
Acq On : 3 Sep 2015 1:01 am
Operator : AIRLAB11:RY
Sample : L1521092-06D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 03 16:54:21 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

Sub List : NJ-LL_New - .Data\Airlab11\2015\150902T\R1111393.d



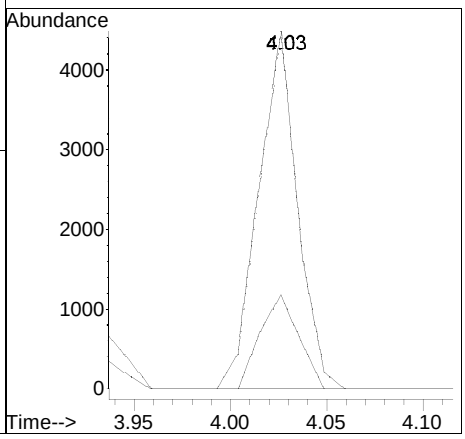
TALL150827.M Thu Sep 03 16:54:43 2015

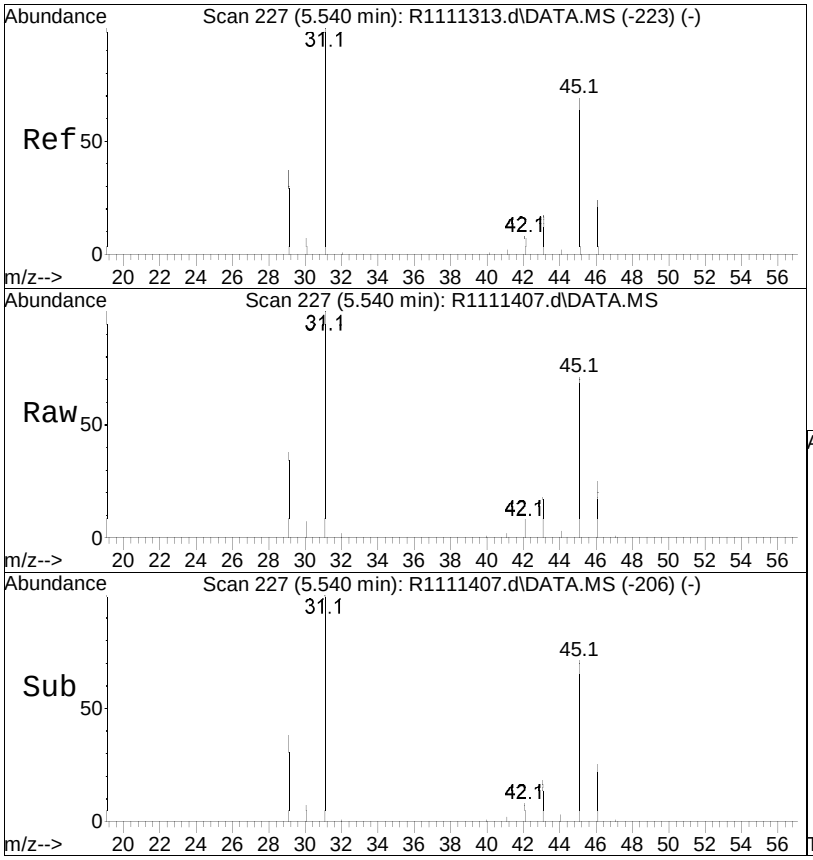


#5
dichlorodifluoromethane
Concen: 0.19 ppbV
RT: 4.03 min Scan# 84
Delta R.T. 0.011 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion: 85 Resp: 6230

Ion	Ratio	Lower	Upper
85	100		
87	26.4	26.1	39.1

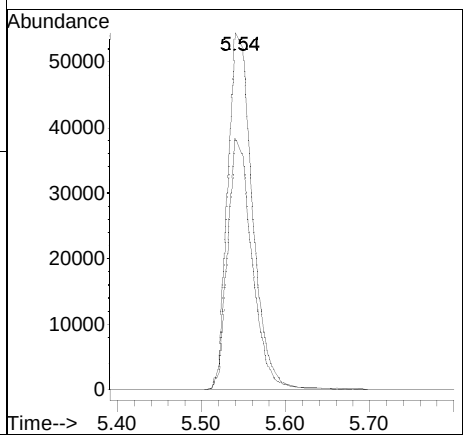


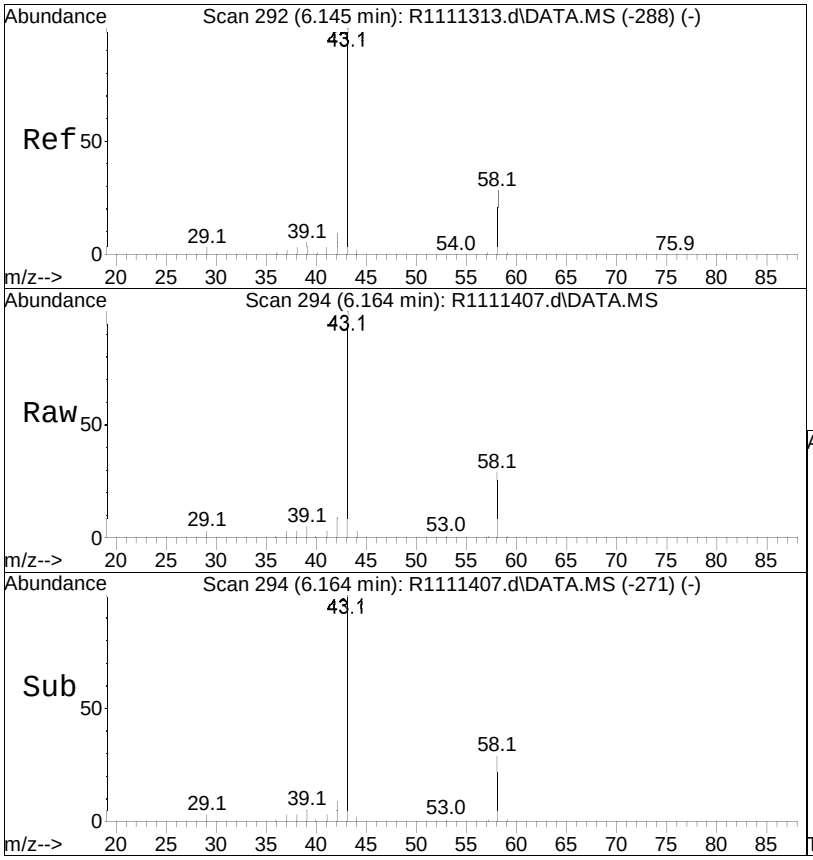


#15
ethanol
Concen: 31.70 ppbV
RT: 5.54 min Scan# 227
Delta R.T. 0.000 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion: 31 Resp: 110957

Ion	Ratio	Lower	Upper
31	100		
45	70.6	55.4	83.2

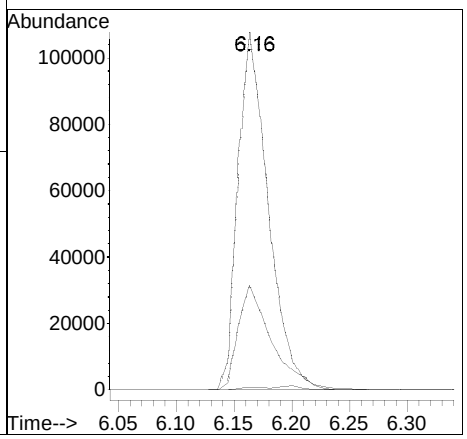


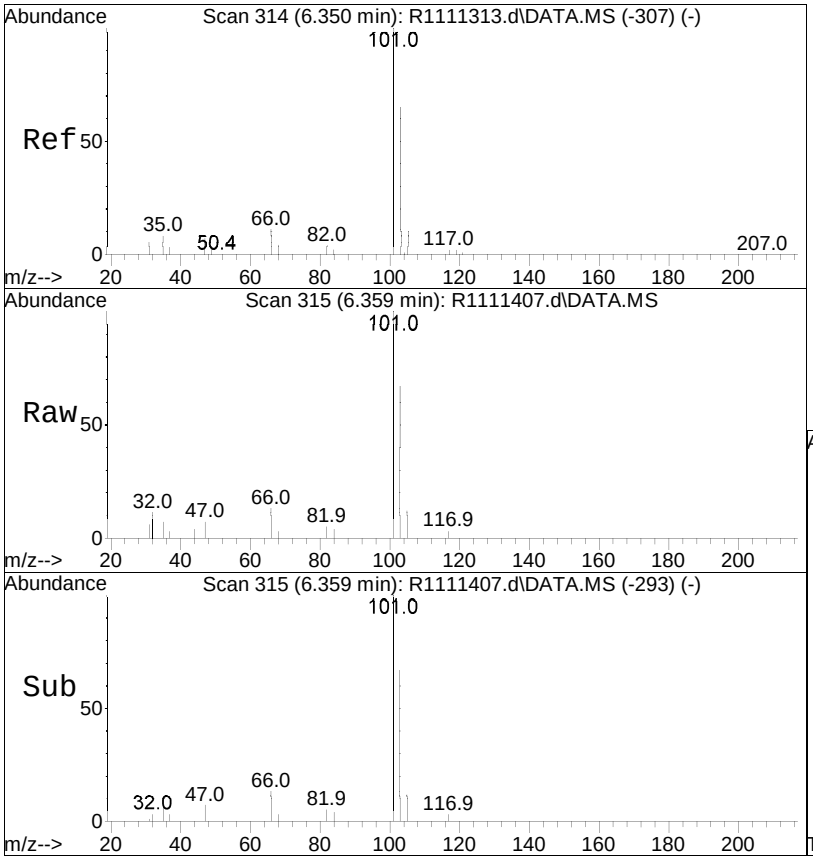


#19
acetone
Concen: 15.09 ppbV
RT: 6.16 min Scan# 294
Delta R.T. 0.019 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion: 43 Resp: 195195

Ion	Ratio	Lower	Upper
43	100		
58	29.3	22.2	33.2
57	0.9	0.6	1.0

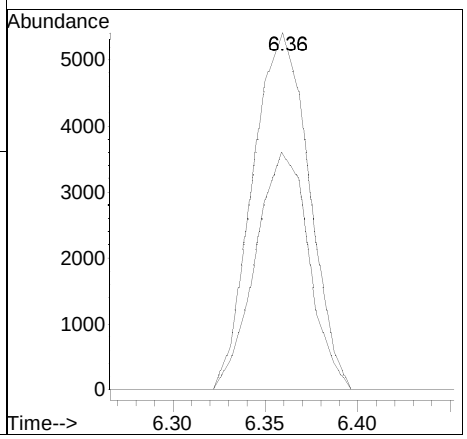


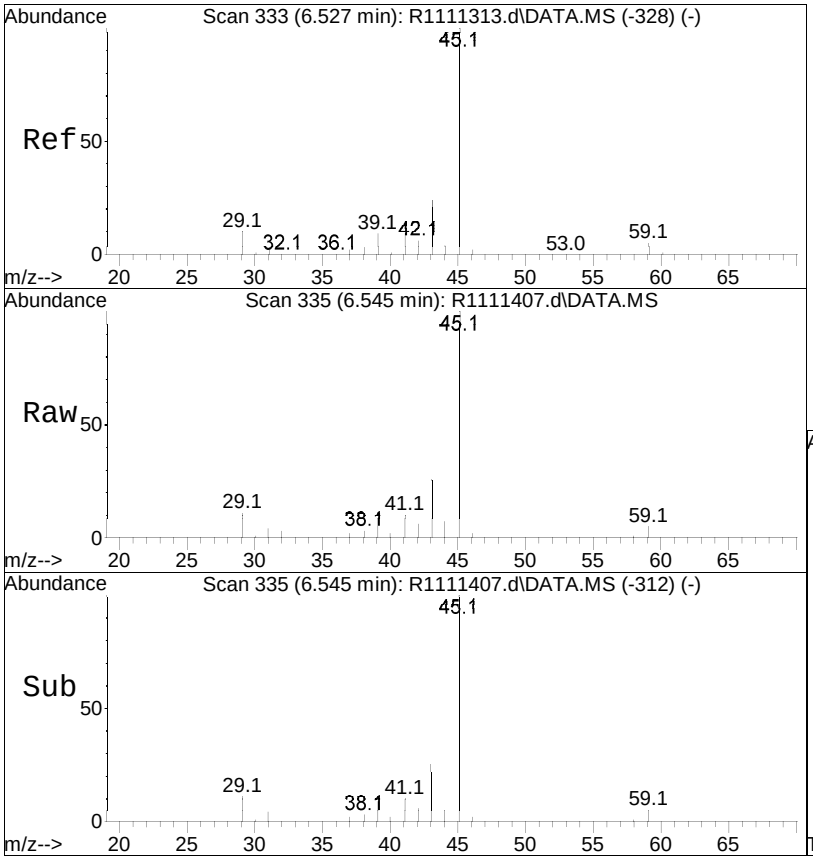


#21
trichlorofluoromethane
Concen: 0.25 ppbV
RT: 6.36 min Scan# 315
Delta R.T. 0.009 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion:101 Resp: 11475

Ion	Ratio	Lower	Upper
101	100		
103	66.5	52.3	78.5

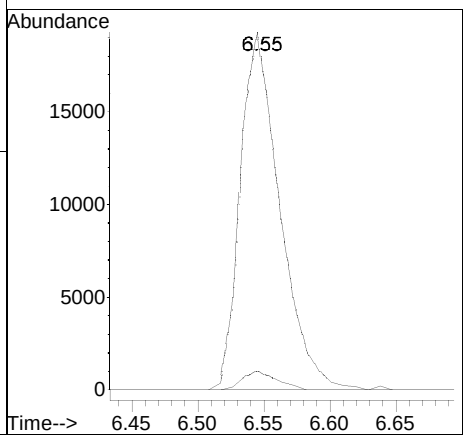


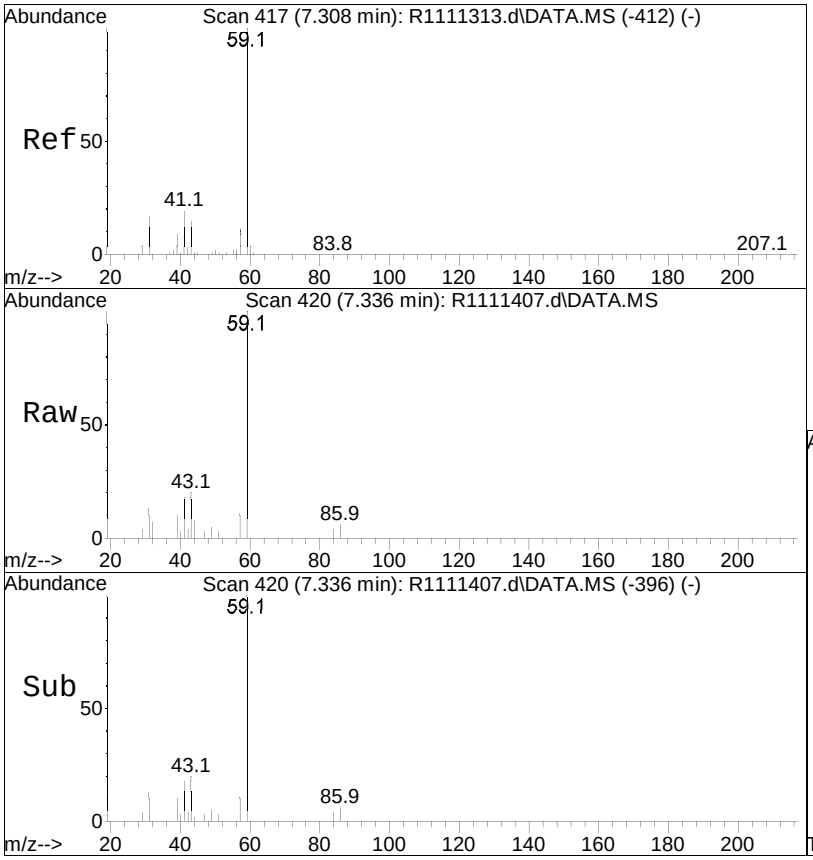


#22
isopropyl alcohol
Concen: 3.22 ppbV
RT: 6.55 min Scan# 335
Delta R.T. 0.018 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion: 45 Resp: 39841

Ion	Ratio	Lower	Upper
45	100		
59	5.3	3.8	5.6

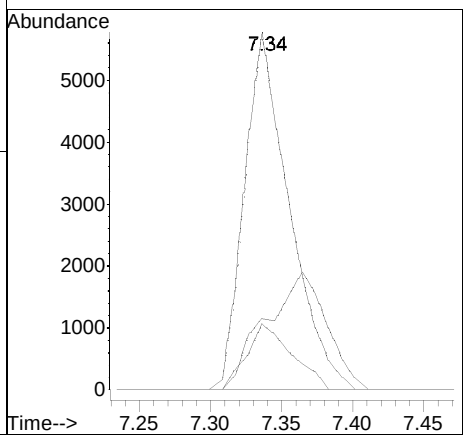


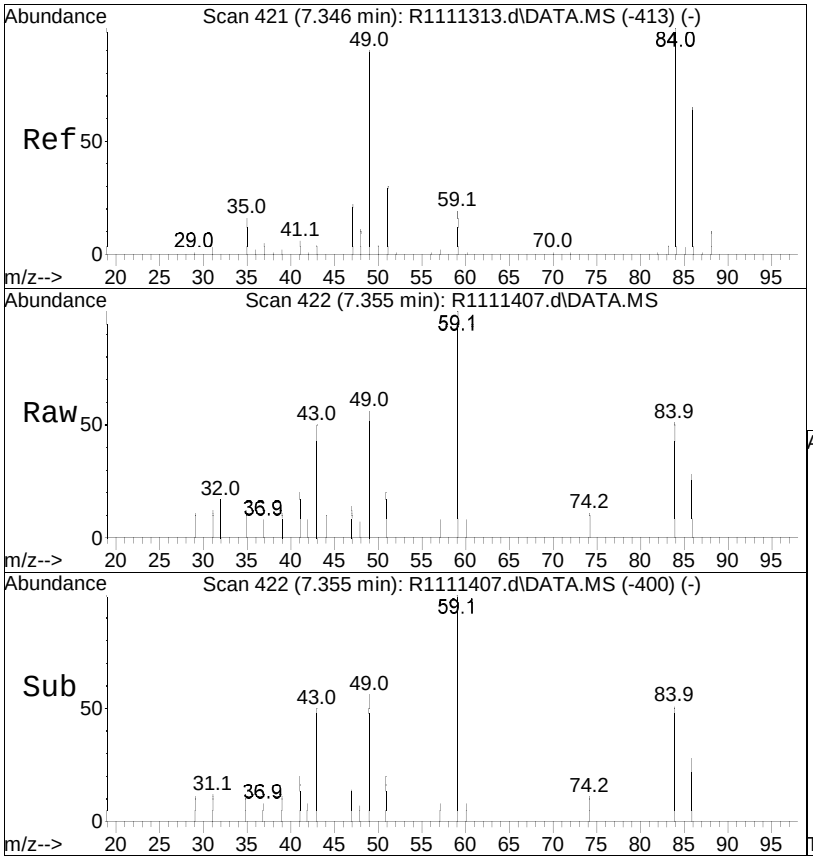


#27
tertiary butyl alcohol
Concen: 0.56 ppbV
RT: 7.34 min Scan# 420
Delta R.T. 0.028 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion: 59 Resp: 12579

Ion	Ratio	Lower	Upper
59	100		
41	18.4	15.1	22.7
43	19.9	11.8	17.6#

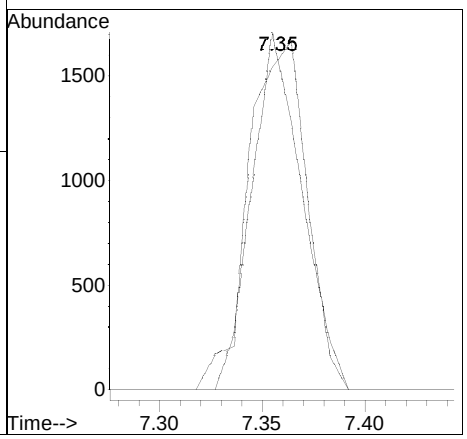


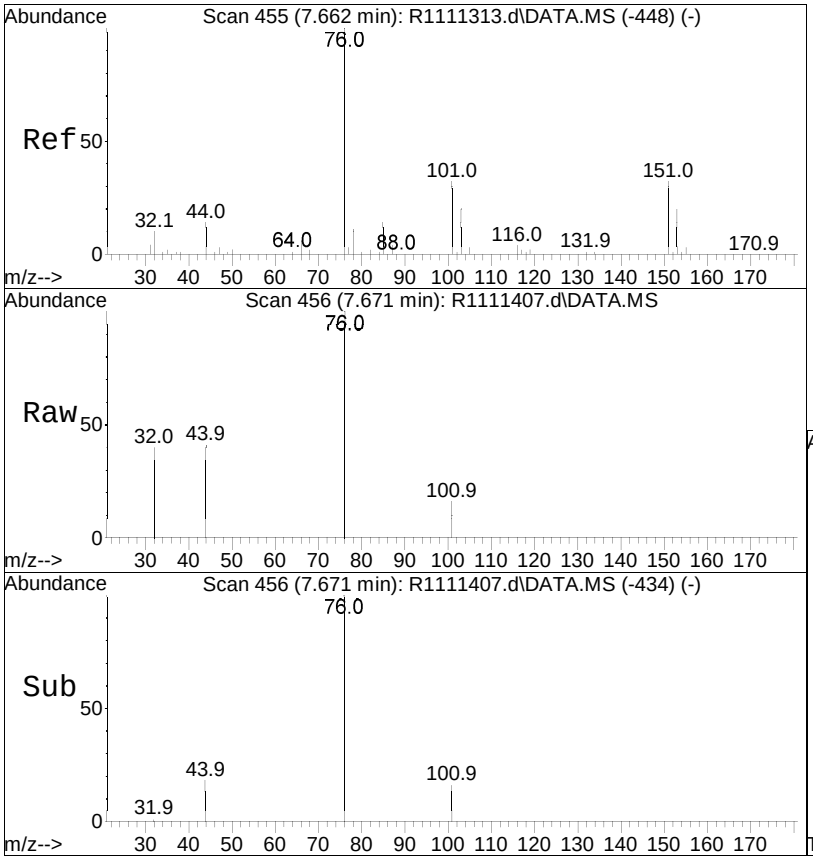


#28
methylene chloride
Concen: 0.30 ppbV
RT: 7.35 min Scan# 422
Delta R.T. 0.009 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion: 49 Resp: 2887

Ion	Ratio	Lower	Upper
49	100		
84	90.3	89.0	133.4

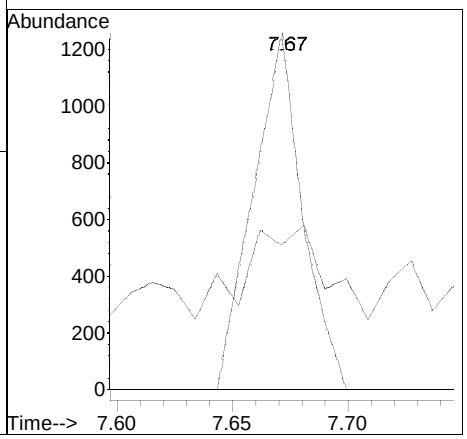


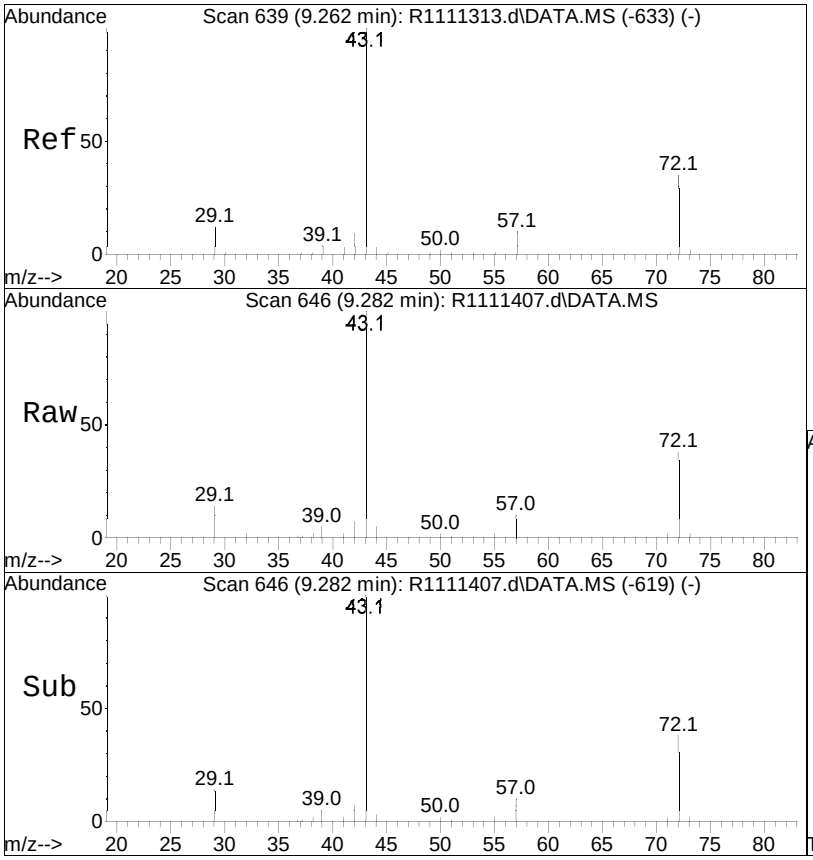


#30
carbon disulfide
Concen: 0.06 ppbV
RT: 7.67 min Scan# 456
Delta R.T. 0.009 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion: 76 Resp: 1852

Ion	Ratio	Lower	Upper
76	100		
44	40.5	11.0	16.6#

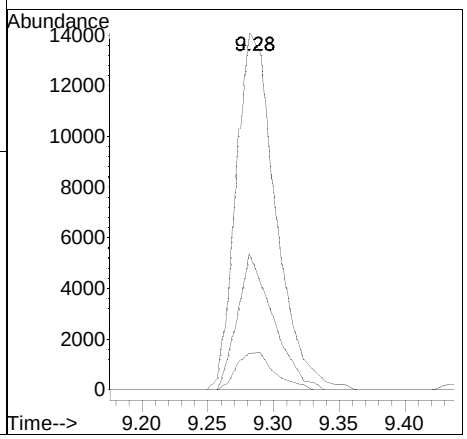


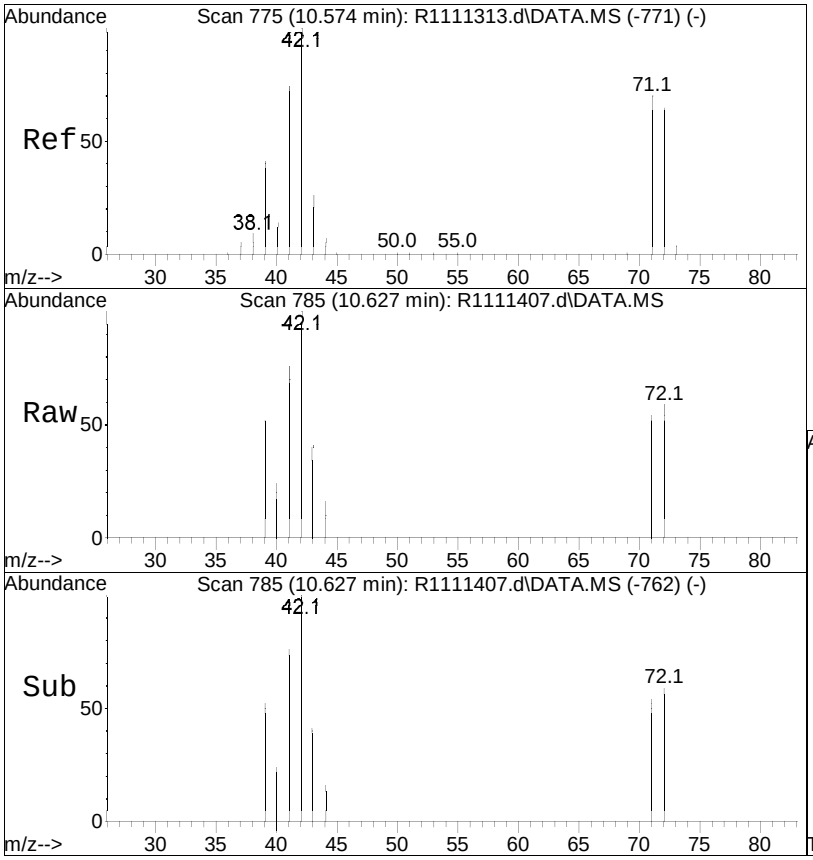


#36
2-butanone
Concen: 1.83 ppbV
RT: 9.28 min Scan# 646
Delta R.T. 0.020 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion: 43 Resp: 29313

Ion	Ratio	Lower	Upper
43	100		
72	38.2	28.1	42.1
57	10.4	8.3	12.5

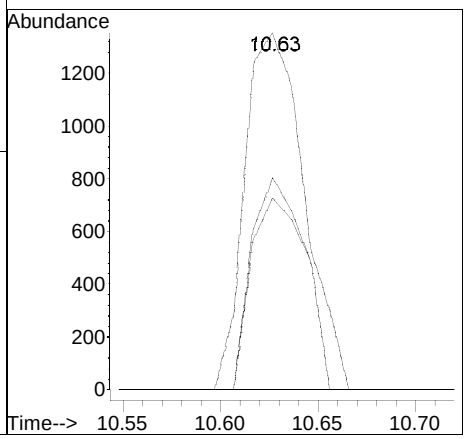


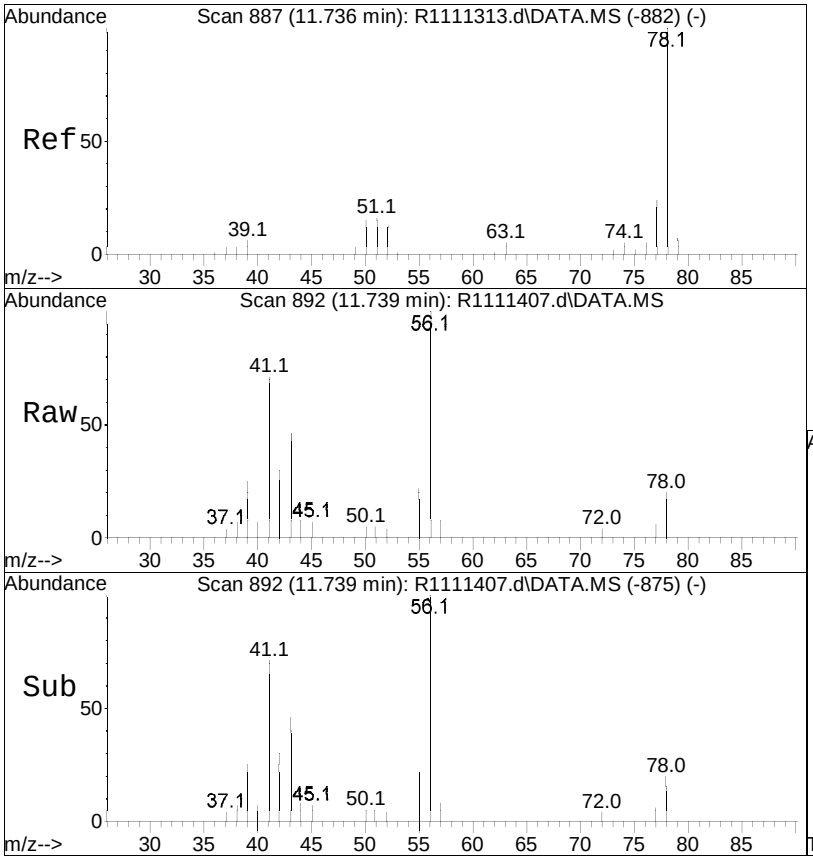


#40
Tetrahydrofuran
Concen: 0.36 ppbV
RT: 10.63 min Scan# 785
Delta R.T. 0.053 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion: 42 Resp: 2857

Ion	Ratio	Lower	Upper
42	100		
71	53.7	56.0	84.0#
72	59.3	51.8	77.6

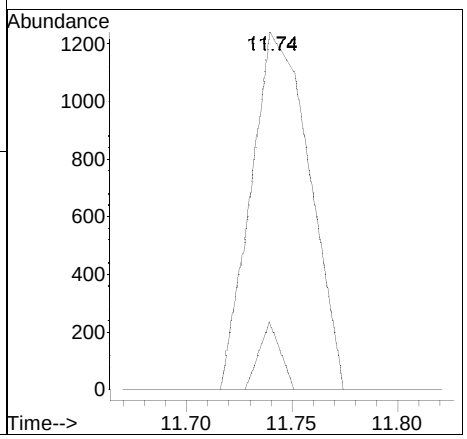


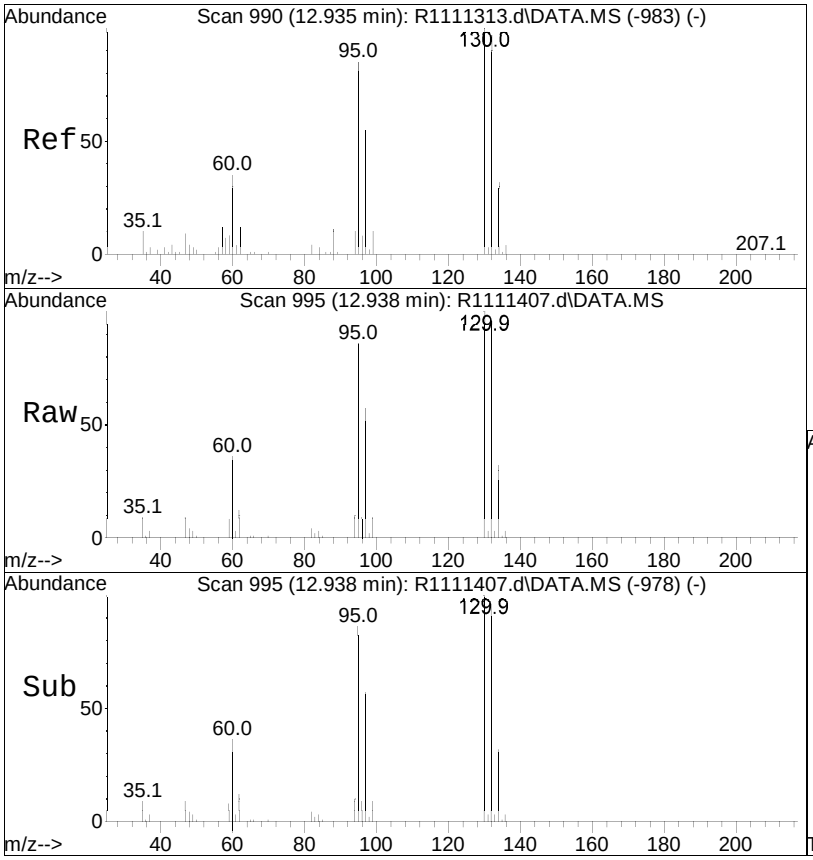


#50
benzene
Concen: 0.07 ppbV
RT: 11.74 min Scan# 892
Delta R.T. 0.004 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion: 78 Resp: 2376

Ion	Ratio	Lower	Upper
78	100		
52	19.0	10.6	16.0#

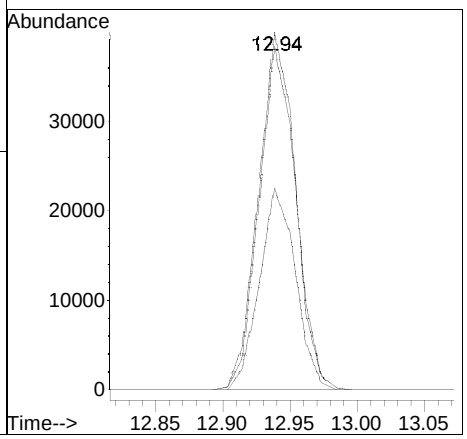


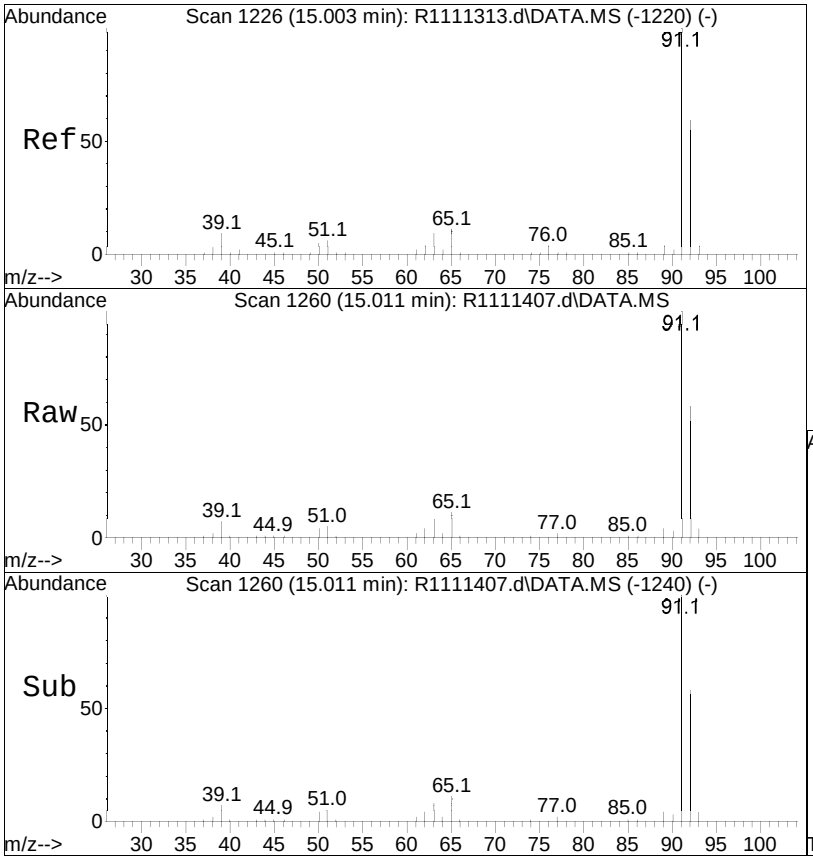


#59
trichloroethene
Concen: 3.24 ppbV
RT: 12.94 min Scan# 995
Delta R.T. 0.004 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion:130 Resp: 75599

Ion	Ratio	Lower	Upper
130	100		
132	96.2	77.6	116.4
97	56.5	44.0	66.0

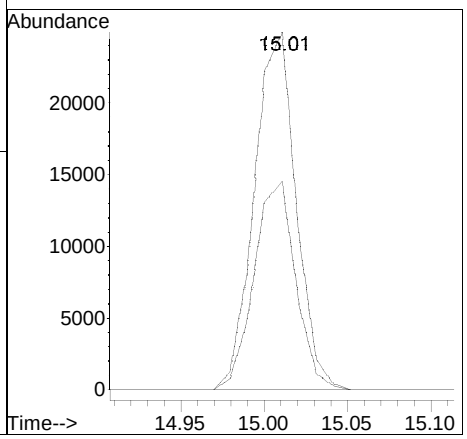


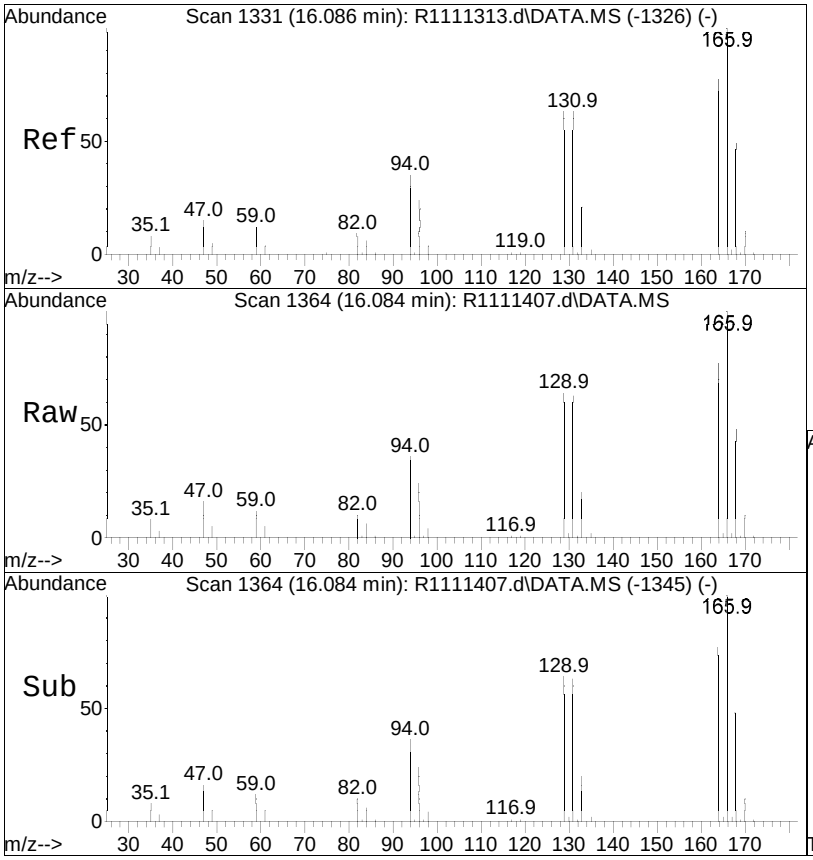


#68
toluene
Concen: 0.90 ppbV
RT: 15.01 min Scan# 1260
Delta R.T. 0.008 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion: 91 Resp: 42944

Ion	Ratio	Lower	Upper
91	100		
92	58.3	47.0	70.6

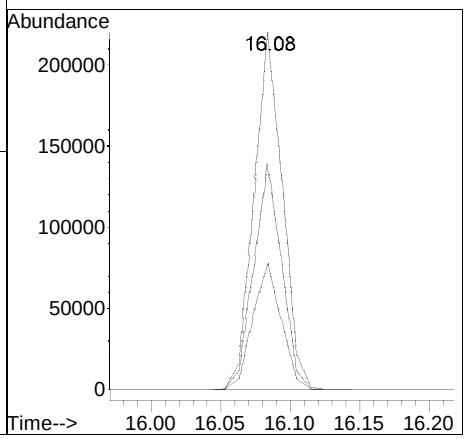


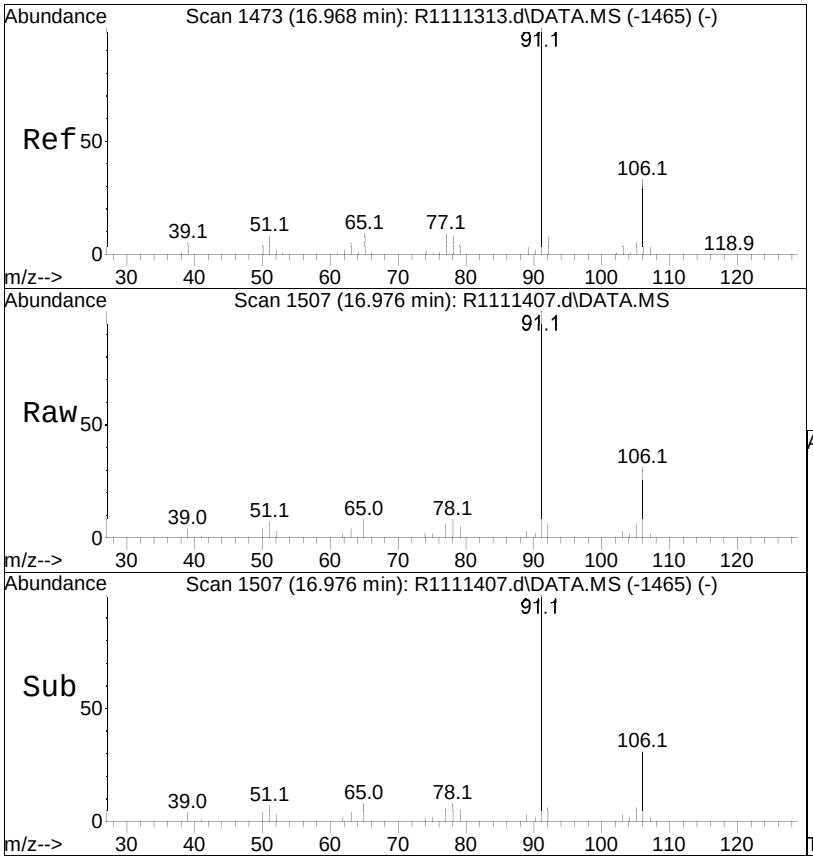


#78
tetrachloroethene
Concen: 8.49 ppbV
RT: 16.08 min Scan# 1364
Delta R.T. -0.002 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion:166 Resp: 310138

Ion	Ratio	Lower	Upper
166	100		
131	63.2	50.1	75.1
94	35.6	28.2	42.4

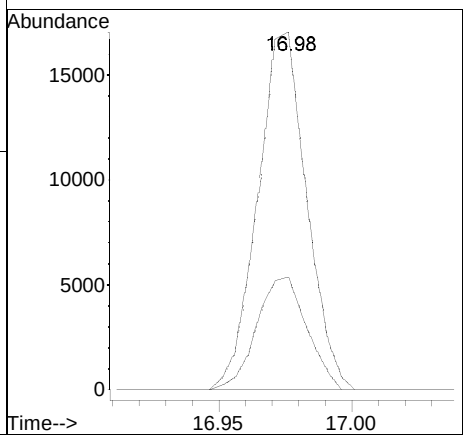


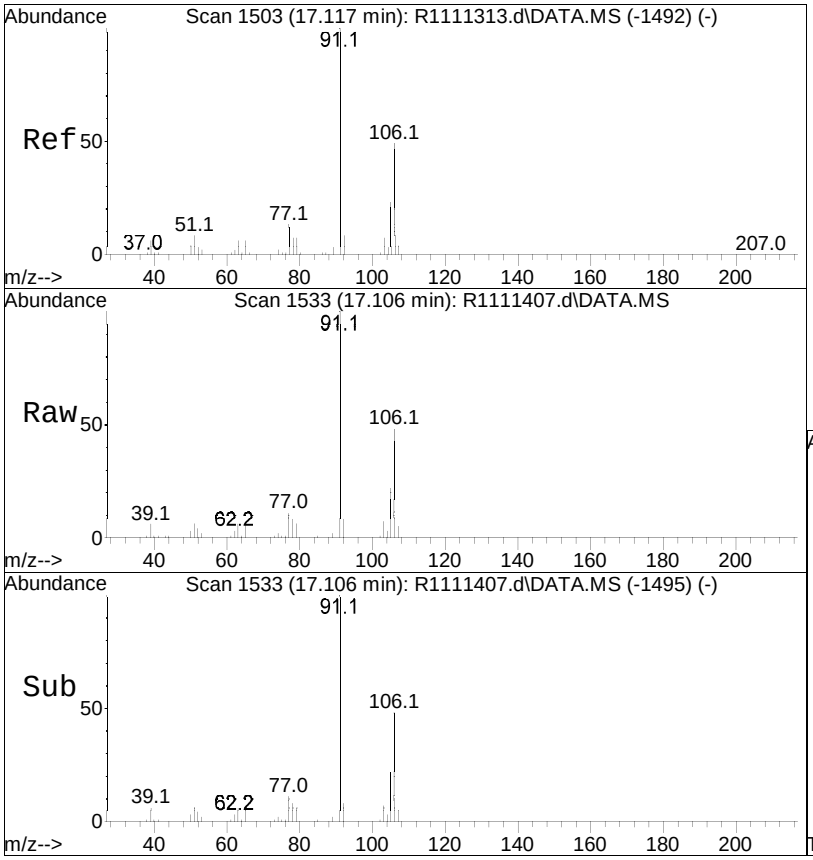


#81
ethylbenzene
Concen: 0.33 ppbV
RT: 16.98 min Scan# 1507
Delta R.T. 0.008 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion: 91 Resp: 21574

Ion	Ratio	Lower	Upper
91	100		
106	31.5	26.6	39.8

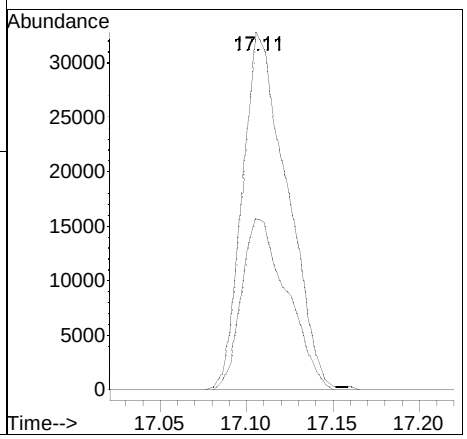


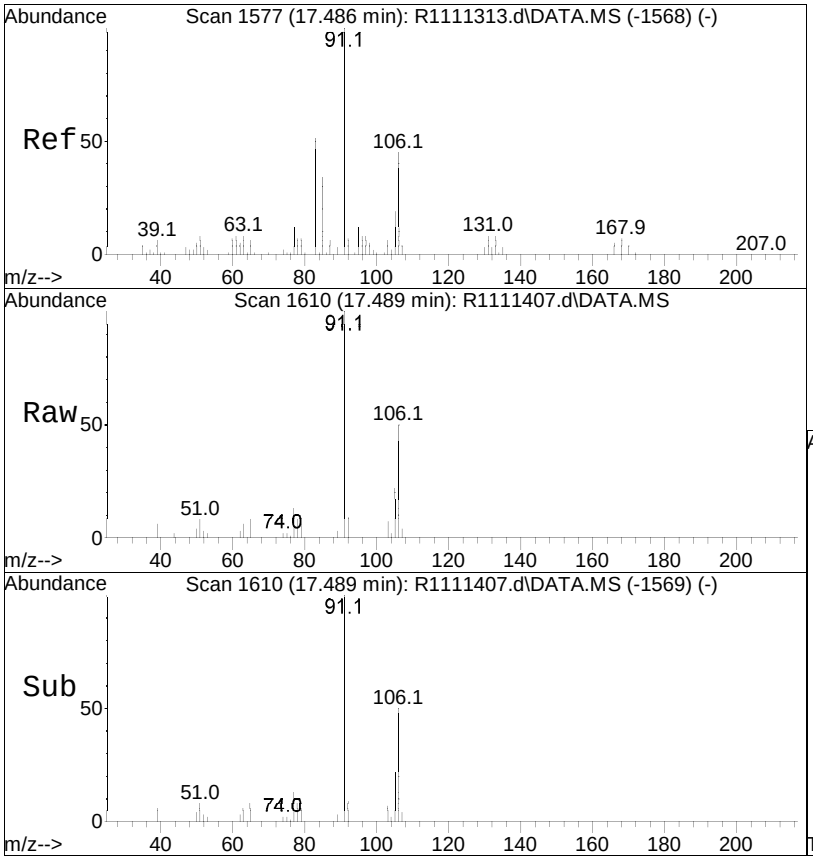


#83
m+p-xylene
Concen: 1.08 ppbV
RT: 17.11 min Scan# 1533
Delta R.T. -0.012 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion: 91 Resp: 58547

Ion	Ratio	Lower	Upper
91	100		
106	48.1	39.4	59.0

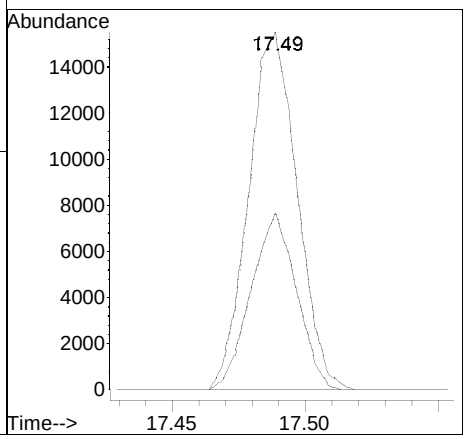


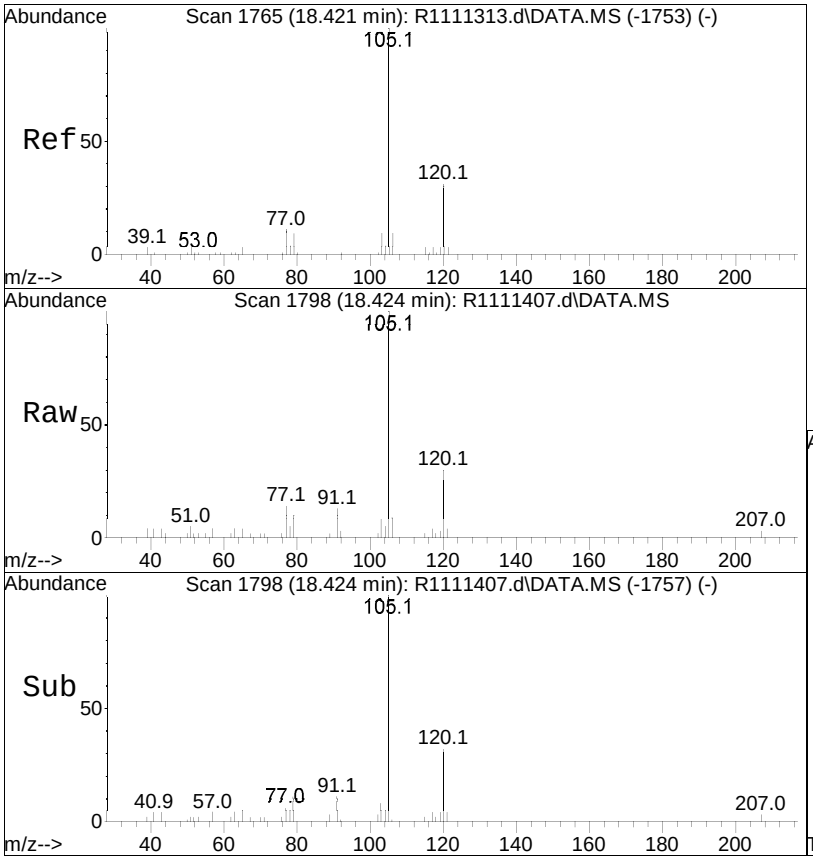


#87
o-xylene
Concen: 0.36 ppbV
RT: 17.49 min Scan# 1610
Delta R.T. 0.003 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion: 91 Resp: 19522

Ion	Ratio	Lower	Upper
91	100		
106	49.6	36.3	54.5

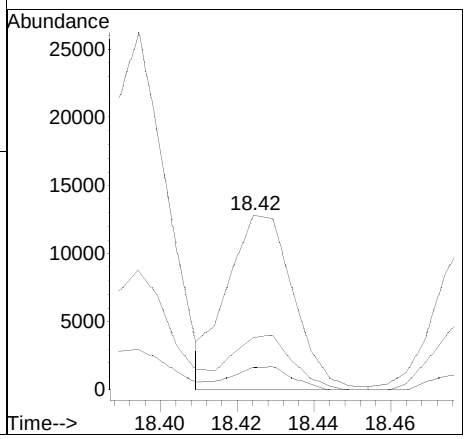


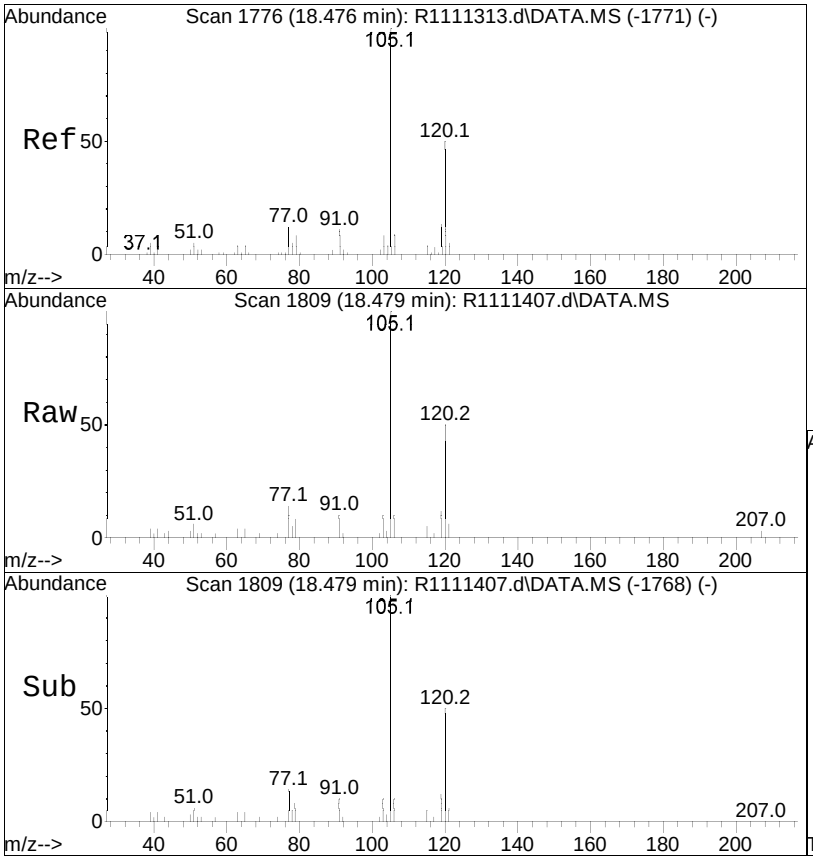


#96
4-ethyl toluene
Concen: 0.17 ppbV
RT: 18.42 min Scan# 1798
Delta R.T. 0.003 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion:105 Resp: 15319

Ion	Ratio	Lower	Upper
105	100		
120	29.7	25.0	37.6
91	12.6	9.5	14.3

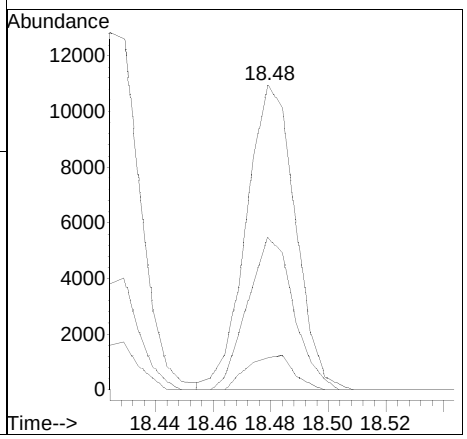


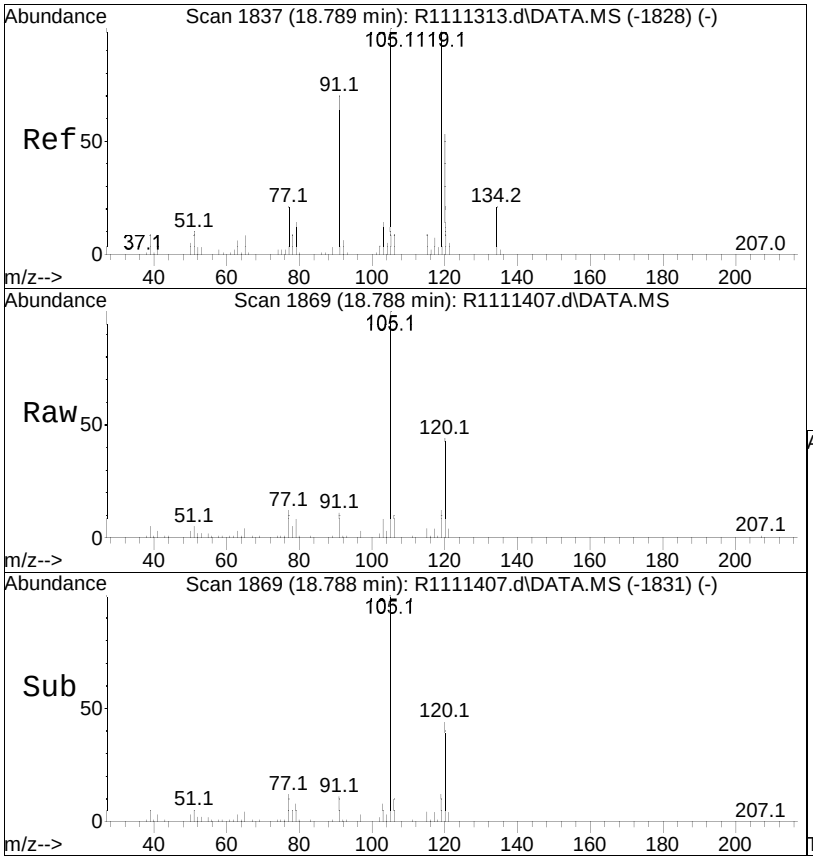


#97
1,3,5-trimethylbenzene
Concen: 0.18 ppbV
RT: 18.48 min Scan# 1809
Delta R.T. 0.003 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion:105 Resp: 12954

Ion	Ratio	Lower	Upper
105	100		
120	50.2	39.7	59.5
91	10.4	8.9	13.3

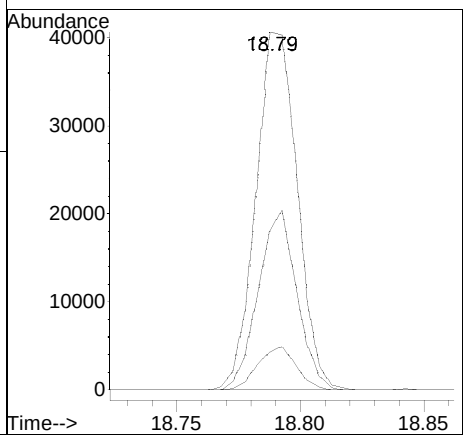




#99
1,2,4-trimethylbenzene
Concen: 0.66 ppbV
RT: 18.79 min Scan# 1869
Delta R.T. -0.002 min
Lab File: R1111407.d
Acq: 3 Sep 2015 1:01 am

Tgt Ion:105 Resp: 46740

Ion	Ratio	Lower	Upper
105	100		
120	44.5	42.2	63.2
91	10.5	55.8	83.6#



Manual Integration/Negative Proof Report

```
Data Path   : O:\Forensics\Data\Airlab11\QMethod     : TALL150827.M
Data File   : R1111407.d                 Operator    : AIRLAB11:RY
Date Inj'd  : 9/3/2015  1:01 am          Instrument  : Airlab 11
Sample      : L1521092-06D,3,114.8649,250Quant Date  : 9/3/2015  8:53 am
```

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number	: 0809-15
Lab ID	: L1521092-06DL	Date Collected	: 08/27/15 14:12
Client ID	: OMF-SS-2	Date Received	: 08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed	: 09/03/15 01:01
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 2.176
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111407	Instrument ID	: AIRLAB11
Sample Amount	: 115 ml	GC Column	: RTX-1

Number TICS found: 6

Concentration Units: ppbV

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
000075-07-0	Acetaldehyde	4.39	5.1	NJD
000067-56-1	Methyl Alcohol	4.47	2.2	NJD
001066-40-6	Silanol, trimethyl-	8.86	4.7	NJD
000541-05-9	Cyclotrisiloxane, hexamethyl-	16.29	9.4	NJD
	unknown siloxane	18.70	3.5	JD
	unknown siloxane	20.18	3.4	JD
	Total TIC Compounds		28.3	

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111407.d
Acq On : 3 Sep 2015 1:01 am
Operator : AIRLAB11:RY
Sample : L1521092-06D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R1111407.d\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.395	114	117	121	rBV	86269	127360	7.80%	1.462%
2	4.473	121	124	132	rVB	31187	55193	3.38%	0.633%
3	5.540	223	227	240	rBV	149414	299355	18.34%	3.436%
4	6.164	291	294	305	rVB	173131	330953	20.27%	3.799%
5	6.359	311	315	319	rVB	12572	24596	1.51%	0.282%
6	6.545	331	335	342	rVB	35987	73159	4.48%	0.840%
7	7.355	416	422	428	rBV2	13301	40493	2.48%	0.465%
8	8.865	589	595	601	rBV	56229	116989	7.17%	1.343%
9	9.110	621	625	631	rVB	12061	22680	1.39%	0.260%
10	9.282	642	646	655	rVB	27148	53901	3.30%	0.619%
11	9.941	717	721	726	rBV	291558	543486	33.29%	6.238%
12	10.823	800	805	809	rBB	13504	23815	1.46%	0.273%
13	11.739	889	892	898	rBV	23130	45727	2.80%	0.525%
14	12.158	923	928	932	rBV	496319	983977	60.27%	11.294%
15	12.938	991	995	1000	rVB	204023	378983	23.21%	4.350%
16	14.908	1246	1250	1256	rVB2	35278	64323	3.94%	0.738%
17	15.011	1256	1260	1265	rBV	56750	96467	5.91%	1.107%
18	15.155	1270	1274	1279	rBV	19250	36632	2.24%	0.420%
19	15.496	1304	1307	1310	rBV	10700	18649	1.14%	0.214%
20	15.558	1310	1313	1318	rVB	24089	44393	2.72%	0.510%
21	16.084	1360	1364	1368	rBV	1167131	1632673	100.00%	18.739%
22	16.290	1380	1384	1388	rBV	329607	542723	33.24%	6.229%
23	16.633	1429	1438	1451	rBV	945577	1252203	76.70%	14.372%
24	16.971	1501	1506	1513	rVB	35997	44697	2.74%	0.513%
25	17.106	1527	1533	1544	rBV	88336	164095	10.05%	1.883%
26	17.489	1605	1610	1617	rVB	41501	49843	3.05%	0.572%
27	17.842	1675	1681	1691	rBV	107833	126040	7.72%	1.447%
28	18.320	1770	1777	1781	rBV	16357	18460	1.13%	0.212%

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111407.d
Acq On : 3 Sep 2015 1:01 am
Operator : AIRLAB11:RY
Sample : L1521092-06D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 6 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	18.394	1785	1792	1795	rBV	66277	74784	4.58%	0.858%
30	18.424	1795	1798	1803	rVV	33557	42386	2.60%	0.486%
31	18.479	1803	1809	1815	rVV	30512	41439	2.54%	0.476%
32	18.629	1835	1837	1843	rVB	22151	25885	1.59%	0.297%
33	18.698	1845	1851	1858	rVB	164297	204118	12.50%	2.343%
34	18.793	1864	1870	1875	rBV	114509	131301	8.04%	1.507%
35	18.837	1875	1879	1886	rVB	51018	55887	3.42%	0.641%
36	19.011	1909	1914	1920	rBV	56297	74865	4.59%	0.859%
37	19.116	1927	1935	1939	rBV3	30924	49069	3.01%	0.563%
38	19.215	1950	1955	1958	rBV2	17440	18722	1.15%	0.215%
39	19.275	1961	1967	1974	rVB2	18432	33709	2.06%	0.387%
40	19.359	1981	1984	1988	rVB	16170	16630	1.02%	0.191%
41	19.409	1988	1994	1999	rBV4	36720	48625	2.98%	0.558%
42	19.458	1999	2004	2010	rVB8	15464	29966	1.84%	0.344%
43	19.538	2018	2020	2028	rVB4	14580	16675	1.02%	0.191%
44	19.702	2045	2053	2060	rBV3	76936	109593	6.71%	1.258%
45	19.781	2062	2069	2075	rVV2	74618	95924	5.88%	1.101%
46	19.841	2077	2081	2089	rVB6	13961	23961	1.47%	0.275%
47	20.060	2121	2125	2129	rVB2	16828	19993	1.22%	0.229%
48	20.184	2142	2150	2158	rVB	141233	195720	11.99%	2.246%
49	20.278	2166	2169	2176	rVB7	11192	18642	1.14%	0.214%
50	20.393	2188	2192	2196	rVB	20350	21643	1.33%	0.248%
51	20.620	2223	2225	2227	rBV2	17190	25618	1.57%	0.294%
52	20.669	2227	2230	2233	rVV	52263	70685	4.33%	0.811%
53	20.768	2236	2240	2242	rVB	20320	29805	1.83%	0.342%
54	21.585	2319	2323	2326	rBV	18639	25146	1.54%	0.289%

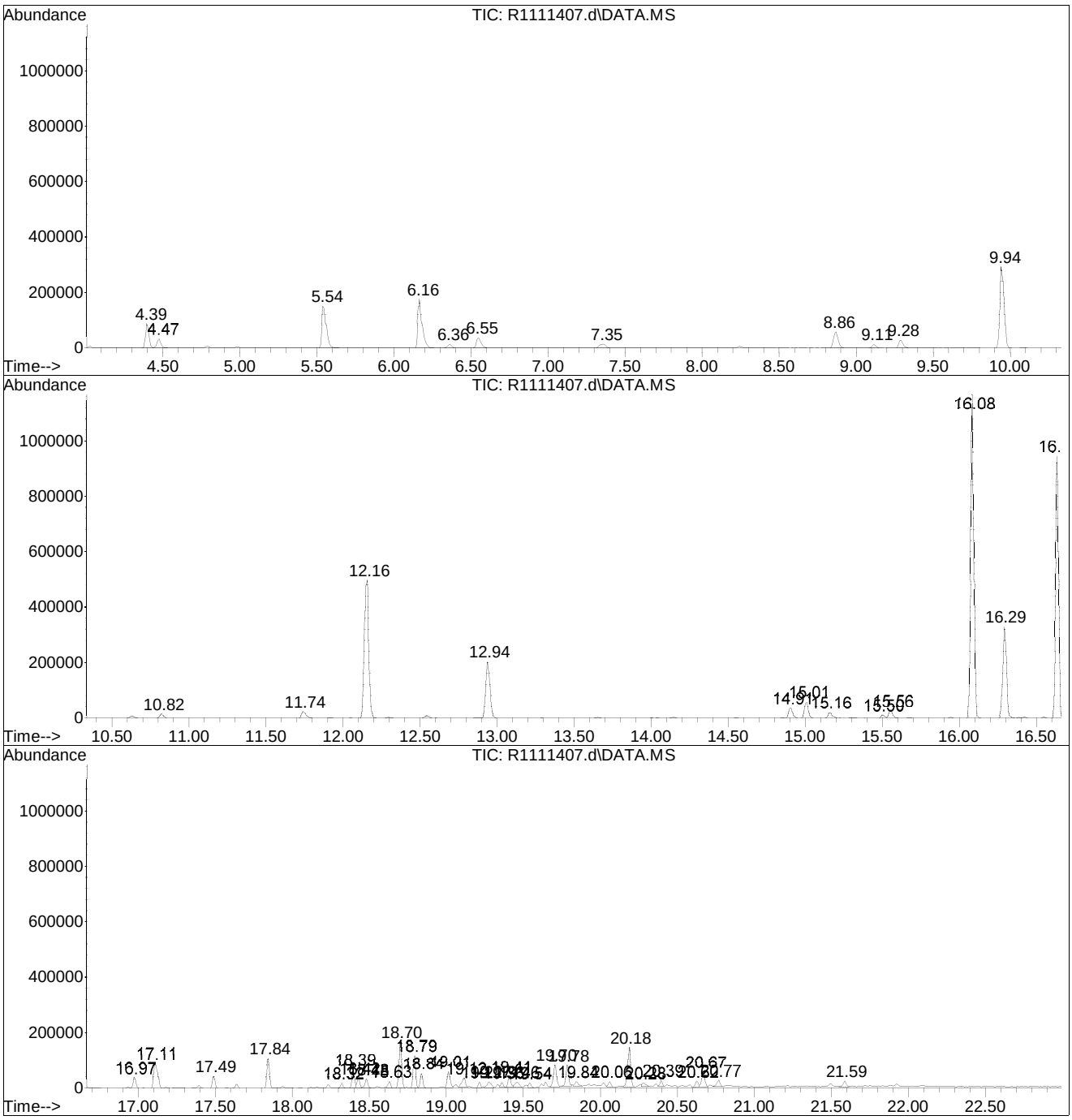
Sum of corrected areas: 8712656

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111407.d
Acq On : 3 Sep 2015 1:01 am
Operator : AIRLAB11:RY
Sample : L1521092-06D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111407.d
Acq On : 3 Sep 2015 1:01 am
Operator : AIRLAB11:RY
Sample : L1521092-06D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

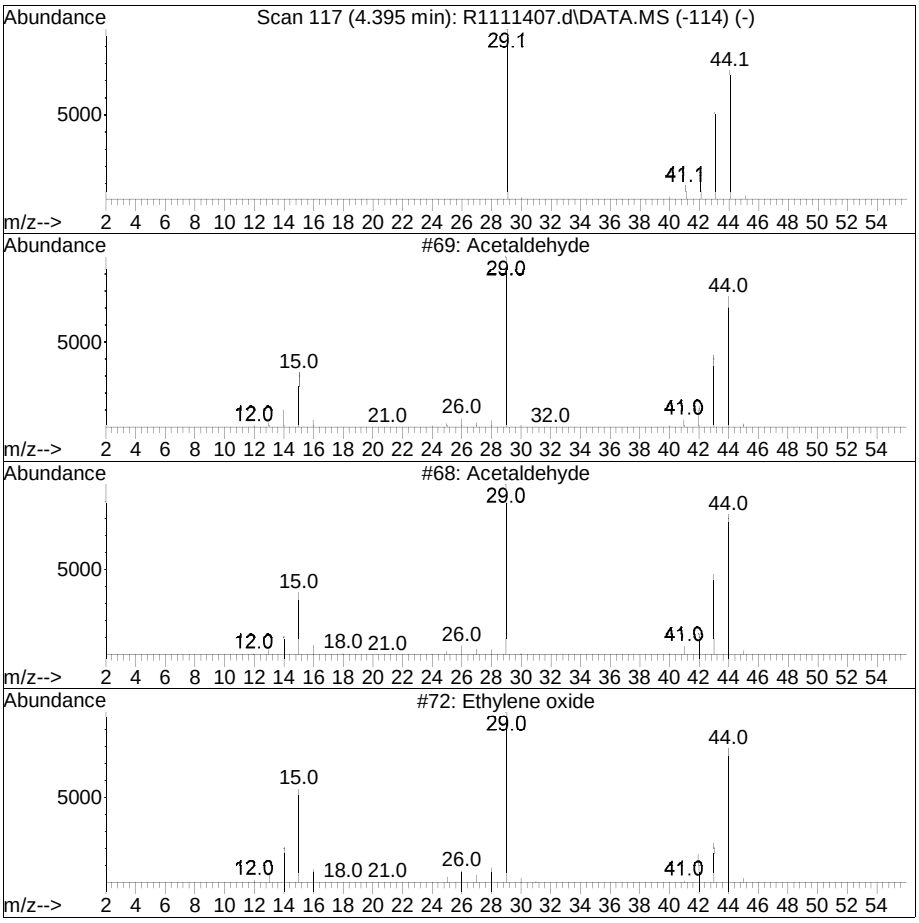
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

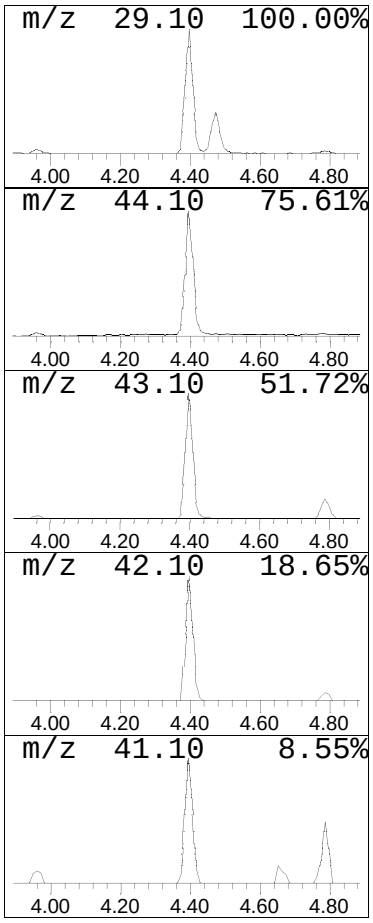
****

Peak Number 1 Acetaldehyde Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.39	2.34 ppbV	127360	bromochloromethane	9.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	83
2	Acetaldehyde	44	C2H4O	000075-07-0	83
3	Ethylene oxide	44	C2H4O	000075-21-8	9
4	Ethylene oxide	44	C2H4O	000075-21-8	9
5	Propane	44	C3H8	000074-98-6	5





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111407.d
Acq On : 3 Sep 2015 1:01 am
Operator : AIRLAB11:RY
Sample : L1521092-06D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

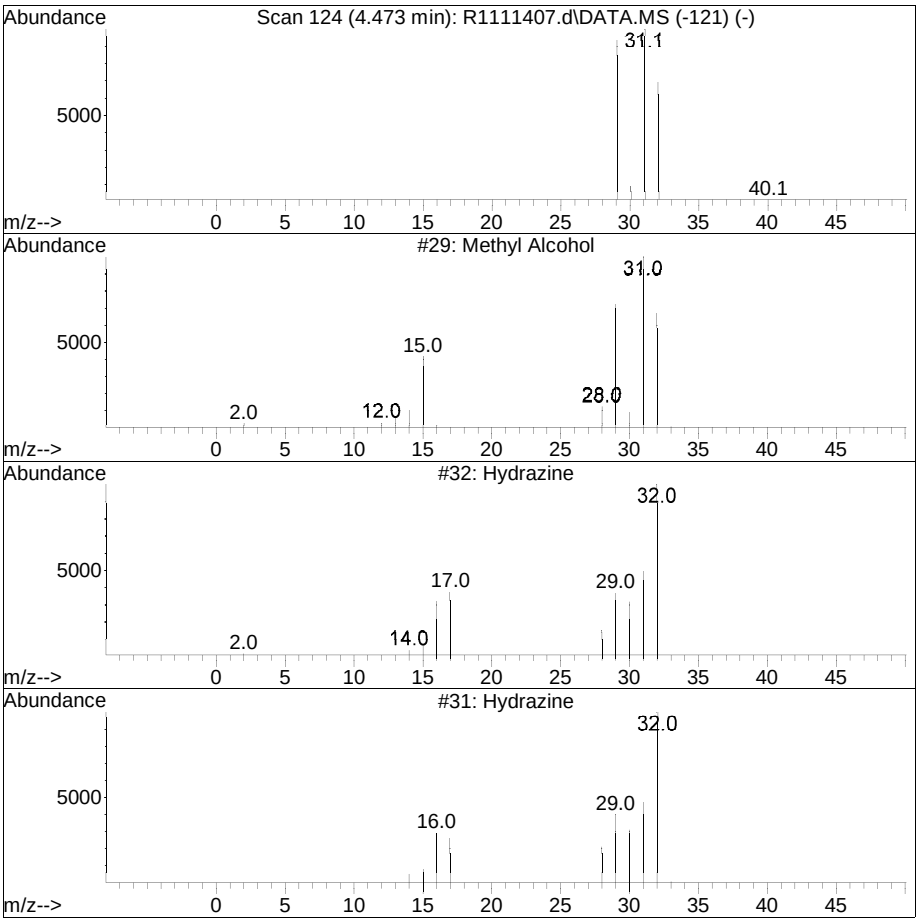
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

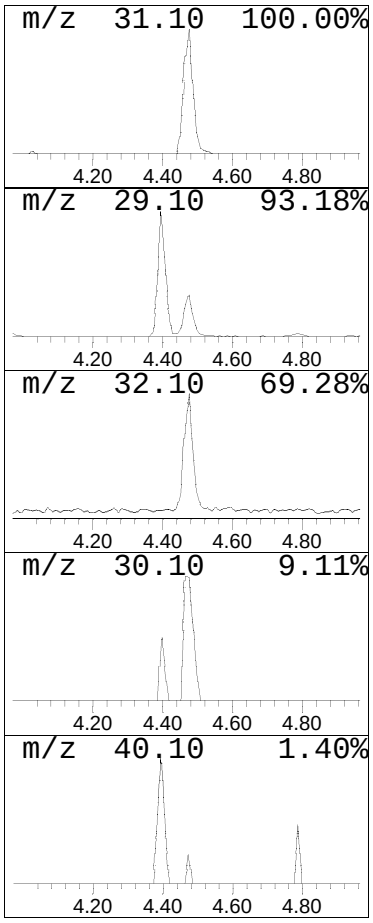
****

Peak Number 2 Methyl Alcohol Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.47	1.02 ppbV	55193	bromochloromethane	9.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methyl Alcohol	32	CH4O	000067-56-1	2
2	Hydrazine	32	H4N2	000302-01-2	2
3	Hydrazine	32	H4N2	000302-01-2	2
4	Ethane, nitro-	75	C2H5NO2	000079-24-3	1
5	Methyl Alcohol	32	CH4O	000067-56-1	1





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111407.d
Acq On : 3 Sep 2015 1:01 am
Operator : AIRLAB11:RY
Sample : L1521092-06D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

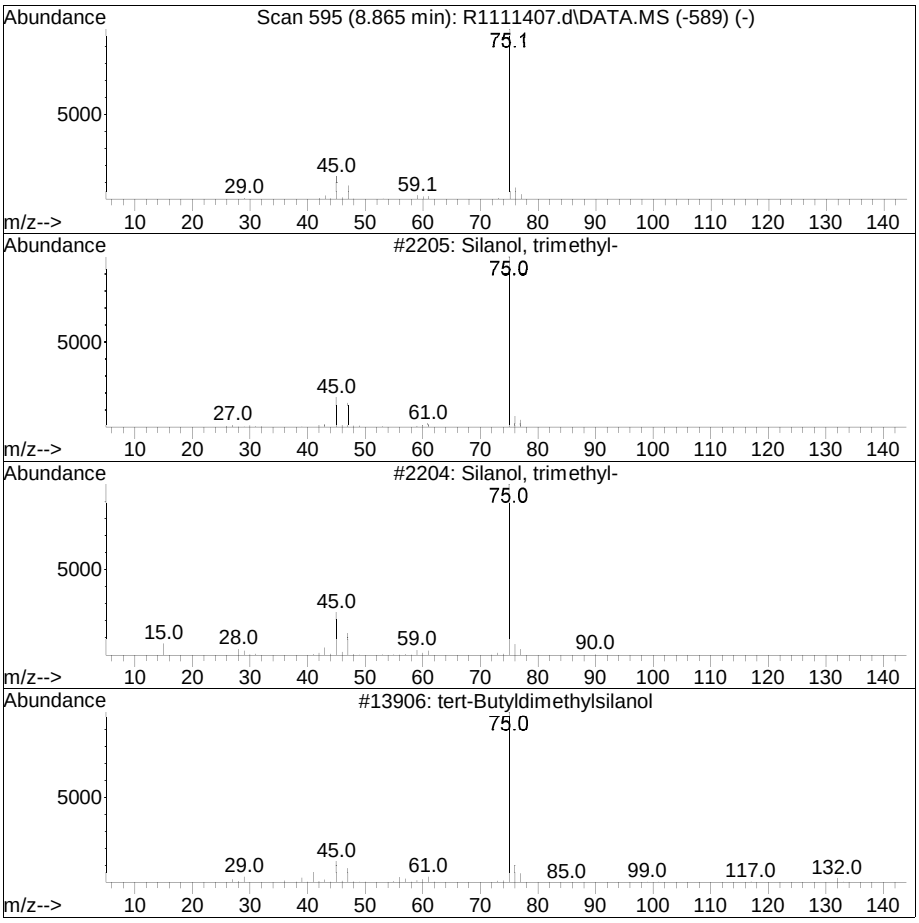
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

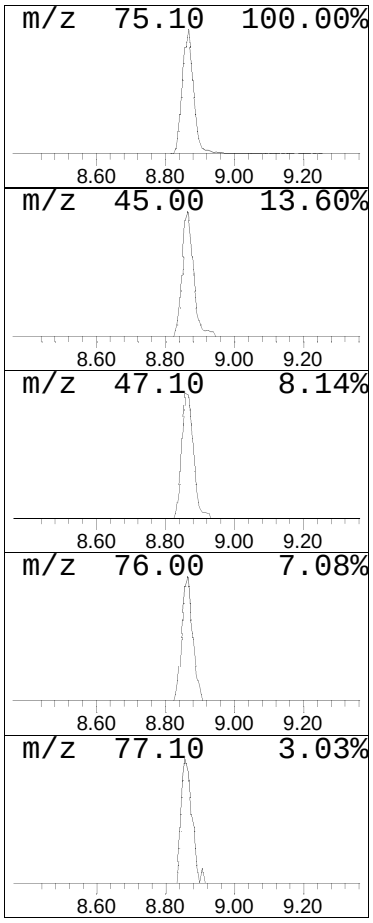
****

Peak Number 3 Silanol, trimethyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.86	2.15 ppbV	116989	bromochloromethane	9.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	74
2	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	74
3	tert-Butyldimethylsilanol	132	C6H16OSi	018173-64-3	43
4	Ethanol, 2-(trimethylsilyl)-	118	C5H14OSi	002916-68-9	43
5	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	9





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111407.d
Acq On : 3 Sep 2015 1:01 am
Operator : AIRLAB11:RY
Sample : L1521092-06D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

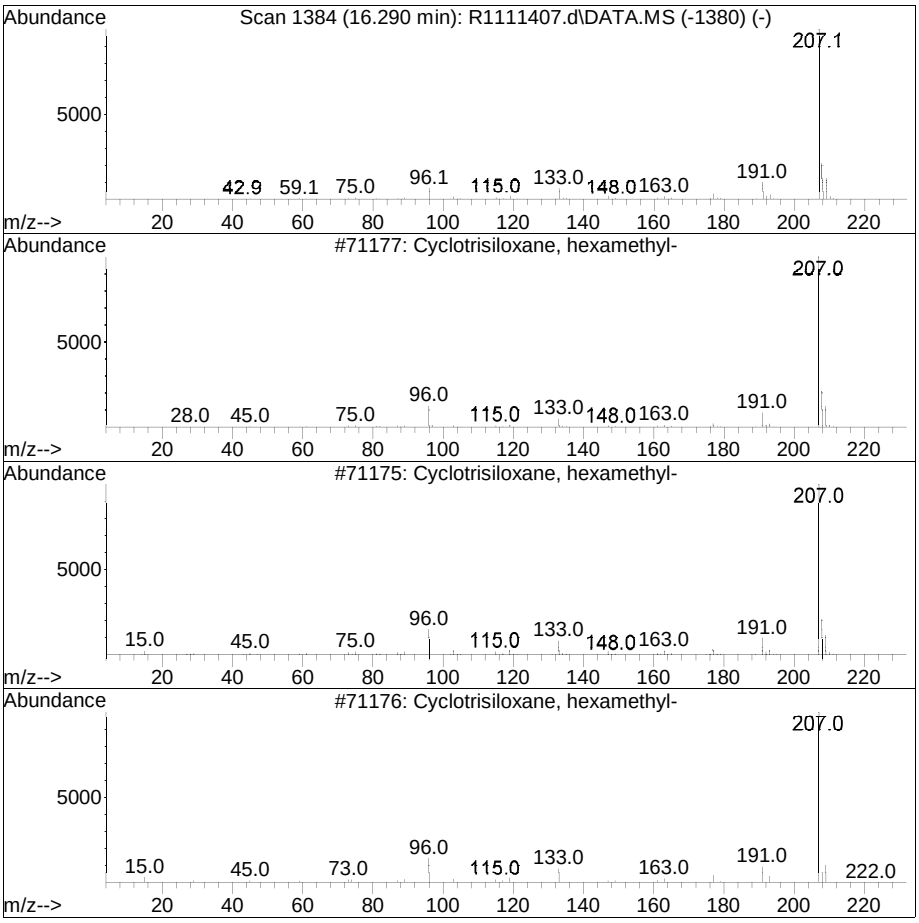
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

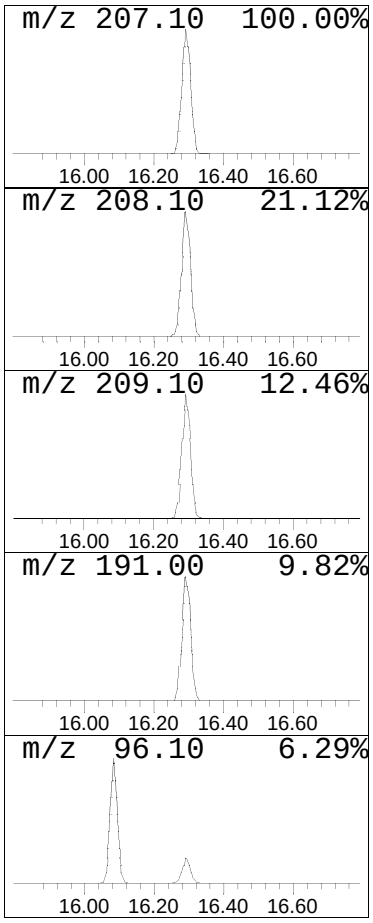
****

Peak Number 4 Cyclotrisiloxane, hexamethyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.29	4.33 ppbV	542723	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	90
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	64
4	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	39
5	Benzo[h]quinoline, 2,4-dimethyl-	207	C15H13N	000605-67-4	39





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111407.d
Acq On : 3 Sep 2015 1:01 am
Operator : AIRLAB11:RY
Sample : L1521092-06D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

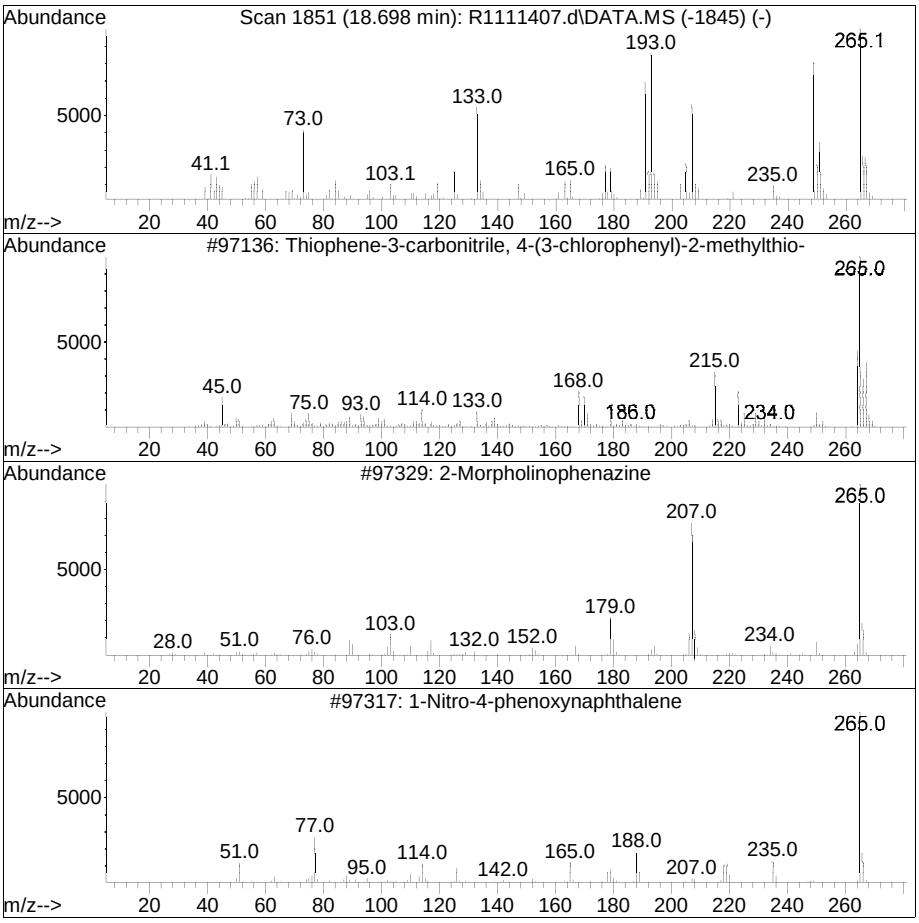
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

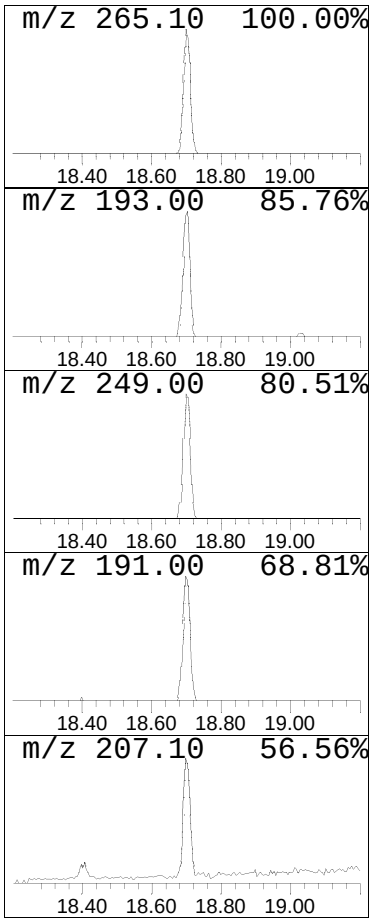
****

Peak Number 6 unknown siloxane Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.70	1.63 ppbV	204118	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Thiophene-3-carbonitrile, 4-(3-c...	265	C12H8ClNS2	116526-47-7	18
2	2-Morpholinophenazine	265	C16H15N3O	022316-93-4	14
3	1-Nitro-4-phenoxynaphthalene	265	C16H11NO3	1000110-34-2	11
4	Acridine orange,CI 46005	265	C17H19N3	010127-02-3	11
5	Anthracene, 9,10-dihydro-9,10-di...	208	C16H16	022566-43-4	11





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111407.d
Acq On : 3 Sep 2015 1:01 am
Operator : AIRLAB11:RY
Sample : L1521092-06D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

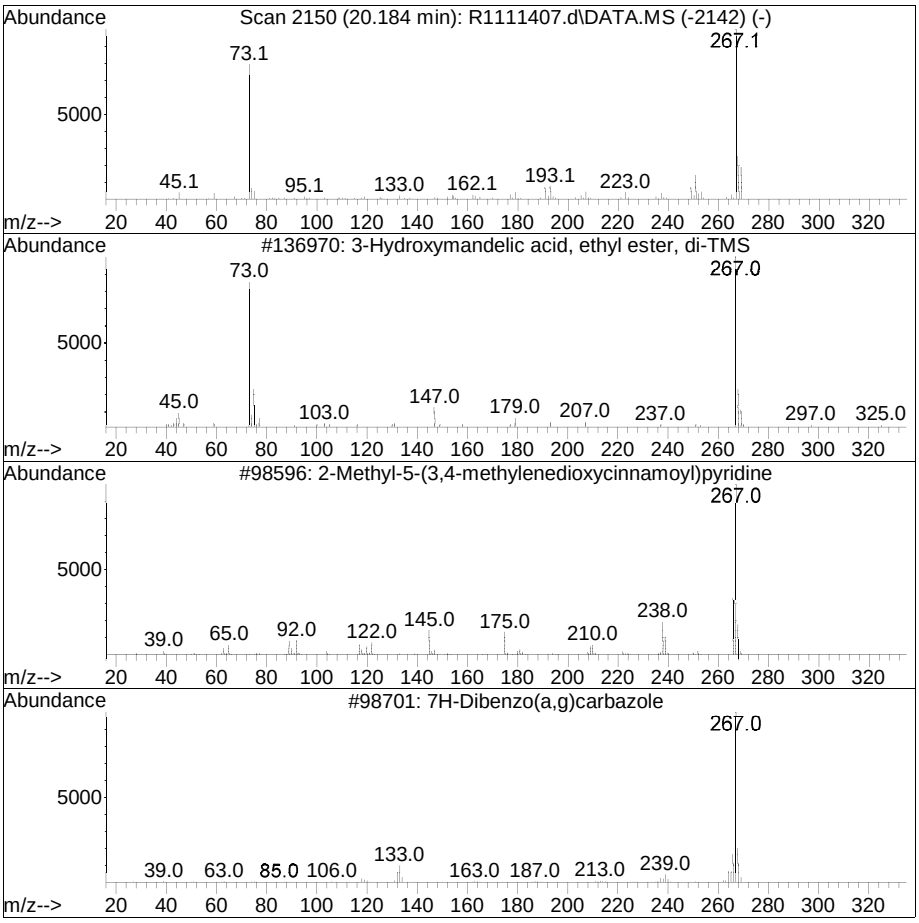
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

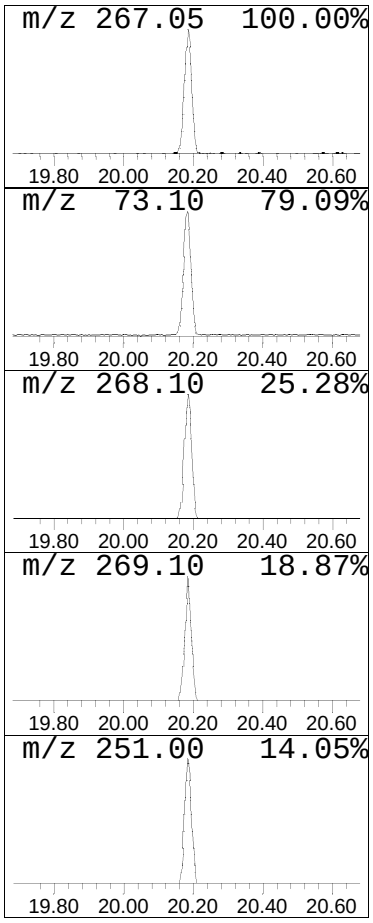
****

Peak Number 7 unknown siloxane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.18	1.56 ppbV	195720	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-88-9	78
2	2-Methyl-5-(3,4-methylenedioxyci...	267	C16H13NO3	094298-70-1	50
3	7H-Dibenzo(a,g)carbazole	267	C20H13N	000207-84-1	50
4	13H-Dibenzo[a,i]carbazole	267	C20H13N	000239-64-5	50
5	1-(4-Nitrophenyl)-3-phenyl-2-pyr...	267	C15H13N3O2	005920-39-8	47





Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111407.d
Acq On : 3 Sep 2015 1:01 am
Operator : AIRLAB11:RY
Sample : L1521092-06D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 6 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc
Acetaldehyde	4.39	2.3	ppbV	127360	1	9.94	543486	10.0
Methyl Alcohol	4.47	1.0	ppbV	55193	1	9.94	543486	10.0
Silanol, trimet...	8.86	2.1	ppbV	116989	1	9.94	543486	10.0
Cyclotrisiloxan...	16.29	4.3	ppbV	542723	3	16.63	1252200	10.0
unknown siloxane	18.70	1.6	ppbV	204118	3	16.63	1252200	10.0
unknown siloxane	20.18	1.6	ppbV	195720	3	16.63	1252200	10.0

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-07DL	Date Collected :	08/27/15 13:55
Client ID	: BS-SS-2	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 01:43
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.193
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111408	Instrument ID	: AIRLAB11
Sample Amount	: 114 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	ND	0.44	--	ND	2	--	U
74-87-3	Chloromethane	ND	0.44	--	ND	0.9	--	U
76-14-2	Freon-114	ND	0.44	--	ND	3.	--	U
75-01-4	Vinyl chloride	ND	0.44	--	ND	1.	--	U
106-99-0	1,3-Butadiene	ND	0.44	--	ND	1.	--	U
74-83-9	Bromomethane	ND	0.44	--	ND	2.	--	U
75-00-3	Chloroethane	ND	0.44	--	ND	1.	--	U
64-17-5	Ethanol	ND	5.5	--	ND	10	--	U
593-60-2	Vinyl bromide	ND	0.44	--	ND	2.	--	U
67-64-1	Acetone	5.0	2.2	--	12	5.2	--	
75-69-4	Trichlorofluoromethane	ND	0.44	--	ND	2	--	U
67-63-0	Isopropanol	1.1	1.1	--	3	3	--	
75-35-4	1,1-Dichloroethene	ND	0.44	--	ND	2.	--	U
75-65-0	Tertiary butyl Alcohol	ND	1.1	--	ND	3	--	U
75-09-2	Methylene chloride	ND	1.1	--	ND	4	--	U
107-05-1	3-Chloropropene	ND	0.44	--	ND	1.	--	U
75-15-0	Carbon disulfide	0.59	0.44	--	2	1	--	
76-13-1	Freon-113	ND	0.44	--	ND	3.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.44	--	ND	2.	--	U
75-34-3	1,1-Dichloroethane	ND	0.44	--	ND	2.	--	U
1634-04-4	Methyl tert butyl ether	ND	0.44	--	ND	2.	--	U
78-93-3	2-Butanone	ND	1.1	--	ND	3	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.44	--	ND	2.	--	U
67-66-3	Chloroform	13	0.44	--	63	2.1	--	
109-99-9	Tetrahydrofuran	ND	1.1	--	ND	3.	--	U
107-06-2	1,2-Dichloroethane	ND	0.44	--	ND	2.	--	U
110-54-3	n-Hexane	ND	0.44	--	ND	2.	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.44	--	ND	2.	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-07DL	Date Collected :	08/27/15 13:55
Client ID	: BS-SS-2	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 01:43
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.193
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111408	Instrument ID	: AIRLAB11
Sample Amount	: 114 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	ND	0.44	--	ND	1.	--	U
56-23-5	Carbon tetrachloride	ND	0.44	--	ND	3.	--	U
110-82-7	Cyclohexane	ND	0.44	--	ND	2.	--	U
78-87-5	1,2-Dichloropropane	ND	0.44	--	ND	2.	--	U
75-27-4	Bromodichloromethane	2.2	0.44	--	15	2.9	--	
123-91-1	1,4-Dioxane	ND	0.44	--	ND	2.	--	U
79-01-6	Trichloroethene	ND	0.44	--	ND	2.	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.44	--	ND	2.	--	U
80-62-6	Methyl Methacrylate	ND	1.1	--	ND	5.	--	U
142-82-5	Heptane	ND	0.44	--	ND	2.	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.44	--	ND	2.	--	U
108-10-1	4-Methyl-2-pentanone	ND	1.1	--	ND	5.	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.44	--	ND	2.	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.44	--	ND	2.	--	U
108-88-3	Toluene	0.58	0.44	--	2	2	--	
124-48-1	Dibromochloromethane	ND	0.44	--	ND	4.	--	U
106-93-4	1,2-Dibromoethane	ND	0.44	--	ND	3.	--	U
127-18-4	Tetrachloroethene	ND	0.44	--	ND	3	--	U
108-90-7	Chlorobenzene	ND	0.44	--	ND	2.	--	U
100-41-4	Ethylbenzene	ND	0.44	--	ND	2	--	U
179601-23-1	p/m-Xylene	ND	0.88	--	ND	4.	--	U
75-25-2	Bromoform	ND	0.44	--	ND	5.	--	U
100-42-5	Styrene	ND	0.44	--	ND	2.	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.44	--	ND	3.	--	U
95-47-6	o-Xylene	ND	0.44	--	ND	2.	--	U
95-49-8	2-Chlorotoluene	ND	0.44	--	ND	2.	--	U
622-96-8	4-Ethyltoluene	ND	0.44	--	ND	2	--	U
108-67-8	1,3,5-Trimethybenzene	ND	0.44	--	ND	2	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-07DL	Date Collected :	08/27/15 13:55
Client ID	: BS-SS-2	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 01:43
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.193
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111408	Instrument ID	: AIRLAB11
Sample Amount	: 114 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	0.92	0.44	--	5	2	--	
541-73-1	1,3-Dichlorobenzene	ND	0.44	--	ND	3.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.44	--	ND	3.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.44	--	ND	3.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.44	--	ND	3.	--	U
87-68-3	Hexachlorobutadiene	ND	0.44	--	ND	5.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111408.d
Acq On : 3 Sep 2015 1:43 am
Operator : AIRLAB11:RY
Sample : L1521092-07D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 03 16:56:43 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.94	49	71406	10.000	ppbV	0.00
Standard Area = 81084			Recovery =		88.06%	
43) 1,4-difluorobenzene	12.16	114	427089	10.000	ppbV	0.02
Standard Area = 489060			Recovery =		87.33%	
67) chlorobenzene-D5	16.63	54	69165	10.000	ppbV	0.00
Standard Area = 80649			Recovery =		85.76%	
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.03	85	5905	0.195	ppbV	99
6) chloromethane	0.00		0	N.D.		
7) Freon-114	0.00		0	N.D.	d	
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	0.00		0	N.D.		
13) bromomethane	0.00		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	5.56	31	7872	2.444	ppbV	96
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.18	43	27215	2.286	ppbV #	94
21) trichlorofluoromethane	6.36	101	6921	0.162	ppbV	94
22) isopropyl alcohol	6.56	45	5827	0.511	ppbV #	86
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	7.35	59	2524	0.122	ppbV #	77
28) methylene chloride	7.35	49	1682	0.187	ppbV	92
29) 3-chloropropene	0.00		0	N.D.	d	
30) carbon disulfide	7.67	76	8209	0.271	ppbV #	81
31) Freon 113	7.69		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	0.00		0	N.D.		
36) 2-butanone	9.31	43	4303	0.293	ppbV #	85
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	10.10	83	156605	5.773	ppbV	99
40) Tetrahydrofuran	10.66		0	N.D.		
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	0.00		0	N.D.		
48) 1,1,1-trichloroethane	0.00		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111408.d
Acq On : 3 Sep 2015 1:43 am
Operator : AIRLAB11:RY
Sample : L1521092-07D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 03 16:56:43 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50)	benzene	11.74		0	N.D.		
52)	carbon tetrachloride	11.91		0	N.D.		
53)	cyclohexane	12.05		0	N.D.		
56)	1,2-dichloropropane	0.00		0	N.D.		
57)	bromodichloromethane	12.89	83	32242	1.028	ppbV	99
58)	1,4-dioxane	0.00		0	N.D.		
59)	trichloroethene	12.95		0	N.D.		
60)	2,2,4-trimethylpentane	0.00		0	N.D.		
61)	methyl methacrylate	0.00		0	N.D.		
62)	heptane	0.00		0	N.D.		
63)	cis-1,3-dichloropropene	0.00		0	N.D.		
64)	4-methyl-2-pentanone	0.00		0	N.D.		
65)	trans-1,3-dichloropropene	0.00		0	N.D.		
66)	1,1,2-trichloroethane	0.00		0	N.D.		
68)	toluene	15.01	91	11419	0.263	ppbV	96
74)	dibromochloromethane	15.43		0	N.D.		
75)	1,2-dibromoethane	0.00		0	N.D.		
78)	tetrachloroethene	16.08	166	3943	0.118	ppbV	95
80)	chlorobenzene	0.00		0	N.D.		
81)	ethylbenzene	16.98	91	7651	0.129	ppbV	99
83)	m+p-xylene	17.11	91	16896	0.342	ppbV	99
84)	bromoform	0.00		0	N.D.		
85)	styrene	17.40		0	N.D.		
86)	1,1,2,2-tetrachloroethane	0.00		0	N.D.		
87)	o-xylene	17.49	91	7417	0.149	ppbV	97
93)	2-chlorotoluene	0.00		0	N.D.		
96)	4-ethyl toluene	18.43	105	6003M3	0.075	ppbV	
97)	1,3,5-trimethylbenzene	18.48	105	6641	0.099	ppbV	94
99)	1,2,4-trimethylbenzene	18.79	105	26862	0.418	ppbV #	55
102)	1,3-dichlorobenzene	18.97		0	N.D.		
103)	1,4-dichlorobenzene	18.97		0	N.D.		
107)	1,2-dichlorobenzene	0.00		0	N.D.		
115)	1,2,4-trichlorobenzene	20.66		0	N.D.		
119)	hexachlorobutadiene	0.00		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111408.d
Acq On : 3 Sep 2015 1:43 am
Operator : AIRLAB11:RY
Sample : L1521092-07D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 03 16:56:43 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

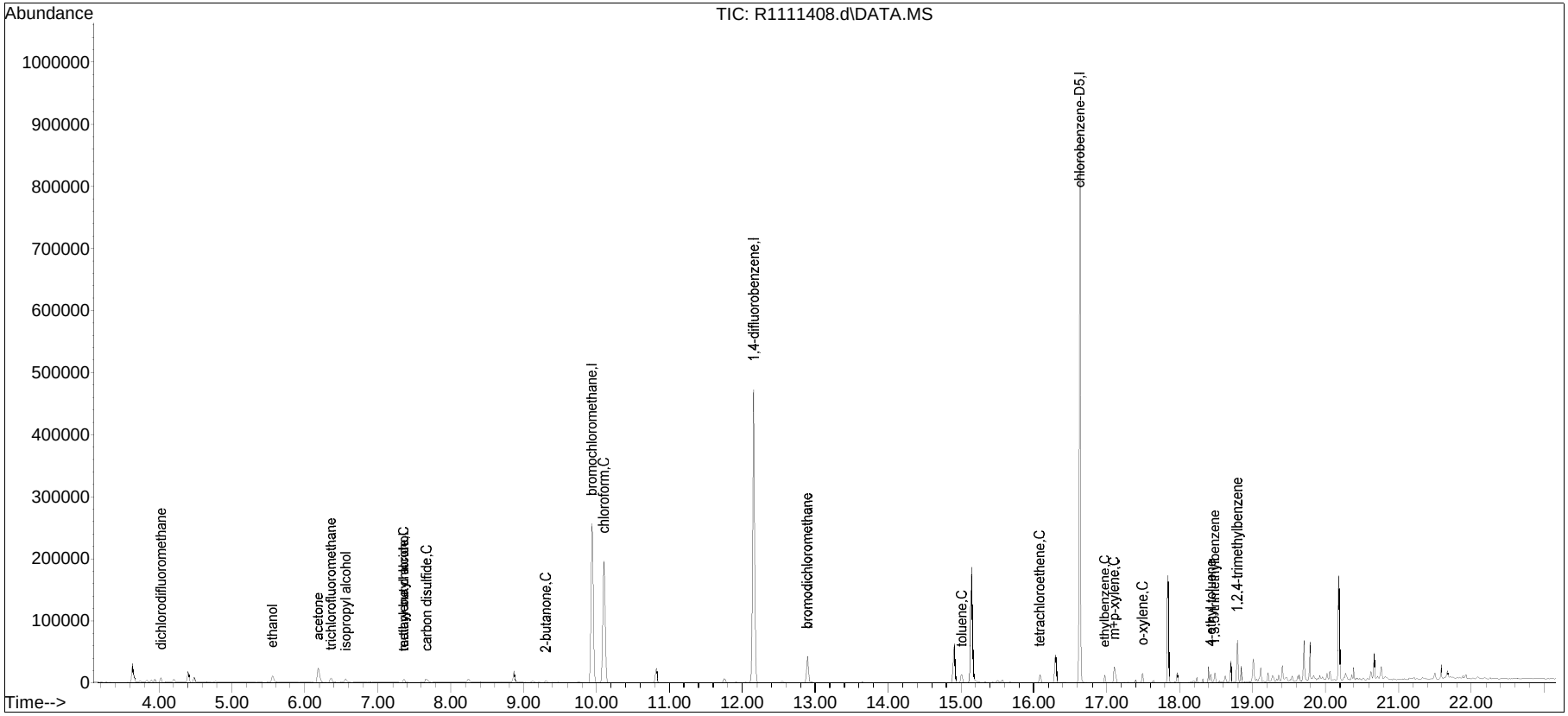
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Quantitation Report (QT Reviewed)

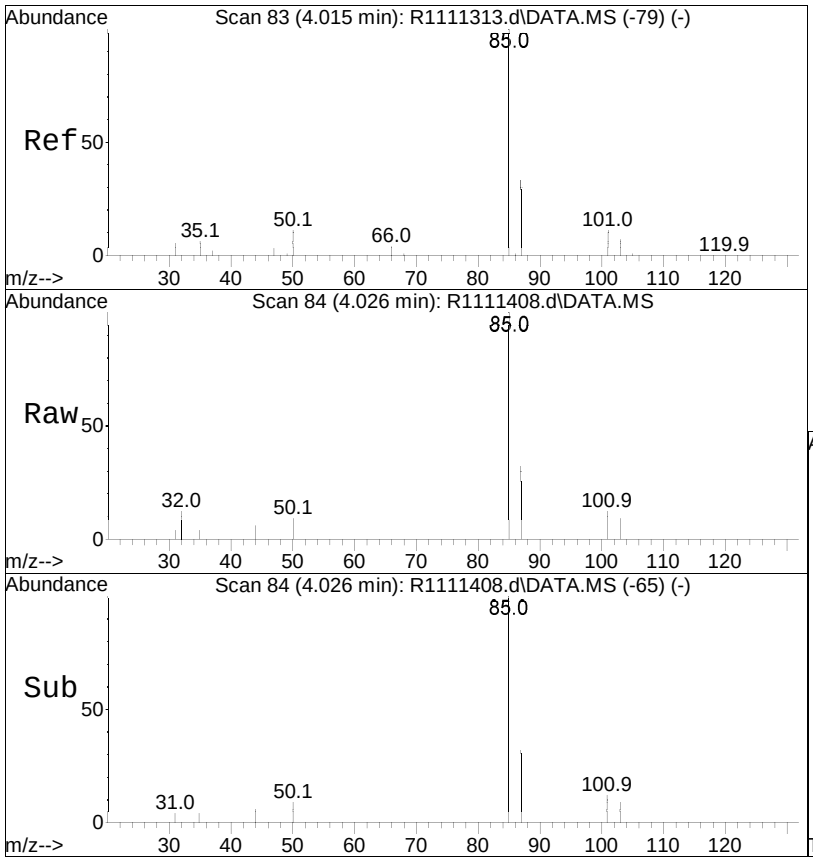
Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111408.d
Acq On : 3 Sep 2015 1:43 am
Operator : AIRLAB11:RY
Sample : L1521092-07D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 03 16:56:43 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

Sub List : NJ-LL_New - .Data\Airlab11\2015\150902T\R1111393.d



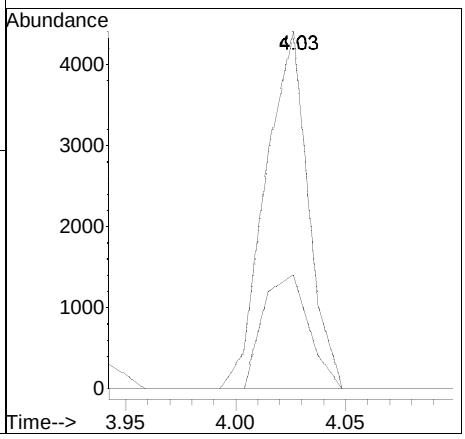
TALL150827.M Thu Sep 03 16:56:57 2015

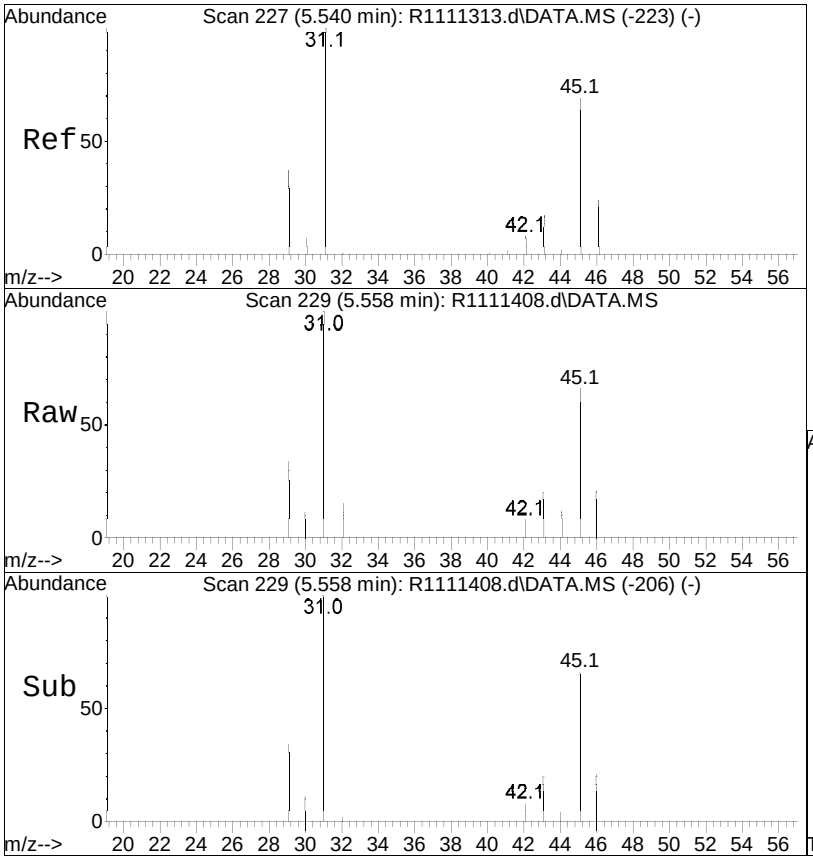


#5
dichlorodifluoromethane
Concen: 0.19 ppbV
RT: 4.03 min Scan# 84
Delta R.T. 0.011 min
Lab File: R1111408.d
Acq: 3 Sep 2015 1:43 am

Tgt Ion: 85 Resp: 5905

Ion	Ratio	Lower	Upper
85	100		
87	31.9	26.1	39.1

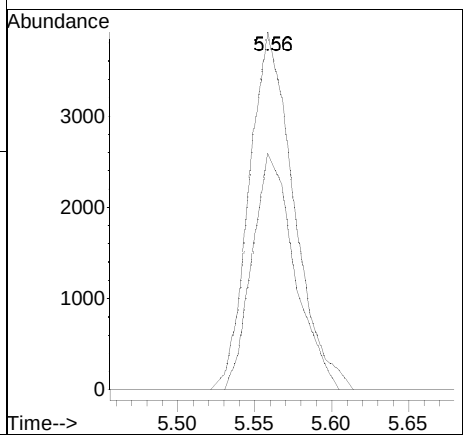


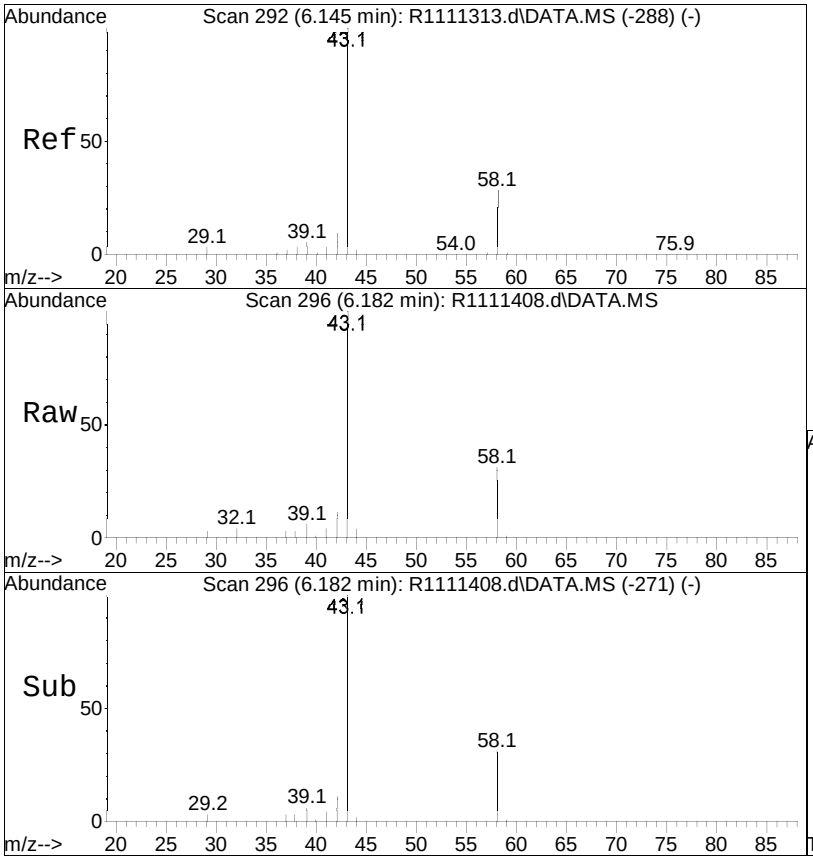


#15
ethanol
Concen: 2.44 ppbV
RT: 5.56 min Scan# 229
Delta R.T. 0.019 min
Lab File: R1111408.d
Acq: 3 Sep 2015 1:43 am

Tgt Ion: 31 Resp: 7872

Ion	Ratio	Lower	Upper
31	100		
45	66.1	55.4	83.2

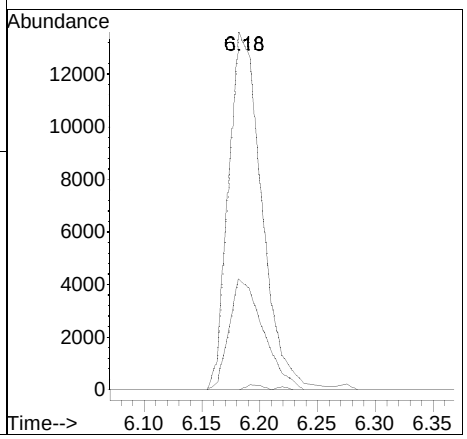


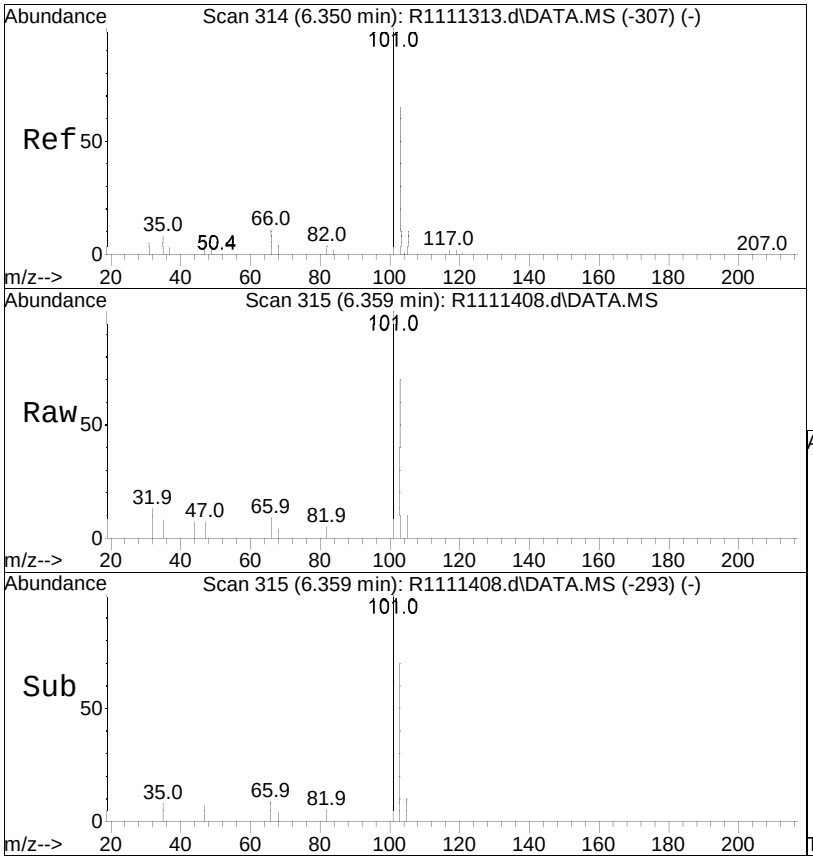


#19
acetone
Concen: 2.29 ppbV
RT: 6.18 min Scan# 296
Delta R.T. 0.037 min
Lab File: R1111408.d
Acq: 3 Sep 2015 1:43 am

Tgt Ion: 43 Resp: 27215

Ion	Ratio	Lower	Upper
43	100		
58	31.2	22.2	33.2
57	0.0	0.6	1.0#

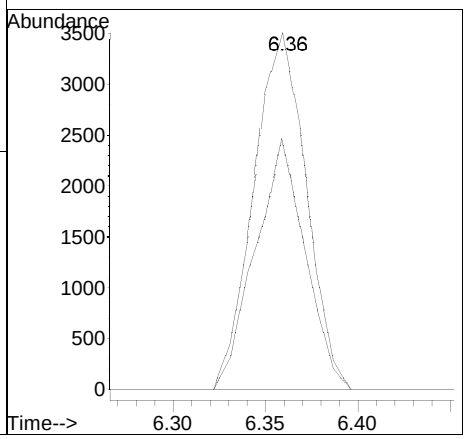


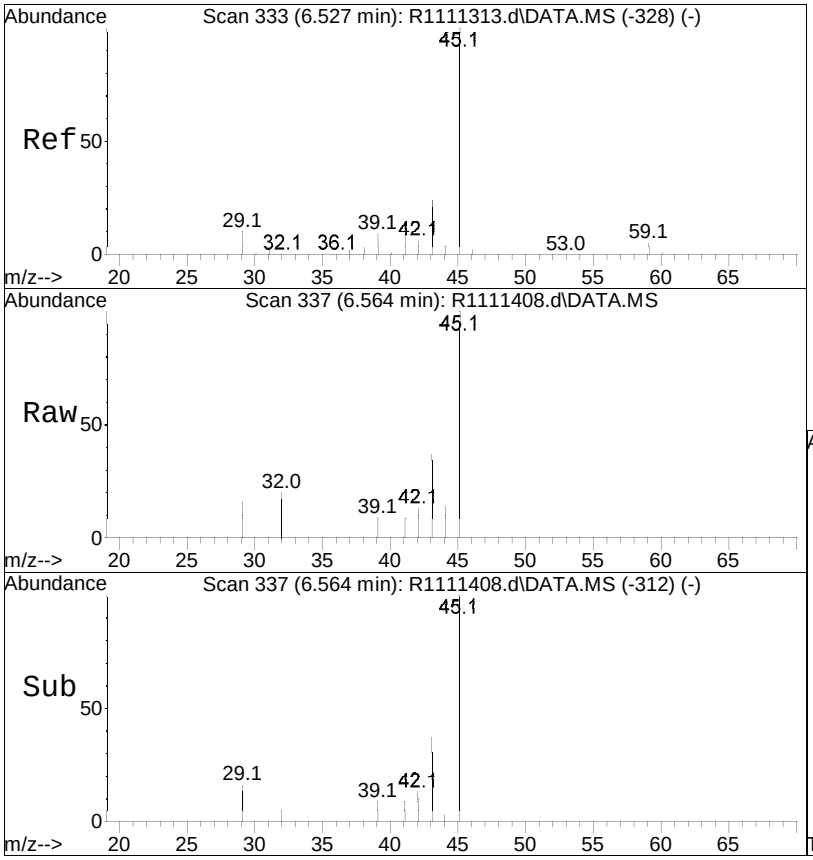


#21
trichlorofluoromethane
Concen: 0.16 ppbV
RT: 6.36 min Scan# 315
Delta R.T. 0.009 min
Lab File: R1111408.d
Acq: 3 Sep 2015 1:43 am

Tgt Ion:101 Resp: 6921

Ion	Ratio	Lower	Upper
101	100		
103	70.4	52.3	78.5

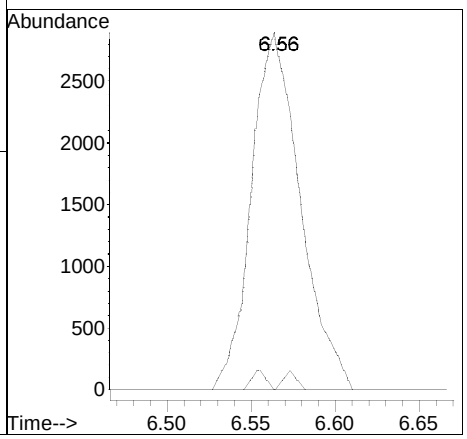


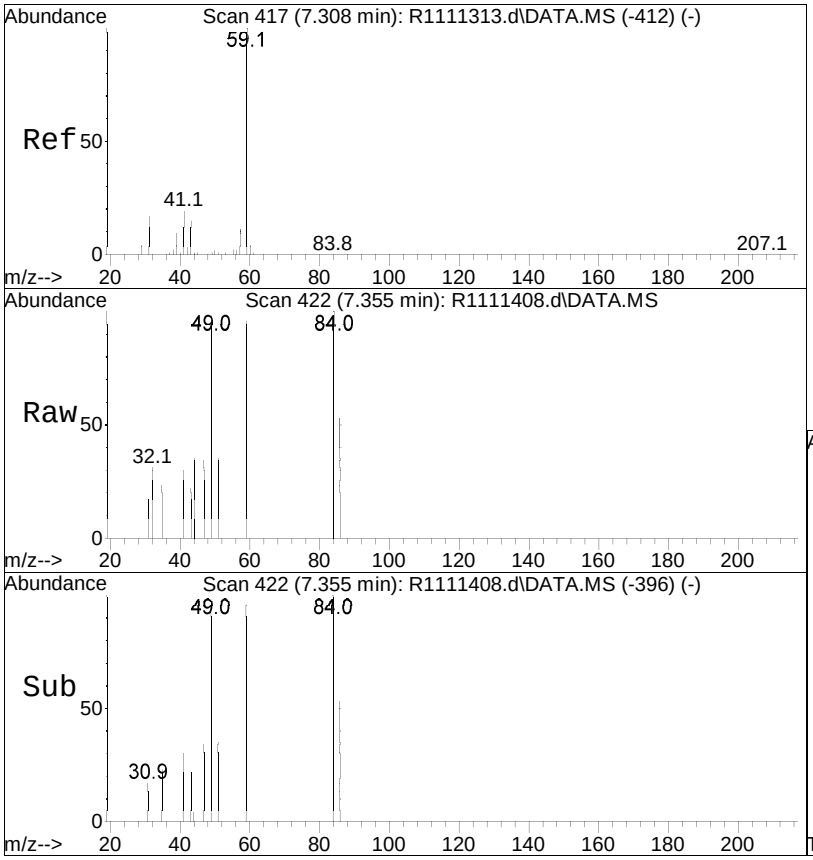


#22
isopropyl alcohol
Concen: 0.51 ppbV
RT: 6.56 min Scan# 337
Delta R.T. 0.037 min
Lab File: R1111408.d
Acq: 3 Sep 2015 1:43 am

Tgt Ion: 45 Resp: 5827

Ion	Ratio	Lower	Upper
45	100		
59	0.0	3.8	5.6#

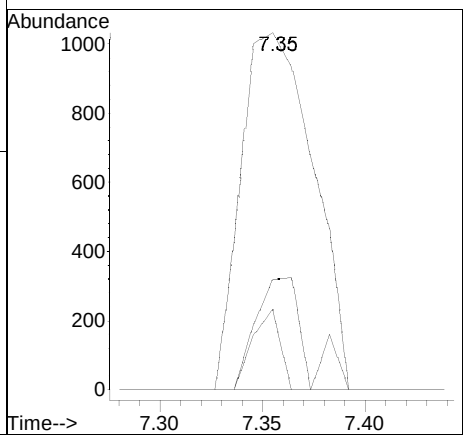


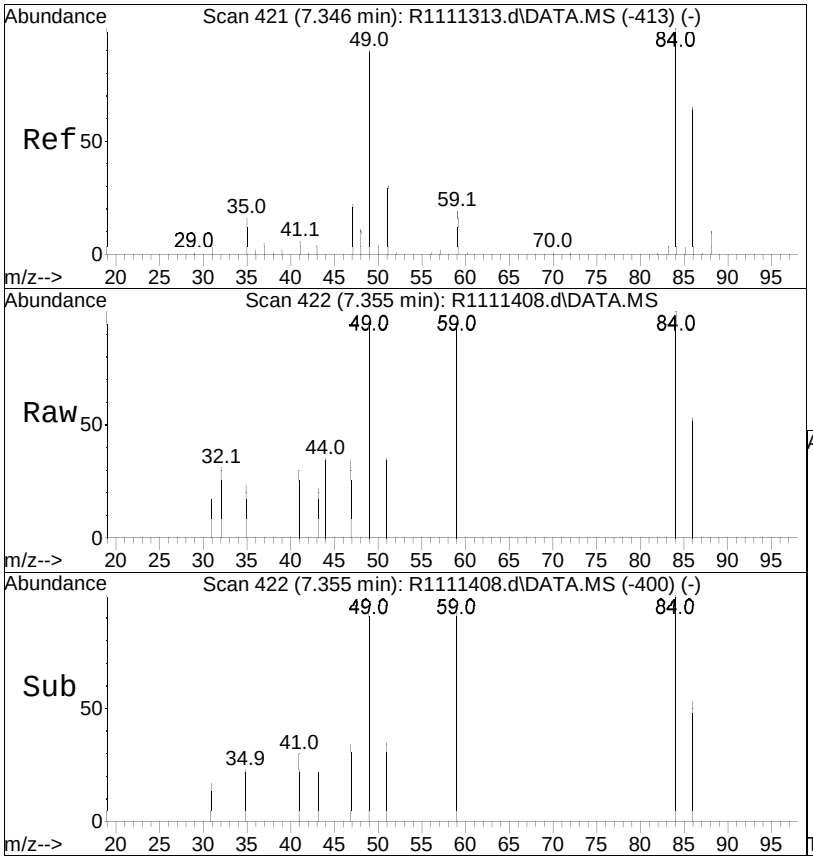


#27
tertiary butyl alcohol
Concen: 0.12 ppbV
RT: 7.35 min Scan# 422
Delta R.T. 0.046 min
Lab File: R1111408.d
Acq: 3 Sep 2015 1:43 am

Tgt Ion: 59 Resp: 2524

Ion	Ratio	Lower	Upper
59	100		
41	30.8	15.1	22.7#
43	22.6	11.8	17.6#

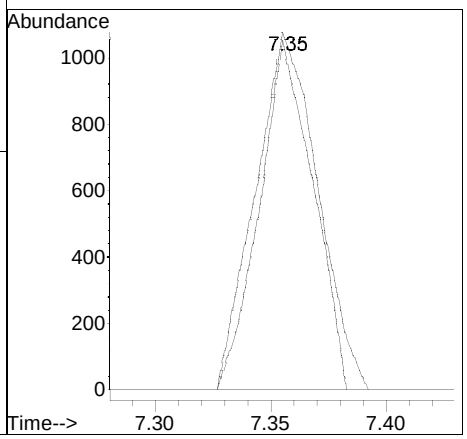


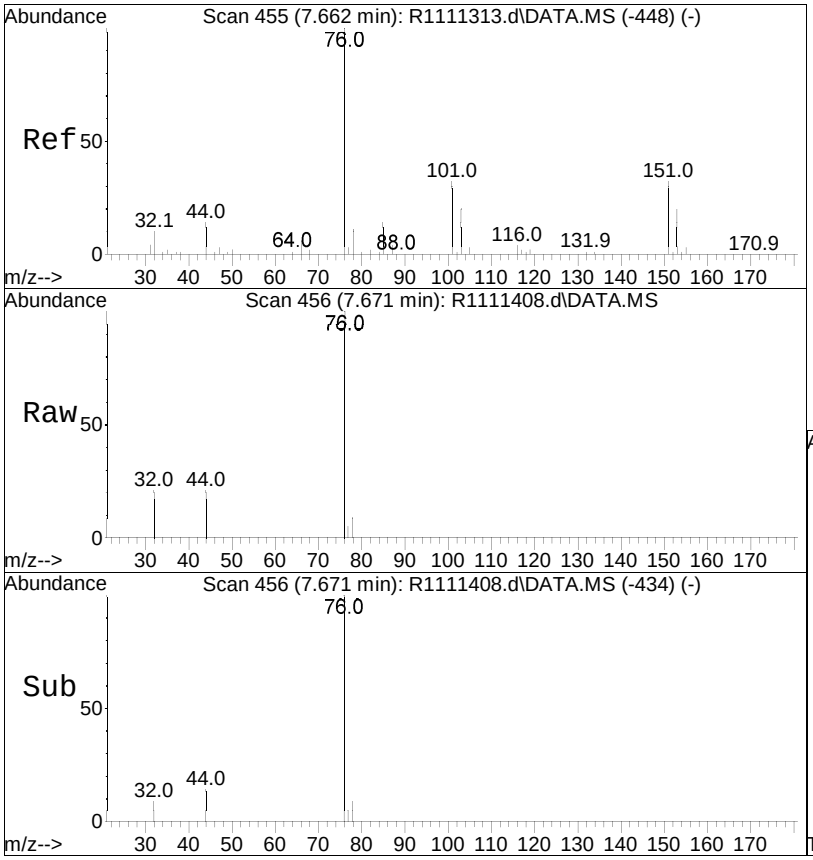


#28
methylene chloride
Concen: 0.19 ppbV
RT: 7.35 min Scan# 422
Delta R.T. 0.009 min
Lab File: R1111408.d
Acq: 3 Sep 2015 1:43 am

Tgt Ion: 49 Resp: 1682

Ion	Ratio	Lower	Upper
49	100		
84	102.3	89.0	133.4

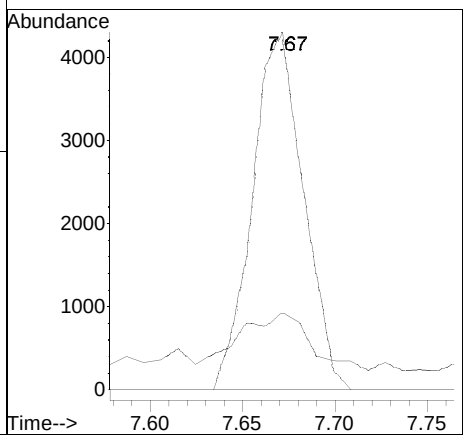


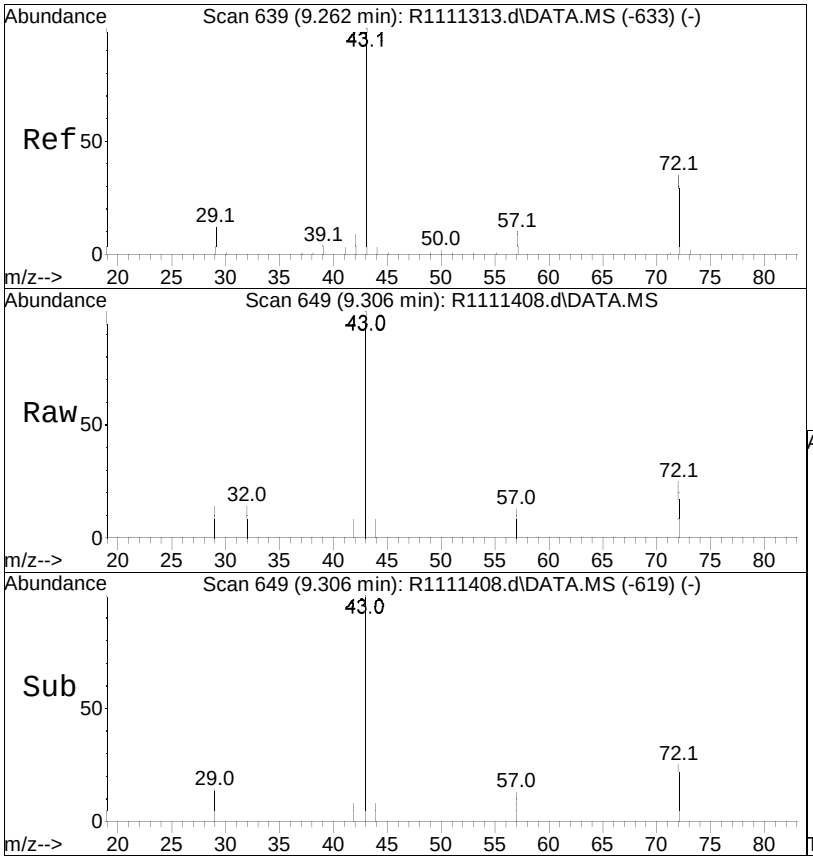


#30
carbon disulfide
Concen: 0.27 ppbV
RT: 7.67 min Scan# 456
Delta R.T. 0.009 min
Lab File: R1111408.d
Acq: 3 Sep 2015 1:43 am

Tgt Ion: 76 Resp: 8209

Ion	Ratio	Lower	Upper
76	100		
44	21.5	11.0	16.6#

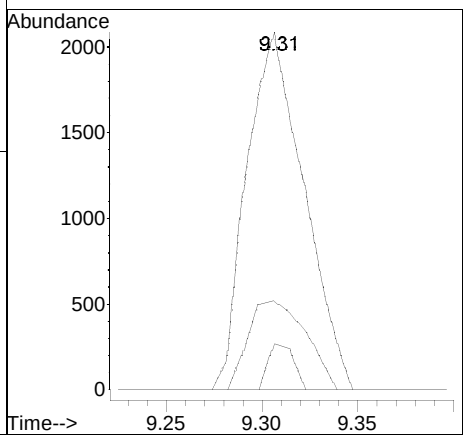


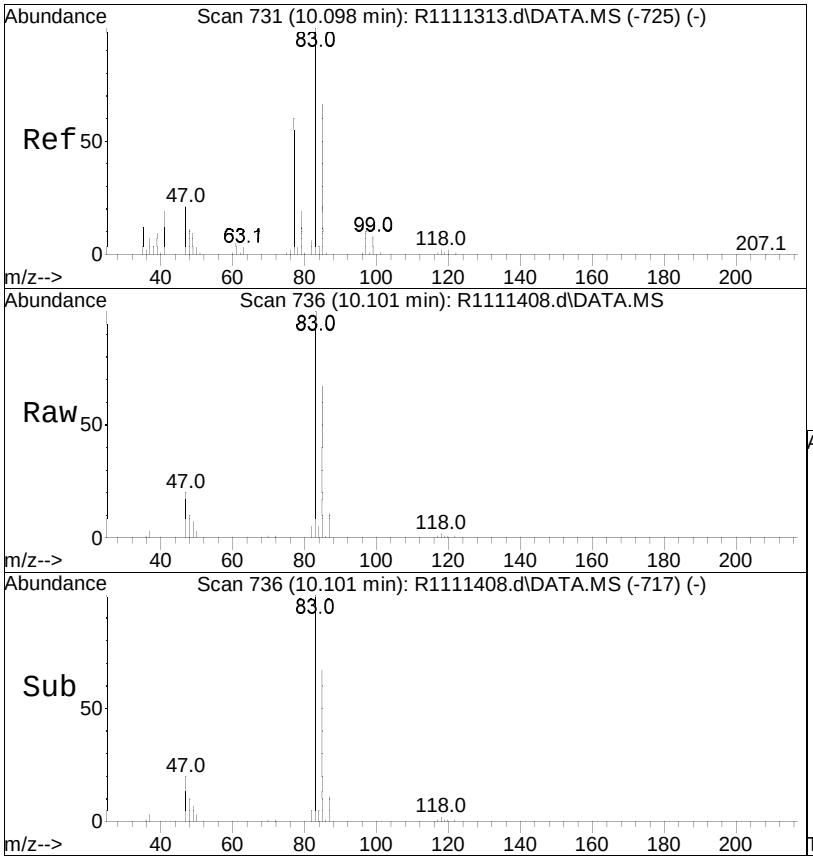


#36
2-butanone
Concen: 0.29 ppbV
RT: 9.31 min Scan# 649
Delta R.T. 0.044 min
Lab File: R1111408.d
Acq: 3 Sep 2015 1:43 am

Tgt Ion: 43 Resp: 4303

Ion	Ratio	Lower	Upper
43	100		
72	25.0	28.1	42.1#
57	12.7	8.3	12.5#

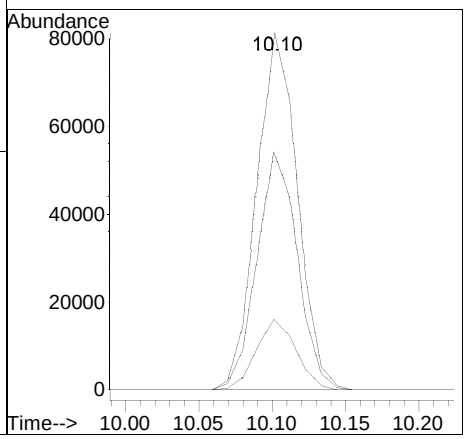


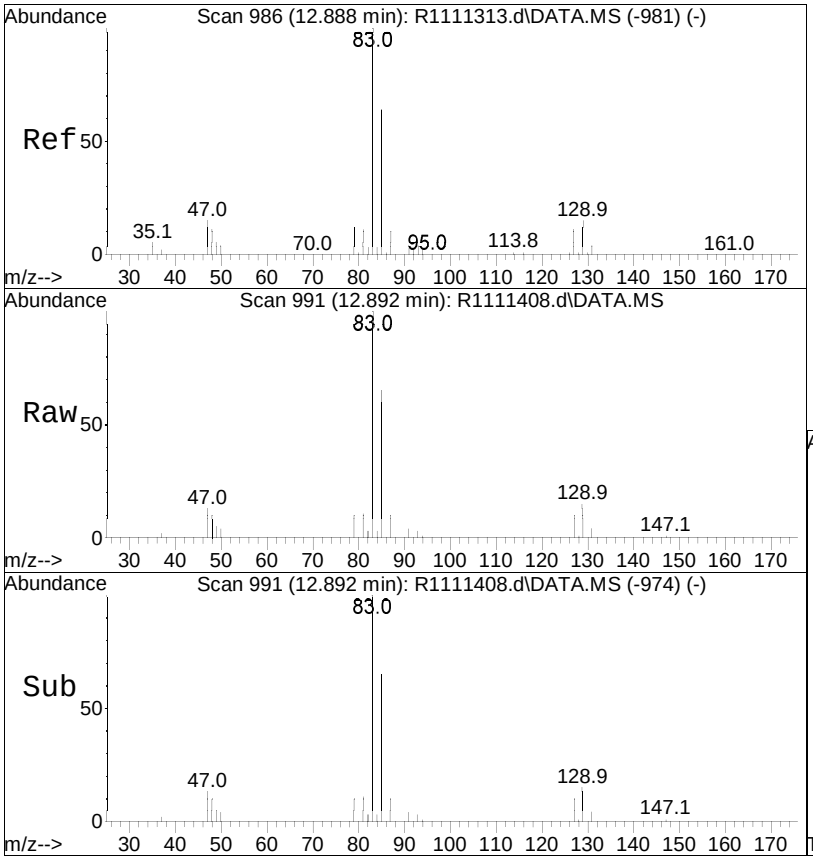


#39
chloroform
Concen: 5.77 ppbV
RT: 10.10 min Scan# 736
Delta R.T. 0.003 min
Lab File: R1111408.d
Acq: 3 Sep 2015 1:43 am

Tgt Ion: 83 Resp: 156605

Ion	Ratio	Lower	Upper
83	100		
85	66.6	52.4	78.6
47	19.8	16.5	24.7

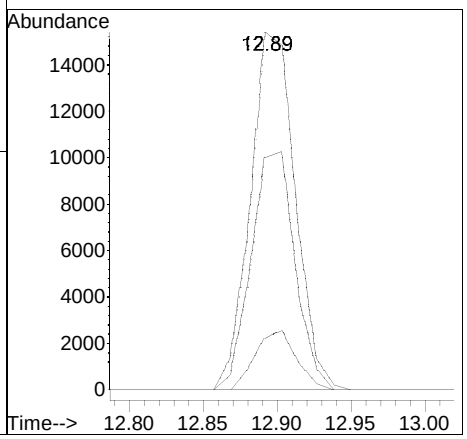


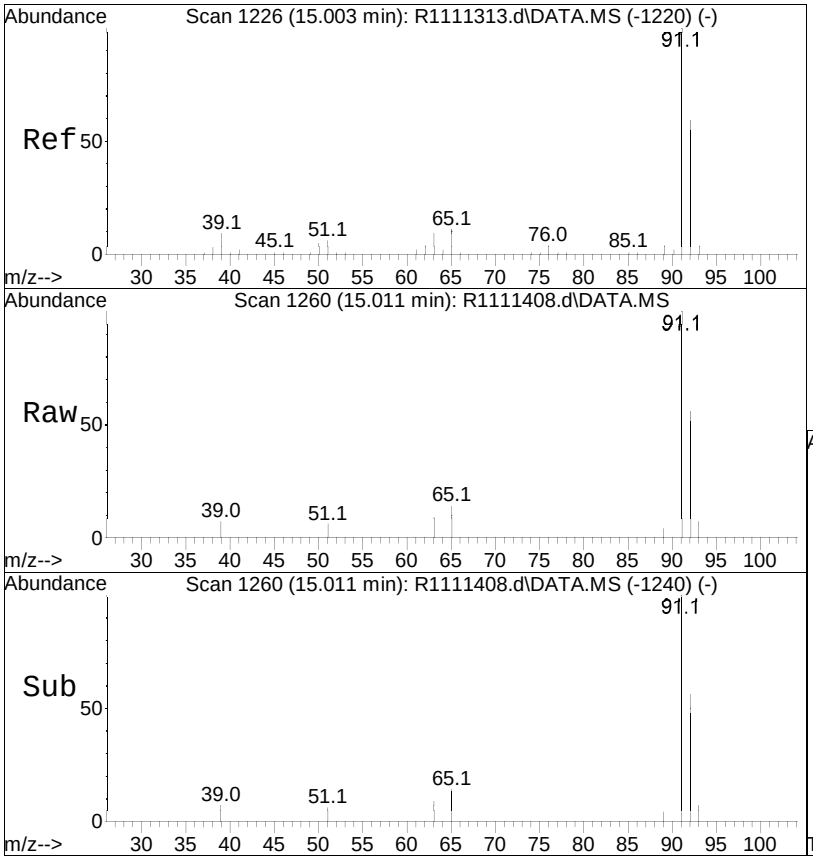


#57
bromodichloromethane
Concen: 1.03 ppbV
RT: 12.89 min Scan# 991
Delta R.T. 0.003 min
Lab File: R1111408.d
Acq: 3 Sep 2015 1:43 am

Tgt Ion: 83 Resp: 32242

Ion	Ratio	Lower	Upper
83	100		
85	65.1	51.1	76.7
129	14.6	12.1	18.1

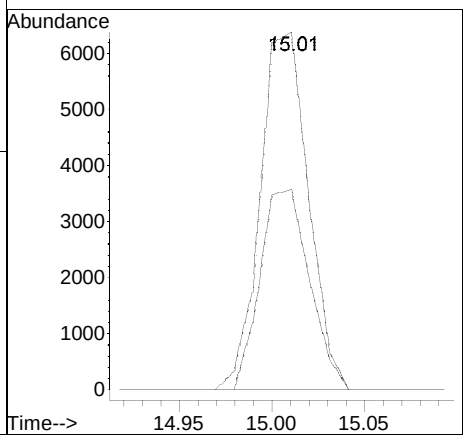


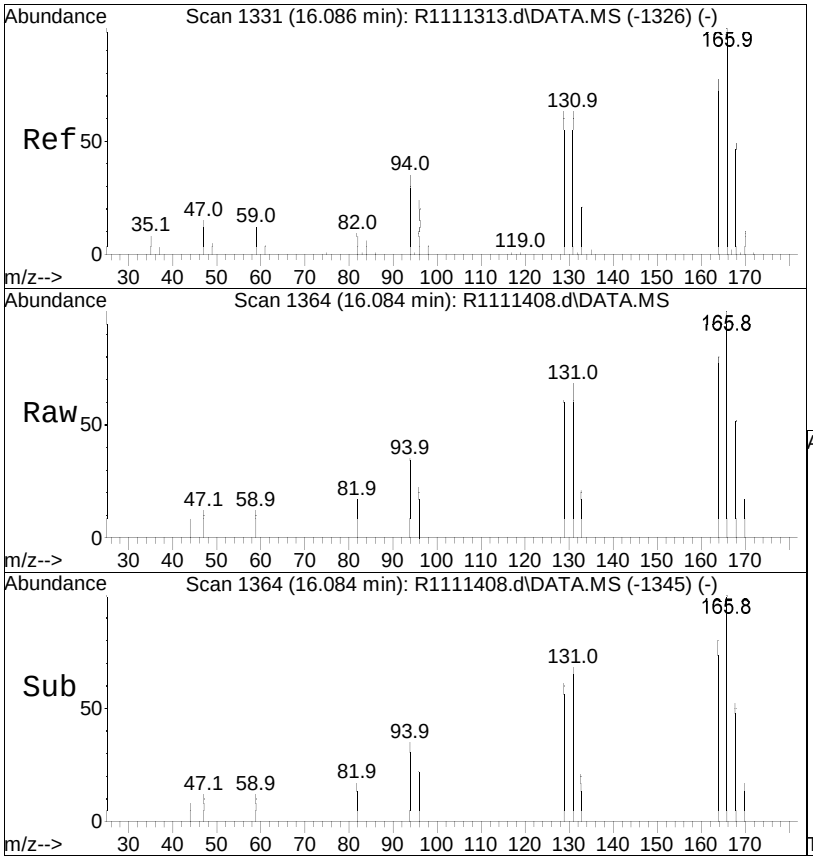


#68
toluene
Concen: 0.26 ppbV
RT: 15.01 min Scan# 1260
Delta R.T. 0.008 min
Lab File: R1111408.d
Acq: 3 Sep 2015 1:43 am

Tgt Ion: 91 Resp: 11419

Ion	Ratio	Lower	Upper
91	100		
92	56.2	47.0	70.6

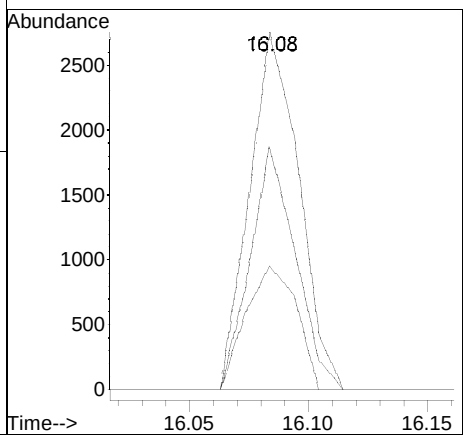


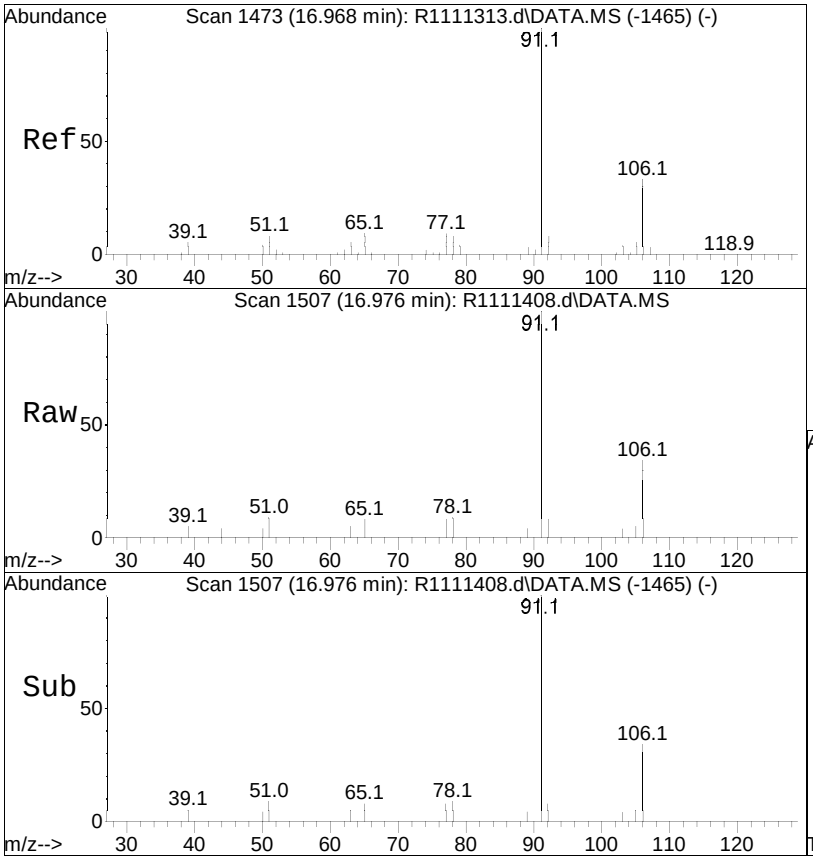


#78
tetrachloroethene
Concen: 0.12 ppbV
RT: 16.08 min Scan# 1364
Delta R.T. -0.002 min
Lab File: R1111408.d
Acq: 3 Sep 2015 1:43 am

Tgt Ion:166 Resp: 3943

Ion	Ratio	Lower	Upper
166	100		
131	68.3	50.1	75.1
94	34.7	28.2	42.4

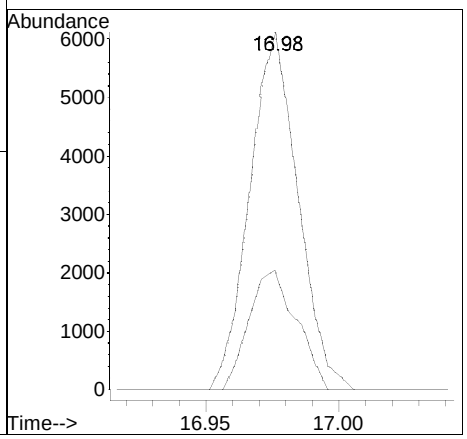


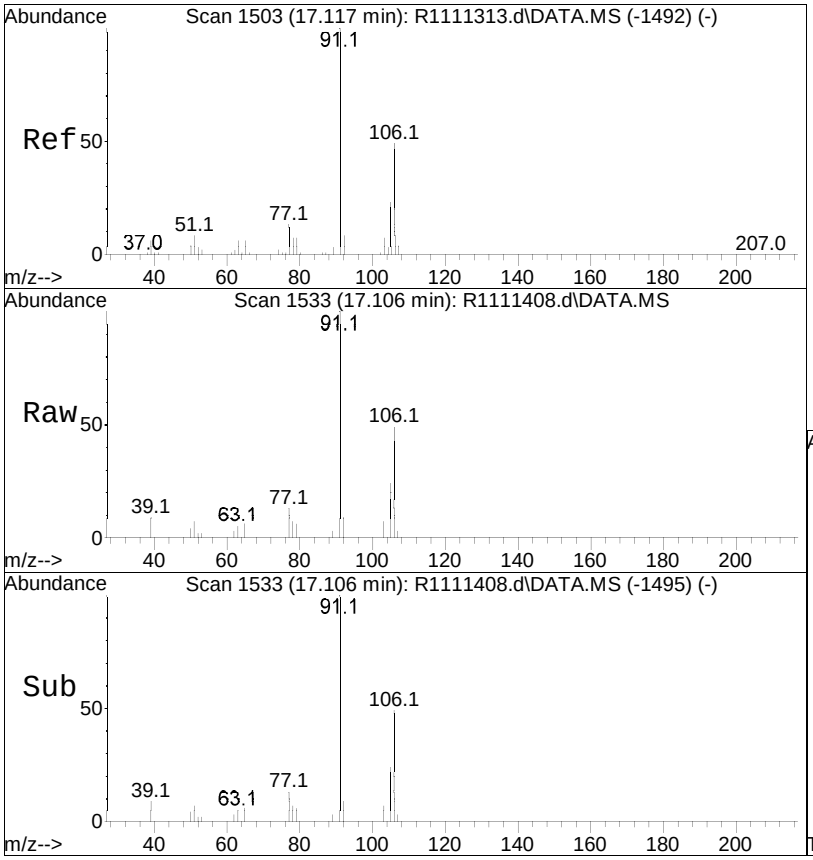


#81
ethylbenzene
Concen: 0.13 ppbV
RT: 16.98 min Scan# 1507
Delta R.T. 0.008 min
Lab File: R1111408.d
Acq: 3 Sep 2015 1:43 am

Tgt Ion: 91 Resp: 7651

Ion	Ratio	Lower	Upper
91	100		
106	33.6	26.6	39.8

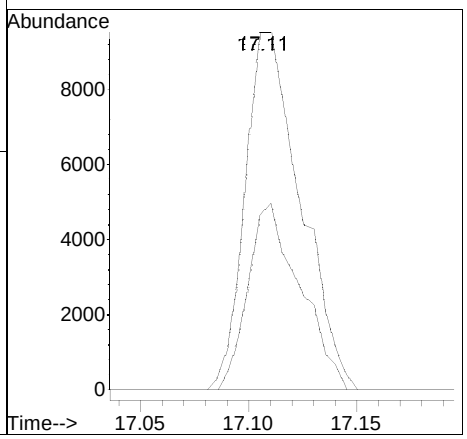


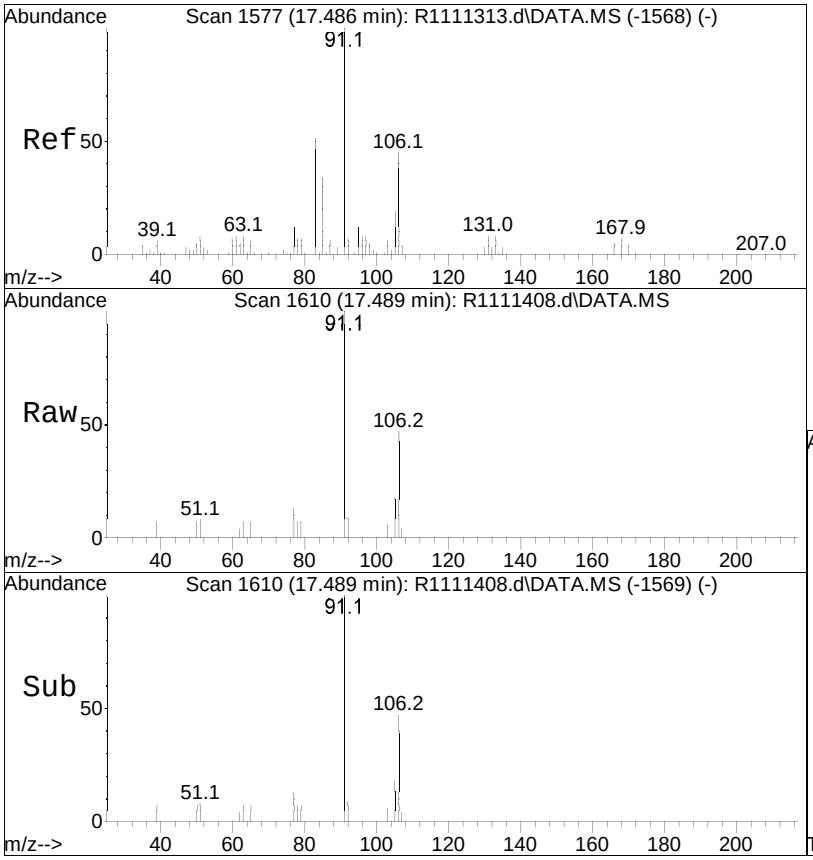


#83
m+p-xylene
Concen: 0.34 ppbV
RT: 17.11 min Scan# 1533
Delta R.T. -0.012 min
Lab File: R1111408.d
Acq: 3 Sep 2015 1:43 am

Tgt Ion: 91 Resp: 16896

Ion	Ratio	Lower	Upper
91	100		
106	48.8	39.4	59.0

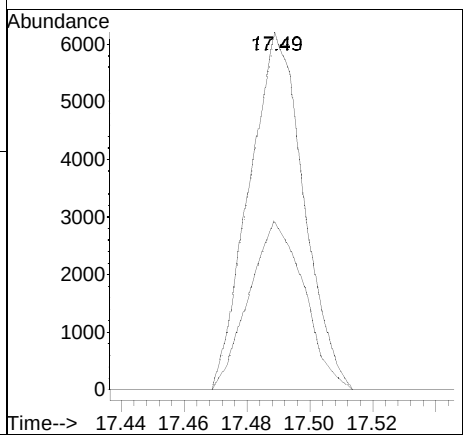


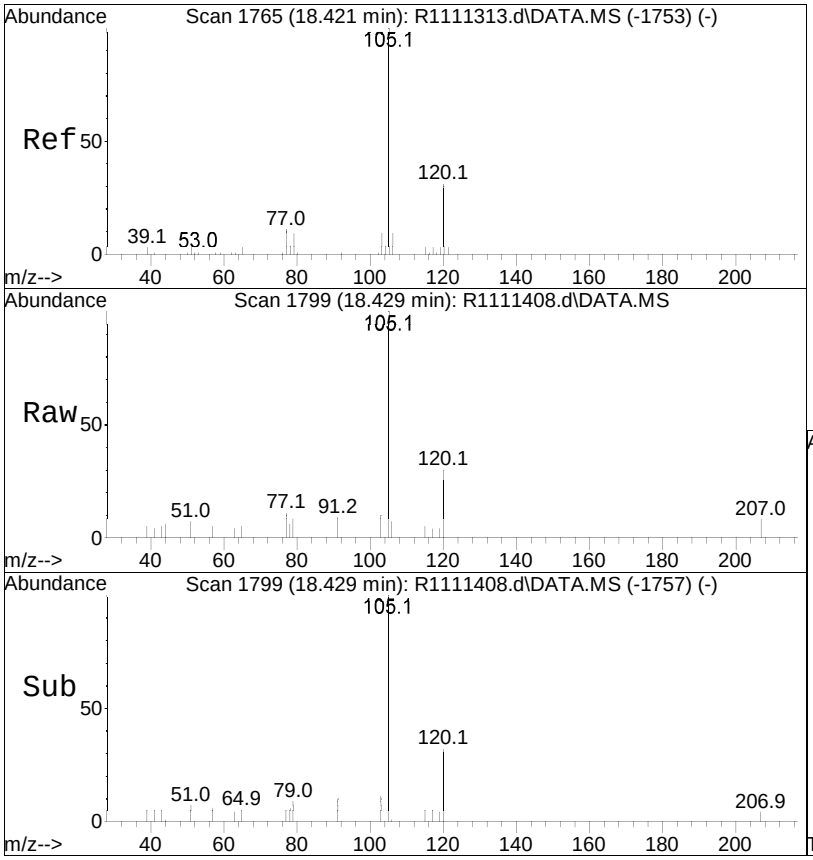


#87
o-xylene
Concen: 0.15 ppbV
RT: 17.49 min Scan# 1610
Delta R.T. 0.003 min
Lab File: R1111408.d
Acq: 3 Sep 2015 1:43 am

Tgt Ion: 91 Resp: 7417

Ion	Ratio	Lower	Upper
91	100		
106	47.2	36.3	54.5

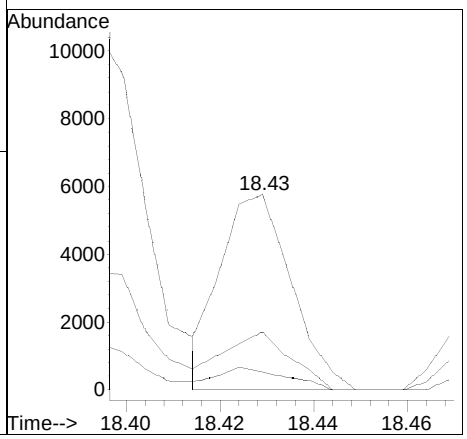


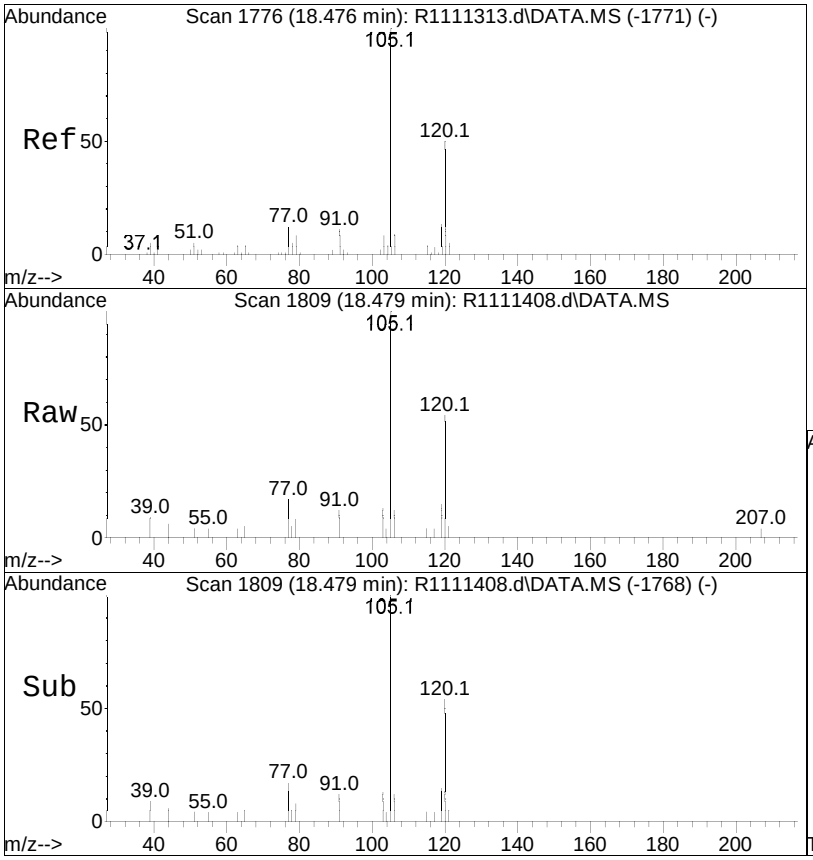


#96
4-ethyl toluene
Concen: 0.07 ppbV m
RT: 18.43 min Scan# 1799
Delta R.T. 0.008 min
Lab File: R1111408.d
Acq: 3 Sep 2015 1:43 am

Tgt Ion:105 Resp: 6003

Ion	Ratio	Lower	Upper
105	100		
120	29.6	25.0	37.6
91	9.2	9.5	14.3#

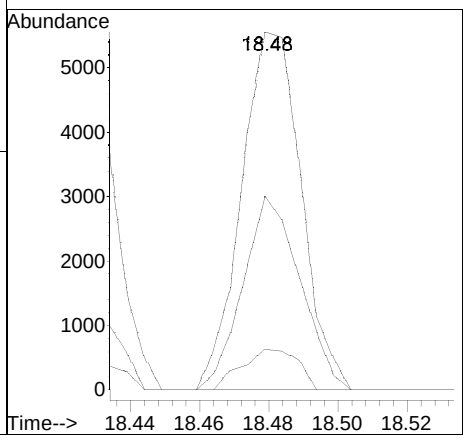


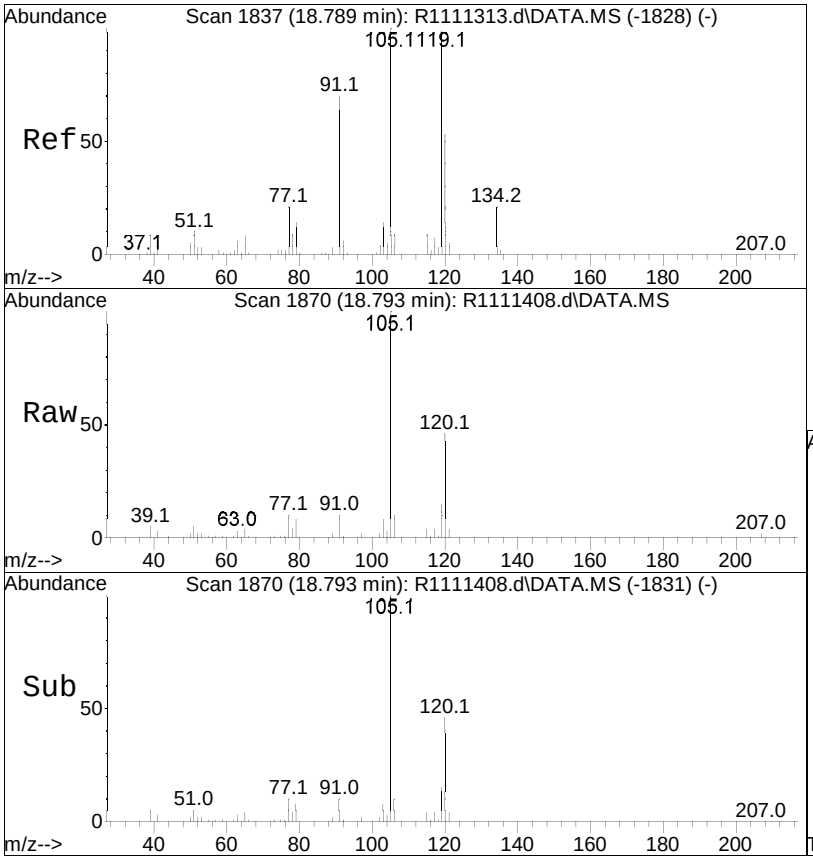


#97
1,3,5-trimethylbenzene
Concen: 0.10 ppbV
RT: 18.48 min Scan# 1809
Delta R.T. 0.003 min
Lab File: R1111408.d
Acq: 3 Sep 2015 1:43 am

Tgt Ion:105 Resp: 6641

Ion	Ratio	Lower	Upper
105	100		
120	54.2	39.7	59.5
91	11.5	8.9	13.3

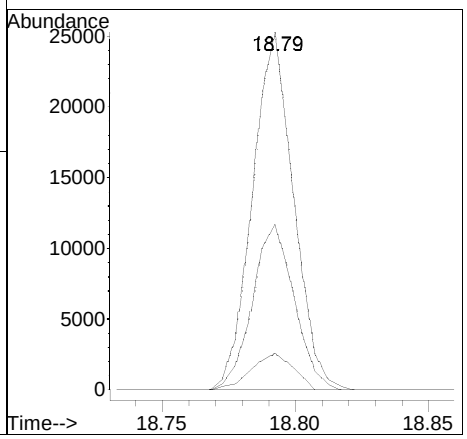




#99
1,2,4-trimethylbenzene
Concen: 0.42 ppbV
RT: 18.79 min Scan# 1870
Delta R.T. 0.003 min
Lab File: R1111408.d
Acq: 3 Sep 2015 1:43 am

Tgt Ion:105 Resp: 26862

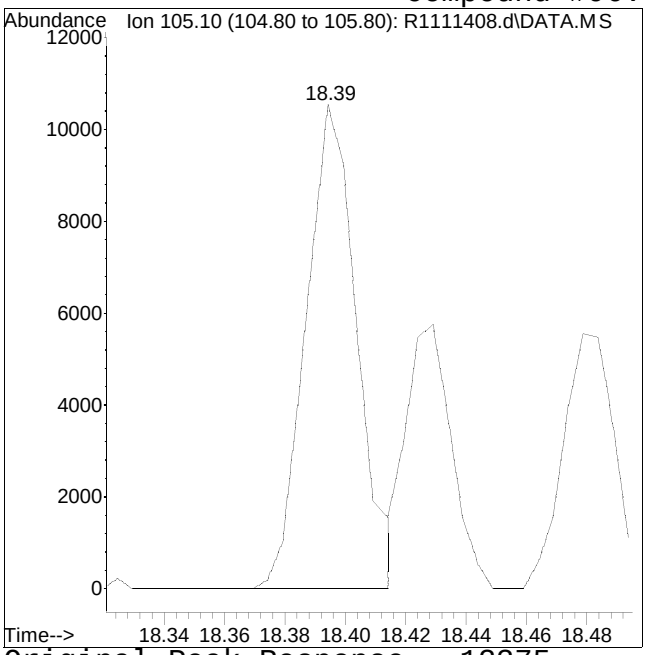
Ion	Ratio	Lower	Upper
105	100		
120	46.4	42.2	63.2
91	10.1	55.8	83.6#

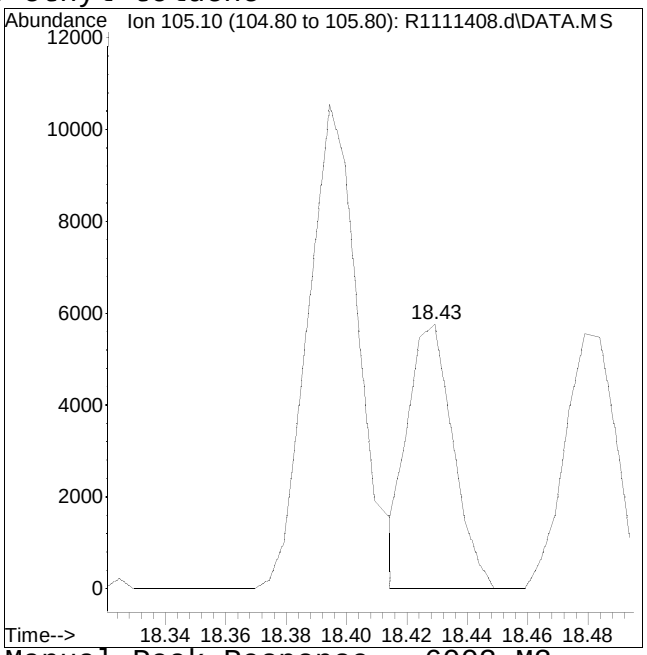


Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\QMethod : TALL150827.M
Data File : R1111408.d Operator : AIRLAB11:RY
Date Inj'd : 9/3/2015 1:43 am Instrument : Airlab 11
Sample : L1521092-07D,3,114.0203,250Quant Date : 9/3/2015 8:53 am

Compound #96: 4-ethyl toluene





Original Peak Response = 12375 Manual Peak Response = 6003 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number	: 0809-15
Lab ID	: L1521092-07DL	Date Collected	: 08/27/15 13:55
Client ID	: BS-SS-2	Date Received	: 08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed	: 09/03/15 01:43
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 2.193
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111408	Instrument ID	: AIRLAB11
Sample Amount	: 114 ml	GC Column	: RTX-1

Number TICS found: 2

Concentration Units: ppbV

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
000120-92-3	Cyclopentanone	15.14	6	NJD
	unknown siloxane	20.18	4.3	JD
	Total TIC Compounds		10.3	

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111408.d
Acq On : 3 Sep 2015 1:43 am
Operator : AIRLAB11:RY
Sample : L1521092-07D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R1111408.d\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.395	114	117	121	rVB	16860	27505	2.37%	0.538%
2	4.473	121	124	131	rVB	7983	15732	1.36%	0.308%
3	5.558	225	229	236	rVB	10669	22247	1.92%	0.436%
4	6.182	293	296	303	rBV	22439	44431	3.83%	0.870%
5	6.359	311	315	320	rVB	7550	14869	1.28%	0.291%
6	7.671	449	456	465	rVB	6150	15913	1.37%	0.312%
7	8.865	590	595	604	rBV	17499	37391	3.22%	0.732%
8	9.941	717	721	726	rBV	256466	491395	42.33%	9.620%
9	10.101	732	736	741	rBB	196204	380438	32.78%	7.448%
10	10.823	800	805	810	rBB	22677	41455	3.57%	0.812%
11	12.158	924	928	932	rBV	471776	913062	78.66%	17.875%
12	12.892	988	991	995	rBV	42975	90447	7.79%	1.771%
13	14.907	1246	1250	1256	rVB	62800	110520	9.52%	2.164%
14	15.011	1256	1260	1264	rBB	12962	23104	1.99%	0.452%
15	15.145	1269	1273	1284	rBB	185013	320719	27.63%	6.279%
16	16.084	1362	1364	1367	rBB	13885	18913	1.63%	0.370%
17	16.300	1381	1385	1390	rBV	44532	77222	6.65%	1.512%
18	16.633	1431	1438	1446	rBV	885822	1160751	100.00%	22.724%
19	16.976	1502	1507	1513	rVB	12575	14550	1.25%	0.285%
20	17.111	1528	1534	1542	rBV	26018	44060	3.80%	0.863%
21	17.489	1606	1610	1616	rVB2	15363	17151	1.48%	0.336%
22	17.842	1675	1681	1691	rVB	172606	202226	17.42%	3.959%
23	17.966	1702	1706	1714	rVB2	15497	19130	1.65%	0.375%
24	18.394	1786	1792	1796	rVV	25729	29414	2.53%	0.576%
25	18.429	1796	1799	1803	rVV	13730	14859	1.28%	0.291%
26	18.479	1803	1809	1817	rVB	15782	19854	1.71%	0.389%
27	18.629	1835	1837	1843	rVV	10003	12563	1.08%	0.246%
28	18.703	1843	1852	1859	rVB2	33614	40881	3.52%	0.800%

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111408.d
Acq On : 3 Sep 2015 1:43 am
Operator : AIRLAB11:RY
Sample : L1521092-07D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 7 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	18.793	1864	1870	1875	rBV	68025	73122	6.30%	1.432%
30	18.837	1875	1879	1884	rVB	25629	27808	2.40%	0.544%
31	19.016	1908	1915	1921	rBV	37028	53963	4.65%	1.056%
32	19.115	1927	1935	1939	rVB3	22902	31026	2.67%	0.607%
33	19.215	1951	1955	1960	rBV	14124	13977	1.20%	0.274%
34	19.274	1960	1967	1974	rVB3	10187	18112	1.56%	0.355%
35	19.409	1988	1994	1999	rBV2	25287	30279	2.61%	0.593%
36	19.642	2038	2041	2045	rVB3	10317	11834	1.02%	0.232%
37	19.707	2048	2054	2060	rBV2	65014	90421	7.79%	1.770%
38	19.786	2064	2070	2076	rBV2	60031	73096	6.30%	1.431%
39	20.020	2113	2117	2121	rBV2	10692	11667	1.01%	0.228%
40	20.060	2121	2125	2130	rVB	14713	17709	1.53%	0.347%
41	20.184	2141	2150	2160	rBV	168407	229727	19.79%	4.497%
42	20.278	2166	2169	2176	rVB4	10327	15831	1.36%	0.310%
43	20.392	2189	2192	2197	rVB2	20286	21939	1.89%	0.430%
44	20.620	2223	2225	2227	rBV	13432	17877	1.54%	0.350%
45	20.669	2227	2230	2232	rVB	41413	50602	4.36%	0.991%
46	20.768	2237	2240	2242	rVV	20536	29027	2.50%	0.568%
47	20.817	2242	2245	2251	rVB6	4579	12114	1.04%	0.237%
48	21.496	2310	2314	2317	rVB3	9937	13232	1.14%	0.259%
49	21.585	2320	2323	2327	rVB	22344	29241	2.52%	0.572%
50	21.674	2329	2332	2335	rVB	10563	14599	1.26%	0.286%

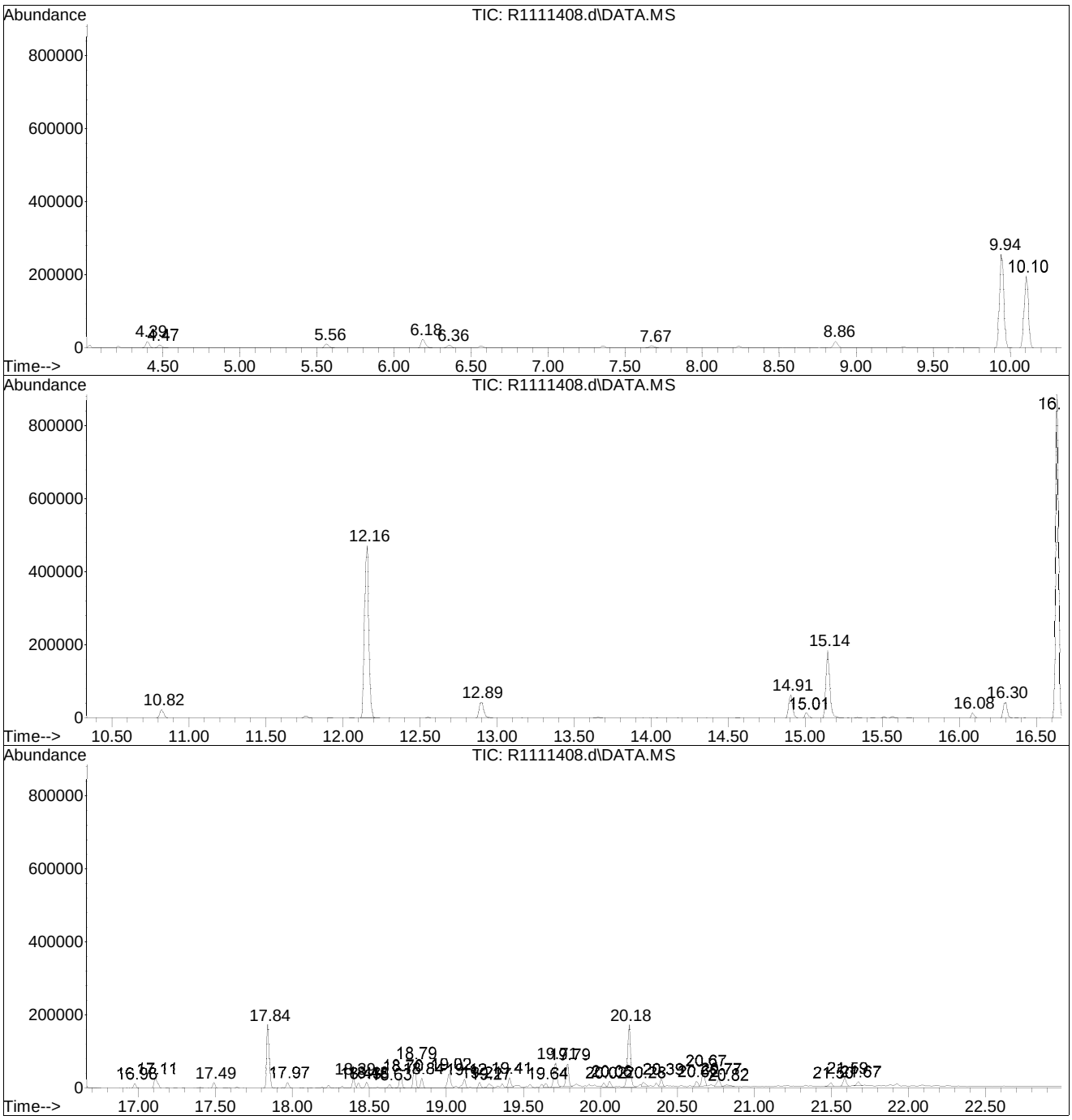
Sum of corrected areas: 5108005

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111408.d
Acq On : 3 Sep 2015 1:43 am
Operator : AIRLAB11:RY
Sample : L1521092-07D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 7 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111408.d
Acq On : 3 Sep 2015 1:43 am
Operator : AIRLAB11:RY
Sample : L1521092-07D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 7 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

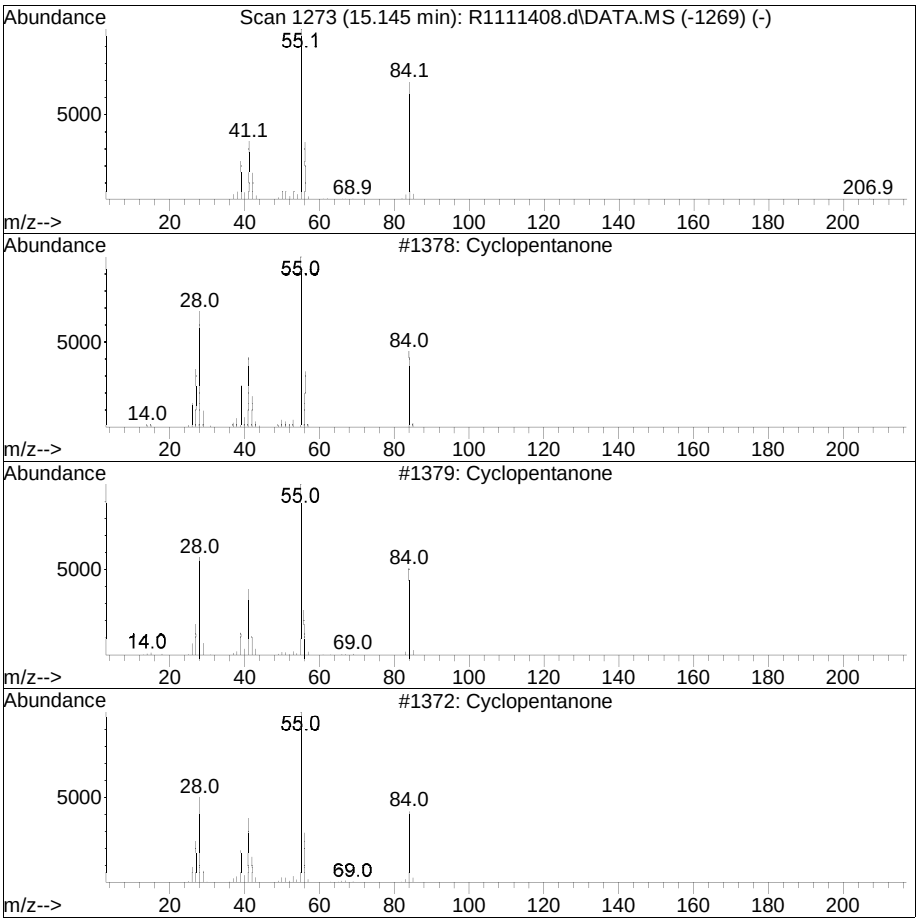
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

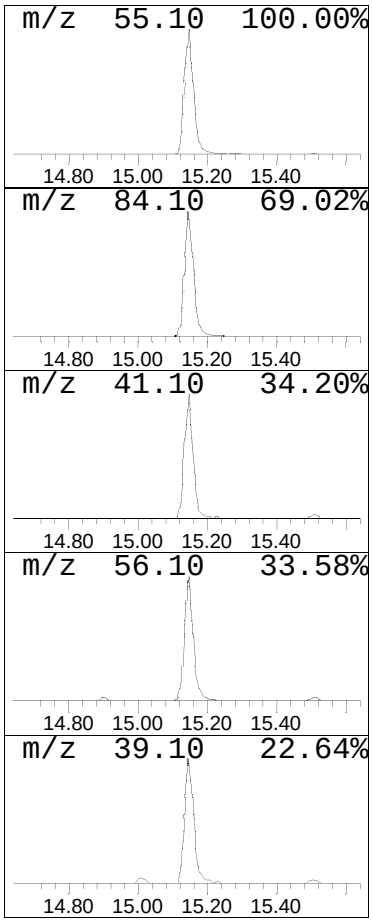
****

Peak Number 1 Cyclopentanone Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.14	2.76 ppbV	320719	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentanone	84	C5H8O	000120-92-3	90
2	Cyclopentanone	84	C5H8O	000120-92-3	64
3	Cyclopentanone	84	C5H8O	000120-92-3	58
4	2-Butenal, 2-methyl-, (E)-	84	C5H8O	000497-03-0	52
5	2-Butenal, 2-methyl-	84	C5H8O	001115-11-3	47





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111408.d
Acq On : 3 Sep 2015 1:43 am
Operator : AIRLAB11:RY
Sample : L1521092-07D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 7 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

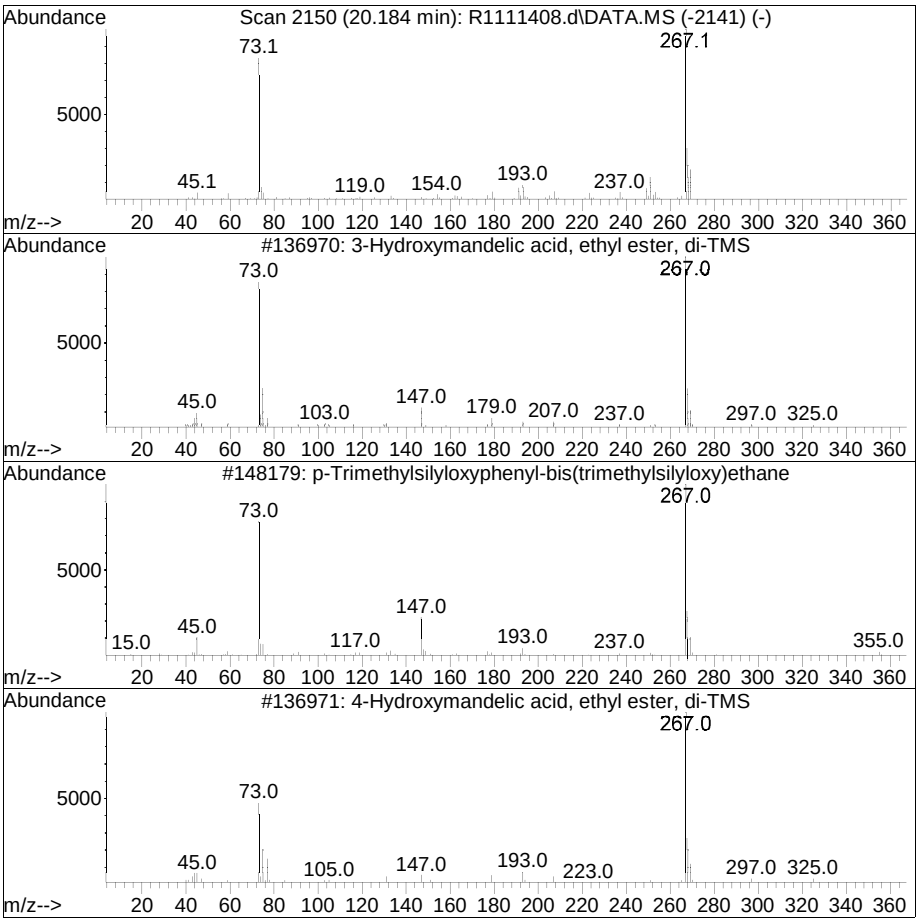
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

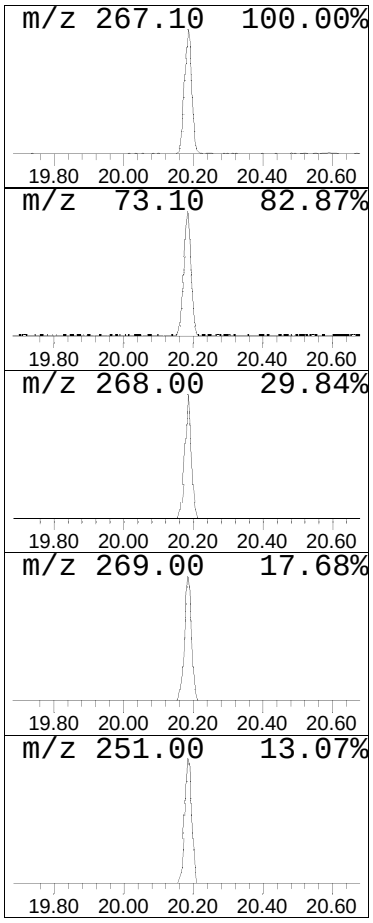
****

Peak Number 3 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.18	1.98 ppbV	229727	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-88-9	64
2	p-Trimethylsilyloxyphenyl-bis(tr...	370	C17H34O3Si3	1000079-08-1	50
3	4-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-53-3	50
4	p-Trimethylsilyloxyphenyl-(trime...	398	C18H34O4Si3	1000079-05-1	50
5	13H-Dibenzo[a,i]carbazole	267	C20H13N	000239-64-5	40





Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111408.d
Acq On : 3 Sep 2015 1:43 am
Operator : AIRLAB11:RY
Sample : L1521092-07D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 7 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc
Cyclopentanone	15.14	2.8	ppbV	320719	3	16.63	1160750	10.0
unknown siloxane	20.18	2.0	ppbV	229727	3	16.63	1160750	10.0

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-08DL	Date Collected :	08/27/15 13:49
Client ID	: BS-SS-1	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 02:24
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.176
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111409	Instrument ID	: AIRLAB11
Sample Amount	: 115 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	ND	0.44	--	ND	2	--	U
74-87-3	Chloromethane	ND	0.44	--	ND	0.9	--	U
76-14-2	Freon-114	ND	0.44	--	ND	3.	--	U
75-01-4	Vinyl chloride	ND	0.44	--	ND	1.	--	U
106-99-0	1,3-Butadiene	ND	0.44	--	ND	1.	--	U
74-83-9	Bromomethane	ND	0.44	--	ND	2.	--	U
75-00-3	Chloroethane	ND	0.44	--	ND	1.	--	U
64-17-5	Ethanol	150	5.4	--	280	10	--	
593-60-2	Vinyl bromide	ND	0.44	--	ND	2.	--	U
67-64-1	Acetone	31	2.2	--	74	5.2	--	
75-69-4	Trichlorofluoromethane	0.46	0.44	--	3	2	--	
67-63-0	Isopropanol	1.8	1.1	--	4	3	--	
75-35-4	1,1-Dichloroethene	ND	0.44	--	ND	2.	--	U
75-65-0	Tertiary butyl Alcohol	ND	1.1	--	ND	3	--	U
75-09-2	Methylene chloride	ND	1.1	--	ND	4	--	U
107-05-1	3-Chloropropene	ND	0.44	--	ND	1.	--	U
75-15-0	Carbon disulfide	ND	0.44	--	ND	1	--	U
76-13-1	Freon-113	ND	0.44	--	ND	3.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.44	--	ND	2.	--	U
75-34-3	1,1-Dichloroethane	ND	0.44	--	ND	2.	--	U
1634-04-4	Methyl tert butyl ether	ND	0.44	--	ND	2.	--	U
78-93-3	2-Butanone	1.5	1.1	--	4	3	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.44	--	ND	2.	--	U
67-66-3	Chloroform	3.9	0.44	--	19	2.1	--	
109-99-9	Tetrahydrofuran	ND	1.1	--	ND	3.	--	U
107-06-2	1,2-Dichloroethane	ND	0.44	--	ND	2.	--	U
110-54-3	n-Hexane	ND	0.44	--	ND	2	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.44	--	ND	2.	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-08DL	Date Collected :	08/27/15 13:49
Client ID	: BS-SS-1	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 02:24
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.176
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111409	Instrument ID	: AIRLAB11
Sample Amount	: 115 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	ND	0.44	--	ND	1	--	U
56-23-5	Carbon tetrachloride	ND	0.44	--	ND	3.	--	U
110-82-7	Cyclohexane	ND	0.44	--	ND	2	--	U
78-87-5	1,2-Dichloropropane	ND	0.44	--	ND	2.	--	U
75-27-4	Bromodichloromethane	ND	0.44	--	ND	3	--	U
123-91-1	1,4-Dioxane	0.56	0.44	--	2	2	--	
79-01-6	Trichloroethene	ND	0.44	--	ND	2.	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.44	--	ND	2.	--	U
80-62-6	Methyl Methacrylate	ND	1.1	--	ND	5.	--	U
142-82-5	Heptane	ND	0.44	--	ND	2.	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.44	--	ND	2.	--	U
108-10-1	4-Methyl-2-pentanone	ND	1.1	--	ND	5.	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.44	--	ND	2.	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.44	--	ND	2.	--	U
108-88-3	Toluene	0.55	0.44	--	2	2	--	
124-48-1	Dibromochloromethane	ND	0.44	--	ND	4.	--	U
106-93-4	1,2-Dibromoethane	ND	0.44	--	ND	3.	--	U
127-18-4	Tetrachloroethene	0.56	0.44	--	4	3	--	
108-90-7	Chlorobenzene	ND	0.44	--	ND	2.	--	U
100-41-4	Ethylbenzene	ND	0.44	--	ND	2	--	U
179601-23-1	p/m-Xylene	ND	0.87	--	ND	4.	--	U
75-25-2	Bromoform	ND	0.44	--	ND	5.	--	U
100-42-5	Styrene	ND	0.44	--	ND	2.	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.44	--	ND	3.	--	U
95-47-6	o-Xylene	ND	0.44	--	ND	2.	--	U
95-49-8	2-Chlorotoluene	ND	0.44	--	ND	2.	--	U
622-96-8	4-Ethyltoluene	ND	0.44	--	ND	2	--	U
108-67-8	1,3,5-Trimethybenzene	ND	0.44	--	ND	2	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-08DL	Date Collected :	08/27/15 13:49
Client ID	: BS-SS-1	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 02:24
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.176
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111409	Instrument ID	: AIRLAB11
Sample Amount	: 115 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	0.74	0.44	--	4	2	--	
541-73-1	1,3-Dichlorobenzene	ND	0.44	--	ND	3.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.44	--	ND	3.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.44	--	ND	3.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.44	--	ND	3.	--	U
87-68-3	Hexachlorobutadiene	ND	0.44	--	ND	5.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111409.d
Acq On : 3 Sep 2015 2:24 am
Operator : AIRLAB11:RY
Sample : L1521092-08D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 03 16:58:19 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.94	49	66958	10.000	ppbV	0.00
Standard Area = 81084			Recovery =		82.58%	
43) 1,4-difluorobenzene	12.15	114	409104	10.000	ppbV	0.00
Standard Area = 489060			Recovery =		83.65%	
67) chlorobenzene-D5	16.63	54	67141	10.000	ppbV	0.00
Standard Area = 80649			Recovery =		83.25%	
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.01	85	5104	0.179	ppbV	91
6) chloromethane	4.23		0	N.D.		
7) Freon-114	0.00		0	N.D.	d	
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	0.00		0	N.D.		
13) bromomethane	0.00		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	5.54	31	210498	69.705	ppbV	97
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.15	43	158562	14.203	ppbV #	99
21) trichlorofluoromethane	6.35	101	8449	0.211	ppbV	97
22) isopropyl alcohol	6.55	45	8813	0.825	ppbV	99
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	7.35	59	6442	0.333	ppbV	95
28) methylene chloride	7.35	49	2137	0.253	ppbV	86
29) 3-chloropropene	0.00		0	N.D.	d	
30) carbon disulfide	7.66	76	5364	0.189	ppbV #	71
31) Freon 113	7.70		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	8.86		0	N.D.		
36) 2-butanone	9.29	43	9804	0.711	ppbV	100
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	10.10	83	45365	1.783	ppbV	94
40) Tetrahydrofuran	0.00		0	N.D.	d	
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	9.99	57	948	0.078	ppbV #	29
48) 1,1,1-trichloroethane	0.00		0	N.D.		

Quantitation Report (QT Reviewed)

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Data File : R1111409.d
Acq On : 3 Sep 2015 2:24 am
Operator : AIRLAB11:RY
Sample : L1521092-08D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 03 16:58:19 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
50)	benzene	11.75	78	2732	0.086 ppbV	97
52)	carbon tetrachloride	11.91		0	N.D.	
53)	cyclohexane	12.05	56	1685	0.133 ppbV #	83
56)	1,2-dichloropropane	0.00		0	N.D.	
57)	bromodichloromethane	12.90	83	2828	0.094 ppbV #	80
58)	1,4-dioxane	12.98	88	2016	0.259 ppbV #	78
59)	trichloroethene	12.94		0	N.D.	
60)	2,2,4-trimethylpentane	0.00		0	N.D. d	
61)	methyl methacrylate	0.00		0	N.D. d	
62)	heptane	13.28		0	N.D.	
63)	cis-1,3-dichloropropene	0.00		0	N.D.	
64)	4-methyl-2-pentanone	0.00		0	N.D. d	
65)	trans-1,3-dichloropropene	0.00		0	N.D.	
66)	1,1,2-trichloroethane	0.00		0	N.D.	
68)	toluene	15.00	91	10683	0.254 ppbV	98
74)	dibromochloromethane	0.00		0	N.D.	
75)	1,2-dibromoethane	0.00		0	N.D.	
78)	tetrachloroethene	16.08	166	8410	0.260 ppbV	99
80)	chlorobenzene	0.00		0	N.D.	
81)	ethylbenzene	16.98	91	7621	0.132 ppbV	97
83)	m+p-xylene	17.11	91	12609	0.263 ppbV	99
84)	bromoform	0.00		0	N.D.	
85)	styrene	17.40		0	N.D.	
86)	1,1,2,2-tetrachloroethane	0.00		0	N.D.	
87)	o-xylene	17.49	91	5478	0.113 ppbV	98
93)	2-chlorotoluene	0.00		0	N.D.	
96)	4-ethyl toluene	18.42	105	4593M3	0.059 ppbV	
97)	1,3,5-trimethylbenzene	18.48	105	5181	0.079 ppbV	96
99)	1,2,4-trimethylbenzene	18.79	105	21077	0.338 ppbV #	55
102)	1,3-dichlorobenzene	18.97		0	N.D.	
103)	1,4-dichlorobenzene	18.97		0	N.D.	
107)	1,2-dichlorobenzene	0.00		0	N.D.	
115)	1,2,4-trichlorobenzene	20.65		0	N.D.	
119)	hexachlorobutadiene	0.00		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111409.d
Acq On : 3 Sep 2015 2:24 am
Operator : AIRLAB11:RY
Sample : L1521092-08D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 03 16:58:19 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
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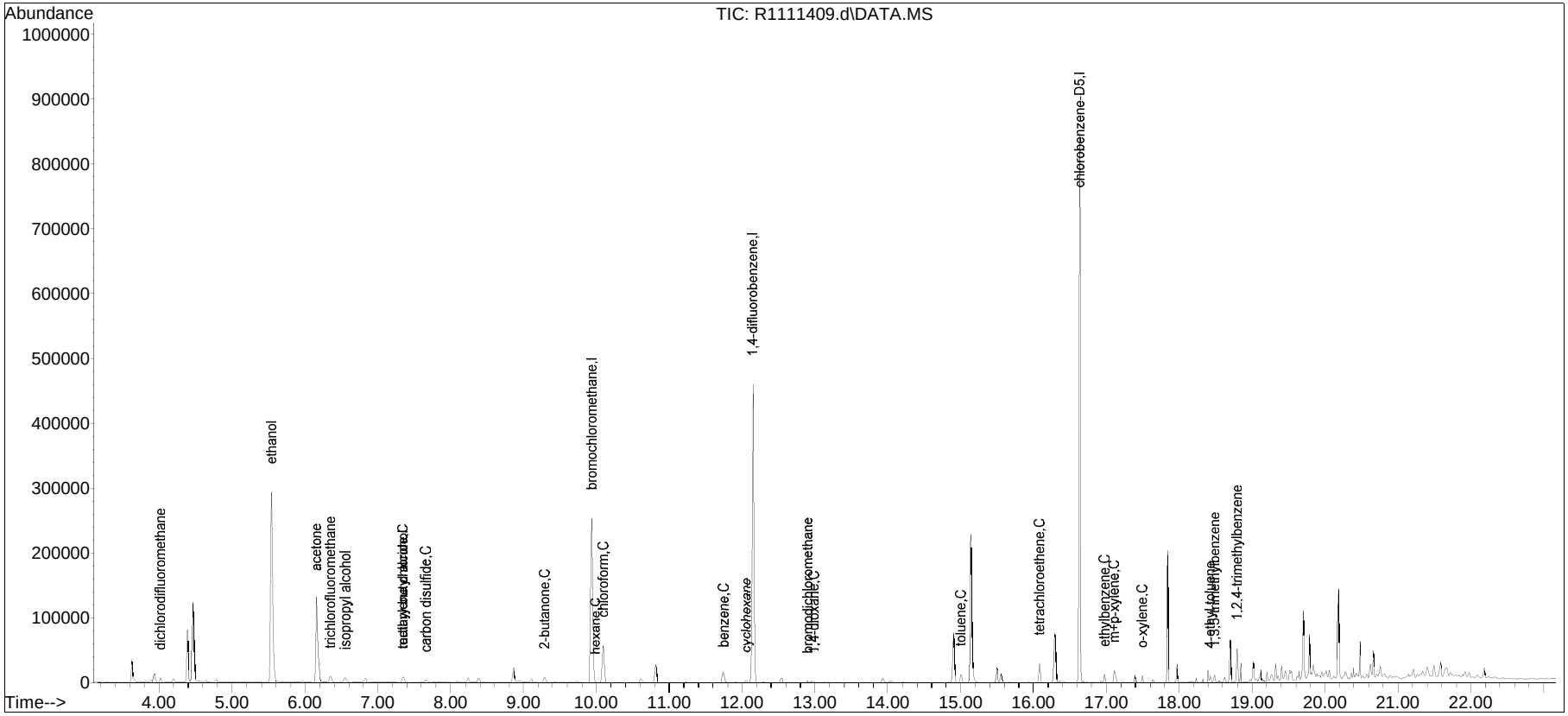
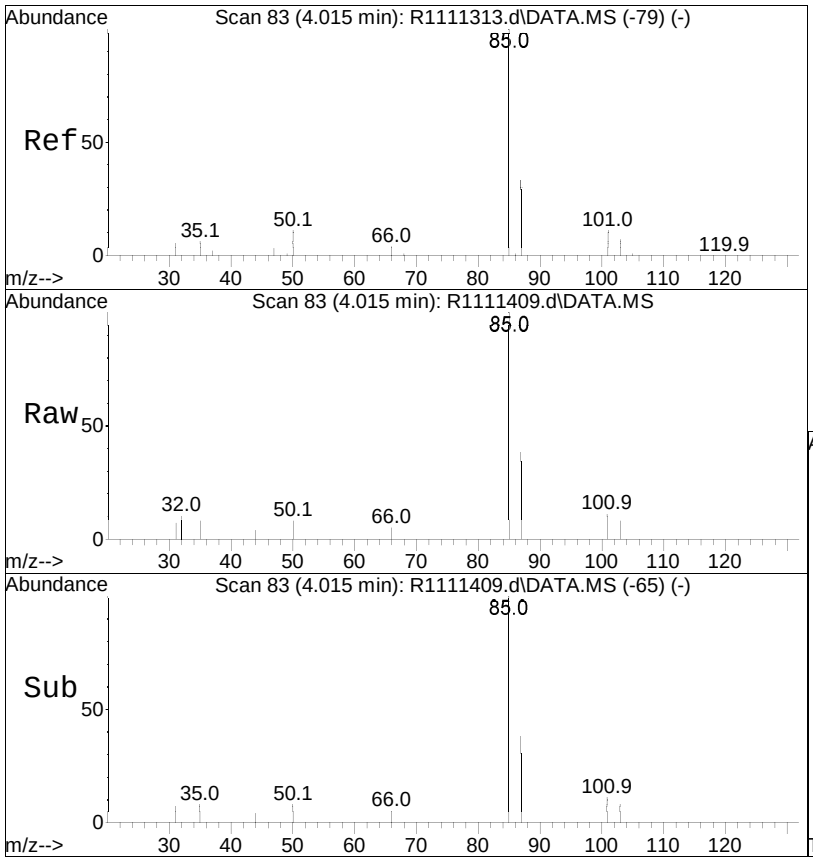
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

Sub List : NJ-LL_New - .Data\Airlab11\2015\150902T\R1111393.d



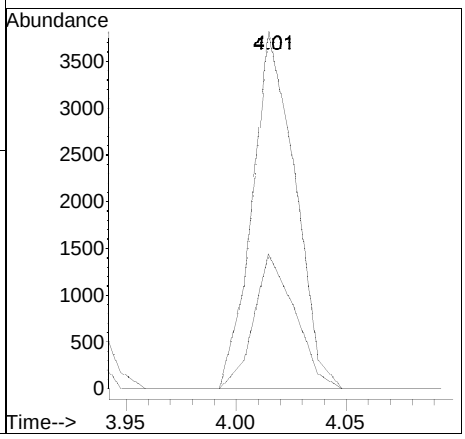
TALL150827.M Thu Sep 03 16:58:34 2015

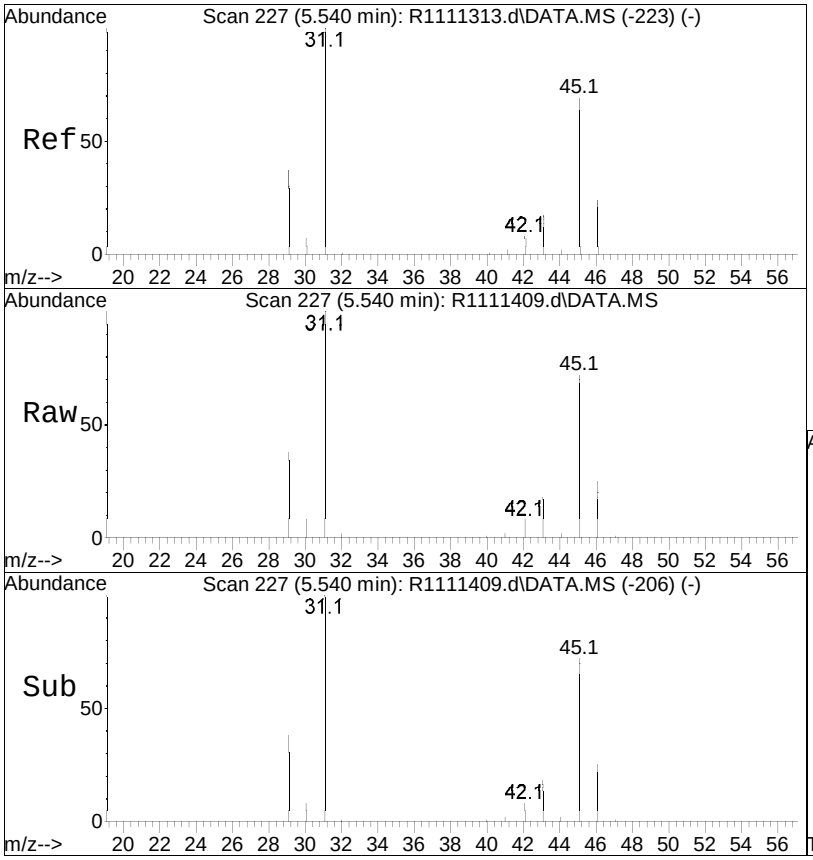


#5
dichlorodifluoromethane
Concen: 0.18 ppbV
RT: 4.01 min Scan# 83
Delta R.T. -0.000 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion: 85 Resp: 5104

Ion	Ratio	Lower	Upper
85	100		
87	37.8	26.1	39.1

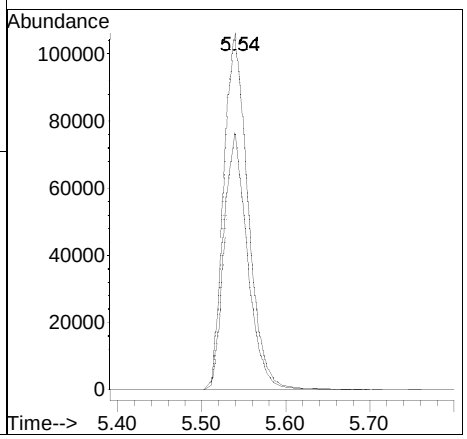


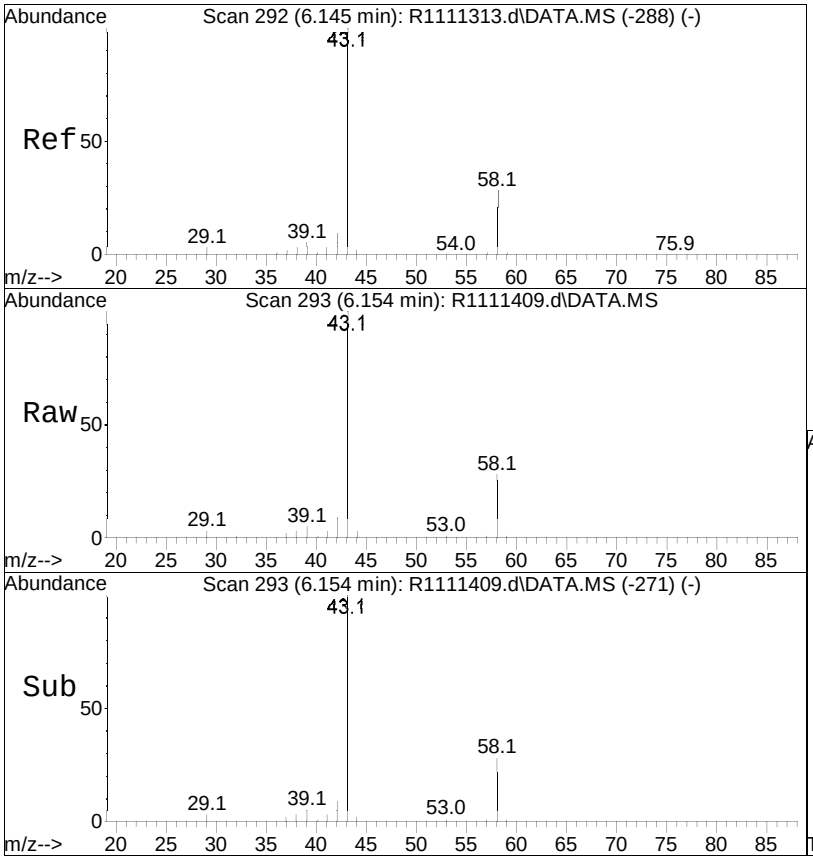


#15
ethanol
Concen: 69.70 ppbV
RT: 5.54 min Scan# 227
Delta R.T. -0.000 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion: 31 Resp: 210498

Ion	Ratio	Lower	Upper
31	100		
45	72.1	55.4	83.2

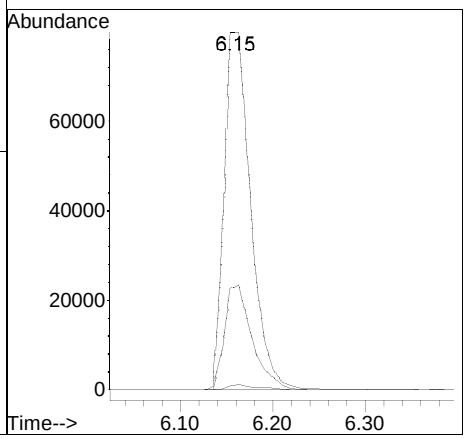


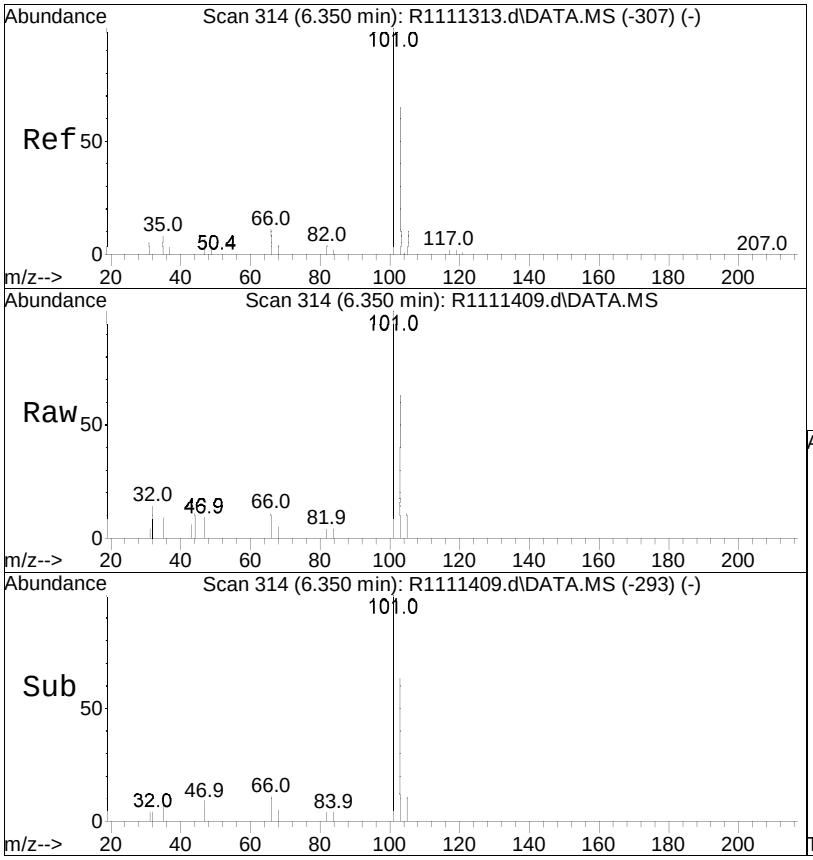


#19
acetone
Concen: 14.20 ppbV
RT: 6.15 min Scan# 293
Delta R.T. 0.009 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion: 43 Resp: 158562

Ion	Ratio	Lower	Upper
43	100		
58	28.3	22.2	33.2
57	1.3	0.6	1.0#

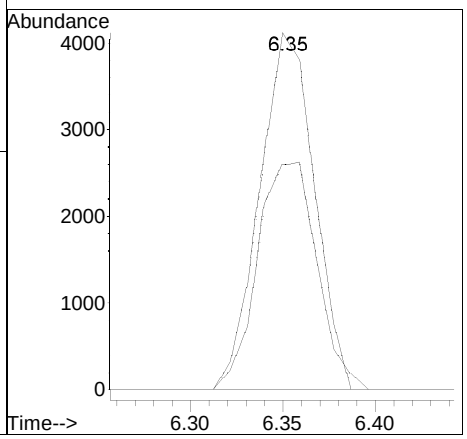


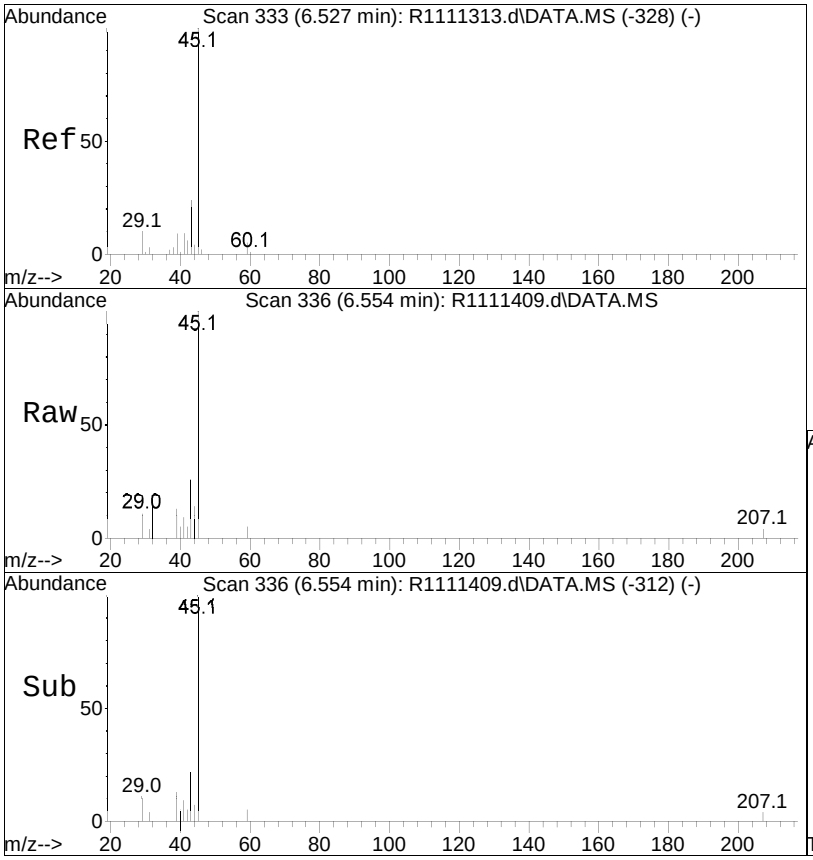


#21
trichlorofluoromethane
Concen: 0.21 ppbV
RT: 6.35 min Scan# 314
Delta R.T. -0.000 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion:101 Resp: 8449

Ion	Ratio	Lower	Upper
101	100		
103	63.0	52.3	78.5

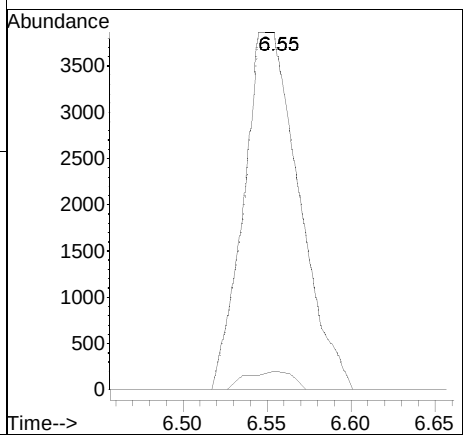


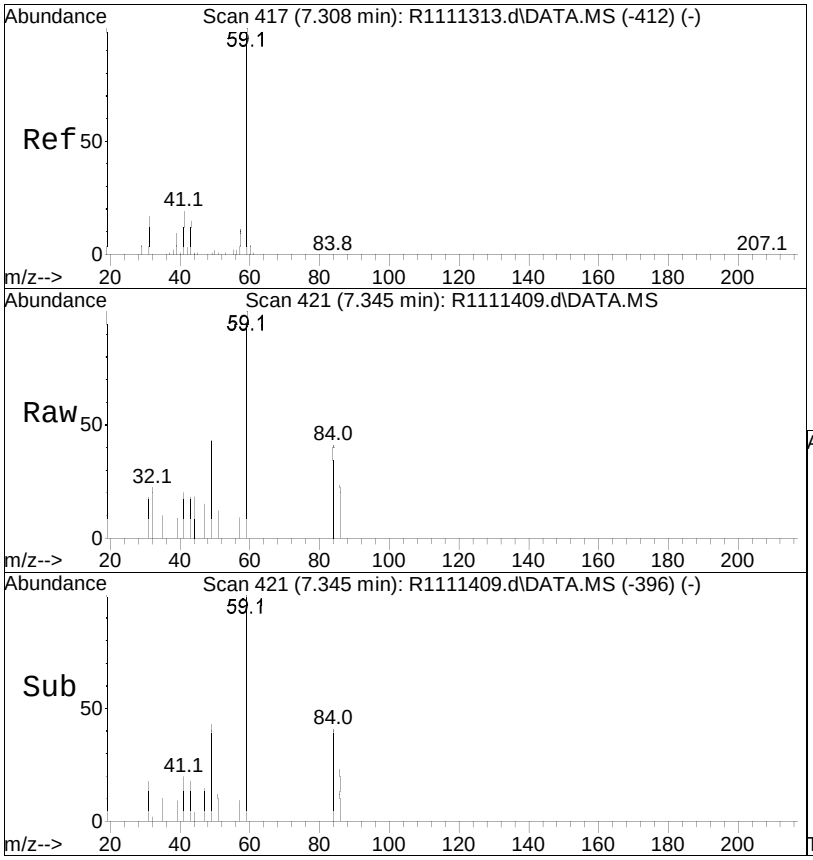


#22
isopropyl alcohol
Concen: 0.82 ppbV
RT: 6.55 min Scan# 336
Delta R.T. 0.027 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion: 45 Resp: 8813

Ion	Ratio	Lower	Upper
45	100		
59	5.2	3.8	5.6

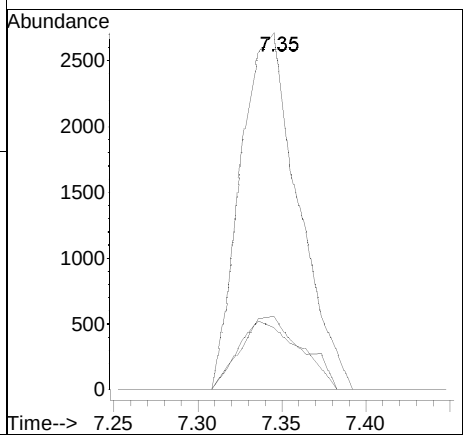


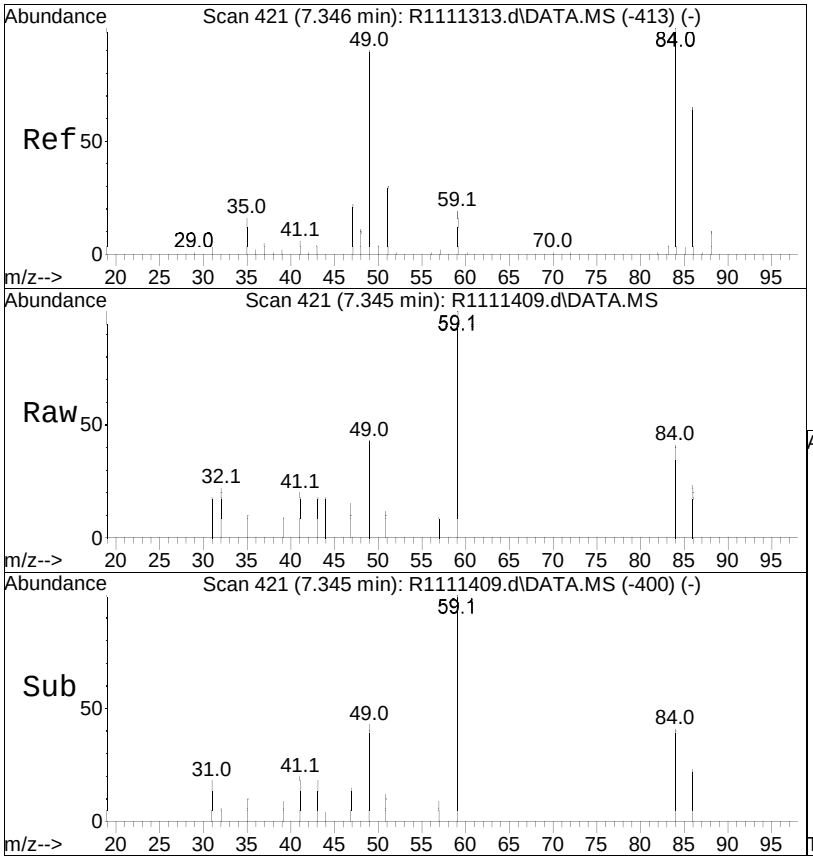


#27
tertiary butyl alcohol
Concen: 0.33 ppbV
RT: 7.35 min Scan# 421
Delta R.T. 0.037 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion: 59 Resp: 6442

Ion	Ratio	Lower	Upper
59	100		
41	20.5	15.1	22.7
43	17.5	11.8	17.6

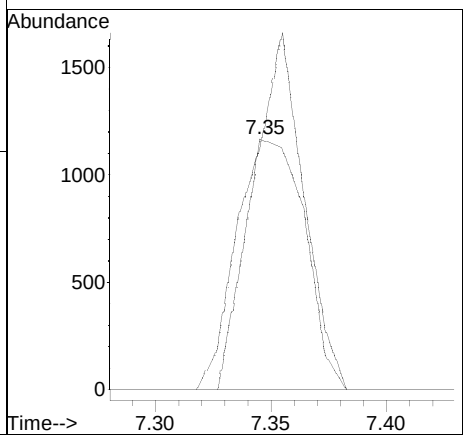


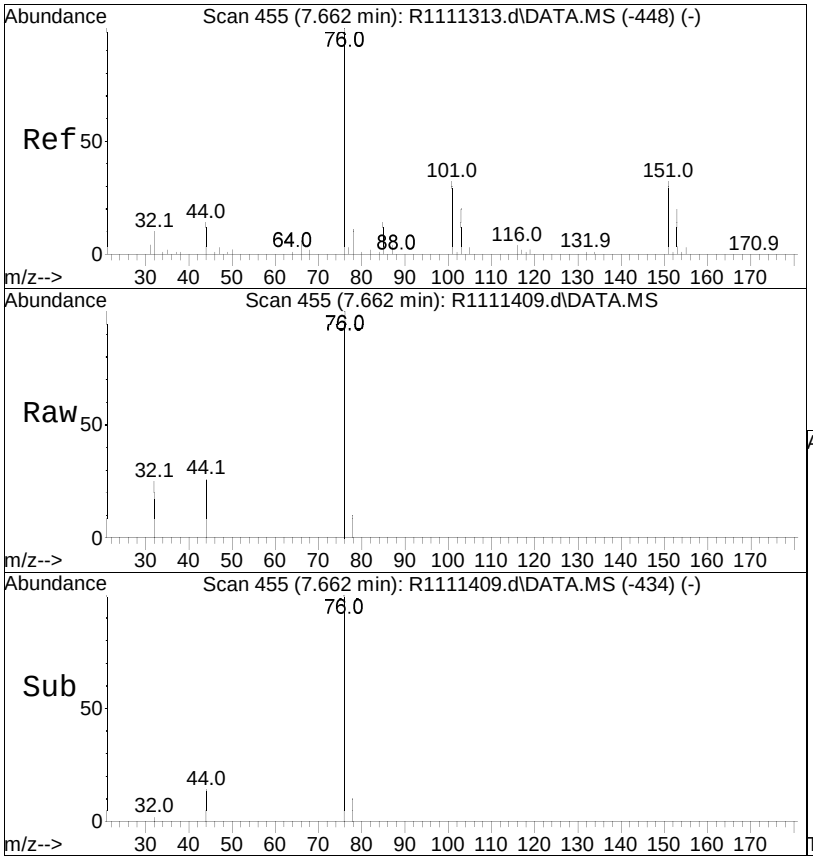


#28
methylene chloride
Concen: 0.25 ppbV
RT: 7.35 min Scan# 421
Delta R.T. -0.000 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion: 49 Resp: 2137

Ion	Ratio	Lower	Upper
49	100		
84	96.3	89.0	133.4

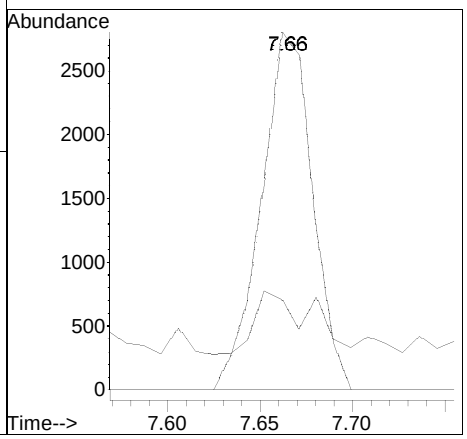


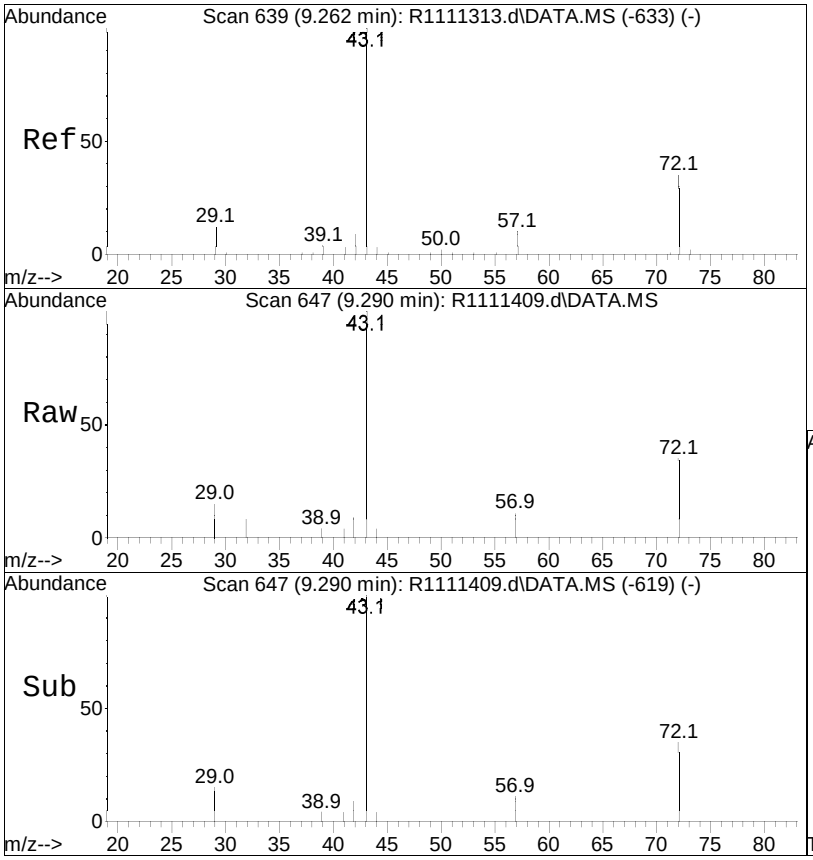


#30
carbon disulfide
Concen: 0.19 ppbV
RT: 7.66 min Scan# 455
Delta R.T. -0.000 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion: 76 Resp: 5364

Ion	Ratio	Lower	Upper
76	100		
44	25.5	11.0	16.6#

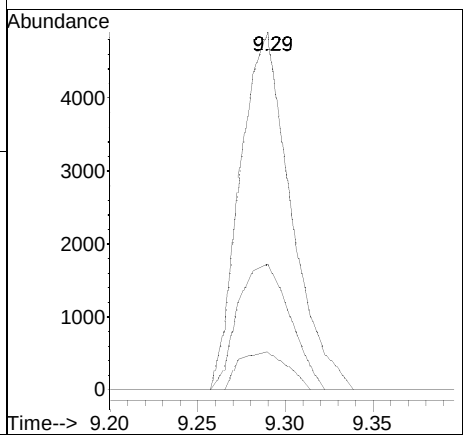


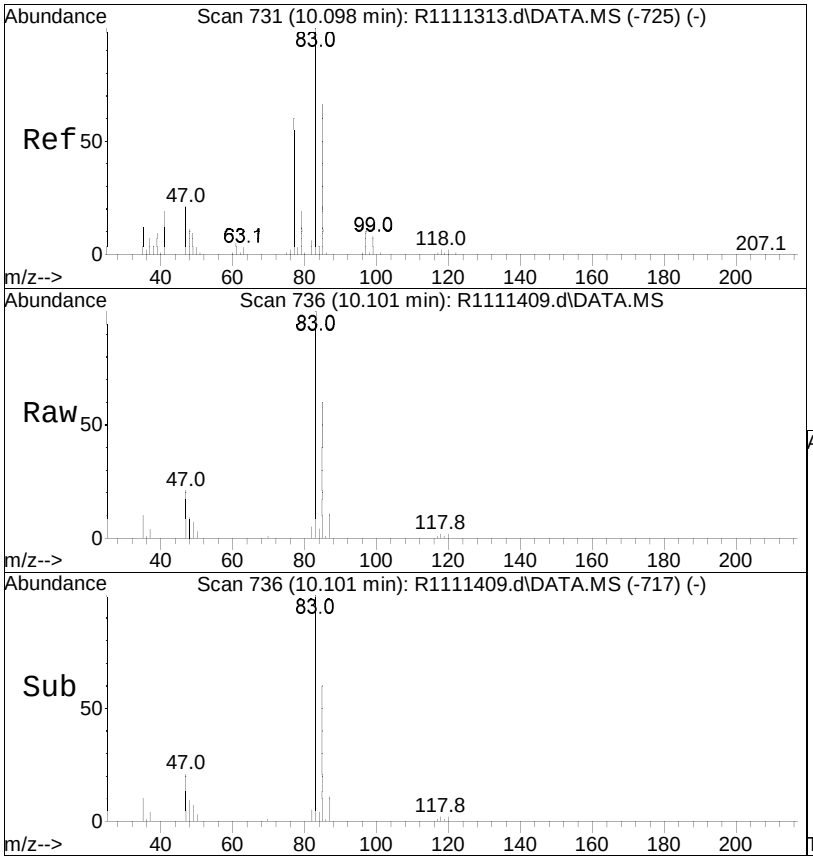


#36
2-butanone
Concen: 0.71 ppbV
RT: 9.29 min Scan# 647
Delta R.T. 0.028 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion: 43 Resp: 9804

Ion	Ratio	Lower	Upper
43	100		
72	35.2	28.1	42.1
57	10.8	8.3	12.5

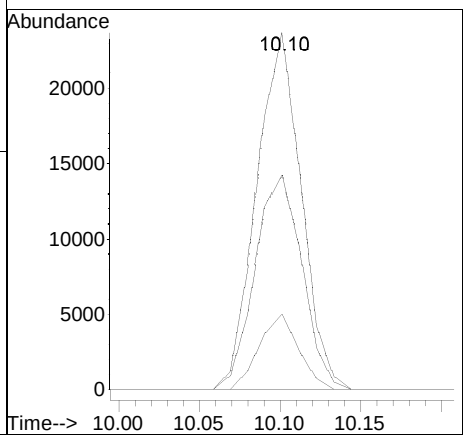


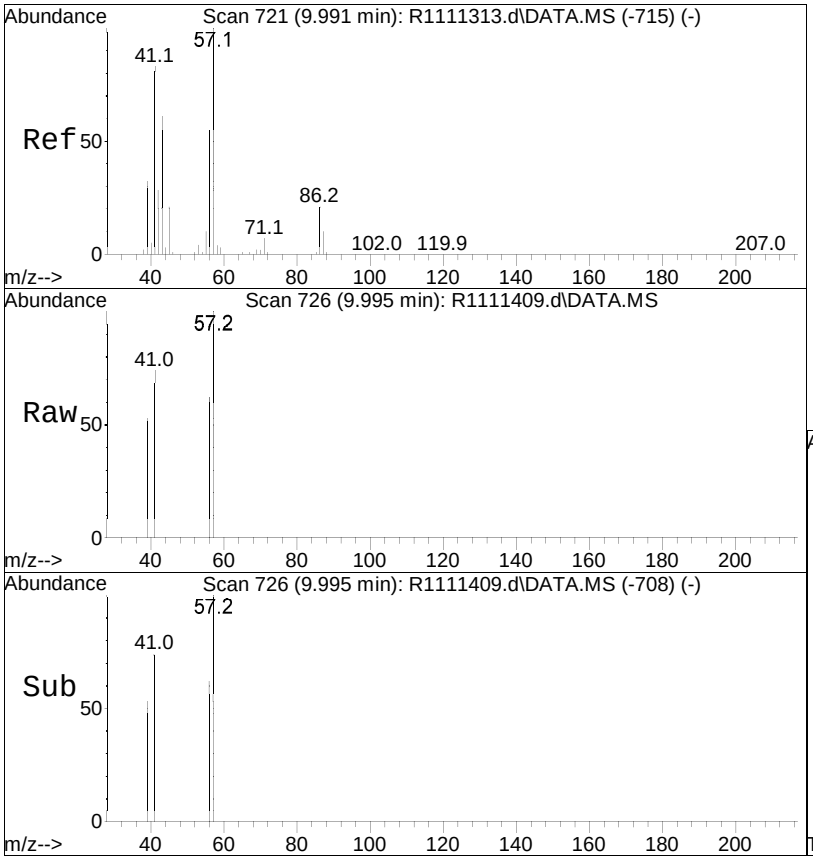


#39
chloroform
Concen: 1.78 ppbV
RT: 10.10 min Scan# 736
Delta R.T. 0.003 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion: 83 Resp: 45365

Ion	Ratio	Lower	Upper
83	100		
85	60.1	52.4	78.6
47	21.3	16.5	24.7

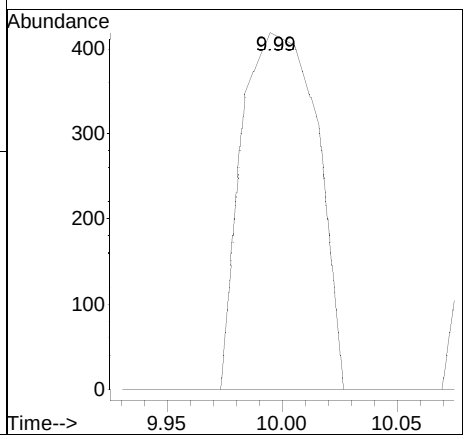


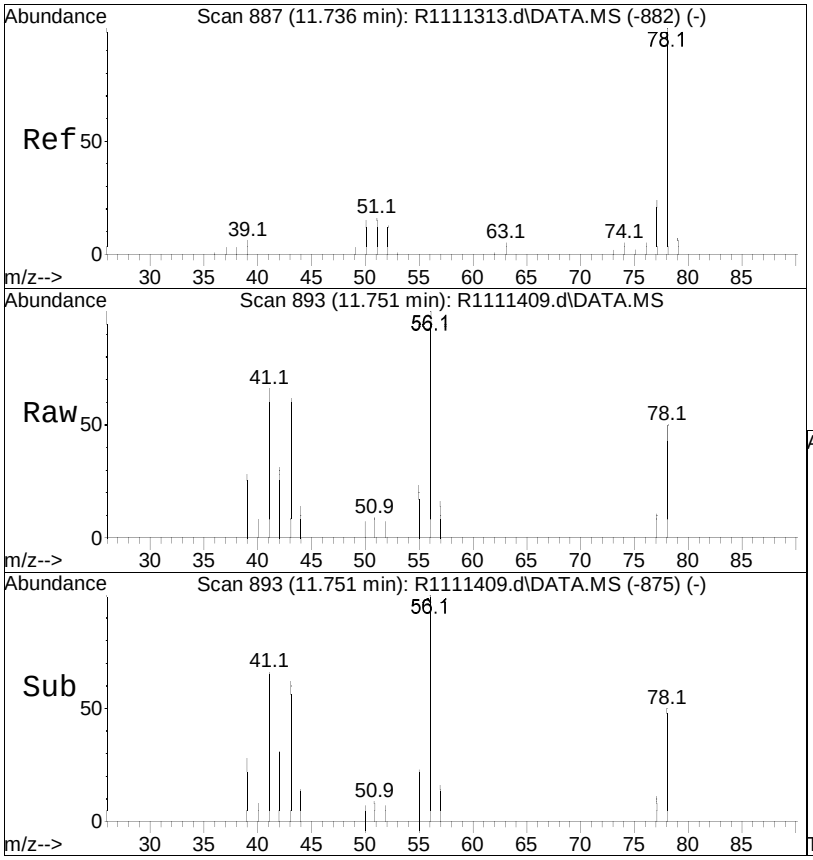


#44
hexane
Concen: 0.08 ppbV
RT: 9.99 min Scan# 726
Delta R.T. 0.003 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion: 57 Resp: 948

Ion	Ratio	Lower	Upper
57	100		
43	0.0	48.6	73.0#
86	0.0	17.2	25.8#

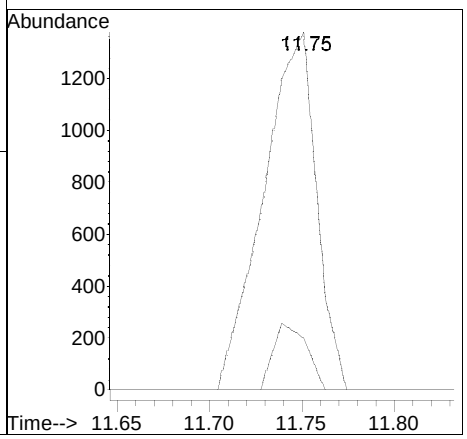


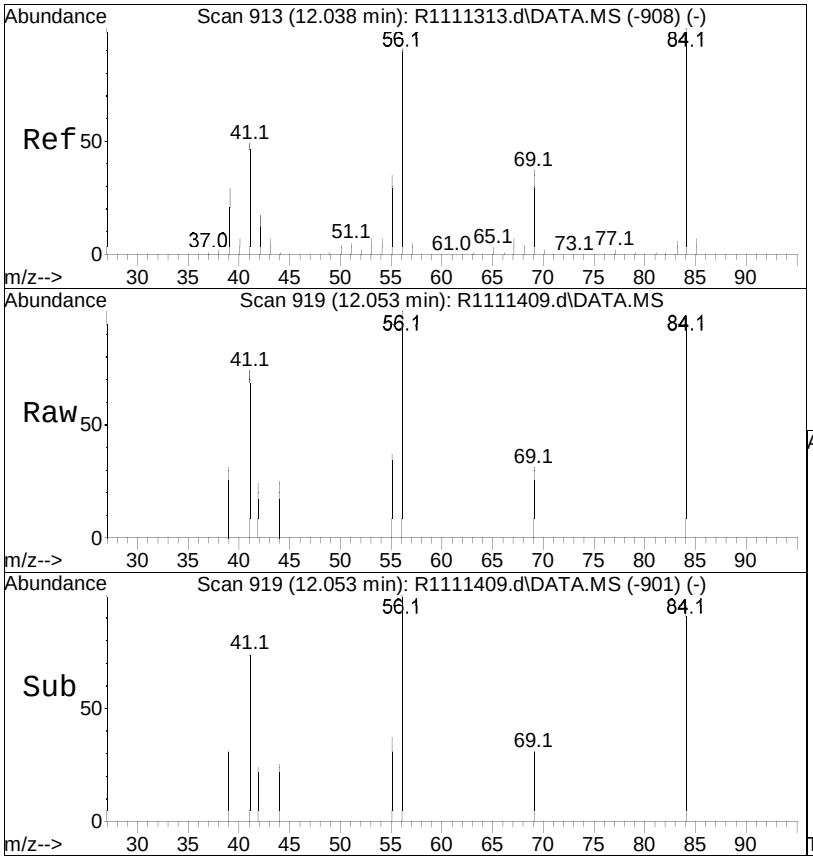


#50
benzene
Concen: 0.09 ppbV
RT: 11.75 min Scan# 893
Delta R.T. 0.015 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion: 78 Resp: 2732

Ion	Ratio	Lower	Upper
78	100		
52	14.6	10.6	16.0

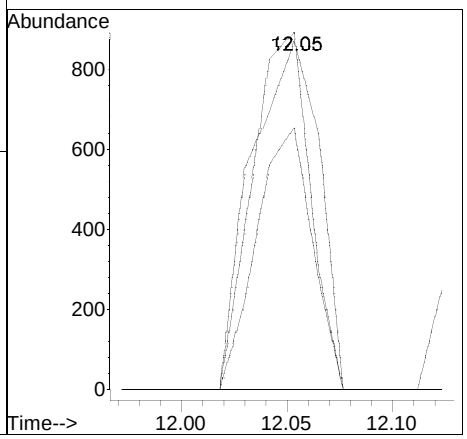


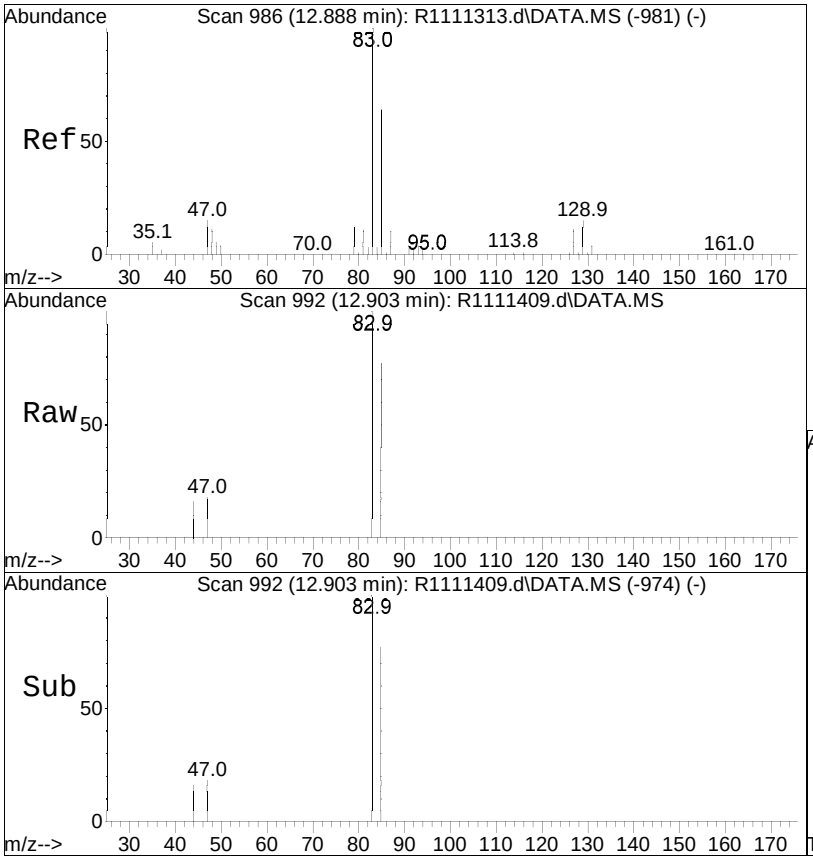


#53
cyclohexane
Concen: 0.13 ppbV
RT: 12.05 min Scan# 919
Delta R.T. 0.015 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion: 56 Resp: 1685

Ion	Ratio	Lower	Upper
56	100		
84	97.6	88.4	132.6
41	73.5	43.4	65.0#

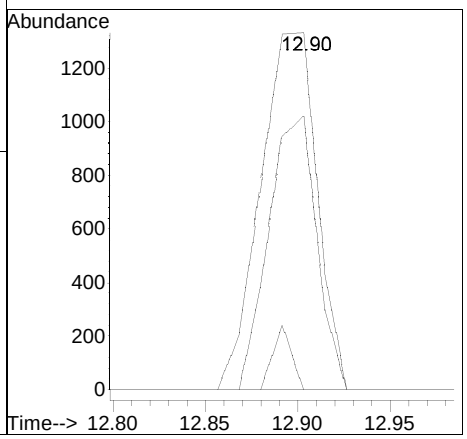


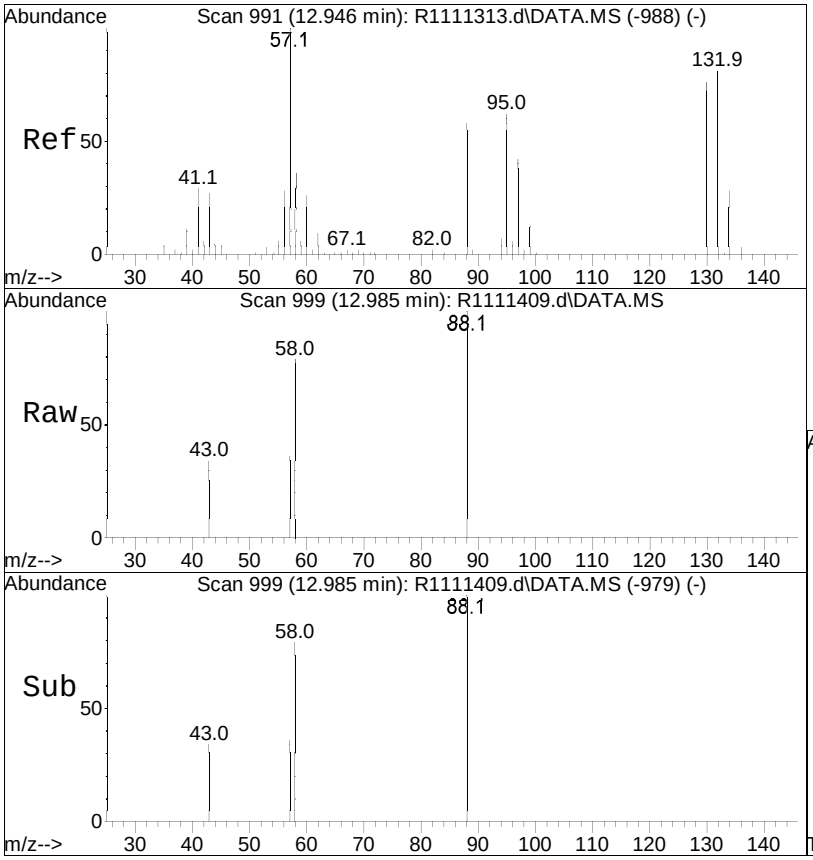


#57
bromodichloromethane
Concen: 0.09 ppbV
RT: 12.90 min Scan# 992
Delta R.T. 0.015 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion: 83 Resp: 2828

Ion	Ratio	Lower	Upper
83	100		
85	76.6	51.1	76.7
129	0.0	12.1	18.1#

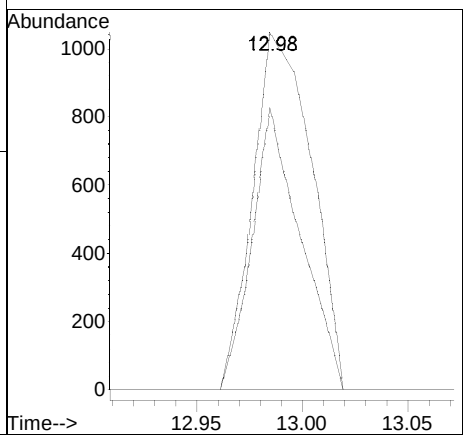


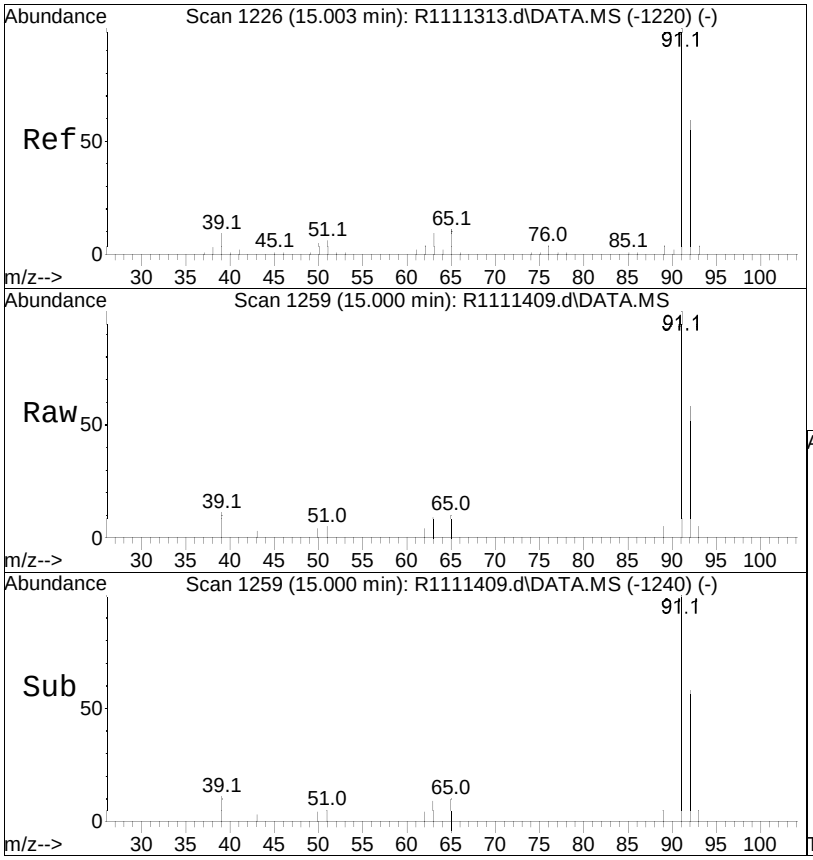


#58
1,4-dioxane
Concen: 0.26 ppbV
RT: 12.98 min Scan# 999
Delta R.T. 0.038 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion: 88 Resp: 2016

Ion	Ratio	Lower	Upper
88	100		
58	79.0	49.6	74.4#

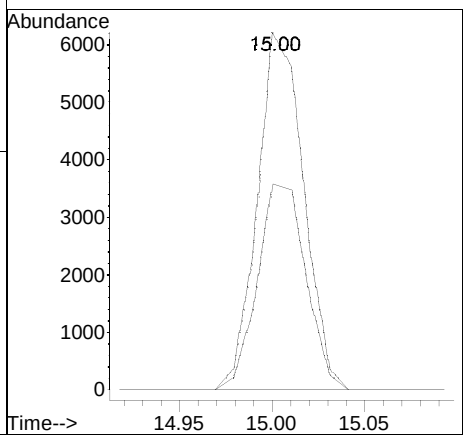


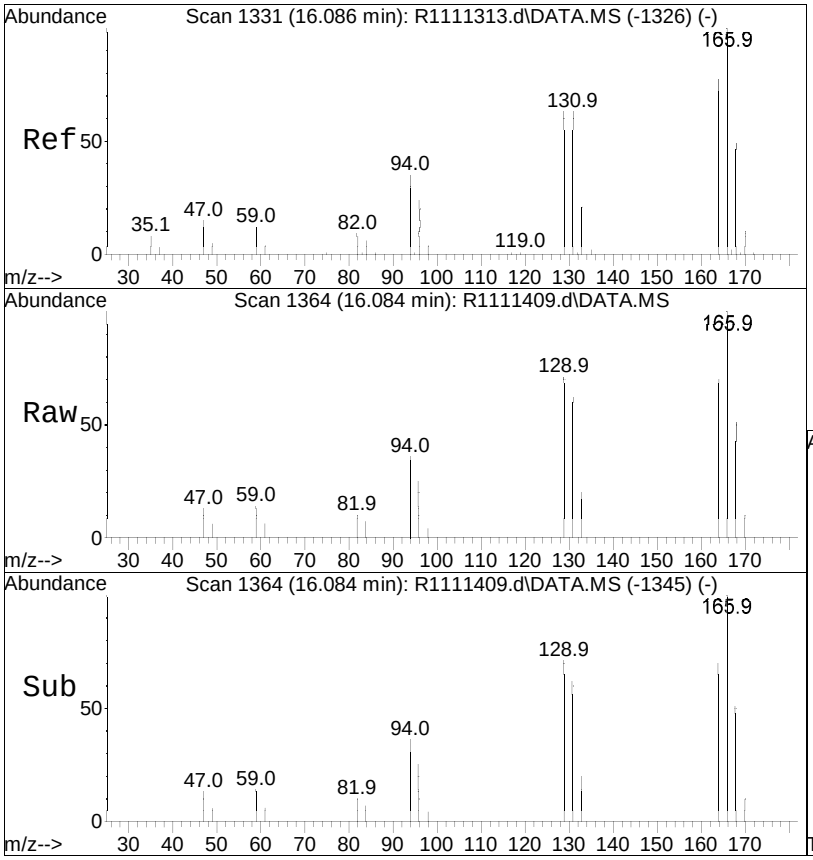


#68
toluene
Concen: 0.25 ppbV
RT: 15.00 min Scan# 1259
Delta R.T. -0.002 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion: 91 Resp: 10683

Ion	Ratio	Lower	Upper
91	100		
92	57.6	47.0	70.6

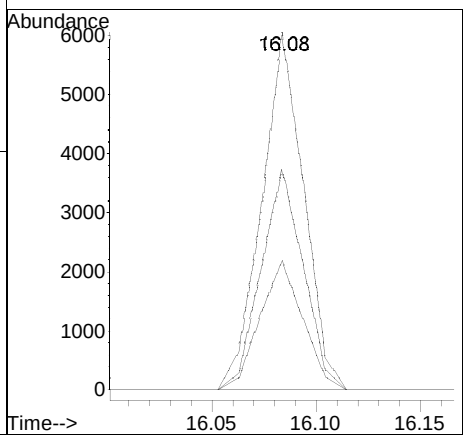


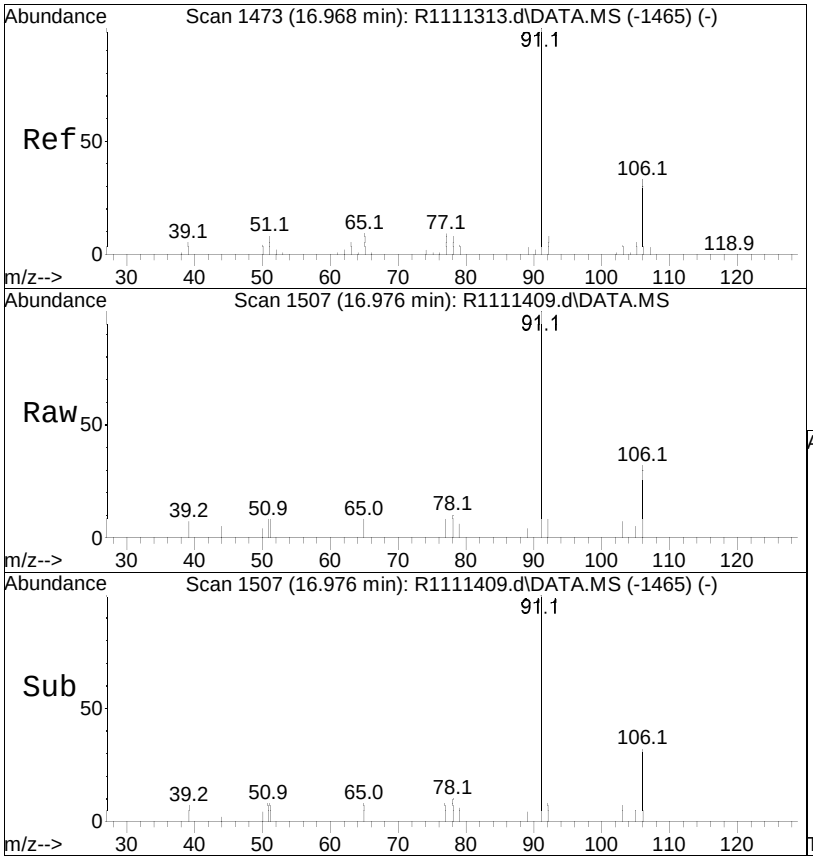


#78
tetrachloroethene
Concen: 0.26 ppbV
RT: 16.08 min Scan# 1364
Delta R.T. -0.002 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion:166 Resp: 8410

Ion	Ratio	Lower	Upper
166	100		
131	61.7	50.1	75.1
94	36.2	28.2	42.4

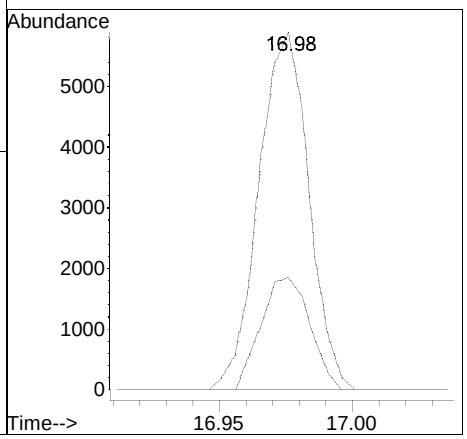


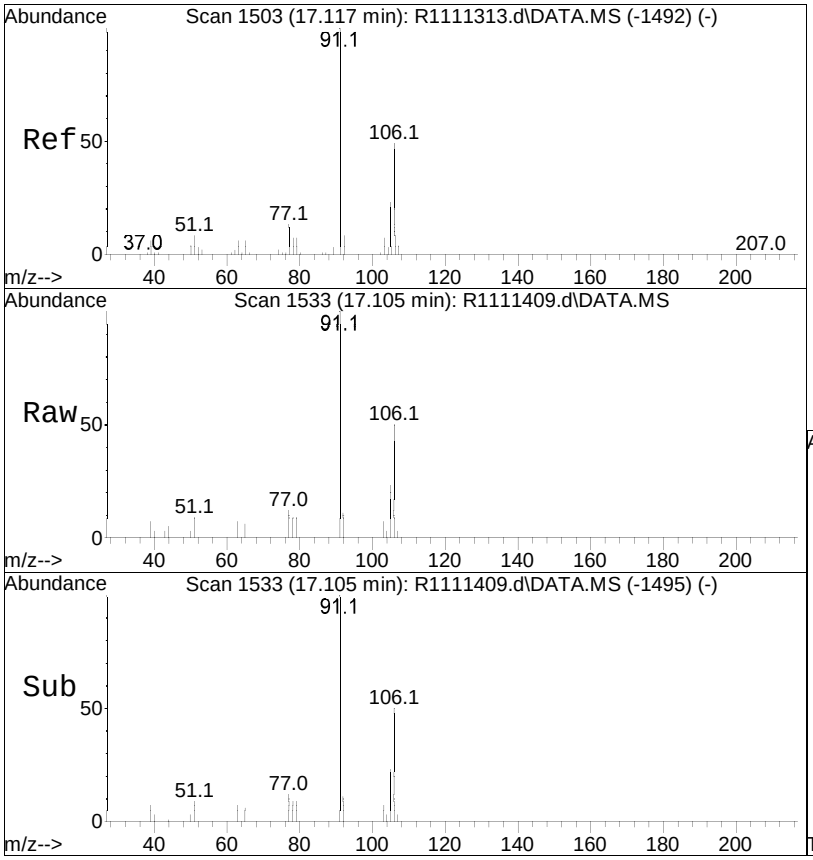


#81
ethylbenzene
Concen: 0.13 ppbV
RT: 16.98 min Scan# 1507
Delta R.T. 0.008 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion: 91 Resp: 7621

Ion	Ratio	Lower	Upper
91	100		
106	31.5	26.6	39.8

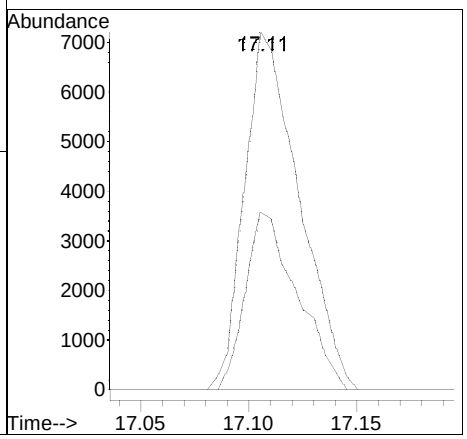


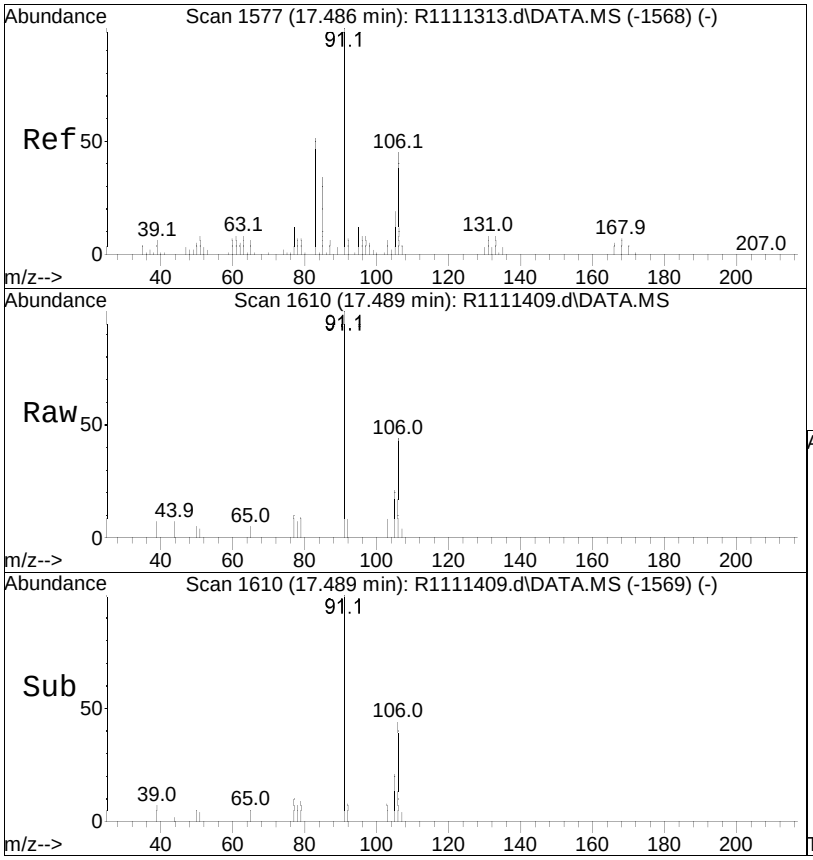


#83
m+p-xylene
Concen: 0.26 ppbV
RT: 17.11 min Scan# 1533
Delta R.T. -0.012 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion: 91 Resp: 12609

Ion	Ratio	Lower	Upper
91	100		
106	49.7	39.4	59.0

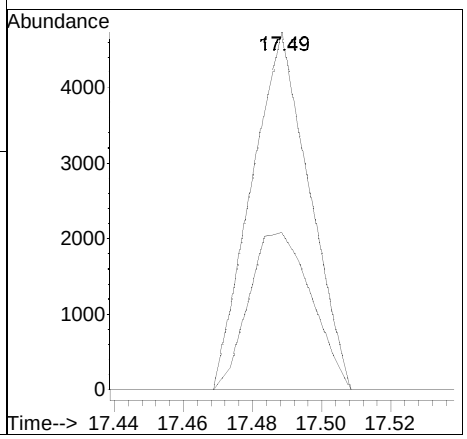


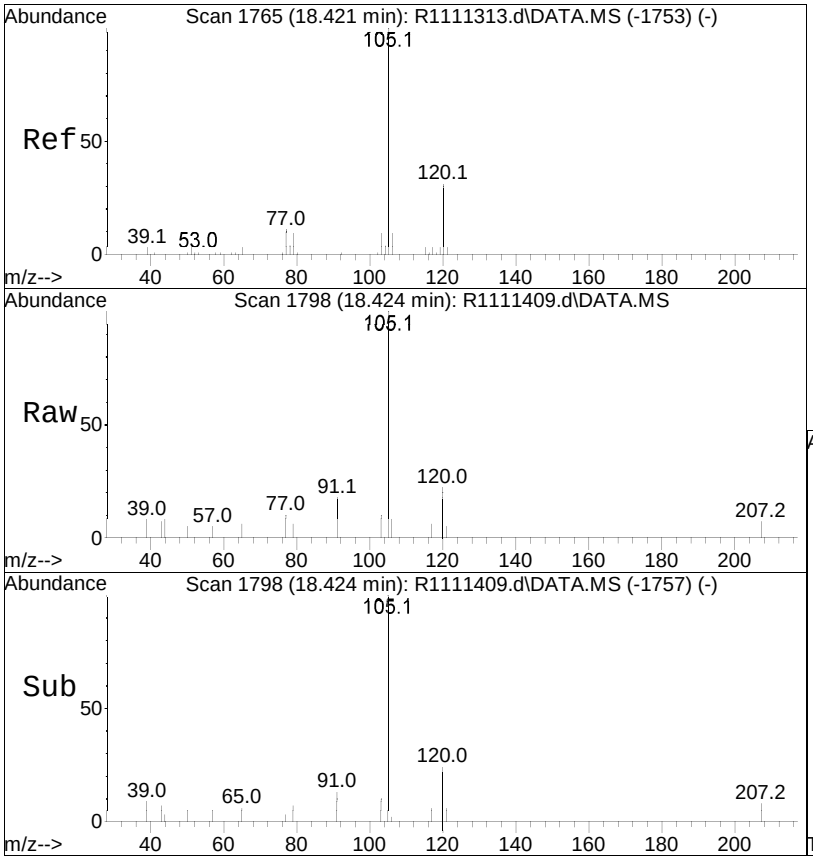


#87
o-xylene
Concen: 0.11 ppbV
RT: 17.49 min Scan# 1610
Delta R.T. 0.003 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion: 91 Resp: 5478

Ion	Ratio	Lower	Upper
91	100		
106	44.1	36.3	54.5

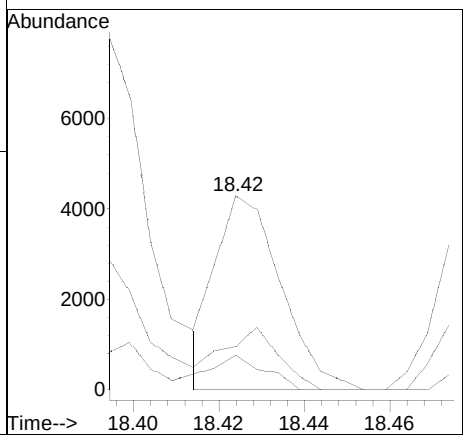


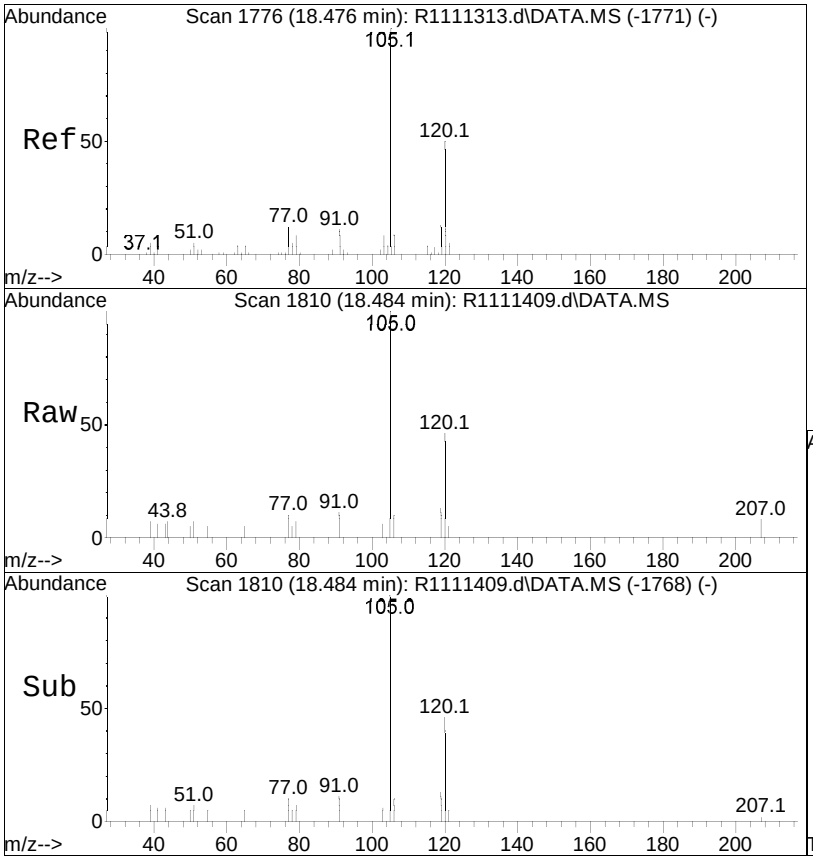


#96
4-ethyl toluene
Concen: 0.06 ppbV m
RT: 18.42 min Scan# 1798
Delta R.T. 0.003 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion:105 Resp: 4593

Ion	Ratio	Lower	Upper
105	100		
120	22.3	25.0	37.6#
91	17.6	9.5	14.3#

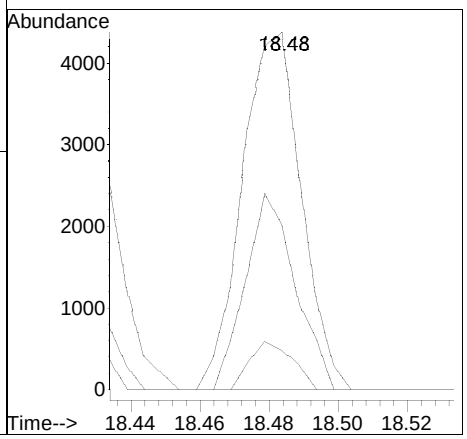


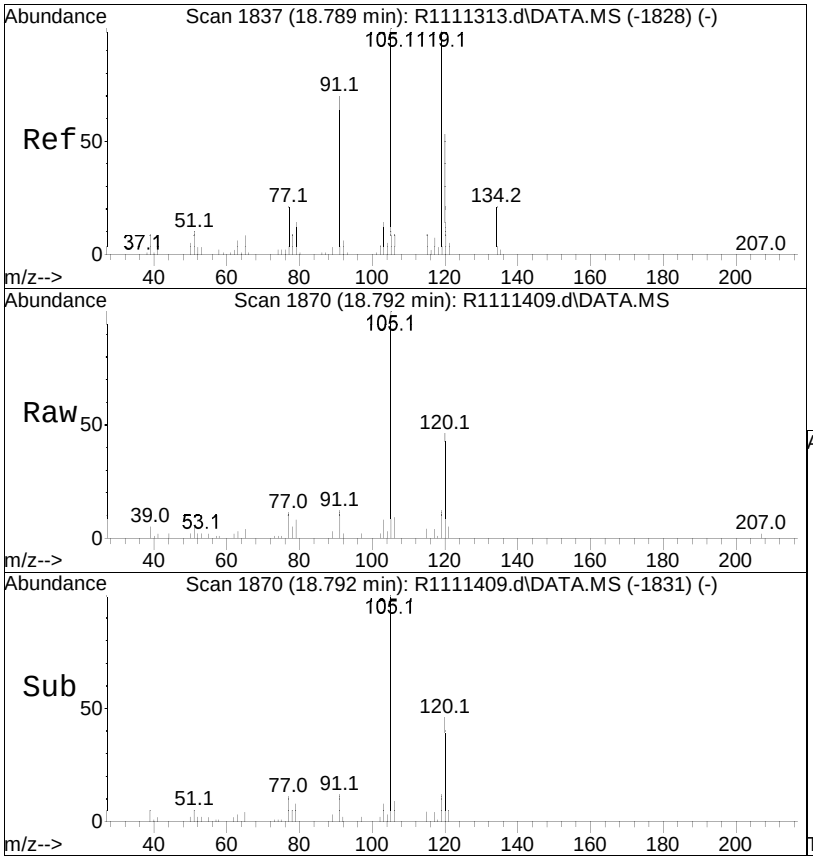


#97
1,3,5-trimethylbenzene
Concen: 0.08 ppbV
RT: 18.48 min Scan# 1810
Delta R.T. 0.008 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion:105 Resp: 5181

Ion	Ratio	Lower	Upper
105	100		
120	45.8	39.7	59.5
91	11.1	8.9	13.3

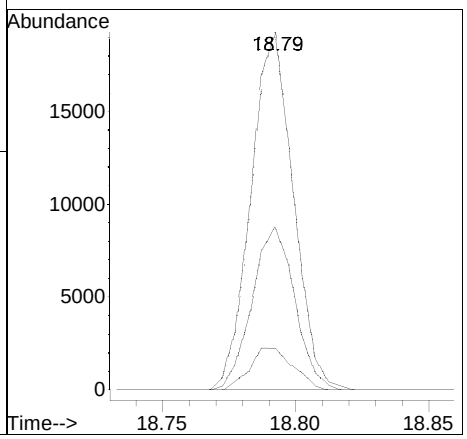




#99
1,2,4-trimethylbenzene
Concen: 0.34 ppbV
RT: 18.79 min Scan# 1870
Delta R.T. 0.003 min
Lab File: R1111409.d
Acq: 3 Sep 2015 2:24 am

Tgt Ion:105 Resp: 21077

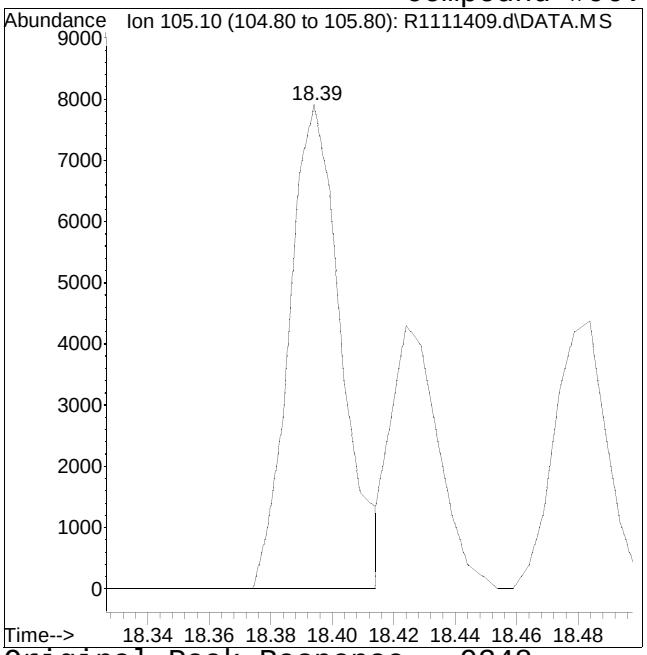
Ion	Ratio	Lower	Upper
105	100		
120	45.6	42.2	63.2
91	11.8	55.8	83.6#

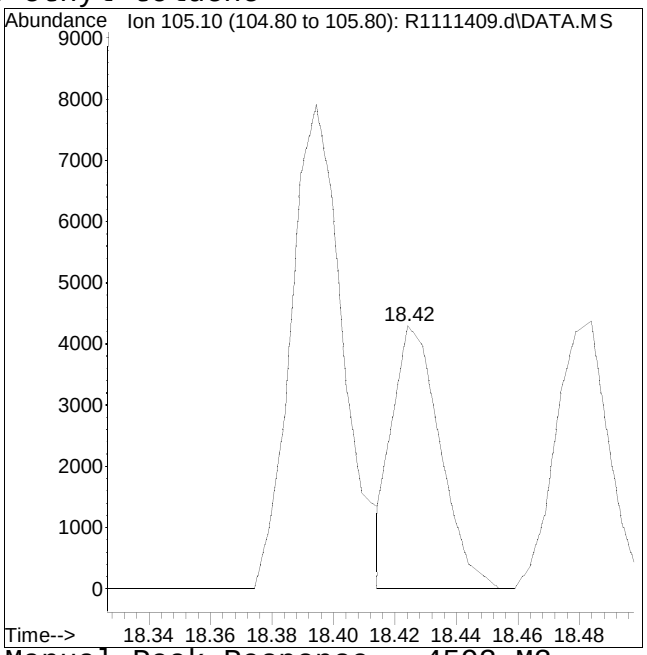


Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\QMethod : TALL150827.M
Data File : R1111409.d Operator : AIRLAB11:RY
Date Inj'd : 9/3/2015 2:24 am Instrument : Airlab 11
Sample : L1521092-08D,3,114.8649,250Quant Date : 9/3/2015 8:53 am

Compound #96: 4-ethyl toluene





Original Peak Response = 9348 Manual Peak Response = 4593 M3

M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Tentatively Identified Compounds
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number	: 0809-15
Lab ID	: L1521092-08DL	Date Collected	: 08/27/15 13:49
Client ID	: BS-SS-1	Date Received	: 08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed	: 09/03/15 02:24
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 2.176
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111409	Instrument ID	: AIRLAB11
Sample Amount	: 115 ml	GC Column	: RTX-1

Number TICS found: 8

Concentration Units: ppbV

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
000075-07-0	Acetaldehyde	4.39	6.3	NJD
000067-56-1	Methyl Alcohol	4.46	11	NJD
001066-40-6	Silanol, trimethyl-	8.86	2.2	NJD
	unknown	10.81	2.4	JD
000120-92-3	Cyclopentanone	15.14	8.3	NJD
000541-05-9	Cyclotrisiloxane, hexamethyl-	16.29	2.6	NJD
000124-19-6	Nonanal	19.70	2.6	NJD
	unknown siloxane	20.18	3.9	JD
	Total TIC Compounds		39.3	

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111409.d
Acq On : 3 Sep 2015 2:24 am
Operator : AIRLAB11:RY
Sample : L1521092-08D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R1111409.d\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.395	113	117	120	rBV	79701	136833	12.31%	2.065%
2	4.462	120	123	135	rVB	122679	244805	22.03%	3.695%
3	5.540	223	227	236	rBV	293544	572788	51.55%	8.645%
4	6.163	290	294	304	rBV	130879	264201	23.78%	3.988%
5	6.350	310	314	319	rVB	9676	19594	1.76%	0.296%
6	6.554	330	336	341	rBV	7442	17424	1.57%	0.263%
7	7.345	417	421	426	rBV2	9009	20174	1.82%	0.304%
8	8.235	514	518	529	rBV	6774	13307	1.20%	0.201%
9	8.374	531	535	543	rVB3	6463	14072	1.27%	0.212%
10	8.865	589	595	600	rBV	21868	47589	4.28%	0.718%
11	9.290	643	647	653	rVB	8925	18037	1.62%	0.272%
12	9.941	717	721	729	rBB	254450	471923	42.47%	7.123%
13	10.101	732	736	740	rVB	58059	107188	9.65%	1.618%
14	10.607	780	783	788	rBB	5759	12024	1.08%	0.181%
15	10.813	800	804	809	rBB	27052	51674	4.65%	0.780%
16	11.739	889	892	898	rBB2	16891	33576	3.02%	0.507%
17	12.147	923	927	932	rBV	460827	872423	78.51%	13.168%
18	12.542	958	961	965	rBB	6107	11930	1.07%	0.180%
19	13.933	1101	1108	1116	rBB3	7502	14453	1.30%	0.218%
20	14.897	1246	1249	1256	rVB2	76570	141765	12.76%	2.140%
21	15.000	1256	1259	1263	rBV	13207	22534	2.03%	0.340%
22	15.145	1269	1273	1284	rBV	228407	425541	38.30%	6.423%
23	15.495	1304	1307	1310	rBV	22601	35764	3.22%	0.540%
24	15.557	1310	1313	1318	rVB	13982	23137	2.08%	0.349%
25	16.084	1361	1364	1368	rBV	30542	41902	3.77%	0.632%
26	16.290	1380	1384	1389	rBV	76390	131237	11.81%	1.981%
27	16.633	1431	1438	1448	rBV	847392	1111202	100.00%	16.772%
28	16.976	1501	1507	1511	rVB	12767	14940	1.34%	0.225%

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111409.d
Acq On : 3 Sep 2015 2:24 am
Operator : AIRLAB11:RY
Sample : L1521092-08D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	17.105	1528	1533	1542	rBV	19160	32075	2.89%	0.484%
30	17.389	1584	1590	1597	rVB3	11136	14584	1.31%	0.220%
31	17.489	1605	1610	1615	rVB	11336	12732	1.15%	0.192%
32	17.842	1675	1681	1692	rBV	202869	241733	21.75%	3.649%
33	17.966	1701	1706	1713	rVB	27705	35821	3.22%	0.541%
34	18.394	1787	1792	1796	rVV	19431	23216	2.09%	0.350%
35	18.429	1796	1799	1804	rVV2	9932	12041	1.08%	0.182%
36	18.484	1804	1810	1815	rVB	11313	15525	1.40%	0.234%
37	18.698	1847	1851	1858	rVB2	65695	80030	7.20%	1.208%
38	18.792	1864	1870	1875	rBV	52132	57527	5.18%	0.868%
39	18.837	1875	1879	1884	rVB	29131	29991	2.70%	0.453%
40	19.016	1909	1915	1920	rVV	29548	40546	3.65%	0.612%
41	19.115	1927	1935	1939	rBV3	17388	27401	2.47%	0.414%
42	19.215	1950	1955	1959	rBV3	15572	15845	1.43%	0.239%
43	19.274	1962	1967	1974	rVV7	10664	20896	1.88%	0.315%
44	19.329	1974	1978	1982	rVV	27445	30332	2.73%	0.458%
45	19.409	1989	1994	1999	rVV4	23825	28477	2.56%	0.430%
46	19.458	1999	2004	2011	rVV4	14929	25733	2.32%	0.388%
47	19.518	2011	2016	2018	rVV4	16440	21824	1.96%	0.329%
48	19.538	2018	2020	2026	rVB3	14505	14862	1.34%	0.224%
49	19.642	2039	2041	2046	rVV3	13567	15188	1.37%	0.229%
50	19.702	2046	2053	2060	rVV2	104541	134977	12.15%	2.037%
51	19.781	2062	2069	2074	rVV2	65825	83522	7.52%	1.261%
52	19.846	2078	2082	2088	rVB3	17830	27952	2.52%	0.422%
53	19.955	2101	2104	2108	rBV4	8897	11311	1.02%	0.171%
54	20.059	2120	2125	2129	rVB	13973	17015	1.53%	0.257%
55	20.184	2142	2150	2160	rVB	139536	198177	17.83%	2.991%
56	20.278	2166	2169	2176	rVB5	10655	17387	1.56%	0.262%
57	20.392	2188	2192	2196	rVV2	15502	17356	1.56%	0.262%
58	20.432	2196	2200	2205	rVV7	7466	11711	1.05%	0.177%
59	20.477	2205	2209	2215	rVB2	55771	72203	6.50%	1.090%
60	20.625	2223	2226	2228	rBV	20882	29935	2.69%	0.452%

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111409.d
Acq On : 3 Sep 2015 2:24 am
Operator : AIRLAB11:RY
Sample : L1521092-08D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

61	20.664	2228	2230	2233	rVB	40903	53101	4.78%	0.801%
62	20.763	2237	2240	2243	rVB	16272	24677	2.22%	0.372%
63	20.979	2260	2262	2268	rVB6	5274	12975	1.17%	0.196%
64	21.127	2272	2277	2280	rVV5	6574	16823	1.51%	0.254%
65	21.216	2283	2286	2289	rVB4	12743	21274	1.91%	0.321%
66	21.403	2302	2305	2308	rVB2	14269	26085	2.35%	0.394%
67	21.491	2311	2314	2317	rVB	17481	25835	2.32%	0.390%
68	21.580	2319	2323	2326	rVB2	23315	42270	3.80%	0.638%
69	21.669	2326	2332	2335	rBV4	13228	39992	3.60%	0.604%
70	21.925	2355	2358	2361	rVV3	7647	12492	1.12%	0.189%
71	21.984	2361	2364	2366	rVB2	7709	13429	1.21%	0.203%
72	22.181	2380	2384	2388	rBV2	15463	26488	2.38%	0.400%

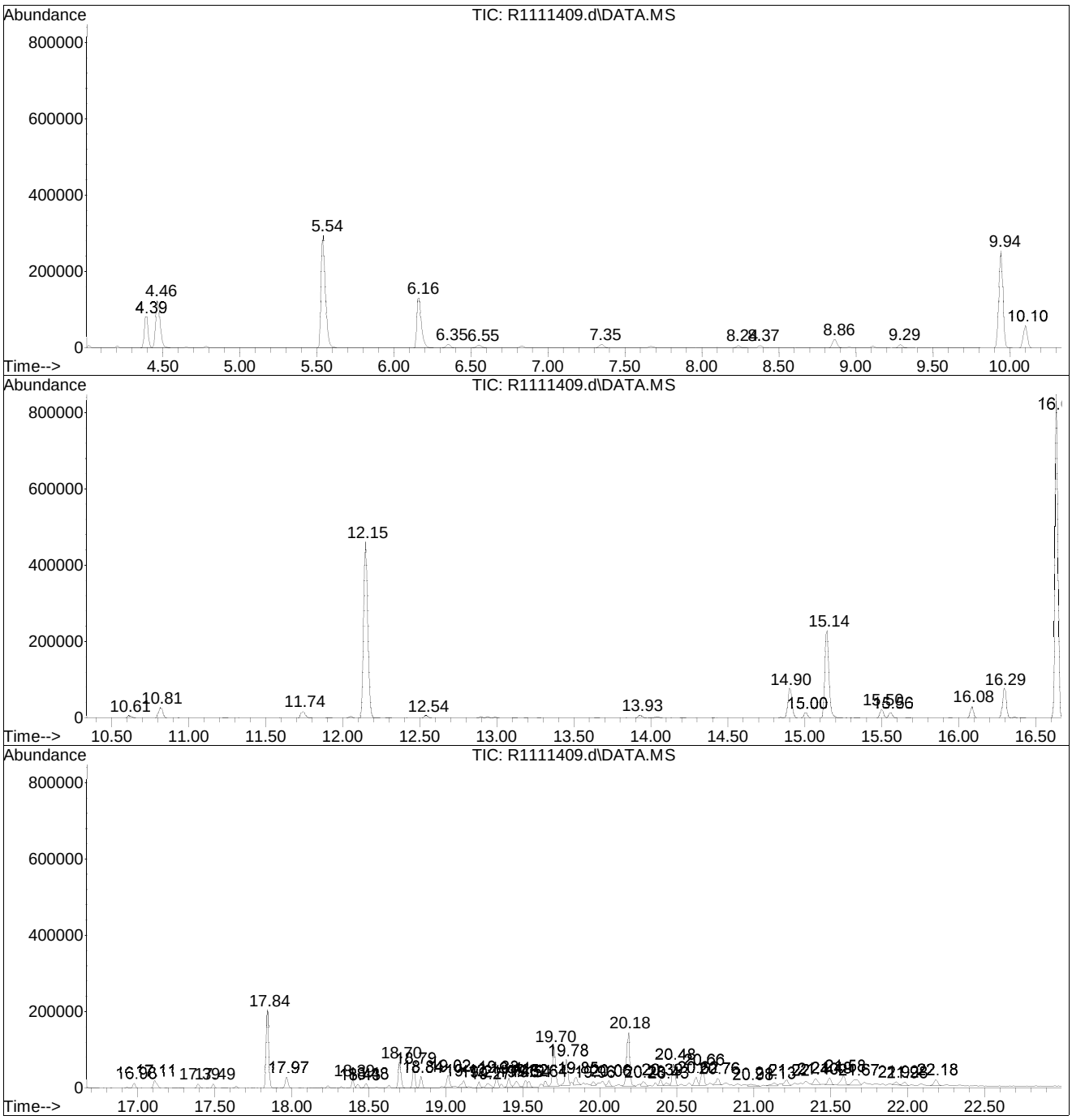
Sum of corrected areas: 6625403

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111409.d
Acq On : 3 Sep 2015 2:24 am
Operator : AIRLAB11:RY
Sample : L1521092-08D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111409.d
Acq On : 3 Sep 2015 2:24 am
Operator : AIRLAB11:RY
Sample : L1521092-08D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

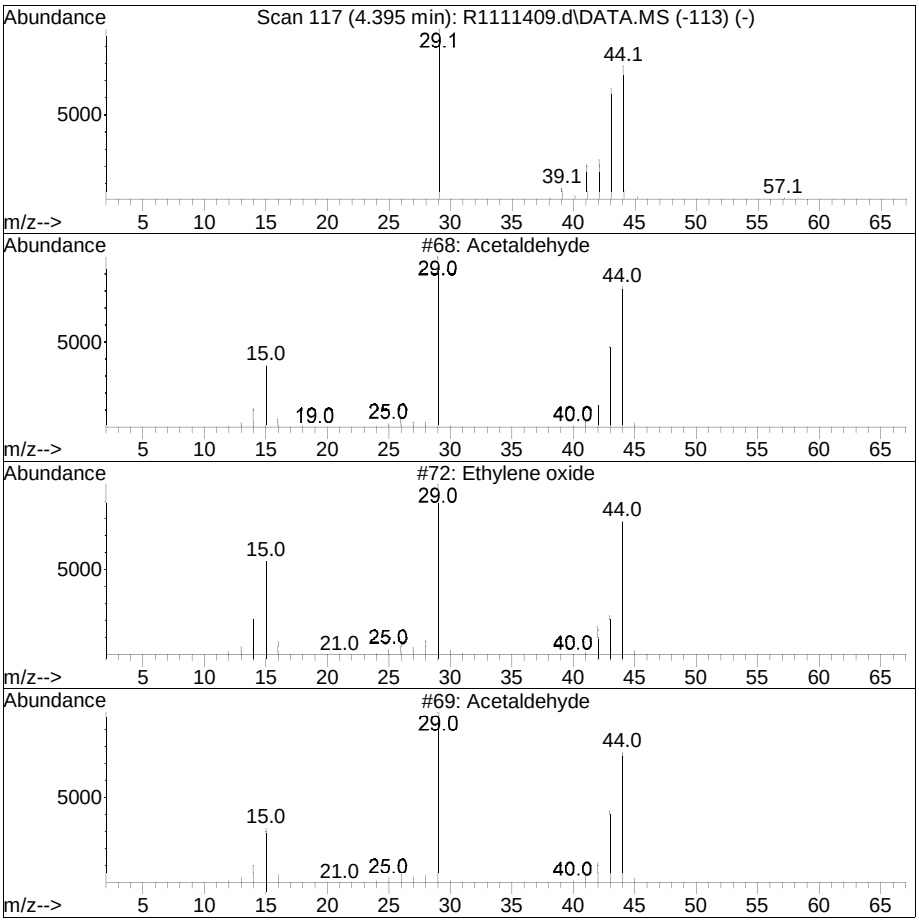
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

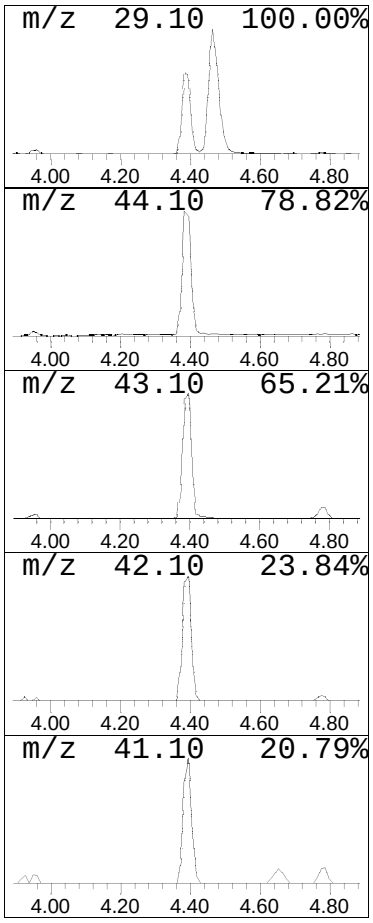
****

Peak Number 1 Acetaldehyde Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.39	2.90 ppbV	136833	bromochloromethane	9.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Acetaldehyde	44	C2H4O	000075-07-0	9
2	Ethylene oxide	44	C2H4O	000075-21-8	9
3	Acetaldehyde	44	C2H4O	000075-07-0	9
4	Ethylene oxide	44	C2H4O	000075-21-8	5
5	Ethylene oxide	44	C2H4O	000075-21-8	5





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111409.d
Acq On : 3 Sep 2015 2:24 am
Operator : AIRLAB11:RY
Sample : L1521092-08D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

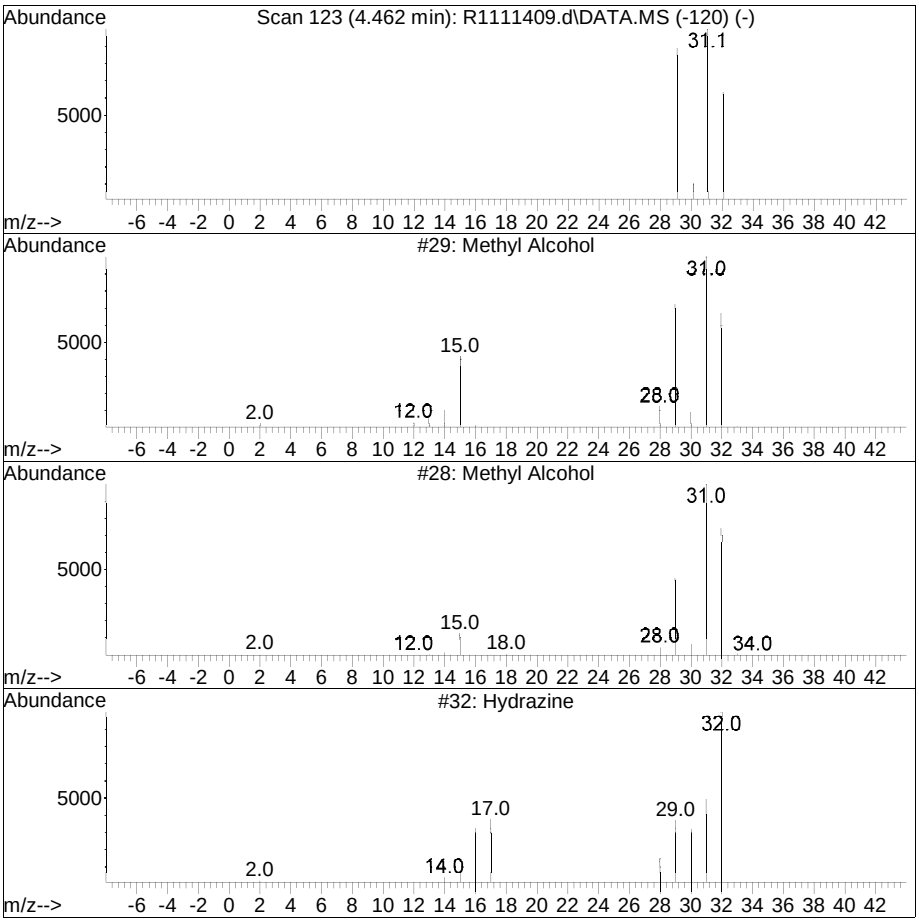
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

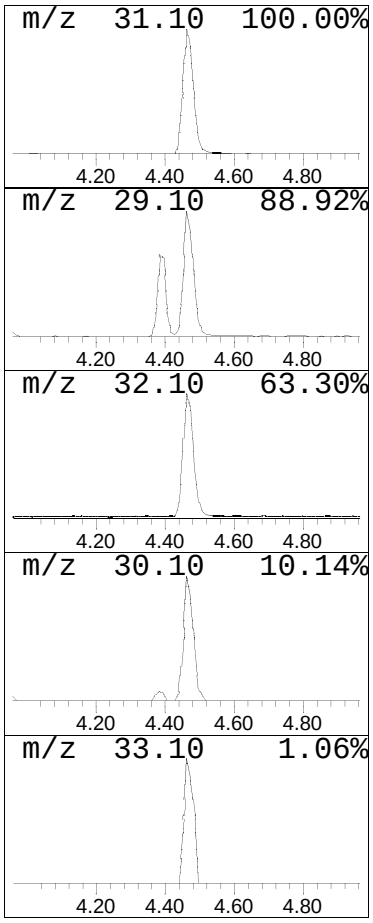
****

Peak Number 2 Methyl Alcohol Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
4.46	5.19 ppbV	244805	bromochloromethane	9.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Methyl Alcohol	32	CH4O	000067-56-1	4
2	Methyl Alcohol	32	CH4O	000067-56-1	2
3	Hydrazine	32	H4N2	000302-01-2	2
4	Hydrazine	32	H4N2	000302-01-2	2
5	Ethane, nitro-	75	C2H5NO2	000079-24-3	1





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111409.d
Acq On : 3 Sep 2015 2:24 am
Operator : AIRLAB11:RY
Sample : L1521092-08D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

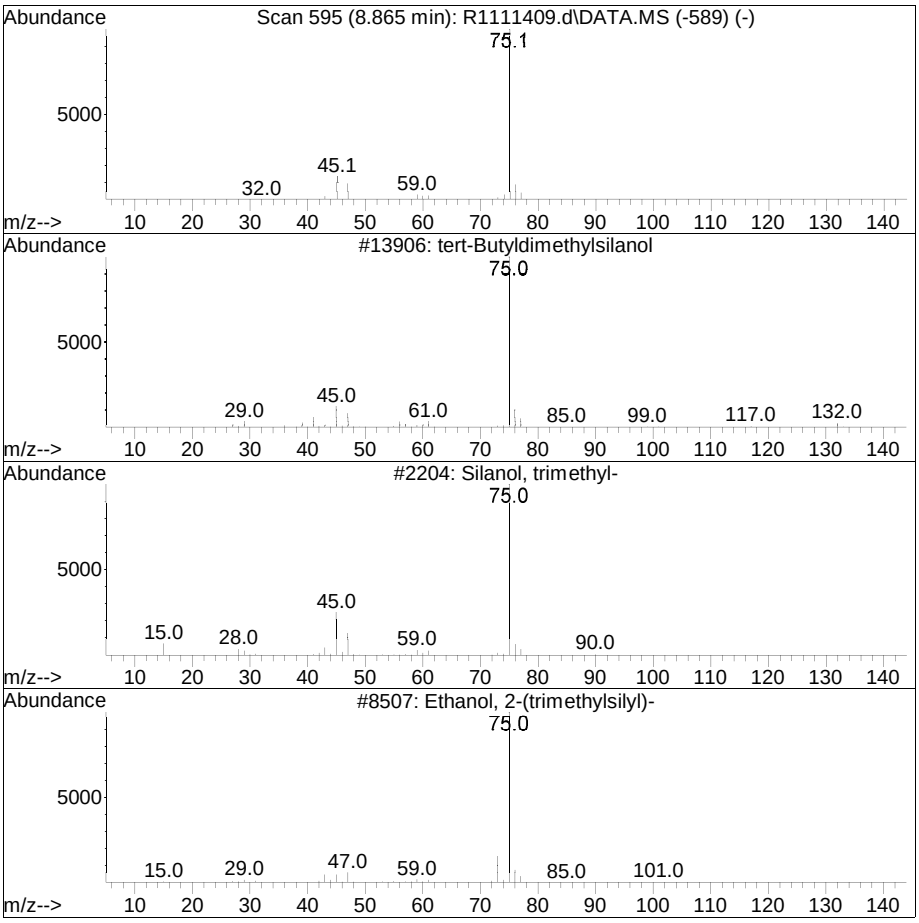
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

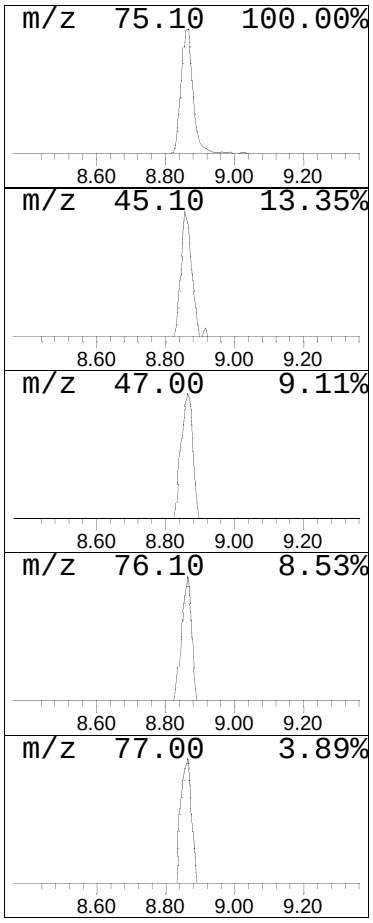
****

Peak Number 3 Silanol, trimethyl- Concentration Rank 10

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.86	1.01 ppbV	47589	bromochloromethane	9.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	tert-Butyldimethylsilanol	132	C6H16OSi	018173-64-3	74
2	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	74
3	Ethanol, 2-(trimethylsilyl)-	118	C5H14OSi	002916-68-9	64
4	Formamide, N-methylthio	75	C2H5NS	018952-41-5	7
5	Ethanethioamide	75	C2H5NS	000062-55-5	5





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111409.d
Acq On : 3 Sep 2015 2:24 am
Operator : AIRLAB11:RY
Sample : L1521092-08D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

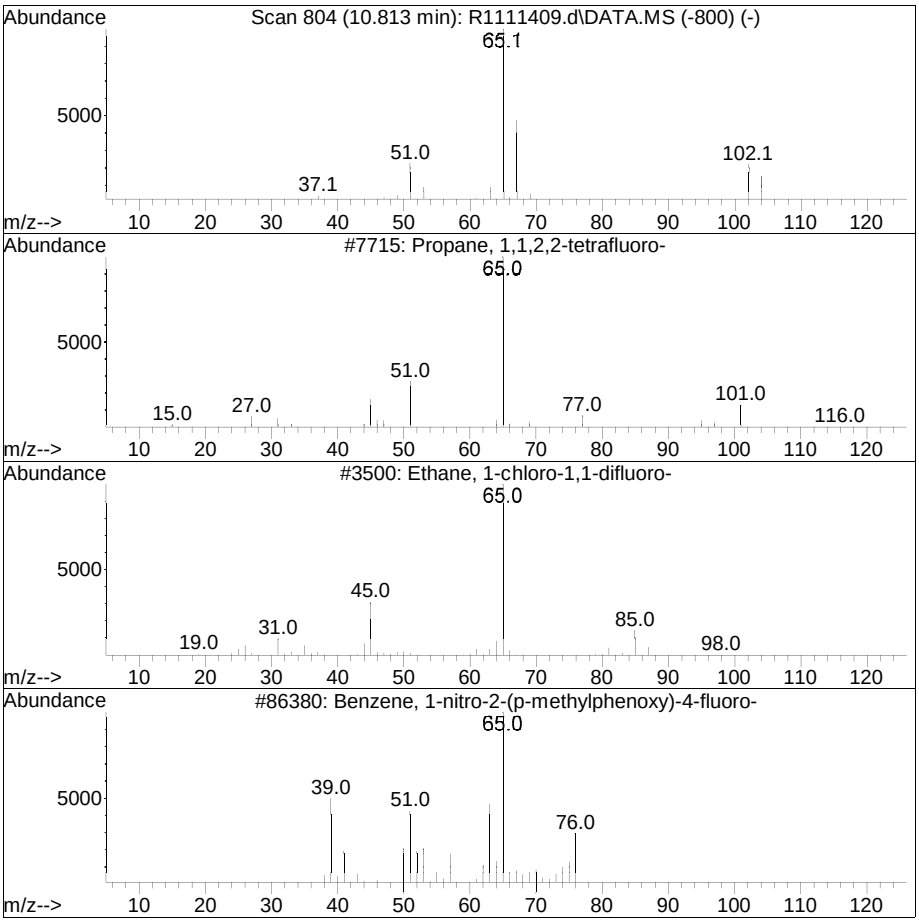
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

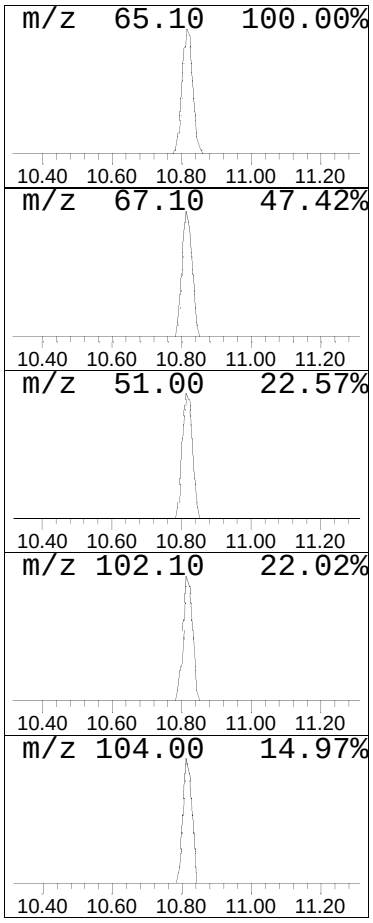
****

Peak Number 4 unknown Concentration Rank 9

R.T.	EstConc	Area	Relative to ISTD	R.T.
10.81	1.09 ppbV	51674	bromochloromethane	9.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propane, 1,1,2,2-tetrafluoro-	116	C3H4F4	040723-63-5	39
2	Ethane, 1-chloro-1,1-difluoro-	100	C2H3ClF2	000075-68-3	2
3	Benzene, 1-nitro-2-(p-methylphen...	247	C13H10FNO3	028987-57-7	2
4	Propane, 2,2-difluoro-	80	C3H6F2	000420-45-1	2
5	Methanesulfinic acid	80	CH4O2S	017696-73-0	2





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111409.d
Acq On : 3 Sep 2015 2:24 am
Operator : AIRLAB11:RY
Sample : L1521092-08D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

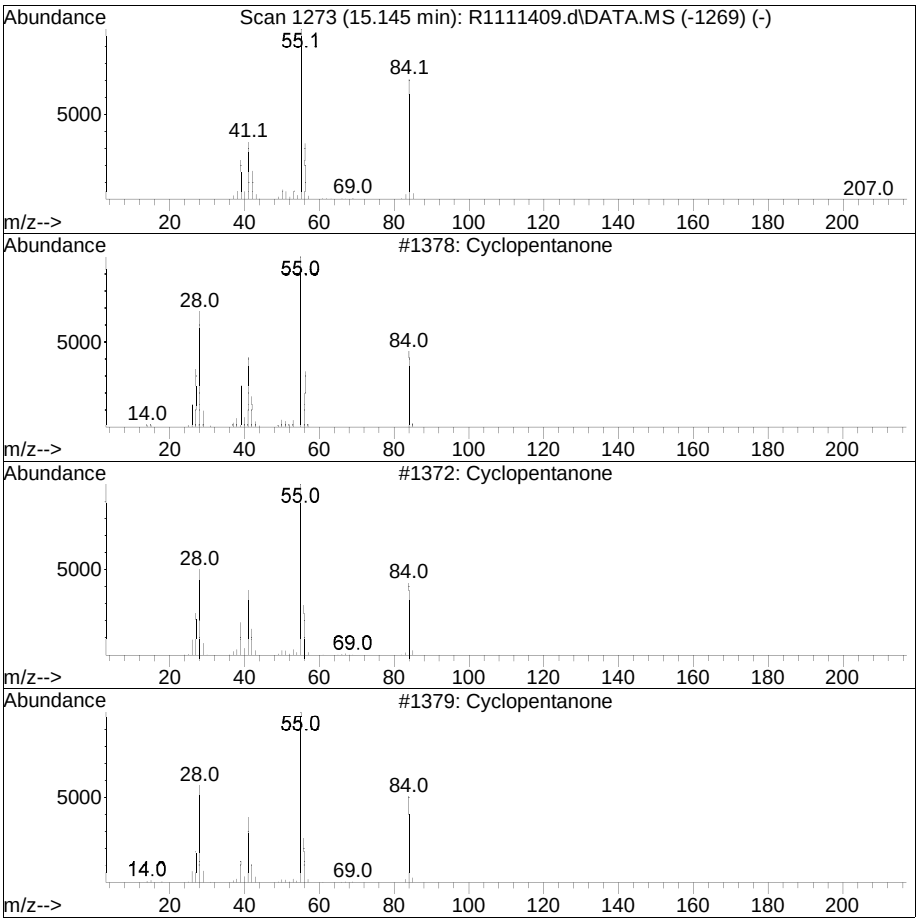
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

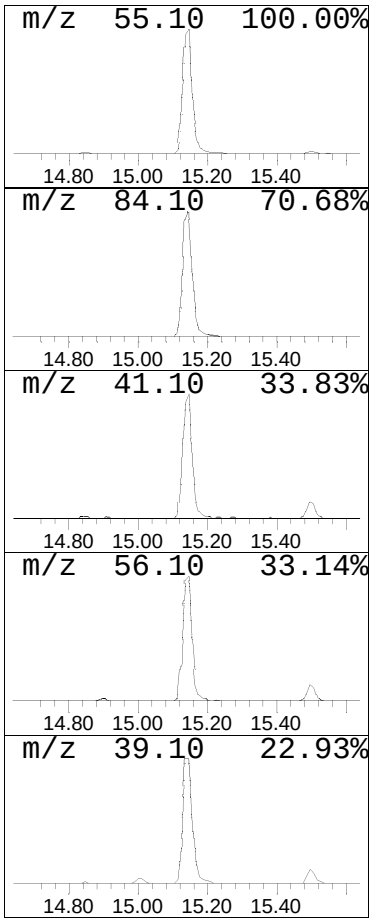
****

Peak Number 6 Cyclopentanone Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.14	3.83 ppbV	425541	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentanone	84	C5H8O	000120-92-3	90
2	Cyclopentanone	84	C5H8O	000120-92-3	83
3	Cyclopentanone	84	C5H8O	000120-92-3	64
4	2-Butenal, 2-methyl-, (E)-	84	C5H8O	000497-03-0	52
5	2-Butenal, 2-methyl-	84	C5H8O	001115-11-3	50





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111409.d
Acq On : 3 Sep 2015 2:24 am
Operator : AIRLAB11:RY
Sample : L1521092-08D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

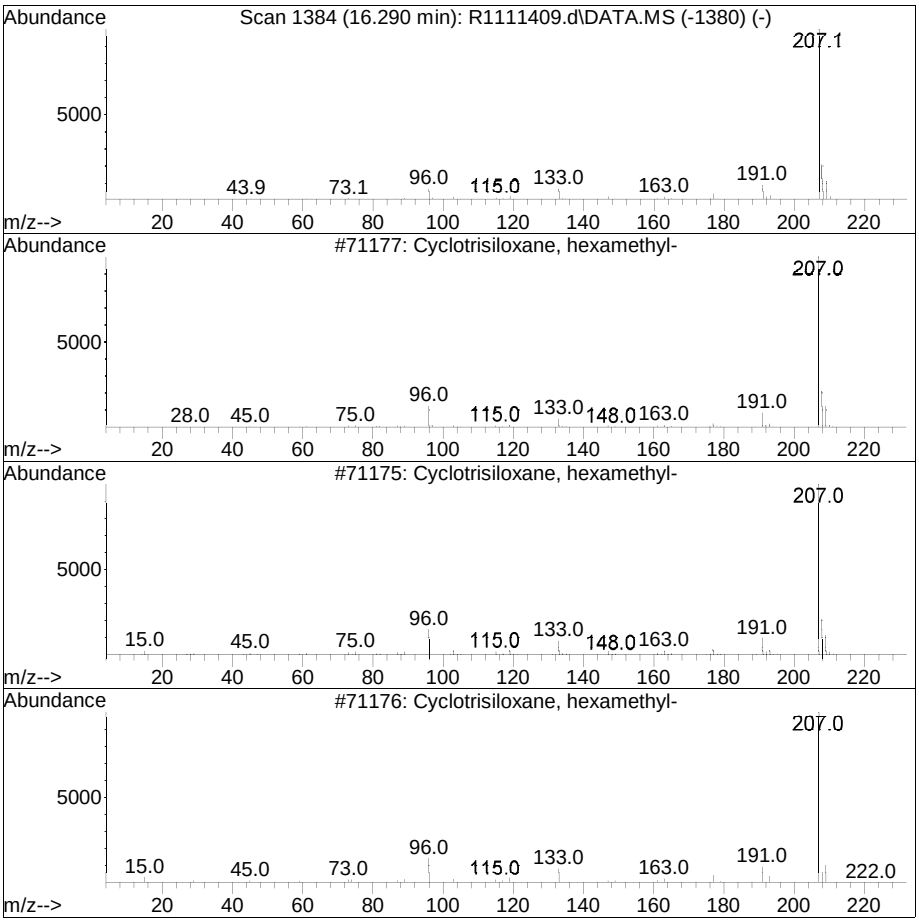
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

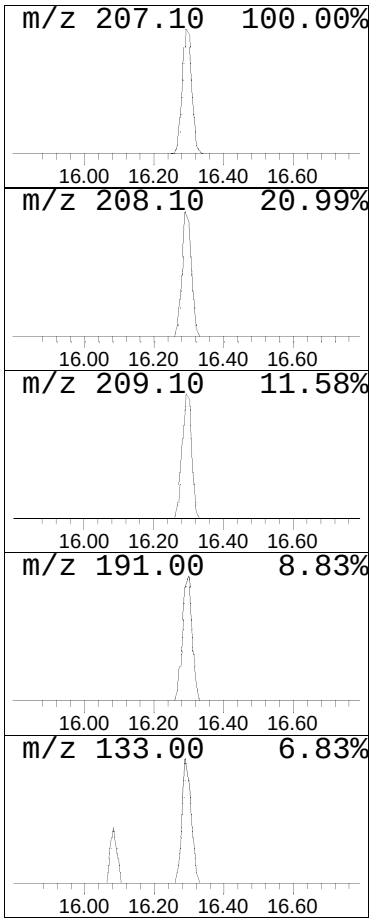
****

Peak Number 7 Cyclotrisiloxane, hexamethyl- Concentration Rank 8

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.29	1.18 ppbV	131237	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	90
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	90
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	64
4	Benzo[h]quinoline, 2,4-dimethyl-	207	C15H13N	000605-67-4	39
5	1H-Indole, 5-methyl-2-phenyl-	207	C15H13N	013228-36-9	39





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111409.d
Acq On : 3 Sep 2015 2:24 am
Operator : AIRLAB11:RY
Sample : L1521092-08D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

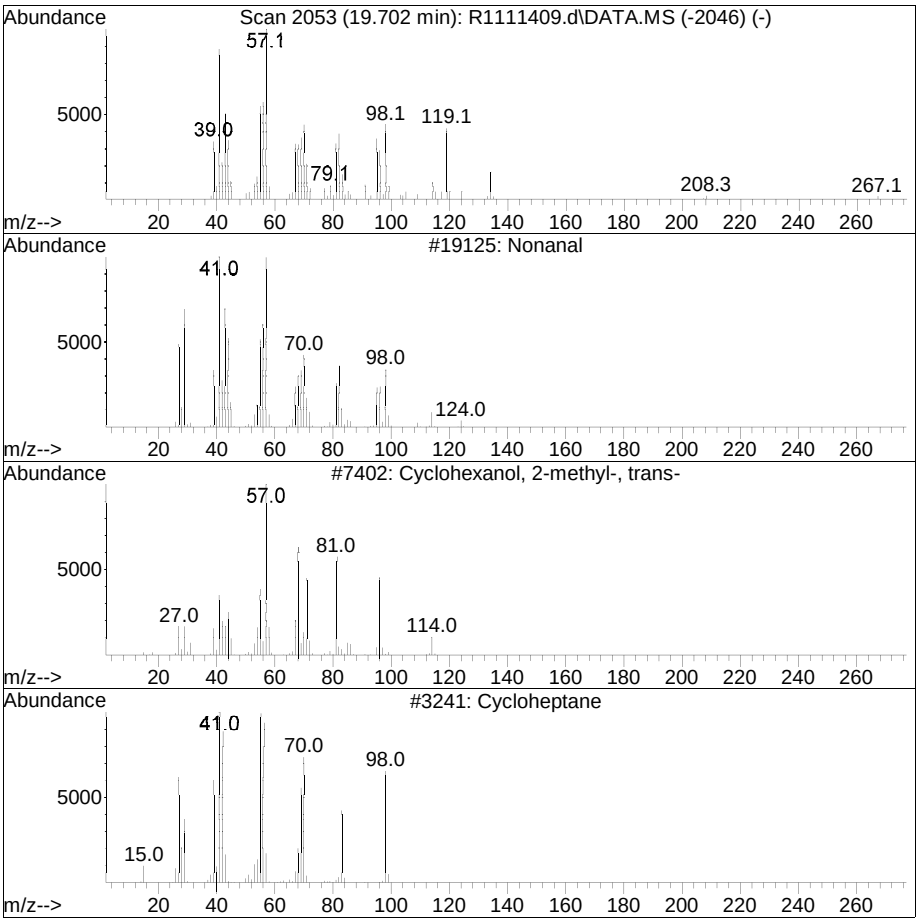
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

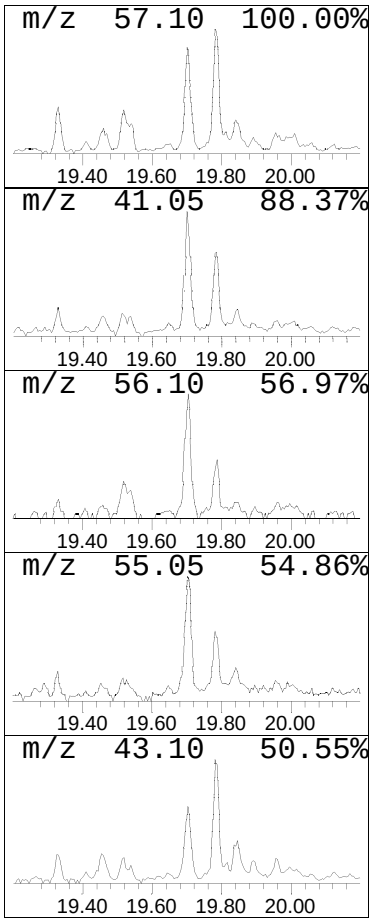
****

Peak Number 9 Nonanal Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.70	1.21 ppbV	134977	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonanal	142	C9H18O	000124-19-6	64
2	Cyclohexanol, 2-methyl-, trans-	114	C7H14O	007443-52-9	53
3	Cycloheptane	98	C7H14	000291-64-5	30
4	Cycloheptane	98	C7H14	000291-64-5	30
5	1-Penten-3-one, 4-methyl-	98	C6H10O	001606-47-9	27





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111409.d
Acq On : 3 Sep 2015 2:24 am
Operator : AIRLAB11:RY
Sample : L1521092-08D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

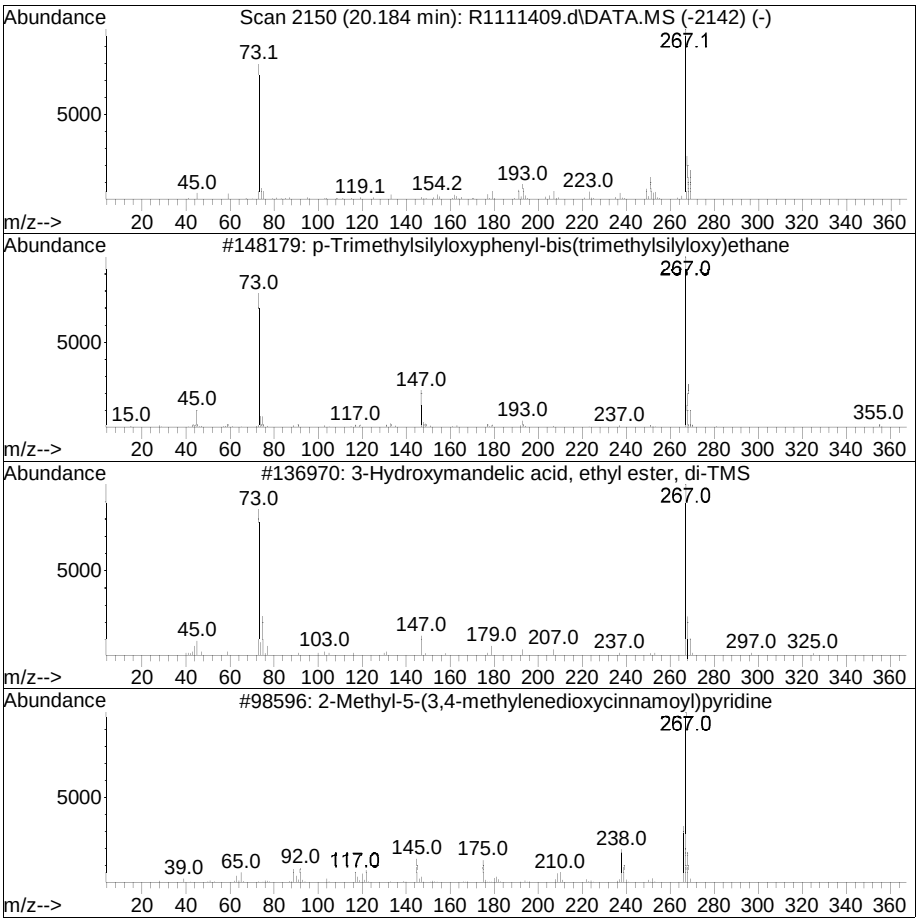
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

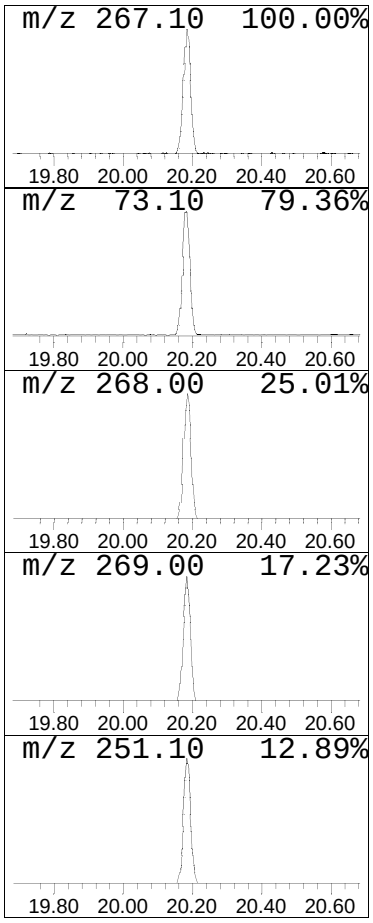
****

Peak Number 10 unknown siloxane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.18	1.78 ppbV	198177	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	p-Trimethylsilyloxyphenyl-bis(tr...	370	C17H34O3Si3	1000079-08-1	64
2	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-88-9	56
3	2-Methyl-5-(3,4-methylenedioxyci...	267	C16H13NO3	094298-70-1	50
4	4-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-53-3	50
5	1,3-Diphenyl-5-methylthio-1,2,4-...	267	C15H13N3S	051384-17-9	50





Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111409.d
Acq On : 3 Sep 2015 2:24 am
Operator : AIRLAB11:RY
Sample : L1521092-08D,3,114.8649,250
Misc : WG817978,ICAL11393
ALS Vial : 8 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc
Acetaldehyde	4.39	2.9	ppbV	136833	1	9.94	471923	10.0
Methyl Alcohol	4.46	5.2	ppbV	244805	1	9.94	471923	10.0
Silanol, trimet...	8.86	1.0	ppbV	47589	1	9.94	471923	10.0
unknown	10.81	1.1	ppbV	51674	1	9.94	471923	10.0
Cyclopentanone	15.14	3.8	ppbV	425541	3	16.63	1111200	10.0
Cyclotrisiloxan...	16.29	1.2	ppbV	131237	3	16.63	1111200	10.0
Nonanal	19.70	1.2	ppbV	134977	3	16.63	1111200	10.0
unknown siloxane	20.18	1.8	ppbV	198177	3	16.63	1111200	10.0

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-09DL	Date Collected :	08/27/15 14:22
Client ID	: UPS-SS-1	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 03:06
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.193
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111410	Instrument ID	: AIRLAB11
Sample Amount	: 114 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	ND	0.44	--	ND	2	--	U
74-87-3	Chloromethane	ND	0.44	--	ND	0.9	--	U
76-14-2	Freon-114	ND	0.44	--	ND	3.	--	U
75-01-4	Vinyl chloride	ND	0.44	--	ND	1.	--	U
106-99-0	1,3-Butadiene	ND	0.44	--	ND	1.	--	U
74-83-9	Bromomethane	ND	0.44	--	ND	2.	--	U
75-00-3	Chloroethane	ND	0.44	--	ND	1.	--	U
64-17-5	Ethanol	13	5.5	--	24	10	--	
593-60-2	Vinyl bromide	ND	0.44	--	ND	2.	--	U
67-64-1	Acetone	3.6	2.2	--	9	5	--	
75-69-4	Trichlorofluoromethane	0.80	0.44	--	4	2	--	
67-63-0	Isopropanol	ND	1.1	--	ND	3.	--	U
75-35-4	1,1-Dichloroethene	ND	0.44	--	ND	2.	--	U
75-65-0	Tertiary butyl Alcohol	ND	1.1	--	ND	3	--	U
75-09-2	Methylene chloride	ND	1.1	--	ND	4	--	U
107-05-1	3-Chloropropene	ND	0.44	--	ND	1.	--	U
75-15-0	Carbon disulfide	ND	0.44	--	ND	1	--	U
76-13-1	Freon-113	ND	0.44	--	ND	3.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.44	--	ND	2.	--	U
75-34-3	1,1-Dichloroethane	ND	0.44	--	ND	2.	--	U
1634-04-4	Methyl tert butyl ether	ND	0.44	--	ND	2.	--	U
78-93-3	2-Butanone	ND	1.1	--	ND	3	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.44	--	ND	2.	--	U
67-66-3	Chloroform	ND	0.44	--	ND	2	--	U
109-99-9	Tetrahydrofuran	ND	1.1	--	ND	3.	--	U
107-06-2	1,2-Dichloroethane	ND	0.44	--	ND	2.	--	U
110-54-3	n-Hexane	ND	0.44	--	ND	2.	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.44	--	ND	2.	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-09DL	Date Collected :	08/27/15 14:22
Client ID	: UPS-SS-1	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 03:06
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.193
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111410	Instrument ID	: AIRLAB11
Sample Amount	: 114 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	ND	0.44	--	ND	1.	--	U
56-23-5	Carbon tetrachloride	ND	0.44	--	ND	3.	--	U
110-82-7	Cyclohexane	ND	0.44	--	ND	2.	--	U
78-87-5	1,2-Dichloropropane	ND	0.44	--	ND	2.	--	U
75-27-4	Bromodichloromethane	ND	0.44	--	ND	3.	--	U
123-91-1	1,4-Dioxane	ND	0.44	--	ND	2.	--	U
79-01-6	Trichloroethene	15	0.44	--	81	2.4	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.44	--	ND	2.	--	U
80-62-6	Methyl Methacrylate	ND	1.1	--	ND	5.	--	U
142-82-5	Heptane	ND	0.44	--	ND	2.	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.44	--	ND	2.	--	U
108-10-1	4-Methyl-2-pentanone	ND	1.1	--	ND	5.	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.44	--	ND	2.	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.44	--	ND	2.	--	U
108-88-3	Toluene	1.3	0.44	--	5	2	--	
124-48-1	Dibromochloromethane	ND	0.44	--	ND	4.	--	U
106-93-4	1,2-Dibromoethane	ND	0.44	--	ND	3.	--	U
127-18-4	Tetrachloroethene	46	0.44	--	310	3.0	--	
108-90-7	Chlorobenzene	ND	0.44	--	ND	2.	--	U
100-41-4	Ethylbenzene	ND	0.44	--	ND	2	--	U
179601-23-1	p/m-Xylene	1.1	0.88	--	5	4	--	
75-25-2	Bromoform	ND	0.44	--	ND	5.	--	U
100-42-5	Styrene	ND	0.44	--	ND	2.	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.44	--	ND	3.	--	U
95-47-6	o-Xylene	0.44	0.44	--	2	2	--	
95-49-8	2-Chlorotoluene	ND	0.44	--	ND	2.	--	U
622-96-8	4-Ethyltoluene	ND	0.44	--	ND	2	--	U
108-67-8	1,3,5-Trimethybenzene	ND	0.44	--	ND	2	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-09DL	Date Collected :	08/27/15 14:22
Client ID	: UPS-SS-1	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 03:06
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.193
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111410	Instrument ID	: AIRLAB11
Sample Amount	: 114 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	1.3	0.44	--	6	2	--	
541-73-1	1,3-Dichlorobenzene	ND	0.44	--	ND	3.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.44	--	ND	3.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.44	--	ND	3.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.44	--	ND	3.	--	U
87-68-3	Hexachlorobutadiene	ND	0.44	--	ND	5.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111410.d
Acq On : 3 Sep 2015 3:06 am
Operator : AIRLAB11:RY
Sample : L1521092-09D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 03 17:03:20 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.94	49	72154	10.000	ppbV	0.00
Standard Area = 81084			Recovery =		88.99%	
43) 1,4-difluorobenzene	12.16	114	434443	10.000	ppbV	0.02
Standard Area = 489060			Recovery =		88.83%	
67) chlorobenzene-D5	16.63	54	71946	10.000	ppbV	0.00
Standard Area = 80649			Recovery =		89.21%	
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.03	85	5322	0.173	ppbV	97
6) chloromethane	0.00		0	N.D.		
7) Freon-114	4.37		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	0.00		0	N.D.		
13) bromomethane	0.00		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	5.56	31	18998	5.838	ppbV	96
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.18	43	19999	1.662	ppbV #	92
21) trichlorofluoromethane	6.36	101	15734	0.364	ppbV	91
22) isopropyl alcohol	0.00		0	N.D.	d	
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	7.35	59	4385	0.210	ppbV	96
28) methylene chloride	7.35	49	2052	0.226	ppbV	93
29) 3-chloropropene	0.00		0	N.D.	d	
30) carbon disulfide	7.66	76	2022	0.066	ppbV #	1
31) Freon 113	7.68		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	0.00		0	N.D.	d	
36) 2-butanone	9.30	43	3546	0.239	ppbV #	93
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	10.10	83	1498	0.055	ppbV #	70
40) Tetrahydrofuran	0.00		0	N.D.	d	
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	9.99		0	N.D.		
48) 1,1,1-trichloroethane	0.00		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111410.d
Acq On : 3 Sep 2015 3:06 am
Operator : AIRLAB11:RY
Sample : L1521092-09D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 03 17:03:20 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50)	benzene	11.74		0	N.D.		
52)	carbon tetrachloride	11.91		0	N.D.		
53)	cyclohexane	12.05		0	N.D.		
56)	1,2-dichloropropane	0.00		0	N.D.		
57)	bromodichloromethane	0.00		0	N.D.	d	
58)	1,4-dioxane	0.00		0	N.D.		
59)	trichloroethene	12.94	130	154277	7.015	ppbV	98
60)	2,2,4-trimethylpentane	12.97		0	N.D.		
61)	methyl methacrylate	0.00		0	N.D.		
62)	heptane	0.00		0	N.D.		
63)	cis-1,3-dichloropropene	0.00		0	N.D.		
64)	4-methyl-2-pentanone	13.99		0	N.D.		
65)	trans-1,3-dichloropropene	0.00		0	N.D.		
66)	1,1,2-trichloroethane	0.00		0	N.D.		
68)	toluene	15.01	91	27260	0.604	ppbV	98
74)	dibromochloromethane	0.00		0	N.D.		
75)	1,2-dibromoethane	0.00		0	N.D.		
78)	tetrachloroethene	16.08	166	723158	20.890	ppbV	98
80)	chlorobenzene	16.68		0	N.D.		
81)	ethylbenzene	16.98	91	11515	0.187	ppbV	99
83)	m+p-xylene	17.11	91	26490	0.516	ppbV	98
84)	bromoform	0.00		0	N.D.		
85)	styrene	17.40		0	N.D.		
86)	1,1,2,2-tetrachloroethane	0.00		0	N.D.		
87)	o-xylene	17.49	91	10566	0.203	ppbV	91
93)	2-chlorotoluene	0.00		0	N.D.		
96)	4-ethyl toluene	18.42	105	9235	0.111	ppbV	99
97)	1,3,5-trimethylbenzene	18.48	105	10484	0.150	ppbV	92
99)	1,2,4-trimethylbenzene	18.79	105	39588	0.592	ppbV #	54
102)	1,3-dichlorobenzene	18.97		0	N.D.		
103)	1,4-dichlorobenzene	18.97		0	N.D.		
107)	1,2-dichlorobenzene	19.23		0	N.D.		
115)	1,2,4-trichlorobenzene	20.65		0	N.D.		
119)	hexachlorobutadiene	0.00		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111410.d
Acq On : 3 Sep 2015 3:06 am
Operator : AIRLAB11:RY
Sample : L1521092-09D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 03 17:03:20 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

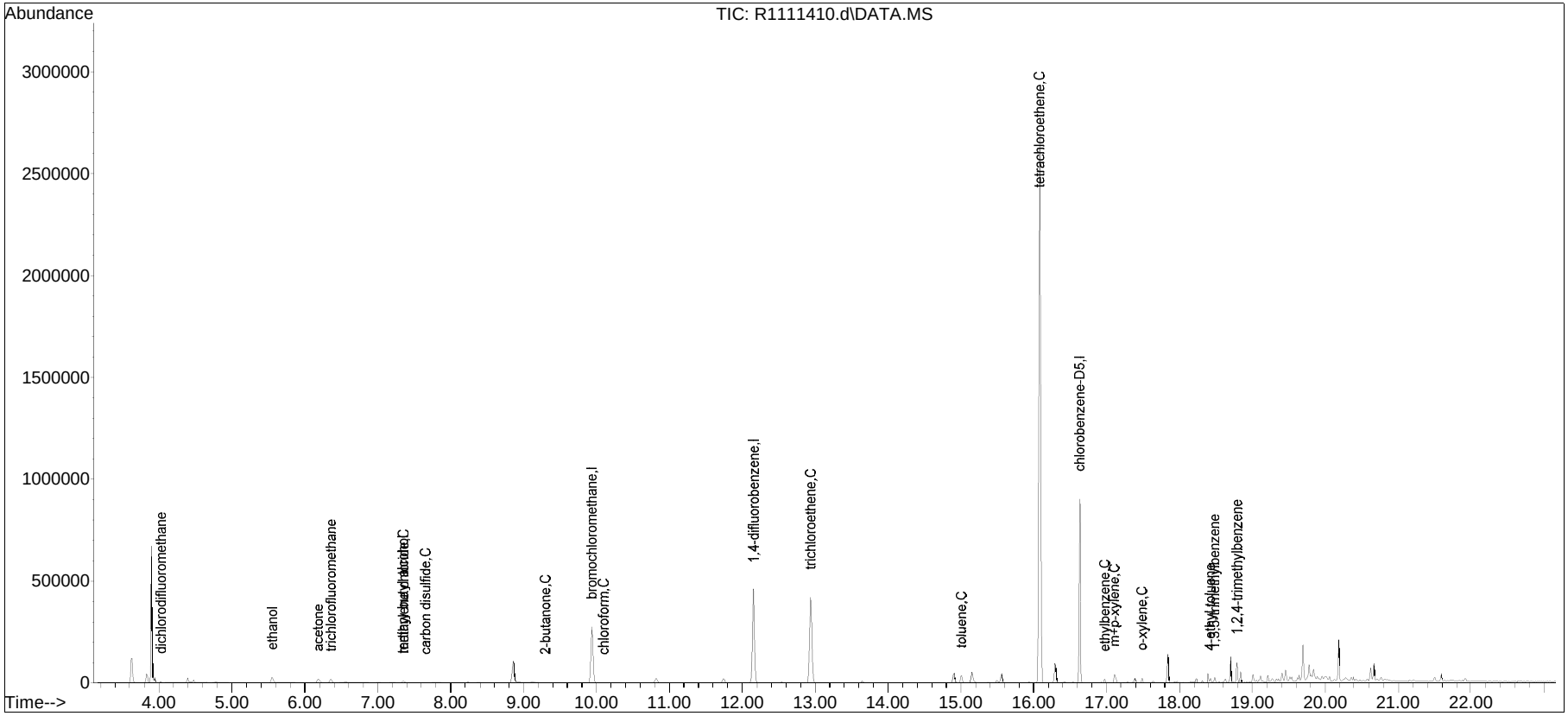
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Quantitation Report (QT Reviewed)

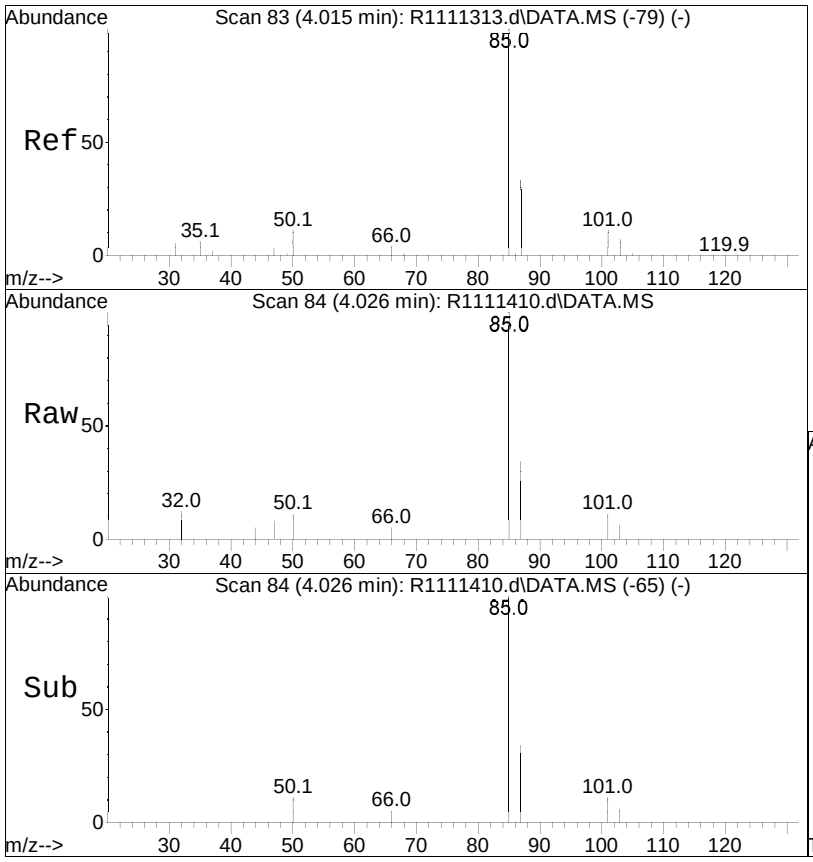
Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111410.d
Acq On : 3 Sep 2015 3:06 am
Operator : AIRLAB11:RY
Sample : L1521092-09D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 03 17:03:20 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

Sub List : NJ-LL_New - .Data\Airlab11\2015\150902T\R1111393.d



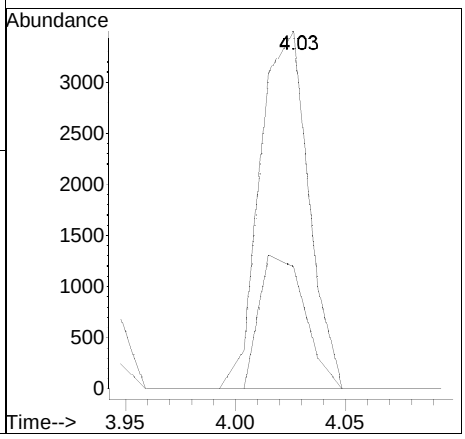
TALL150827.M Thu Sep 03 17:03:44 2015

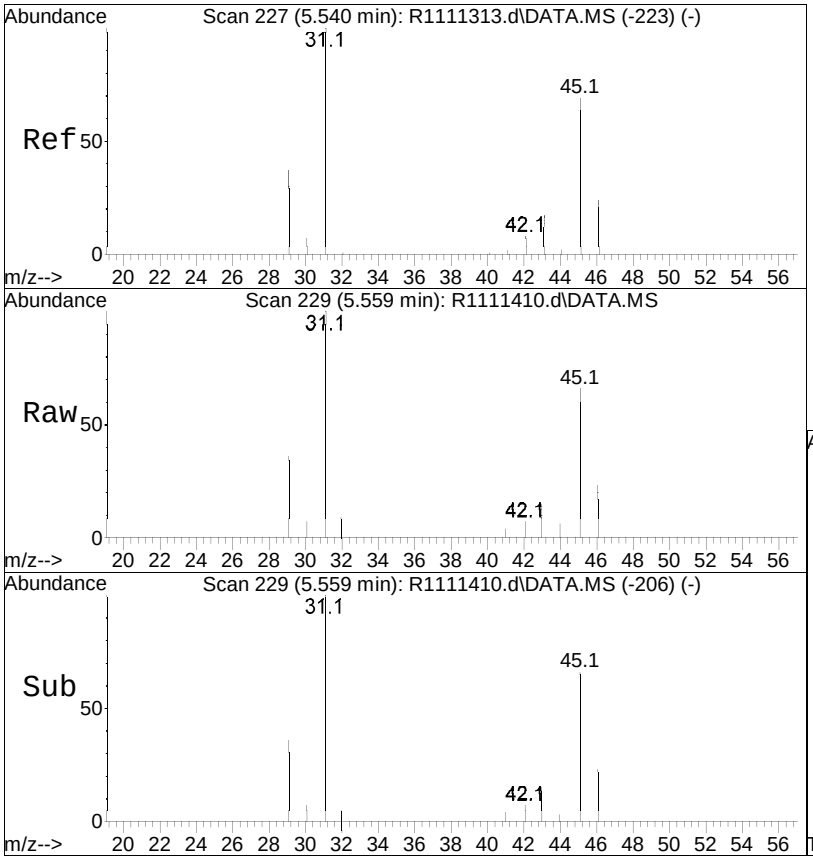


#5
dichlorodifluoromethane
Concen: 0.17 ppbV
RT: 4.03 min Scan# 84
Delta R.T. 0.011 min
Lab File: R1111410.d
Acq: 3 Sep 2015 3:06 am

Tgt Ion: 85 Resp: 5322

Ion	Ratio	Lower	Upper
85	100		
87	34.2	26.1	39.1

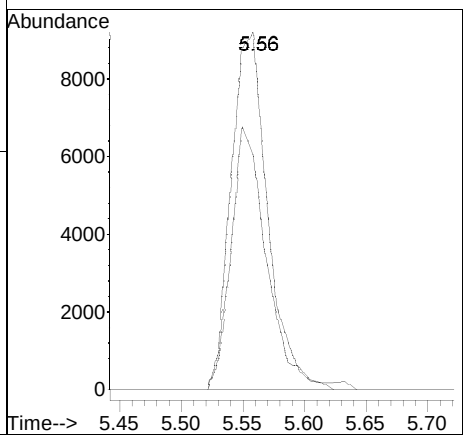


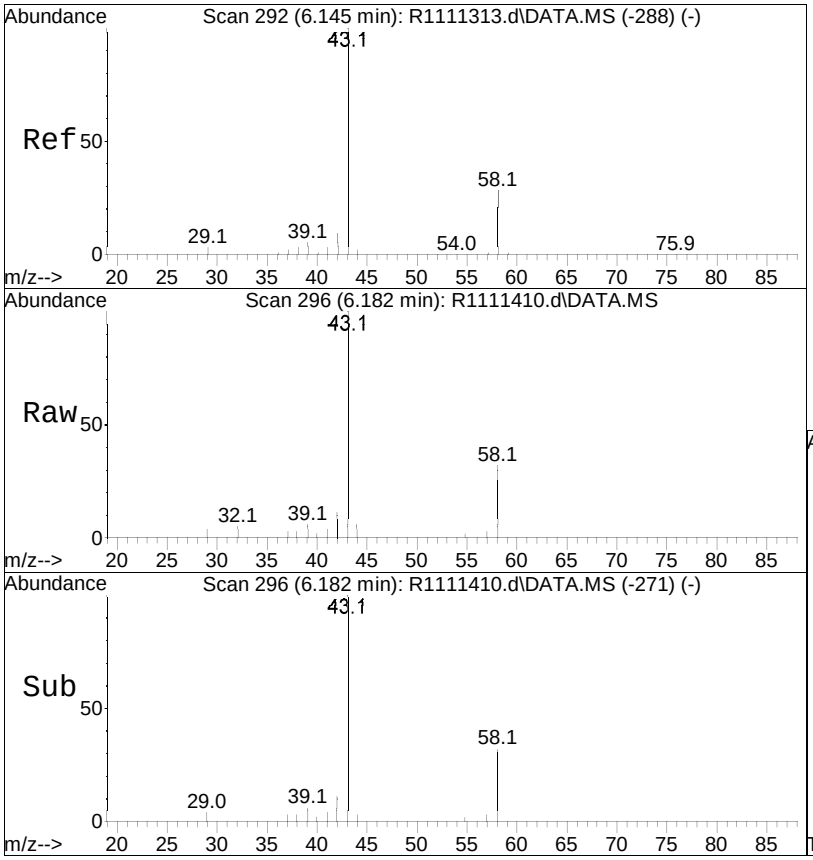


#15
ethanol
Concen: 5.84 ppbV
RT: 5.56 min Scan# 229
Delta R.T. 0.019 min
Lab File: R1111410.d
Acq: 3 Sep 2015 3:06 am

Tgt Ion: 31 Resp: 18998

Ion	Ratio	Lower	Upper
31	100		
45	65.9	55.4	83.2

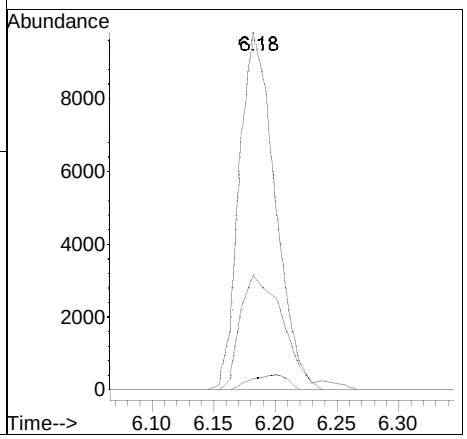


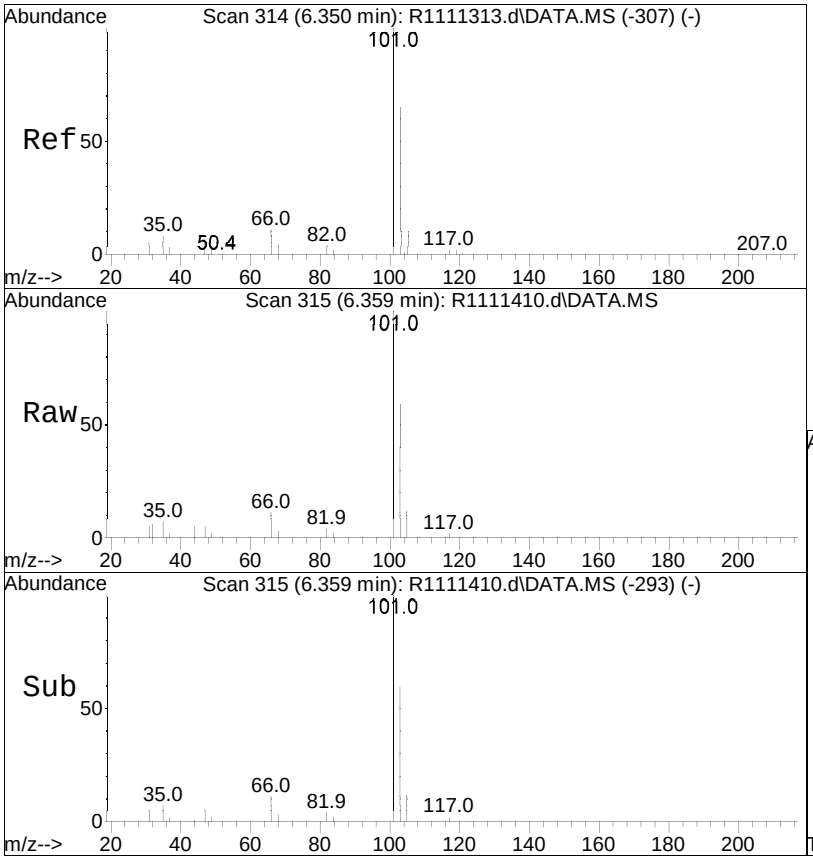


#19
acetone
Concen: 1.66 ppbV
RT: 6.18 min Scan# 296
Delta R.T. 0.037 min
Lab File: R1111410.d
Acq: 3 Sep 2015 3:06 am

Tgt Ion: 43 Resp: 19999

Ion	Ratio	Lower	Upper
43	100		
58	32.0	22.2	33.2
57	3.1	0.6	1.0#

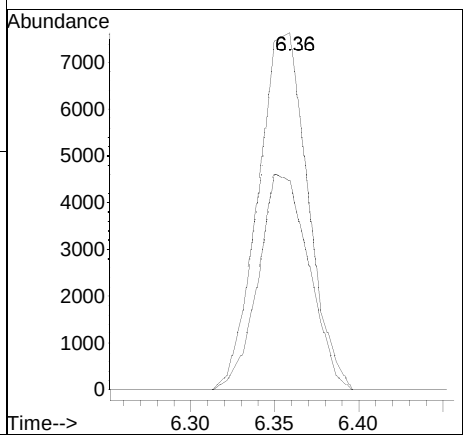


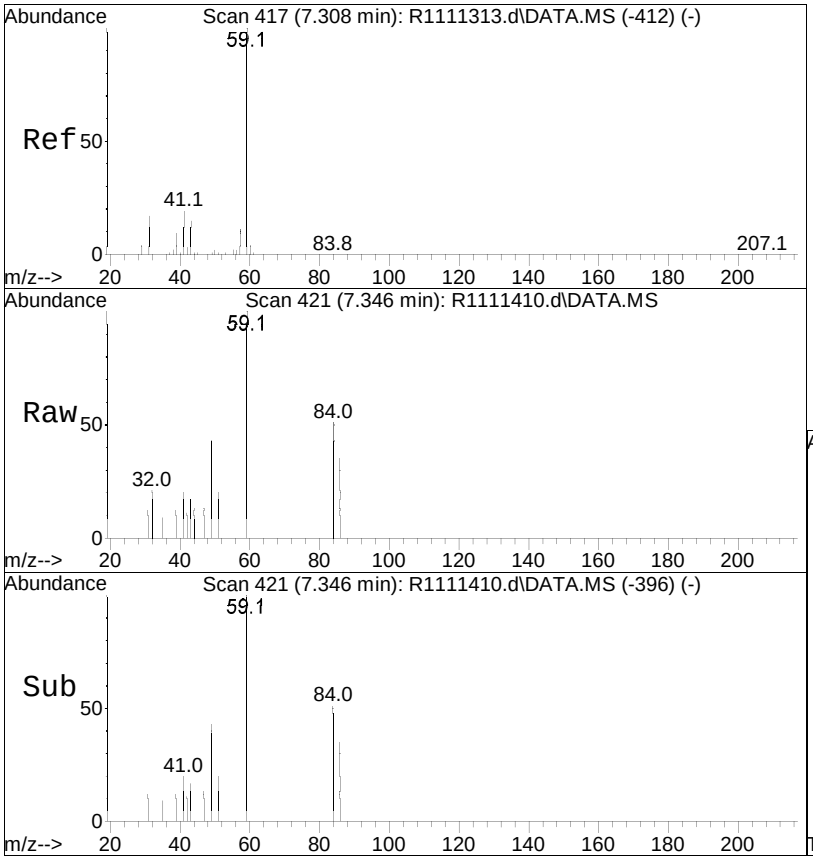


#21
trichlorofluoromethane
Concen: 0.36 ppbV
RT: 6.36 min Scan# 315
Delta R.T. 0.009 min
Lab File: R1111410.d
Acq: 3 Sep 2015 3:06 am

Tgt Ion:101 Resp: 15734

Ion	Ratio	Lower	Upper
101	100		
103	58.5	52.3	78.5

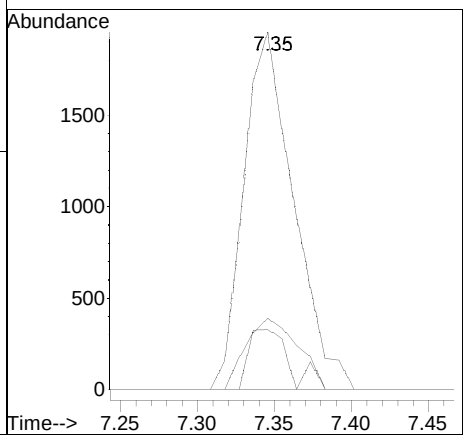


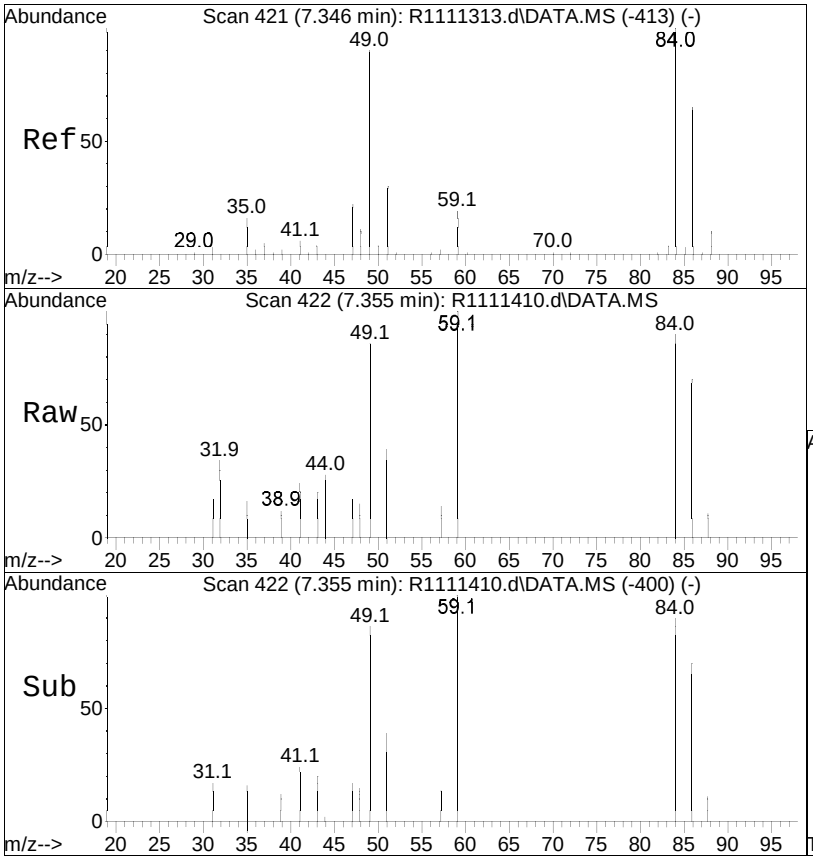


#27
tertiary butyl alcohol
Concen: 0.21 ppbV
RT: 7.35 min Scan# 421
Delta R.T. 0.037 min
Lab File: R1111410.d
Acq: 3 Sep 2015 3:06 am

Tgt Ion: 59 Resp: 4385

Ion	Ratio	Lower	Upper
59	100		
41	20.0	15.1	22.7
43	16.9	11.8	17.6

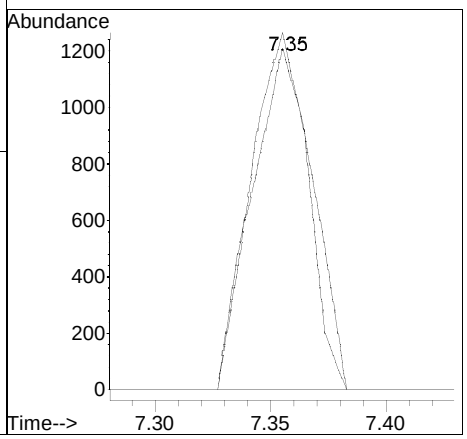


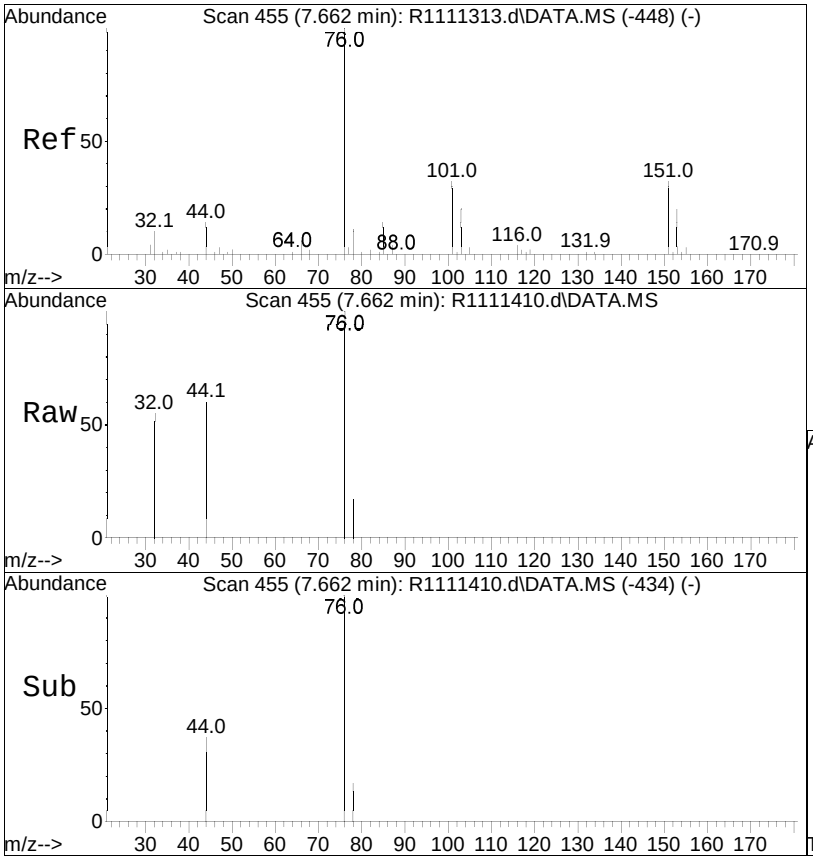


#28
methylene chloride
Concen: 0.23 ppbV
RT: 7.35 min Scan# 422
Delta R.T. 0.009 min
Lab File: R1111410.d
Acq: 3 Sep 2015 3:06 am

Tgt Ion: 49 Resp: 2052

Ion	Ratio	Lower	Upper
49	100		
84	104.3	89.0	133.4

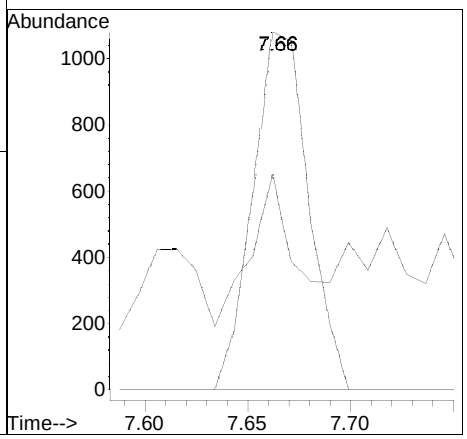


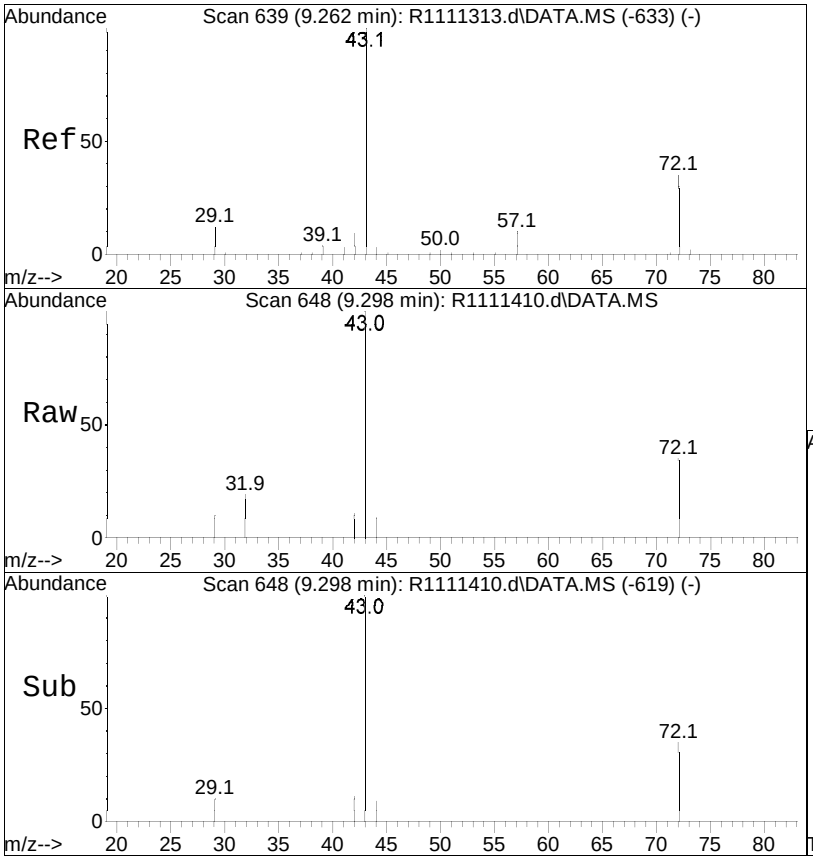


#30
carbon disulfide
Concen: 0.07 ppbV
RT: 7.66 min Scan# 455
Delta R.T. 0.000 min
Lab File: R1111410.d
Acq: 3 Sep 2015 3:06 am

Tgt Ion: 76 Resp: 2022

Ion	Ratio	Lower	Upper
76	100		
44	60.5	11.0	16.6#

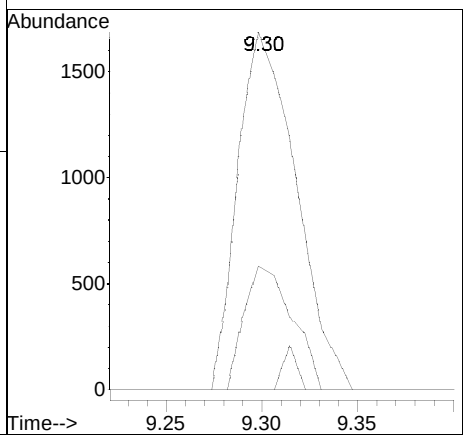


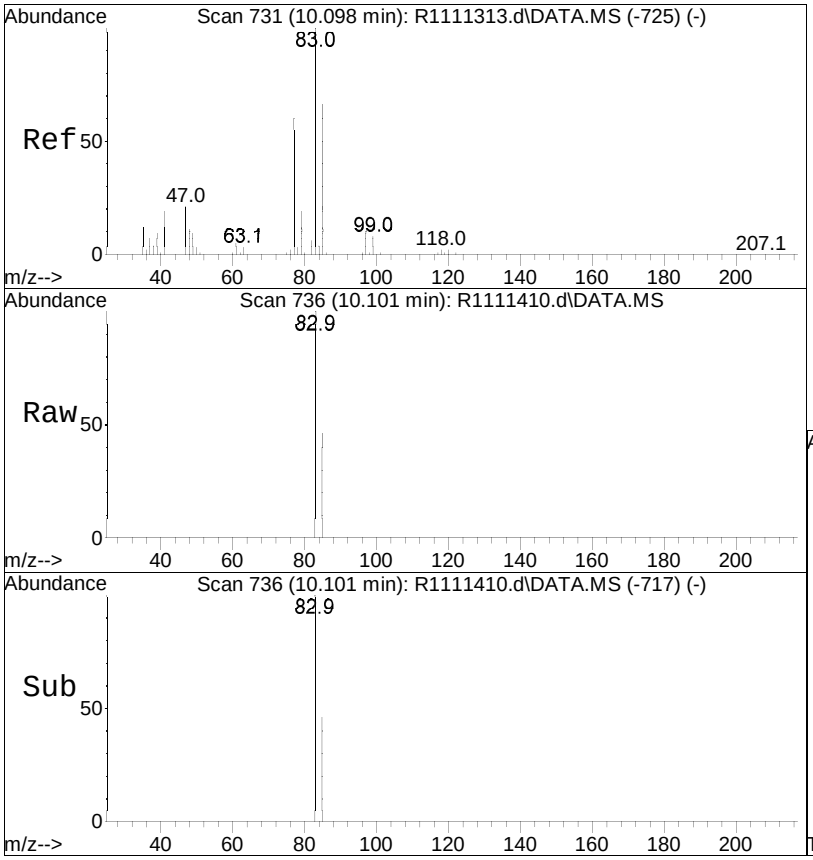


#36
2-butanone
Concen: 0.24 ppbV
RT: 9.30 min Scan# 648
Delta R.T. 0.036 min
Lab File: R1111410.d
Acq: 3 Sep 2015 3:06 am

Tgt Ion: 43 Resp: 3546

Ion	Ratio	Lower	Upper
43	100		
72	34.6	28.1	42.1
57	0.0	8.3	12.5#

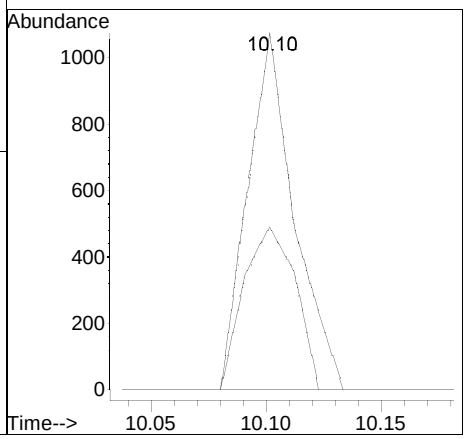


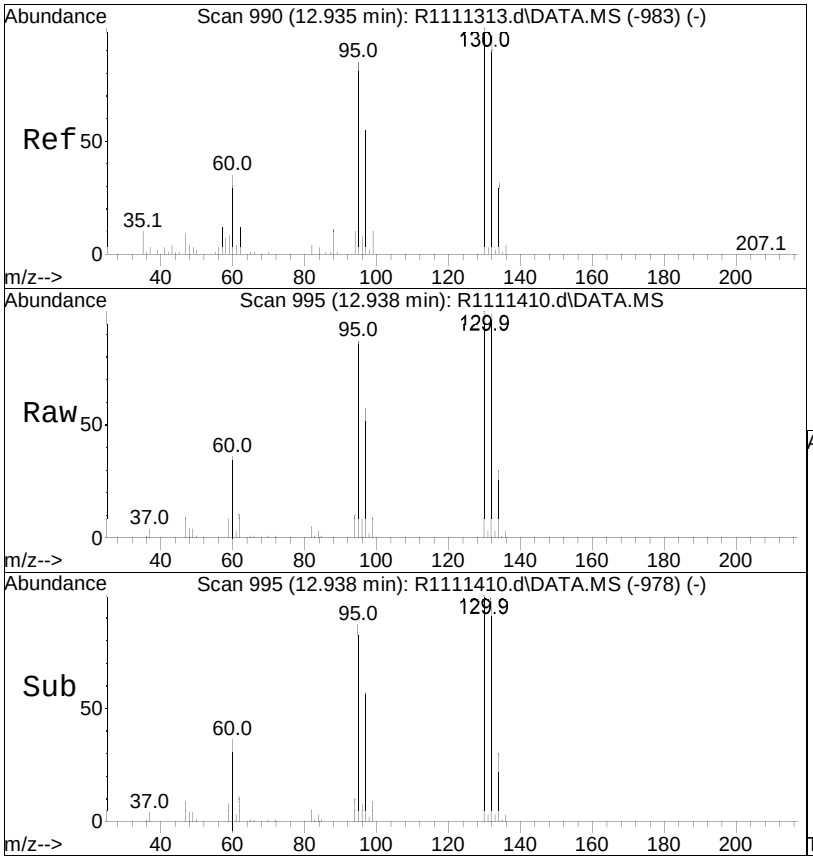


#39
chloroform
Concen: 0.05 ppbV
RT: 10.10 min Scan# 736
Delta R.T. 0.004 min
Lab File: R1111410.d
Acq: 3 Sep 2015 3:06 am

Tgt Ion: 83 Resp: 1498

Ion	Ratio	Lower	Upper
83	100		
85	45.7	52.4	78.6#
47	0.0	16.5	24.7#

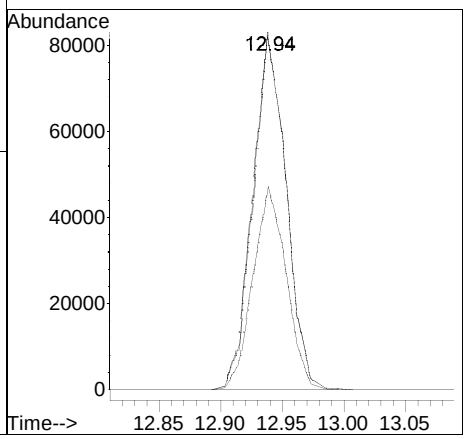


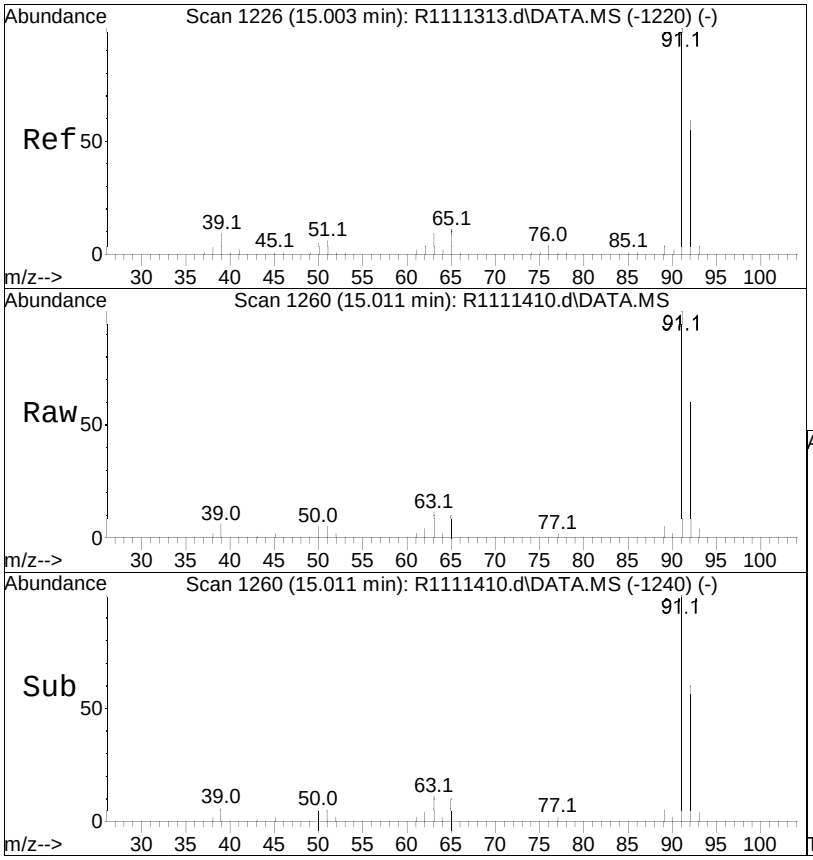


#59
trichloroethene
Concen: 7.01 ppbV
RT: 12.94 min Scan# 995
Delta R.T. 0.004 min
Lab File: R1111410.d
Acq: 3 Sep 2015 3:06 am

Tgt Ion:130 Resp: 154277

Ion	Ratio	Lower	Upper
130	100		
132	98.9	77.6	116.4
97	56.9	44.0	66.0

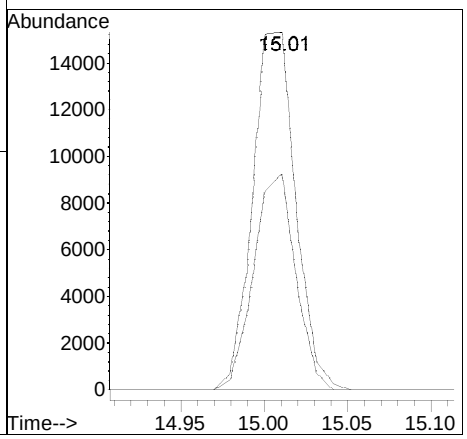


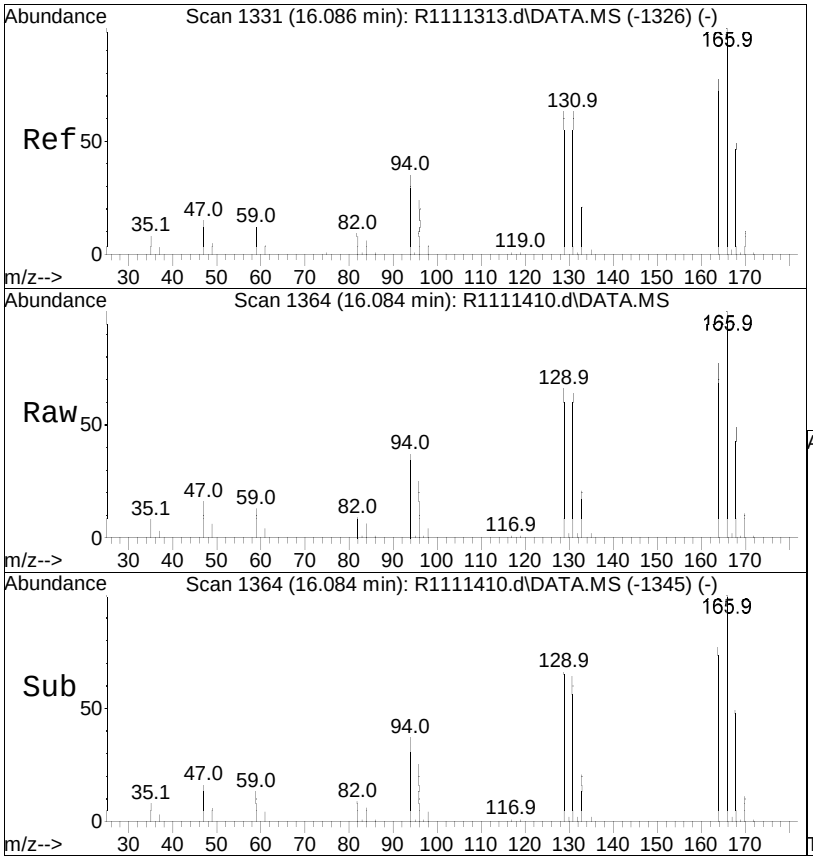


#68
toluene
Concen: 0.60 ppbV
RT: 15.01 min Scan# 1260
Delta R.T. 0.008 min
Lab File: R1111410.d
Acq: 3 Sep 2015 3:06 am

Tgt Ion: 91 Resp: 27260

Ion	Ratio	Lower	Upper
91	100		
92	60.5	47.0	70.6

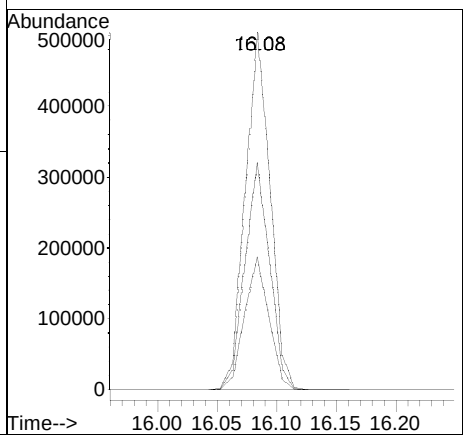


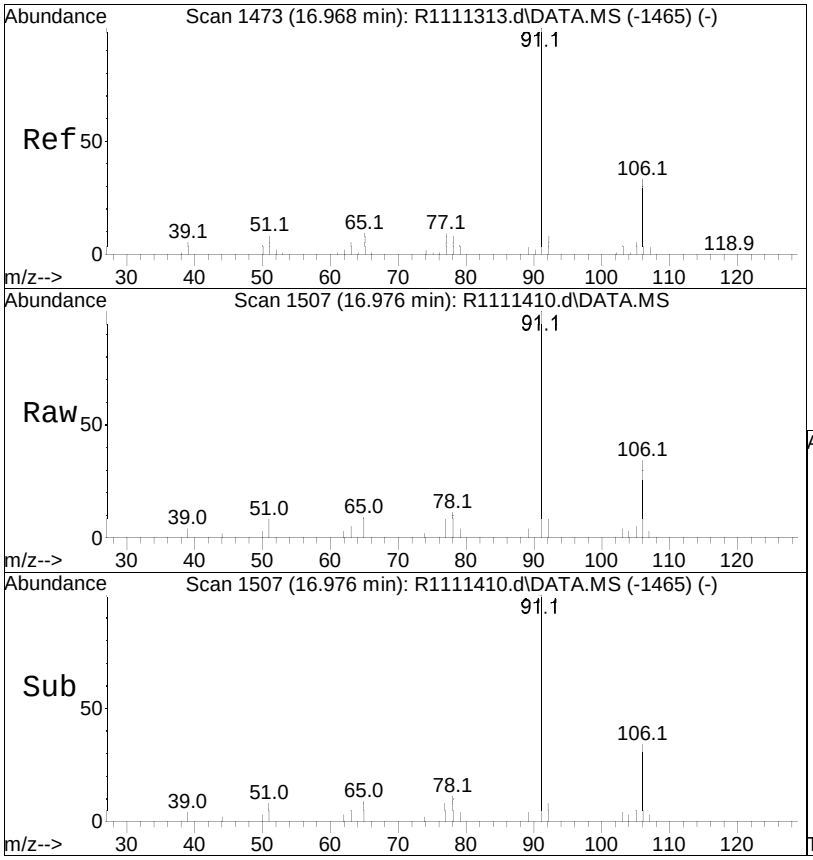


#78
tetrachloroethene
Concen: 20.89 ppbV
RT: 16.08 min Scan# 1364
Delta R.T. -0.002 min
Lab File: R1111410.d
Acq: 3 Sep 2015 3:06 am

Tgt Ion:166 Resp: 723158

Ion	Ratio	Lower	Upper
166	100		
131	63.6	50.1	75.1
94	37.1	28.2	42.4

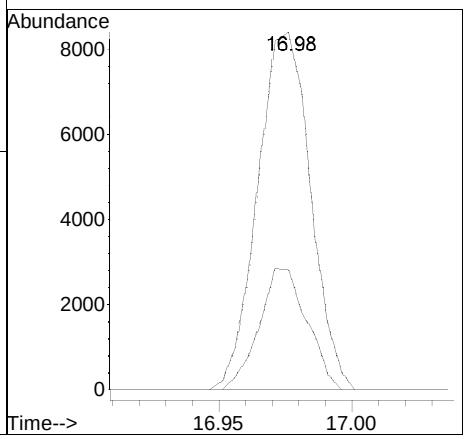


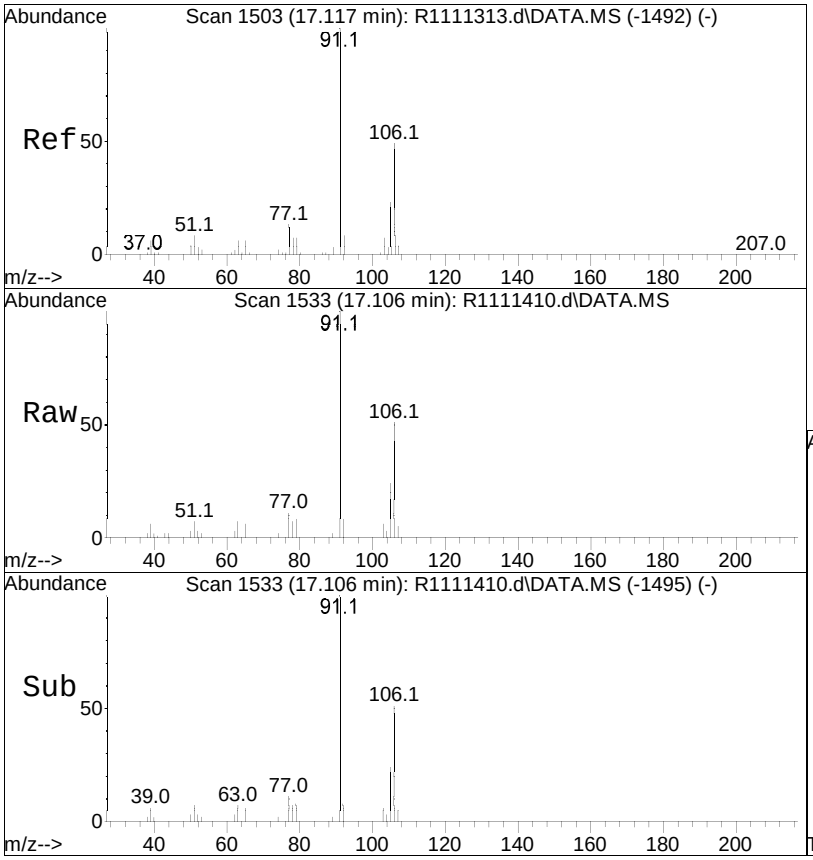


#81
ethylbenzene
Concen: 0.19 ppbV
RT: 16.98 min Scan# 1507
Delta R.T. 0.008 min
Lab File: R1111410.d
Acq: 3 Sep 2015 3:06 am

Tgt Ion: 91 Resp: 11515

Ion	Ratio	Lower	Upper
91	100		
106	33.7	26.6	39.8

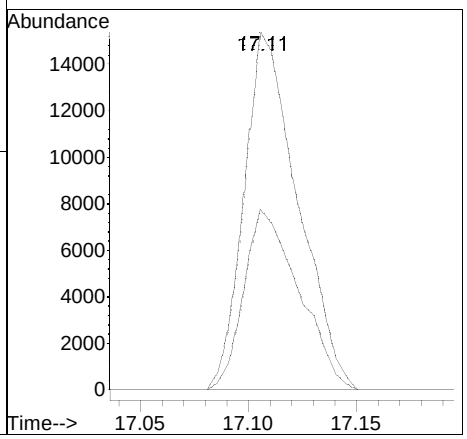


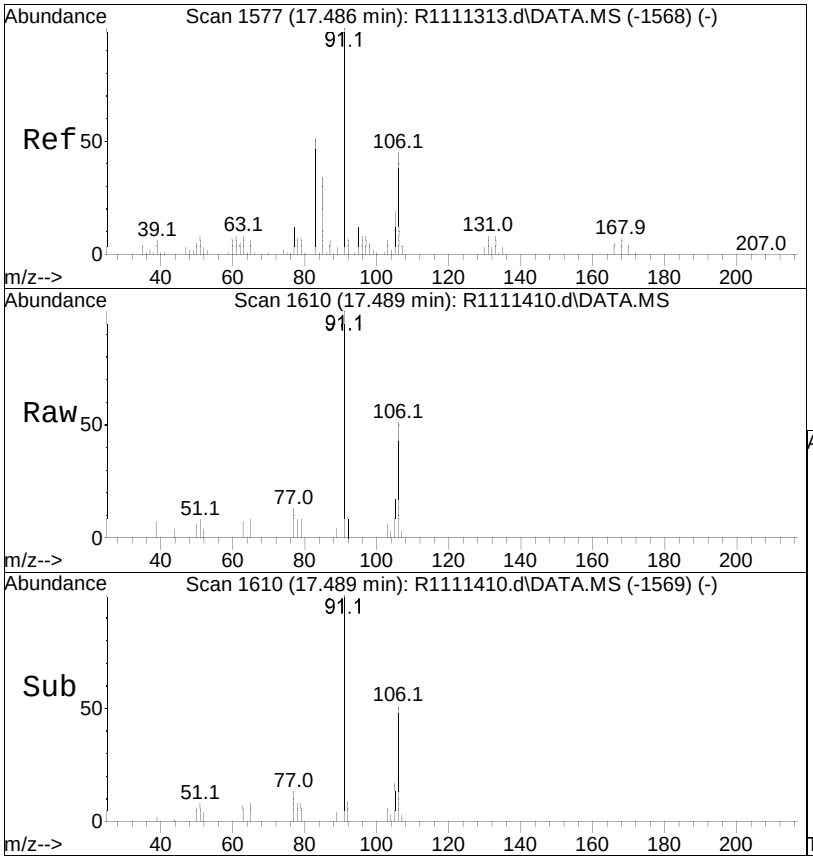


#83
m+p-xylene
Concen: 0.52 ppbV
RT: 17.11 min Scan# 1533
Delta R.T. -0.012 min
Lab File: R1111410.d
Acq: 3 Sep 2015 3:06 am

Tgt Ion: 91 Resp: 26490

Ion	Ratio	Lower	Upper
91	100		
106	50.6	39.4	59.0

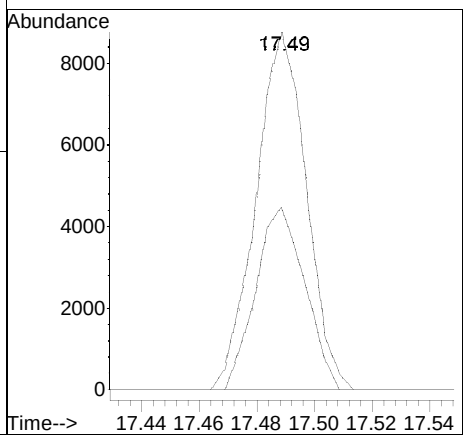


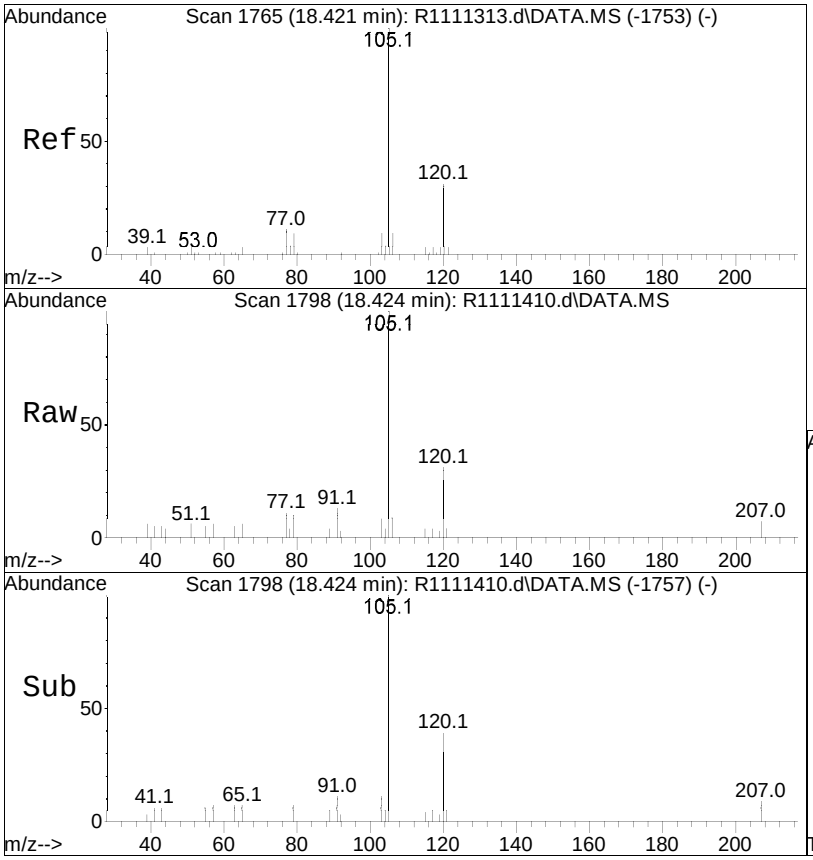


#87
o-xylene
Concen: 0.20 ppbV
RT: 17.49 min Scan# 1610
Delta R.T. 0.003 min
Lab File: R1111410.d
Acq: 3 Sep 2015 3:06 am

Tgt Ion: 91 Resp: 10566

Ion	Ratio	Lower	Upper
91	100		
106	51.4	36.3	54.5

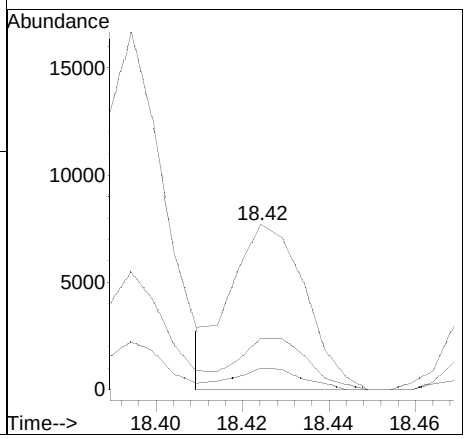


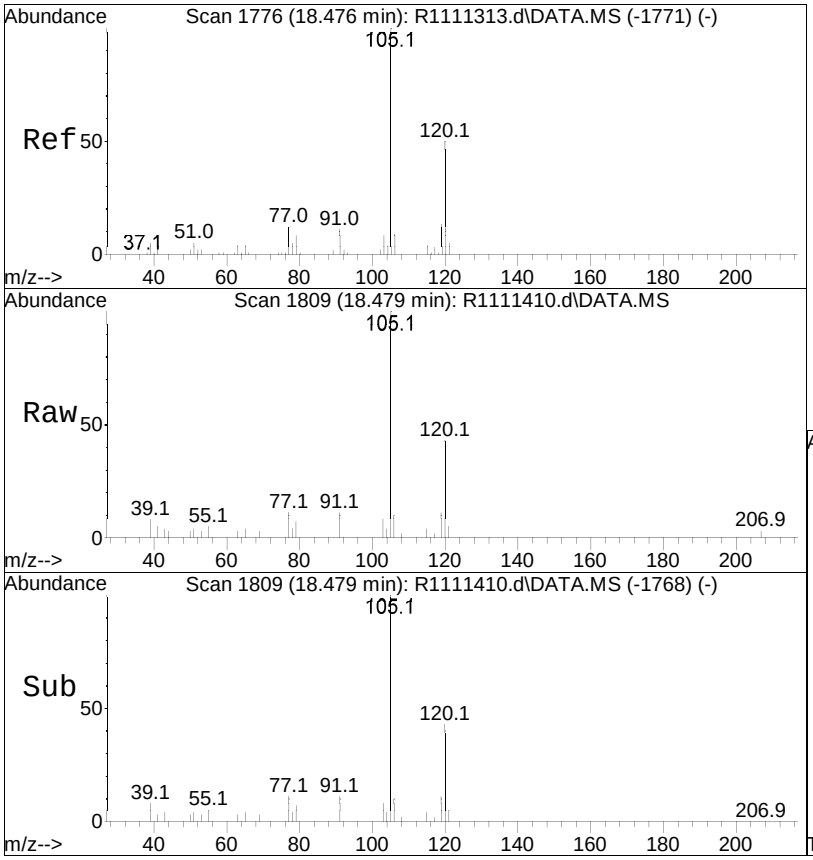


#96
4-ethyl toluene
Concen: 0.11 ppbV
RT: 18.42 min Scan# 1798
Delta R.T. 0.003 min
Lab File: R1111410.d
Acq: 3 Sep 2015 3:06 am

Tgt Ion:105 Resp: 9235

Ion	Ratio	Lower	Upper
105	100		
120	30.8	25.0	37.6
91	13.0	9.5	14.3

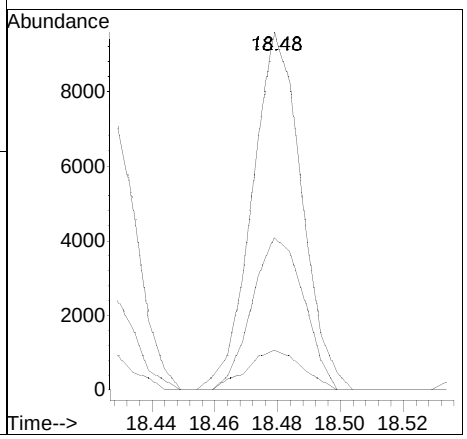


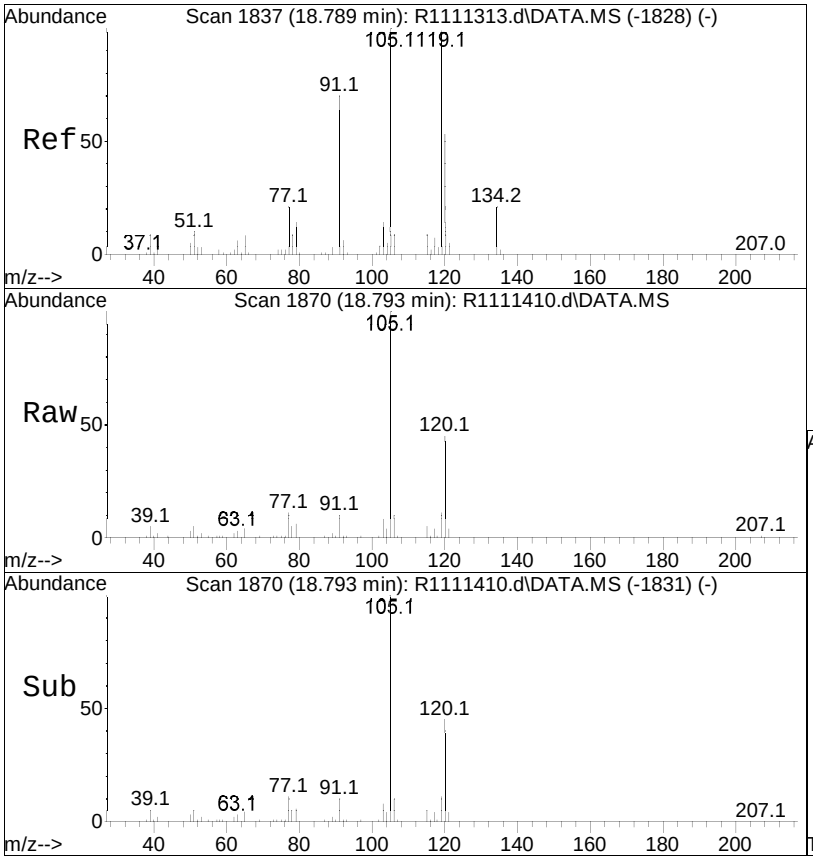


#97
1,3,5-trimethylbenzene
Concen: 0.15 ppbV
RT: 18.48 min Scan# 1809
Delta R.T. 0.003 min
Lab File: R1111410.d
Acq: 3 Sep 2015 3:06 am

Tgt Ion:105 Resp: 10484

Ion	Ratio	Lower	Upper
105	100		
120	42.8	39.7	59.5
91	11.2	8.9	13.3

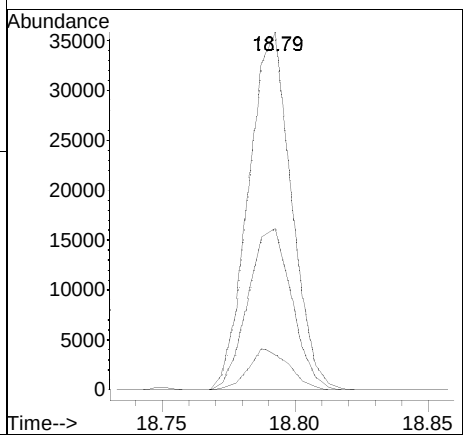




#99
1,2,4-trimethylbenzene
Concen: 0.59 ppbV
RT: 18.79 min Scan# 1870
Delta R.T. 0.003 min
Lab File: R1111410.d
Acq: 3 Sep 2015 3:06 am

Tgt Ion:105 Resp: 39588

Ion	Ratio	Lower	Upper
105	100		
120	45.2	42.2	63.2
91	10.0	55.8	83.6#



Manual Integration/Negative Proof Report

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Data Path   : O:\Forensics\Data\Airlab11\QMethod     : TALL150827.M
Data File   : R1111410.d                 Operator    : AIRLAB11:RY
Date Inj'd  : 9/3/2015  3:06 am          Instrument  : Airlab 11
Sample      : L1521092-09D,3,114.0203,250Quant Date  : 9/3/2015  8:53 am
```

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-09DL	Date Collected :	08/27/15 14:22
Client ID	: UPS-SS-1	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 03:06
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.193
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111410	Instrument ID	: AIRLAB11
Sample Amount	: 114 ml	GC Column	: RTX-1

Number TICS found: 5

Concentration Units: ppbV

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
001066-40-6	Silanol, trimethyl-	8.86	9.7	NJD
000541-05-9	Cyclotrisiloxane, hexamethyl-	16.29	3	NJD
	unknown siloxane	18.70	2.9	JD
000124-19-6	Nonanal	19.70	4.3	NJD
	unknown siloxane	20.18	5.2	JD
	Total TIC Compounds		25.1	

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111410.d
Acq On : 3 Sep 2015 3:06 am
Operator : AIRLAB11:RY
Sample : L1521092-09D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 9 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R1111410.d\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.549	224	228	236	rBV	25812	52942	1.37%	0.539%
2	8.857	589	594	603	rBV	103717	222934	5.76%	2.271%
3	9.941	717	721	728	rBB	274800	501961	12.98%	5.114%
4	12.147	923	927	932	rBV	461822	927014	23.97%	9.444%
5	12.938	991	995	999	rBV	418306	777135	20.09%	7.917%
6	14.907	1246	1250	1255	rBB2	44999	83845	2.17%	0.854%
7	15.011	1256	1260	1264	rVB	34706	60115	1.55%	0.612%
8	15.155	1270	1274	1280	rBV	51308	101912	2.64%	1.038%
9	15.558	1310	1313	1319	rVB	44264	78104	2.02%	0.796%
10	16.084	1360	1364	1368	rBV	2699994	3867484	100.00%	39.401%
11	16.290	1380	1384	1388	rBV	93335	164289	4.25%	1.674%
12	16.633	1431	1438	1447	rBV	901793	1192024	30.82%	12.144%
13	17.106	1526	1533	1542	rBB	41516	74744	1.93%	0.761%
14	17.842	1675	1681	1690	rVB	139686	161956	4.19%	1.650%
15	18.394	1785	1792	1796	rBV2	45548	54034	1.40%	0.550%
16	18.698	1841	1851	1858	rBV2	123243	158786	4.11%	1.618%
17	18.793	1864	1870	1874	rBV	96356	109434	2.83%	1.115%
18	18.837	1874	1879	1886	rVV	51736	56099	1.45%	0.572%
19	19.011	1909	1914	1920	rBV	37462	50383	1.30%	0.513%
20	19.116	1927	1935	1938	rBV3	29158	44305	1.15%	0.451%
21	19.404	1988	1993	1998	rBV4	40379	56413	1.46%	0.575%
22	19.453	1998	2003	2010	rVV	55925	76937	1.99%	0.784%
23	19.702	2045	2053	2059	rVV	173384	232947	6.02%	2.373%
24	19.781	2060	2069	2073	rVV2	74743	109272	2.83%	1.113%
25	19.841	2077	2081	2088	rVB4	47189	70983	1.84%	0.723%
26	20.184	2143	2150	2158	rVB	202853	282279	7.30%	2.876%
27	20.620	2222	2225	2227	rBV	63951	80279	2.08%	0.818%
28	20.669	2227	2230	2232	rVB	82312	114735	2.97%	1.169%

LSC Area Percent Report

```
Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111410.d
Acq On    :  3 Sep 2015   3:06 am
Operator  : AIRLAB11:RY
Sample    : L1521092-09D,3,114.0203,250
Misc      : WG817978,ICAL11393
ALS Vial  : 9   Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON                            Filtering: 5
Sampling  : 1                              Min Area: 3 % of largest Peak
Start Thrs: 0.2                           Max Peaks: 100
Stop Thrs : 0                         Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method    : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title     : TO-14A/TO-15 SIM/Full Scan Analysis

29  21.585  2320 2323 2326 rVB    37682     52390   1.35%   0.534%

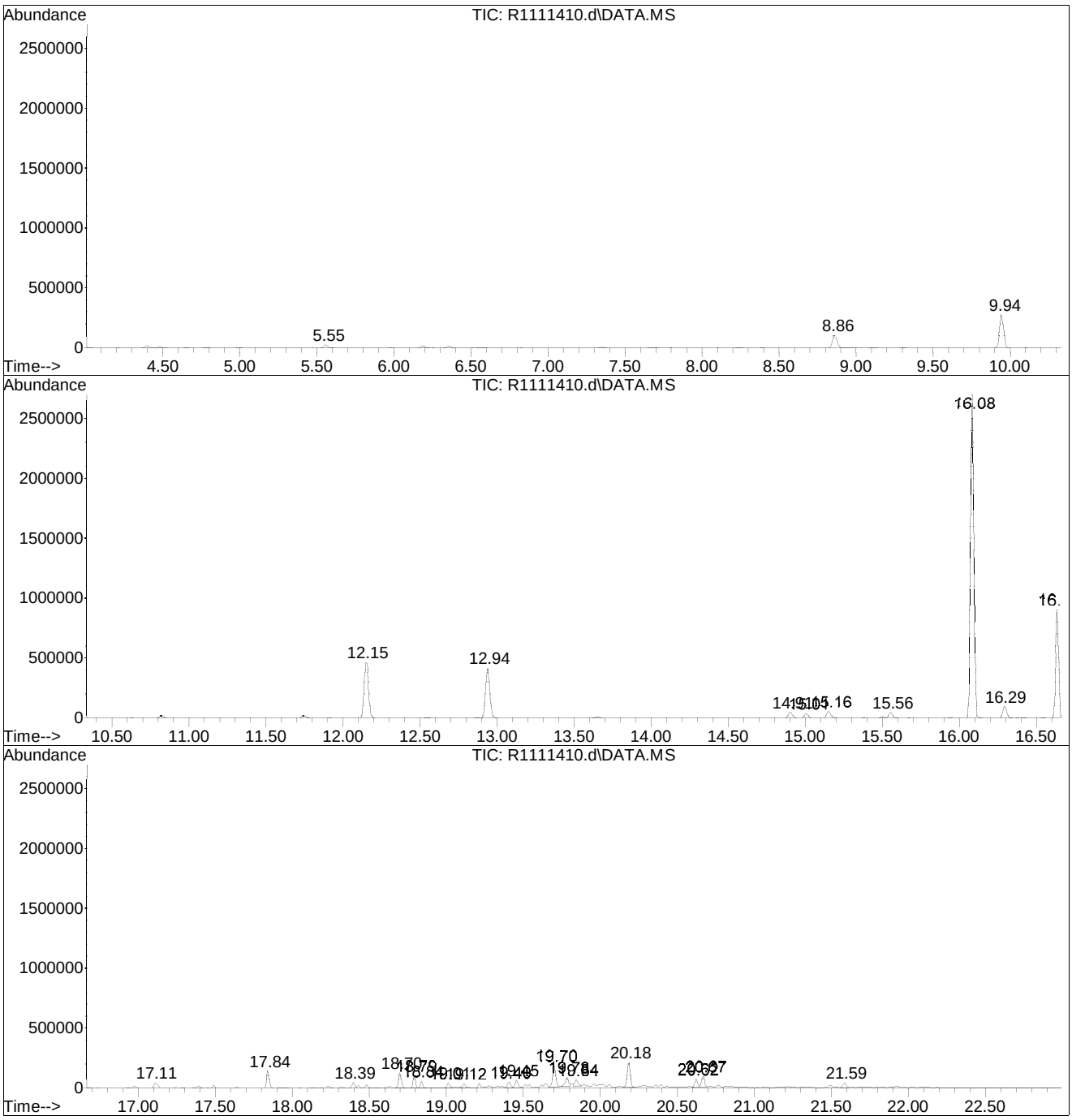

                      Sum of corrected areas:     9815735
```

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111410.d
Acq On : 3 Sep 2015 3:06 am
Operator : AIRLAB11:RY
Sample : L1521092-09D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 9 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111410.d
Acq On : 3 Sep 2015 3:06 am
Operator : AIRLAB11:RY
Sample : L1521092-09D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 9 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

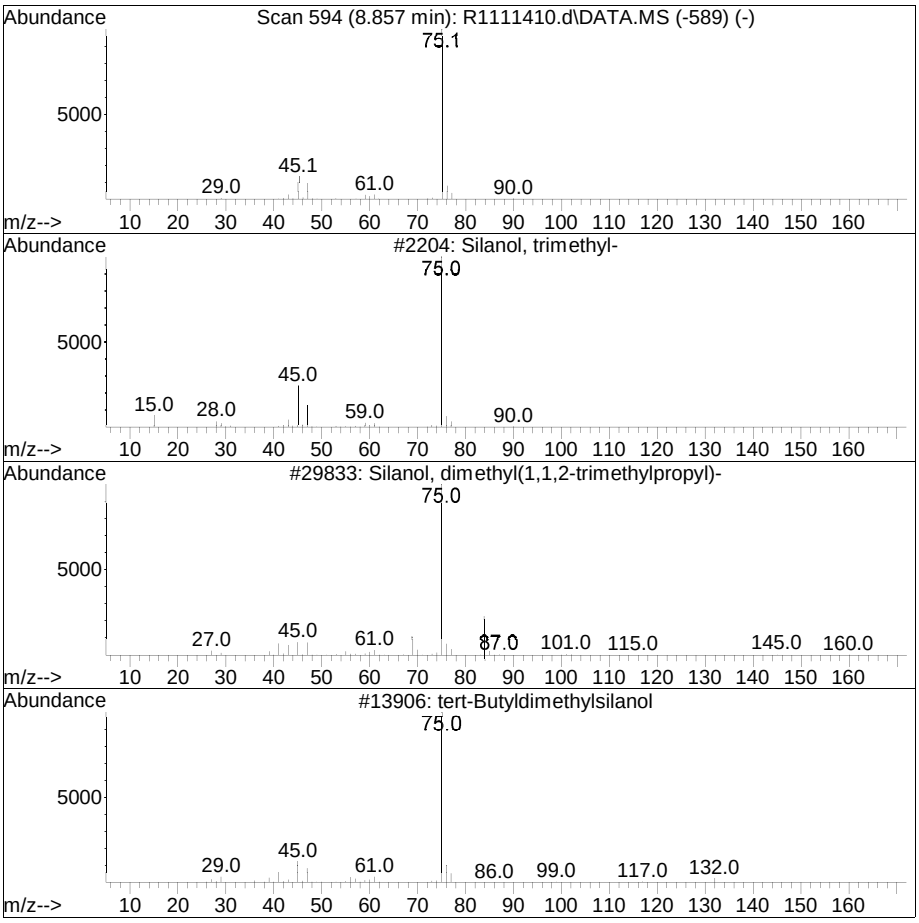
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

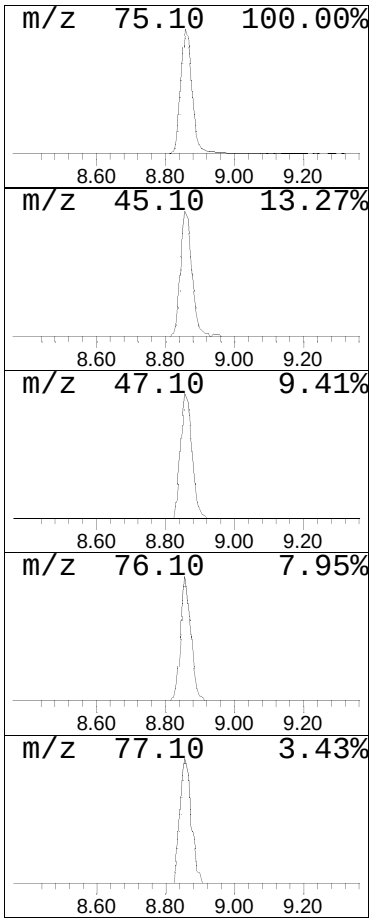
****

Peak Number 1 Silanol, trimethyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.86	4.44 ppbV	222934	bromochloromethane	9.94

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	91
2	Silanol, dimethyl(1,1,2-trimethy...	160	C8H20OSi	055644-10-5	83
3	tert-Butyldimethylsilanol	132	C6H16OSi	018173-64-3	83
4	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	78
5	Ethanol, 2-(trimethylsilyl)-	118	C5H14OSi	002916-68-9	43





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111410.d
Acq On : 3 Sep 2015 3:06 am
Operator : AIRLAB11:RY
Sample : L1521092-09D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 9 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

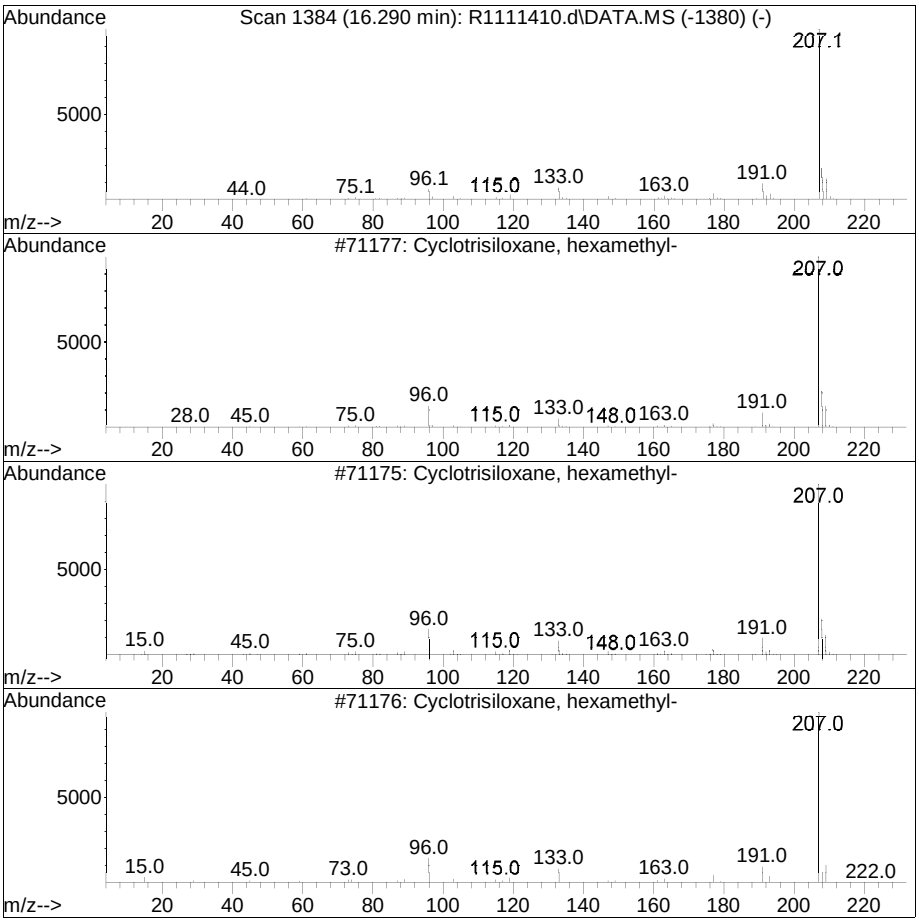
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

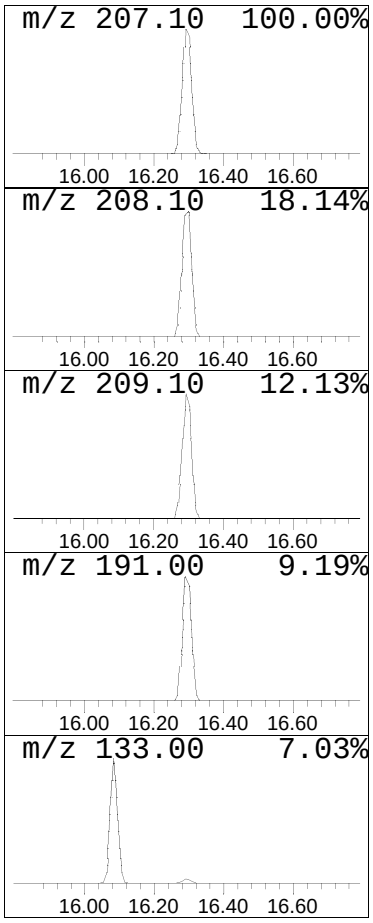
****

Peak Number 2 Cyclotrisiloxane, hexamethyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.29	1.38 ppbV	164289	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	86
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	78
4	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	39
5	Benzo[h]quinoline, 2,4-dimethyl-	207	C15H13N	000605-67-4	38





Library Search Compound Report

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Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111410.d
Acq On    :  3 Sep 2015   3:06 am
Operator  : AIRLAB11:RY
Sample    : L1521092-09D,3,114.0203,250
Misc      : WG817978,ICAL11393
ALS Vial  : 9   Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title  : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library   : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P
```
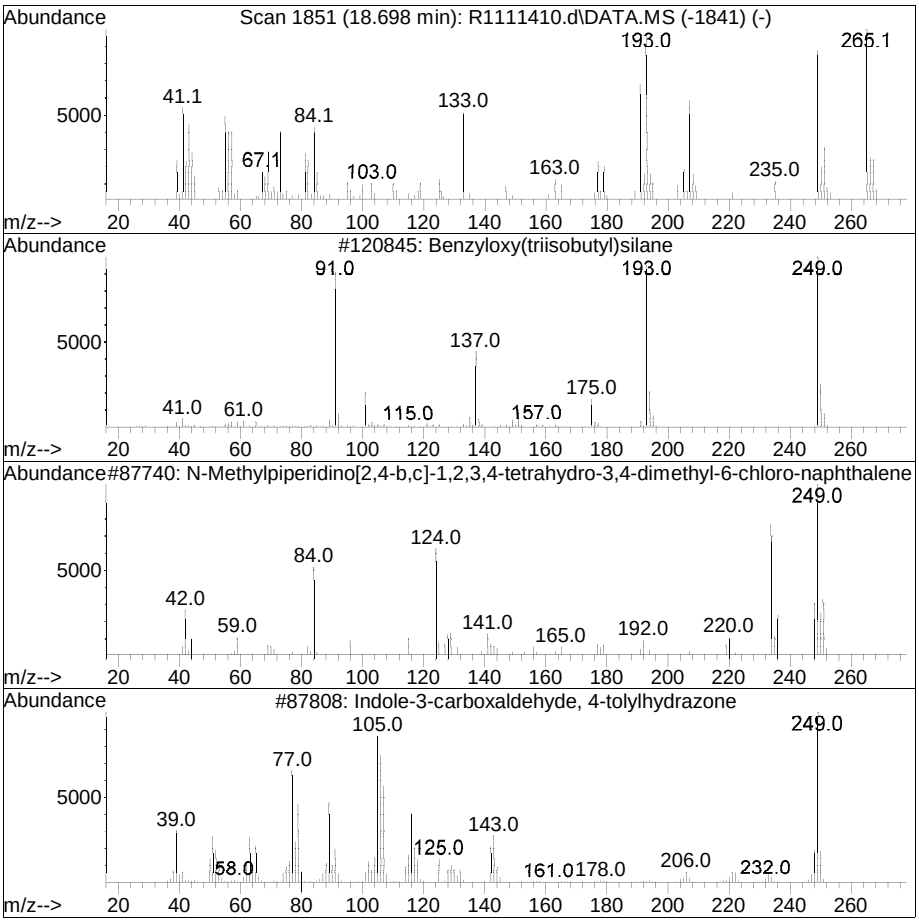
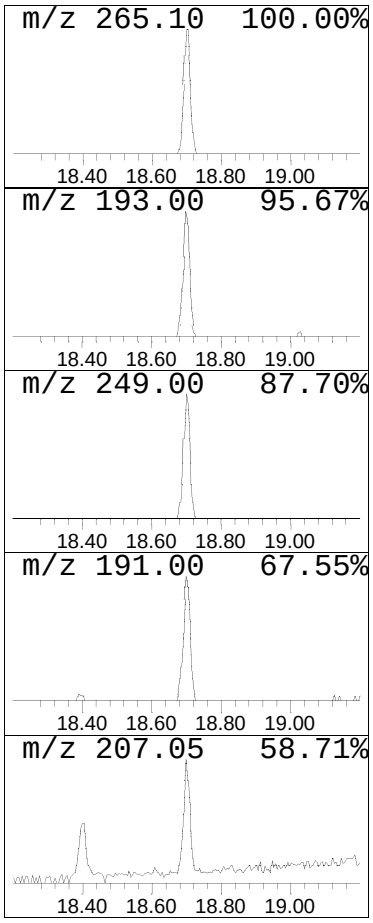

****

Peak Number 4 unknown siloxane Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.70	1.33 ppbV	158786	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzyloxy(triisobutyl)silane	306	C19H34OSi	1000282-18-0	27
2	N-Methylpiperidino[2,4-b,c]-1,2,...	249	C15H20ClN	1000128-54-0	25
3	Indole-3-carboxaldehyde, 4-tolyl...	249	C16H15N3	1000262-65-3	25
4	4H-1,2,4-Triazole-3-thiol, 1-eth...	265	C12H15N3O2S	1000276-48-0	22
5	4-Bromo-3-chlorophenyl isothiocy...	247	C7H3BrClNS	098041-69-1	14





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111410.d
Acq On : 3 Sep 2015 3:06 am
Operator : AIRLAB11:RY
Sample : L1521092-09D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 9 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

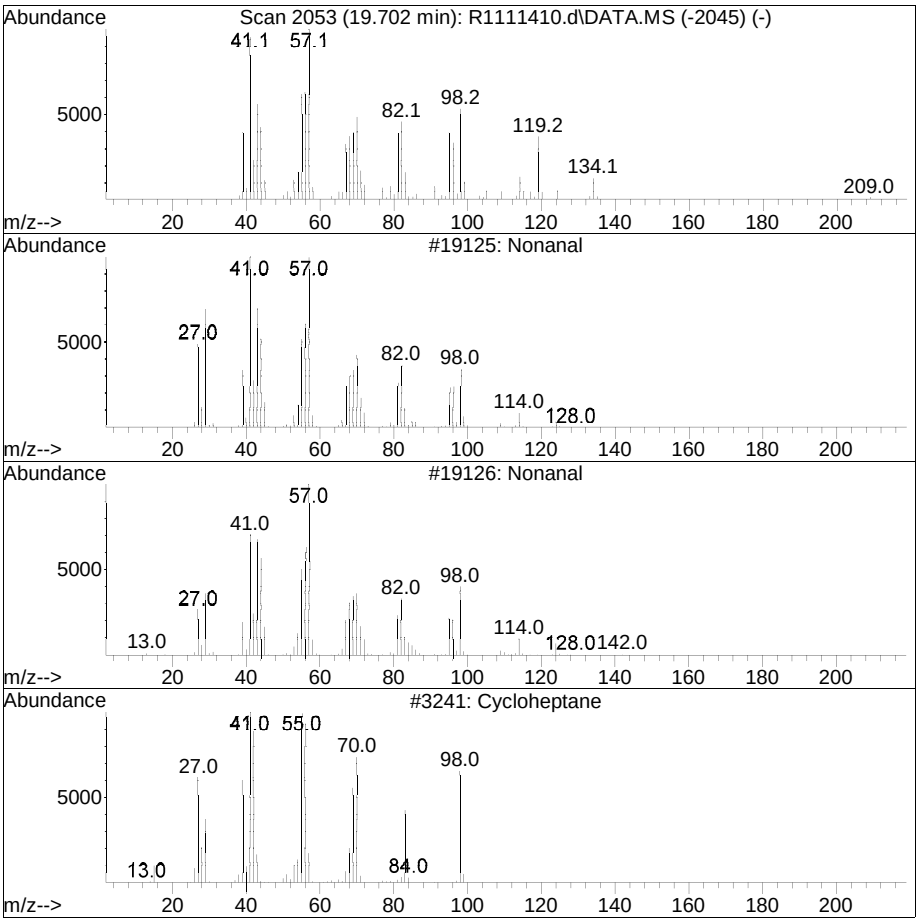
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

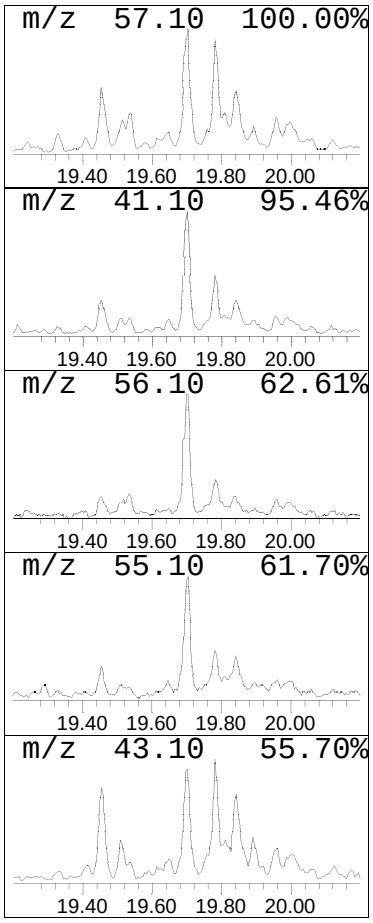
****

Peak Number 5 Nonanal Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
19.70	1.95 ppbV	232947	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Nonanal	142	C9H18O	000124-19-6	86
2	Nonanal	142	C9H18O	000124-19-6	72
3	Cycloheptane	98	C7H14	000291-64-5	30
4	But-2-enedioic acid, diamide	114	C4H6N2O2	1000192-49-3	30
5	Cycloheptane	98	C7H14	000291-64-5	27





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111410.d
Acq On : 3 Sep 2015 3:06 am
Operator : AIRLAB11:RY
Sample : L1521092-09D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 9 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

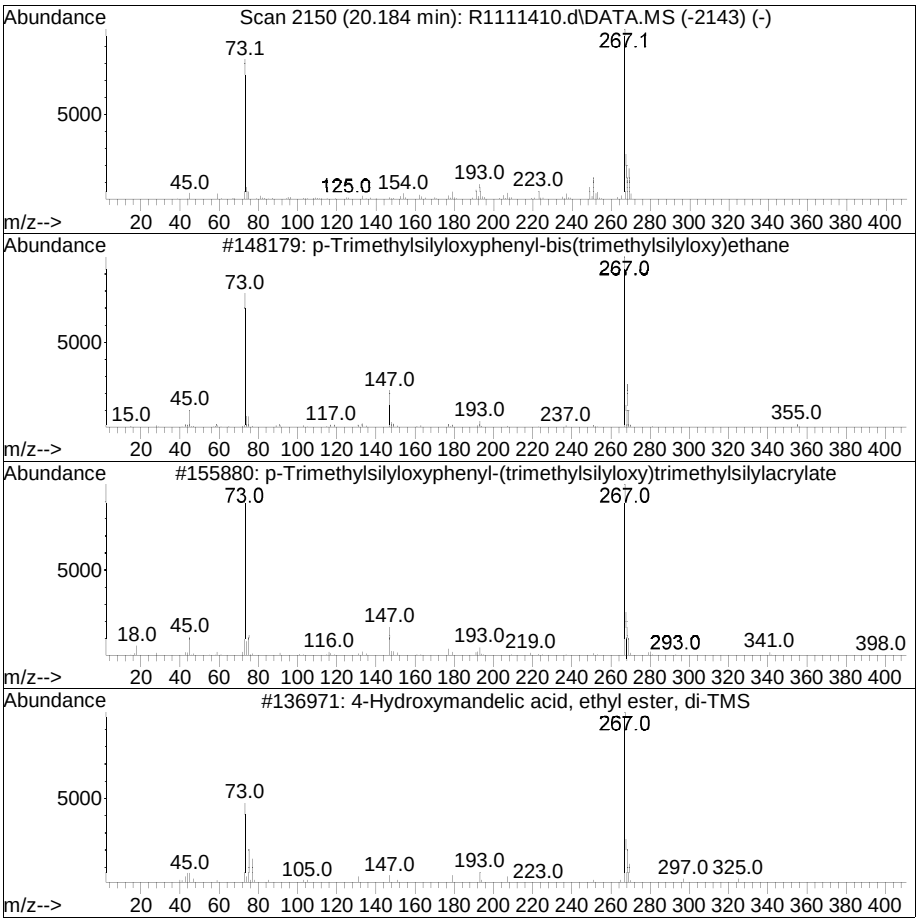
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

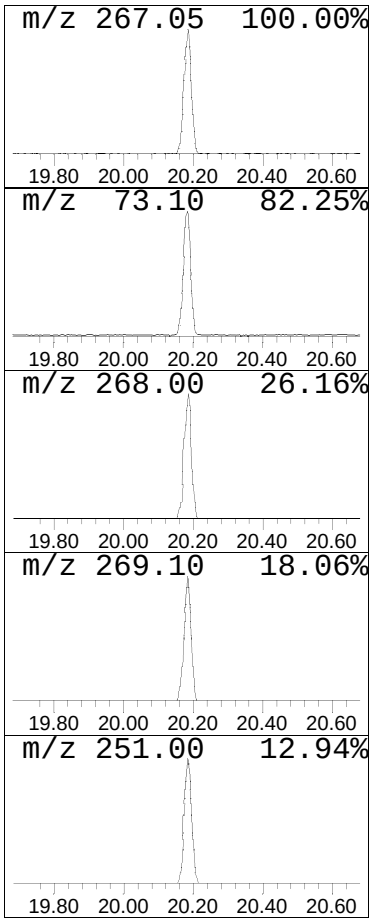
****

Peak Number 6 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.18	2.37 ppbV	282279	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	p-Trimethylsilyloxyphenyl-bis(tr...	370	C17H34O3Si3	1000079-08-1	72
2	p-Trimethylsilyloxyphenyl-(trime...	398	C18H34O4Si3	1000079-05-1	72
3	4-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-53-3	56
4	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-88-9	56
5	2-Methyl-5-(3,4-methylenedioxyci...	267	C16H13NO3	094298-70-1	50





Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111410.d
Acq On : 3 Sep 2015 3:06 am
Operator : AIRLAB11:RY
Sample : L1521092-09D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 9 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc
Silanol, trimet...	8.86	4.4	ppbV	222934	1	9.94	501961	10.0
Cyclotrisiloxan...	16.29	1.4	ppbV	164289	3	16.63	1192020	10.0
unknown siloxane	18.70	1.3	ppbV	158786	3	16.63	1192020	10.0
Nonanal	19.70	2.0	ppbV	232947	3	16.63	1192020	10.0
unknown siloxane	20.18	2.4	ppbV	282279	3	16.63	1192020	10.0

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-10DL	Date Collected :	08/27/15 14:09
Client ID	: OMF-SS-1	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 03:46
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.129
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111411	Instrument ID	: AIRLAB11
Sample Amount	: 117 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	0.46	0.42	--	2	2	--	
74-87-3	Chloromethane	ND	0.42	--	ND	0.9	--	U
76-14-2	Freon-114	ND	0.42	--	ND	3.	--	U
75-01-4	Vinyl chloride	ND	0.42	--	ND	1.	--	U
106-99-0	1,3-Butadiene	ND	0.42	--	ND	0.9	--	U
74-83-9	Bromomethane	ND	0.42	--	ND	2.	--	U
75-00-3	Chloroethane	ND	0.42	--	ND	1.	--	U
64-17-5	Ethanol	22	5.3	--	41	10	--	
593-60-2	Vinyl bromide	ND	0.42	--	ND	2.	--	U
67-64-1	Acetone	4.4	2.1	--	10	5.0	--	
75-69-4	Trichlorofluoromethane	0.62	0.42	--	3	2	--	
67-63-0	Isopropanol	1.2	1.1	--	3	3	--	
75-35-4	1,1-Dichloroethene	ND	0.42	--	ND	2.	--	U
75-65-0	Tertiary butyl Alcohol	ND	1.1	--	ND	3	--	U
75-09-2	Methylene chloride	ND	1.1	--	ND	4	--	U
107-05-1	3-Chloropropene	ND	0.42	--	ND	1.	--	U
75-15-0	Carbon disulfide	ND	0.42	--	ND	1	--	U
76-13-1	Freon-113	ND	0.42	--	ND	3.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.42	--	ND	2.	--	U
75-34-3	1,1-Dichloroethane	ND	0.42	--	ND	2.	--	U
1634-04-4	Methyl tert butyl ether	ND	0.42	--	ND	2.	--	U
78-93-3	2-Butanone	ND	1.1	--	ND	3	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.42	--	ND	2.	--	U
67-66-3	Chloroform	ND	0.42	--	ND	2	--	U
109-99-9	Tetrahydrofuran	ND	1.1	--	ND	3.	--	U
107-06-2	1,2-Dichloroethane	ND	0.42	--	ND	2.	--	U
110-54-3	n-Hexane	ND	0.42	--	ND	1.	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.42	--	ND	2.	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-10DL	Date Collected :	08/27/15 14:09
Client ID	: OMF-SS-1	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 03:46
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.129
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111411	Instrument ID	: AIRLAB11
Sample Amount	: 117 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	ND	0.42	--	ND	1.	--	U
56-23-5	Carbon tetrachloride	ND	0.42	--	ND	3.	--	U
110-82-7	Cyclohexane	ND	0.42	--	ND	1.	--	U
78-87-5	1,2-Dichloropropane	ND	0.42	--	ND	2.	--	U
75-27-4	Bromodichloromethane	ND	0.42	--	ND	3.	--	U
123-91-1	1,4-Dioxane	ND	0.42	--	ND	2.	--	U
79-01-6	Trichloroethene	14	0.42	--	75	2.3	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.42	--	ND	2.	--	U
80-62-6	Methyl Methacrylate	ND	1.1	--	ND	5.	--	U
142-82-5	Heptane	ND	0.42	--	ND	2.	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.42	--	ND	2.	--	U
108-10-1	4-Methyl-2-pentanone	ND	1.1	--	ND	5.	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.42	--	ND	2.	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.42	--	ND	2.	--	U
108-88-3	Toluene	1.0	0.42	--	4	2	--	
124-48-1	Dibromochloromethane	ND	0.42	--	ND	4.	--	U
106-93-4	1,2-Dibromoethane	ND	0.42	--	ND	3.	--	U
127-18-4	Tetrachloroethene	31	0.42	--	210	2.8	--	
108-90-7	Chlorobenzene	ND	0.42	--	ND	2.	--	U
100-41-4	Ethylbenzene	ND	0.42	--	ND	2	--	U
179601-23-1	p/m-Xylene	0.86	0.85	--	4	4	--	
75-25-2	Bromoform	ND	0.42	--	ND	4.	--	U
100-42-5	Styrene	ND	0.42	--	ND	2.	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.42	--	ND	3.	--	U
95-47-6	o-Xylene	ND	0.42	--	ND	2.	--	U
95-49-8	2-Chlorotoluene	ND	0.42	--	ND	2.	--	U
622-96-8	4-Ethyltoluene	ND	0.42	--	ND	2	--	U
108-67-8	1,3,5-Trimethybenzene	ND	0.42	--	ND	2	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-10DL	Date Collected :	08/27/15 14:09
Client ID	: OMF-SS-1	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 03:46
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.129
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111411	Instrument ID	: AIRLAB11
Sample Amount	: 117 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	0.89	0.42	--	4	2	--	
541-73-1	1,3-Dichlorobenzene	ND	0.42	--	ND	3.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.42	--	ND	3.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.42	--	ND	3.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.42	--	ND	3.	--	U
87-68-3	Hexachlorobutadiene	ND	0.42	--	ND	4.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111411.d
Acq On : 3 Sep 2015 3:46 am
Operator : AIRLAB11:RY
Sample : L1521092-10D,3,117.4497,250
Misc : WG817978,ICAL11393
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 03 17:04:56 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.93	49	70923	10.000	ppbV	0.00
Standard Area = 81084			Recovery =		87.47%	
43) 1,4-difluorobenzene	12.15	114	431893	10.000	ppbV	0.00
Standard Area = 489060			Recovery =		88.31%	
67) chlorobenzene-D5	16.63	54	72031	10.000	ppbV	0.00
Standard Area = 80649			Recovery =		89.31%	
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.01	85	6460	0.214	ppbV	98
6) chloromethane	4.22		0	N.D.		
7) Freon-114	4.37		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	0.00		0	N.D.		
13) bromomethane	0.00		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	5.54	31	32838	10.266	ppbV	98
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.17	43	24328	2.057	ppbV #	95
21) trichlorofluoromethane	6.34	101	12448	0.293	ppbV	96
22) isopropyl alcohol	6.55	45	6644	0.587	ppbV	99
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	7.34	59	6989	0.341	ppbV #	95
28) methylene chloride	7.35	49	2605	0.291	ppbV	81
29) 3-chloropropene	0.00		0	N.D.	d	
30) carbon disulfide	7.66	76	3542	0.118	ppbV #	90
31) Freon 113	7.69		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	8.84		0	N.D.		
34) MTBE	0.00		0	N.D.	d	
36) 2-butanone	9.29	43	3672	0.251	ppbV #	94
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	10.10	83	1781	0.066	ppbV	90
40) Tetrahydrofuran	0.00		0	N.D.		
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	9.99		0	N.D.		
48) 1,1,1-trichloroethane	0.00		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111411.d
Acq On : 3 Sep 2015 3:46 am
Operator : AIRLAB11:RY
Sample : L1521092-10D,3,117.4497,250
Misc : WG817978,ICAL11393
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 03 17:04:56 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50)	benzene	11.74		0	N.D.		
52)	carbon tetrachloride	11.90		0	N.D.		
53)	cyclohexane	12.04		0	N.D.		
56)	1,2-dichloropropane	0.00		0	N.D.		
57)	bromodichloromethane	0.00		0	N.D.	d	
58)	1,4-dioxane	0.00		0	N.D.		
59)	trichloroethene	12.94	130	144800	6.623	ppbV	97
60)	2,2,4-trimethylpentane	12.97		0	N.D.		
61)	methyl methacrylate	0.00		0	N.D.		
62)	heptane	0.00		0	N.D.		
63)	cis-1,3-dichloropropene	0.00		0	N.D.		
64)	4-methyl-2-pentanone	0.00		0	N.D.		
65)	trans-1,3-dichloropropene	0.00		0	N.D.		
66)	1,1,2-trichloroethane	0.00		0	N.D.		
68)	toluene	15.00	91	22476	0.498	ppbV	93
74)	dibromochloromethane	0.00		0	N.D.		
75)	1,2-dibromoethane	0.00		0	N.D.		
78)	tetrachloroethene	16.08	166	503083	14.516	ppbV	99
80)	chlorobenzene	16.67		0	N.D.		
81)	ethylbenzene	16.97	91	11028	0.178	ppbV	95
83)	m+p-xylene	17.11	91	20648	0.402	ppbV	99
84)	bromoform	0.00		0	N.D.		
85)	styrene	17.41		0	N.D.		
86)	1,1,2,2-tetrachloroethane	17.34		0	N.D.		
87)	o-xylene	17.48	91	8003	0.154	ppbV	98
93)	2-chlorotoluene	0.00		0	N.D.		
96)	4-ethyl toluene	18.42	105	6894	0.082	ppbV	99
97)	1,3,5-trimethylbenzene	18.48	105	6614	0.094	ppbV	94
99)	1,2,4-trimethylbenzene	18.79	105	28143	0.420	ppbV #	55
102)	1,3-dichlorobenzene	18.98		0	N.D.		
103)	1,4-dichlorobenzene	18.98		0	N.D.		
107)	1,2-dichlorobenzene	0.00		0	N.D.		
115)	1,2,4-trichlorobenzene	20.65		0	N.D.		
119)	hexachlorobutadiene	0.00		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111411.d
Acq On : 3 Sep 2015 3:46 am
Operator : AIRLAB11:RY
Sample : L1521092-10D,3,117.4497,250
Misc : WG817978,ICAL11393
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 03 17:04:56 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

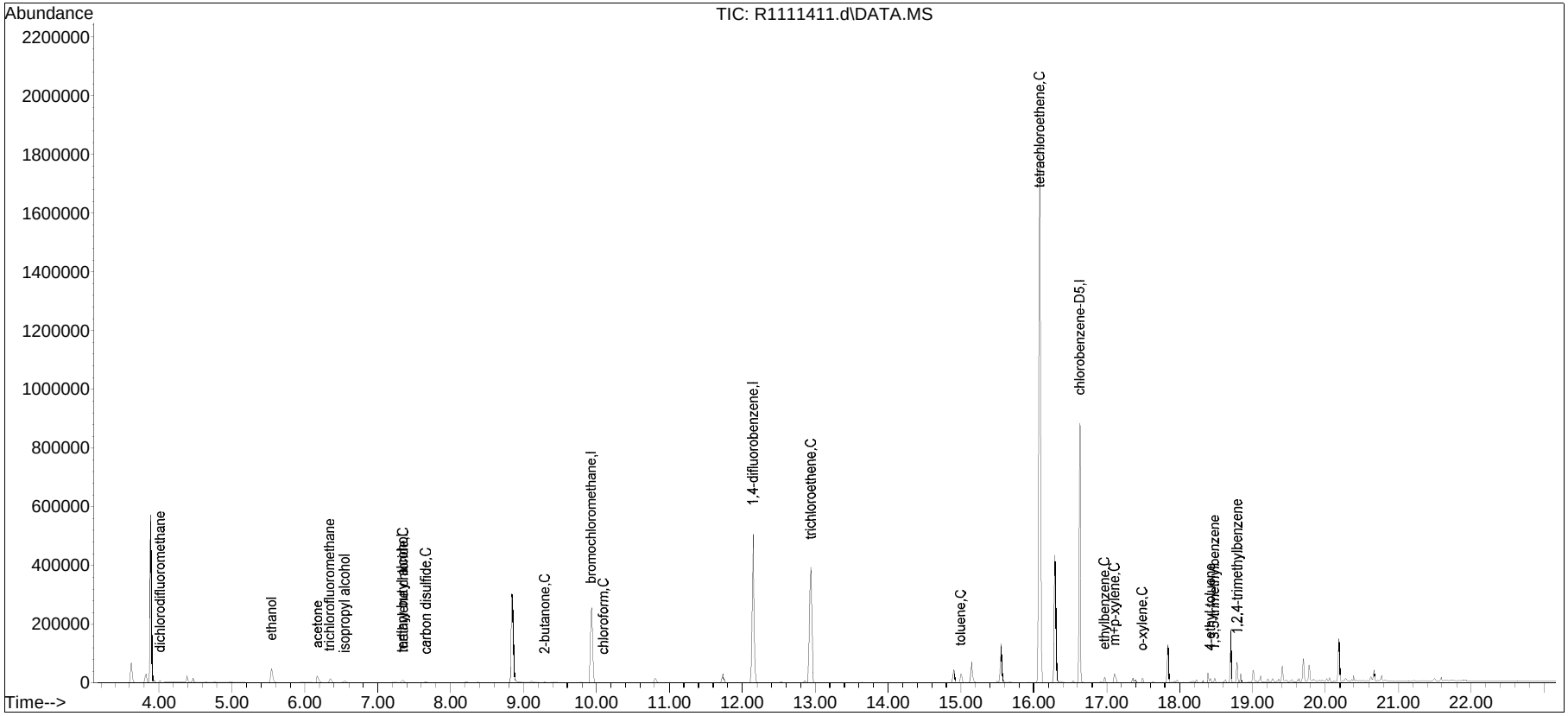
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Quantitation Report (QT Reviewed)

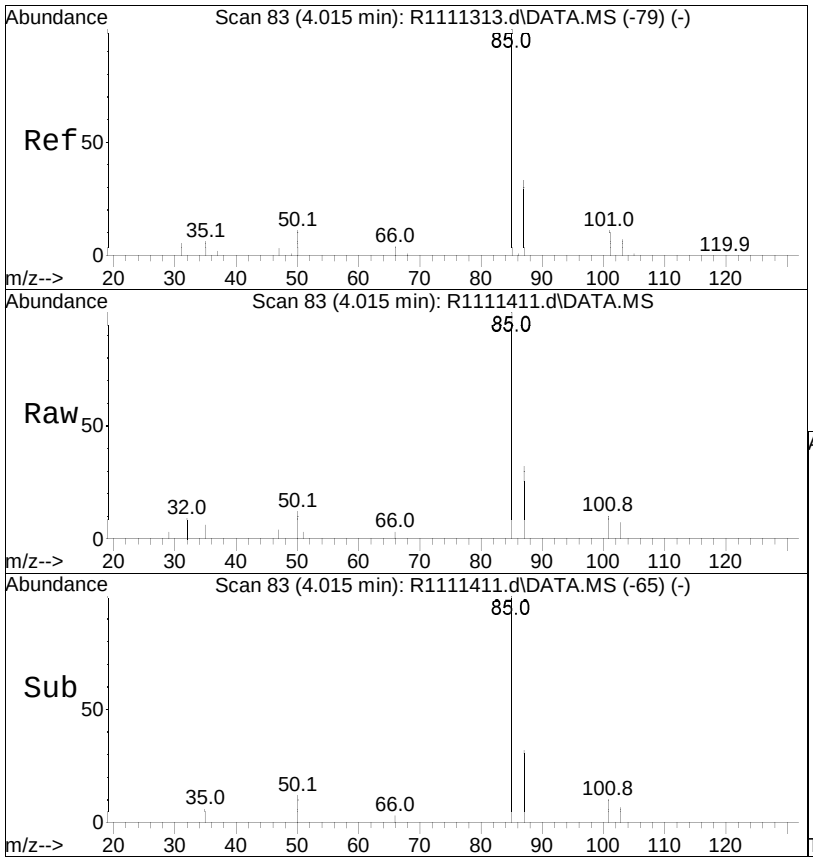
Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111411.d
Acq On : 3 Sep 2015 3:46 am
Operator : AIRLAB11:RY
Sample : L1521092-10D,3,117.4497,250
Misc : WG817978,ICAL11393
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 03 17:04:56 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

Sub List : NJ-LL_New - .Data\Airlab11\2015\150902T\R1111393.d



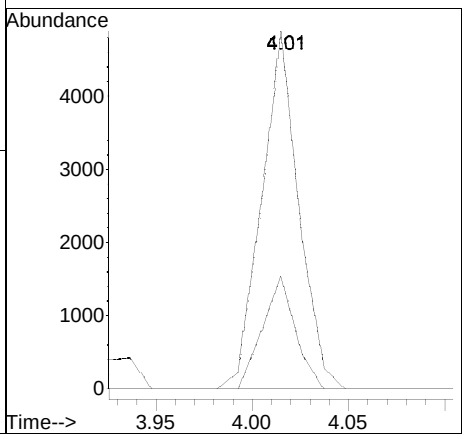
TALL150827.M Thu Sep 03 17:05:20 2015

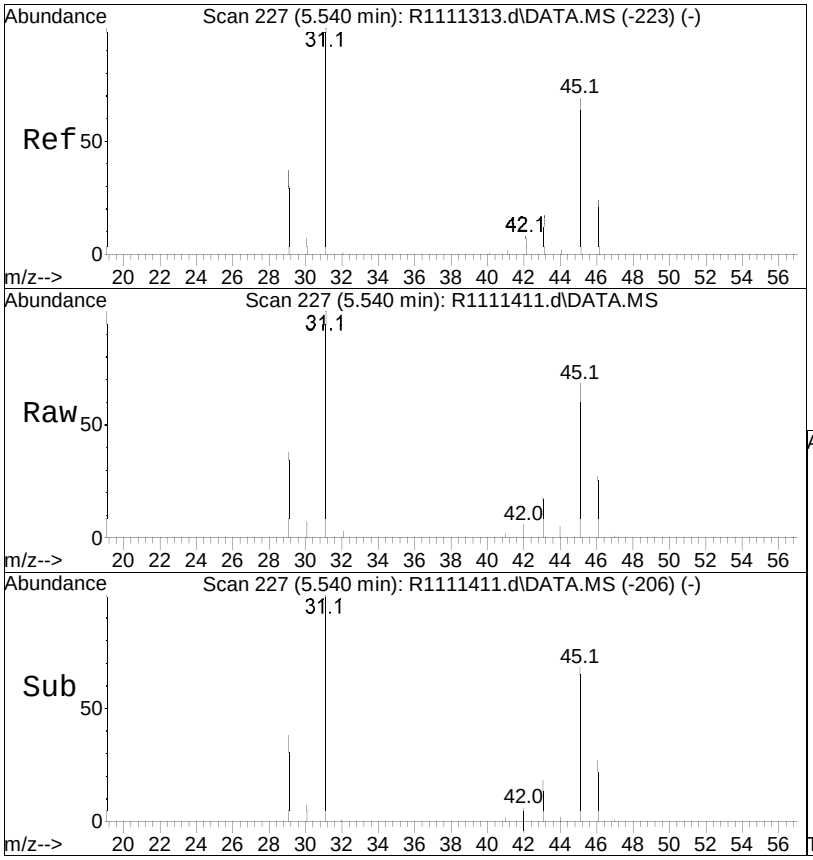


#5
dichlorodifluoromethane
Concen: 0.21 ppbV
RT: 4.01 min Scan# 83
Delta R.T. -0.000 min
Lab File: R1111411.d
Acq: 3 Sep 2015 3:46 am

Tgt Ion: 85 Resp: 6460

Ion	Ratio	Lower	Upper
85	100		
87	31.6	26.1	39.1

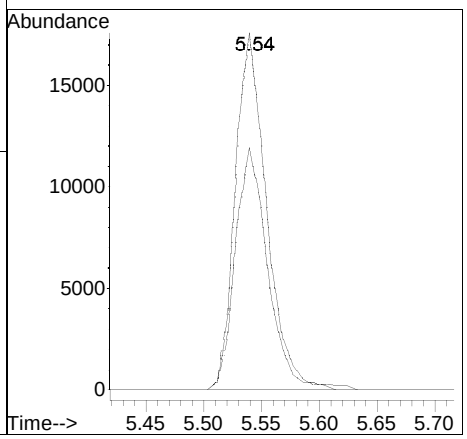


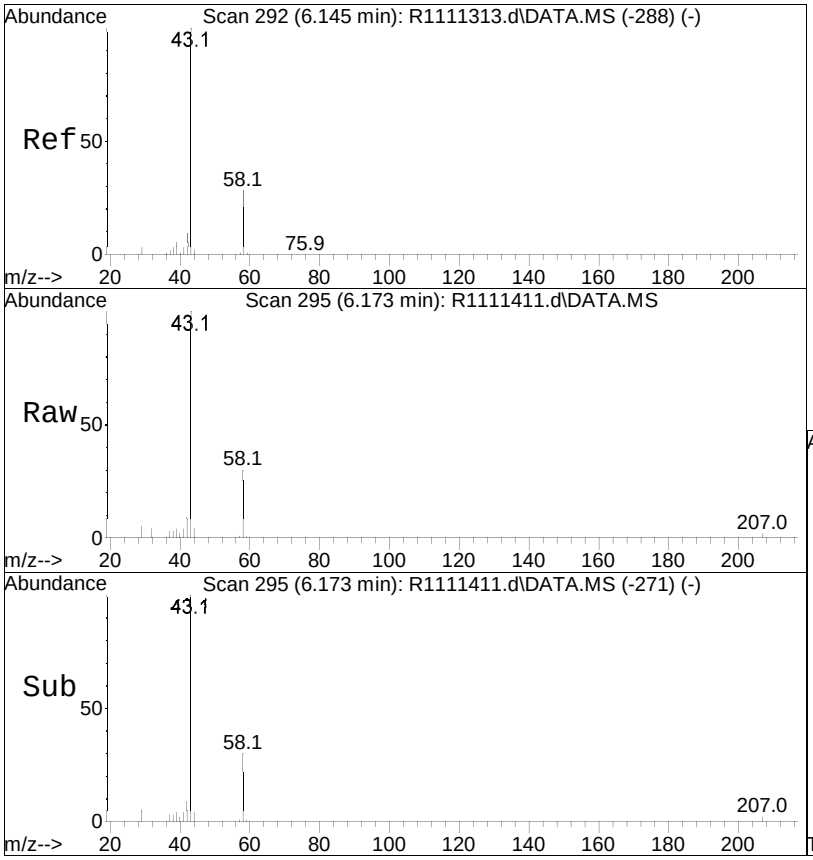


#15
ethanol
Concen: 10.27 ppbV
RT: 5.54 min Scan# 227
Delta R.T. -0.000 min
Lab File: R1111411.d
Acq: 3 Sep 2015 3:46 am

Tgt Ion: 31 Resp: 32838

Ion	Ratio	Lower	Upper
31	100		
45	67.8	55.4	83.2

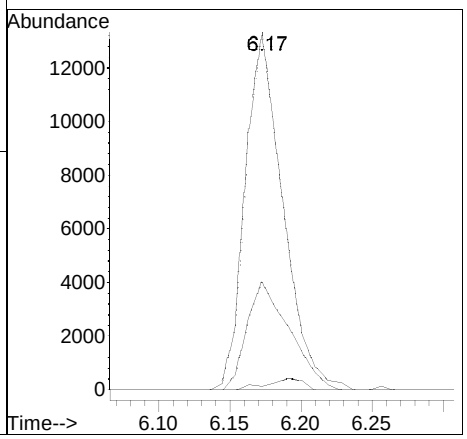


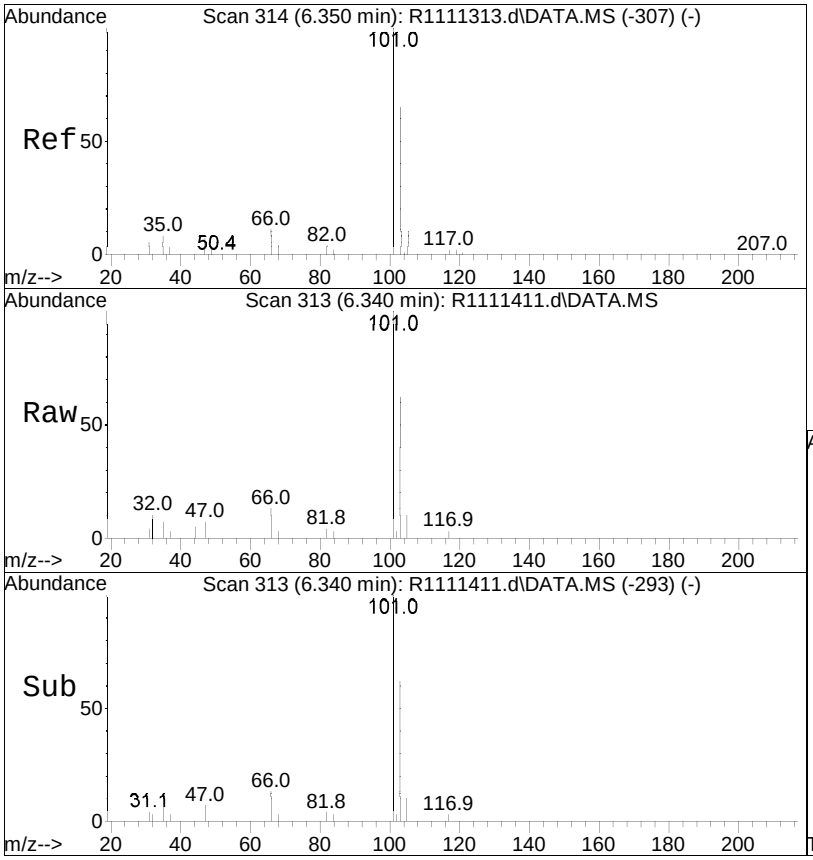


#19
acetone
Concen: 2.06 ppbV
RT: 6.17 min Scan# 295
Delta R.T. 0.028 min
Lab File: R1111411.d
Acq: 3 Sep 2015 3:46 am

Tgt Ion: 43 Resp: 24328

Ion	Ratio	Lower	Upper
43	100		
58	30.4	22.2	33.2
57	1.1	0.6	1.0#

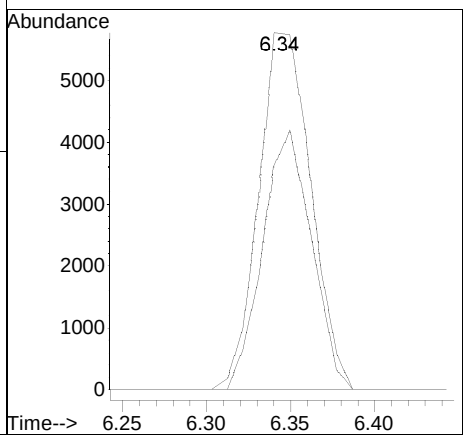


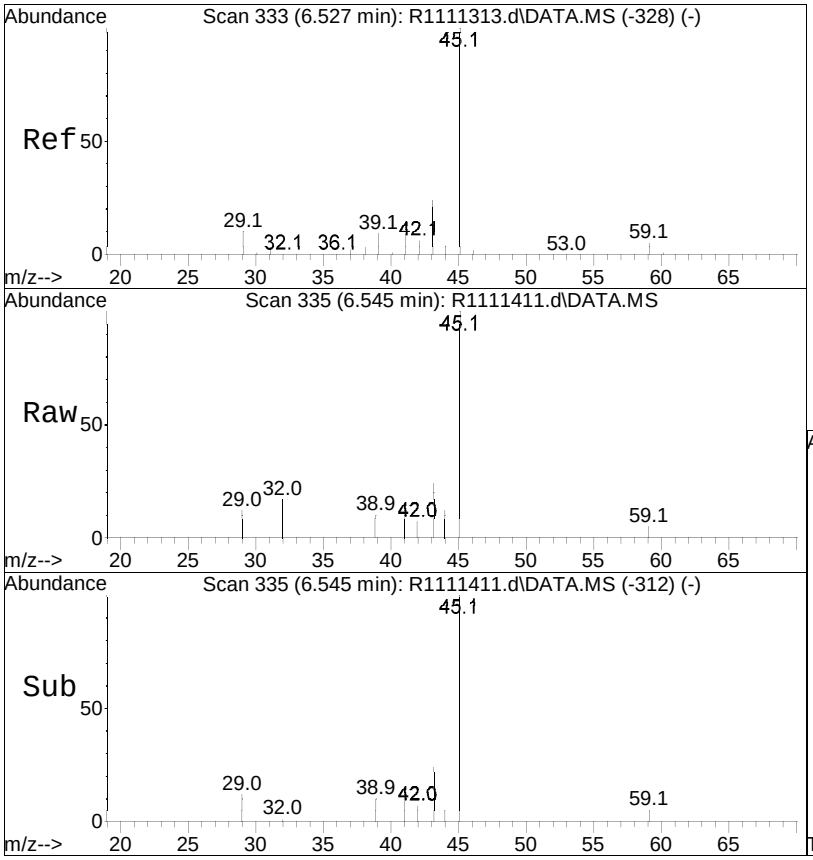


#21
trichlorofluoromethane
Concen: 0.29 ppbV
RT: 6.34 min Scan# 313
Delta R.T. -0.009 min
Lab File: R1111411.d
Acq: 3 Sep 2015 3:46 am

Tgt Ion:101 Resp: 12448

Ion	Ratio	Lower	Upper
101	100		
103	62.4	52.3	78.5

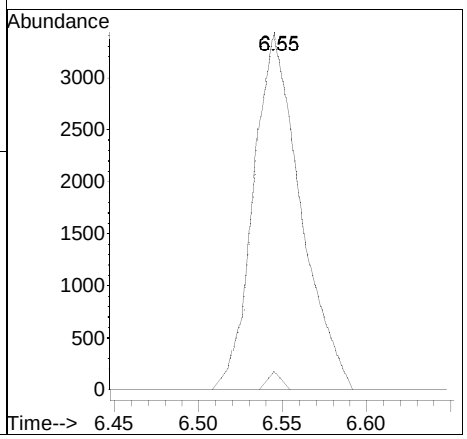


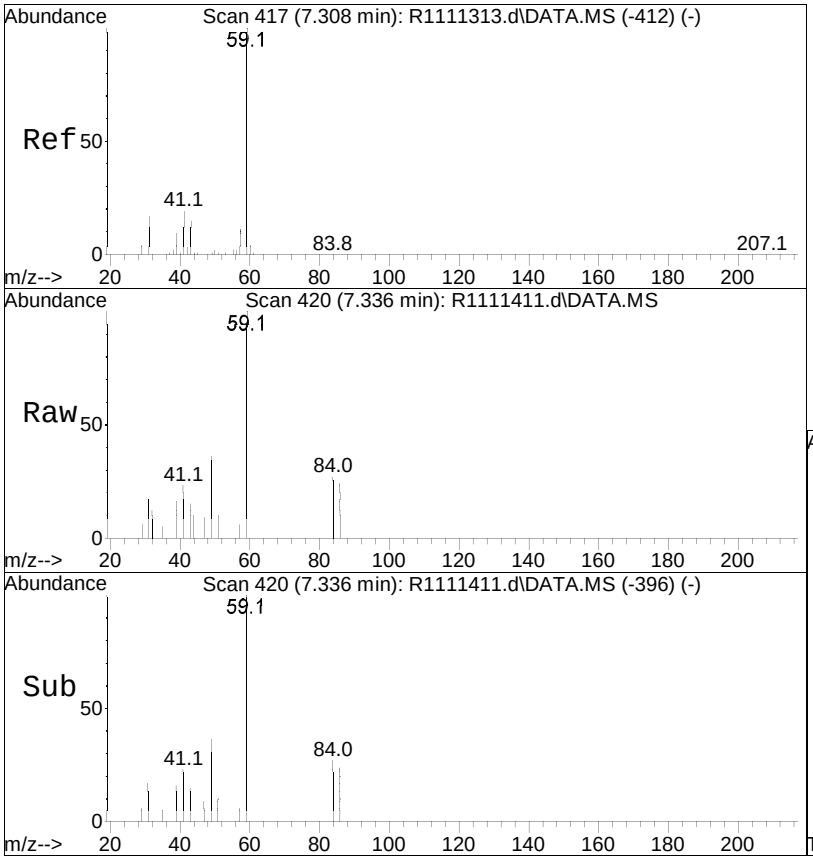


#22
isopropyl alcohol
Concen: 0.59 ppbV
RT: 6.55 min Scan# 335
Delta R.T. 0.018 min
Lab File: R1111411.d
Acq: 3 Sep 2015 3:46 am

Tgt Ion: 45 Resp: 6644

Ion	Ratio	Lower	Upper
45	100		
59	5.1	3.8	5.6

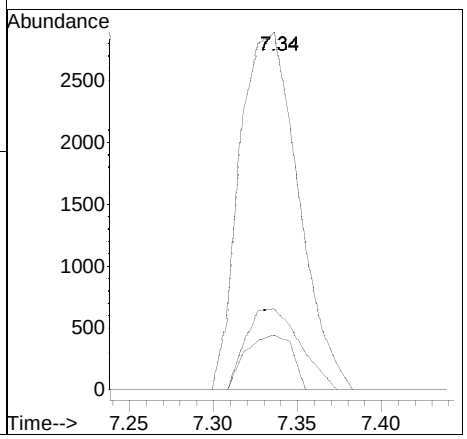


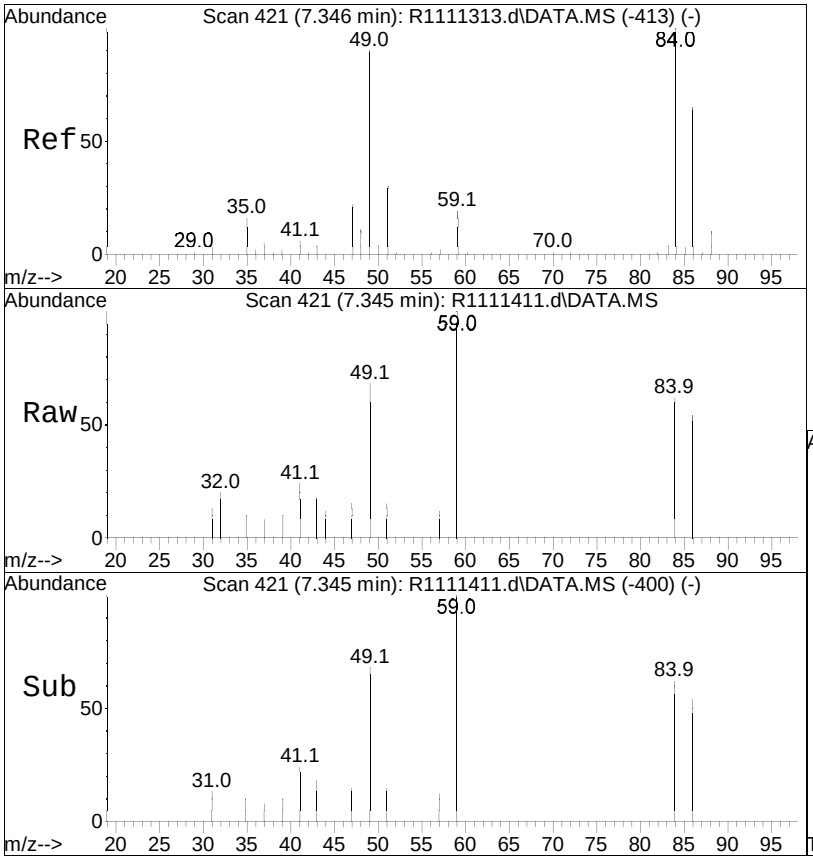


#27
tertiary butyl alcohol
Concen: 0.34 ppbV
RT: 7.34 min Scan# 420
Delta R.T. 0.028 min
Lab File: R1111411.d
Acq: 3 Sep 2015 3:46 am

Tgt Ion: 59 Resp: 6989

Ion	Ratio	Lower	Upper
59	100		
41	22.7	15.1	22.7#
43	15.3	11.8	17.6

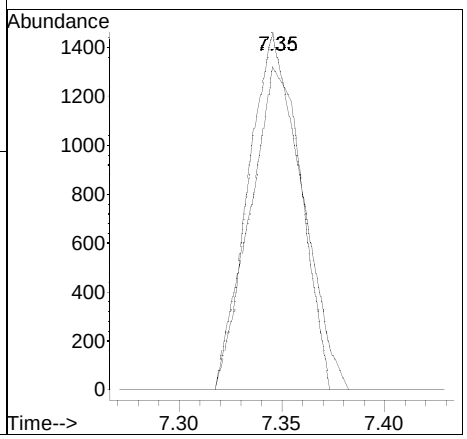


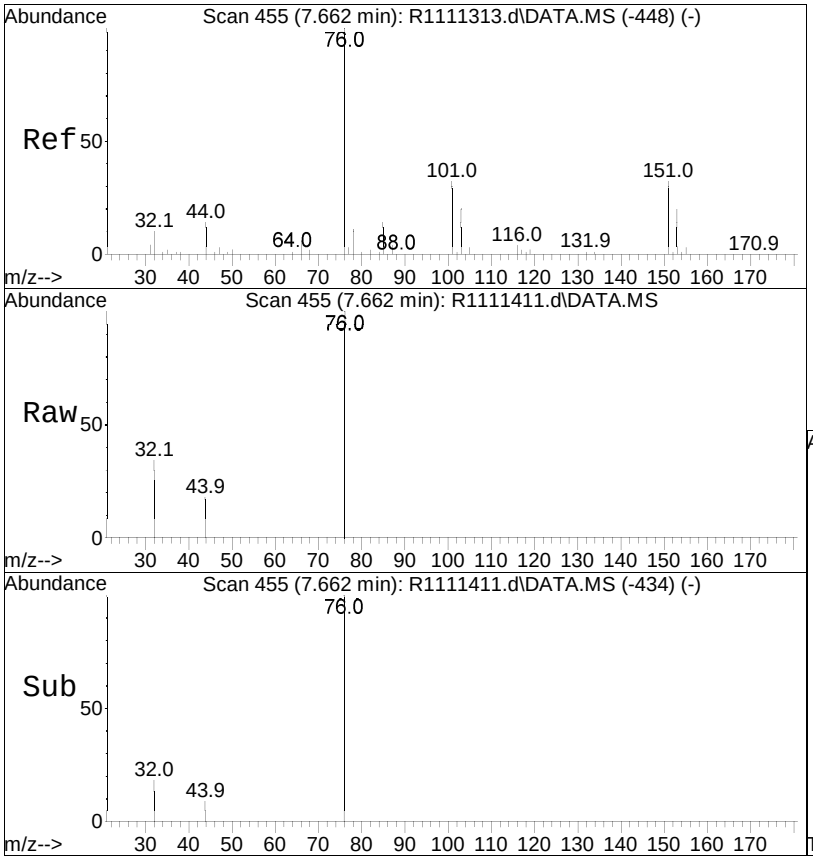


#28
methylene chloride
Concen: 0.29 ppbV
RT: 7.35 min Scan# 421
Delta R.T. -0.000 min
Lab File: R1111411.d
Acq: 3 Sep 2015 3:46 am

Tgt Ion: 49 Resp: 2605

Ion	Ratio	Lower	Upper
49	100		
84	90.5	89.0	133.4

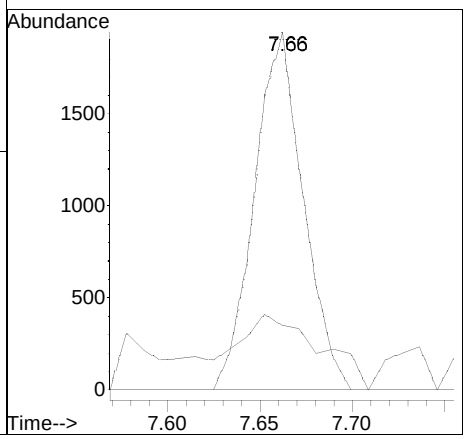


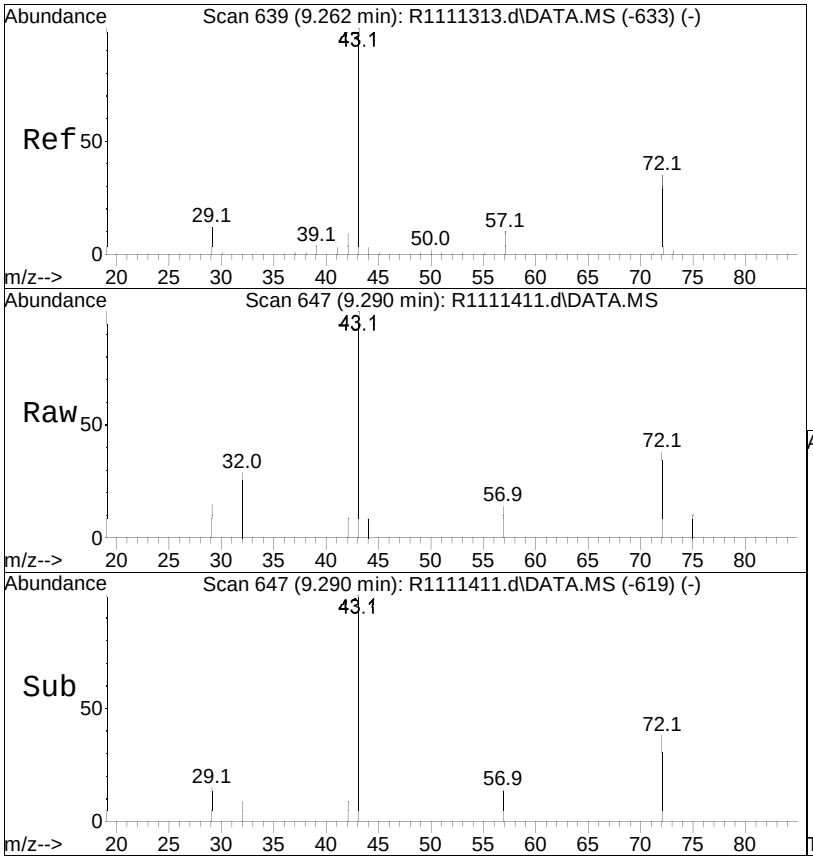


#30
carbon disulfide
Concen: 0.12 ppbV
RT: 7.66 min Scan# 455
Delta R.T. -0.000 min
Lab File: R1111411.d
Acq: 3 Sep 2015 3:46 am

Tgt Ion: 76 Resp: 3542

Ion	Ratio	Lower	Upper
76	100		
44	18.0	11.0	16.6#

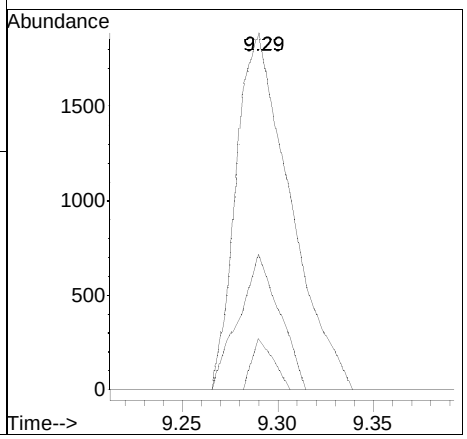


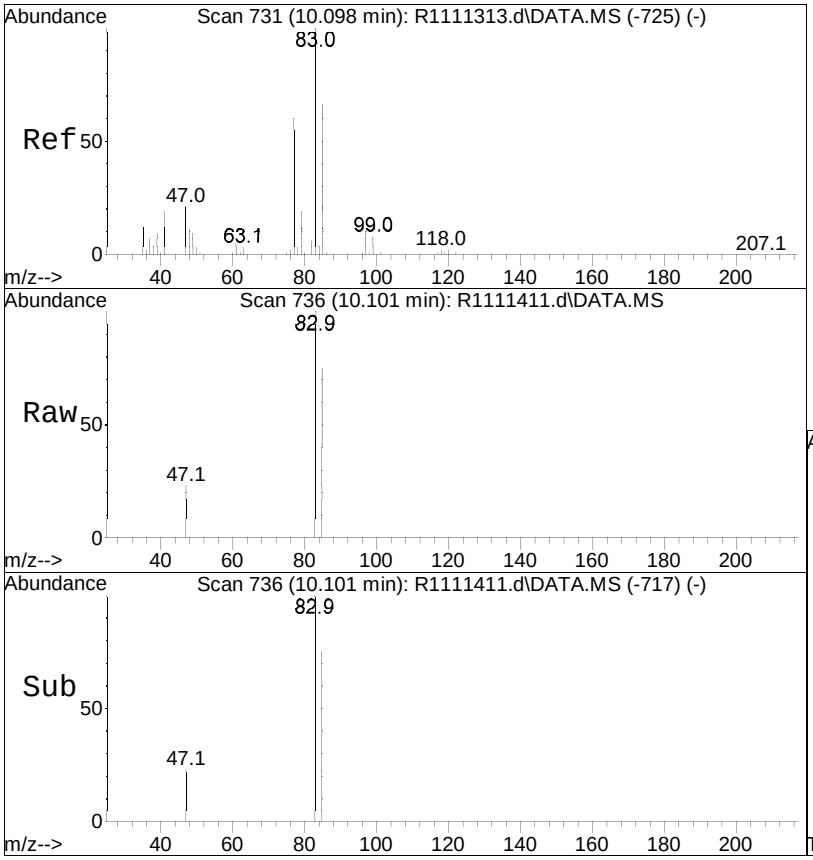


#36
2-butanone
Concen: 0.25 ppbV
RT: 9.29 min Scan# 647
Delta R.T. 0.028 min
Lab File: R1111411.d
Acq: 3 Sep 2015 3:46 am

Tgt Ion: 43 Resp: 3672

Ion	Ratio	Lower	Upper
43	100		
72	38.0	28.1	42.1
57	14.2	8.3	12.5#

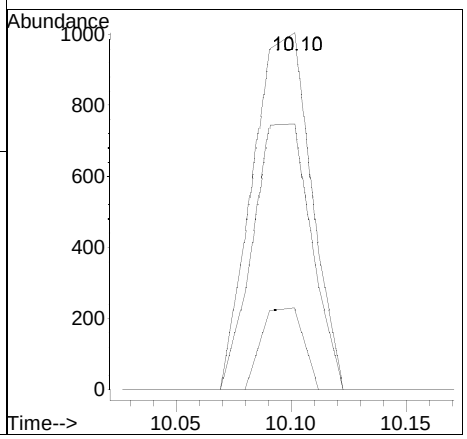


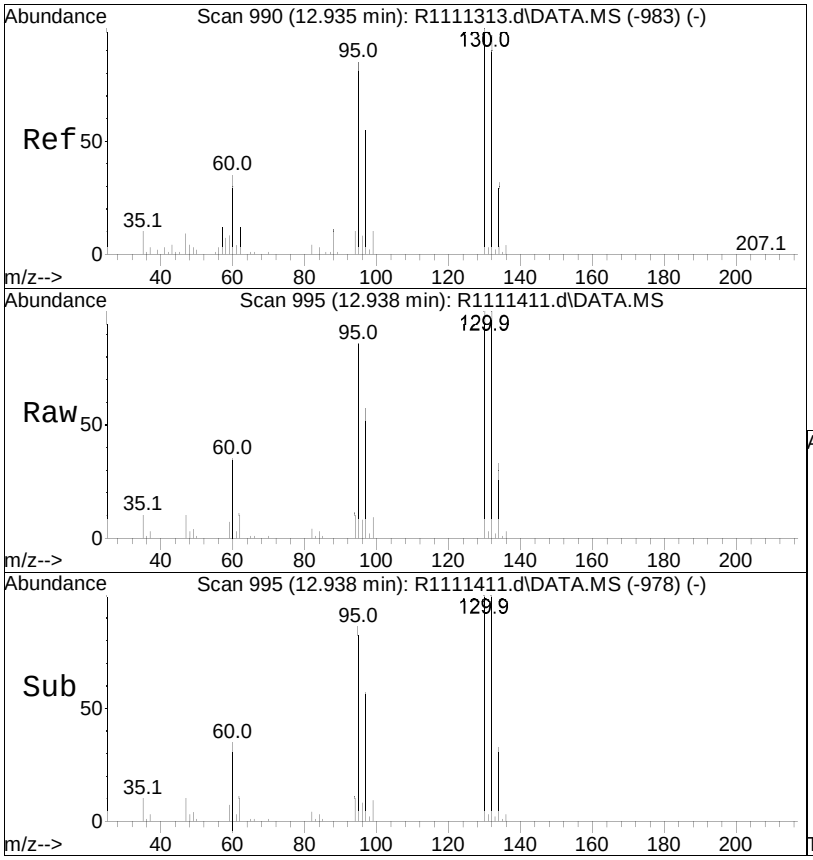


#39
chloroform
Concen: 0.07 ppbV
RT: 10.10 min Scan# 736
Delta R.T. 0.003 min
Lab File: R1111411.d
Acq: 3 Sep 2015 3:46 am

Tgt Ion: 83 Resp: 1781

Ion	Ratio	Lower	Upper
83	100		
85	74.5	52.4	78.6
47	23.0	16.5	24.7

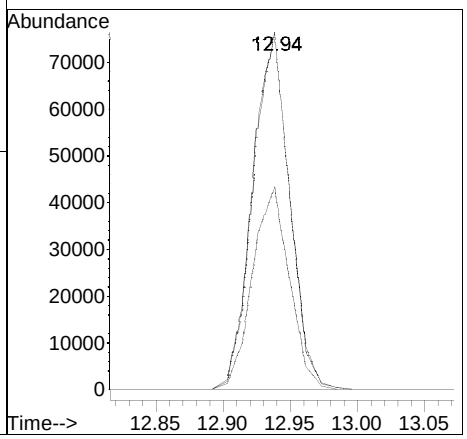


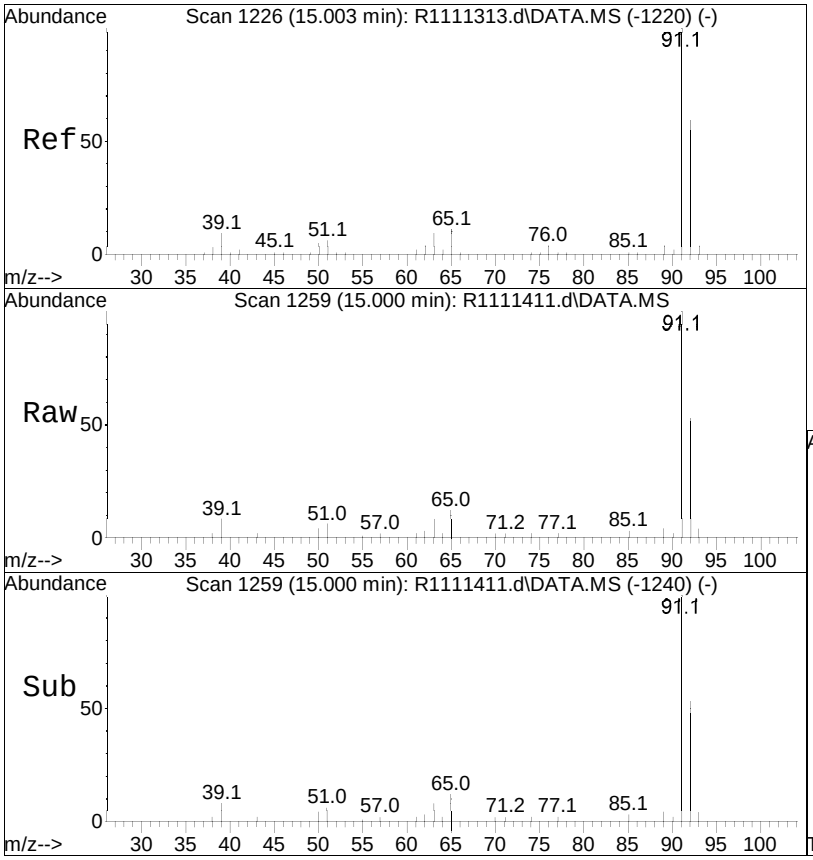


#59
trichloroethene
Concen: 6.62 ppbV
RT: 12.94 min Scan# 995
Delta R.T. 0.003 min
Lab File: R1111411.d
Acq: 3 Sep 2015 3:46 am

Tgt Ion:130 Resp: 144800

Ion	Ratio	Lower	Upper
130	100		
132	100.1	77.6	116.4
97	56.9	44.0	66.0

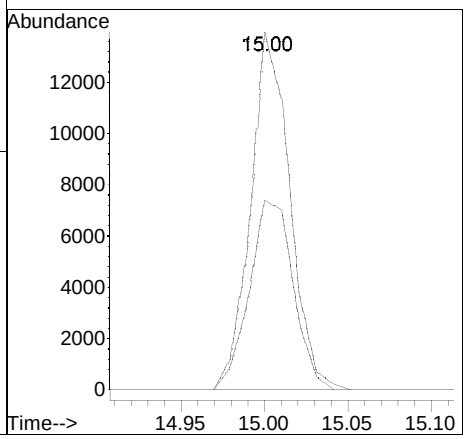


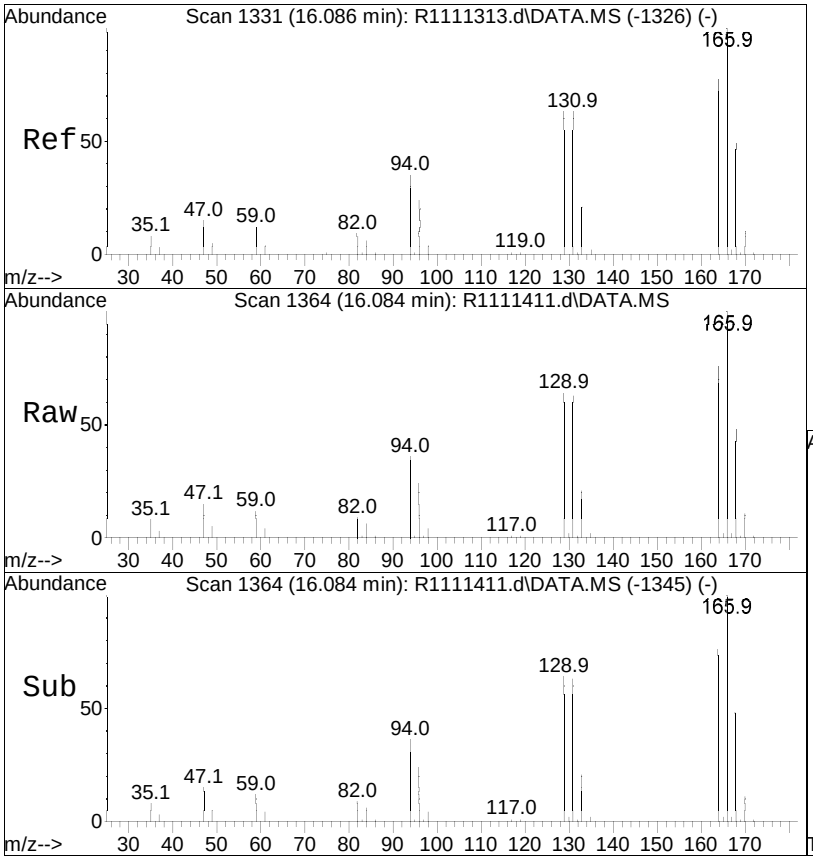


#68
toluene
Concen: 0.50 ppbV
RT: 15.00 min Scan# 1259
Delta R.T. -0.002 min
Lab File: R1111411.d
Acq: 3 Sep 2015 3:46 am

Tgt Ion: 91 Resp: 22476

Ion	Ratio	Lower	Upper
91	100		
92	53.2	47.0	70.6

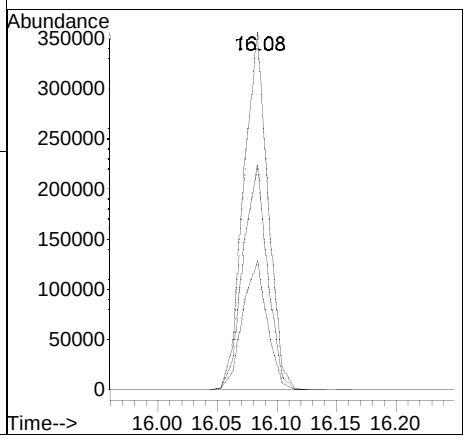


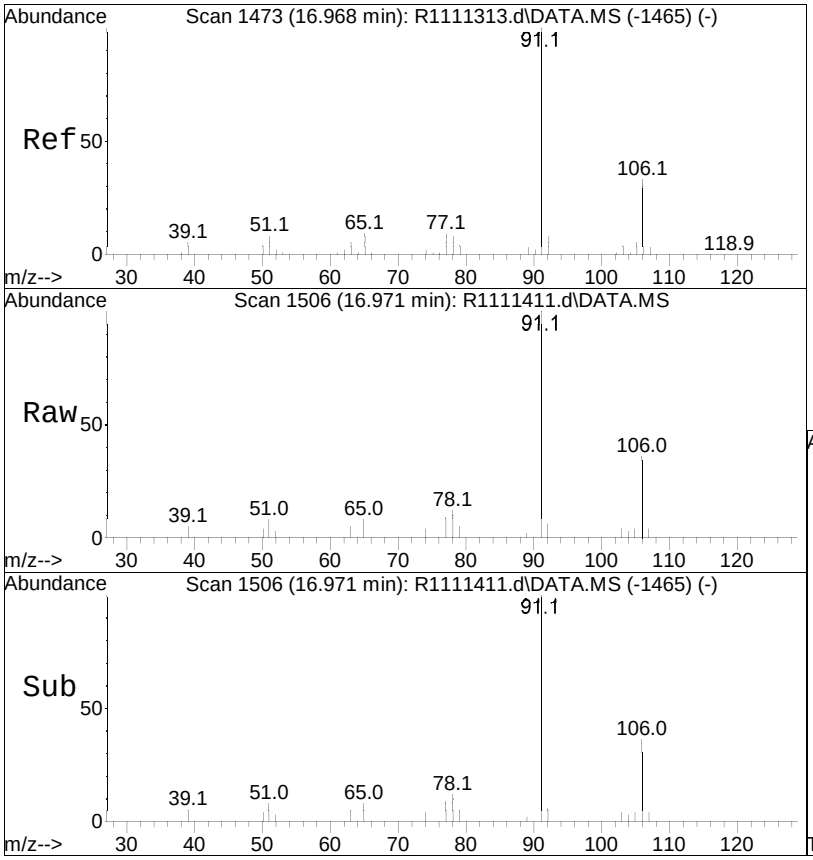


#78
tetrachloroethene
Concen: 14.52 ppbV
RT: 16.08 min Scan# 1364
Delta R.T. -0.002 min
Lab File: R1111411.d
Acq: 3 Sep 2015 3:46 am

Tgt Ion:166 Resp: 503083

Ion	Ratio	Lower	Upper
166	100		
131	63.0	50.1	75.1
94	36.2	28.2	42.4

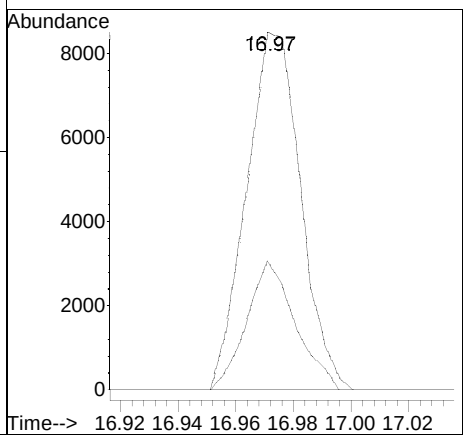


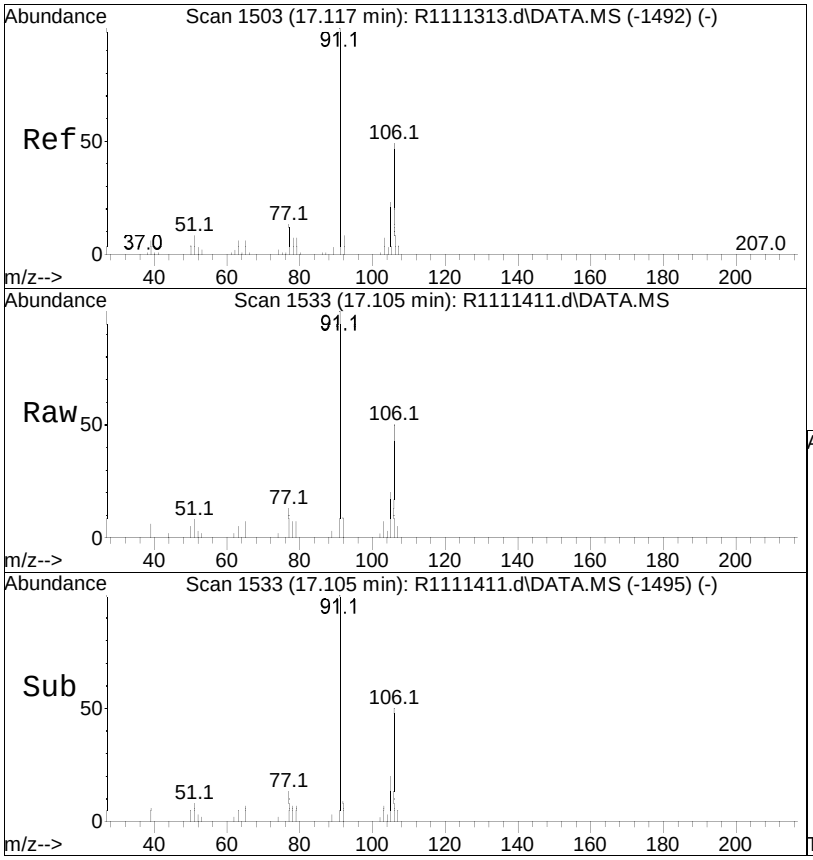


#81
ethylbenzene
Concen: 0.18 ppbV
RT: 16.97 min Scan# 1506
Delta R.T. 0.003 min
Lab File: R1111411.d
Acq: 3 Sep 2015 3:46 am

Tgt Ion: 91 Resp: 11028

Ion	Ratio	Lower	Upper
91	100		
106	36.1	26.6	39.8

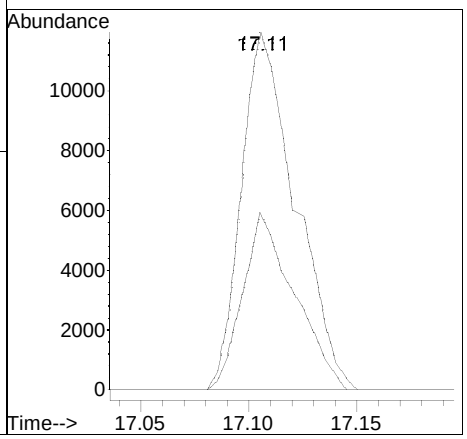


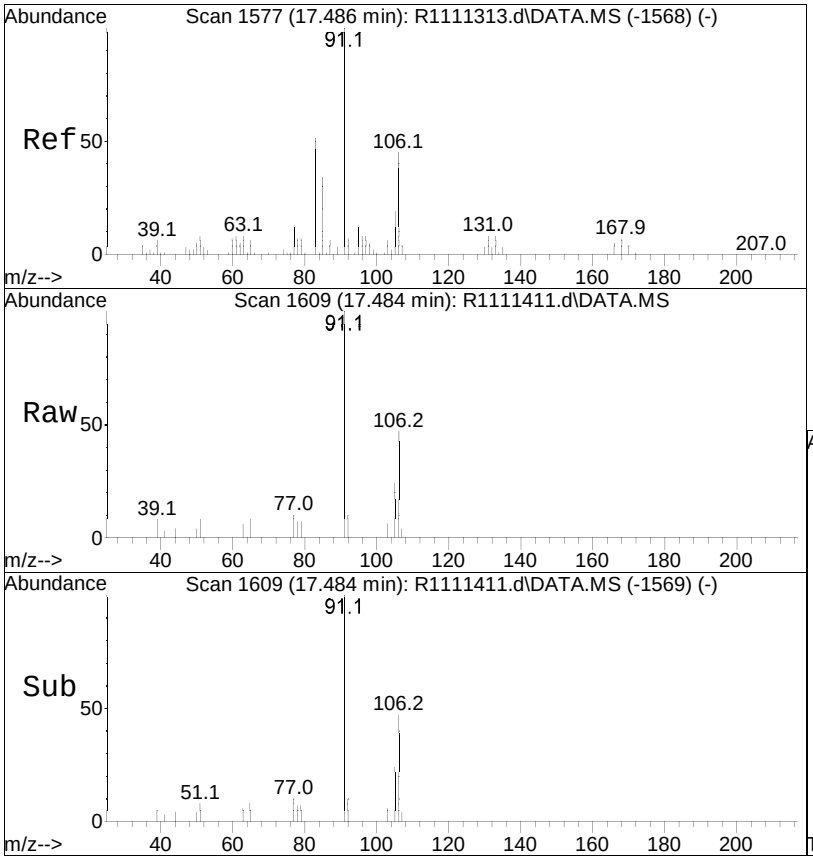


#83
m+p-xylene
Concen: 0.40 ppbV
RT: 17.11 min Scan# 1533
Delta R.T. -0.012 min
Lab File: R1111411.d
Acq: 3 Sep 2015 3:46 am

Tgt Ion: 91 Resp: 20648

Ion	Ratio	Lower	Upper
91	100		
106	49.6	39.4	59.0

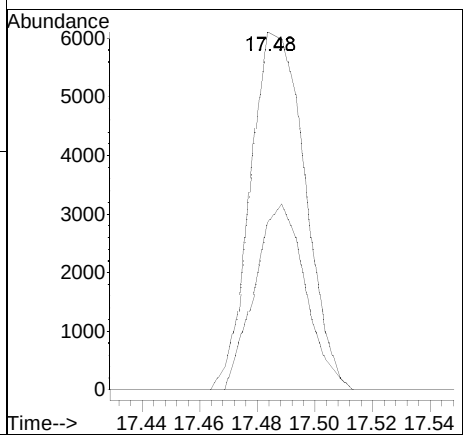


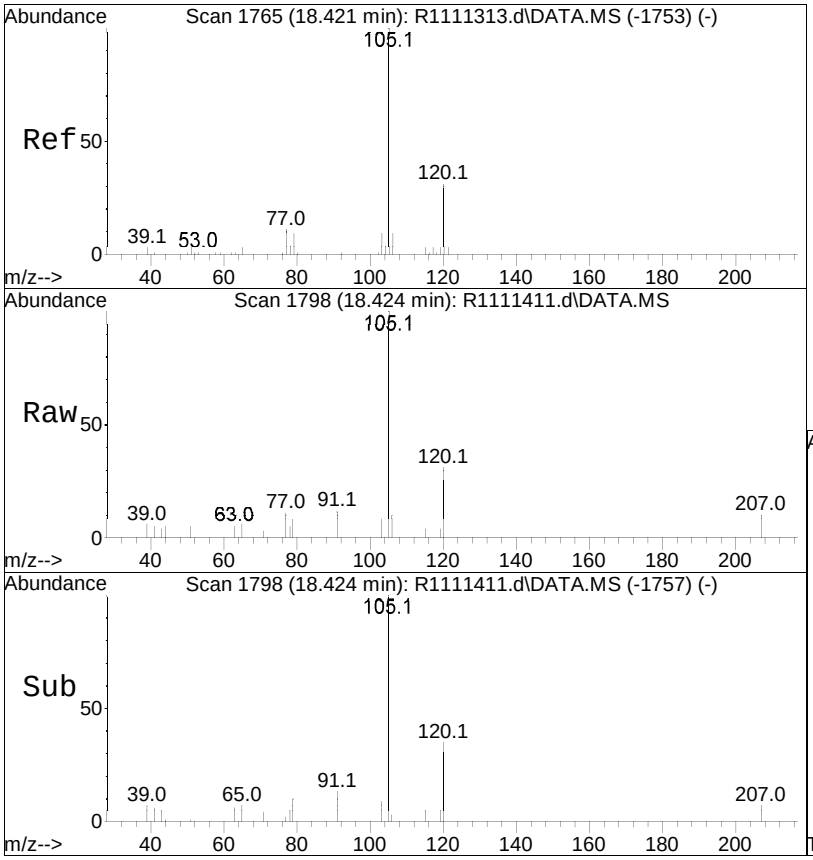


#87
o-xylene
Concen: 0.15 ppbV
RT: 17.48 min Scan# 1609
Delta R.T. -0.002 min
Lab File: R1111411.d
Acq: 3 Sep 2015 3:46 am

Tgt Ion: 91 Resp: 8003

Ion	Ratio	Lower	Upper
91	100		
106	46.7	36.3	54.5

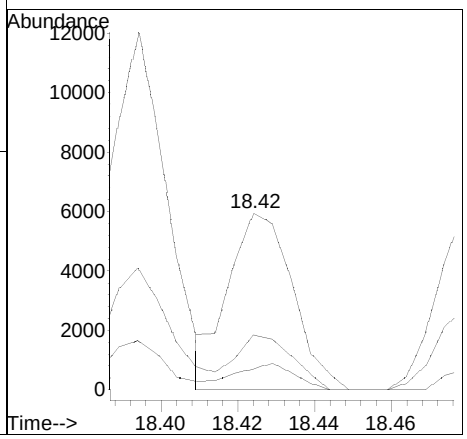


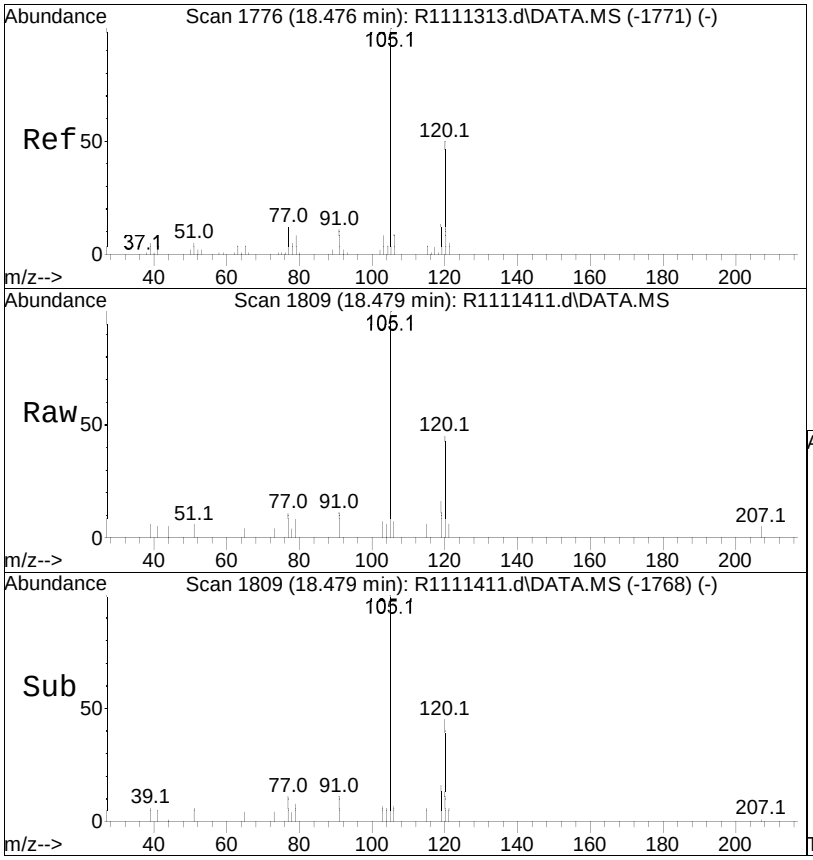


#96
4-ethyl toluene
Concen: 0.08 ppbV
RT: 18.42 min Scan# 1798
Delta R.T. 0.003 min
Lab File: R1111411.d
Acq: 3 Sep 2015 3:46 am

Tgt Ion:105 Resp: 6894

Ion	Ratio	Lower	Upper
105	100		
120	30.8	25.0	37.6
91	11.6	9.5	14.3

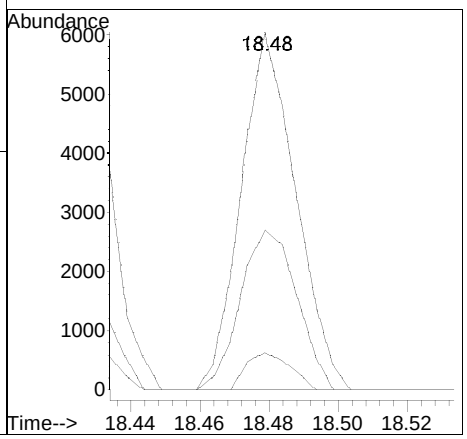


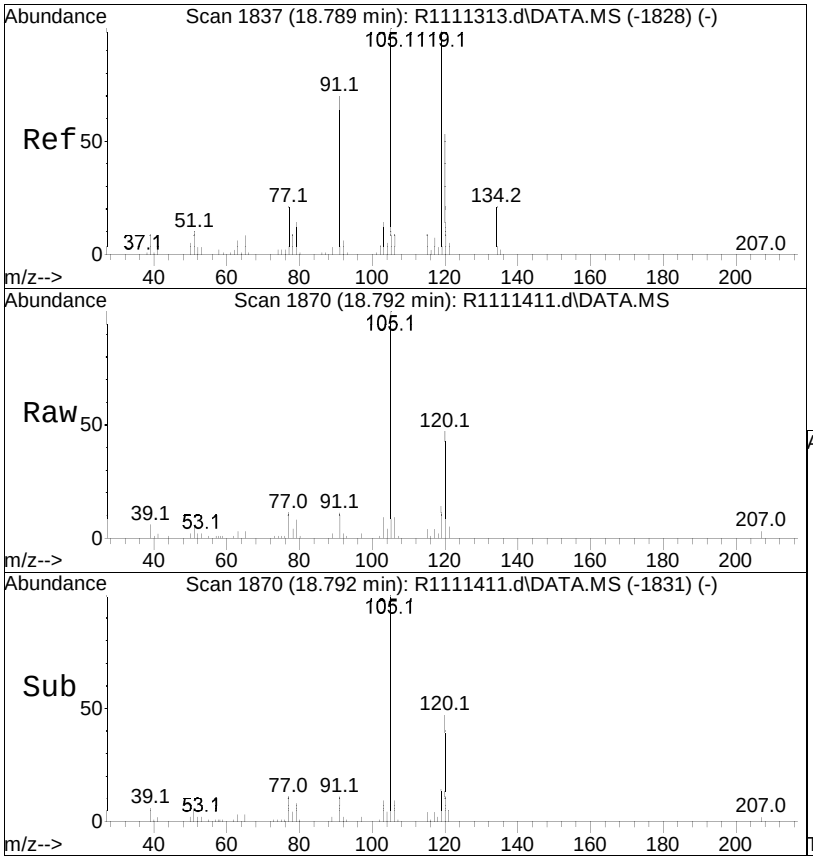


#97
1,3,5-trimethylbenzene
Concen: 0.09 ppbV
RT: 18.48 min Scan# 1809
Delta R.T. 0.003 min
Lab File: R1111411.d
Acq: 3 Sep 2015 3:46 am

Tgt Ion:105 Resp: 6614

Ion	Ratio	Lower	Upper
105	100		
120	44.8	39.7	59.5
91	10.6	8.9	13.3

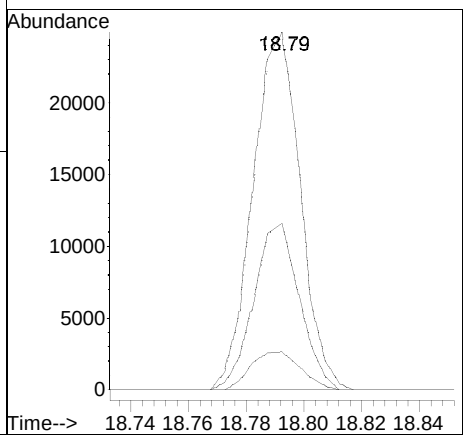




#99
1,2,4-trimethylbenzene
Concen: 0.42 ppbV
RT: 18.79 min Scan# 1870
Delta R.T. 0.003 min
Lab File: R1111411.d
Acq: 3 Sep 2015 3:46 am

Tgt Ion:105 Resp: 28143

Ion	Ratio	Lower	Upper
105	100		
120	46.5	42.2	63.2
91	10.7	55.8	83.6#



Manual Integration/Negative Proof Report

```
Data Path   : O:\Forensics\Data\Airlab11\QMethod     : TALL150827.M
Data File   : R1111411.d                 Operator    : AIRLAB11:RY
Date Inj'd  : 9/3/2015  3:46 am          Instrument  : Airlab 11
Sample      : L1521092-10D,3,117.4497,250Quant Date  : 9/3/2015  8:53 am
```

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: L1521092-10DL	Date Collected :	08/27/15 14:09
Client ID	: OMF-SS-1	Date Received :	08/28/15
Sample Location	: 10 MAIN ST.WOODBRIDGE, NJ	Date Analyzed :	09/03/15 03:46
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.129
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111411	Instrument ID	: AIRLAB11
Sample Amount	: 117 ml	GC Column	: RTX-1

Number TICS found: 6

Concentration Units: ppbV

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
001066-40-6	Silanol, trimethyl-	8.84	27	NJD
000120-92-3	Cyclopentanone	15.14	2.3	NJD
	unknown	15.55	4	JD
000541-05-9	Cyclotrisiloxane, hexamethyl-	16.29	13	NJD
	unknown siloxane	18.70	4.1	JD
	unknown siloxane	20.18	3.6	JD
	Total TIC Compounds		54	

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111411.d
Acq On : 3 Sep 2015 3:46 am
Operator : AIRLAB11:RY
Sample : L1521092-10D,3,117.4497,250
Misc : WG817978,ICAL11393
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R1111411.d\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.384	113	116	120	rBV	20968	32867	1.23%	0.355%
2	5.540	223	227	235	rVB	47362	89697	3.35%	0.968%
3	6.173	291	295	303	rVB	22166	43565	1.63%	0.470%
4	6.350	309	314	320	rVB	13840	28173	1.05%	0.304%
5	8.840	587	592	604	rBV	301462	639197	23.89%	6.898%
6	9.941	716	721	728	rBB	256752	502775	18.79%	5.426%
7	11.728	888	891	897	rBB	29863	62659	2.34%	0.676%
8	12.147	923	927	931	rBV	507684	920941	34.42%	9.939%
9	12.938	991	995	999	rVB	394346	736743	27.53%	7.951%
10	14.897	1246	1249	1254	rBB2	41091	72705	2.72%	0.785%
11	15.000	1256	1259	1265	rBB	31367	51209	1.91%	0.553%
12	15.145	1270	1273	1280	rBV	71788	127041	4.75%	1.371%
13	15.547	1309	1312	1318	rVB	131244	221586	8.28%	2.391%
14	16.084	1360	1364	1368	rBV	1872754	2675933	100.00%	28.878%
15	16.290	1380	1384	1390	rBV	434186	713778	26.67%	7.703%
16	16.633	1430	1438	1452	rBV	884654	1187126	44.36%	12.811%
17	17.105	1528	1533	1544	rVB	31820	54095	2.02%	0.584%
18	17.842	1675	1681	1687	rBV	128454	153854	5.75%	1.660%
19	18.394	1787	1792	1796	rBV2	33048	37283	1.39%	0.402%
20	18.698	1846	1851	1857	rBV	180442	228010	8.52%	2.461%
21	18.792	1865	1870	1874	rBV	68627	77126	2.88%	0.832%
22	18.837	1874	1879	1884	rVB	29419	30144	1.13%	0.325%
23	19.011	1908	1914	1921	rBV	40878	59345	2.22%	0.640%
24	19.409	1988	1994	2000	rBV	54986	68155	2.55%	0.736%
25	19.707	2046	2054	2061	rBV2	78441	110348	4.12%	1.191%
26	19.781	2063	2069	2076	rBV2	55043	67861	2.54%	0.732%
27	20.184	2143	2150	2158	rVB	144983	201879	7.54%	2.179%
28	20.669	2228	2230	2233	rVV	36241	44991	1.68%	0.486%

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111411.d
Acq On : 3 Sep 2015 3:46 am
Operator : AIRLAB11:RY
Sample : L1521092-10D,3,117.4497,250
Misc : WG817978,ICAL11393
ALS Vial : 10 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	20.768	2236	2240	2243	rVB	16948	27186	1.02%	0.293%

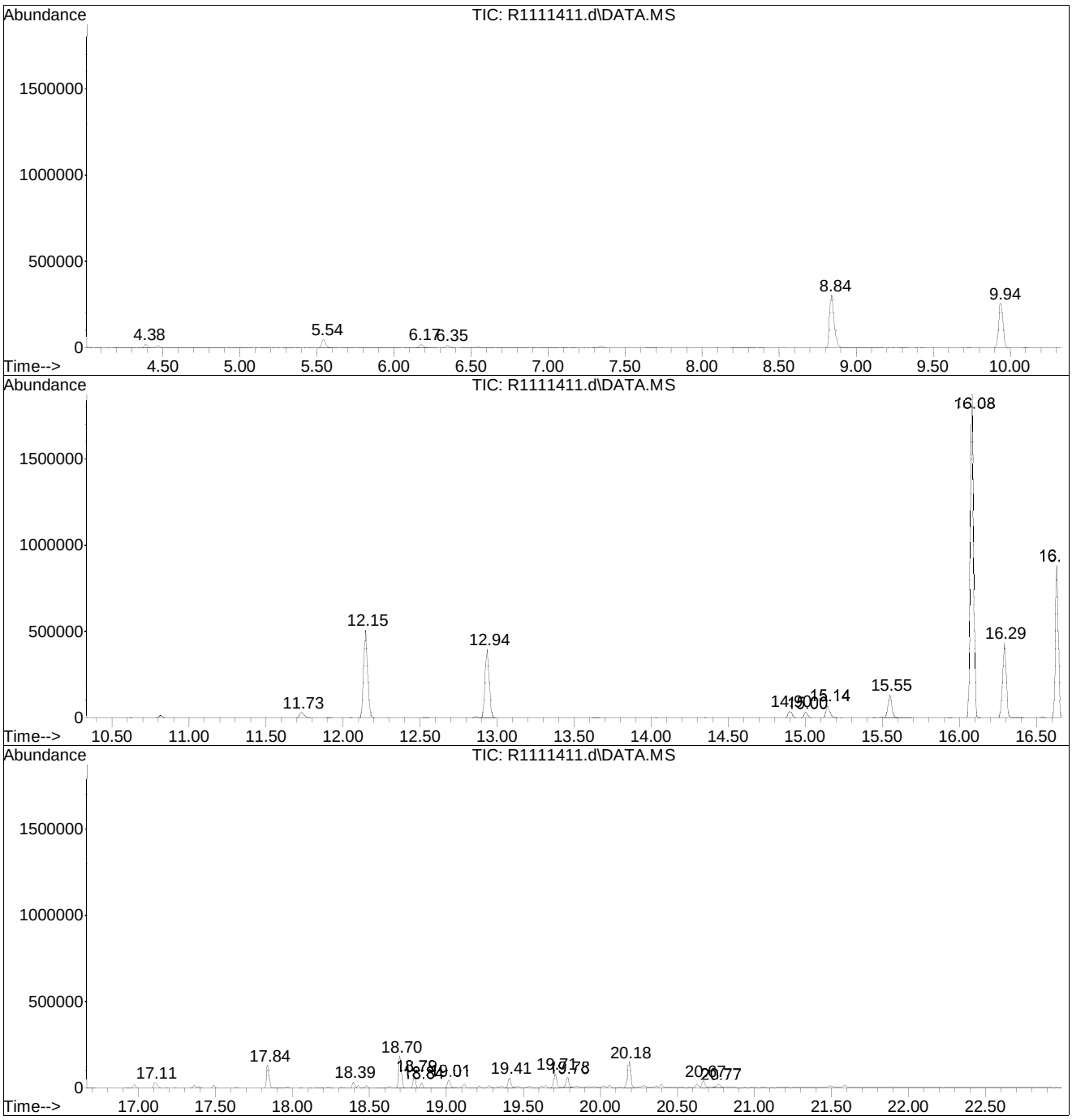
Sum of corrected areas: 9266272

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111411.d
Acq On : 3 Sep 2015 3:46 am
Operator : AIRLAB11:RY
Sample : L1521092-10D,3,117.4497,250
Misc : WG817978,ICAL11393
ALS Vial : 10 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111411.d
Acq On : 3 Sep 2015 3:46 am
Operator : AIRLAB11:RY
Sample : L1521092-10D,3,117.4497,250
Misc : WG817978,ICAL11393
ALS Vial : 10 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

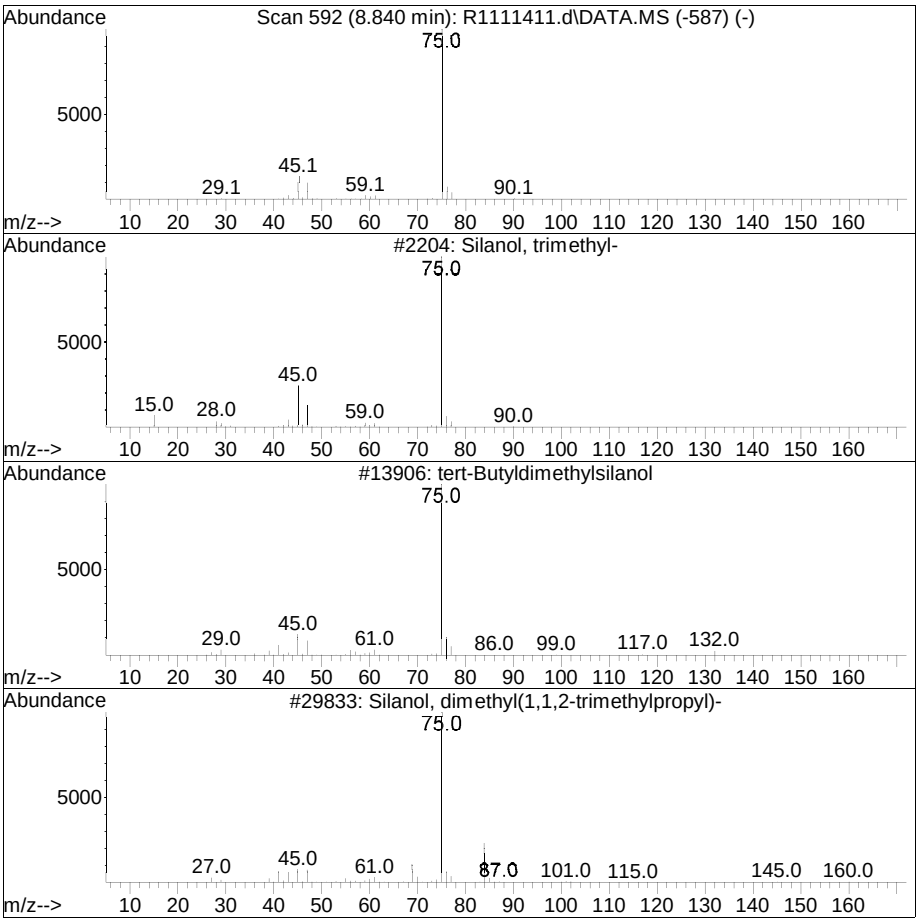
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

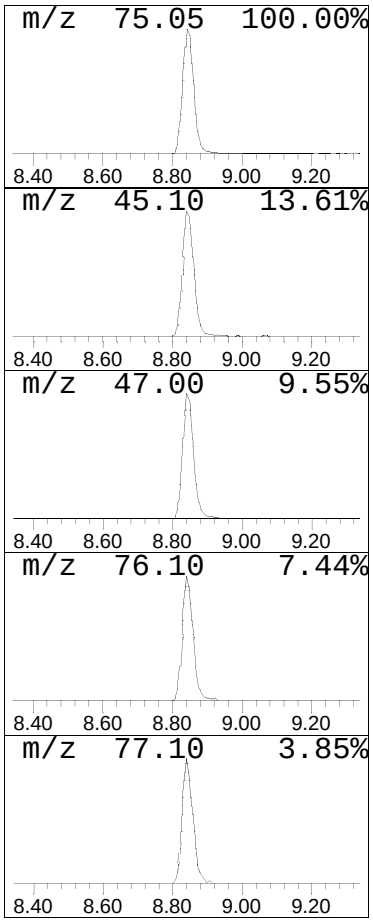
****

Peak Number 1 Silanol, trimethyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
8.84	12.71 ppbV	639197	bromochloromethane	9.93

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	91
2	tert-Butyldimethylsilanol	132	C6H16OSi	018173-64-3	83
3	Silanol, dimethyl(1,1,2-trimethy...	160	C8H20OSi	055644-10-5	64
4	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	47
5	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	47





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111411.d
Acq On : 3 Sep 2015 3:46 am
Operator : AIRLAB11:RY
Sample : L1521092-10D,3,117.4497,250
Misc : WG817978,ICAL11393
ALS Vial : 10 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

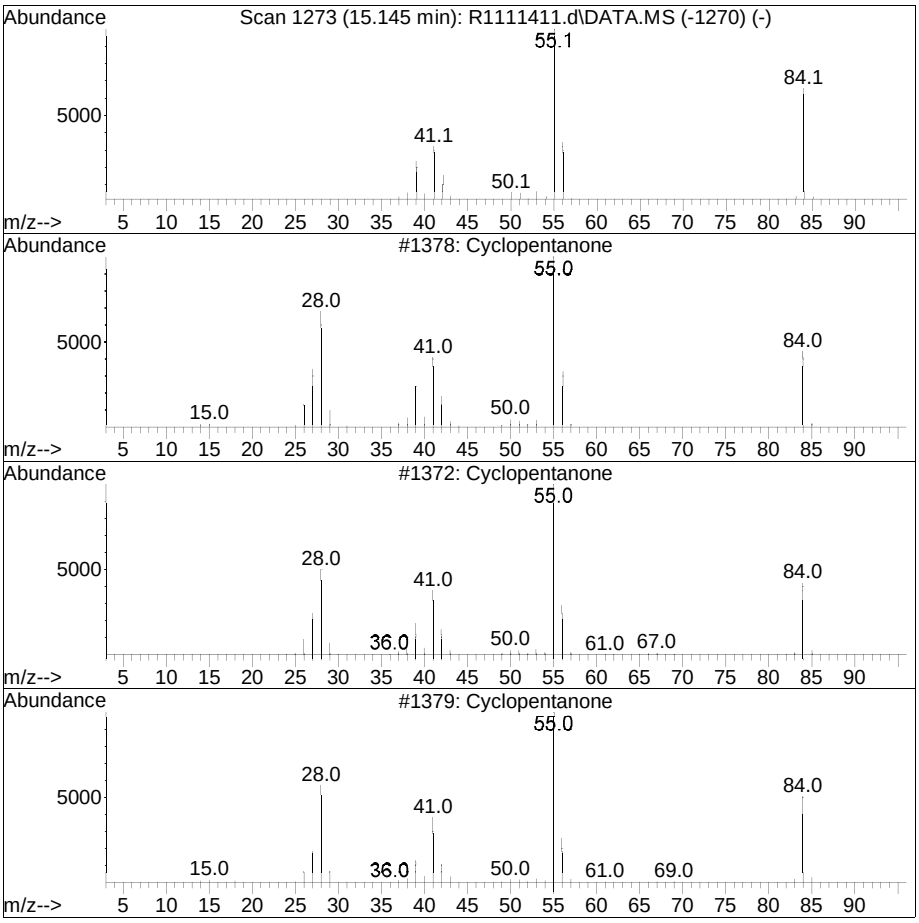
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

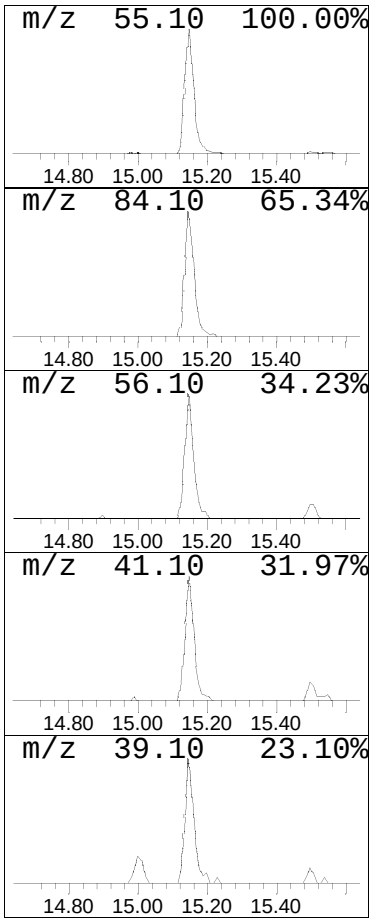
****

Peak Number 2 Cyclopentanone Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.14	1.07 ppbV	127041	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclopentanone	84	C5H8O	000120-92-3	91
2	Cyclopentanone	84	C5H8O	000120-92-3	83
3	Cyclopentanone	84	C5H8O	000120-92-3	80
4	2-Amino-oxazole	84	C3H4N2O	004570-45-0	53
5	Pyridine-D5-	84	C5D5N	007291-22-7	52





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111411.d
Acq On : 3 Sep 2015 3:46 am
Operator : AIRLAB11:RY
Sample : L1521092-10D,3,117.4497,250
Misc : WG817978,ICAL11393
ALS Vial : 10 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

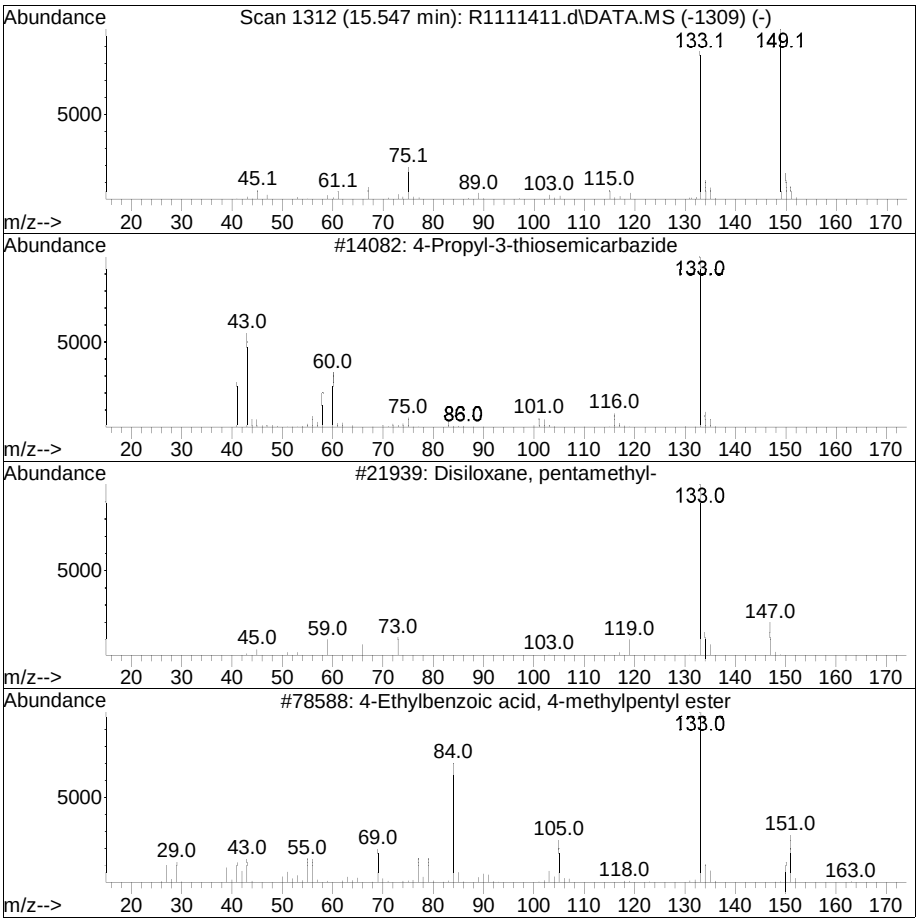
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

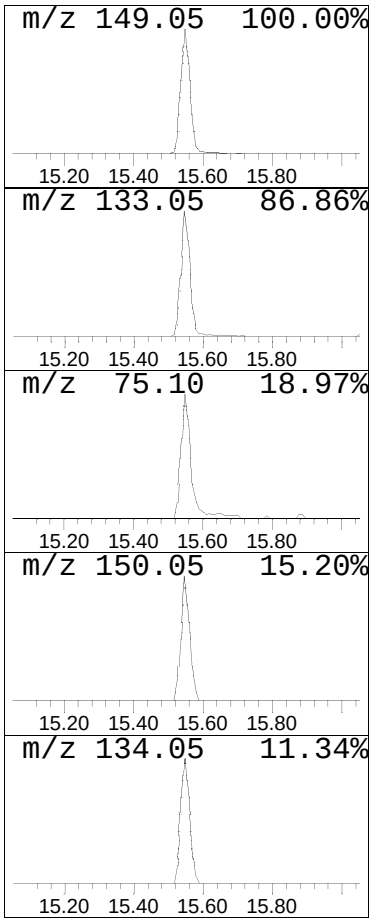
****

Peak Number 3 unknown Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.55	1.87 ppbV	221586	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Propyl-3-thiosemicarbazide	133	C4H11N3S	013431-35-1	25
2	Disiloxane, pentamethyl-	148	C5H16OSi2	001438-82-0	17
3	4-Ethylbenzoic acid, 4-methylpen...	234	C15H22O2	1000293-49-7	17
4	4-tert-Butyltoluene	148	C11H16	000098-51-1	12
5	1H-Benzimidazol-2-amine	133	C7H7N3	000934-32-7	9





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111411.d
Acq On : 3 Sep 2015 3:46 am
Operator : AIRLAB11:RY
Sample : L1521092-10D,3,117.4497,250
Misc : WG817978,ICAL11393
ALS Vial : 10 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

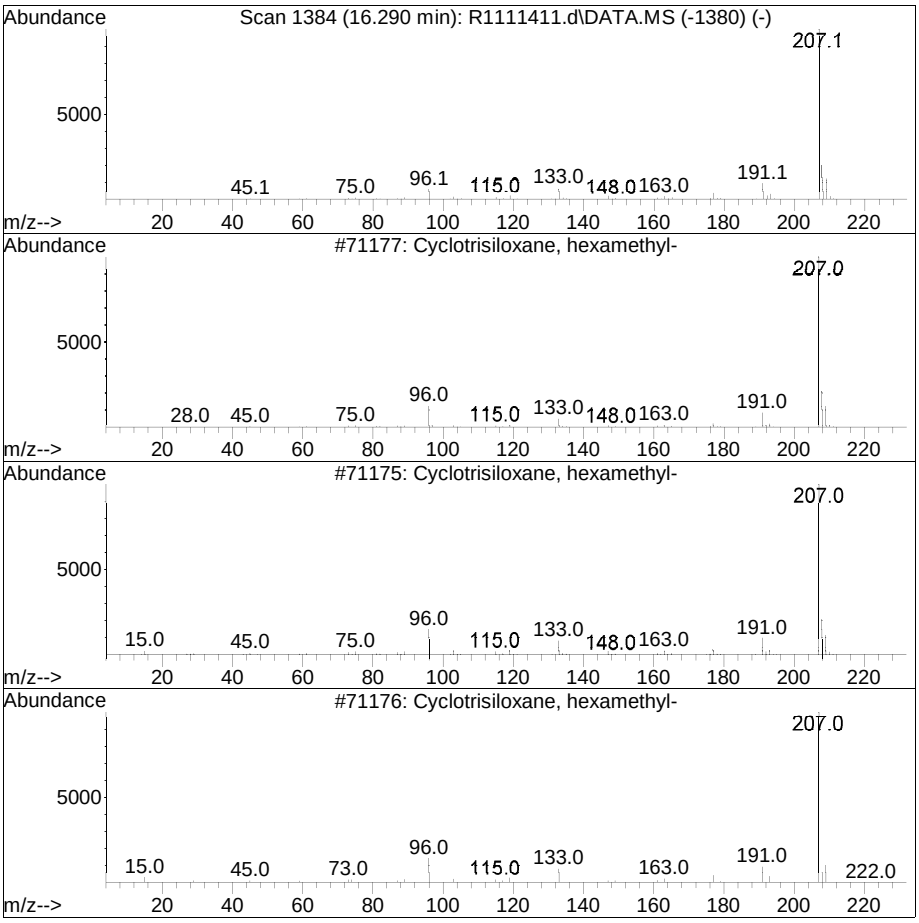
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

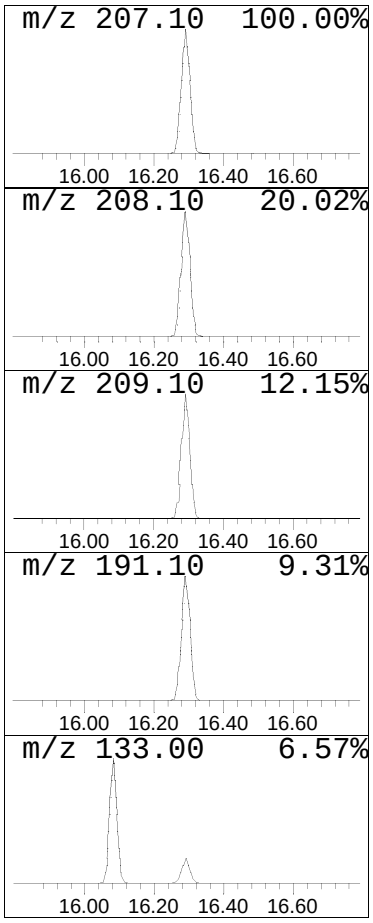
****

Peak Number 4 Cyclotrisiloxane, hexamethyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.29	6.01 ppbV	713778	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	91
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	90
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	72
4	1H-Indole, 1-methyl-2-phenyl-	207	C15H13N	003558-24-5	39
5	Benzo[h]quinoline, 2,4-dimethyl-	207	C15H13N	000605-67-4	39





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111411.d
Acq On : 3 Sep 2015 3:46 am
Operator : AIRLAB11:RY
Sample : L1521092-10D,3,117.4497,250
Misc : WG817978,ICAL11393
ALS Vial : 10 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

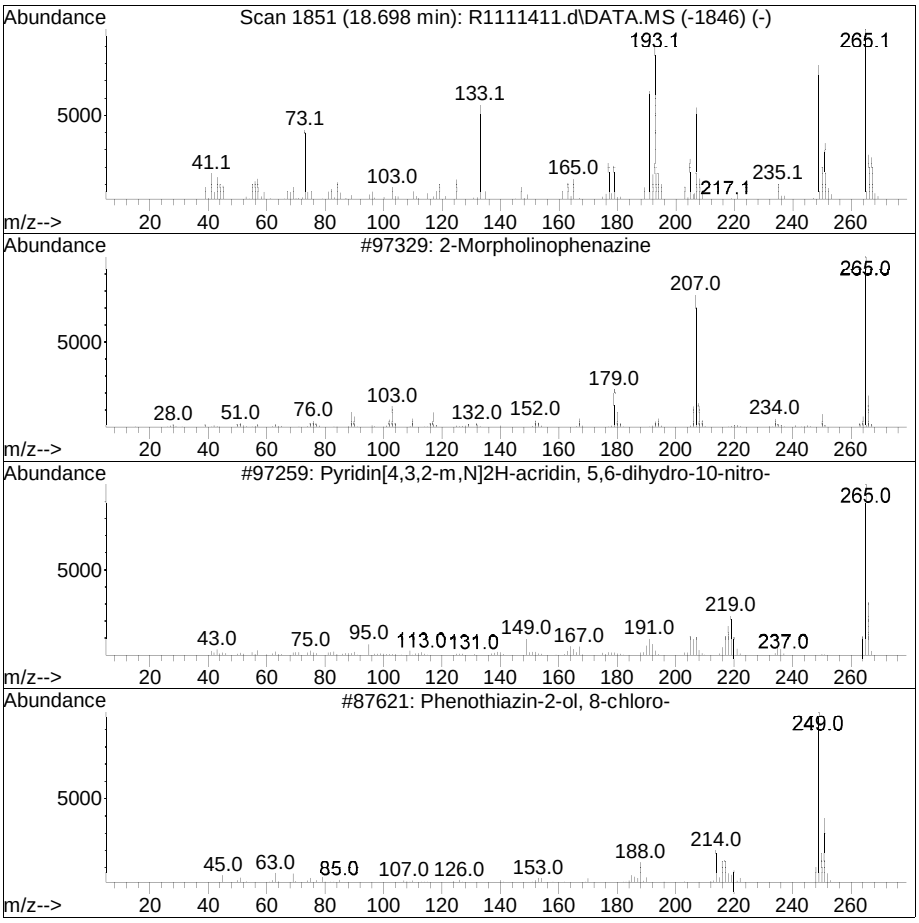
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

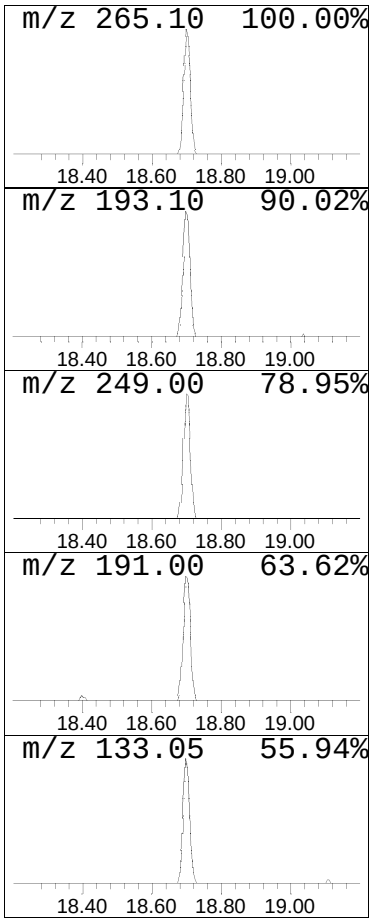
****

Peak Number 6 unknown siloxane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.70	1.92 ppbV	228010	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	2-Morpholinophenazine	265	C16H15N3O	022316-93-4	20
2	Pyridin[4,3,2-m,N]2H-acridin, 5,...	265	C15H11N3O2	160724-44-7	11
3	Phenothiazin-2-ol, 8-chloro-	249	C12H8ClNOS	005909-61-5	11
4	2,6-Dibromo-4-methylaniline	263	C7H7Br2N	006968-24-7	11
5	Benzene, 1,1'-methylenebis[4-azido-	250	C13H10N6	002915-44-8	11





Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111411.d
Acq On : 3 Sep 2015 3:46 am
Operator : AIRLAB11:RY
Sample : L1521092-10D,3,117.4497,250
Misc : WG817978,ICAL11393
ALS Vial : 10 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

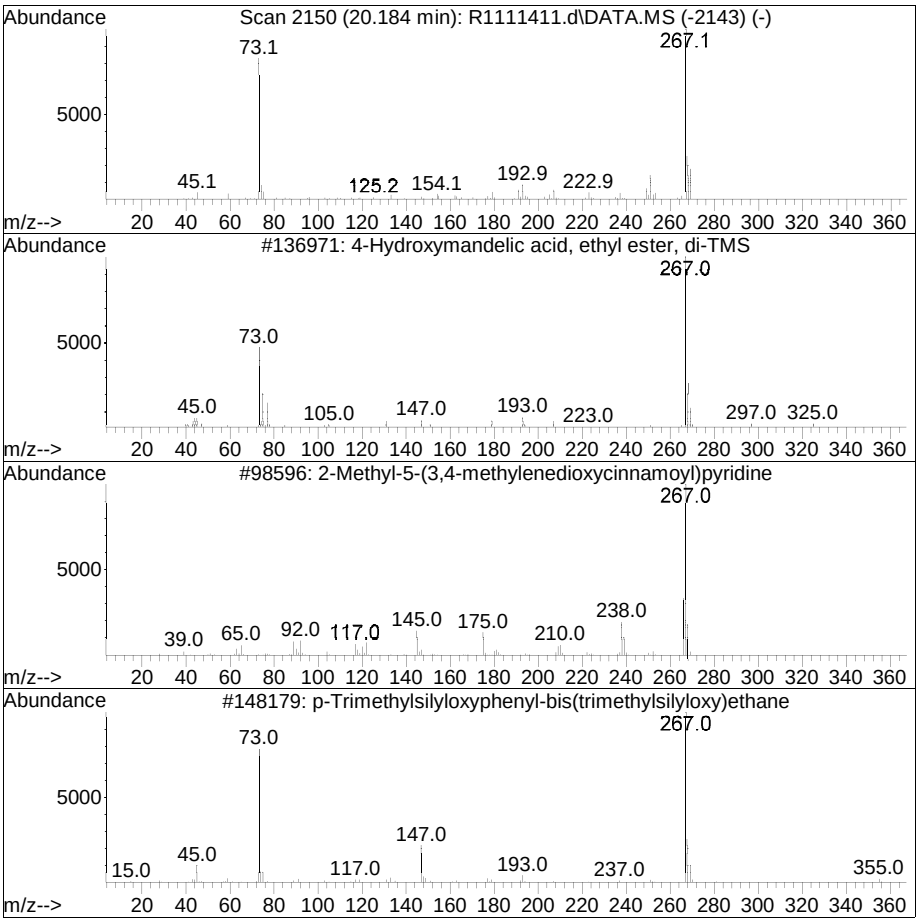
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

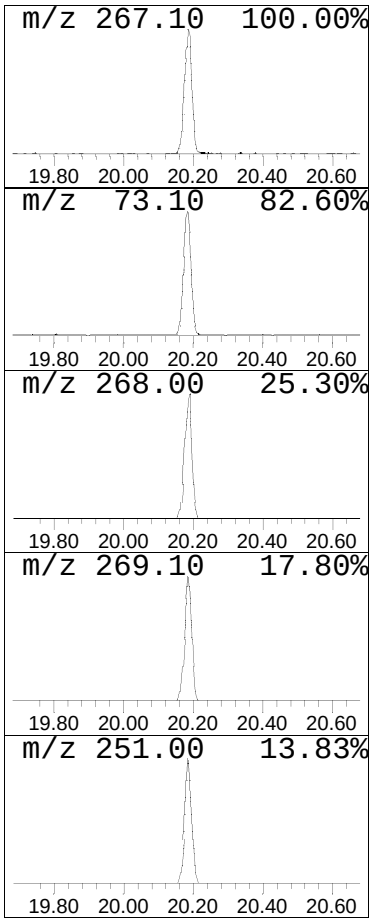
****

Peak Number 7 unknown siloxane Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.18	1.70 ppbV	201879	chlorobenzene-D5	16.63

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-53-3	56
2	2-Methyl-5-(3,4-methylenedioxyci...	267	C16H13NO3	094298-70-1	50
3	p-Trimethylsilyloxyphenyl-bis(tr...	370	C17H34O3Si3	1000079-08-1	50
4	5H-Naphtho[2,3-c]carbazole	267	C20H13N	000198-96-9	40
5	7H-Dibenzo(a,g)carbazole	267	C20H13N	000207-84-1	40





Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111411.d
Acq On : 3 Sep 2015 3:46 am
Operator : AIRLAB11:RY
Sample : L1521092-10D,3,117.4497,250
Misc : WG817978,ICAL11393
ALS Vial : 10 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc
Silanol, trimet...	8.84	12.7	ppbV	639197	1	9.93	502775	10.0
Cyclopentanone	15.14	1.1	ppbV	127041	3	16.63	1187130	10.0
unknown	15.55	1.9	ppbV	221586	3	16.63	1187130	10.0
Cyclotrisiloxan...	16.29	6.0	ppbV	713778	3	16.63	1187130	10.0
unknown siloxane	18.70	1.9	ppbV	228010	3	16.63	1187130	10.0
unknown siloxane	20.18	1.7	ppbV	201879	3	16.63	1187130	10.0

Standards Data Summary

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1521092

Instrument ID: AIRLAB11 Calibration Date(s): 08/28/15 08/28/15

Calibration Times: 02:21 07:10

Calibration Files
0.2 =R1111309.d 0.5 =R1111310.d 1.0 =R1111311.d 5.0 =R1111312.d 10 =R1111313.d 20 =R1111314.d
50 =R1111315.d 100 =R1111316.d

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1)	I	bromochloromethane	----------ISTD----------									
2)		chlorodifluoromethane	2.550	2.157	2.050	2.051	1.859	1.778	1.537	1.401	1.9229	18.93
3)		propylene	0.887	0.670	0.641	0.665	0.574	0.556	0.485	0.435	0.6141	22.60
4)		propane	0.541	0.573	0.503	0.482	0.439	0.438	0.369	0.333	0.4599	17.79
5)		dichlorodifluoromethane	5.335	5.455	5.095	4.904	4.332	3.577	3.183	2.129	4.2512	27.93
6)	C	chloromethane	1.029	0.901	0.799	0.819	0.777	0.743	0.647	0.520	0.7793	19.70
7)		Freon-114	6.151	5.415	5.153	5.088	4.599	4.386	3.653	2.953	4.6749	21.73
8)	C	methanol			0.232	0.224	0.207	0.200	0.168	0.133	0.1938	19.24
9)	C	vinyl chloride	1.485	1.310	1.277	1.190	1.132	1.078	0.913	0.764	1.1438	19.99
10)	C	1,3-butadiene	0.950	0.839	0.811	0.776	0.763	0.720	0.626	0.529	0.7516	17.26
11)		butane	1.932	1.548	1.412	1.337	1.210	1.193	1.024	0.873	1.3161	24.89
12)	C	acetaldehyde		0.554	0.479	0.462	0.428	0.407	0.333	0.262	0.4178	23.14
13)	C	bromomethane	1.771	1.652	1.589	1.598	1.731	1.649	1.401	1.212	1.5752	11.67
14)	C	chloroethane	0.641	0.675	0.626	0.640	0.588	0.571	0.504	0.434	0.5847	13.78
15)		ethanol		0.563	0.476	0.502	0.440	0.468	0.395	0.314	0.4510	17.63
16)		dichlorofluoromethane	4.026	3.690	3.343	3.369	3.122	3.076	2.632	2.275	3.1917	17.44
17)	C	vinyl bromide	2.364	2.184	1.888	1.881	1.742	1.696	1.465	1.250	1.8087	19.92
18)	C	acrolein	0.635	0.461	0.417	0.451	0.417	0.430	0.375	0.332	0.4398	20.30
19)		acetone	2.185	1.958	1.769	1.762	1.620	1.586	1.347	1.112	1.6674	20.15
20)	C	acetonitrile	0.916	0.741	0.709	0.706	0.644	0.622	0.555	0.487	0.6725	19.31
21)		trichlorofluoromethane	7.523	6.775	6.422	6.465	5.928	5.721	4.920	4.142	5.9871	17.87
22)		isopropyl alcohol	2.200	1.874	1.582	1.677	1.458	1.546	1.353	1.079	1.5961	21.14
23)	C	acrylonitrile	0.910	0.890	0.807	0.780	0.726	0.766	0.656	0.598	0.7667	13.93
24)		pentane	2.071	1.630	1.533	1.437	1.311	1.334	1.148	0.966	1.4288	23.36
25)		ethyl ether	0.854	0.773	0.758	0.786	0.737	0.710	0.638	0.533	0.7237	13.67
26)	C	1,1-dichloroethene	3.149	2.723	2.600	2.521	2.265	2.226	1.965	1.688	2.3919	19.12
27)		tertiary butyl alcohol		3.357	3.192	3.206	2.848	2.894	2.570	2.159	2.8894	14.47
28)	C	methylene chloride		1.727	1.440	1.349	1.225	1.181	1.021	0.880	1.2604	22.14
29)	C	3-chloropropene	1.610	1.282	1.210	1.249	1.145	1.132	0.999	0.860	1.1858	18.57
30)	C	carbon disulfide	4.976	4.909	4.500	4.612	4.264	4.105	3.534	2.987	4.2358	16.17
31)		Freon 113	4.768	4.461	4.273	4.229	3.847	3.681	3.173	2.665	3.8871	17.98
32)		trans-1,2-dichloroethene	2.734	2.427	2.279	2.321	2.112	2.084	1.810	1.577	2.1679	16.64
33)	C	1,1-dichloroethane	2.948	2.753	2.661	2.576	2.378	2.348	2.035	1.783	2.4353	15.75
34)	C	MTBE	5.890	5.408	4.869	5.085	4.626	4.584	3.999	3.499	4.7449	15.99
35)	C	vinyl acetate	1.480	1.518	1.628	1.023	1.272	1.511	1.612	1.554	1.4498	14.08
36)	C	2-butanone	2.522	2.296	2.144	2.204	2.017	1.984	1.754	1.553	2.0592	14.87
37)		cis-1,2-dichloroethene	2.398	2.234	1.953	2.416	2.194	2.200	1.920	1.715	2.1286	11.52
38)		Ethyl Acetate	0.354	0.401	0.374	0.448	0.378	0.381	0.331	0.293	0.3700	12.50
39)	C	chloroform	4.983	4.323	4.157	4.090	3.676	3.561	3.053	2.549	3.7990	20.09
40)		Tetrahydrofuran	1.167	1.105	1.021	1.101	0.995	1.000	0.884	0.803	1.0094	11.90
41)		2,2-dichloropropane	4.180	3.908	3.585	3.552	3.307	3.269	2.809	2.420	3.3787	16.80
42)	C	1,2-dichloroethane	3.244	2.849	2.736	2.808	2.495	2.428	2.144	1.881	2.5732	16.74
43)	I	1,4-difluorobenzene	----------ISTD----------									

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1521092

Instrument ID: AIRLAB11 Calibration Date(s): 08/28/15 08/28/15

Calibration Times: 02:21 07:10

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
44)	C	hexane	0.355	0.307	0.311	0.318	0.292	0.285	0.256	0.238	0.2953	12.35
45)		diisopropyl ether	0.274	0.247	0.254	0.251	0.230	0.227	0.200	0.184	0.2334	12.66
46)		tert-butyl ethyl ether	0.854	0.771	0.761	0.785	0.717	0.712	0.646	0.601	0.7308	10.98
47)	s	1,2-dichloroethane-D4	0.405	0.410	0.396	0.396	0.352	0.335	0.323	0.319	0.3670	10.49
48)	C	1,1,1-trichloroethane	0.954	0.842	0.809	0.830	0.765	0.752	0.683	0.637	0.7838	12.58
49)		1,1-dichloropropene	0.480	0.414	0.413	0.437	0.399	0.409	0.367	0.348	0.4083	9.87
50)	C	benzene	0.940	0.830	0.820	0.827	0.748	0.748	0.679	0.638	0.7788	12.32
51)		thiophene	0.638	0.620	0.592	0.610	0.557	0.556	0.494	0.451	0.5647	11.47
52)	C	carbon tetrachloride	1.060	1.005	0.942	0.959	0.888	0.882	0.796	0.724	0.9071	12.04
53)		cyclohexane	0.366	0.331	0.324	0.328	0.298	0.305	0.275	0.259	0.3108	10.96
54)		tert-amyl methyl ether	0.930	0.849	0.828	0.836	0.766	0.765	0.694	0.655	0.7903	11.24
55)		dibromomethane	0.431	0.410	0.402	0.402	0.375	0.361	0.325	0.302	0.3759	11.77
56)	C	1,2-dichloropropane	0.262	0.233	0.241	0.237	0.217	0.215	0.192	0.178	0.2219	12.42
57)		bromodichloromethane	0.825	0.786	0.757	0.794	0.733	0.720	0.650	0.608	0.7343	10.06
58)	C	1,4-dioxane	0.239	0.178	0.194	0.218	0.183	0.196	0.171	0.143	0.1903	15.38
59)	C	trichloroethene	0.588	0.552	0.540	0.545	0.513	0.503	0.427	0.382	0.5062	13.59
60)	C	2,2,4-trimethylpentane	1.190	1.063	1.037	1.063	0.973	0.963	0.841	0.763	0.9864	13.68
61)		methyl methacrylate	0.201	0.212	0.225	0.248	0.228	0.238	0.218	0.207	0.2221	7.13
62)		heptane	0.315	0.320	0.312	0.322	0.296	0.293	0.261	0.244	0.2955	9.70
63)	C	cis-1,3-dichloropropene	0.432	0.287	0.245	0.249	0.198	0.204	0.189	0.243	0.2558	30.50#
64)	C	4-methyl-2-pentanone	0.632	0.559	0.554	0.712	0.661	0.675	0.605	0.548	0.6184	10.00
65)		trans-1,3-dichloropropene	0.321	0.336	0.338	0.373	0.386	0.404	0.322	0.286	0.3456	11.32
66)	C	1,1,2-trichloroethane	0.399	0.384	0.386	0.400	0.361	0.360	0.319	0.300	0.3637	10.12
67)	I	chlorobenzene-D5	----------ISTD----------									
68)	C	toluene	7.134	6.922	6.614	6.722	6.084	6.216	5.439	5.018	6.2686	11.74
69)	s	toluene-D8	5.946	5.950	5.748	5.714	5.235	5.026	4.892	5.006	5.4396	8.19
70)		2-methylthiophene	6.206	5.454	5.414	5.558	4.959	5.178	4.564	4.244	5.1972	11.79
71)		1,3-dichloropropane	3.362	2.771	2.601	2.784	2.505	2.528	2.227	2.061	2.6048	15.13
72)		2-hexanone	2.399	2.217	2.305	2.649	2.402	2.392	2.101	1.934	2.3000	9.45
73)		3-methylthiophene	6.759	6.086	5.704	6.069	5.495	5.597	4.890	4.429	5.6287	12.90
74)		dibromochloromethane	6.311	5.585	5.454	5.858	5.350	5.387	4.743	4.281	5.3710	11.68
75)	C	1,2-dibromoethane	4.626	3.810	3.784	4.002	3.655	3.695	3.251	3.023	3.7307	12.90
76)		butyl acetate		0.700	0.687	0.716	0.654	0.671	0.595	0.555	0.6541	8.96
77)		octane	2.180	2.189	1.900	2.095	1.900	1.921	1.675	1.512	1.9215	12.40
78)	C	tetrachloroethene	6.189	5.458	5.218	5.139	4.614	4.551	3.880	3.443	4.8115	18.31
79)		1,1,1,2-tetrachloroethane	4.222	3.842	3.859	3.957	3.602	3.628	3.117	2.787	3.6268	12.89
80)	C	chlorobenzene	7.040	6.289	5.839	6.077	5.420	5.454	4.643	4.136	5.6122	16.42
81)	C	ethylbenzene	1.014	0.917	0.886	0.934	0.846	0.857	0.740	0.670	0.8579	12.74
82)		2-ethylthiophene	7.856	7.375	7.327	7.544	6.847	7.050	6.109	5.498	6.9505	11.32
83)	C	m+p-xylene	8.555	7.730	7.556	7.920	7.060	7.057	5.981	5.218	7.1345	15.15
84)	C	bromoform	7.163	6.862	6.728	7.408	6.811	6.820	5.835	5.115	6.5927	11.38
85)	C	styrene	5.990	5.602	5.274	5.937	5.411	5.484	4.733	4.287	5.3397	10.86
86)	C	1,1,2,2-tetrachloroethane	4.946	4.752	4.569	4.607	4.078	3.940	3.249	2.815	4.1194	18.39
87)	C	o-xylene	8.991	8.029	7.630	8.018	7.173	7.061	5.819	5.039	7.2200	17.63
88)		1,2,3-trichloropropane	4.303	3.949	3.702	3.883	3.508	3.473	2.999	2.752	3.5713	14.22
89)		nonane	3.041	2.758	2.803	2.884	2.576	2.551	2.141	1.916	2.5836	14.79
90)	s	bromofluorobenzene	4.996	5.020	4.863	4.949	4.517	4.358	4.163	4.254	4.6401	7.68

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1521092

Instrument ID: AIRLAB11 Calibration Date(s): 08/28/15 08/28/15

Calibration Times: 02:21 07:10

	Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
91) C	isopropylbenzene	1.334	1.164	1.115	1.156	1.040	1.034	0.866	0.747	1.0570	17.31
92)	bromobenzene	5.726	5.279	5.059	5.305	4.795	4.767	4.075	3.687	4.8365	13.90
93)	2-chlorotoluene	3.492	3.225	3.113	3.261	2.939	2.893	2.432	2.133	2.9362	15.40
94)	n-propylbenzene	3.584	3.396	3.324	3.511	3.123	3.054	2.499	2.156	3.0807	16.43
95)	4-chlorotoluene	9.791	8.574	8.190	8.948	8.035	7.804	6.367	5.834	7.9429	16.38
96)	4-ethyl toluene	1.374	1.275	1.232	1.317	1.177	1.157	0.949	0.804	1.1606	16.61
97)	1,3,5-trimethylbenzene	1.173	1.082	1.035	1.093	0.975	0.962	0.797	0.680	0.9747	16.78
98)	tert-butylbenzene	1.276	1.181	1.171	1.205	1.065	1.015	0.801	0.671	1.0481	20.19
99)	1,2,4-trimethylbenzene	1.114	1.026	1.021	1.080	0.960	0.911	0.724	0.600	0.9296	19.38
100)	decane	4.561	4.170	3.984	4.230	3.752	3.674	2.972	2.592	3.7417	17.70
101) C	Benzyl Chloride	7.509	7.252	7.373	8.814	8.195	8.279	7.116	6.098	7.5793	11.10
102)	1,3-dichlorobenzene	8.966	8.401	7.988	8.516	7.634	7.326	5.916	4.924	7.4589	18.56
103) C	1,4-dichlorobenzene	9.108	8.429	8.153	8.558	7.641	7.424	6.001	4.955	7.5336	18.59
104)	sec-butylbenzene	1.596	1.420	1.406	1.480	1.306	1.262	1.008	0.812	1.2861	20.13
105)	1,2,3-trimethylbenzene	1.014	0.935	0.921	0.907	0.805	0.815	0.659	0.549	0.8256	18.77
106)	p-isopropyltoluene	1.537	1.438	1.413	1.478	1.325	1.258	0.989	0.796	1.2791	20.24
107)	1,2-dichlorobenzene	8.781	8.028	7.841	8.130	7.296	7.123	5.869	4.999	7.2582	17.32
108)	n-butylbenzene	1.156	1.108	1.094	1.169	1.043	1.007	0.814	0.691	1.0104	16.92
109)	indan	1.061	0.961	0.981	0.970	0.870	0.891	0.731	0.619	0.8854	16.42
110)	indene	5.988	5.516	5.467	5.649	5.190	5.582	4.749	4.229	5.2962	10.62
111) C	1,2-dibromo-3-chloropropane	3.178	2.979	3.054	3.376	3.102	3.089	2.692	2.399	2.9836	10.21
112)	undecane	4.547	4.440	4.466	5.061	4.526	4.394	3.514	3.053	4.2500	15.15
113)	1,2,4,5-tetramethylbenzene	2.025	1.934	1.953	2.352	2.089	1.821	1.417	1.121	1.8389	21.32
114)	dodecane	3.509	3.929	4.321	5.402	5.026	4.712	3.693	3.127	4.2151	18.73
115) C	1,2,4-trichlorobenzene	7.468	8.025	8.179	9.294	8.472	8.145	6.589	5.371	7.6929	15.83
116)	naphthalene	1.125	1.267	1.343	1.597	1.475	1.418	1.168	0.973	1.2957	15.72
117)	1,2,3-trichlorobenzene	7.020	7.278	7.739	8.783	8.138	7.723	6.390	5.414	7.3106	14.38
118)	benzothiophene	1.059	1.134	1.234	1.597	1.494	1.366	1.127	0.942	1.2440	18.07
119) C	hexachlorobutadiene	0.963	0.934	0.954	1.008	0.894	0.863	0.692	0.552	0.8574	18.20
120)	2-methylnaphthalene			3.197	6.802	7.521	7.748	6.986	6.207	6.4101	25.99
121)	1-methylnaphthalene			3.367	6.719	7.107	6.575	5.836	5.268	5.8121	23.53

FORM VI-NJ-TO15

Response Factor Report Airlab 11

Method Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Method File : TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Fri Aug 28 08:37:33 2015
Response Via : Initial Calibration

Calibration Files
0.2 =R1111309.d 0.5 =R1111310.d 1.0 =R1111311.d 5.0 =R1111312.d 10 =R1111313.d 20 =R1111314.d
50 =R1111315.d 100 =R1111316.d

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1)	I	bromochloromethane	----------ISTD----------									
2)		chlorodifluoromethane	2.550	2.157	2.050	2.051	1.859	1.778	1.537	1.401	1.9229	18.93
3)		propylene	0.887	0.670	0.641	0.665	0.574	0.556	0.485	0.435	0.6141	22.60
4)		propane	0.541	0.573	0.503	0.482	0.439	0.438	0.369	0.333	0.4599	17.79
5)		dichlorodifluoromethane	5.335	5.455	5.095	4.904	4.332	3.577	3.183	2.129	4.2512	27.93
6)	C	chloromethane	1.029	0.901	0.799	0.819	0.777	0.743	0.647	0.520	0.7793	19.70
7)		Freon-114	6.151	5.415	5.153	5.088	4.599	4.386	3.653	2.953	4.6749	21.73
8)	C	methanol			0.232	0.224	0.207	0.200	0.168	0.133	0.1938	19.24
9)	C	vinyl chloride	1.485	1.310	1.277	1.190	1.132	1.078	0.913	0.764	1.1438	19.99
10)	C	1,3-butadiene	0.950	0.839	0.811	0.776	0.763	0.720	0.626	0.529	0.7516	17.26
11)		butane	1.932	1.548	1.412	1.337	1.210	1.193	1.024	0.873	1.3161	24.89
12)	C	acetaldehyde		0.554	0.479	0.462	0.428	0.407	0.333	0.262	0.4178	23.14
13)	C	bromomethane	1.771	1.652	1.589	1.598	1.731	1.649	1.401	1.212	1.5752	11.67
14)	C	chloroethane	0.641	0.675	0.626	0.640	0.588	0.571	0.504	0.434	0.5847	13.78
15)		ethanol		0.563	0.476	0.502	0.440	0.468	0.395	0.314	0.4510	17.63
16)		dichlorofluoromethane	4.026	3.690	3.343	3.369	3.122	3.076	2.632	2.275	3.1917	17.44
17)	C	vinyl bromide	2.364	2.184	1.888	1.881	1.742	1.696	1.465	1.250	1.8087	19.92
18)	C	acrolein	0.635	0.461	0.417	0.451	0.417	0.430	0.375	0.332	0.4398	20.30
19)		acetone	2.185	1.958	1.769	1.762	1.620	1.586	1.347	1.112	1.6674	20.15
20)	C	acetonitrile	0.916	0.741	0.709	0.706	0.644	0.622	0.555	0.487	0.6725	19.31
21)		trichlorofluoromethane	7.523	6.775	6.422	6.465	5.928	5.721	4.920	4.142	5.9871	17.87
22)		isopropyl alcohol	2.200	1.874	1.582	1.677	1.458	1.546	1.353	1.079	1.5961	21.14
23)	C	acrylonitrile	0.910	0.890	0.807	0.780	0.726	0.766	0.656	0.598	0.7667	13.93
24)		pentane	2.071	1.630	1.533	1.437	1.311	1.334	1.148	0.966	1.4288	23.36
25)		ethyl ether	0.854	0.773	0.758	0.786	0.737	0.710	0.638	0.533	0.7237	13.67
26)	C	1,1-dichloroethene	3.149	2.723	2.600	2.521	2.265	2.226	1.965	1.688	2.3919	19.12
27)		tertiary butyl alcohol		3.357	3.192	3.206	2.848	2.894	2.570	2.159	2.8894	14.47
28)	C	methylene chloride		1.727	1.440	1.349	1.225	1.181	1.021	0.880	1.2604	22.14
29)	C	3-chloropropene	1.610	1.282	1.210	1.249	1.145	1.132	0.999	0.860	1.1858	18.57
30)	C	carbon disulfide	4.976	4.909	4.500	4.612	4.264	4.105	3.534	2.987	4.2358	16.17
31)		Freon 113	4.768	4.461	4.273	4.229	3.847	3.681	3.173	2.665	3.8871	17.98

Method Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Method File : TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Fri Aug 28 08:37:33 2015
Response Via : Initial Calibration

Calibration Files
0.2 =R1111309.d 0.5 =R1111310.d 1.0 =R1111311.d 5.0 =R1111312.d 10 =R1111313.d 20 =R1111314.d
50 =R1111315.d 100 =R1111316.d

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
32)		trans-1,2-dichloroethene	2.734	2.427	2.279	2.321	2.112	2.084	1.810	1.577	2.1679	16.64
33)	C	1,1-dichloroethane	2.948	2.753	2.661	2.576	2.378	2.348	2.035	1.783	2.4353	15.75
34)	C	MTBE	5.890	5.408	4.869	5.085	4.626	4.584	3.999	3.499	4.7449	15.99
35)	C	vinyl acetate	1.480	1.518	1.628	1.023	1.272	1.511	1.612	1.554	1.4498	14.08
36)	C	2-butanone	2.522	2.296	2.144	2.204	2.017	1.984	1.754	1.553	2.0592	14.87
37)		cis-1,2-dichloroethene	2.398	2.234	1.953	2.416	2.194	2.200	1.920	1.715	2.1286	11.52
38)		Ethyl Acetate	0.354	0.401	0.374	0.448	0.378	0.381	0.331	0.293	0.3700	12.50
39)	C	chloroform	4.983	4.323	4.157	4.090	3.676	3.561	3.053	2.549	3.7990	20.09
40)		Tetrahydrofuran	1.167	1.105	1.021	1.101	0.995	1.000	0.884	0.803	1.0094	11.90
41)		2,2-dichloropropane	4.180	3.908	3.585	3.552	3.307	3.269	2.809	2.420	3.3787	16.80
42)	C	1,2-dichloroethane	3.244	2.849	2.736	2.808	2.495	2.428	2.144	1.881	2.5732	16.74
43)	I	1,4-difluorobenzene	----------ISTD----------									
44)	C	hexane	0.355	0.307	0.311	0.318	0.292	0.285	0.256	0.238	0.2953	12.35
45)		diisopropyl ether	0.274	0.247	0.254	0.251	0.230	0.227	0.200	0.184	0.2334	12.66
46)		tert-butyl ethyl ether	0.854	0.771	0.761	0.785	0.717	0.712	0.646	0.601	0.7308	10.98
47)	s	1,2-dichloroethane-D4	0.405	0.410	0.396	0.396	0.352	0.335	0.323	0.319	0.3670	10.49
48)	C	1,1,1-trichloroethane	0.954	0.842	0.809	0.830	0.765	0.752	0.683	0.637	0.7838	12.58
49)		1,1-dichloropropene	0.480	0.414	0.413	0.437	0.399	0.409	0.367	0.348	0.4083	9.87
50)	C	benzene	0.940	0.830	0.820	0.827	0.748	0.748	0.679	0.638	0.7788	12.32
51)		thiophene	0.638	0.620	0.592	0.610	0.557	0.556	0.494	0.451	0.5647	11.47
52)	C	carbon tetrachloride	1.060	1.005	0.942	0.959	0.888	0.882	0.796	0.724	0.9071	12.04
53)		cyclohexane	0.366	0.331	0.324	0.328	0.298	0.305	0.275	0.259	0.3108	10.96
54)		tert-amyl methyl ether	0.930	0.849	0.828	0.836	0.766	0.765	0.694	0.655	0.7903	11.24
55)		dibromomethane	0.431	0.410	0.402	0.402	0.375	0.361	0.325	0.302	0.3759	11.77
56)	C	1,2-dichloropropane	0.262	0.233	0.241	0.237	0.217	0.215	0.192	0.178	0.2219	12.42
57)		bromodichloromethane	0.825	0.786	0.757	0.794	0.733	0.720	0.650	0.608	0.7343	10.06
58)	C	1,4-dioxane	0.239	0.178	0.194	0.218	0.183	0.196	0.171	0.143	0.1903	15.38
59)	C	trichloroethene	0.588	0.552	0.540	0.545	0.513	0.503	0.427	0.382	0.5062	13.59
60)	C	2,2,4-trimethylpentane	1.190	1.063	1.037	1.063	0.973	0.963	0.841	0.763	0.9864	13.68
61)		methyl methacrylate	0.201	0.212	0.225	0.248	0.228	0.238	0.218	0.207	0.2221	7.13
62)		heptane	0.315	0.320	0.312	0.322	0.296	0.293	0.261	0.244	0.2955	9.70

Method Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Method File : TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Fri Aug 28 08:37:33 2015
Response Via : Initial Calibration

Calibration Files
0.2 =R1111309.d 0.5 =R1111310.d 1.0 =R1111311.d 5.0 =R1111312.d 10 =R1111313.d 20 =R1111314.d
50 =R1111315.d 100 =R1111316.d

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
63)	C	cis-1,3-dichloropropene	0.432	0.287	0.245	0.249	0.198	0.204	0.189	0.243	0.2558	30.50#
64)	C	4-methyl-2-pentanone	0.632	0.559	0.554	0.712	0.661	0.675	0.605	0.548	0.6184	10.00
65)		trans-1,3-dichloropropene	0.321	0.336	0.338	0.373	0.386	0.404	0.322	0.286	0.3456	11.32
66)	C	1,1,2-trichloroethane	0.399	0.384	0.386	0.400	0.361	0.360	0.319	0.300	0.3637	10.12
67)	I	chlorobenzene-D5	----------ISTD----------									
68)	C	toluene	7.134	6.922	6.614	6.722	6.084	6.216	5.439	5.018	6.2686	11.74
69)	s	toluene-D8	5.946	5.950	5.748	5.714	5.235	5.026	4.892	5.006	5.4396	8.19
70)		2-methylthiophene	6.206	5.454	5.414	5.558	4.959	5.178	4.564	4.244	5.1972	11.79
71)		1,3-dichloropropane	3.362	2.771	2.601	2.784	2.505	2.528	2.227	2.061	2.6048	15.13
72)		2-hexanone	2.399	2.217	2.305	2.649	2.402	2.392	2.101	1.934	2.3000	9.45
73)		3-methylthiophene	6.759	6.086	5.704	6.069	5.495	5.597	4.890	4.429	5.6287	12.90
74)		dibromochloromethane	6.311	5.585	5.454	5.858	5.350	5.387	4.743	4.281	5.3710	11.68
75)	C	1,2-dibromoethane	4.626	3.810	3.784	4.002	3.655	3.695	3.251	3.023	3.7307	12.90
76)		butyl acetate		0.700	0.687	0.716	0.654	0.671	0.595	0.555	0.6541	8.96
77)		octane	2.180	2.189	1.900	2.095	1.900	1.921	1.675	1.512	1.9215	12.40
78)	C	tetrachloroethene	6.189	5.458	5.218	5.139	4.614	4.551	3.880	3.443	4.8115	18.31
79)		1,1,1,2-tetrachloroethane	4.222	3.842	3.859	3.957	3.602	3.628	3.117	2.787	3.6268	12.89
80)	C	chlorobenzene	7.040	6.289	5.839	6.077	5.420	5.454	4.643	4.136	5.6122	16.42
81)	C	ethylbenzene	1.014	0.917	0.886	0.934	0.846	0.857	0.740	0.670	0.8579	12.74
82)		2-ethylthiophene	7.856	7.375	7.327	7.544	6.847	7.050	6.109	5.498	6.9505	11.32
83)	C	m+p-xylene	8.555	7.730	7.556	7.920	7.060	7.057	5.981	5.218	7.1345	15.15
84)	C	bromoform	7.163	6.862	6.728	7.408	6.811	6.820	5.835	5.115	6.5927	11.38
85)	C	styrene	5.990	5.602	5.274	5.937	5.411	5.484	4.733	4.287	5.3397	10.86
86)	C	1,1,2,2-tetrachloroethane	4.946	4.752	4.569	4.607	4.078	3.940	3.249	2.815	4.1194	18.39
87)	C	o-xylene	8.991	8.029	7.630	8.018	7.173	7.061	5.819	5.039	7.2200	17.63
88)		1,2,3-trichloropropane	4.303	3.949	3.702	3.883	3.508	3.473	2.999	2.752	3.5713	14.22
89)		nonane	3.041	2.758	2.803	2.884	2.576	2.551	2.141	1.916	2.5836	14.79
90)	s	bromofluorobenzene	4.996	5.020	4.863	4.949	4.517	4.358	4.163	4.254	4.6401	7.68
91)	C	isopropylbenzene	1.334	1.164	1.115	1.156	1.040	1.034	0.866	0.747	1.0570	17.31
92)		bromobenzene	5.726	5.279	5.059	5.305	4.795	4.767	4.075	3.687	4.8365	13.90
93)		2-chlorotoluene	3.492	3.225	3.113	3.261	2.939	2.893	2.432	2.133	2.9362	15.40

Method Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Method File : TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Fri Aug 28 08:37:33 2015
Response Via : Initial Calibration

Calibration Files
0.2 =R1111309.d 0.5 =R1111310.d 1.0 =R1111311.d 5.0 =R1111312.d 10 =R1111313.d 20 =R1111314.d
50 =R1111315.d 100 =R1111316.d

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
94)		n-propylbenzene	3.584	3.396	3.324	3.511	3.123	3.054	2.499	2.156	3.0807	16.43
95)		4-chlorotoluene	9.791	8.574	8.190	8.948	8.035	7.804	6.367	5.834	7.9429	16.38
96)		4-ethyl toluene	1.374	1.275	1.232	1.317	1.177	1.157	0.949	0.804	1.1606	16.61
97)		1,3,5-trimethylbenzene	1.173	1.082	1.035	1.093	0.975	0.962	0.797	0.680	0.9747	16.78
98)		tert-butylbenzene	1.276	1.181	1.171	1.205	1.065	1.015	0.801	0.671	1.0481	20.19
99)		1,2,4-trimethylbenzene	1.114	1.026	1.021	1.080	0.960	0.911	0.724	0.600	0.9296	19.38
100)		decane	4.561	4.170	3.984	4.230	3.752	3.674	2.972	2.592	3.7417	17.70
101)	C	Benzyl Chloride	7.509	7.252	7.373	8.814	8.195	8.279	7.116	6.098	7.5793	11.10
102)		1,3-dichlorobenzene	8.966	8.401	7.988	8.516	7.634	7.326	5.916	4.924	7.4589	18.56
103)	C	1,4-dichlorobenzene	9.108	8.429	8.153	8.558	7.641	7.424	6.001	4.955	7.5336	18.59
104)		sec-butylbenzene	1.596	1.420	1.406	1.480	1.306	1.262	1.008	0.812	1.2861	20.13
105)		1,2,3-trimethylbenzene	1.014	0.935	0.921	0.907	0.805	0.815	0.659	0.549	0.8256	18.77
106)		p-isopropyltoluene	1.537	1.438	1.413	1.478	1.325	1.258	0.989	0.796	1.2791	20.24
107)		1,2-dichlorobenzene	8.781	8.028	7.841	8.130	7.296	7.123	5.869	4.999	7.2582	17.32
108)		n-butylbenzene	1.156	1.108	1.094	1.169	1.043	1.007	0.814	0.691	1.0104	16.92
109)		indan	1.061	0.961	0.981	0.970	0.870	0.891	0.731	0.619	0.8854	16.42
110)		indene	5.988	5.516	5.467	5.649	5.190	5.582	4.749	4.229	5.2962	10.62
111)	C	1,2-dibromo-3-chloropropane	3.178	2.979	3.054	3.376	3.102	3.089	2.692	2.399	2.9836	10.21
112)		undecane	4.547	4.440	4.466	5.061	4.526	4.394	3.514	3.053	4.2500	15.15
113)		1,2,4,5-tetramethylbenzene	2.025	1.934	1.953	2.352	2.089	1.821	1.417	1.121	1.8389	21.32
114)		dodecane	3.509	3.929	4.321	5.402	5.026	4.712	3.693	3.127	4.2151	18.73
115)	C	1,2,4-trichlorobenzene	7.468	8.025	8.179	9.294	8.472	8.145	6.589	5.371	7.6929	15.83
116)		naphthalene	1.125	1.267	1.343	1.597	1.475	1.418	1.168	0.973	1.2957	15.72
117)		1,2,3-trichlorobenzene	7.020	7.278	7.739	8.783	8.138	7.723	6.390	5.414	7.3106	14.38
118)		benzothiophene	1.059	1.134	1.234	1.597	1.494	1.366	1.127	0.942	1.2440	18.07
119)	C	hexachlorobutadiene	0.963	0.934	0.954	1.008	0.894	0.863	0.692	0.552	0.8574	18.20
120)		2-methylnaphthalene			3.197	6.802	7.521	7.748	6.986	6.207	6.4101	25.99
121)		1-methylnaphthalene			3.367	6.719	7.107	6.575	5.836	5.268	5.8121	23.53

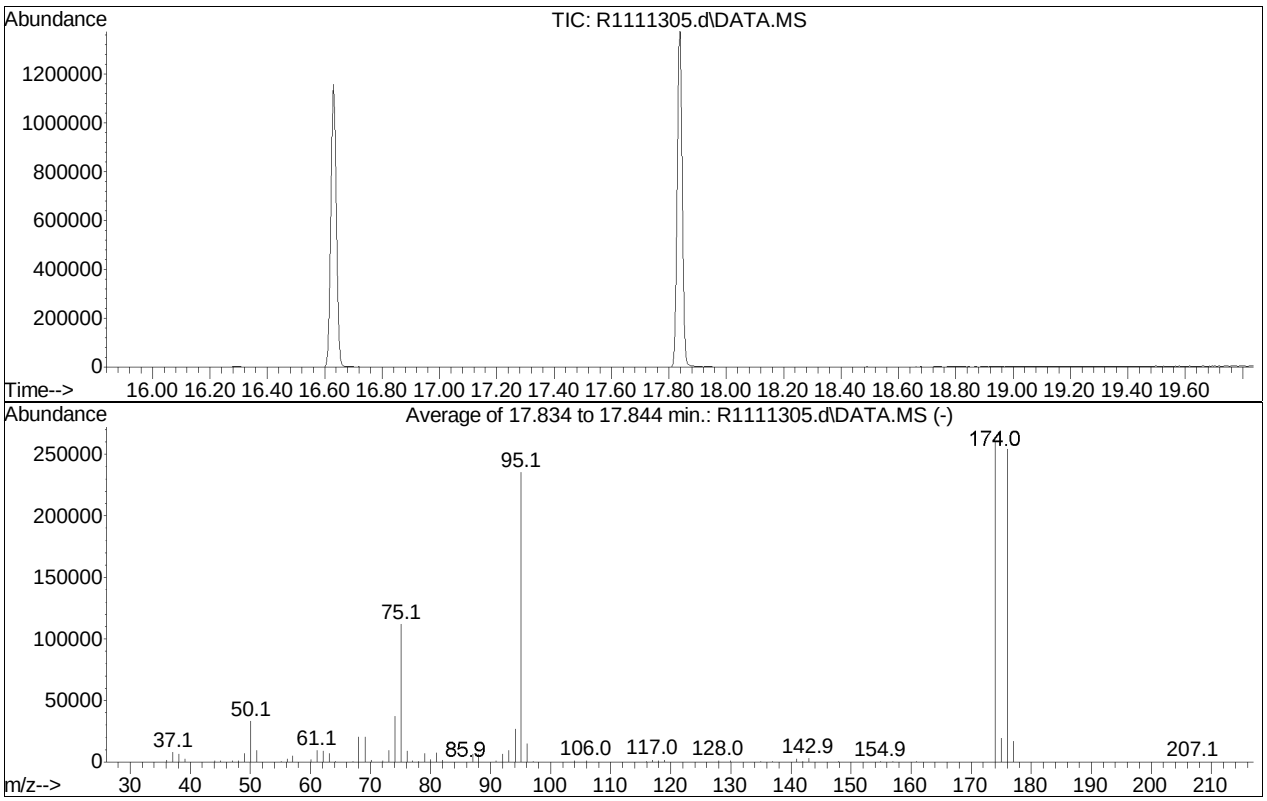
(#) = Out of Range

BFB

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111305.d
Acq On : 27 Aug 2015 11:38 pm
Operator : AIRLAB11:AR
Sample : WG816683-1
Misc : WG816683
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Fri Aug 28 08:37:33 2015



AutoFind: Scans 1646, 1647, 1648; Background Corrected with Scan 1638

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	14.3	33587	PASS
75	95	30	66	47.6	112128	PASS
95	95	100	100	100.0	235349	PASS
96	95	5	9	6.3	14891	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	110.2	259456	PASS
175	174	4	9	7.4	19308	PASS
176	174	93	101	98.0	254251	PASS
177	176	5	9	6.6	16802	PASS

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111309.d
Acq On : 28 Aug 2015 2:21 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD0.2
Misc : WG816683
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 28 05:46:36 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.94	49	69508	10.000	ppbV	0.00
Standard Area = 83801			Recovery = 82.94%			
43) 1,4-difluorobenzene	12.15	114	431833	10.000	ppbV	0.01
Standard Area = 505568			Recovery = 85.42%			
67) chlorobenzene-D5	16.63	54	73861	10.000	ppbV	0.00
Standard Area = 88795			Recovery = 83.18%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.81	65	174989	11.522	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 115.22%			
69) toluene-D8	14.90	98	439205	11.359	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 113.59%			
90) bromofluorobenzene	17.84	95	369046	11.062	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.62%			
Target Compounds						Qvalue
2) chlorodifluoromethane	3.89	51	3545	0.274	ppbV	100
3) propylene	3.93	41	1233M6	0.309	ppbV	
4) propane	3.96	29	752	0.246	ppbV #	79
5) dichlorodifluoromethane	4.03	85	7417	0.246	ppbV	93
6) chloromethane	4.23	50	1430	0.265	ppbV #	76
7) Freon-114	4.37	85	8551	0.267	ppbV	94
8) methanol	4.48	31	2465	1.712	ppbV #	81
9) vinyl chloride	4.52	62	2065	0.262	ppbV	99
10) 1,3-butadiene	4.71	54	1321	0.249	ppbV #	80
11) butane	4.79	43	2686	0.319	ppbV #	80
12) acetaldehyde	4.39	29	4880	1.642	ppbV	91
13) bromomethane	5.07	94	2462	0.205	ppbV	99
14) chloroethane	5.32	64	891	0.218	ppbV #	86
15) ethanol	5.56	31	4925	1.609	ppbV	90
16) dichlorofluoromethane	5.47	67	5597	0.258	ppbV	97
17) vinyl bromide	5.79	106	3287	0.272	ppbV	85
18) acrolein	5.99	56	883	0.305	ppbV #	72
19) acetone	6.19	43	15185	1.348	ppbV #	99
20) acetonitrile	5.81	41	1274	0.285	ppbV #	80
21) trichlorofluoromethane	6.36	101	10458	0.254	ppbV	84
22) isopropyl alcohol	6.56	45	7646	0.755	ppbV	100
23) acrylonitrile	6.78	53	1265	0.251	ppbV	96
24) pentane	6.83	43	2879	0.316	ppbV #	85

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111309.d
Acq On : 28 Aug 2015 2:21 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD0.2
Misc : WG816683
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 28 05:46:36 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
25) ethyl ether	6.91	31	1187	0.232 ppbV #	81
26) 1,1-dichloroethene	7.18	61	4377	0.278 ppbV #	84
27) tertiary butyl alcohol	7.35	59	5059	0.256 ppbV #	95
28) methylene chloride	7.35	49	3082	0.362 ppbV	98
29) 3-chloropropene	7.50	41	2238	0.281 ppbV #	75
30) carbon disulfide	7.66	76	6918	0.233 ppbV	94
31) Freon 113	7.69	101	6628	0.248 ppbV	96
32) trans-1,2-dichloroethene	8.51	61	3801	0.259 ppbV	95
33) 1,1-dichloroethane	8.76	63	4098	0.248 ppbV	90
34) MTBE	8.90	73	8188	0.255 ppbV	95
35) vinyl acetate	8.98	43	2057	0.233 ppbV #	79
36) 2-butanone	9.30	43	3506	0.250 ppbV #	92
37) cis-1,2-dichloroethene	9.75	61	3333	0.219 ppbV	97
38) Ethyl Acetate	10.08	61	492M1	0.187 ppbV	
39) chloroform	10.10	83	6927	0.271 ppbV	97
40) Tetrahydrofuran	10.64	42	1622	0.234 ppbV	92
41) 2,2-dichloropropane	10.12	77	5811	0.253 ppbV	95
42) 1,2-dichloroethane	10.94	62	4510	0.260 ppbV	92
44) hexane	10.00	57	3064	0.243 ppbV	97
45) diisopropyl ether	10.04	87	2365	0.239 ppbV #	75
46) tert-butyl ethyl ether	10.66	59	7372	0.238 ppbV	93
48) 1,1,1-trichloroethane	11.22	97	8236	0.249 ppbV	93
49) 1,1-dichloropropene	11.58	75	4143	0.240 ppbV	96
50) benzene	11.75	78	8120	0.251 ppbV	99
51) thiophene	11.89	84	5510	0.229 ppbV	98
52) carbon tetrachloride	11.91	117	9154	0.239 ppbV	98
53) cyclohexane	12.05	56	3162	0.245 ppbV	88
54) tert-amyl methyl ether	12.45	73	8036	0.243 ppbV	94
55) dibromomethane	12.64	93	3720	0.229 ppbV #	75
56) 1,2-dichloropropane	12.67	63	2266	0.241 ppbV	89
57) bromodichloromethane	12.90	83	7125	0.225 ppbV	95
58) 1,4-dioxane	13.00	88	2064	0.262 ppbV #	80
59) trichloroethene	12.93	130	5075	0.229 ppbV	90
60) 2,2,4-trimethylpentane	12.98	57	10274	0.245 ppbV #	97
61) methyl methacrylate	13.19	41	1732	0.176 ppbV	84
62) heptane	13.28	43	2724	0.213 ppbV #	91
63) cis-1,3-dichloropropene	13.93	75	3727	0.436 ppbV #	85
64) 4-methyl-2-pentanone	14.00	43	5456	0.191 ppbV	92
65) trans-1,3-dichloropropene	14.53	75	2769	0.166 ppbV	96
66) 1,1,2-trichloroethane	14.71	97	3443	0.221 ppbV	95

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111309.d
Acq On : 28 Aug 2015 2:21 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD0.2
Misc : WG816683
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 28 05:46:36 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68)	toluene	15.00	91	10539	0.235	ppbV		90
70)	2-methylthiophene	15.07	97	9168	0.250	ppbV		93
71)	1,3-dichloropropane	15.03	76	4966	0.268	ppbV		92
72)	2-hexanone	15.29	43	3544	0.200	ppbV		96
73)	3-methylthiophene	15.25	97	9985	0.246	ppbV		99
74)	dibromochloromethane	15.44	129	9322	0.236	ppbV		96
75)	1,2-dibromoethane	15.67	107	6833	0.253	ppbV		98
76)	butyl acetate	15.88	73	1132	0.234	ppbV	#	64
77)	octane	15.94	85	3220	0.229	ppbV		98
78)	tetrachloroethene	16.09	166	9143	0.268	ppbV		93
79)	1,1,1,2-tetrachloroethane	16.65	131	6237	0.234	ppbV	#	94
80)	chlorobenzene	16.67	112	10400	0.260	ppbV		91
81)	ethylbenzene	16.97	91	14975	0.240	ppbV		99
82)	2-ethylthiophene	17.01	97	11605	0.229	ppbV	#	93
83)	m+p-xylene	17.12	91	25274	0.485	ppbV		92
84)	bromoform	17.19	173	10581	0.210	ppbV		95
85)	styrene	17.41	104	8848	0.221	ppbV		91
86)	1,1,2,2-tetrachloroethane	17.49	83	7307	0.243	ppbV		98
87)	o-xylene	17.49	91	13282	0.251	ppbV		96
88)	1,2,3-trichloropropane	17.59	75	6357	0.245	ppbV		96
89)	nonane	17.64	43	4492	0.236	ppbV		98
91)	isopropylbenzene	17.94	105	19706	0.256	ppbV		95
92)	bromobenzene	18.01	77	8458	0.239	ppbV		83
93)	2-chlorotoluene	18.30	126	5159	0.238	ppbV		92
94)	n-propylbenzene	18.32	120	5294	0.230	ppbV		99
95)	4-chlorotoluene	18.36	91	14464	0.244	ppbV		96
96)	4-ethyl toluene	18.43	105	20299	0.233	ppbV		98
97)	1,3,5-trimethylbenzene	18.48	105	17332	0.241	ppbV		99
98)	tert-butylbenzene	18.79	119	18850	0.240	ppbV		93
99)	1,2,4-trimethylbenzene	18.79	105	16463	0.232	ppbV		90
100)	decane	18.84	57	6738	0.243	ppbV		96
101)	Benzyl Chloride	18.91	91	11092	0.183	ppbV		99
102)	1,3-dichlorobenzene	18.92	146	13245	0.235	ppbV		97
103)	1,4-dichlorobenzene	18.97	146	13454	0.238	ppbV		99
104)	sec-butylbenzene	18.99	105	23580	0.244	ppbV		94
105)	1,2,3-trimethylbenzene	19.12	105	14984	0.252	ppbV		95
106)	p-isopropyltoluene	19.11	119	22711	0.232	ppbV		96
107)	1,2-dichlorobenzene	19.23	146	12971	0.241	ppbV		97
108)	n-butylbenzene	19.43	91	17080	0.222	ppbV		100
109)	indan	19.28	117	15669	0.244	ppbV		93

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111309.d
Acq On : 28 Aug 2015 2:21 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD0.2
Misc : WG816683
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 28 05:46:36 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

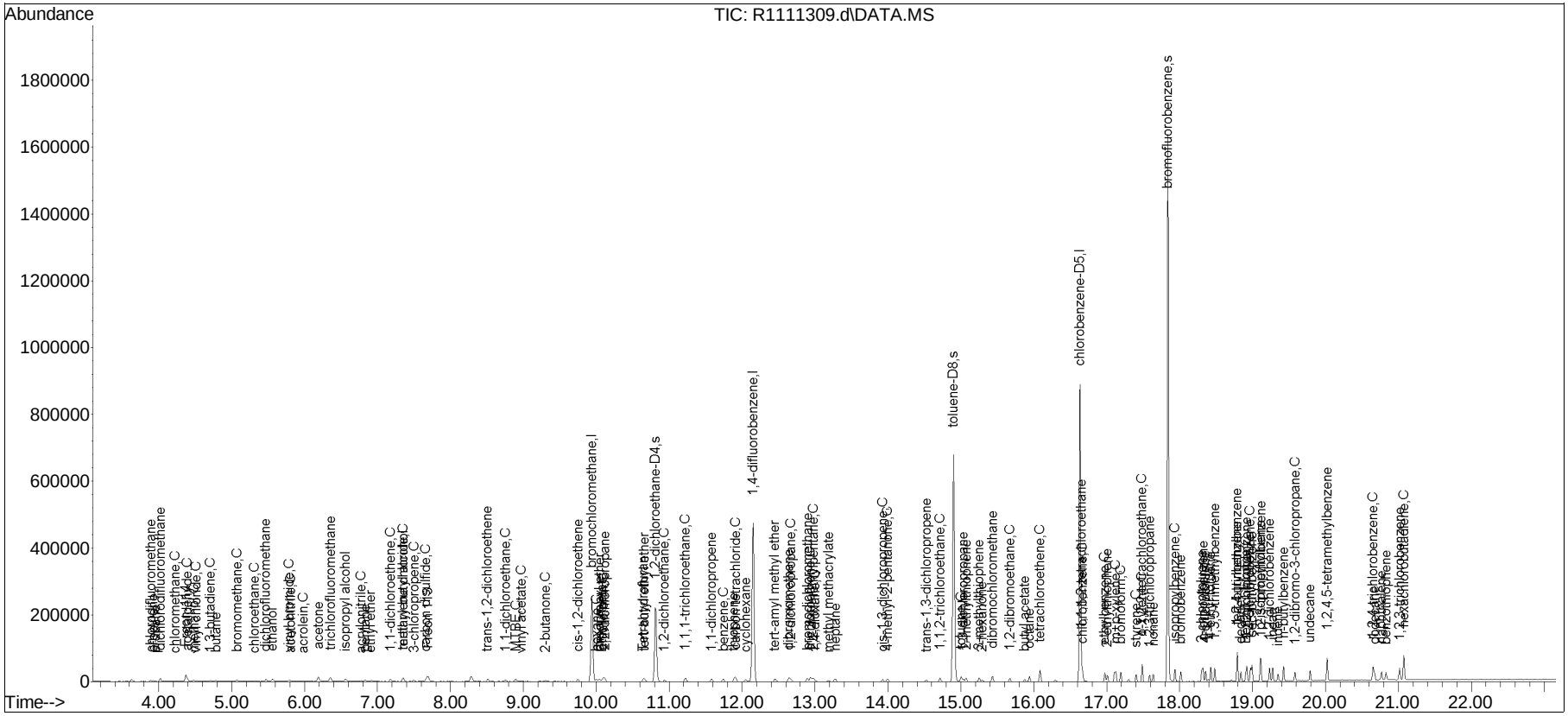
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.35	115	8846	0.231	ppbV	92
111) 1,2-dibromo-3-chloropr...	19.58	75	4695	0.205	ppbV	93
112) undecane	19.79	57	6717	0.201	ppbV	98
113) 1,2,4,5-tetramethylben...	20.02	119	29907	0.194	ppbV	98
114) dodecane	20.67	57	5184	0.140	ppbV	87
115) 1,2,4-trichlorobenzene	20.65	180	11032	0.176	ppbV	99
116) naphthalene	20.77	128	16619	0.153	ppbV #	94
117) 1,2,3-trichlorobenzene	21.02	180	10370	0.173	ppbV	96
118) benzothiophene	20.83	134	15638	0.142	ppbV	96
119) hexachlorobutadiene	21.07	225	14219	0.215	ppbV	97
120) 2-methylnaphthalene	0.00		0	N.D.		
121) 1-methylnaphthalene	0.00		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed5\150827T_ICAL\R1111313.d

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111309.d
Acq On : 28 Aug 2015 2:21 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD0.2
Misc : WG816683
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 28 05:46:36 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

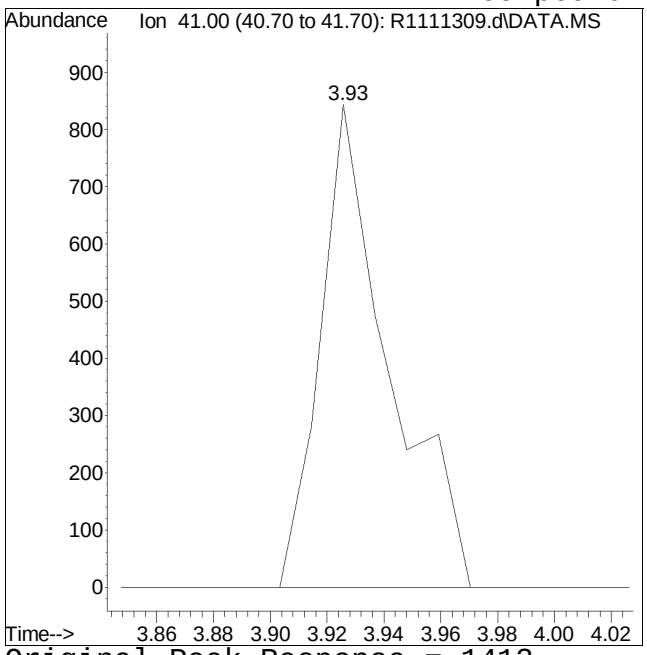


Manual Integration/Negative Proof Report

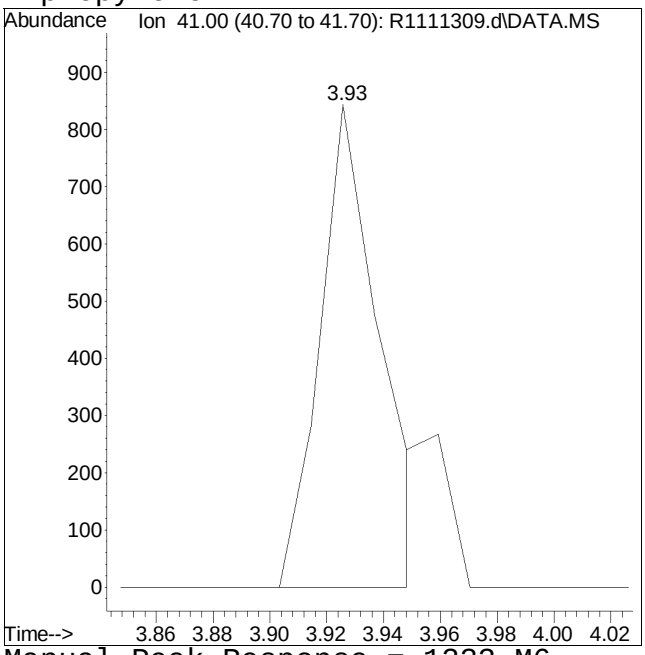
Data Path : O:\Forensics\Data\Airlab11\Q
Data File : R1111309.d
Date Inj'd : 8/28/2015 2:21 am
Sample : ITO15-LLSTD0.2

Method : TALL150827.M
Operator : AIRLAB11:AR
Instrument : Airlab 11
Quant Date : 8/28/2015 5:42 am

Compound #3: propylene



Original Peak Response = 1412



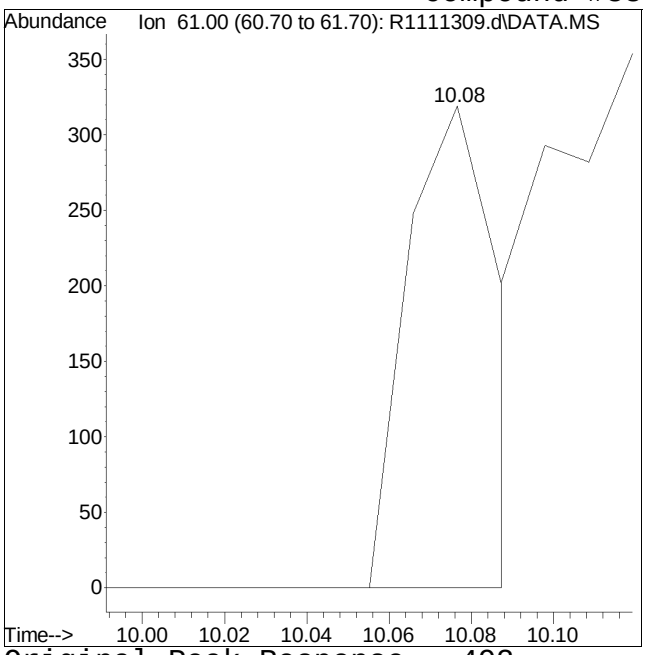
Manual Peak Response = 1233 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

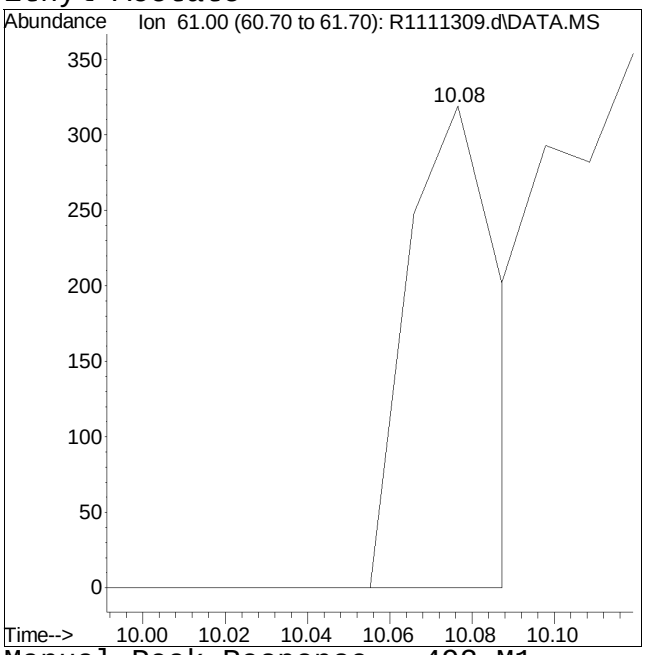
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\QMethod : TALL150827.M
Data File : R1111309.d Operator : AIRLAB11:AR
Date Inj'd : 8/28/2015 2:21 am Instrument : Airlab 11
Sample : ITO15-LLSTD0.2 Quant Date : 8/28/2015 5:42 am

Compound #38: Ethyl Acetate



Original Peak Response = 492



Manual Peak Response = 492 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111310.d
Acq On : 28 Aug 2015 3:01 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD0.5
Misc : WG816683
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 28 05:48:22 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.94	49	69355	10.000	ppbV	0.00
Standard Area = 83801			Recovery = 82.76%			
43) 1,4-difluorobenzene	12.14	114	432398	10.000	ppbV	0.00
Standard Area = 505568			Recovery = 85.53%			
67) chlorobenzene-D5	16.63	54	74364	10.000	ppbV	0.00
Standard Area = 88795			Recovery = 83.75%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.81	65	177174	11.651	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 116.51%			
69) toluene-D8	14.90	98	442449	11.366	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 113.66%			
90) bromofluorobenzene	17.84	95	373337	11.115	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 111.15%			
Target Compounds						Qvalue
2) chlorodifluoromethane	3.88	51	7479	0.580	ppbV	98
3) propylene	3.93	41	2324M6	0.584	ppbV	
4) propane	3.95	29	1987	0.653	ppbV #	90
5) dichlorodifluoromethane	4.02	85	18917	0.630	ppbV	96
6) chloromethane	4.22	50	3125	0.580	ppbV	92
7) Freon-114	4.36	85	18778	0.589	ppbV	96
8) methanol	4.46	31	4729	3.292	ppbV #	74
9) vinyl chloride	4.52	62	4542	0.578	ppbV	91
10) 1,3-butadiene	4.70	54	2909	0.550	ppbV	89
11) butane	4.77	43	5369	0.640	ppbV #	88
12) acetaldehyde	4.38	29	9611	3.240	ppbV	96
13) bromomethane	5.07	94	5727	0.477	ppbV	90
14) chloroethane	5.31	64	2339	0.574	ppbV	100
15) ethanol	5.55	31	9754	3.194	ppbV	95
16) dichlorofluoromethane	5.47	67	12797	0.591	ppbV	99
17) vinyl bromide	5.78	106	7572	0.627	ppbV	89
18) acrolein	5.97	56	1600	0.553	ppbV	97
19) acetone	6.17	43	33941	3.020	ppbV	98
20) acetonitrile	5.80	41	2570	0.576	ppbV	92
21) trichlorofluoromethane	6.35	101	23495	0.571	ppbV	99
22) isopropyl alcohol	6.55	45	16247	1.607	ppbV #	95
23) acrylonitrile	6.77	53	3088	0.613	ppbV	90
24) pentane	6.82	43	5654	0.622	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111310.d
Acq On : 28 Aug 2015 3:01 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD0.5
Misc : WG816683
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 28 05:48:22 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
25) ethyl ether	6.91	31	2682	0.525 ppbV #	83
26) 1,1-dichloroethene	7.17	61	9443	0.601 ppbV	94
27) tertiary butyl alcohol	7.33	59	11641	0.589 ppbV	96
28) methylene chloride	7.35	49	5989	0.705 ppbV	85
29) 3-chloropropene	7.49	41	4444	0.559 ppbV	95
30) carbon disulfide	7.66	76	17023	0.576 ppbV #	88
31) Freon 113	7.69	101	15471	0.580 ppbV	99
32) trans-1,2-dichloroethene	8.51	61	8416	0.575 ppbV #	86
33) 1,1-dichloroethane	8.75	63	9545	0.579 ppbV	96
34) MTBE	8.88	73	18753	0.585 ppbV	94
35) vinyl acetate	8.98	43	5264	0.597 ppbV #	92
36) 2-butanone	9.29	43	7961	0.569 ppbV #	87
37) cis-1,2-dichloroethene	9.74	61	7746	0.509 ppbV	87
38) Ethyl Acetate	10.07	61	1391	0.530 ppbV #	93
39) chloroform	10.10	83	14992	0.588 ppbV	92
40) Tetrahydrofuran	10.62	42	3831M6	0.555 ppbV	
41) 2,2-dichloropropane	10.11	77	13553	0.591 ppbV	98
42) 1,2-dichloroethane	10.94	62	9879	0.571 ppbV #	97
44) hexane	9.99	57	6633	0.525 ppbV	94
45) diisopropyl ether	10.03	87	5338	0.538 ppbV	82
46) tert-butyl ethyl ether	10.65	59	16665	0.537 ppbV	98
48) 1,1,1-trichloroethane	11.22	97	18209	0.551 ppbV	97
49) 1,1-dichloropropene	11.57	75	8943	0.518 ppbV	91
50) benzene	11.74	78	17951	0.555 ppbV	99
51) thiophene	11.89	84	13398	0.557 ppbV	97
52) carbon tetrachloride	11.91	117	21730	0.566 ppbV	93
53) cyclohexane	12.05	56	7161	0.555 ppbV	97
54) tert-amyl methyl ether	12.45	73	18349	0.554 ppbV	95
55) dibromomethane	12.64	93	8857	0.546 ppbV	87
56) 1,2-dichloropropane	12.67	63	5046	0.537 ppbV	87
57) bromodichloromethane	12.89	83	17000	0.536 ppbV	99
58) 1,4-dioxane	12.98	88	3846	0.487 ppbV	99
59) trichloroethene	12.93	130	11941	0.538 ppbV	94
60) 2,2,4-trimethylpentane	12.97	57	22982	0.546 ppbV #	91
61) methyl methacrylate	13.18	41	4573	0.463 ppbV	93
62) heptane	13.27	43	6916	0.541 ppbV #	91
63) cis-1,3-dichloropropene	13.93	75	6211	0.726 ppbV	91
64) 4-methyl-2-pentanone	13.98	43	12094	0.423 ppbV	95
65) trans-1,3-dichloropropene	14.53	75	7262	0.435 ppbV	90
66) 1,1,2-trichloroethane	14.71	97	8310	0.533 ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111310.d
Acq On : 28 Aug 2015 3:01 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD0.5
Misc : WG816683
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 28 05:48:22 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	toluene	15.00	91	25737	0.569	ppbV	96
70)	2-methylthiophene	15.07	97	20280	0.550	ppbV	98
71)	1,3-dichloropropane	15.03	76	10304	0.553	ppbV	93
72)	2-hexanone	15.28	43	8245	0.462	ppbV	98
73)	3-methylthiophene	15.25	97	22629	0.554	ppbV	98
74)	dibromochloromethane	15.43	129	20765	0.522	ppbV	97
75)	1,2-dibromoethane	15.66	107	14168	0.521	ppbV	92
76)	butyl acetate	15.87	73	2604	0.535	ppbV	88
77)	octane	15.94	85	8140	0.576	ppbV	97
78)	tetrachloroethene	16.09	166	20294	0.591	ppbV	95
79)	1,1,1,2-tetrachloroethane	16.66	131	14287	0.533	ppbV	90
80)	chlorobenzene	16.67	112	23382	0.580	ppbV	96
81)	ethylbenzene	16.97	91	34091	0.542	ppbV	98
82)	2-ethylthiophene	17.01	97	27421	0.539	ppbV	100
83)	m+p-xylene	17.12	91	57481	1.095	ppbV	96
84)	bromoform	17.19	173	25515	0.504	ppbV	99
85)	styrene	17.40	104	20830	0.518	ppbV	96
86)	1,1,2,2-tetrachloroethane	17.49	83	17668	0.583	ppbV	95
87)	o-xylene	17.49	91	29855	0.560	ppbV	96
88)	1,2,3-trichloropropane	17.59	75	14684	0.563	ppbV	97
89)	nonane	17.64	43	10256	0.535	ppbV	97
91)	isopropylbenzene	17.93	105	43279	0.559	ppbV	99
92)	bromobenzene	18.01	77	19628	0.550	ppbV	97
93)	2-chlorotoluene	18.30	126	11993	0.549	ppbV	97
94)	n-propylbenzene	18.32	120	12628	0.544	ppbV	87
95)	4-chlorotoluene	18.35	91	31881	0.534	ppbV	99
96)	4-ethyl toluene	18.43	105	47404	0.541	ppbV	99
97)	1,3,5-trimethylbenzene	18.48	105	40232	0.555	ppbV	96
98)	tert-butylbenzene	18.79	119	43918	0.554	ppbV	100
99)	1,2,4-trimethylbenzene	18.79	105	38156	0.534	ppbV	95
100)	decane	18.84	57	15504	0.556	ppbV	91
101)	Benzyl Chloride	18.90	91	26964	0.442	ppbV	100
102)	1,3-dichlorobenzene	18.92	146	31237	0.550	ppbV	98
103)	1,4-dichlorobenzene	18.97	146	31342	0.552	ppbV	98
104)	sec-butylbenzene	18.99	105	52806	0.544	ppbV	100
105)	1,2,3-trimethylbenzene	19.11	105	34749	0.580	ppbV	96
106)	p-isopropyltoluene	19.10	119	53459	0.543	ppbV	99
107)	1,2-dichlorobenzene	19.23	146	29848	0.550	ppbV	99
108)	n-butylbenzene	19.43	91	41214	0.532	ppbV	97
109)	indan	19.27	117	35730	0.552	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111310.d
Acq On : 28 Aug 2015 3:01 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD0.5
Misc : WG816683
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 28 05:48:22 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

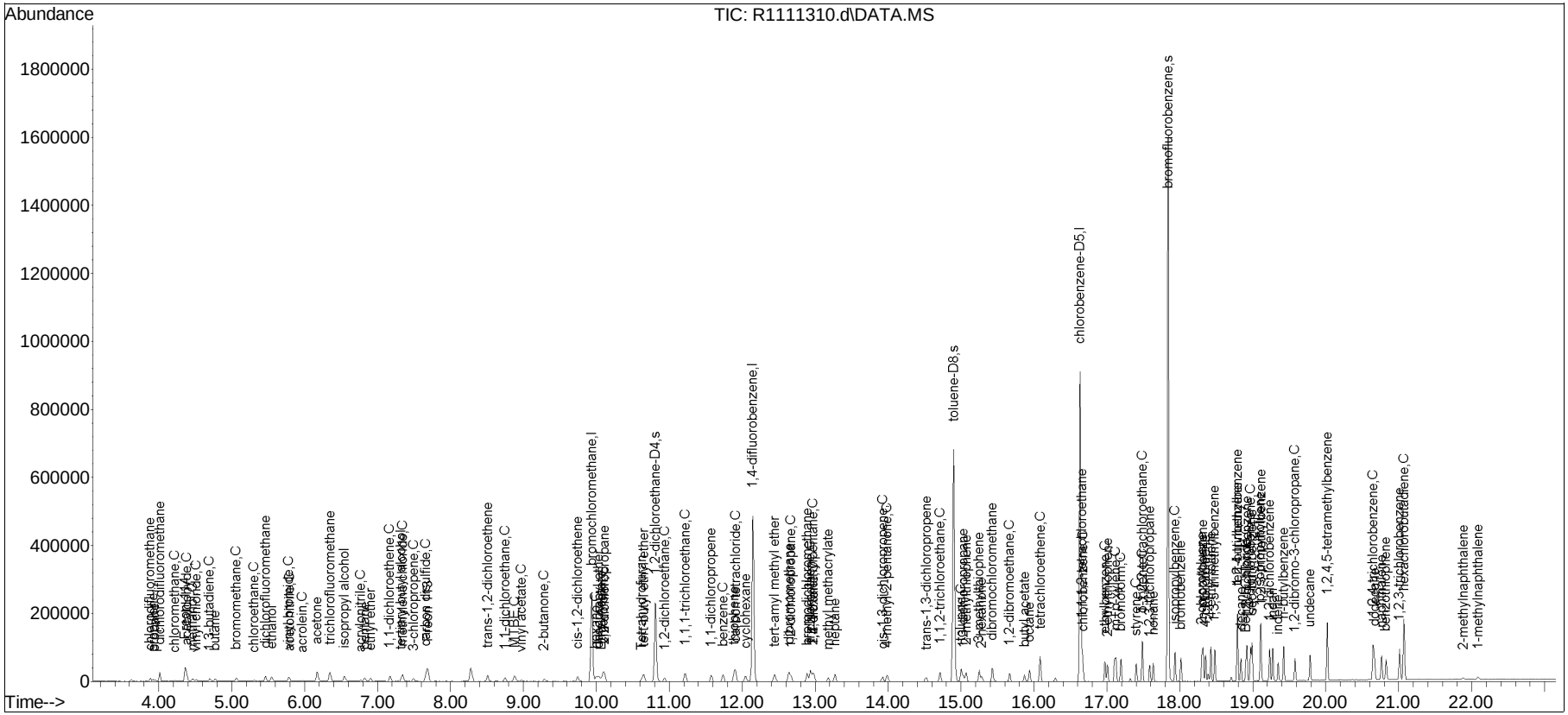
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.35	115	20511	0.531	ppbV	88
111) 1,2-dibromo-3-chloropr...	19.57	75	11075	0.480	ppbV	93
112) undecane	19.78	57	16507	0.490	ppbV	99
113) 1,2,4,5-tetramethylben...	20.02	119	71916	0.463	ppbV	95
114) dodecane	20.67	57	14610	0.391	ppbV	93
115) 1,2,4-trichlorobenzene	20.65	180	29840	0.474	ppbV	96
116) naphthalene	20.77	128	47092	0.429	ppbV	97
117) 1,2,3-trichlorobenzene	21.01	180	27062	0.447	ppbV	98
118) benzothiophene	20.82	134	42149	0.379	ppbV	98
119) hexachlorobutadiene	21.07	225	34715	0.522	ppbV	98
120) 2-methylnaphthalene	21.89	142	3127	0.056	ppbV #	85
121) 1-methylnaphthalene	22.08	142	4316	0.082	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed5\150827T_ICAL\R1111313.d

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111310.d
Acq On : 28 Aug 2015 3:01 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD0.5
Misc : WG816683
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 28 05:48:22 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

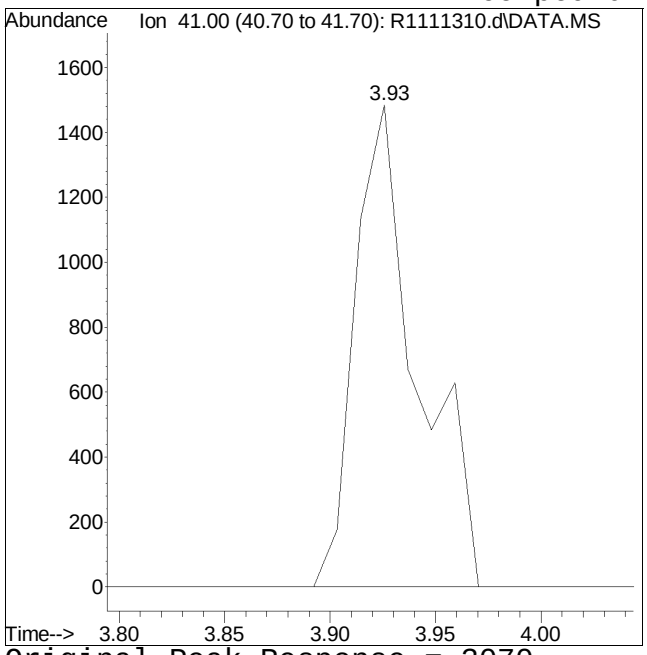


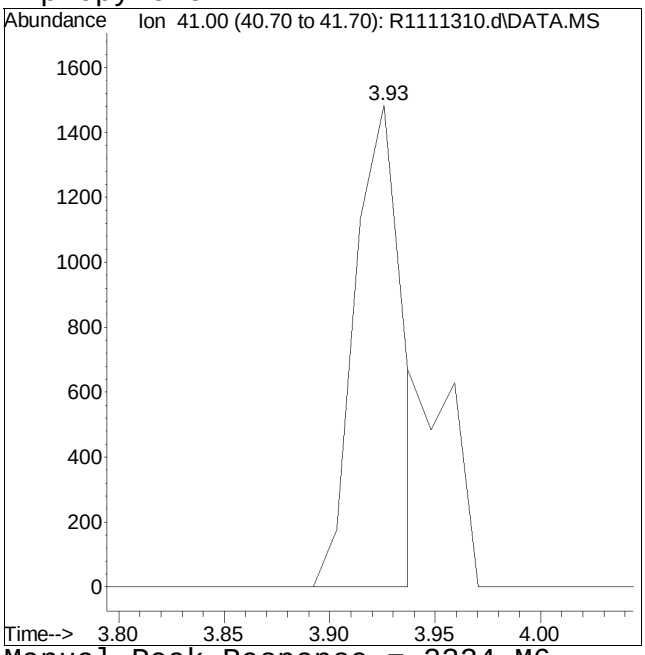
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\Q
Data File : R1111310.d
Date Inj'd : 8/28/2015 3:01 am
Sample : ITO15-LLSTD0.5

Method : TALL150827.M
Operator : AIRLAB11:AR
Instrument : Airlab 11
Quant Date : 8/28/2015 5:43 am

Compound #3: propylene



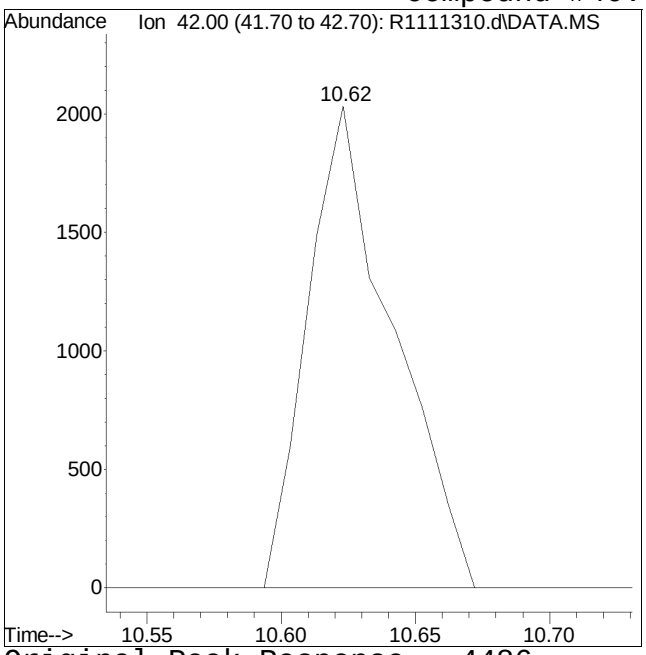


Original Peak Response = 3070 Manual Peak Response = 2324 M6
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

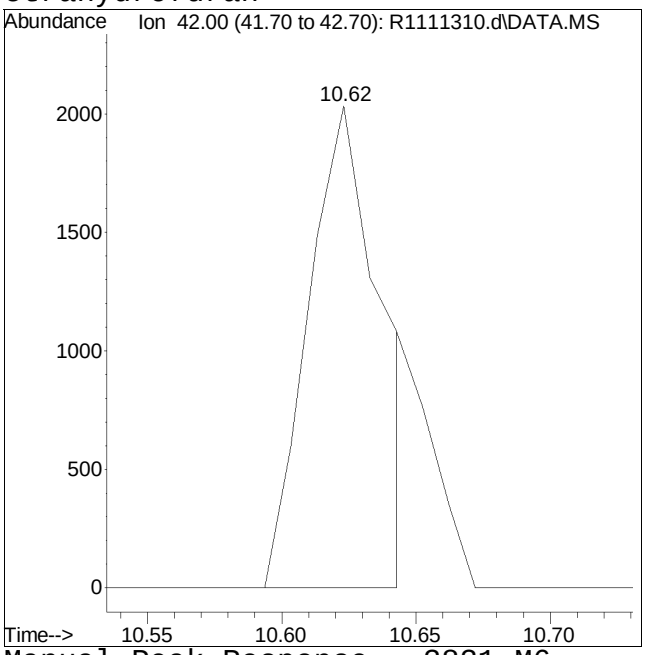
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\QMethod : TALL150827.M
Data File : R1111310.d Operator : AIRLAB11:AR
Date Inj'd : 8/28/2015 3:01 am Instrument : Airlab 11
Sample : ITO15-LLSTD0.5 Quant Date : 8/28/2015 5:43 am

Compound #40: Tetrahydrofuran



Original Peak Response = 4486



Manual Peak Response = 3831 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111311.d
Acq On : 28 Aug 2015 3:43 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD1.0
Misc : WG816683
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 28 05:52:42 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.94	49	74002	10.000	ppbV	0.00
Standard Area = 83801			Recovery = 88.31%			
43) 1,4-difluorobenzene	12.14	114	449919	10.000	ppbV	0.00
Standard Area = 505568			Recovery = 88.99%			
67) chlorobenzene-D5	16.63	54	77545	10.000	ppbV	0.00
Standard Area = 88795			Recovery = 87.33%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.81	65	178059	11.253	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.53%			
69) toluene-D8	14.90	98	445742	10.980	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 109.80%			
90) bromofluorobenzene	17.84	95	377104	10.767	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 107.67%			
Target Compounds						Qvalue
2) chlorodifluoromethane	3.88	51	15168	1.102	ppbV	94
3) propylene	3.91	41	4743M6	1.117	ppbV	
4) propane	3.95	29	3725	1.147	ppbV	93
5) dichlorodifluoromethane	4.01	85	37705	1.176	ppbV	99
6) chloromethane	4.22	50	5910	1.028	ppbV #	87
7) Freon-114	4.36	85	38136	1.120	ppbV	96
8) methanol	4.46	31	8570	5.592	ppbV	95
9) vinyl chloride	4.52	62	9453	1.128	ppbV	100
10) 1,3-butadiene	4.70	54	5998	1.062	ppbV	95
11) butane	4.77	43	10450	1.167	ppbV	96
12) acetaldehyde	4.38	29	17706	5.594	ppbV	97
13) bromomethane	5.07	94	11760	0.918	ppbV	100
14) chloroethane	5.31	64	4634	1.065	ppbV #	88
15) ethanol	5.54	31	17594	5.400	ppbV	95
16) dichlorofluoromethane	5.47	67	24737	1.071	ppbV	100
17) vinyl bromide	5.78	106	13973	1.084	ppbV	96
18) acrolein	5.96	56	3085	1.000	ppbV #	86
19) acetone	6.16	43	65448	5.458	ppbV #	100
20) acetonitrile	5.79	41	5246	1.101	ppbV	94
21) trichlorofluoromethane	6.34	101	47521	1.083	ppbV	97
22) isopropyl alcohol	6.54	45	29268	2.713	ppbV	100
23) acrylonitrile	6.76	53	5969	1.111	ppbV	94
24) pentane	6.81	43	11345	1.169	ppbV #	91

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111311.d
Acq On : 28 Aug 2015 3:43 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD1.0
Misc : WG816683
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 28 05:52:42 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
25) ethyl ether	6.90	31	5612	1.029 ppbV	84
26) 1,1-dichloroethene	7.17	61	19237	1.148 ppbV	98
27) tertiary butyl alcohol	7.32	59	23618	1.120 ppbV	97
28) methylene chloride	7.35	49	10656	1.176 ppbV	99
29) 3-chloropropene	7.49	41	8951	1.056 ppbV	95
30) carbon disulfide	7.65	76	33303	1.056 ppbV	94
31) Freon 113	7.68	101	31619	1.111 ppbV	96
32) trans-1,2-dichloroethene	8.51	61	16862	1.079 ppbV	97
33) 1,1-dichloroethane	8.75	63	19691	1.119 ppbV	95
34) MTBE	8.87	73	36032	1.053 ppbV	98
35) vinyl acetate	8.97	43	12045	1.280 ppbV #	93
36) 2-butanone	9.28	43	15869	1.063 ppbV	94
37) cis-1,2-dichloroethene	9.74	61	14452	0.890 ppbV	95
38) Ethyl Acetate	10.07	61	2767	0.989 ppbV	81
39) chloroform	10.10	83	30763	1.131 ppbV	99
40) Tetrahydrofuran	10.60	42	7552M6	1.025 ppbV	
41) 2,2-dichloropropane	10.11	77	26528	1.084 ppbV	95
42) 1,2-dichloroethane	10.93	62	20247	1.097 ppbV	97
44) hexane	9.99	57	14009	1.066 ppbV	89
45) diisopropyl ether	10.02	87	11411	1.105 ppbV	96
46) tert-butyl ethyl ether	10.64	59	34225	1.060 ppbV	99
48) 1,1,1-trichloroethane	11.21	97	36376	1.057 ppbV	97
49) 1,1-dichloropropene	11.57	75	18584	1.034 ppbV	97
50) benzene	11.74	78	36902	1.096 ppbV	99
51) thiophene	11.89	84	26650	1.064 ppbV	97
52) carbon tetrachloride	11.90	117	42378	1.061 ppbV	99
53) cyclohexane	12.04	56	14559	1.084 ppbV	96
54) tert-amyl methyl ether	12.43	73	37240	1.081 ppbV	98
55) dibromomethane	12.63	93	18071	1.070 ppbV	96
56) 1,2-dichloropropane	12.67	63	10829	1.108 ppbV	98
57) bromodichloromethane	12.89	83	34044	1.032 ppbV	93
58) 1,4-dioxane	12.97	88	8747	1.064 ppbV #	80
59) trichloroethene	12.93	130	24313	1.054 ppbV	98
60) 2,2,4-trimethylpentane	12.97	57	46652	1.066 ppbV #	99
61) methyl methacrylate	13.18	41	10131	0.986 ppbV	99
62) heptane	13.27	43	14027	1.054 ppbV	96
63) cis-1,3-dichloropropene	13.93	75	11014	1.237 ppbV	97
64) 4-methyl-2-pentanone	13.98	43	24944	0.839 ppbV	100
65) trans-1,3-dichloropropene	14.51	75	15212	0.876 ppbV	96
66) 1,1,2-trichloroethane	14.71	97	17382	1.071 ppbV	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111311.d
Acq On : 28 Aug 2015 3:43 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD1.0
Misc : WG816683
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 28 05:52:42 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	toluene	15.00	91	51290	1.087	ppbV	98
70)	2-methylthiophene	15.06	97	41982	1.092	ppbV	93
71)	1,3-dichloropropane	15.03	76	20166	1.038	ppbV	96
72)	2-hexanone	15.28	43	17876	0.960	ppbV	99
73)	3-methylthiophene	15.25	97	44229	1.038	ppbV	98
74)	dibromochloromethane	15.43	129	42294	1.019	ppbV	96
75)	1,2-dibromoethane	15.66	107	29344	1.035	ppbV	96
76)	butyl acetate	15.87	73	5325	1.050	ppbV	90
77)	octane	15.94	85	14733	1.000	ppbV	91
78)	tetrachloroethene	16.09	166	40460	1.131	ppbV	99
79)	1,1,1,2-tetrachloroethane	16.65	131	29926	1.071	ppbV	98
80)	chlorobenzene	16.67	112	45275	1.077	ppbV	98
81)	ethylbenzene	16.97	91	68681	1.047	ppbV	96
82)	2-ethylthiophene	17.01	97	56814	1.070	ppbV	97
83)	m+p-xylene	17.12	91	117185	2.140	ppbV	99
84)	bromoform	17.19	173	52170	0.988	ppbV	98
85)	styrene	17.40	104	40900	0.975	ppbV	95
86)	1,1,2,2-tetrachloroethane	17.48	83	35432	1.121	ppbV	99
87)	o-xylene	17.49	91	59164	1.064	ppbV	95
88)	1,2,3-trichloropropane	17.59	75	28709	1.055	ppbV	99
89)	nonane	17.64	43	21739	1.088	ppbV	94
91)	isopropylbenzene	17.93	105	86450	1.072	ppbV	100
92)	bromobenzene	18.01	77	39228	1.055	ppbV	97
93)	2-chlorotoluene	18.30	126	24138	1.059	ppbV	89
94)	n-propylbenzene	18.32	120	25773	1.064	ppbV	95
95)	4-chlorotoluene	18.35	91	63507	1.019	ppbV	98
96)	4-ethyl toluene	18.43	105	95543	1.047	ppbV	99
97)	1,3,5-trimethylbenzene	18.48	105	80255	1.061	ppbV	97
98)	tert-butylbenzene	18.78	119	90767	1.099	ppbV	99
99)	1,2,4-trimethylbenzene	18.79	105	79199	1.064	ppbV	95
100)	decane	18.83	57	30891	1.062	ppbV	99
101)	Benzyl Chloride	18.90	91	57171	0.900	ppbV	100
102)	1,3-dichlorobenzene	18.92	146	61944	1.046	ppbV	97
103)	1,4-dichlorobenzene	18.97	146	63225	1.067	ppbV	98
104)	sec-butylbenzene	18.99	105	109009	1.076	ppbV	100
105)	1,2,3-trimethylbenzene	19.11	105	71409	1.144	ppbV	94
106)	p-isopropyltoluene	19.10	119	109537	1.066	ppbV	97
107)	1,2-dichlorobenzene	19.23	146	60801	1.075	ppbV	98
108)	n-butylbenzene	19.42	91	84846	1.049	ppbV	98
109)	indan	19.27	117	76064	1.127	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111311.d
Acq On : 28 Aug 2015 3:43 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD1.0
Misc : WG816683
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 28 05:52:42 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

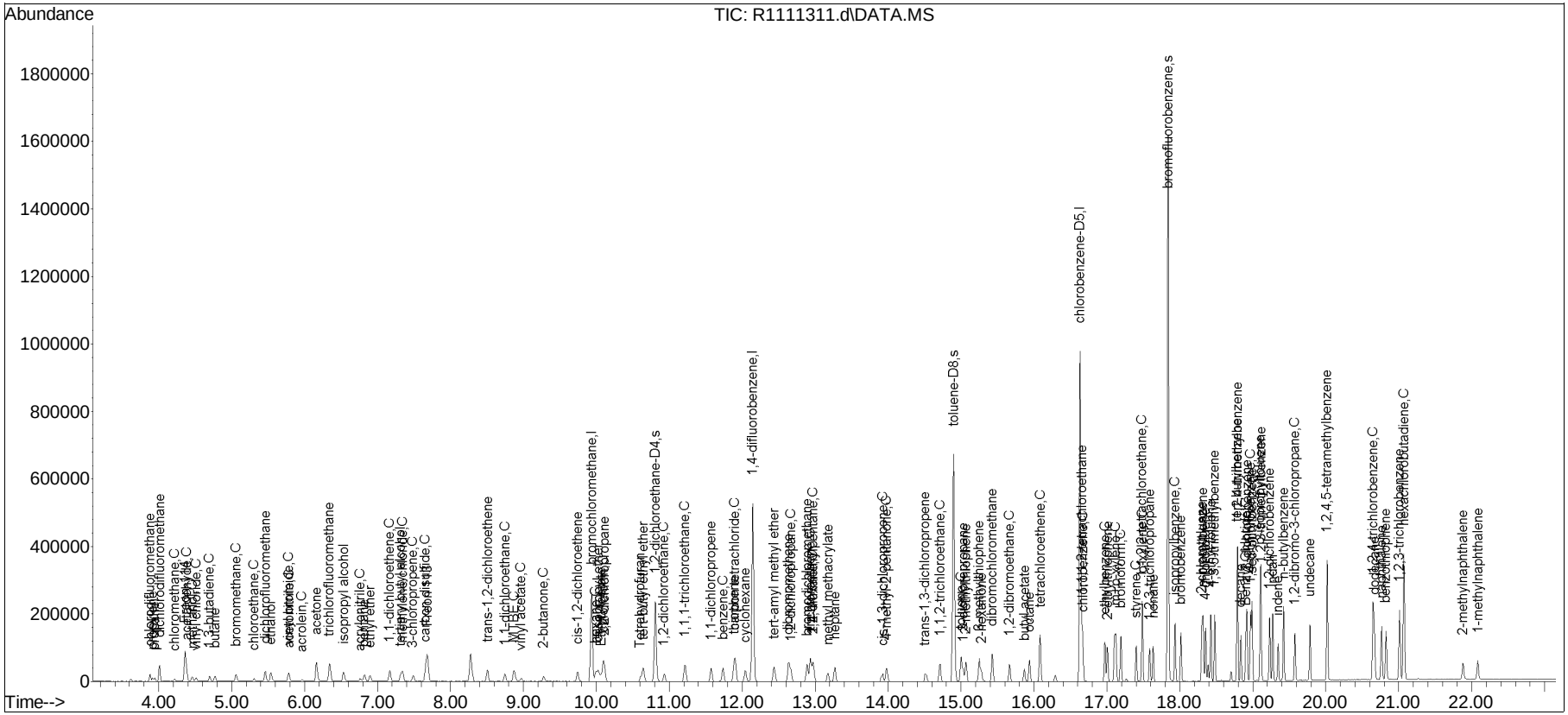
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.35	115	42391	1.053	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.57	75	23683	0.985	ppbV	93
112) undecane	19.78	57	34633	0.987	ppbV #	98
113) 1,2,4,5-tetramethylben...	20.02	119	151448	0.935	ppbV	99
114) dodecane	20.67	57	33506	0.860	ppbV	97
115) 1,2,4-trichlorobenzene	20.65	180	63424	0.965	ppbV	98
116) naphthalene	20.76	128	104133	0.910	ppbV	98
117) 1,2,3-trichlorobenzene	21.01	180	60011	0.951	ppbV	99
118) benzothiophene	20.82	134	95721	0.826	ppbV	98
119) hexachlorobutadiene	21.07	225	73940	1.067	ppbV	97
120) 2-methylnaphthalene	21.88	142	24788	0.425	ppbV	98
121) 1-methylnaphthalene	22.08	142	26113	0.474	ppbV	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed5\150827T_ICAL\R1111313.d

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111311.d
Acq On : 28 Aug 2015 3:43 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD1.0
Misc : WG816683
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Aug 28 05:52:42 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

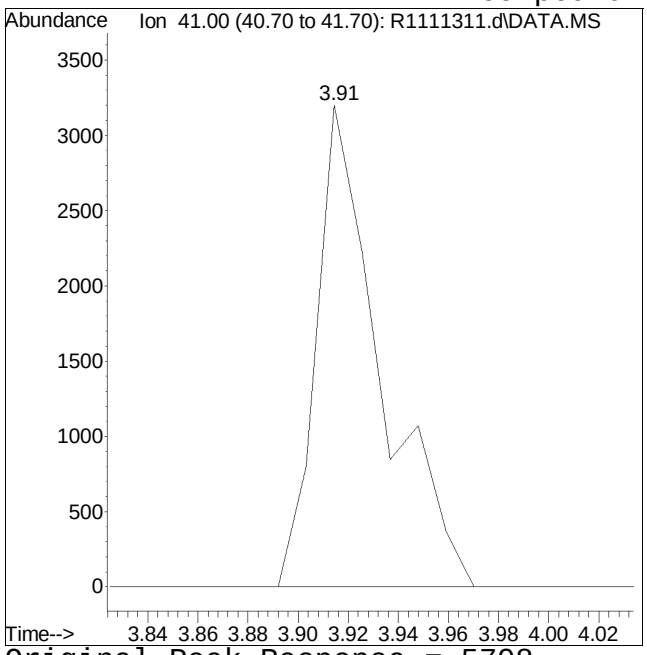


Manual Integration/Negative Proof Report

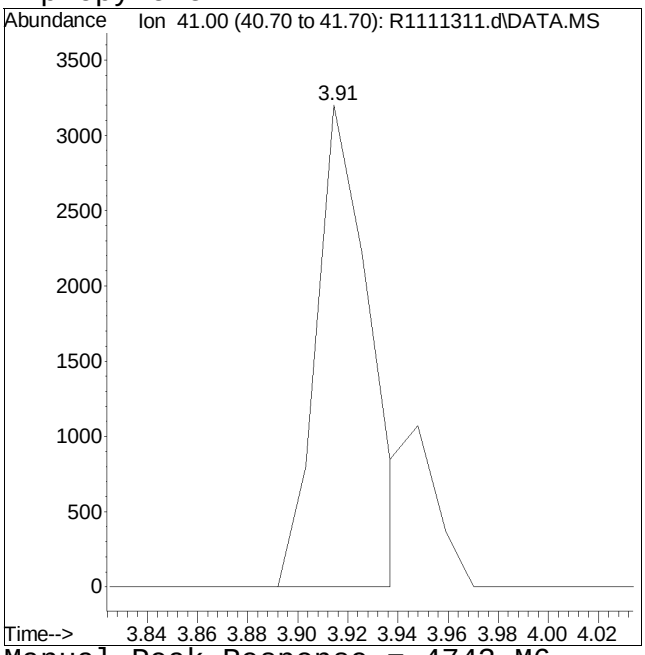
Data Path : O:\Forensics\Data\Airlab11\Q
Data File : R1111311.d
Date Inj'd : 8/28/2015 3:43 am
Sample : ITO15-LLSTD1.0

Method : TALL150827.M
Operator : AIRLAB11:AR
Instrument : Airlab 11
Quant Date : 8/28/2015 5:43 am

Compound #3: propylene



Original Peak Response = 5708



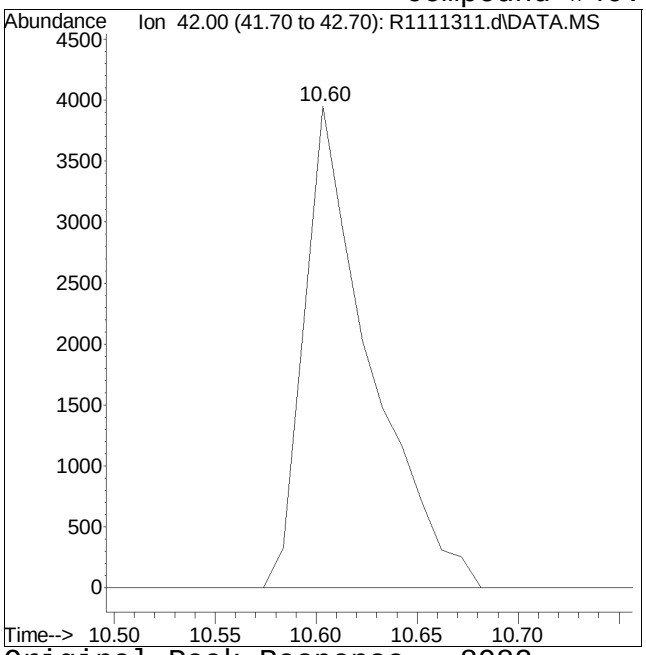
Manual Peak Response = 4743 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

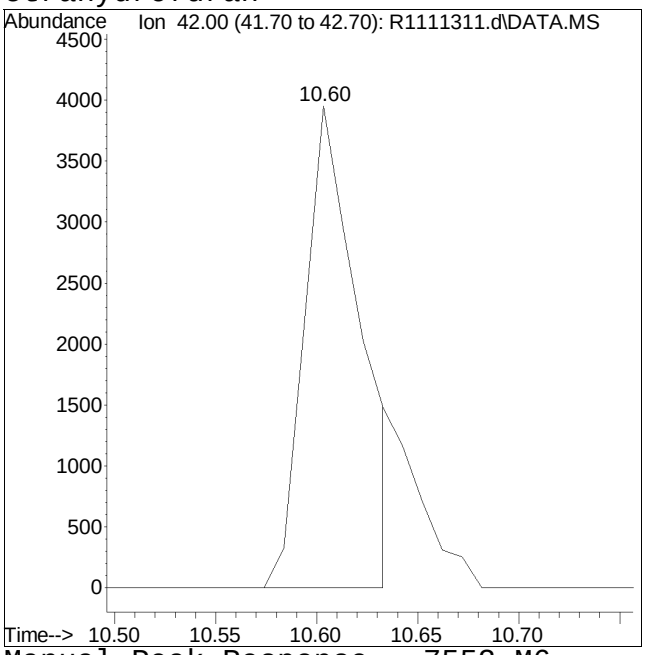
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\QMethod : TALL150827.M
Data File : R1111311.d Operator : AIRLAB11:AR
Date Inj'd : 8/28/2015 3:43 am Instrument : Airlab 11
Sample : ITO15-LLSTD1.0 Quant Date : 8/28/2015 5:43 am

Compound #40: Tetrahydrofuran



Original Peak Response = 8982



Manual Peak Response = 7552 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111312.d
Acq On : 28 Aug 2015 4:23 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD5.0
Misc : WG816683
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 28 05:54:32 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.94	49	76694	10.000	ppbV	0.00
Standard Area = 83801			Recovery = 91.52%			
43) 1,4-difluorobenzene	12.14	114	466223	10.000	ppbV	0.00
Standard Area = 505568			Recovery = 92.22%			
67) chlorobenzene-D5	16.63	54	80484	10.000	ppbV	0.00
Standard Area = 88795			Recovery = 90.64%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.81	65	184403	11.246	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 112.46%			
69) toluene-D8	14.90	98	459917	10.916	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 109.16%			
90) bromofluorobenzene	17.84	95	398336	10.958	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 109.58%			
Target Compounds						Qvalue
2) chlorodifluoromethane	3.89	51	78651	5.515	ppbV	98
3) propylene	3.93	41	25505M6	5.795	ppbV	
4) propane	3.96	29	18474	5.488	ppbV	97
5) dichlorodifluoromethane	4.03	85	188045	5.660	ppbV	99
6) chloromethane	4.23	50	31413	5.270	ppbV	96
7) Freon-114	4.37	85	195104	5.531	ppbV	98
8) methanol	4.46	31	42890	27.004	ppbV	99
9) vinyl chloride	4.52	62	45621	5.254	ppbV	96
10) 1,3-butadiene	4.71	54	29750	5.085	ppbV	90
11) butane	4.79	43	51258	5.523	ppbV	95
12) acetaldehyde	4.39	29	88663	27.029	ppbV	99
13) bromomethane	5.07	94	61260	4.615	ppbV	94
14) chloroethane	5.32	64	24530	5.440	ppbV	98
15) ethanol	5.55	31	96245	28.500	ppbV	95
16) dichlorofluoromethane	5.47	67	129195	5.396	ppbV	99
17) vinyl bromide	5.79	106	72140	5.400	ppbV	99
18) acrolein	5.97	56	17284	5.407	ppbV	95
19) acetone	6.15	43	337748	27.178	ppbV #	99
20) acetonitrile	5.80	41	27060	5.482	ppbV	99
21) trichlorofluoromethane	6.35	101	247910	5.453	ppbV	99
22) isopropyl alcohol	6.54	45	160754	14.379	ppbV	100
23) acrylonitrile	6.77	53	29907	5.369	ppbV	93
24) pentane	6.82	43	55114	5.480	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111312.d
Acq On : 28 Aug 2015 4:23 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD5.0
Misc : WG816683
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 28 05:54:32 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
25) ethyl ether	6.90	31	30139	5.334 ppbV #	81
26) 1,1-dichloroethene	7.18	61	96690	5.567 ppbV	96
27) tertiary butyl alcohol	7.31	59	122959	5.629 ppbV	99
28) methylene chloride	7.35	49	51730	5.508 ppbV	99
29) 3-chloropropene	7.49	41	47899	5.452 ppbV	98
30) carbon disulfide	7.66	76	176851	5.408 ppbV	98
31) Freon 113	7.69	101	162188	5.497 ppbV	96
32) trans-1,2-dichloroethene	8.51	61	88999	5.495 ppbV	96
33) 1,1-dichloroethane	8.75	63	98795	5.416 ppbV	95
34) MTBE	8.86	73	194980	5.496 ppbV	99
35) vinyl acetate	8.98	43	39247	4.023 ppbV #	90
36) 2-butanone	9.27	43	84535	5.464 ppbV	96
37) cis-1,2-dichloroethene	9.74	61	92659	5.508 ppbV	99
38) Ethyl Acetate	10.06	61	17182	5.924 ppbV	90
39) chloroform	10.10	83	156838	5.563 ppbV	99
40) Tetrahydrofuran	10.58	42	42216M6	5.530 ppbV	
41) 2,2-dichloropropane	10.11	77	136191	5.370 ppbV	98
42) 1,2-dichloroethane	10.94	62	107681	5.628 ppbV	97
44) hexane	10.00	57	74064	5.438 ppbV #	83
45) diisopropyl ether	10.02	87	58578	5.473 ppbV	96
46) tert-butyl ethyl ether	10.64	59	182923	5.469 ppbV	98
48) 1,1,1-trichloroethane	11.22	97	193427	5.426 ppbV	98
49) 1,1-dichloropropene	11.57	75	101799	5.467 ppbV	98
50) benzene	11.74	78	192888	5.531 ppbV	99
51) thiophene	11.89	84	142233	5.480 ppbV	98
52) carbon tetrachloride	11.91	117	223534	5.400 ppbV	98
53) cyclohexane	12.05	56	76447	5.495 ppbV	98
54) tert-amyl methyl ether	12.43	73	194827	5.458 ppbV	98
55) dibromomethane	12.64	93	93654	5.351 ppbV	93
56) 1,2-dichloropropane	12.67	63	55346	5.463 ppbV	96
57) bromodichloromethane	12.89	83	185158	5.416 ppbV	100
58) 1,4-dioxane	12.96	88	50880	5.974 ppbV	96
59) trichloroethene	12.93	130	127008	5.312 ppbV	98
60) 2,2,4-trimethylpentane	12.97	57	247763	5.464 ppbV	99
61) methyl methacrylate	13.17	41	57754	5.423 ppbV	97
62) heptane	13.27	43	75048	5.442 ppbV	99
63) cis-1,3-dichloropropene	13.93	75	57937	6.278 ppbV	98
64) 4-methyl-2-pentanone	13.97	43	166065	5.389 ppbV	98
65) trans-1,3-dichloropropene	14.51	75	86949	4.831 ppbV	99
66) 1,1,2-trichloroethane	14.71	97	93180	5.539 ppbV	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111312.d
Acq On : 28 Aug 2015 4:23 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD5.0
Misc : WG816683
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 28 05:54:32 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	toluene	15.00	91	270503	5.525	ppbV	99
70)	2-methylthiophene	15.06	97	223679	5.605	ppbV	96
71)	1,3-dichloropropane	15.03	76	112024	5.556	ppbV	96
72)	2-hexanone	15.27	43	106598	5.514	ppbV	99
73)	3-methylthiophene	15.25	97	244222	5.522	ppbV	99
74)	dibromochloromethane	15.43	129	235724	5.475	ppbV	98
75)	1,2-dibromoethane	15.66	107	161037	5.474	ppbV	100
76)	butyl acetate	15.86	73	28828	5.476	ppbV	99
77)	octane	15.94	85	84293	5.511	ppbV	98
78)	tetrachloroethene	16.09	166	206785	5.568	ppbV	100
79)	1,1,1,2-tetrachloroethane	16.65	131	159250	5.493	ppbV	97
80)	chlorobenzene	16.67	112	244567	5.607	ppbV	99
81)	ethylbenzene	16.97	91	375984	5.525	ppbV	99
82)	2-ethylthiophene	17.00	97	303566	5.509	ppbV	99
83)	m+p-xylene	17.12	91	637404	11.217	ppbV	100
84)	bromoform	17.19	173	298120	5.439	ppbV	100
85)	styrene	17.40	104	238897	5.486	ppbV	99
86)	1,1,2,2-tetrachloroethane	17.48	83	185381	5.649	ppbV	98
87)	o-xylene	17.49	91	322660	5.589	ppbV	100
88)	1,2,3-trichloropropane	17.59	75	156248	5.534	ppbV	100
89)	nonane	17.63	43	116048	5.598	ppbV	98
91)	isopropylbenzene	17.93	105	465013	5.554	ppbV	100
92)	bromobenzene	18.01	77	213469	5.532	ppbV	99
93)	2-chlorotoluene	18.30	126	131248	5.548	ppbV	72
94)	n-propylbenzene	18.32	120	141292	5.621	ppbV	99
95)	4-chlorotoluene	18.35	91	360091	5.568	ppbV	100
96)	4-ethyl toluene	18.42	105	529839	5.592	ppbV	99
97)	1,3,5-trimethylbenzene	18.48	105	439801	5.605	ppbV	99
98)	tert-butylbenzene	18.78	119	484752	5.653	ppbV	99
99)	1,2,4-trimethylbenzene	18.78	105	434780	5.626	ppbV	92
100)	decane	18.83	57	170222	5.638	ppbV	100
101)	Benzyl Chloride	18.90	91	354674	5.378	ppbV	100
102)	1,3-dichlorobenzene	18.92	146	342689	5.578	ppbV	99
103)	1,4-dichlorobenzene	18.97	146	344373	5.600	ppbV	99
104)	sec-butylbenzene	18.99	105	595444	5.665	ppbV	100
105)	1,2,3-trimethylbenzene	19.11	105	365087	5.635	ppbV	99
106)	p-isopropyltoluene	19.10	119	594578	5.576	ppbV	100
107)	1,2-dichlorobenzene	19.23	146	327166	5.571	ppbV	98
108)	n-butylbenzene	19.42	91	470610	5.609	ppbV	99
109)	indan	19.27	117	390305	5.573	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111312.d
Acq On : 28 Aug 2015 4:23 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD5.0
Misc : WG816683
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 28 05:54:32 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

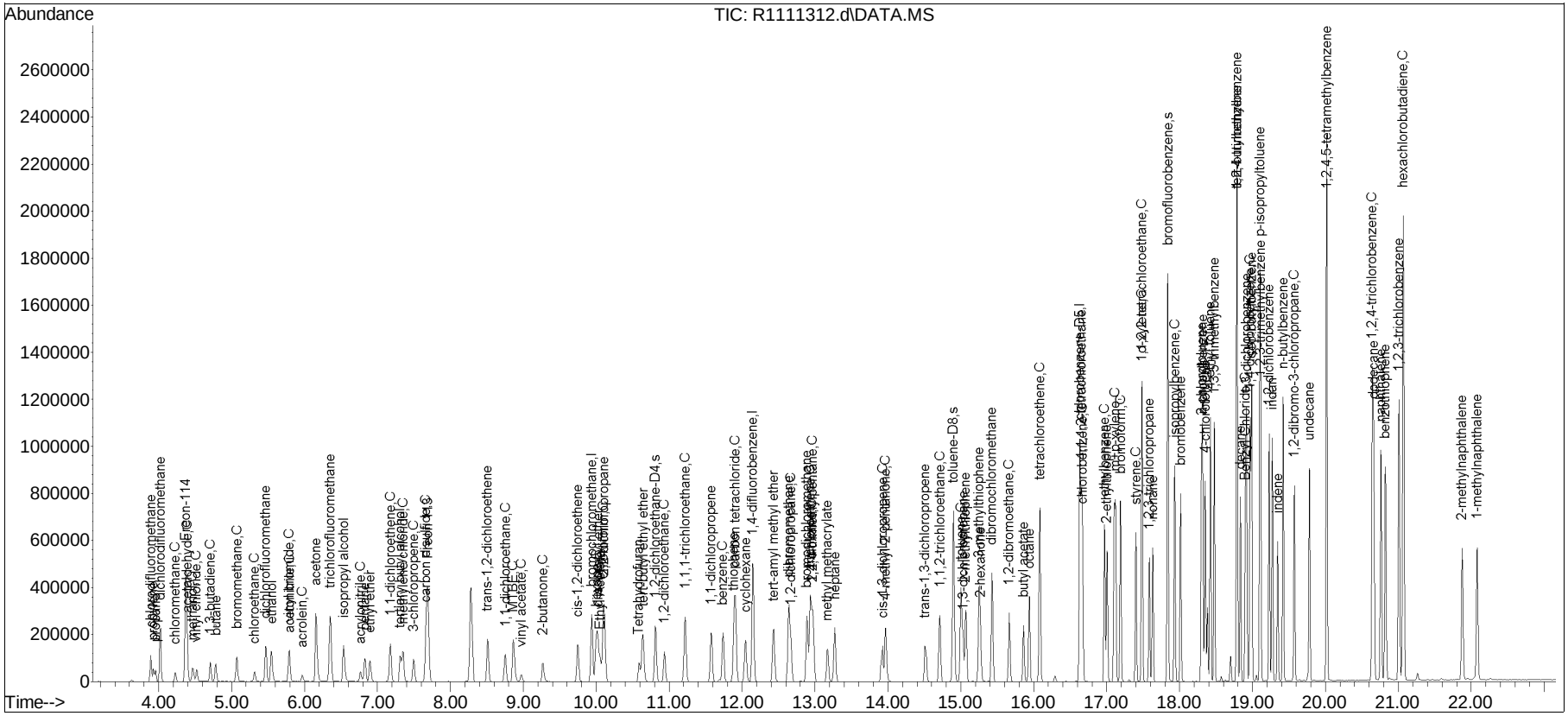
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
110) indene	19.35	115	227320	5.443 ppbV	99
111) 1,2-dibromo-3-chloropr...	19.57	75	135871	5.442 ppbV	96
112) undecane	19.78	57	203661	5.591 ppbV	99
113) 1,2,4,5-tetramethylben...	20.02	119	946448	5.629 ppbV	100
114) dodecane	20.66	57	217390	5.374 ppbV	97
115) 1,2,4-trichlorobenzene	20.64	180	373994	5.485 ppbV	99
116) naphthalene	20.76	128	642761	5.415 ppbV	99
117) 1,2,3-trichlorobenzene	21.01	180	353442	5.396 ppbV	98
118) benzothiophene	20.82	134	642616	5.344 ppbV	99
119) hexachlorobutadiene	21.07	225	405666	5.641 ppbV	99
120) 2-methylnaphthalene	21.87	142	273724	4.522 ppbV	99
121) 1-methylnaphthalene	22.08	142	270395	4.727 ppbV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed5\150827T_ICAL\R1111313.d

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111312.d
Acq On : 28 Aug 2015 4:23 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD5.0
Misc : WG816683
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 28 05:54:32 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:42:35 2015
Response via : Initial Calibration

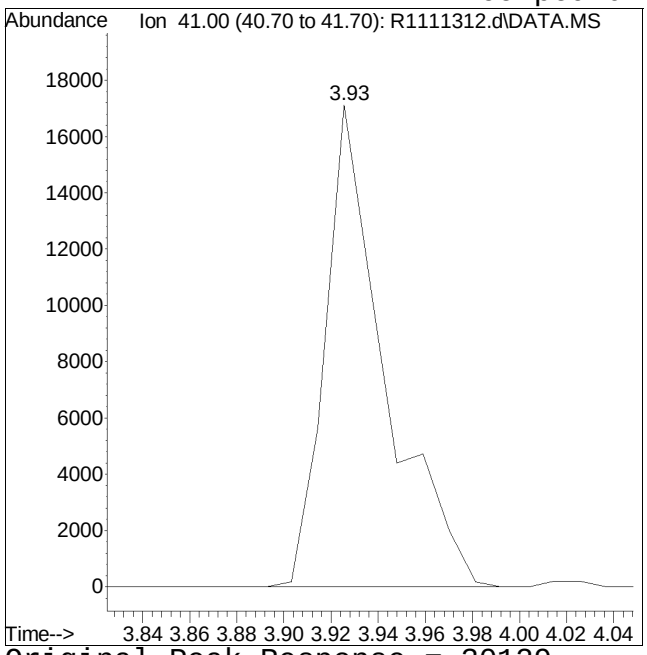


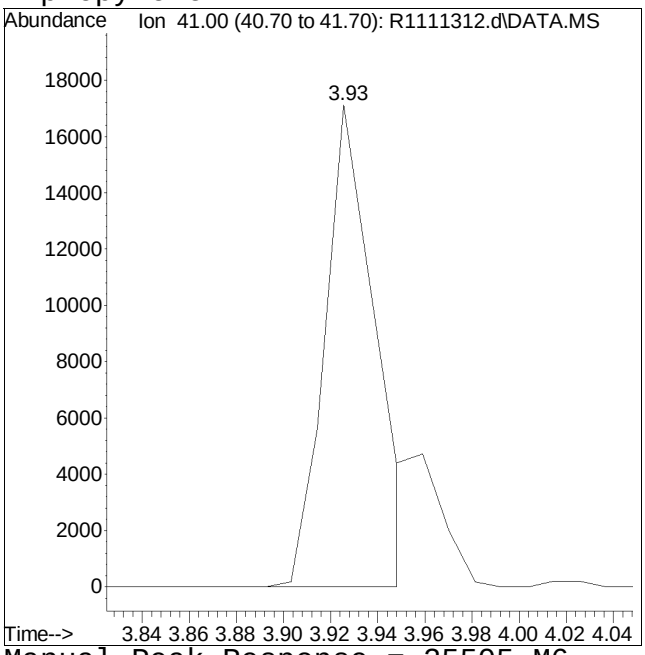
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\Q
Data File : R1111312.d
Date Inj'd : 8/28/2015 4:23 am
Sample : ITO15-LLSTD5.0

Method : TALL150827.M
Operator : AIRLAB11:AR
Instrument : Airlab 11
Quant Date : 8/28/2015 5:43 am

Compound #3: propylene



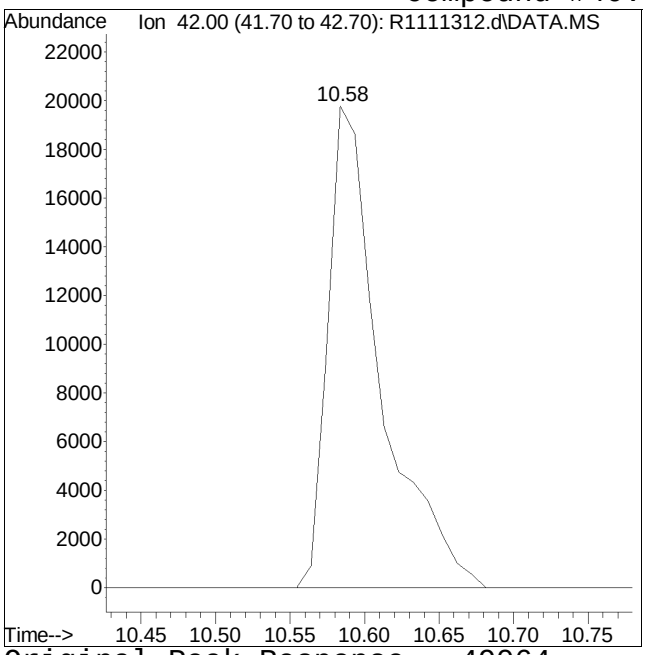


Original Peak Response = 30129 Manual Peak Response = 25505 M6
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

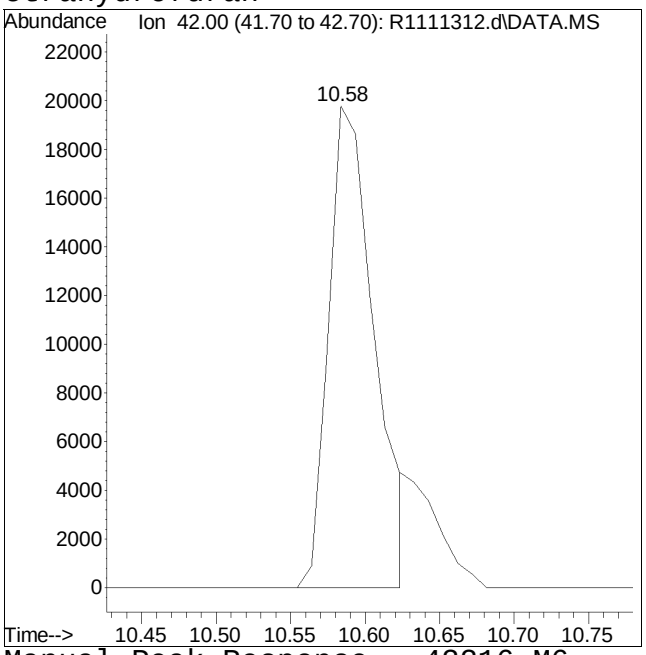
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\QMethod : TALL150827.M
Data File : R1111312.d Operator : AIRLAB11:AR
Date Inj'd : 8/28/2015 4:23 am Instrument : Airlab 11
Sample : ITO15-LLSTD5.0 Quant Date : 8/28/2015 5:43 am

Compound #40: Tetrahydrofuran



Original Peak Response = 49064



Manual Peak Response = 42216 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111313.d
Acq On : 28 Aug 2015 5:05 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD10.0
Misc : WG816683
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 28 05:40:48 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 21 11:43:26 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) bromochloromethane	9.94	49	83801	10.000 ppbV	# 0.00
Standard Area = 83801			Recovery = 100.00%		
43) 1,4-difluorobenzene	12.14	114	505568	10.000 ppbV	0.00
Standard Area = 505568			Recovery = 100.00%		
67) chlorobenzene-D5	16.63	54	88795	10.000 ppbV	0.00
Standard Area = 88795			Recovery = 100.00%		
System Monitoring Compounds					
47) 1,2-dichloroethane-D4	10.81	65	177808	11.092 ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 110.92%		
69) toluene-D8	14.90	98	464835	9.211 ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 92.11%		
90) bromofluorobenzene	17.83	95	401057	10.462 ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 104.62%		
Target Compounds					Qvalue
2) chlorodifluoromethane	3.88	51	155826	10.596 ppbV #	81
3) propylene	3.93	41	48094M6	7.699 ppbV	
4) propane	3.95	29	36782	6.843 ppbV #	79
5) dichlorodifluoromethane	4.02	85	362996	16.749 ppbV	100
6) chloromethane	4.23	50	65130	8.806 ppbV	99
7) Freon-114	4.36	85	385422	12.966 ppbV #	87
8) methanol	4.46	31	86774	42.866 ppbV #	79
9) vinyl chloride	4.52	62	94872	10.242 ppbV	98
10) 1,3-butadiene	4.71	54	63928	9.975 ppbV	97
11) butane	4.77	43	101404	8.781 ppbV #	87
12) acetaldehyde	4.38	29	179210	59.695 ppbV #	79
13) bromomethane	5.07	94	145032	13.061 ppbV	97
14) chloroethane	5.31	64	49271	9.790 ppbV	98
15) ethanol	5.54	31	184495	49.041 ppbV	93
16) dichlorofluoromethane	5.47	67	261615	12.119 ppbV #	98
17) vinyl bromide	5.78	106	145963	12.954 ppbV	100
18) acrolein	5.96	56	34929	9.568 ppbV #	87
19) acetone	6.14	43	678941	57.613 ppbV #	87
20) acetonitrile	5.79	41	53938	8.369 ppbV	99
21) trichlorofluoromethane	6.35	101	496803	17.508 ppbV	100
22) isopropyl alcohol	6.53	45	305385	25.190 ppbV	100
23) acrylonitrile	6.76	53	60867	9.181 ppbV #	94
24) pentane	6.82	43	109889	8.389 ppbV	94

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111313.d
Acq On : 28 Aug 2015 5:05 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD10.0
Misc : WG816683
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 28 05:40:48 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 21 11:43:26 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.89	31	61740	8.029	ppbV #	86
26) 1,1-dichloroethene	7.17	61	189773	11.979	ppbV	100
27) tertiary butyl alcohol	7.31	59	238699	12.663	ppbV #	97
28) methylene chloride	7.35	49	102629	9.731	ppbV	83
29) 3-chloropropene	7.49	41	95991	9.145	ppbV #	69
30) carbon disulfide	7.66	76	357294	10.608	ppbV #	90
31) Freon 113	7.68	101	322405	13.473	ppbV #	83
32) trans-1,2-dichloroethene	8.51	61	176976	11.103	ppbV	93
33) 1,1-dichloroethane	8.75	63	199303	10.520	ppbV	98
34) MTBE	8.86	73	387631	13.273	ppbV #	89
35) vinyl acetate	8.97	43	106595	8.820	ppbV	96
36) 2-butanone	9.26	43	169045	9.075	ppbV #	92
37) cis-1,2-dichloroethene	9.74	61	183818	11.815	ppbV	95
38) Ethyl Acetate	10.06	61	31691	9.098	ppbV #	96
39) chloroform	10.10	83	308055	13.295	ppbV	99
40) Tetrahydrofuran	10.57	42	83410M6	8.089	ppbV	
41) 2,2-dichloropropane	10.11	77	277103	15.204	ppbV	99
42) 1,2-dichloroethane	10.94	62	209045	15.407	ppbV #	92
44) hexane	9.99	57	147697	6.142	ppbV	95
45) diisopropyl ether	10.01	87	116066	8.138	ppbV #	52
46) tert-butyl ethyl ether	10.63	59	362686	7.676	ppbV	90
48) 1,1,1-trichloroethane	11.21	97	386577	10.756	ppbV	95
49) 1,1-dichloropropene	11.57	75	201913	7.672	ppbV #	88
50) benzene	11.74	78	378176	7.052	ppbV	98
51) thiophene	11.89	84	281467	8.045	ppbV	94
52) carbon tetrachloride	11.90	117	448863	12.116	ppbV	99
53) cyclohexane	12.04	56	150872	6.100	ppbV	84
54) tert-amyl methyl ether	12.42	73	387050	8.015	ppbV #	93
55) dibromomethane	12.63	93	189775	8.703	ppbV #	84
56) 1,2-dichloropropane	12.67	63	109854	5.948	ppbV #	86
57) bromodichloromethane	12.89	83	370743	9.196	ppbV #	99
58) 1,4-dioxane	12.95	88	92361	7.596	ppbV #	79
59) trichloroethene	12.93	130	259295	9.535	ppbV	96
60) 2,2,4-trimethylpentane	12.97	57	491695	6.298	ppbV #	84
61) methyl methacrylate	13.17	41	115490	6.864	ppbV #	90
62) heptane	13.27	43	149540	5.901	ppbV #	94
63) cis-1,3-dichloropropene	13.93	75	100070	6.579	ppbV #	91
64) 4-methyl-2-pentanone	13.96	43	334160	7.013	ppbV #	94
65) trans-1,3-dichloropropene	14.51	75	195184	9.665	ppbV	93
66) 1,1,2-trichloroethane	14.70	97	182420	7.923	ppbV	91

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111313.d
Acq On : 28 Aug 2015 5:05 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD10.0
Misc : WG816683
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 28 05:40:48 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 21 11:43:26 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
68)	toluene	15.00	91	540200	7.927	ppbV		98
70)	2-methylthiophene	15.06	97	440315	8.075	ppbV		98
71)	1,3-dichloropropane	15.02	76	222428	7.223	ppbV	#	95
72)	2-hexanone	15.26	43	213291	6.809	ppbV	#	95
73)	3-methylthiophene	15.25	97	487927	8.189	ppbV		100
74)	dibromochloromethane	15.43	129	475041	10.598	ppbV		99
75)	1,2-dibromoethane	15.66	107	324558	8.480	ppbV		99
76)	butyl acetate	15.86	73	58083	6.991	ppbV		85
77)	octane	15.94	85	168740	8.238	ppbV	#	70
78)	tetrachloroethene	16.09	166	409732	10.922	ppbV		96
79)	1,1,1,2-tetrachloroethane	16.65	131	319832	10.525	ppbV		98
80)	chlorobenzene	16.67	112	481230	8.602	ppbV		98
81)	ethylbenzene	16.97	91	750847	8.630	ppbV		99
82)	2-ethylthiophene	17.00	97	607936	9.117	ppbV		96
83)	m+p-xylene	17.12	91	1253855	18.650	ppbV		98
84)	bromoform	17.19	173	604766	12.915	ppbV		99
85)	styrene	17.40	104	480451	9.132	ppbV		97
86)	1,1,2,2-tetrachloroethane	17.48	83	362066	7.119	ppbV		98
87)	o-xylene	17.49	91	636897	9.343	ppbV		96
88)	1,2,3-trichloropropane	17.59	75	311488	7.862	ppbV	#	85
89)	nonane	17.63	43	228721	6.092	ppbV	#	88
91)	isopropylbenzene	17.93	105	923646	9.376	ppbV		100
92)	bromobenzene	18.01	77	425750	8.595	ppbV	#	75
93)	2-chlorotoluene	18.30	126	260983	9.888	ppbV	#	67
94)	n-propylbenzene	18.32	120	277312	9.832	ppbV		82
95)	4-chlorotoluene	18.35	91	713453	9.779	ppbV		98
96)	4-ethyl toluene	18.42	105	1045396	9.843	ppbV		98
97)	1,3,5-trimethylbenzene	18.48	105	865749	10.336	ppbV		100
98)	tert-butylbenzene	18.78	119	945994	10.709	ppbV		97
99)	1,2,4-trimethylbenzene	18.79	105	852641	10.580	ppbV		96
100)	decane	18.83	57	333120	6.945	ppbV	#	95
101)	Benzyl Chloride	18.90	91	727649	10.389	ppbV		99
102)	1,3-dichlorobenzene	18.92	146	677850	10.930	ppbV		98
103)	1,4-dichlorobenzene	18.97	146	678479	10.850	ppbV		99
104)	sec-butylbenzene	18.99	105	1159672	9.664	ppbV		94
105)	1,2,3-trimethylbenzene	19.11	105	714802	10.008	ppbV		100
106)	p-isopropyltoluene	19.10	119	1176332	10.940	ppbV		98
107)	1,2-dichlorobenzene	19.23	146	647864	10.878	ppbV		97
108)	n-butylbenzene	19.42	91	925743	9.460	ppbV		91
109)	indan	19.27	117	772715	9.538	ppbV		99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111313.d
Acq On : 28 Aug 2015 5:05 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD10.0
Misc : WG816683
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 28 05:40:48 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 21 11:43:26 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

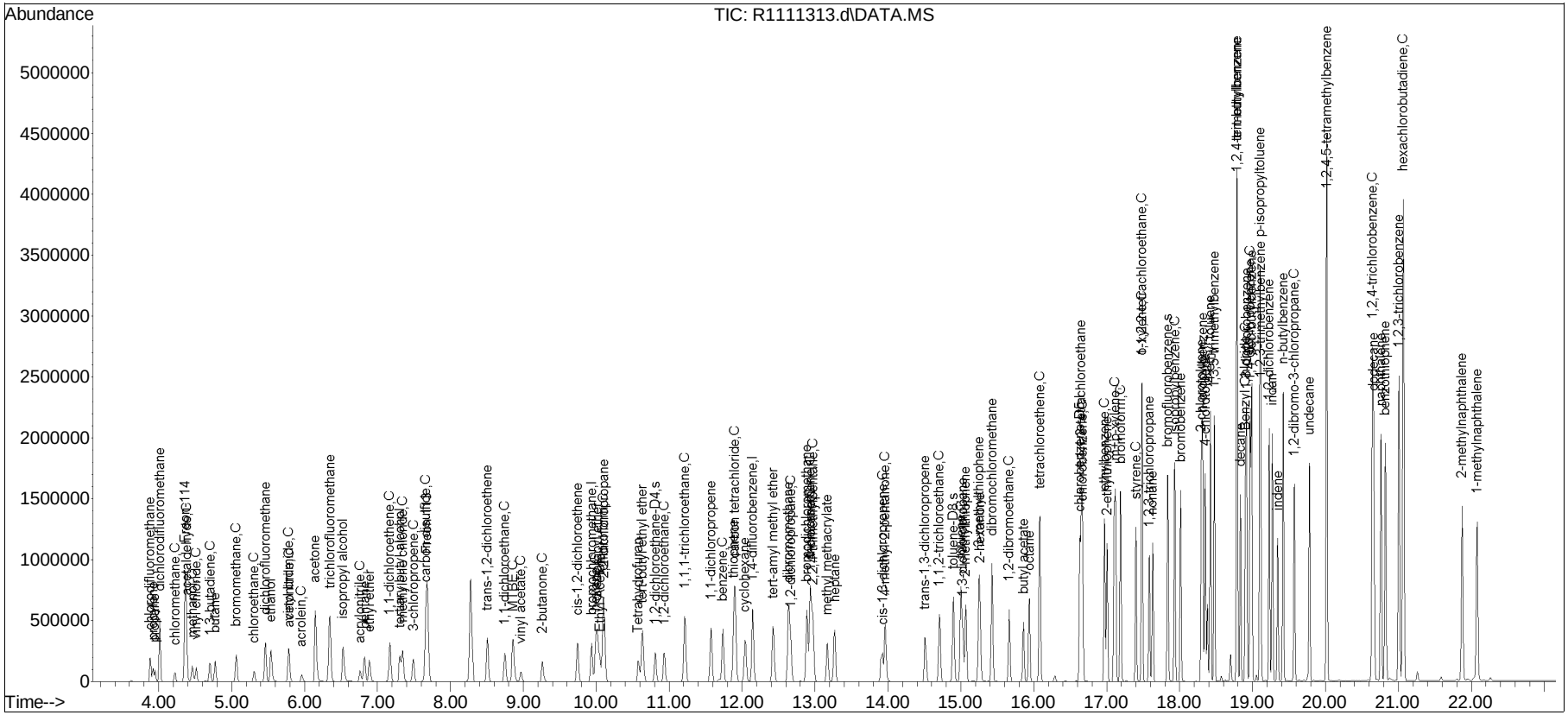
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.35	115	460806	9.446	ppbV	98
111) 1,2-dibromo-3-chloropr...	19.57	75	275439	10.817	ppbV	94
112) undecane	19.78	57	401875	7.458	ppbV #	94
113) 1,2,4,5-tetramethylben...	20.02	119	1855088	13.025	ppbV	97
114) dodecane	20.66	57	446305	8.376	ppbV	99
115) 1,2,4-trichlorobenzene	20.64	180	752239	13.662	ppbV	99
116) naphthalene	20.76	128	1309644	11.745	ppbV #	95
117) 1,2,3-trichlorobenzene	21.01	180	722582	13.849	ppbV	99
118) benzothiophene	20.82	134	1326584	13.312	ppbV	98
119) hexachlorobutadiene	21.07	225	793459	16.895	ppbV	95
120) 2-methylnaphthalene	21.87	142	667866	13.991	ppbV	97
121) 1-methylnaphthalene	22.08	142	631070	14.705	ppbV	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed5\150827T_ICAL\R1111313.d

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111313.d
Acq On : 28 Aug 2015 5:05 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD10.0
Misc : WG816683
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Aug 28 05:40:48 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 21 11:43:26 2015
Response via : Initial Calibration

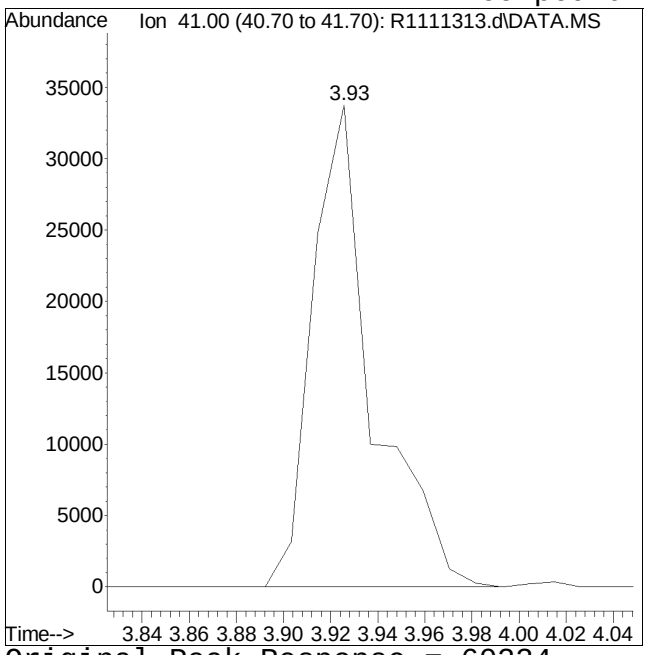


Manual Integration/Negative Proof Report

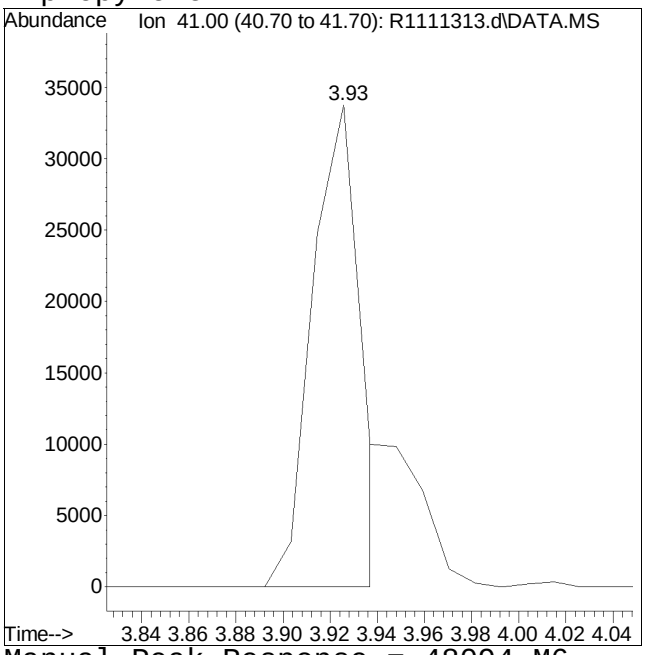
Data Path : O:\Forensics\Data\Airlab11\Q
Data File : R1111313.d
Date Inj'd : 8/28/2015 5:05 am
Sample : ITO15-LLSTD10.0

Method : TALL150827.M
Operator : AIRLAB11:AR
Instrument : Airlab 11
Quant Date : 8/28/2015 5:39 am

Compound #3: propylene



Original Peak Response = 60234



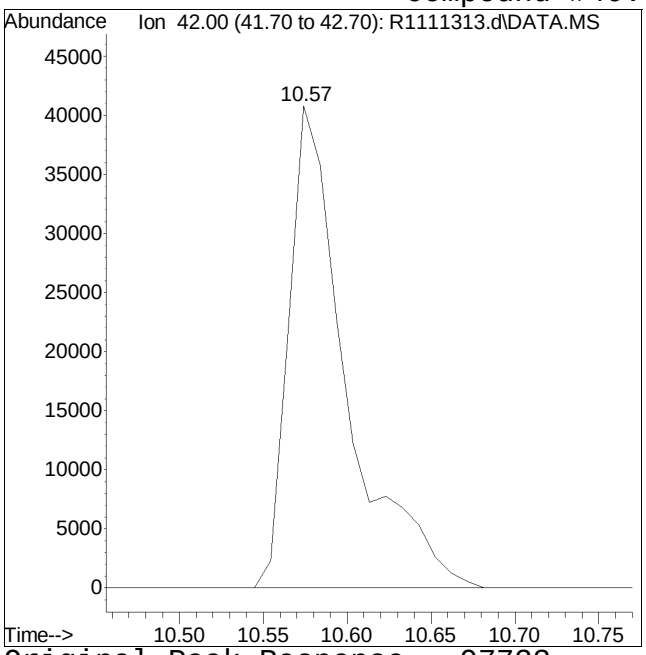
Manual Peak Response = 48094 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

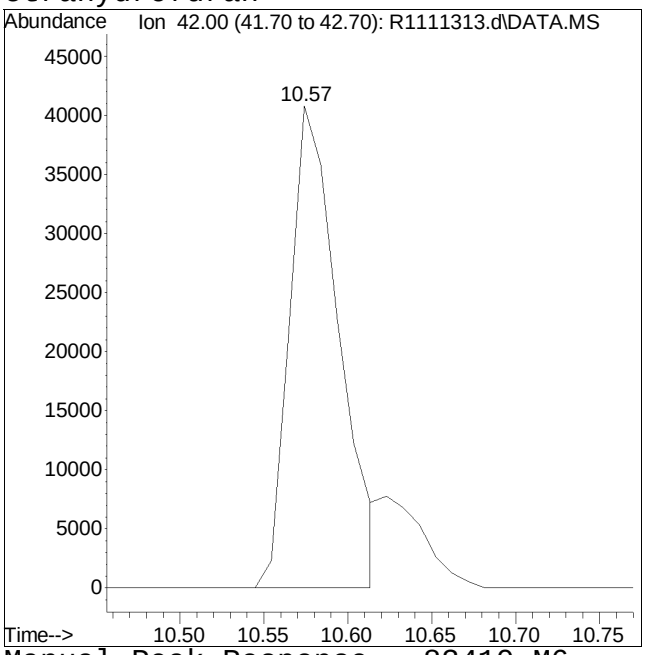
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\QMethod : TALL150827.M
Data File : R1111313.d Operator : AIRLAB11:AR
Date Inj'd : 8/28/2015 5:05 am Instrument : Airlab 11
Sample : ITO15-LLSTD10.0 Quant Date : 8/28/2015 5:39 am

Compound #40: Tetrahydrofuran



Original Peak Response = 97733



Manual Peak Response = 83410 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111314.d
Acq On : 28 Aug 2015 5:44 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD20.0
Misc : WG816683
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 28 08:22:38 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:55:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) bromochloromethane	9.94	49	90476	10.000 ppbV	0.00
Standard Area = 83801			Recovery = 107.97%		
43) 1,4-difluorobenzene	12.14	114	538760	10.000 ppbV	0.00
Standard Area = 505568			Recovery = 106.57%		
67) chlorobenzene-D5	16.63	54	92491	10.000 ppbV	0.00
Standard Area = 88795			Recovery = 104.16%		
System Monitoring Compounds					
47) 1,2-dichloroethane-D4	10.81	65	180711	8.566 ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 85.66%		
69) toluene-D8	14.90	98	464855	8.789 ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 87.89%		
90) bromofluorobenzene	17.83	95	403035	8.949 ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 89.49%		
Target Compounds					Qvalue
2) chlorodifluoromethane	3.88	51	321778	16.671 ppbV	99
3) propylene	3.93	41	100628M6	16.180 ppbV	
4) propane	3.95	29	79302	17.268 ppbV	99
5) dichlorodifluoromethane	4.01	85	647294	14.240 ppbV	99
6) chloromethane	4.22	50	134380	17.171 ppbV	95
7) Freon-114	4.36	85	793705	16.611 ppbV	99
8) methanol	4.46	31	180692	90.449 ppbV	99
9) vinyl chloride	4.52	62	195146	16.865 ppbV	99
10) 1,3-butadiene	4.70	54	130305	17.401 ppbV	95
11) butane	4.77	43	215870	16.036 ppbV	97
12) acetaldehyde	4.38	29	368165	84.644 ppbV	96
13) bromomethane	5.07	94	298357	19.770 ppbV	99
14) chloroethane	5.31	64	103305	18.014 ppbV	98
15) ethanol	5.55	31	423328	94.507 ppbV	100
16) dichlorofluoromethane	5.47	67	556574	17.526 ppbV	99
17) vinyl bromide	5.78	106	306889	16.860 ppbV	98
18) acrolein	5.96	56	77820	18.062 ppbV	95
19) acetone	6.14	43	1435099	85.343 ppbV	100
20) acetonitrile	5.79	41	112556	16.740 ppbV	99
21) trichlorofluoromethane	6.34	101	1035293	17.278 ppbV	99
22) isopropyl alcohol	6.54	45	699236	46.906 ppbV	100
23) acrylonitrile	6.77	53	138654	18.629 ppbV	99
24) pentane	6.82	43	241411	16.712 ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111314.d
Acq On : 28 Aug 2015 5:44 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD20.0
Misc : WG816683
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 28 08:22:38 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:55:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
25) ethyl ether	6.88	31	128547	18.176	ppbV	93
26) 1,1-dichloroethene	7.17	61	402750	16.789	ppbV	99
27) tertiary butyl alcohol	7.31	59	523659	18.369	ppbV	99
28) methylene chloride	7.35	49	213741	16.461	ppbV	100
29) 3-chloropropene	7.49	41	204865	17.430	ppbV	99
30) carbon disulfide	7.66	76	742720	17.645	ppbV	100
31) Freon 113	7.68	101	666003	17.056	ppbV	100
32) trans-1,2-dichloroethene	8.51	61	377041	17.550	ppbV	98
33) 1,1-dichloroethane	8.75	63	424895	17.634	ppbV	100
34) MTBE	8.85	73	829505	17.715	ppbV	100
35) vinyl acetate	8.97	43	273477	21.837	ppbV	98
36) 2-butanone	9.25	43	358988	17.739	ppbV	97
37) cis-1,2-dichloroethene	9.74	61	398030	19.650	ppbV	99
38) Ethyl Acetate	10.04	61	68870	19.466	ppbV	85
39) chloroform	10.10	83	644396	16.775	ppbV	100
40) Tetrahydrofuran	10.57	42	181035M6	18.567	ppbV	
41) 2,2-dichloropropane	10.11	77	591558	17.641	ppbV	99
42) 1,2-dichloroethane	10.94	62	439434	17.184	ppbV	99
44) hexane	9.99	57	307301	18.018	ppbV	93
45) diisopropyl ether	10.01	87	244672	18.090	ppbV	91
46) tert-butyl ethyl ether	10.63	59	767534	18.325	ppbV	100
48) 1,1,1-trichloroethane	11.21	97	810481	17.914	ppbV	99
49) 1,1-dichloropropene	11.57	75	440989	19.102	ppbV	99
50) benzene	11.74	78	805591	17.945	ppbV	99
51) thiophene	11.89	84	598878	18.423	ppbV	100
52) carbon tetrachloride	11.90	117	950595	18.176	ppbV	99
53) cyclohexane	12.04	56	328887	18.529	ppbV	98
54) tert-amyl methyl ether	12.42	73	823784	18.167	ppbV	99
55) dibromomethane	12.63	93	388957	17.877	ppbV	98
56) 1,2-dichloropropane	12.67	63	231515	18.038	ppbV	99
57) bromodichloromethane	12.89	83	776351	18.495	ppbV	98
58) 1,4-dioxane	12.95	88	210806	19.327	ppbV	94
59) trichloroethene	12.93	130	541876	18.367	ppbV	98
60) 2,2,4-trimethylpentane	12.97	57	1037163	18.076	ppbV	100
61) methyl methacrylate	13.17	41	256048	21.342	ppbV	97
62) heptane	13.27	43	316183	18.752	ppbV	99
63) cis-1,3-dichloropropene	13.93	75	220284	14.498	ppbV	96
64) 4-methyl-2-pentanone	13.96	43	727452	21.646	ppbV	98
65) trans-1,3-dichloropropene	14.51	75	435088	23.025	ppbV	99
66) 1,1,2-trichloroethane	14.70	97	388323	18.674	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111314.d
Acq On : 28 Aug 2015 5:44 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD20.0
Misc : WG816683
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 28 08:22:38 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:55:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	toluene	15.00	91	1149820	18.568	ppbV	98
70)	2-methylthiophene	15.06	97	957929	18.768	ppbV	97
71)	1,3-dichloropropane	15.02	76	467720	18.032	ppbV	100
72)	2-hexanone	15.26	43	442484	19.979	ppbV	99
73)	3-methylthiophene	15.25	97	1035262	18.585	ppbV	100
74)	dibromochloromethane	15.43	129	996439	18.863	ppbV	100
75)	1,2-dibromoethane	15.66	107	683449	18.588	ppbV	99
76)	butyl acetate	15.86	73	124130	19.468	ppbV	95
77)	octane	15.94	85	355305	18.714	ppbV	99
78)	tetrachloroethene	16.09	166	841778	17.096	ppbV	100
79)	1,1,1,2-tetrachloroethane	16.65	131	671028	18.619	ppbV	99
80)	chlorobenzene	16.67	112	1008929	17.787	ppbV	99
81)	ethylbenzene	16.97	91	1585091	18.643	ppbV	98
82)	2-ethylthiophene	17.00	97	1304070	19.080	ppbV	98
83)	m+p-xylene	17.12	91	2610814	36.357	ppbV	99
84)	bromoform	17.19	173	1261538	19.501	ppbV	99
85)	styrene	17.40	104	1014349	19.436	ppbV	98
86)	1,1,2,2-tetrachloroethane	17.48	83	728784	17.165	ppbV	100
87)	o-xylene	17.49	91	1306209	17.724	ppbV	98
88)	1,2,3-trichloropropane	17.59	75	642474	17.953	ppbV	98
89)	nonane	17.63	43	471824	18.138	ppbV	98
91)	isopropylbenzene	17.93	105	1912940	17.803	ppbV	100
92)	bromobenzene	18.01	77	881799	18.220	ppbV	100
93)	2-chlorotoluene	18.30	126	535161	18.046	ppbV	97
94)	n-propylbenzene	18.32	120	564850	18.028	ppbV	99
95)	4-chlorotoluene	18.35	91	1443685	17.925	ppbV	99
96)	4-ethyl toluene	18.42	105	2139934	18.146	ppbV	98
97)	1,3,5-trimethylbenzene	18.48	105	1779339	17.952	ppbV	98
98)	tert-butylbenzene	18.78	119	1877072	17.206	ppbV	99
99)	1,2,4-trimethylbenzene	18.79	105	1684317	17.501	ppbV	99
100)	decane	18.83	57	679612	17.752	ppbV	100
101)	Benzyl Chloride	18.90	91	1531513	21.152	ppbV	99
102)	1,3-dichlorobenzene	18.92	146	1355244	17.652	ppbV	99
103)	1,4-dichlorobenzene	18.97	146	1373291	17.723	ppbV	99
104)	sec-butylbenzene	18.99	105	2333737	17.503	ppbV	99
105)	1,2,3-trimethylbenzene	19.11	105	1508225	17.794	ppbV	100
106)	p-isopropyltoluene	19.10	119	2326911	17.495	ppbV	99
107)	1,2-dichlorobenzene	19.23	146	1317671	17.775	ppbV	98
108)	n-butylbenzene	19.42	91	1862062	18.069	ppbV	99
109)	indan	19.27	117	1648421	18.401	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111314.d
Acq On : 28 Aug 2015 5:44 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD20.0
Misc : WG816683
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 28 08:22:38 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:55:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

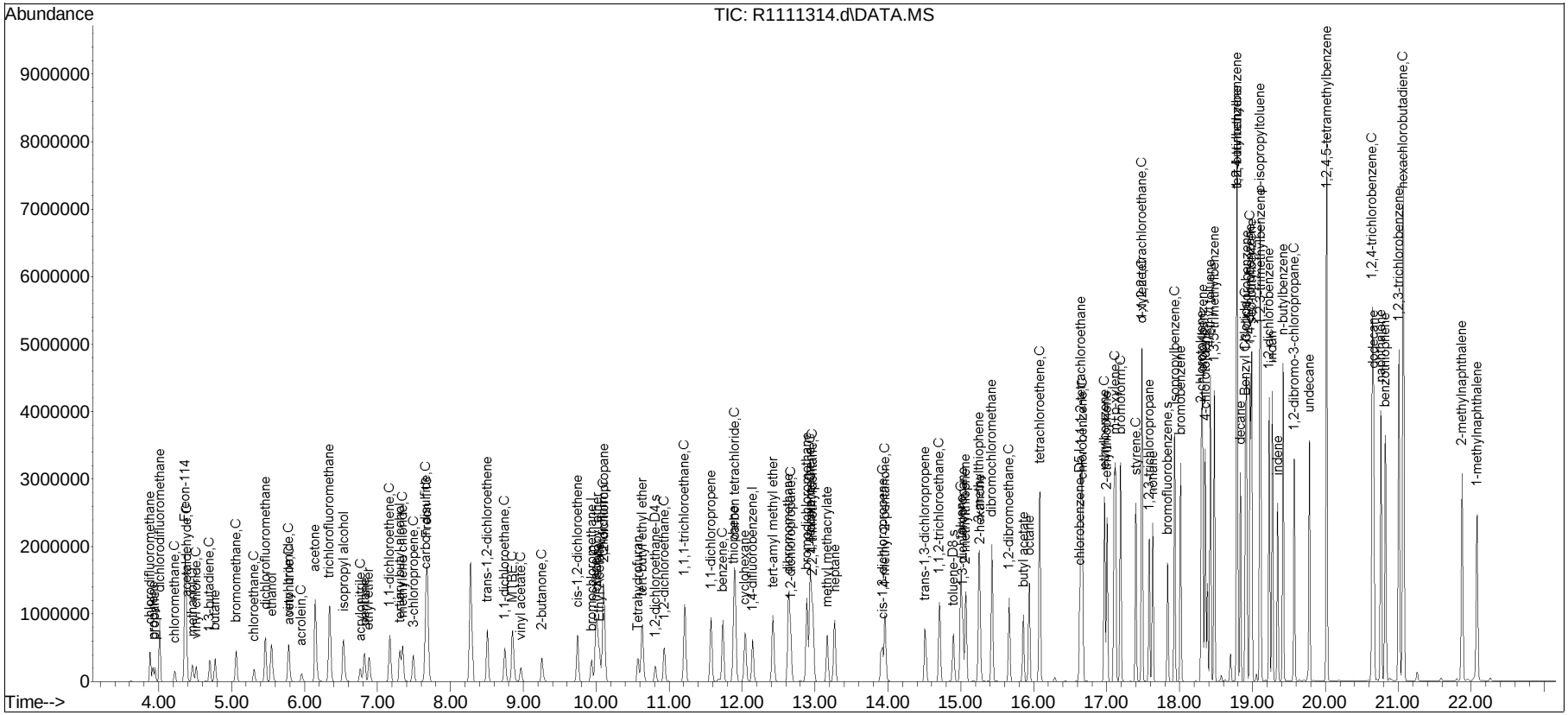
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.35	115	1032571	20.072	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.57	75	571480	19.691	ppbV	91
112) undecane	19.78	57	812790	19.071	ppbV	98
113) 1,2,4,5-tetramethylben...	20.02	119	3367794	17.586	ppbV	99
114) dodecane	20.66	57	871715	21.239	ppbV	99
115) 1,2,4-trichlorobenzene	20.64	180	1506703	19.656	ppbV	100
116) naphthalene	20.76	128	2623326	20.835	ppbV	100
117) 1,2,3-trichlorobenzene	21.01	180	1428584	19.824	ppbV	99
118) benzothiophene	20.82	134	2527129	20.961	ppbV	100
119) hexachlorobutadiene	21.07	225	1596380	18.163	ppbV	99
120) 2-methylnaphthalene	21.87	142	1433164	26.533	ppbV	99
121) 1-methylnaphthalene	22.08	142	1216286	22.945	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed5\150827T_ICAL\R1111313.d

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111314.d
Acq On : 28 Aug 2015 5:44 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD20.0
Misc : WG816683
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 28 08:22:38 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:55:19 2015
Response via : Initial Calibration

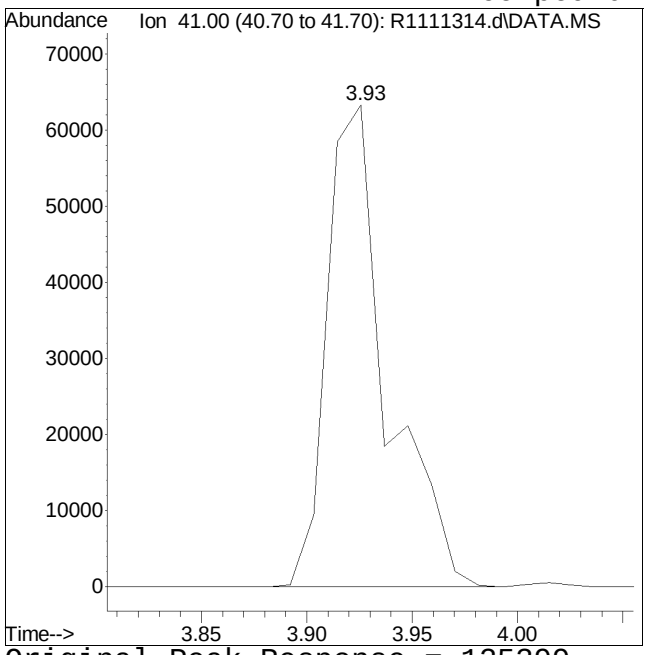


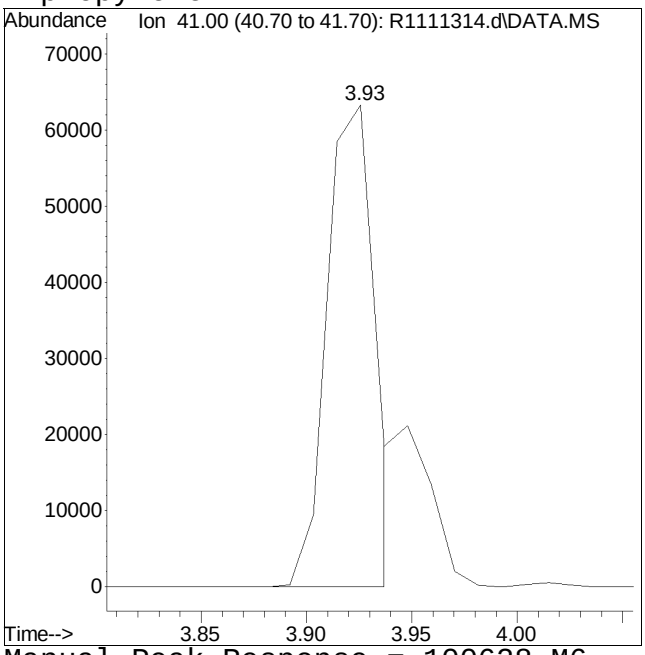
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\Q
Data File : R1111314.d
Date Inj'd : 8/28/2015 5:44 am
Sample : ITO15-LLSTD20.0

Method : TALL150827.M
Operator : AIRLAB11:AR
Instrument : Airlab 11
Quant Date : 8/28/2015 8:21 am

Compound #3: propylene



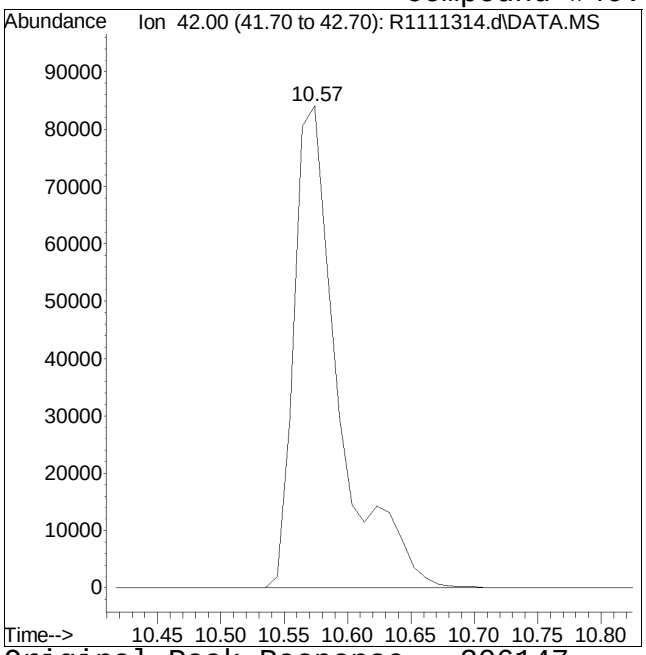


Original Peak Response = 125399 Manual Peak Response = 100628 M6
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

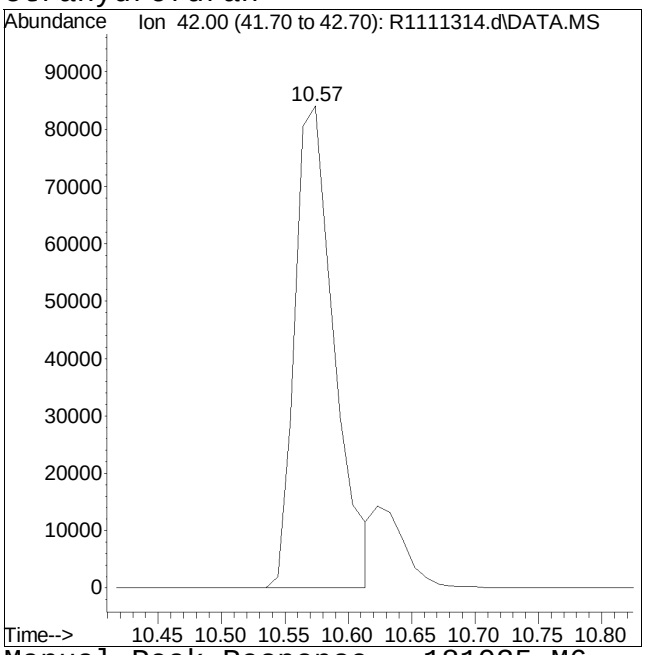
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\QMethod : TALL150827.M
Data File : R1111314.d Operator : AIRLAB11:AR
Date Inj'd : 8/28/2015 5:44 am Instrument : Airlab 11
Sample : ITO15-LLSTD20.0 Quant Date : 8/28/2015 8:21 am

Compound #40: Tetrahydrofuran



Original Peak Response = 206147



Manual Peak Response = 181035 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111315.d
Acq On : 28 Aug 2015 6:26 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD50.0
Misc : WG816683
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 28 08:24:04 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:55:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) bromochloromethane	9.94	49	97346	10.000 ppbV	0.00
Standard Area = 83801			Recovery = 116.16%		
43) 1,4-difluorobenzene	12.14	114	561542	10.000 ppbV	0.00
Standard Area = 505568			Recovery = 111.07%		
67) chlorobenzene-D5	16.63	54	96447	10.000 ppbV	0.00
Standard Area = 88795			Recovery = 108.62%		
System Monitoring Compounds					
47) 1,2-dichloroethane-D4	10.81	65	181567	8.257 ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 82.57%		
69) toluene-D8	14.90	98	471792	8.554 ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 85.54%		
90) bromofluorobenzene	17.84	95	401515	8.550 ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 85.50%		
Target Compounds					Qvalue
2) chlorodifluoromethane	3.88	51	747996	36.017 ppbV	100
3) propylene	3.91	41	235846M6	35.245 ppbV	
4) propane	3.95	29	179721	36.372 ppbV	99
5) dichlorodifluoromethane	4.01	85	1549341	31.678 ppbV	99
6) chloromethane	4.22	50	314890	37.397 ppbV	99
7) Freon-114	4.36	85	1777945	34.583 ppbV	98
8) methanol	4.47	31	408232	189.927 ppbV	98
9) vinyl chloride	4.52	62	444369	35.694 ppbV	98
10) 1,3-butadiene	4.70	54	304488	37.792 ppbV	96
11) butane	4.77	43	498187	34.396 ppbV	97
12) acetaldehyde	4.38	29	809403	172.956 ppbV	97
13) bromomethane	5.07	94	681845	41.993 ppbV	100
14) chloroethane	5.31	64	245353	39.763 ppbV	96
15) ethanol	5.57	31	960366	199.268 ppbV	100
16) dichlorofluoromethane	5.47	67	1281215	37.497 ppbV	99
17) vinyl bromide	5.78	106	712859	36.399 ppbV	100
18) acrolein	5.96	56	182728	39.418 ppbV	96
19) acetone	6.15	43	3278907	181.230 ppbV	100
20) acetonitrile	5.80	41	270121	37.339 ppbV	99
21) trichlorofluoromethane	6.35	101	2394749	37.146 ppbV	100
22) isopropyl alcohol	6.54	45	1646846	102.677 ppbV	100
23) acrylonitrile	6.77	53	319141M6	39.852 ppbV	
24) pentane	6.82	43	558570	35.939 ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111315.d
Acq On : 28 Aug 2015 6:26 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD50.0
Misc : WG816683
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 28 08:24:04 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:55:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
25) ethyl ether	6.89	31	310684	40.830 ppbV	96
26) 1,1-dichloroethene	7.17	61	956213	37.047 ppbV	99
27) tertiary butyl alcohol	7.32	59	1250883	40.782 ppbV	98
28) methylene chloride	7.35	49	496849	35.563 ppbV	95
29) 3-chloropropene	7.49	41	486276	38.452 ppbV	100
30) carbon disulfide	7.66	76	1720033	37.980 ppbV	100
31) Freon 113	7.68	101	1544265	36.758 ppbV	99
32) trans-1,2-dichloroethene	8.51	61	880794	38.105 ppbV	98
33) 1,1-dichloroethane	8.75	63	990702	38.214 ppbV	99
34) MTBE	8.85	73	1946254	38.631 ppbV	99
35) vinyl acetate	8.97	43	784529	58.224 ppbV	97
36) 2-butanone	9.26	43	853498	39.198 ppbV	99
37) cis-1,2-dichloroethene	9.74	61	934309	42.870 ppbV	99
38) Ethyl Acetate	10.06	61	161173	42.341 ppbV	94
39) chloroform	10.10	83	1485791	35.948 ppbV	99
40) Tetrahydrofuran	10.56	42	430302	41.018 ppbV	97
41) 2,2-dichloropropane	10.11	77	1367116	37.892 ppbV	97
42) 1,2-dichloroethane	10.94	62	1043639	37.932 ppbV	98
44) hexane	9.99	57	719923	40.499 ppbV	99
45) diisopropyl ether	10.02	87	562067	39.871 ppbV	93
46) tert-butyl ethyl ether	10.63	59	1813416	41.539 ppbV	99
48) 1,1,1-trichloroethane	11.22	97	1916267	40.637 ppbV	100
49) 1,1-dichloropropene	11.57	75	1029538	42.787 ppbV	99
50) benzene	11.74	78	1905300	40.721 ppbV	99
51) thiophene	11.89	84	1386654	40.926 ppbV	97
52) carbon tetrachloride	11.91	117	2236237	41.024 ppbV	100
53) cyclohexane	12.05	56	772298	41.745 ppbV	98
54) tert-amyl methyl ether	12.42	73	1949122	41.241 ppbV	99
55) dibromomethane	12.64	93	913051	40.263 ppbV	96
56) 1,2-dichloropropane	12.67	63	537793	40.200 ppbV	97
57) bromodichloromethane	12.89	83	1825339	41.722 ppbV	99
58) 1,4-dioxane	12.95	88	479398	42.170 ppbV	93
59) trichloroethene	12.93	130	1198033	38.960 ppbV	99
60) 2,2,4-trimethylpentane	12.97	57	2361640	39.490 ppbV	98
61) methyl methacrylate	13.17	41	612291	48.965 ppbV	98
62) heptane	13.27	43	733726	41.751 ppbV	99
63) cis-1,3-dichloropropene	13.93	75	531341	33.552 ppbV	97
64) 4-methyl-2-pentanone	13.96	43	1700043	48.534 ppbV	99
65) trans-1,3-dichloropropene	14.51	75	902919	45.845 ppbV	99
66) 1,1,2-trichloroethane	14.71	97	896008	41.339 ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111315.d
Acq On : 28 Aug 2015 6:26 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD50.0
Misc : WG816683
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 28 08:24:04 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:55:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	toluene	15.00	91	2622924	40.619	ppbV	100
70)	2-methylthiophene	15.07	97	2201087	41.356	ppbV	99
71)	1,3-dichloropropane	15.03	76	1073727	39.697	ppbV	99
72)	2-hexanone	15.27	43	1013303	43.876	ppbV	97
73)	3-methylthiophene	15.25	97	2358357	40.601	ppbV	100
74)	dibromochloromethane	15.43	129	2287293	41.523	ppbV	100
75)	1,2-dibromoethane	15.66	107	1567549	40.884	ppbV	99
76)	butyl acetate	15.86	73	286980	43.162	ppbV	98
77)	octane	15.94	85	807599	40.791	ppbV	98
78)	tetrachloroethene	16.09	166	1871122	36.443	ppbV	97
79)	1,1,1,2-tetrachloroethane	16.65	131	1503020	39.994	ppbV	98
80)	chlorobenzene	16.67	112	2238864	37.851	ppbV	98
81)	ethylbenzene	16.97	91	3569053	40.257	ppbV	99
82)	2-ethylthiophene	17.01	97	2945981	41.336	ppbV	98
83)	m+p-xylene	17.12	91	5768251	77.031	ppbV	98
84)	bromoform	17.19	173	2814062	41.716	ppbV	99
85)	styrene	17.40	104	2282372	41.938	ppbV	98
86)	1,1,2,2-tetrachloroethane	17.49	83	1566911	35.393	ppbV	99
87)	o-xylene	17.49	91	2806239	36.515	ppbV	100
88)	1,2,3-trichloropropane	17.59	75	1446334	38.759	ppbV	97
89)	nonane	17.64	43	1032378	38.060	ppbV	99
91)	isopropylbenzene	17.93	105	4177426	37.284	ppbV	99
92)	bromobenzene	18.01	77	1965316	38.943	ppbV	95
93)	2-chlorotoluene	18.30	126	1172659	37.921	ppbV	89
94)	n-propylbenzene	18.32	120	1204878	36.878	ppbV	99
95)	4-chlorotoluene	18.35	91	3070177	36.557	ppbV	99
96)	4-ethyl toluene	18.43	105	4577422	37.223	ppbV	99
97)	1,3,5-trimethylbenzene	18.48	105	3845373	37.205	ppbV	98
98)	tert-butylbenzene	18.79	119	3863206	33.958	ppbV	100
99)	1,2,4-trimethylbenzene	18.79	105	3489984	34.776	ppbV	94
100)	decane	18.84	57	1433092	35.898	ppbV	100
101)	Benzyl Chloride	18.90	91	3431709	45.452	ppbV	100
102)	1,3-dichlorobenzene	18.92	146	2853048	35.636	ppbV	97
103)	1,4-dichlorobenzene	18.97	146	2893948	35.816	ppbV	94
104)	sec-butylbenzene	18.99	105	4858697	34.946	ppbV	99
105)	1,2,3-trimethylbenzene	19.11	105	3176468	35.939	ppbV	97
106)	p-isopropyltoluene	19.10	119	4767711	34.376	ppbV	99
107)	1,2-dichlorobenzene	19.23	146	2830058	36.610	ppbV	96
108)	n-butylbenzene	19.42	91	3927074	36.545	ppbV	99
109)	indan	19.28	117	3523609	37.721	ppbV	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111315.d
Acq On : 28 Aug 2015 6:26 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD50.0
Misc : WG816683
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 28 08:24:04 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:55:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

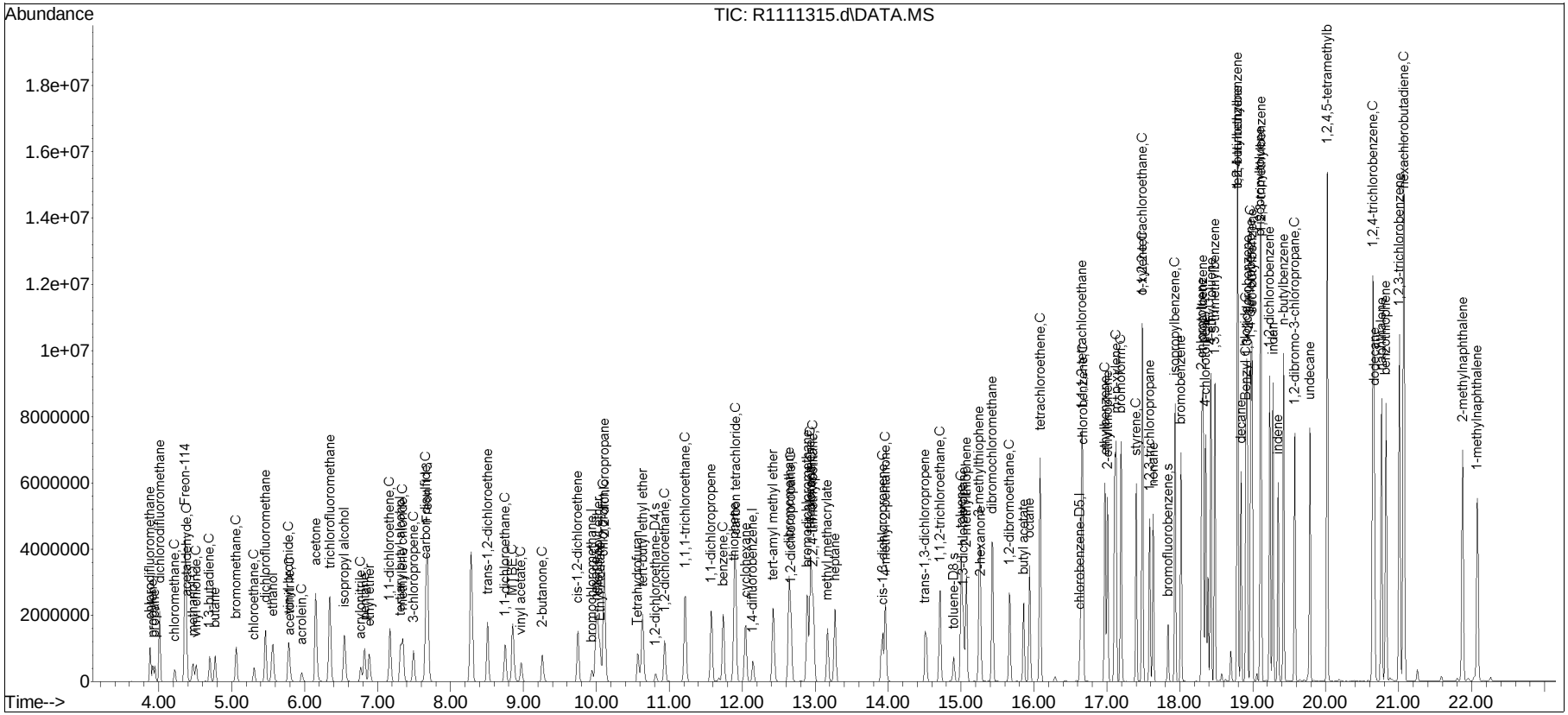
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.35	115	2289994	42.689	ppbV	100
111) 1,2-dibromo-3-chloropr...	19.57	75	1298074	42.892	ppbV	91
112) undecane	19.78	57	1694616	38.131	ppbV	100
113) 1,2,4,5-tetramethylben...	20.02	119	6831326	34.208	ppbV	97
114) dodecane	20.67	57	1781072	41.615	ppbV	97
115) 1,2,4-trichlorobenzene	20.65	180	3177340	39.751	ppbV	97
116) naphthalene	20.76	128	5630936	42.888	ppbV	99
117) 1,2,3-trichlorobenzene	21.01	180	3081678	41.009	ppbV	98
118) benzothiophene	20.82	134	5432989	43.216	ppbV	99
119) hexachlorobutadiene	21.07	225	3338270	36.424	ppbV	99
120) 2-methylnaphthalene	21.88	142	3369080	59.815	ppbV	99
121) 1-methylnaphthalene	22.07	142	2814212	50.912	ppbV	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed5\150827T_ICAL\R1111313.d

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111315.d
Acq On : 28 Aug 2015 6:26 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD50.0
Misc : WG816683
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 28 08:24:04 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:55:19 2015
Response via : Initial Calibration

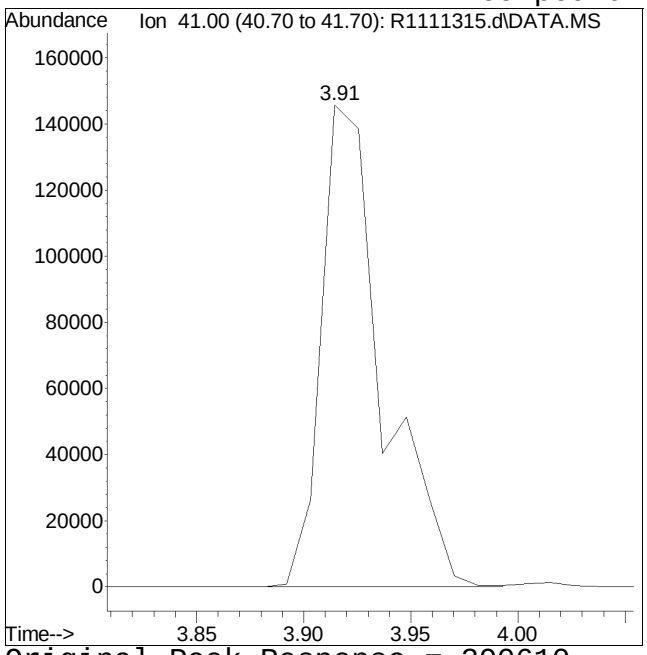


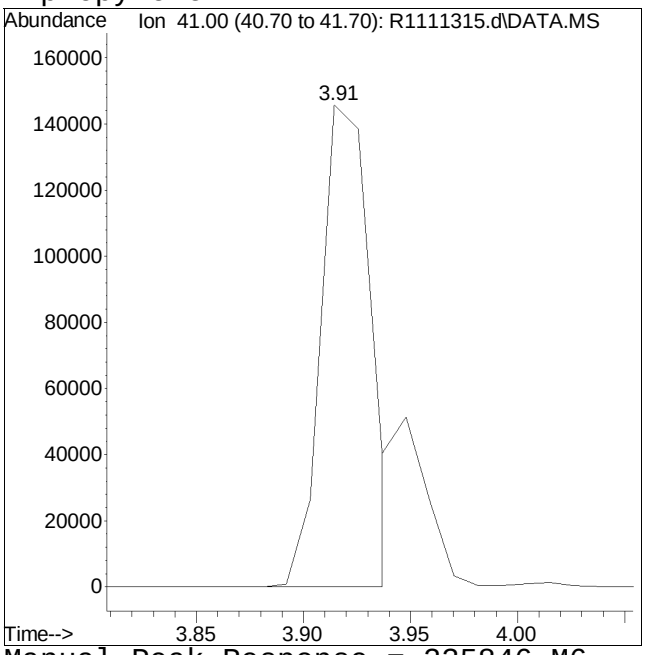
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\Q
Data File : R1111315.d
Date Inj'd : 8/28/2015 6:26 am
Sample : ITO15-LLSTD50.0

Method : TALL150827.M
Operator : AIRLAB11:AR
Instrument : Airlab 11
Quant Date : 8/28/2015 8:21 am

Compound #3: propylene





Original Peak Response = 290610

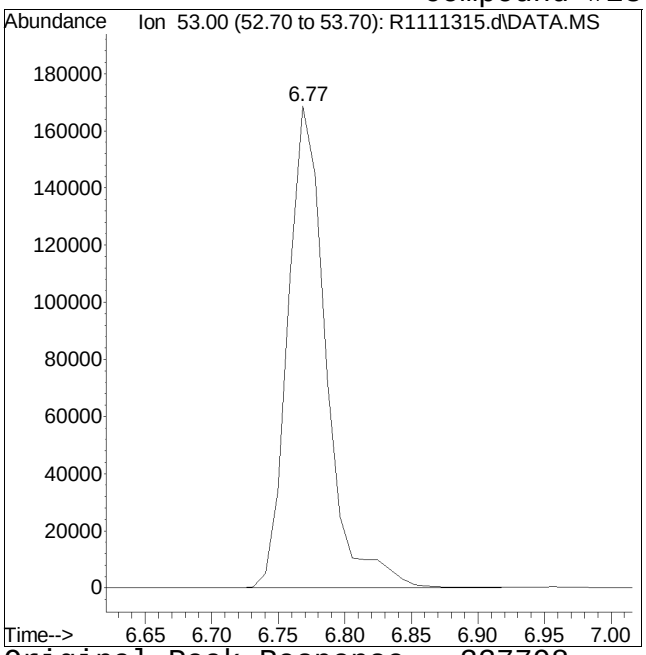
Manual Peak Response = 235846 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

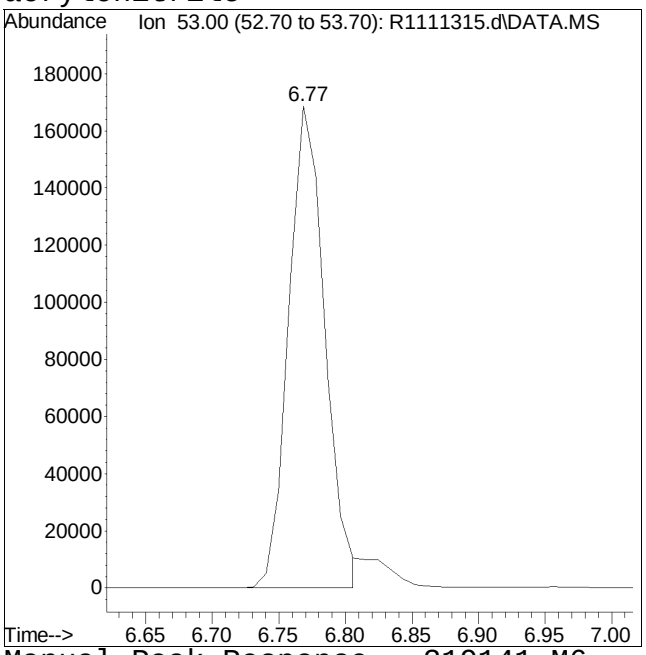
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\QMethod : TALL150827.M
Data File : R1111315.d Operator : AIRLAB11:AR
Date Inj'd : 8/28/2015 6:26 am Instrument : Airlab 11
Sample : ITO15-LLSTD50.0 Quant Date : 8/28/2015 8:21 am

Compound #23: acrylonitrile



Original Peak Response = 337798



Manual Peak Response = 319141 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111316.d
Acq On : 28 Aug 2015 7:10 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD100.0
Misc : WG816683
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 28 08:26:12 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:55:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) bromochloromethane	9.95	49	108477	10.000 ppbV	0.01
Standard Area = 83801			Recovery = 129.45%		
43) 1,4-difluorobenzene	12.15	114	580493	10.000 ppbV	0.01
Standard Area = 505568			Recovery = 114.82%		
67) chlorobenzene-D5	16.63	54	99766	10.000 ppbV	0.00
Standard Area = 88795			Recovery = 112.36%		
System Monitoring Compounds					
47) 1,2-dichloroethane-D4	10.82	65	185200	8.147 ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 81.47%		
69) toluene-D8	14.90	98	499414	8.753 ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 87.53%		
90) bromofluorobenzene	17.84	95	424450	8.738 ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 87.38%		
Target Compounds					Qvalue
2) chlorodifluoromethane	3.88	51	1519679	65.666 ppbV	100
3) propylene	3.93	41	471765M6	63.266 ppbV	
4) propane	3.95	29	361648	65.679 ppbV	99
5) dichlorodifluoromethane	4.01	85	2309049	42.367 ppbV	100
6) chloromethane	4.23	50	564350	60.147 ppbV	99
7) Freon-114	4.36	85	3203490	55.917 ppbV	99
8) methanol	4.48	31	719822	300.528 ppbV	97
9) vinyl chloride	4.52	62	829153	59.768 ppbV	97
10) 1,3-butadiene	4.71	54	573531	63.880 ppbV	94
11) butane	4.77	43	947057	58.678 ppbV	98
12) acetaldehyde	4.38	29	1420977	272.482 ppbV	94
13) bromomethane	5.07	94	1315201	72.689 ppbV	99
14) chloroethane	5.32	64	470479	68.425 ppbV	97
15) ethanol	5.59	31	1704105	317.306 ppbV	99
16) dichlorofluoromethane	5.47	67	2468374	64.828 ppbV	99
17) vinyl bromide	5.78	106	1356095	62.138 ppbV	100
18) acrolein	5.97	56	359689	69.631 ppbV	95
19) acetone	6.16	43	6033793	299.276 ppbV	100
20) acetonitrile	5.81	41	528825	65.599 ppbV	99
21) trichlorofluoromethane	6.35	101	4493234	62.545 ppbV	100
22) isopropyl alcohol	6.57	45	2926302	163.726 ppbV	100
23) acrylonitrile	6.79	53	649146	72.742 ppbV	99
24) pentane	6.82	43	1047797	60.498 ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111316.d
Acq On : 28 Aug 2015 7:10 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD100.0
Misc : WG816683
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 28 08:26:12 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:55:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
25) ethyl ether	6.89	31	578094	68.177 ppbV	92
26) 1,1-dichloroethene	7.18	61	1830639	63.648 ppbV	98
27) tertiary butyl alcohol	7.34	59	2341506	68.506 ppbV	98
28) methylene chloride	7.35	49	955097	61.349 ppbV	98
29) 3-chloropropene	7.49	41	932420	66.165 ppbV	98
30) carbon disulfide	7.66	76	3240276	64.207 ppbV	99
31) Freon 113	7.69	101	2891024	61.753 ppbV	100
32) trans-1,2-dichloroethene	8.51	61	1710929	66.424 ppbV	98
33) 1,1-dichloroethane	8.75	63	1934264	66.954 ppbV	100
34) MTBE	8.86	73	3795799	67.611 ppbV	99
35) vinyl acetate	8.98	43	1685973	112.286 ppbV	97
36) 2-butanone	9.27	43	1684246	69.414 ppbV	98
37) cis-1,2-dichloroethene	9.75	61	1860672	76.615 ppbV	99
38) Ethyl Acetate	10.07	61	317779	74.915 ppbV	97
39) chloroform	10.11	83	2765530	60.045 ppbV	99
40) Tetrahydrofuran	10.57	42	870777	74.489 ppbV	97
41) 2,2-dichloropropane	10.12	77	2625470	65.303 ppbV	98
42) 1,2-dichloroethane	10.95	62	2040490	66.554 ppbV	98
44) hexane	10.00	57	1383155	75.270 ppbV	94
45) diisopropyl ether	10.03	87	1070312	73.445 ppbV	94
46) tert-butyl ethyl ether	10.64	59	3488551	77.301 ppbV	99
48) 1,1,1-trichloroethane	11.22	97	3698502	75.872 ppbV	99
49) 1,1-dichloropropene	11.58	75	2021426	81.267 ppbV	98
50) benzene	11.75	78	3704961	76.599 ppbV	99
51) thiophene	11.90	84	2617274	74.724 ppbV	98
52) carbon tetrachloride	11.91	117	4204511	74.614 ppbV	99
53) cyclohexane	12.05	56	1501236	78.497 ppbV	99
54) tert-amyl methyl ether	12.43	73	3803526	77.851 ppbV	99
55) dibromomethane	12.66	93	1753856	74.816 ppbV	94
56) 1,2-dichloropropane	12.68	63	1031205	74.567 ppbV	97
57) bromodichloromethane	12.90	83	3530372	78.059 ppbV	99
58) 1,4-dioxane	12.96	88	832313	70.823 ppbV	97
59) trichloroethene	12.95	130	2219168	69.811 ppbV	97
60) 2,2,4-trimethylpentane	12.98	57	4427346	71.615 ppbV	97
61) methyl methacrylate	13.18	41	1204043	93.144 ppbV	98
62) heptane	13.27	43	1418254	78.068 ppbV	99
63) cis-1,3-dichloropropene	13.93	75	1410612	86.166 ppbV	97
64) 4-methyl-2-pentanone	13.97	43	3180381	87.832 ppbV	99
65) trans-1,3-dichloropropene	14.53	75	1658137	81.441 ppbV	99
66) 1,1,2-trichloroethane	14.71	97	1743591	77.819 ppbV	100

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111316.d
Acq On : 28 Aug 2015 7:10 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD100.0
Misc : WG816683
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 28 08:26:12 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:55:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
68)	toluene	15.01	91	5005999	74.945	ppbV	99
70)	2-methylthiophene	15.07	97	4233598	76.899	ppbV	97
71)	1,3-dichloropropane	15.04	76	2056122	73.488	ppbV	99
72)	2-hexanone	15.27	43	1929258	80.757	ppbV	97
73)	3-methylthiophene	15.26	97	4419037	73.547	ppbV	100
74)	dibromochloromethane	15.44	129	4271464	74.964	ppbV	99
75)	1,2-dibromoethane	15.67	107	3016209	76.050	ppbV	100
76)	butyl acetate	15.86	73	553997	80.550	ppbV	98
77)	octane	15.94	85	1508864	73.676	ppbV	99
78)	tetrachloroethene	16.09	166	3435248	64.680	ppbV	92
79)	1,1,1,2-tetrachloroethane	16.66	131	2780448	71.523	ppbV	99
80)	chlorobenzene	16.67	112	4126453	67.442	ppbV	97
81)	ethylbenzene	16.97	91	6686375	72.909	ppbV	99
82)	2-ethylthiophene	17.01	97	5485097	74.403	ppbV	98
83)	m+p-xylene	17.13	91	10411803	134.417	ppbV	99
84)	bromoform	17.20	173	5102581	73.124	ppbV	98
85)	styrene	17.41	104	4277407	75.982	ppbV	95
86)	1,1,2,2-tetrachloroethane	17.49	83	2808090	61.318	ppbV	100
87)	o-xylene	17.49	91	5026731	63.233	ppbV	99
88)	1,2,3-trichloropropane	17.59	75	2745996	71.139	ppbV	96
89)	nonane	17.64	43	1911063	68.110	ppbV	98
91)	isopropylbenzene	17.94	105	7455967	64.332	ppbV	97
92)	bromobenzene	18.02	77	3678326	70.462	ppbV	94
93)	2-chlorotoluene	18.30	126	2128257	66.534	ppbV	95
94)	n-propylbenzene	18.32	120	2150715	63.638	ppbV	86
95)	4-chlorotoluene	18.36	91	5820387	66.999	ppbV	100
96)	4-ethyl toluene	18.43	105	8021275	63.059	ppbV	97
97)	1,3,5-trimethylbenzene	18.48	105	6781729	63.433	ppbV	99
98)	tert-butylbenzene	18.79	119	6698622	56.924	ppbV	100
99)	1,2,4-trimethylbenzene	18.79	105	5981524	57.620	ppbV	96
100)	decane	18.84	57	2585799	62.617	ppbV	100
101)	Benzyl Chloride	18.91	91	6083312	77.892	ppbV	99
102)	1,3-dichlorobenzene	18.93	146	4912136	59.314	ppbV	93
103)	1,4-dichlorobenzene	18.97	146	4943429M3	59.145	ppbV	
104)	sec-butylbenzene	18.99	105	8101228	56.329	ppbV	98
105)	1,2,3-trimethylbenzene	19.12	105	5477962	59.917	ppbV	95
106)	p-isopropyltoluene	19.11	119	7942361	55.361	ppbV	97
107)	1,2-dichlorobenzene	19.24	146	4986926	62.366	ppbV	92
108)	n-butylbenzene	19.43	91	6894754	62.028	ppbV	99
109)	indan	19.28	117	6174179	63.897	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111316.d
Acq On : 28 Aug 2015 7:10 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD100.0
Misc : WG816683
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 28 08:26:12 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:55:19 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default - All compounds listed

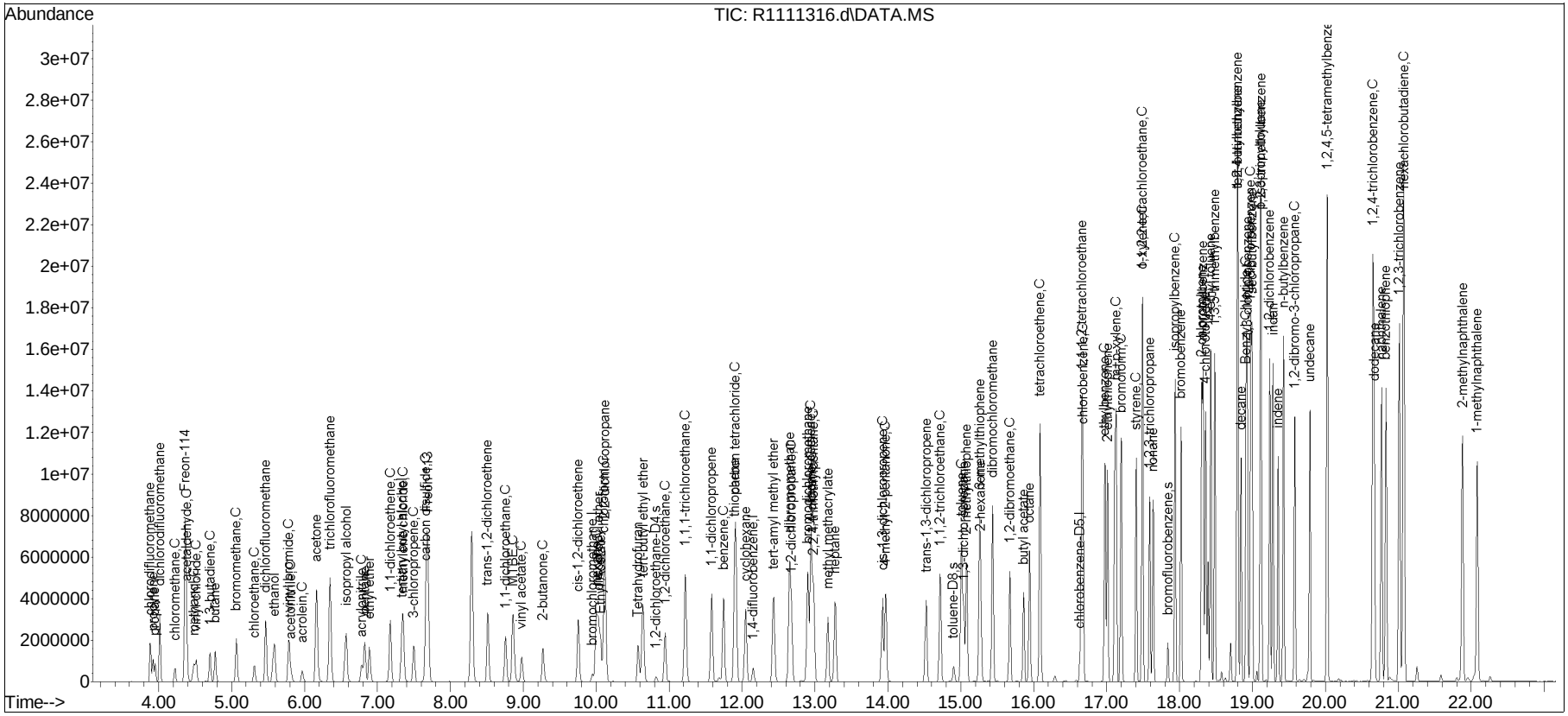
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) indene	19.35	115	4219041	76.034	ppbV	99
111) 1,2-dibromo-3-chloropr...	19.58	75	2393081	76.444	ppbV	87
112) undecane	19.79	57	3045449	66.247	ppbV	99
113) 1,2,4,5-tetramethylben...	20.03	119	11185303	54.147	ppbV #	93
114) dodecane	20.67	57	3119522	70.463	ppbV	97
115) 1,2,4-trichlorobenzene	20.65	180	5358768	64.812	ppbV	94
116) naphthalene	20.77	128	9711211	71.504	ppbV	95
117) 1,2,3-trichlorobenzene	21.02	180	5401404	69.487	ppbV	96
118) benzothiophene	20.83	134	9395122	72.246	ppbV	96
119) hexachlorobutadiene	21.08	225	5509850	58.118	ppbV	97
120) 2-methylnaphthalene	21.88	142	6192022	106.277	ppbV	97
121) 1-methylnaphthalene	22.08	142	5255524	91.915	ppbV	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default - All compounds listed5\150827T_ICAL\R1111313.d

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111316.d
Acq On : 28 Aug 2015 7:10 am
Operator : AIRLAB11:AR
Sample : ITO15-LLSTD100.0
Misc : WG816683
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 28 08:26:12 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 05:55:19 2015
Response via : Initial Calibration

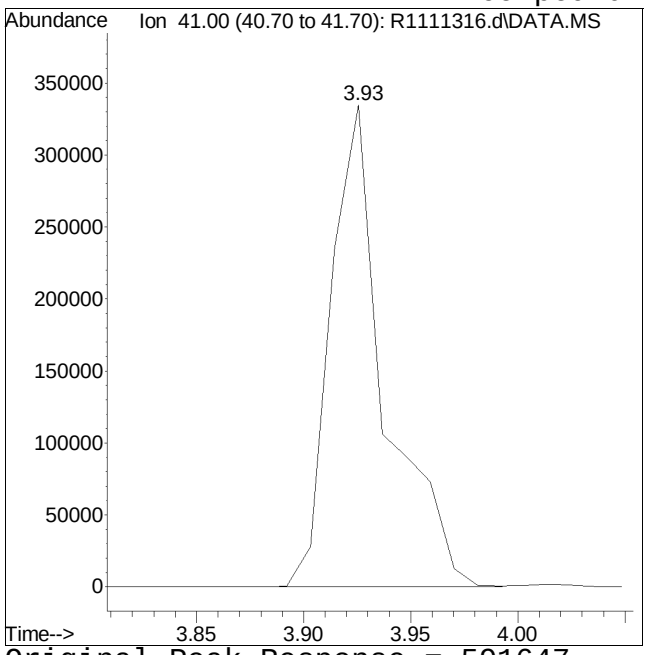


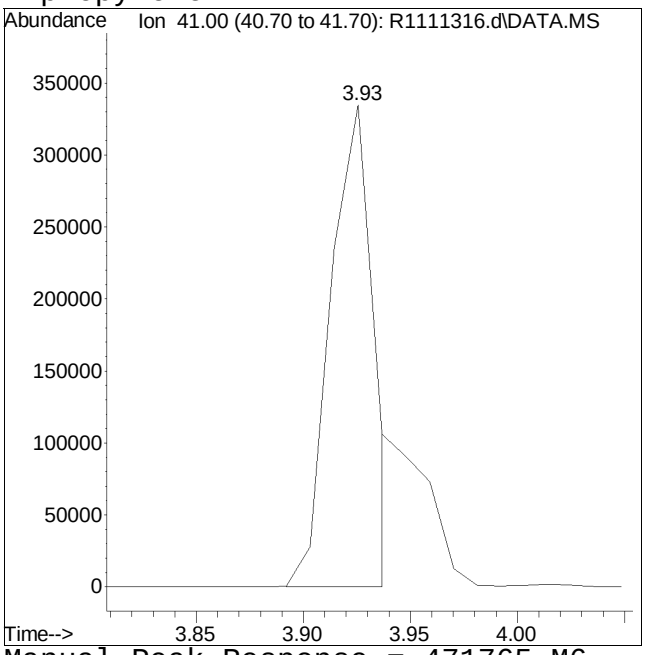
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\Q
Data File : R1111316.d
Date Inj'd : 8/28/2015 7:10 am
Sample : ITO15-LLSTD100.0

Method : TALL150827.M
Operator : AIRLAB11:AR
Instrument : Airlab 11
Quant Date : 8/28/2015 8:21 am

Compound #3: propylene





Original Peak Response = 591647

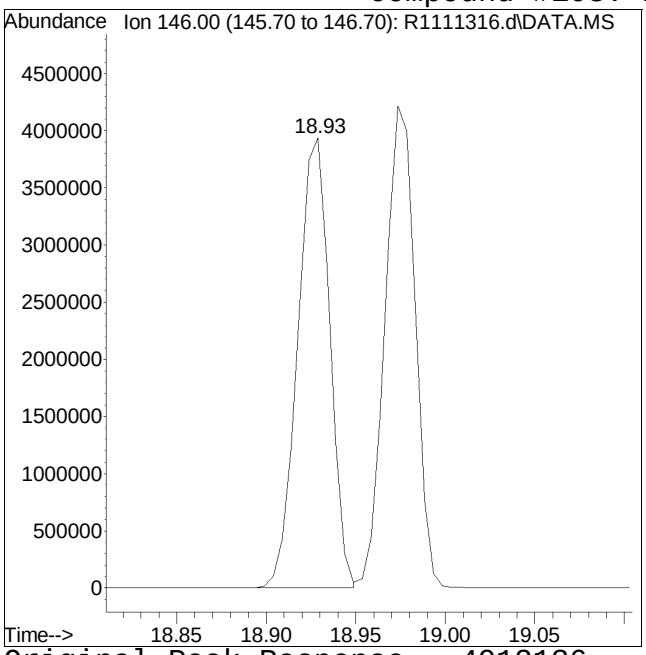
Manual Peak Response = 471765 M6

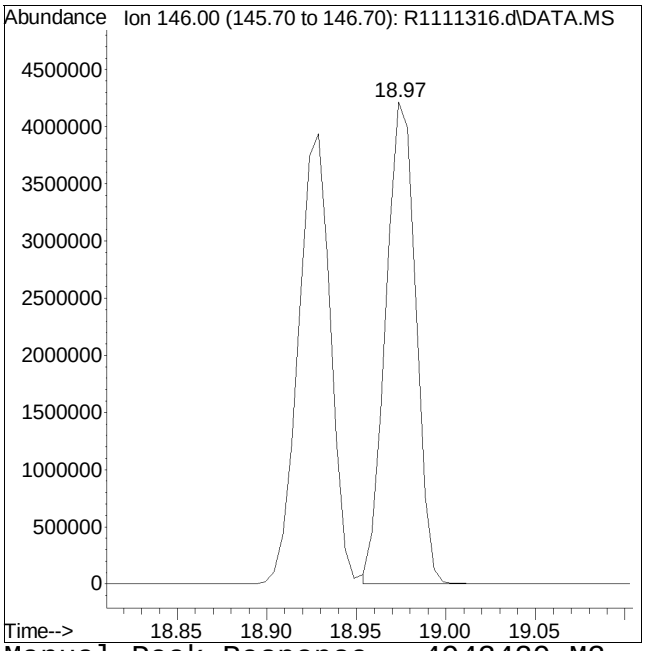
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\QMethod : TALL150827.M
Data File : R1111316.d Operator : AIRLAB11:AR
Date Inj'd : 8/28/2015 7:10 am Instrument : Airlab 11
Sample : ITO15-LLSTD100.0 Quant Date : 8/28/2015 8:21 am

Compound #103: 1,4-dichlorobenzene





Original Peak Response = 4912136 Manual Peak Response = 4943429 M3
M3 = Misidentification of the peak (i.e. 1,4-dichlorobenzene identified as 1,3-dichlorobenzene), or misidentification from 2 partially resolved peaks not being split.

Initial Calibration Verification

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111321.d
Acq On : 28 Aug 2015 11:58 am
Operator : AIRLAB11:AR
Sample : CTO15-LLSTD10
Misc : WG816683
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 28 15:52:38 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	107	0.00
2		chlorodifluoromethane	1.923	1.543	19.8	89	0.01
3		propylene	0.614	0.591	3.7	111	0.00
4		propane	0.460	0.350	23.9	86	0.01
5		dichlorodifluoromethane	4.251	2.947	30.7#	73	0.01
6	C	chloromethane	0.779	0.693	11.0	96	0.00
7		Freon-114	4.675	4.114	12.0	96	0.01
8	C	methanol	0.194	0.151	22.2	78	0.01
9	C	vinyl chloride	1.144	1.003	12.3	95	0.00
10	C	1,3-butadiene	0.752	0.706	6.1	99	0.00
11		butane	1.316	1.034	21.4	92	0.01
13	C	bromomethane	1.575	1.323	16.0	82	0.00
14	C	chloroethane	0.585	0.515	12.0	94	0.00
15		ethanol	0.451	0.368	18.4	90	0.00
16		dichlorofluoromethane	3.192	2.530	20.7	87	0.00
17	C	vinyl bromide	1.809	1.518	16.1	94	0.00
18	C	acrolein	0.440	0.362	17.7	93	0.00
19		acetone	1.667	1.429	14.3	95	0.00
20	C	acetonitrile	0.673	0.542	19.5	90	0.00
21		trichlorofluoromethane	5.987	5.018	16.2	91	0.00
22		isopropyl alcohol	1.596	1.345	15.7	99	0.00
23	C	acrylonitrile	0.767	0.621	19.0	92	0.00
24		pentane	1.429	1.109	22.4	91	0.00
25		ethyl ether	0.724	0.597	17.5	87	0.00
26	C	1,1-dichloroethene	2.392	2.044	14.5	97	0.00
27		tertiary butyl alcohol	2.889	2.336	19.1	88	0.00
28	C	methylene chloride	1.260	1.098	12.9	96	0.00
29	C	3-chloropropene	1.186	1.120	5.6	105	0.00
30	C	carbon disulfide	4.236	3.744	11.6	94	0.00
31		Freon 113	3.887	3.459	11.0	97	0.00
32		trans-1,2-dichloroethene	2.168	1.724	20.5	88	0.00
33	C	1,1-dichloroethane	2.435	2.118	13.0	96	0.00
34	C	MTBE	4.745	4.195	11.6	97	0.00
35	C	vinyl acetate	1.450	1.361	6.1	115	0.00
36	C	2-butanone	2.059	1.818	11.7	97	0.00
37		cis-1,2-dichloroethene	2.129	2.173	-2.1	106	0.00
38		Ethyl Acetate	0.370	0.344	7.0	98	0.00
39	C	chloroform	3.799	3.292	13.3	96	0.00
40		Tetrahydrofuran	1.009	0.890	11.8	96	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111321.d
Acq On : 28 Aug 2015 11:58 am
Operator : AIRLAB11:AR
Sample : CTO15-LLSTD10
Misc : WG816683
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 28 15:52:38 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	3.379	2.698	20.2	88	0.01
42	C	1,2-dichloroethane	2.573	2.166	15.8	93	0.00
43	I	1,4-difluorobenzene	1.000	1.000	0.0	105	0.01
44	C	hexane	0.295	0.268	9.2	96	0.01
45		diisopropyl ether	0.233	0.197	15.5	90	0.01
46		tert-butyl ethyl ether	0.731	0.611	16.4	89	0.00
47	s	1,2-dichloroethane-D4	0.367	0.303	17.4	91	0.00
48	C	1,1,1-trichloroethane	0.784	0.685	12.6	94	0.00
49		1,1-dichloropropene	0.408	0.365	10.5	96	0.00
50	C	benzene	0.779	0.682	12.5	96	0.00
52	C	carbon tetrachloride	0.907	0.805	11.2	95	0.01
53		cyclohexane	0.311	0.284	8.7	100	0.01
54		tert-amyl methyl ether	0.790	0.663	16.1	91	0.01
55		dibromomethane	0.376	0.315	16.2	88	0.01
56	C	1,2-dichloropropane	0.222	0.204	8.1	99	0.00
57		bromodichloromethane	0.734	0.656	10.6	94	0.00
58	C	1,4-dioxane	0.190	0.165	13.2	95	0.01
59	C	trichloroethene	0.506	0.471	6.9	96	0.00
60	C	2,2,4-trimethylpentane	0.986	0.879	10.9	95	0.00
61		methyl methacrylate	0.222	0.208	6.3	96	0.00
62		heptane	0.295	0.270	8.5	96	0.00
63	C	cis-1,3-dichloropropene	0.256	0.239	6.6	127	0.00
64	C	4-methyl-2-pentanone	0.618	0.580	6.1	92	0.00
65		trans-1,3-dichloropropene	0.346	0.293	15.3	80	0.00
66	C	1,1,2-trichloroethane	0.364	0.342	6.0	100	0.01
67	I	chlorobenzene-D5	1.000	1.000	0.0	98	0.00
68	C	toluene	6.269	5.990	4.5	97	0.00
69	s	toluene-D8	5.440	4.915	9.7	92	0.00
71		1,3-dichloropropane	2.605	2.245	13.8	88	0.00
72		2-hexanone	2.300	2.336	-1.6	95	0.01
74		dibromochloromethane	5.371	5.099	5.1	94	0.00
75	C	1,2-dibromoethane	3.731	3.626	2.8	97	0.00
76		butyl acetate	0.654	0.605	7.5	91	0.00
77		octane	1.921	1.704	11.3	88	0.00
78	C	tetrachloroethene	4.811	4.410	8.3	94	0.00
79		1,1,1,2-tetrachloroethane	3.627	3.192	12.0	87	0.00
80	C	chlorobenzene	5.612	5.322	5.2	96	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111321.d
Acq On : 28 Aug 2015 11:58 am
Operator : AIRLAB11:AR
Sample : CTO15-LLSTD10
Misc : WG816683
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 28 15:52:38 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	C	ethylbenzene	8.579	8.220	4.2	95	0.00
83	C	m+p-xylene	7.135	6.832	4.2	95	0.00
84	C	bromoform	6.593	6.391	3.1	92	0.00
85	C	styrene	5.340	5.224	2.2	95	0.00
86	C	1,1,2,2-tetrachloroethane	4.119	3.988	3.2	96	0.00
87	C	o-xylene	7.220	6.963	3.6	95	0.00
88		1,2,3-trichloropropane	3.571	3.121	12.6	87	0.00
89		nonane	2.584	2.294	11.2	87	0.00
90	s	bromofluorobenzene	4.640	4.073	12.2	88	0.00
91	C	isopropylbenzene	10.570	9.608	9.1	91	0.00
92		bromobenzene	4.836	4.323	10.6	88	0.00
93		2-chlorotoluene	2.936	2.633	10.3	88	0.00
94		n-propylbenzene	3.081	2.754	10.6	87	0.00
95		4-chlorotoluene	7.943	7.062	11.1	86	0.00
96		4-ethyl toluene	11.606	10.649	8.2	89	0.00
97		1,3,5-trimethylbenzene	9.747	9.213	5.5	93	0.00
98		tert-butylbenzene	10.481	9.383	10.5	86	0.00
99		1,2,4-trimethylbenzene	9.296	9.197	1.1	94	0.00
100		decane	3.742	3.380	9.7	88	0.00
101	C	Benzyl Chloride	7.579	7.716	-1.8	92	0.00
102		1,3-dichlorobenzene	7.459	7.157	4.0	92	0.00
103	C	1,4-dichlorobenzene	7.534	7.270	3.5	93	0.00
104		sec-butylbenzene	12.861	11.531	10.3	87	0.00
106		p-isopropyltoluene	12.791	10.896	14.8	81	0.00
107		1,2-dichlorobenzene	7.258	7.036	3.1	95	0.00
108		n-butylbenzene	10.104	9.397	7.0	88	0.00
111	C	1,2-dibromo-3-chloropropane	2.984	2.704	9.4	86	0.00
112		undecane	4.250	4.077	4.1	88	0.00
114		dodecane	4.215	4.478	-6.2	87	0.00
115	C	1,2,4-trichlorobenzene	7.693	8.246	-7.2	96	0.00
116		naphthalene	12.957	13.239	-2.2	88	0.00
117		1,2,3-trichlorobenzene	7.311	7.496	-2.5	90	0.00
119	C	hexachlorobutadiene	8.574	8.657	-1.0	95	0.00

* Evaluation of CC level amount vs concentration.
(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111321.d
Acq On : 28 Aug 2015 11:58 am
Operator : AIRLAB11:AR
Sample : CTO15-LLSTD10
Misc : WG816683
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 28 15:52:38 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.94	49	90015	10.000	ppbV	0.00
Standard Area = 83801			Recovery = 107.42%			
43) 1,4-difluorobenzene	12.15	114	531483	10.000	ppbV	0.01
Standard Area = 505568			Recovery = 105.13%			
67) chlorobenzene-D5	16.63	54	87139	10.000	ppbV	0.00
Standard Area = 88795			Recovery = 98.14%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.82	65	160925	8.251	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 82.51%			
69) toluene-D8	14.90	98	428277	9.035	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.35%			
90) bromofluorobenzene	17.84	95	354876	8.777	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 87.77%			
Target Compounds						Qvalue
2) chlorodifluoromethane	3.89	51	138923	8.026	ppbV	99
3) propylene	3.93	41	53204M6	9.625	ppbV	
4) propane	3.96	29	31518	7.614	ppbV	97
5) dichlorodifluoromethane	4.03	85	265242	6.931	ppbV	99
6) chloromethane	4.23	50	62377	8.892	ppbV	99
7) Freon-114	4.37	85	370310	8.800	ppbV	99
8) methanol	4.47	31	67804	38.875	ppbV	96
9) vinyl chloride	4.52	62	90298	8.770	ppbV	98
10) 1,3-butadiene	4.71	54	63511	9.388	ppbV	97
11) butane	4.79	43	93075	7.856	ppbV	97
13) bromomethane	5.07	94	119102	8.400	ppbV	97
14) chloroethane	5.32	64	46327	8.801	ppbV	100
15) ethanol	5.55	31	165537	40.775	ppbV	99
16) dichlorofluoromethane	5.47	67	227694	7.925	ppbV	99
17) vinyl bromide	5.79	106	136650	8.393	ppbV	99
18) acrolein	5.97	56	32627	8.242	ppbV	90
19) acetone	6.15	43	643277	42.860	ppbV	100
20) acetonitrile	5.80	41	48760	8.054	ppbV	100
21) trichlorofluoromethane	6.35	101	451739	8.382	ppbV	99
22) isopropyl alcohol	6.54	45	302666	21.066	ppbV	100
23) acrylonitrile	6.77	53	55872	8.096	ppbV	95
24) pentane	6.83	43	99786	7.758	ppbV	99
25) ethyl ether	6.90	31	53703	8.243	ppbV	97

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111321.d
Acq On : 28 Aug 2015 11:58 am
Operator : AIRLAB11:AR
Sample : CTO15-LLSTD10
Misc : WG816683
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 28 15:52:38 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 1,1-dichloroethene	7.18	61	183957	8.544	ppbV	99
27) tertiary butyl alcohol	7.32	59	210240	8.083	ppbV	97
28) methylene chloride	7.35	49	98814	8.709	ppbV	100
29) 3-chloropropene	7.49	41	100809	9.444	ppbV	96
30) carbon disulfide	7.66	76	336974	8.838	ppbV	98
31) Freon 113	7.69	101	311378	8.899	ppbV	98
32) trans-1,2-dichloroethene	8.52	61	155185	7.952	ppbV	99
33) 1,1-dichloroethane	8.76	63	190623	8.696	ppbV	98
34) MTBE	8.86	73	377586	8.840	ppbV	99
35) vinyl acetate	8.98	43	122541	9.390	ppbV	96
36) 2-butanone	9.26	43	163630	8.828	ppbV	99
37) cis-1,2-dichloroethene	9.75	61	195567	10.207	ppbV	97
38) Ethyl Acetate	10.06	61	30957	9.295	ppbV	88
39) chloroform	10.10	83	296285	8.664	ppbV	99
40) Tetrahydrofuran	10.58	42	80118M6	8.817	ppbV	
41) 2,2-dichloropropane	10.12	77	242816	7.984	ppbV	98
42) 1,2-dichloroethane	10.94	62	194937	8.416	ppbV	98
44) hexane	10.00	57	142246	9.062	ppbV	88
45) diisopropyl ether	10.02	87	104919	8.459	ppbV	93
46) tert-butyl ethyl ether	10.64	59	324499	8.355	ppbV	99
48) 1,1,1-trichloroethane	11.22	97	363873	8.735	ppbV	99
49) 1,1-dichloropropene	11.57	75	193956	8.937	ppbV	95
50) benzene	11.74	78	362565	8.759	ppbV	98
52) carbon tetrachloride	11.91	117	427892	8.876	ppbV	98
53) cyclohexane	12.05	56	150952	9.139	ppbV	99
54) tert-amyl methyl ether	12.43	73	352276	8.387	ppbV	99
55) dibromomethane	12.64	93	167245	8.371	ppbV	93
56) 1,2-dichloropropane	12.67	63	108250	9.179	ppbV	99
57) bromodichloromethane	12.89	83	348796	8.937	ppbV	98
58) 1,4-dioxane	12.96	88	87459	8.649	ppbV	96
59) trichloroethene	12.93	130	250175	9.298	ppbV	97
60) 2,2,4-trimethylpentane	12.97	57	467306	8.914	ppbV	100
61) methyl methacrylate	13.17	41	110773	9.386	ppbV	98
62) heptane	13.27	43	143306	9.125	ppbV	99
63) cis-1,3-dichloropropene	13.93	75	126826	9.327	ppbV	99
64) 4-methyl-2-pentanone	13.96	43	308468	9.385	ppbV	99
65) trans-1,3-dichloropropene	14.51	75	155585	8.471	ppbV	98
66) 1,1,2-trichloroethane	14.71	97	181574	9.393	ppbV	98
68) toluene	15.00	91	521935	9.555	ppbV	99
71) 1,3-dichloropropane	15.02	76	195632	8.619	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111321.d
Acq On : 28 Aug 2015 11:58 am
Operator : AIRLAB11:AR
Sample : CTO15-LLSTD10
Misc : WG816683
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 28 15:52:38 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default-ICV-AP2 - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
72)	2-hexanone	15.27	43	203587	10.158	ppbV	98
74)	dibromochloromethane	15.43	129	444329	9.494	ppbV	99
75)	1,2-dibromoethane	15.66	107	316000	9.720	ppbV	99
76)	butyl acetate	15.86	73	52745	9.253	ppbV	98
77)	octane	15.94	85	148498	8.869	ppbV	98
78)	tetrachloroethene	16.09	166	384241	9.165	ppbV	99
79)	1,1,1,2-tetrachloroethane	16.65	131	278179	8.802	ppbV	98
80)	chlorobenzene	16.67	112	463747	9.483	ppbV	98
81)	ethylbenzene	16.97	91	716241	9.581	ppbV	98
83)	m+p-xylene	17.12	91	1190706	19.153	ppbV	99
84)	bromoform	17.19	173	556868	9.693	ppbV	100
85)	styrene	17.40	104	455176	9.783	ppbV	99
86)	1,1,2,2-tetrachloroethane	17.48	83	347511	9.681	ppbV	97
87)	o-xylene	17.49	91	606724	9.644	ppbV	99
88)	1,2,3-trichloropropane	17.59	75	271996	8.740	ppbV	99
89)	nonane	17.63	43	199915	8.880	ppbV	99
91)	isopropylbenzene	17.93	105	837208	9.089	ppbV	99
92)	bromobenzene	18.01	77	376694	8.938	ppbV	100
93)	2-chlorotoluene	18.30	126	229453	8.968	ppbV	75
94)	n-propylbenzene	18.32	120	239980	8.940	ppbV	96
95)	4-chlorotoluene	18.35	91	615419	8.892	ppbV	100
96)	4-ethyl toluene	18.42	105	927948	9.175	ppbV	99
97)	1,3,5-trimethylbenzene	18.48	105	802842	9.453	ppbV	99
98)	tert-butylbenzene	18.78	119	817605	8.952	ppbV	99
99)	1,2,4-trimethylbenzene	18.79	105	801457	9.894	ppbV	96
100)	decane	18.83	57	294571	9.035	ppbV	98
101)	Benzyl Chloride	18.90	91	672330	10.180	ppbV	100
102)	1,3-dichlorobenzene	18.92	146	623622	9.595	ppbV	99
103)	1,4-dichlorobenzene	18.97	146	633508	9.650	ppbV	99
104)	sec-butylbenzene	18.99	105	1004809	8.966	ppbV	98
106)	p-isopropyltoluene	19.10	119	949428	8.518	ppbV	98
107)	1,2-dichlorobenzene	19.23	146	613091	9.694	ppbV	99
108)	n-butylbenzene	19.42	91	818866	9.301	ppbV	99
111)	1,2-dibromo-3-chloropr...	19.57	75	235653	9.064	ppbV	96
112)	undecane	19.78	57	355279	9.593	ppbV	98
114)	dodecane	20.66	57	390207	10.624	ppbV	99
115)	1,2,4-trichlorobenzene	20.64	180	718554	10.719	ppbV	99
116)	naphthalene	20.76	128	1153614	10.217	ppbV	99
117)	1,2,3-trichlorobenzene	21.01	180	653152	10.253	ppbV	99
119)	hexachlorobutadiene	21.07	225	754375	10.097	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111321.d
Acq On : 28 Aug 2015 11:58 am
Operator : AIRLAB11:AR
Sample : CTO15-LLSTD10
Misc : WG816683
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 28 15:52:38 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default-ICV-AP2 - All compounds listed

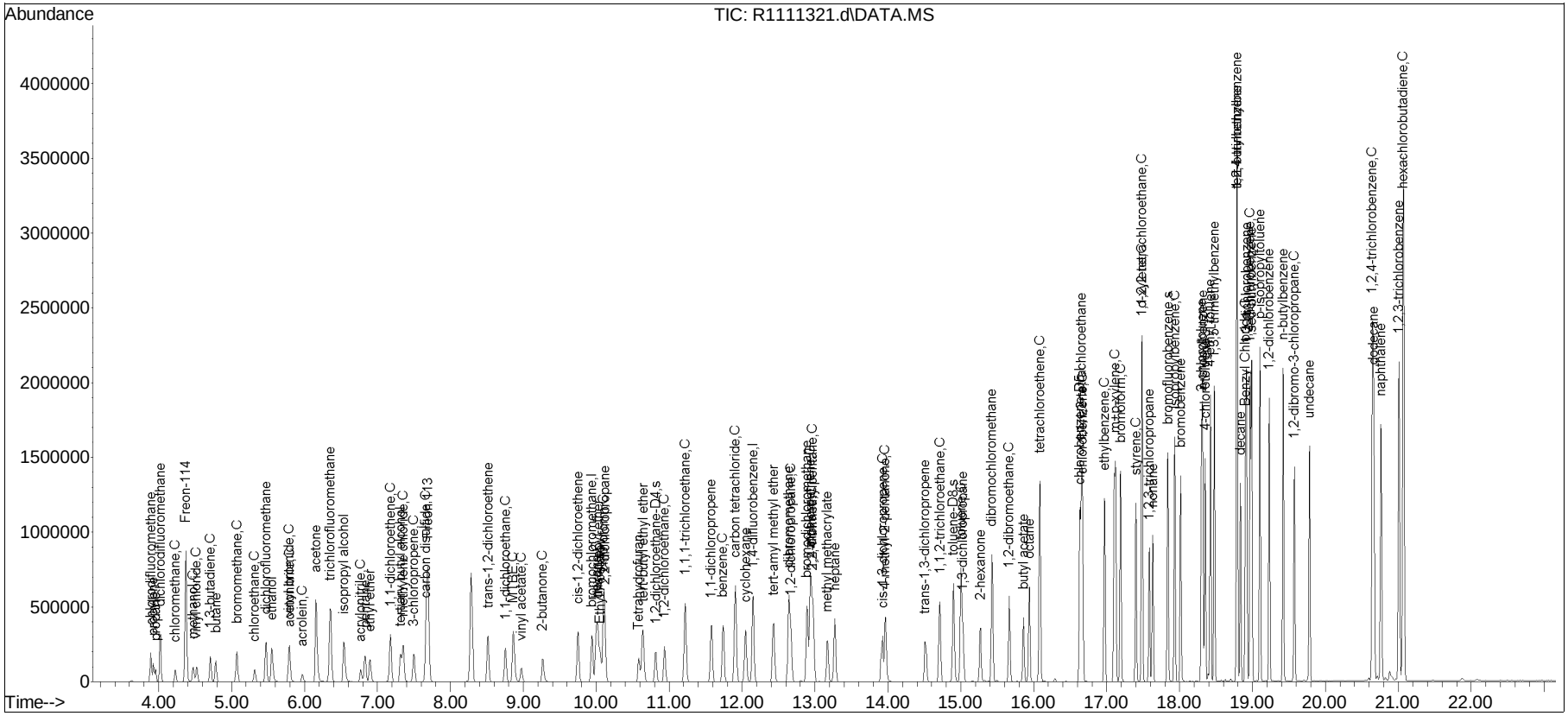
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-ICV-AP2 - All compounds listedT_ICAL\R1111313.d

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111321.d
Acq On : 28 Aug 2015 11:58 am
Operator : AIRLAB11:AR
Sample : CTO15-LLSTD10
Misc : WG816683
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 28 15:52:38 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

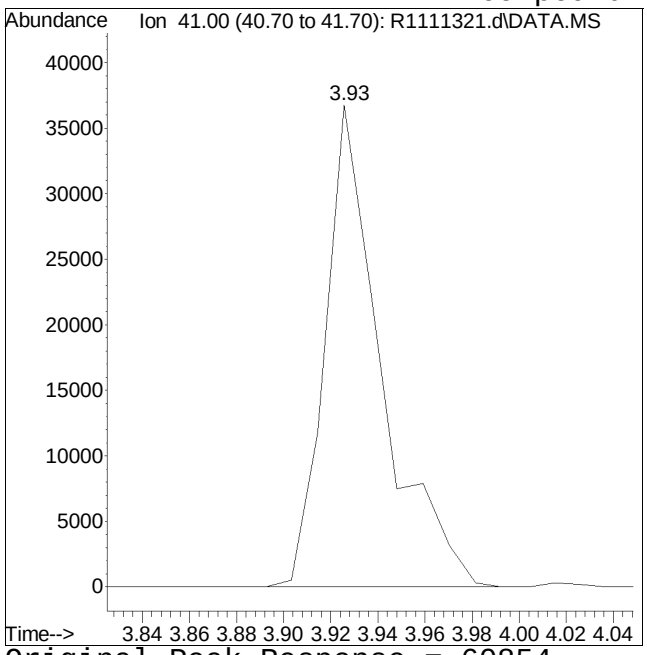


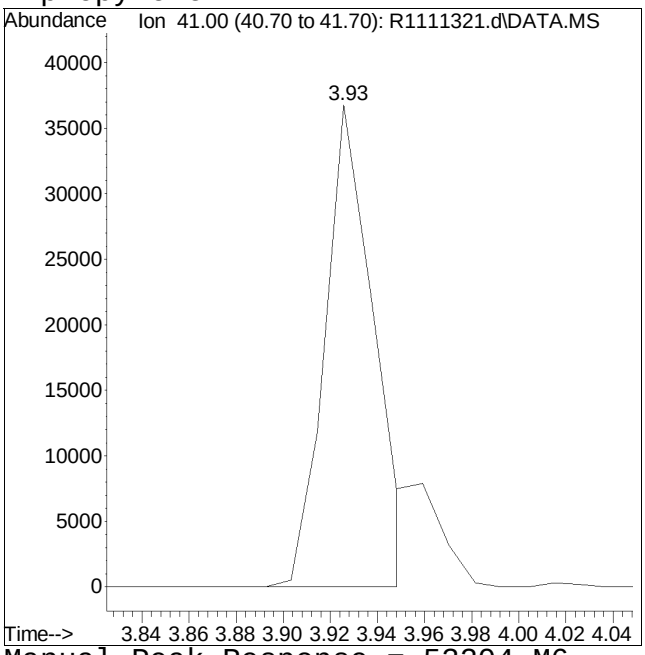
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\Q
Data File : R1111321.d
Date Inj'd : 8/28/2015 11:58 am
Sample : CTO15-LLSTD10

Method : TALL150827.M
Operator : AIRLAB11:AR
Instrument : Airlab 11
Quant Date : 8/28/2015 12:24 pm

Compound #3: propylene



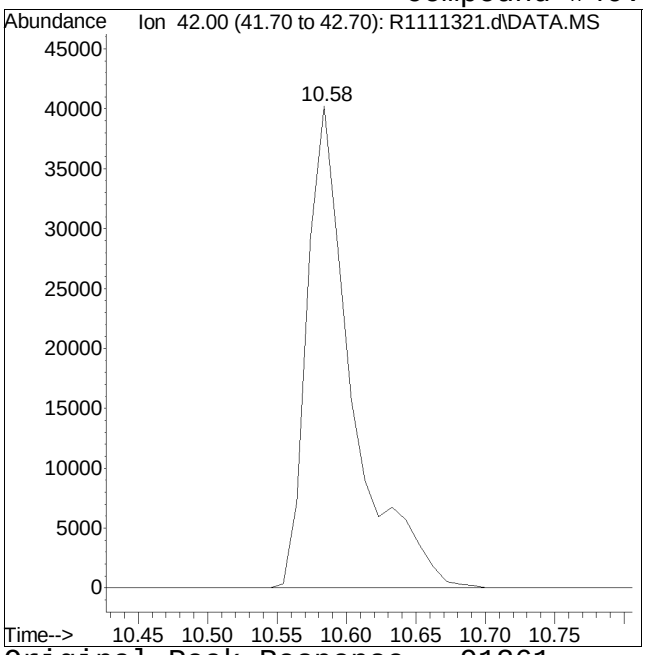


Original Peak Response = 60854 Manual Peak Response = 53204 M6
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

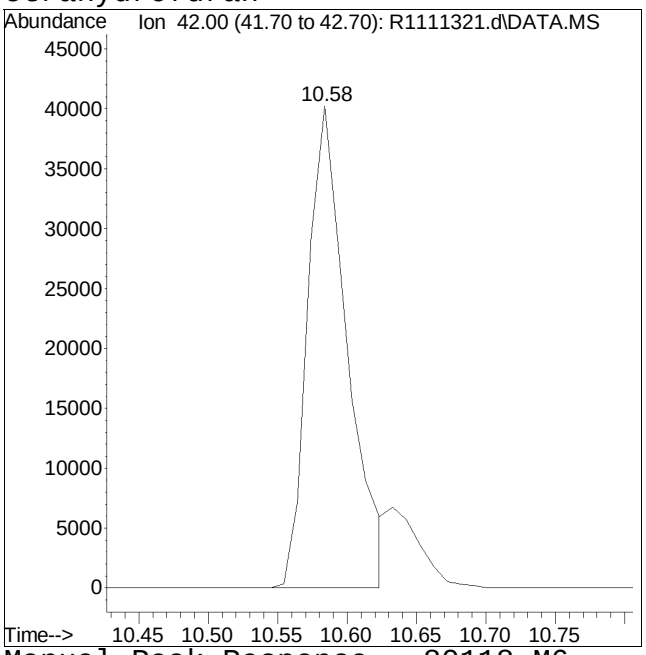
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\QMethod : TALL150827.M
Data File : R1111321.d Operator : AIRLAB11:AR
Date Inj'd : 8/28/2015 11:58 am Instrument : Airlab 11
Sample : CTO15-LLSTD10 Quant Date : 8/28/2015 12:24 pm

Compound #40: Tetrahydrofuran



Original Peak Response = 91261



Manual Peak Response = 80118 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

7A
CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1521092

Instrument ID: AIRLAB11 Calibration Date: 08/28/2015 Time: 11:58

Lab File ID: R1111321 Init. Calib. Date(s): 08/28/15 08/28/15

Sample No: CTO15-LLSTD10 Init. Calib. Times : 02:21 07:10

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	107	0.00
2		chlorodifluoromethane	1.923	1.543	19.8	89	0.01
3		propylene	0.614	0.591	3.7	111	0.00
4		propane	0.460	0.350	23.9	86	0.01
5		dichlorodifluoromethane	4.251	2.947	30.7#	73	0.01
6	C	chloromethane	0.779	0.693	11.0	96	0.00
7		Freon-114	4.675	4.114	12.0	96	0.01
8	C	methanol	0.194	0.151	22.2	78	0.01
9	C	vinyl chloride	1.144	1.003	12.3	95	0.00
10	C	1,3-butadiene	0.752	0.706	6.1	99	0.00
11		butane	1.316	1.034	21.4	92	0.01
13	C	bromomethane	1.575	1.323	16.0	82	0.00
14	C	chloroethane	0.585	0.515	12.0	94	0.00
15		ethanol	0.451	0.368	18.4	90	0.00
16		dichlorofluoromethane	3.192	2.530	20.7	87	0.00
17	C	vinyl bromide	1.809	1.518	16.1	94	0.00
18	C	acrolein	0.440	0.362	17.7	93	0.00
19		acetone	1.667	1.429	14.3	95	0.00
20	C	acetonitrile	0.673	0.542	19.5	90	0.00
21		trichlorofluoromethane	5.987	5.018	16.2	91	0.00
22		isopropyl alcohol	1.596	1.345	15.7	99	0.00
23	C	acrylonitrile	0.767	0.621	19.0	92	0.00
24		pentane	1.429	1.109	22.4	91	0.00
25		ethyl ether	0.724	0.597	17.5	87	0.00
26	C	1,1-dichloroethene	2.392	2.044	14.5	97	0.00
27		tertiary butyl alcohol	2.889	2.336	19.1	88	0.00
28	C	methylene chloride	1.260	1.098	12.9	96	0.00
29	C	3-chloropropene	1.186	1.120	5.6	105	0.00
30	C	carbon disulfide	4.236	3.744	11.6	94	0.00
31		Freon 113	3.887	3.459	11.0	97	0.00
32		trans-1,2-dichloroethene	2.168	1.724	20.5	88	0.00
33	C	1,1-dichloroethane	2.435	2.118	13.0	96	0.00
34	C	MTBE	4.745	4.195	11.6	97	0.00
35	C	vinyl acetate	1.450	1.361	6.1	115	0.00
36	C	2-butanone	2.059	1.818	11.7	97	0.00
37		cis-1,2-dichloroethene	2.129	2.173	-2.1	106	0.00
38		Ethyl Acetate	0.370	0.344	7.0	98	0.00
39	C	chloroform	3.799	3.292	13.3	96	0.00
40		Tetrahydrofuran	1.009	0.890	11.8	96	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111321.d
Acq On : 28 Aug 2015 11:58 am
Operator : AIRLAB11:AR
Sample : CTO15-LLSTD10
Misc : WG816683
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 28 15:52:38 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	3.379	2.698	20.2	88	0.01
42	C	1,2-dichloroethane	2.573	2.166	15.8	93	0.00
43	I	1,4-difluorobenzene	1.000	1.000	0.0	105	0.01
44	C	hexane	0.295	0.268	9.2	96	0.01
45		diisopropyl ether	0.233	0.197	15.5	90	0.01
46		tert-butyl ethyl ether	0.731	0.611	16.4	89	0.00
47	s	1,2-dichloroethane-D4	0.367	0.303	17.4	91	0.00
48	C	1,1,1-trichloroethane	0.784	0.685	12.6	94	0.00
49		1,1-dichloropropene	0.408	0.365	10.5	96	0.00
50	C	benzene	0.779	0.682	12.5	96	0.00
52	C	carbon tetrachloride	0.907	0.805	11.2	95	0.01
53		cyclohexane	0.311	0.284	8.7	100	0.01
54		tert-amyl methyl ether	0.790	0.663	16.1	91	0.01
55		dibromomethane	0.376	0.315	16.2	88	0.01
56	C	1,2-dichloropropane	0.222	0.204	8.1	99	0.00
57		bromodichloromethane	0.734	0.656	10.6	94	0.00
58	C	1,4-dioxane	0.190	0.165	13.2	95	0.01
59	C	trichloroethene	0.506	0.471	6.9	96	0.00
60	C	2,2,4-trimethylpentane	0.986	0.879	10.9	95	0.00
61		methyl methacrylate	0.222	0.208	6.3	96	0.00
62		heptane	0.295	0.270	8.5	96	0.00
63	C	cis-1,3-dichloropropene	0.256	0.239	6.6	127	0.00
64	C	4-methyl-2-pentanone	0.618	0.580	6.1	92	0.00
65		trans-1,3-dichloropropene	0.346	0.293	15.3	80	0.00
66	C	1,1,2-trichloroethane	0.364	0.342	6.0	100	0.01
67	I	chlorobenzene-D5	1.000	1.000	0.0	98	0.00
68	C	toluene	6.269	5.990	4.5	97	0.00
69	s	toluene-D8	5.440	4.915	9.7	92	0.00
71		1,3-dichloropropane	2.605	2.245	13.8	88	0.00
72		2-hexanone	2.300	2.336	-1.6	95	0.01
74		dibromochloromethane	5.371	5.099	5.1	94	0.00
75	C	1,2-dibromoethane	3.731	3.626	2.8	97	0.00
76		butyl acetate	0.654	0.605	7.5	91	0.00
77		octane	1.921	1.704	11.3	88	0.00
78	C	tetrachloroethene	4.811	4.410	8.3	94	0.00
79		1,1,1,2-tetrachloroethane	3.627	3.192	12.0	87	0.00
80	C	chlorobenzene	5.612	5.322	5.2	96	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111321.d
Acq On : 28 Aug 2015 11:58 am
Operator : AIRLAB11:AR
Sample : CTO15-LLSTD10
Misc : WG816683
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 28 15:52:38 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
81	C	ethylbenzene	8.579	8.220	4.2	95	0.00
83	C	m+p-xylene	7.135	6.832	4.2	95	0.00
84	C	bromoform	6.593	6.391	3.1	92	0.00
85	C	styrene	5.340	5.224	2.2	95	0.00
86	C	1,1,2,2-tetrachloroethane	4.119	3.988	3.2	96	0.00
87	C	o-xylene	7.220	6.963	3.6	95	0.00
88		1,2,3-trichloropropane	3.571	3.121	12.6	87	0.00
89		nonane	2.584	2.294	11.2	87	0.00
90	s	bromofluorobenzene	4.640	4.073	12.2	88	0.00
91	C	isopropylbenzene	10.570	9.608	9.1	91	0.00
92		bromobenzene	4.836	4.323	10.6	88	0.00
93		2-chlorotoluene	2.936	2.633	10.3	88	0.00
94		n-propylbenzene	3.081	2.754	10.6	87	0.00
95		4-chlorotoluene	7.943	7.062	11.1	86	0.00
96		4-ethyl toluene	11.606	10.649	8.2	89	0.00
97		1,3,5-trimethylbenzene	9.747	9.213	5.5	93	0.00
98		tert-butylbenzene	10.481	9.383	10.5	86	0.00
99		1,2,4-trimethylbenzene	9.296	9.197	1.1	94	0.00
100		decane	3.742	3.380	9.7	88	0.00
101	C	Benzyl Chloride	7.579	7.716	-1.8	92	0.00
102		1,3-dichlorobenzene	7.459	7.157	4.0	92	0.00
103	C	1,4-dichlorobenzene	7.534	7.270	3.5	93	0.00
104		sec-butylbenzene	12.861	11.531	10.3	87	0.00
106		p-isopropyltoluene	12.791	10.896	14.8	81	0.00
107		1,2-dichlorobenzene	7.258	7.036	3.1	95	0.00
108		n-butylbenzene	10.104	9.397	7.0	88	0.00
111	C	1,2-dibromo-3-chloropropane	2.984	2.704	9.4	86	0.00
112		undecane	4.250	4.077	4.1	88	0.00
114		dodecane	4.215	4.478	-6.2	87	0.00
115	C	1,2,4-trichlorobenzene	7.693	8.246	-7.2	96	0.00
116		naphthalene	12.957	13.239	-2.2	88	0.00
117		1,2,3-trichlorobenzene	7.311	7.496	-2.5	90	0.00
119	C	hexachlorobutadiene	8.574	8.657	-1.0	95	0.00

* Evaluation of CC level amount vs concentration.

FORM VII NJ-TO15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111321.d
Acq On : 28 Aug 2015 11:58 am
Operator : AIRLAB11:AR
Sample : CTO15-LLSTD10
Misc : WG816683
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 28 15:52:38 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.94	49	90015	10.000	ppbV	0.00
Standard Area = 83801			Recovery = 107.42%			
43) 1,4-difluorobenzene	12.15	114	531483	10.000	ppbV	0.01
Standard Area = 505568			Recovery = 105.13%			
67) chlorobenzene-D5	16.63	54	87139	10.000	ppbV	0.00
Standard Area = 88795			Recovery = 98.14%			
System Monitoring Compounds						
47) 1,2-dichloroethane-D4	10.82	65	160925	8.251	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 82.51%			
69) toluene-D8	14.90	98	428277	9.035	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 90.35%			
90) bromofluorobenzene	17.84	95	354876	8.777	ppbV	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 87.77%			
Target Compounds						Qvalue
2) chlorodifluoromethane	3.89	51	138923	8.026	ppbV	99
3) propylene	3.93	41	53204M6	9.625	ppbV	
4) propane	3.96	29	31518	7.614	ppbV	97
5) dichlorodifluoromethane	4.03	85	265242	6.931	ppbV	99
6) chloromethane	4.23	50	62377	8.892	ppbV	99
7) Freon-114	4.37	85	370310	8.800	ppbV	99
8) methanol	4.47	31	67804	38.875	ppbV	96
9) vinyl chloride	4.52	62	90298	8.770	ppbV	98
10) 1,3-butadiene	4.71	54	63511	9.388	ppbV	97
11) butane	4.79	43	93075	7.856	ppbV	97
13) bromomethane	5.07	94	119102	8.400	ppbV	97
14) chloroethane	5.32	64	46327	8.801	ppbV	100
15) ethanol	5.55	31	165537	40.775	ppbV	99
16) dichlorofluoromethane	5.47	67	227694	7.925	ppbV	99
17) vinyl bromide	5.79	106	136650	8.393	ppbV	99
18) acrolein	5.97	56	32627	8.242	ppbV	90
19) acetone	6.15	43	643277	42.860	ppbV	100
20) acetonitrile	5.80	41	48760	8.054	ppbV	100
21) trichlorofluoromethane	6.35	101	451739	8.382	ppbV	99
22) isopropyl alcohol	6.54	45	302666	21.066	ppbV	100
23) acrylonitrile	6.77	53	55872	8.096	ppbV	95
24) pentane	6.83	43	99786	7.758	ppbV	99
25) ethyl ether	6.90	31	53703	8.243	ppbV	97

Quantitation Report (QT Reviewed)

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Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default-ICV-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) 1,1-dichloroethene	7.18	61	183957	8.544	ppbV	99
27) tertiary butyl alcohol	7.32	59	210240	8.083	ppbV	97
28) methylene chloride	7.35	49	98814	8.709	ppbV	100
29) 3-chloropropene	7.49	41	100809	9.444	ppbV	96
30) carbon disulfide	7.66	76	336974	8.838	ppbV	98
31) Freon 113	7.69	101	311378	8.899	ppbV	98
32) trans-1,2-dichloroethene	8.52	61	155185	7.952	ppbV	99
33) 1,1-dichloroethane	8.76	63	190623	8.696	ppbV	98
34) MTBE	8.86	73	377586	8.840	ppbV	99
35) vinyl acetate	8.98	43	122541	9.390	ppbV	96
36) 2-butanone	9.26	43	163630	8.828	ppbV	99
37) cis-1,2-dichloroethene	9.75	61	195567	10.207	ppbV	97
38) Ethyl Acetate	10.06	61	30957	9.295	ppbV	88
39) chloroform	10.10	83	296285	8.664	ppbV	99
40) Tetrahydrofuran	10.58	42	80118M6	8.817	ppbV	
41) 2,2-dichloropropane	10.12	77	242816	7.984	ppbV	98
42) 1,2-dichloroethane	10.94	62	194937	8.416	ppbV	98
44) hexane	10.00	57	142246	9.062	ppbV	88
45) diisopropyl ether	10.02	87	104919	8.459	ppbV	93
46) tert-butyl ethyl ether	10.64	59	324499	8.355	ppbV	99
48) 1,1,1-trichloroethane	11.22	97	363873	8.735	ppbV	99
49) 1,1-dichloropropene	11.57	75	193956	8.937	ppbV	95
50) benzene	11.74	78	362565	8.759	ppbV	98
52) carbon tetrachloride	11.91	117	427892	8.876	ppbV	98
53) cyclohexane	12.05	56	150952	9.139	ppbV	99
54) tert-amyl methyl ether	12.43	73	352276	8.387	ppbV	99
55) dibromomethane	12.64	93	167245	8.371	ppbV	93
56) 1,2-dichloropropane	12.67	63	108250	9.179	ppbV	99
57) bromodichloromethane	12.89	83	348796	8.937	ppbV	98
58) 1,4-dioxane	12.96	88	87459	8.649	ppbV	96
59) trichloroethene	12.93	130	250175	9.298	ppbV	97
60) 2,2,4-trimethylpentane	12.97	57	467306	8.914	ppbV	100
61) methyl methacrylate	13.17	41	110773	9.386	ppbV	98
62) heptane	13.27	43	143306	9.125	ppbV	99
63) cis-1,3-dichloropropene	13.93	75	126826	9.327	ppbV	99
64) 4-methyl-2-pentanone	13.96	43	308468	9.385	ppbV	99
65) trans-1,3-dichloropropene	14.51	75	155585	8.471	ppbV	98
66) 1,1,2-trichloroethane	14.71	97	181574	9.393	ppbV	98
68) toluene	15.00	91	521935	9.555	ppbV	99
71) 1,3-dichloropropane	15.02	76	195632	8.619	ppbV	98

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111321.d
Acq On : 28 Aug 2015 11:58 am
Operator : AIRLAB11:AR
Sample : CTO15-LLSTD10
Misc : WG816683
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 28 15:52:38 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default-ICV-AP2 - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
72)	2-hexanone	15.27	43	203587	10.158	ppbV	98
74)	dibromochloromethane	15.43	129	444329	9.494	ppbV	99
75)	1,2-dibromoethane	15.66	107	316000	9.720	ppbV	99
76)	butyl acetate	15.86	73	52745	9.253	ppbV	98
77)	octane	15.94	85	148498	8.869	ppbV	98
78)	tetrachloroethene	16.09	166	384241	9.165	ppbV	99
79)	1,1,1,2-tetrachloroethane	16.65	131	278179	8.802	ppbV	98
80)	chlorobenzene	16.67	112	463747	9.483	ppbV	98
81)	ethylbenzene	16.97	91	716241	9.581	ppbV	98
83)	m+p-xylene	17.12	91	1190706	19.153	ppbV	99
84)	bromoform	17.19	173	556868	9.693	ppbV	100
85)	styrene	17.40	104	455176	9.783	ppbV	99
86)	1,1,2,2-tetrachloroethane	17.48	83	347511	9.681	ppbV	97
87)	o-xylene	17.49	91	606724	9.644	ppbV	99
88)	1,2,3-trichloropropane	17.59	75	271996	8.740	ppbV	99
89)	nonane	17.63	43	199915	8.880	ppbV	99
91)	isopropylbenzene	17.93	105	837208	9.089	ppbV	99
92)	bromobenzene	18.01	77	376694	8.938	ppbV	100
93)	2-chlorotoluene	18.30	126	229453	8.968	ppbV	75
94)	n-propylbenzene	18.32	120	239980	8.940	ppbV	96
95)	4-chlorotoluene	18.35	91	615419	8.892	ppbV	100
96)	4-ethyl toluene	18.42	105	927948	9.175	ppbV	99
97)	1,3,5-trimethylbenzene	18.48	105	802842	9.453	ppbV	99
98)	tert-butylbenzene	18.78	119	817605	8.952	ppbV	99
99)	1,2,4-trimethylbenzene	18.79	105	801457	9.894	ppbV	96
100)	decane	18.83	57	294571	9.035	ppbV	98
101)	Benzyl Chloride	18.90	91	672330	10.180	ppbV	100
102)	1,3-dichlorobenzene	18.92	146	623622	9.595	ppbV	99
103)	1,4-dichlorobenzene	18.97	146	633508	9.650	ppbV	99
104)	sec-butylbenzene	18.99	105	1004809	8.966	ppbV	98
106)	p-isopropyltoluene	19.10	119	949428	8.518	ppbV	98
107)	1,2-dichlorobenzene	19.23	146	613091	9.694	ppbV	99
108)	n-butylbenzene	19.42	91	818866	9.301	ppbV	99
111)	1,2-dibromo-3-chloropr...	19.57	75	235653	9.064	ppbV	96
112)	undecane	19.78	57	355279	9.593	ppbV	98
114)	dodecane	20.66	57	390207	10.624	ppbV	99
115)	1,2,4-trichlorobenzene	20.64	180	718554	10.719	ppbV	99
116)	naphthalene	20.76	128	1153614	10.217	ppbV	99
117)	1,2,3-trichlorobenzene	21.01	180	653152	10.253	ppbV	99
119)	hexachlorobutadiene	21.07	225	754375	10.097	ppbV	99

Quantitation Report (QT Reviewed)

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Acq On : 28 Aug 2015 11:58 am
Operator : AIRLAB11:AR
Sample : CTO15-LLSTD10
Misc : WG816683
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 28 15:52:38 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\R1111313.d
Sub List : Default-ICV-AP2 - All compounds listed

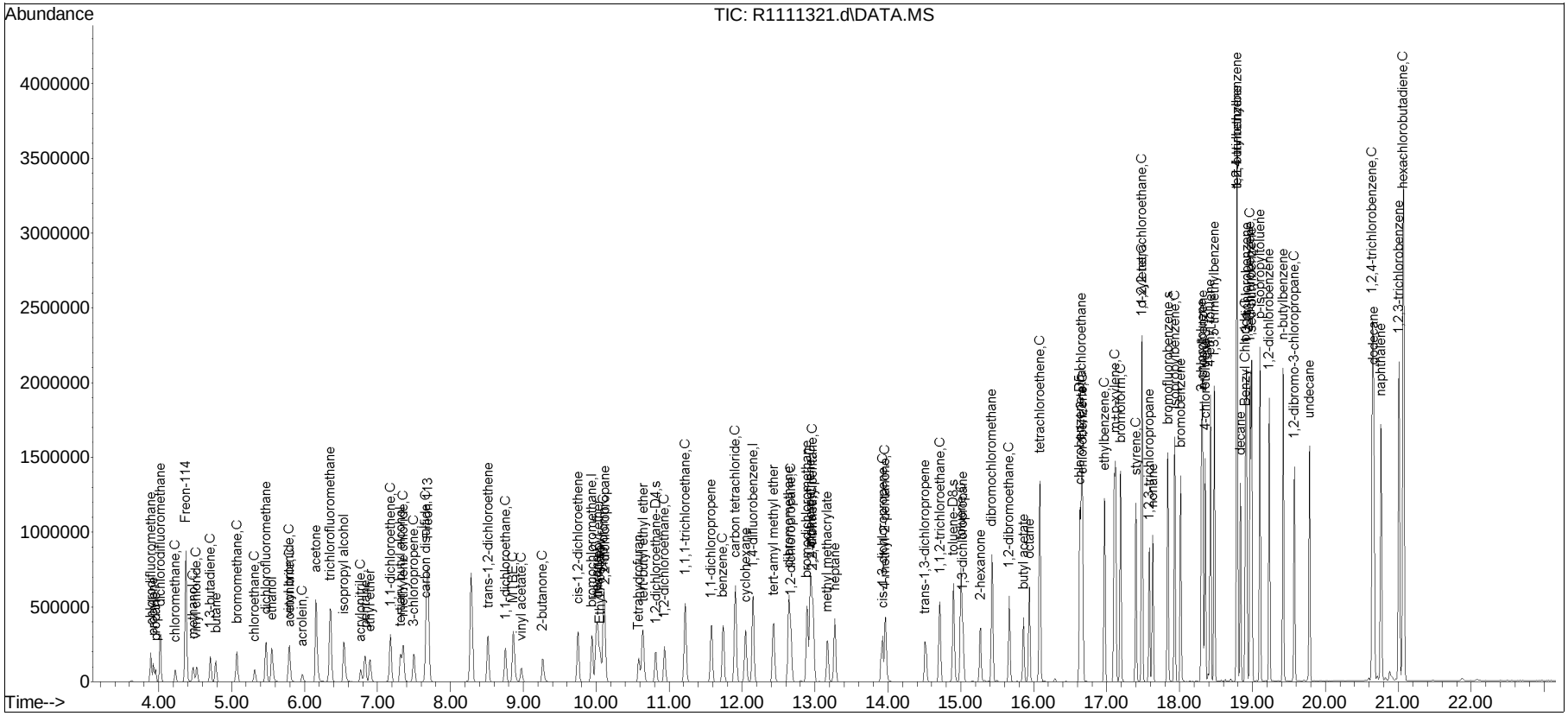
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-ICV-AP2 - All compounds listedT_ICAL\R1111313.d

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111321.d
Acq On : 28 Aug 2015 11:58 am
Operator : AIRLAB11:AR
Sample : CTO15-LLSTD10
Misc : WG816683
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 28 15:52:38 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

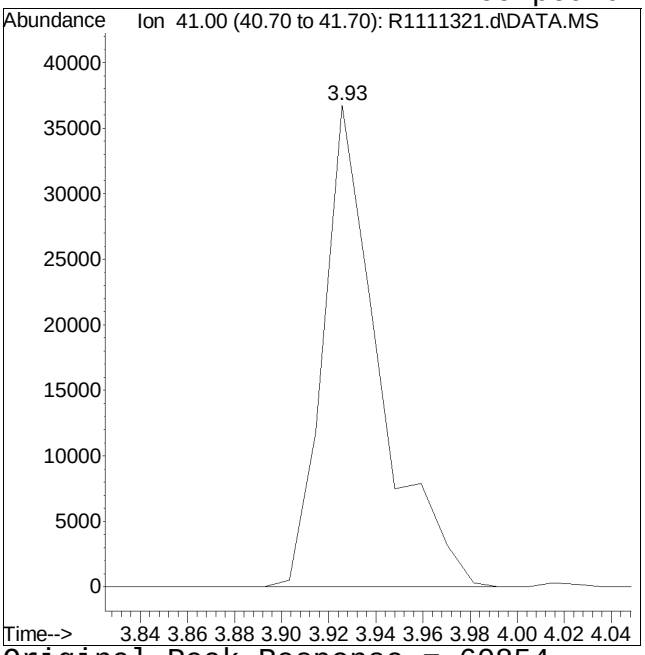


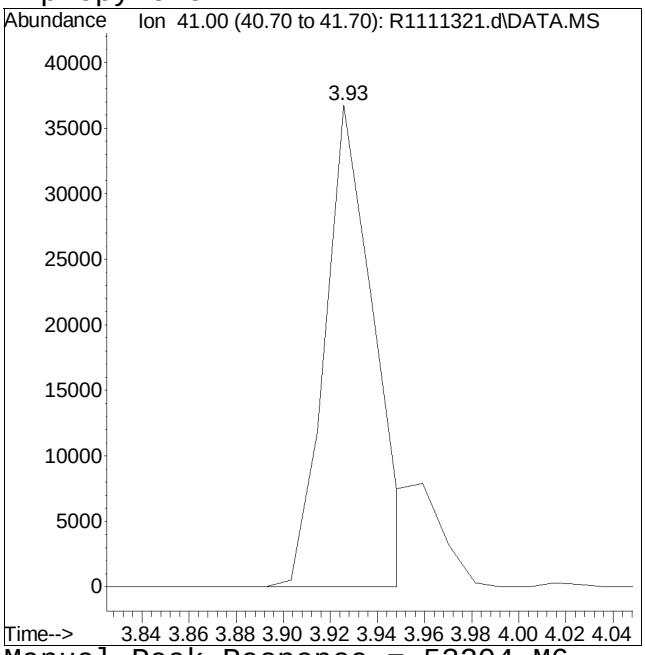
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\Q
Data File : R1111321.d
Date Inj'd : 8/28/2015 11:58 am
Sample : CTO15-LLSTD10

Method : TALL150827.M
Operator : AIRLAB11:AR
Instrument : Airlab 11
Quant Date : 8/28/2015 12:24 pm

Compound #3: propylene



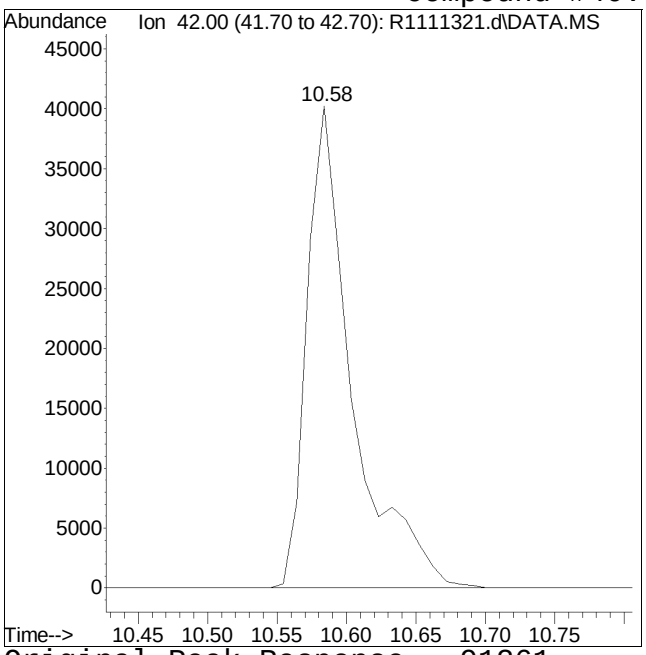


Original Peak Response = 60854 Manual Peak Response = 53204 M6
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

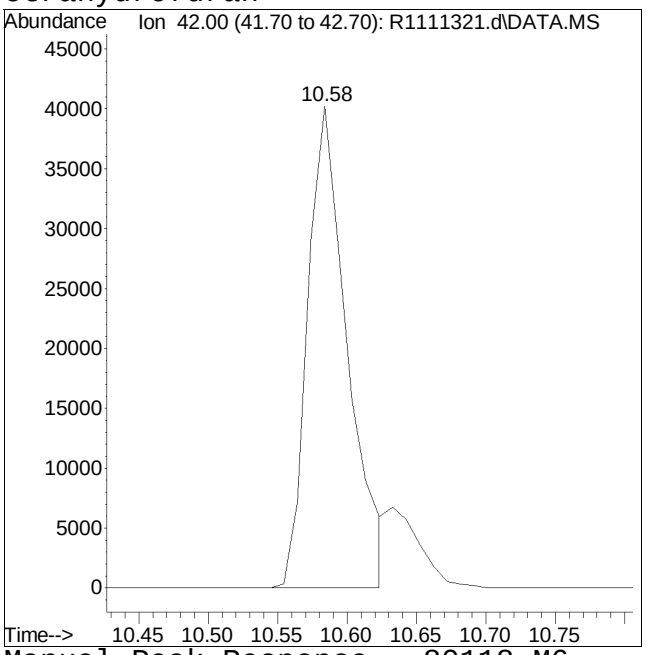
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\QMethod : TALL150827.M
Data File : R1111321.d Operator : AIRLAB11:AR
Date Inj'd : 8/28/2015 11:58 am Instrument : Airlab 11
Sample : CTO15-LLSTD10 Quant Date : 8/28/2015 12:24 pm

Compound #40: Tetrahydrofuran



Original Peak Response = 91261



Manual Peak Response = 80118 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

7A
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1521092

Instrument ID: AIRLAB11 Calibration Date: 09/02/2015 Time: 13:06

Lab File ID: R1111393 Init. Calib. Date(s): 08/28/15 08/28/15

Sample No: WG817978-2,3,25 Init. Calib. Times : 02:21 07:10

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	97	0.00
2		chlorodifluoromethane	1.923	1.662	13.6	86	0.01
3		propylene	0.614	0.542	11.7	91	0.00
4		propane	0.460	0.352	23.5	78	0.01
5		dichlorodifluoromethane	4.251	3.855	9.3	86	0.00
6	C	chloromethane	0.779	0.711	8.7	88	0.00
7		Freon-114	4.675	4.352	6.9	92	0.01
8	C	methanol	0.194	0.182	6.2	85	0.00
9	C	vinyl chloride	1.144	1.042	8.9	89	0.00
10	C	1,3-butadiene	0.752	0.699	7.0	89	0.00
11		butane	1.316	1.115	15.3	89	0.00
13	C	bromomethane	1.575	1.446	8.2	81	0.00
14	C	chloroethane	0.585	0.553	5.5	91	0.00
15		ethanol	0.451	0.404	10.4	89	0.00
16		dichlorofluoromethane	3.192	2.984	6.5	92	0.00
17	C	vinyl bromide	1.809	1.661	8.2	92	0.00
18	C	acrolein	0.440	0.382	13.2	89	0.00
19		acetone	1.667	1.498	10.1	89	0.00
20	C	acetonitrile	0.673	0.595	11.6	89	0.00
21		trichlorofluoromethane	5.987	5.616	6.2	92	0.00
22		isopropyl alcohol	1.596	1.362	14.7	90	0.00
23	C	acrylonitrile	0.767	0.674	12.1	90	0.00
24		pentane	1.429	1.224	14.3	90	0.00
25		ethyl ether	0.724	0.646	10.8	85	0.00
26	C	1,1-dichloroethene	2.392	2.124	11.2	91	0.00
27		tertiary butyl alcohol	2.889	2.492	13.7	85	0.00
28	C	methylene chloride	1.260	1.131	10.2	89	0.00
29	C	3-chloropropene	1.186	1.021	13.9	86	0.00
30	C	carbon disulfide	4.236	3.926	7.3	89	0.00
31		Freon 113	3.887	3.592	7.6	90	0.00
32		trans-1,2-dichloroethene	2.168	1.931	10.9	88	0.00
33	C	1,1-dichloroethane	2.435	2.149	11.7	87	0.00
34	C	MTBE	4.745	4.174	12.0	87	0.00
35	C	vinyl acetate	1.450	1.292	10.9	98	0.00
36	C	2-butanone	2.059	1.820	11.6	87	0.00
37		cis-1,2-dichloroethene	2.129	1.963	7.8	87	0.00
38		Ethyl Acetate	0.370	0.353	4.6	90	0.00
39	C	chloroform	3.799	3.415	10.1	90	0.00
40		Tetrahydrofuran	1.009	0.905	10.3	88	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111393.d
Acq On : 2 Sep 2015 1:06 pm
Operator : AIRLAB11:RY
Sample : WG817978-2,3,250,250
Misc : WG817978,ICAL11393
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 02 13:50:53 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	3.379	3.008	11.0	88	0.00
42	C	1,2-dichloroethane	2.573	2.293	10.9	89	0.00
43	I	1,4-difluorobenzene	1.000	1.000	0.0	97	0.00
44	C	hexane	0.295	0.261	11.5	87	0.00
45		diisopropyl ether	0.233	0.206	11.6	87	0.00
46		tert-butyl ethyl ether	0.731	0.638	12.7	86	0.00
48	C	1,1,1-trichloroethane	0.784	0.699	10.8	88	0.00
49		1,1-dichloropropene	0.408	0.364	10.8	88	0.00
50	C	benzene	0.779	0.682	12.5	88	0.00
52	C	carbon tetrachloride	0.907	0.822	9.4	90	0.00
53		cyclohexane	0.311	0.268	13.8	87	0.00
54		tert-amyl methyl ether	0.790	0.689	12.8	87	0.00
55		dibromomethane	0.376	0.339	9.8	87	0.00
56	C	1,2-dichloropropane	0.222	0.196	11.7	87	0.00
57		bromodichloromethane	0.734	0.667	9.1	88	0.00
58	C	1,4-dioxane	0.190	0.168	11.6	89	0.00
59	C	trichloroethene	0.506	0.469	7.3	88	0.00
60	C	2,2,4-trimethylpentane	0.986	0.879	10.9	87	0.00
61		methyl methacrylate	0.222	0.208	6.3	88	0.00
62		heptane	0.295	0.259	12.2	85	0.00
63	C	cis-1,3-dichloropropene	0.256	0.488	-90.6#	239#	-0.01
64	C	4-methyl-2-pentanone	0.618	0.485	21.5	71	0.00
65		trans-1,3-dichloropropene	0.346	0.313	9.5	78	0.00
66	C	1,1,2-trichloroethane	0.364	0.332	8.8	89	0.00
67	I	chlorobenzene-D5	1.000	1.000	0.0	91	0.00
68	C	toluene	6.269	5.821	7.1	87	0.00
71		1,3-dichloropropane	2.605	2.393	8.1	87	0.00
72		2-hexanone	2.300	2.199	4.4	83	0.00
74		dibromochloromethane	5.371	5.215	2.9	89	0.00
75	C	1,2-dibromoethane	3.731	3.498	6.2	87	0.00
76		butyl acetate	0.654	0.600	8.3	83	0.00
77		octane	1.921	1.771	7.8	85	0.00
78	C	tetrachloroethene	4.811	4.442	7.7	87	0.00
79		1,1,1,2-tetrachloroethane	3.627	3.468	4.4	87	0.00
80	C	chlorobenzene	5.612	5.194	7.4	87	0.00
81	C	ethylbenzene	8.579	8.055	6.1	87	0.00
83	C	m+p-xylene	7.135	6.727	5.7	87	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111393.d
Acq On : 2 Sep 2015 1:06 pm
Operator : AIRLAB11:RY
Sample : WG817978-2,3,250,250
Misc : WG817978,ICAL11393
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 02 13:50:53 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
84	C	bromoform	6.593	6.616	-0.3	88	0.00
85	C	styrene	5.340	5.136	3.8	86	0.00
86	C	1,1,2,2-tetrachloroethane	4.119	3.902	5.3	87	0.00
87	C	o-xylene	7.220	6.822	5.5	86	0.00
88		1,2,3-trichloropropane	3.571	3.287	8.0	85	0.00
89		nonane	2.584	2.369	8.3	84	0.00
91	C	isopropylbenzene	10.570	9.866	6.7	86	0.00
92		bromobenzene	4.836	4.458	7.8	84	0.00
93		2-chlorotoluene	2.936	2.770	5.7	86	0.00
94		n-propylbenzene	3.081	2.941	4.5	86	0.00
95		4-chlorotoluene	7.943	7.279	8.4	82	0.00
96		4-ethyl toluene	11.606	11.203	3.5	86	0.00
97		1,3,5-trimethylbenzene	9.747	9.199	5.6	86	0.00
98		tert-butylbenzene	10.481	9.995	4.6	85	0.00
99		1,2,4-trimethylbenzene	9.296	8.971	3.5	85	0.00
100		decane	3.742	3.449	7.8	84	0.00
101	C	Benzyl Chloride	7.579	7.670	-1.2	85	0.00
102		1,3-dichlorobenzene	7.459	7.242	2.9	86	0.00
103	C	1,4-dichlorobenzene	7.534	7.178	4.7	85	0.00
104		sec-butylbenzene	12.861	12.288	4.5	85	0.00
106		p-isopropyltoluene	12.791	12.203	4.6	84	0.00
107		1,2-dichlorobenzene	7.258	6.882	5.2	86	0.00
108		n-butylbenzene	10.104	9.558	5.4	83	0.00
111	C	1,2-dibromo-3-chloropropane	2.984	2.842	4.8	83	0.00
112		undecane	4.250	4.098	3.6	82	0.00
114		dodecane	4.215	4.456	-5.7	81	0.00
115	C	1,2,4-trichlorobenzene	7.693	7.821	-1.7	84	0.00
116		naphthalene	12.957	13.284	-2.5	82	0.00
117		1,2,3-trichlorobenzene	7.311	7.483	-2.4	84	0.00
119	C	hexachlorobutadiene	8.574	8.597	-0.3	87	0.00

* Evaluation of CC level amount vs concentration.

FORM VII NJ-TO15

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111393.d
Acq On : 2 Sep 2015 1:06 pm
Operator : AIRLAB11:RY
Sample : WG817978-2,3,250,250
Misc : WG817978,ICAL11393
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 02 13:50:53 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.94	49	81084	10.000	ppbV	0.00
43) 1,4-difluorobenzene	12.15	114	489060	10.000	ppbV	0.00
67) chlorobenzene-D5	16.63	54	80649	10.000	ppbV	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	3.89	51	134769	8.644	ppbV	100
3) propylene	3.93	41	43983M6	8.833	ppbV	
4) propane	3.96	29	28560	7.659	ppbV	99
5) dichlorodifluoromethane	4.01	85	312588	9.068	ppbV	99
6) chloromethane	4.23	50	57618	9.118	ppbV	97
7) Freon-114	4.37	85	352854	9.309	ppbV	96
8) methanol	4.46	31	73894	47.033	ppbV	98
9) vinyl chloride	4.52	62	84507	9.112	ppbV	98
10) 1,3-butadiene	4.71	54	56697	9.303	ppbV	97
11) butane	4.77	43	90429	8.474	ppbV	99
13) bromomethane	5.07	94	117228	9.178	ppbV	97
14) chloroethane	5.32	64	44846	9.458	ppbV	100
15) ethanol	5.54	31	163725	44.771	ppbV	99
16) dichlorofluoromethane	5.47	67	241958	9.349	ppbV	98
17) vinyl bromide	5.78	106	134658	9.182	ppbV	97
18) acrolein	5.97	56	31012	8.697	ppbV	94
19) acetone	6.15	43	607276	44.918	ppbV	99
20) acetonitrile	5.79	41	48214	8.841	ppbV	95
21) trichlorofluoromethane	6.35	101	455368	9.380	ppbV	100
22) isopropyl alcohol	6.53	45	276163	21.339	ppbV	99
23) acrylonitrile	6.77	53	54644	8.790	ppbV	98
24) pentane	6.82	43	99231	8.565	ppbV	98
25) ethyl ether	6.89	31	52406	8.930	ppbV	93
26) 1,1-dichloroethene	7.18	61	172190	8.878	ppbV	97
27) tertiary butyl alcohol	7.31	59	202037	8.624	ppbV	98
28) methylene chloride	7.35	49	91739	8.976	ppbV	100
29) 3-chloropropene	7.49	41	82798	8.611	ppbV	98
30) carbon disulfide	7.66	76	318371	9.270	ppbV	99
31) Freon 113	7.68	101	291224	9.240	ppbV	98
32) trans-1,2-dichloroethene	8.51	61	156583	8.908	ppbV	96
33) 1,1-dichloroethane	8.75	63	174278	8.826	ppbV	99
34) MTBE	8.86	73	338451	8.797	ppbV	98
35) vinyl acetate	8.97	43	104757	8.911	ppbV #	92

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111393.d
Acq On : 2 Sep 2015 1:06 pm
Operator : AIRLAB11:RY
Sample : WG817978-2,3,250,250
Misc : WG817978,ICAL11393
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 02 13:50:53 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) 2-butanone	9.26	43	147594	8.839	ppbV	97
37) cis-1,2-dichloroethene	9.75	61	159182	9.223	ppbV	97
38) Ethyl Acetate	10.05	61	28617	9.539	ppbV	91
39) chloroform	10.10	83	276912	8.989	ppbV	99
40) Tetrahydrofuran	10.58	42	73396M6	8.967	ppbV	
41) 2,2-dichloropropane	10.11	77	243882	8.902	ppbV	99
42) 1,2-dichloroethane	10.93	62	185922	8.911	ppbV	98
44) hexane	9.99	57	127869	8.853	ppbV	97
45) diisopropyl ether	10.02	87	100942	8.845	ppbV	99
46) tert-butyl ethyl ether	10.64	59	311986	8.729	ppbV	99
48) 1,1,1-trichloroethane	11.21	97	342003	8.922	ppbV	99
49) 1,1-dichloropropene	11.58	75	178210	8.924	ppbV	99
50) benzene	11.74	78	333617	8.759	ppbV	100
52) carbon tetrachloride	11.90	117	402100	9.064	ppbV	99
53) cyclohexane	12.04	56	131068	8.624	ppbV	94
54) tert-amyl methyl ether	12.43	73	336878	8.716	ppbV	99
55) dibromomethane	12.64	93	165558	9.005	ppbV	95
56) 1,2-dichloropropane	12.67	63	96051	8.851	ppbV	98
57) bromodichloromethane	12.89	83	326311	9.087	ppbV	97
58) 1,4-dioxane	12.95	88	82350	8.851	ppbV	94
59) trichloroethene	12.94	130	229131	9.255	ppbV	100
60) 2,2,4-trimethylpentane	12.97	57	429815	8.910	ppbV	98
61) methyl methacrylate	13.17	41	101518	9.348	ppbV	99
62) heptane	13.26	43	126576	8.759	ppbV	96
63) cis-1,3-dichloropropene	13.92	75	238716	19.078	ppbV	96
64) 4-methyl-2-pentanone	13.96	43	237039	7.837	ppbV	99
65) trans-1,3-dichloropropene	14.50	75	153108	9.059	ppbV	98
66) 1,1,2-trichloroethane	14.71	97	162476	9.134	ppbV	98
68) toluene	15.00	91	469451	9.286	ppbV	99
71) 1,3-dichloropropane	15.03	76	192976	9.186	ppbV	94
72) 2-hexanone	15.27	43	177354	9.561	ppbV	97
74) dibromochloromethane	15.42	129	420582	9.709	ppbV	99
75) 1,2-dibromoethane	15.66	107	282122	9.377	ppbV	100
76) butyl acetate	15.86	73	48383	9.171	ppbV	98
77) octane	15.94	85	142827	9.217	ppbV	99
78) tetrachloroethene	16.08	166	358267	9.233	ppbV	100
79) 1,1,1,2-tetrachloroethane	16.65	131	279715	9.563	ppbV	97
80) chlorobenzene	16.67	112	418876	9.255	ppbV	99
81) ethylbenzene	16.97	91	649659	9.389	ppbV	99
83) m+p-xylene	17.12	91	1085131	18.859	ppbV	99
84) bromoform	17.19	173	533608	10.036	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111393.d
Acq On : 2 Sep 2015 1:06 pm
Operator : AIRLAB11:RY
Sample : WG817978-2,3,250,250
Misc : WG817978,ICAL11393
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 02 13:50:53 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
85) styrene	17.40	104	414194	9.618	ppbV	99
86) 1,1,2,2-tetrachloroethane	17.48	83	314730	9.473	ppbV	100
87) o-xylene	17.48	91	550190	9.449	ppbV	100
88) 1,2,3-trichloropropane	17.58	75	265125	9.205	ppbV	98
89) nonane	17.63	43	191078	9.170	ppbV	100
91) isopropylbenzene	17.93	105	795691	9.334	ppbV	100
92) bromobenzene	18.01	77	359555	9.218	ppbV	100
93) 2-chlorotoluene	18.30	126	223390	9.434	ppbV	94
94) n-propylbenzene	18.31	120	237183	9.546	ppbV	92
95) 4-chlorotoluene	18.35	91	587038	9.164	ppbV	99
96) 4-ethyl toluene	18.42	105	903496	9.652	ppbV	99
97) 1,3,5-trimethylbenzene	18.48	105	741911	9.439	ppbV	98
98) tert-butylbenzene	18.79	119	806066	9.536	ppbV	99
99) 1,2,4-trimethylbenzene	18.79	105	723522	9.651	ppbV	95
100) decane	18.84	57	278170	9.218	ppbV	97
101) Benzyl Chloride	18.90	91	618564	10.119	ppbV	100
102) 1,3-dichlorobenzene	18.92	146	584073	9.709	ppbV	99
103) 1,4-dichlorobenzene	18.97	146	578901	9.528	ppbV	98
104) sec-butylbenzene	18.99	105	991038	9.554	ppbV	99
106) p-isopropyltoluene	19.10	119	984196	9.541	ppbV	100
107) 1,2-dichlorobenzene	19.23	146	555035	9.482	ppbV	99
108) n-butylbenzene	19.42	91	770813	9.460	ppbV	98
111) 1,2-dibromo-3-chloropr...	19.57	75	229239	9.527	ppbV	98
112) undecane	19.78	57	330476	9.642	ppbV	97
114) dodecane	20.67	57	359341	10.571	ppbV	100
115) 1,2,4-trichlorobenzene	20.65	180	630732	10.166	ppbV	98
116) naphthalene	20.77	128	1071349	10.252	ppbV	98
117) 1,2,3-trichlorobenzene	21.01	180	603470	10.235	ppbV	98
119) hexachlorobutadiene	21.07	225	693351	10.027	ppbV	96

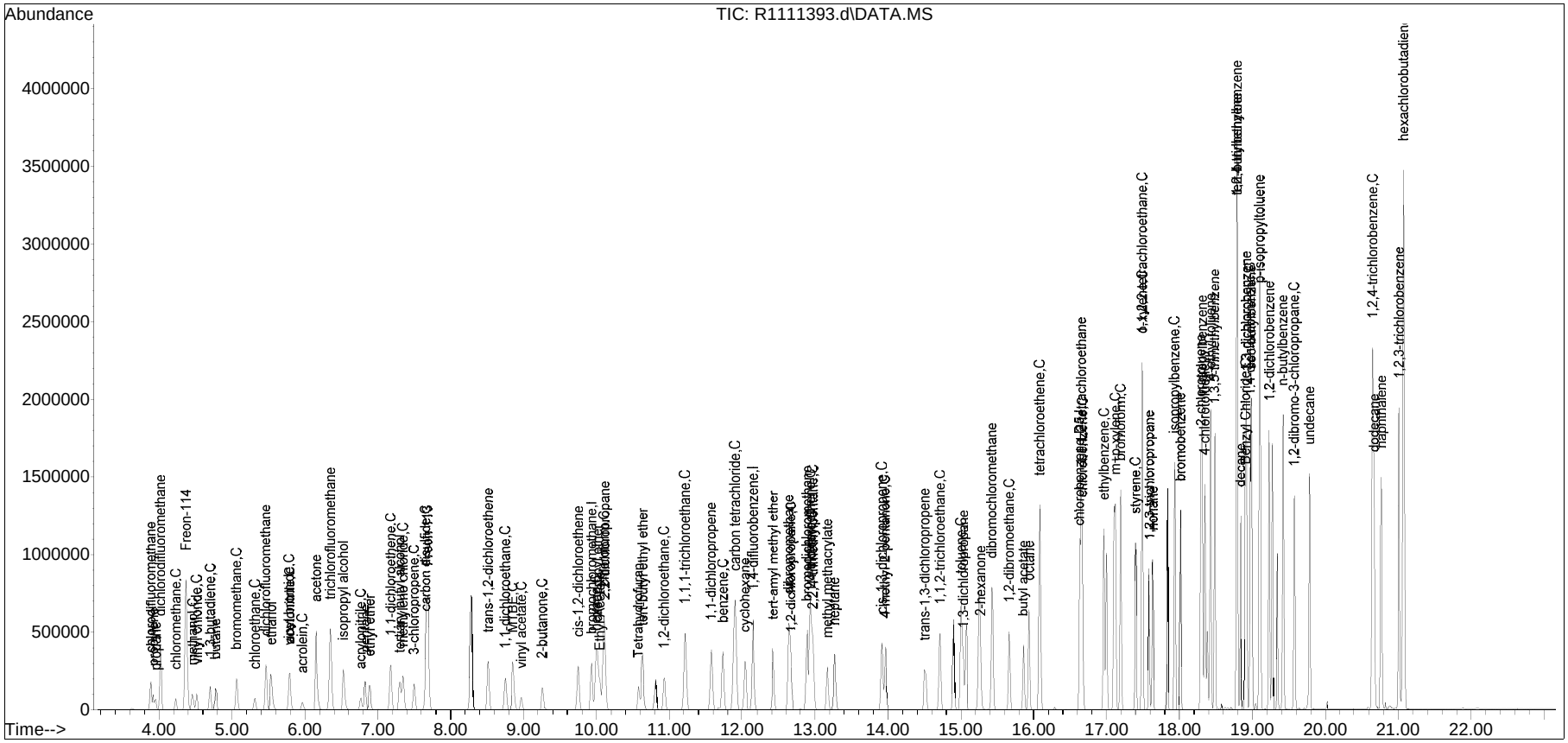
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111393.d
Acq On : 2 Sep 2015 1:06 pm
Operator : AIRLAB11:RY
Sample : WG817978-2,3,250,250
Misc : WG817978,ICAL11393
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 02 13:50:53 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

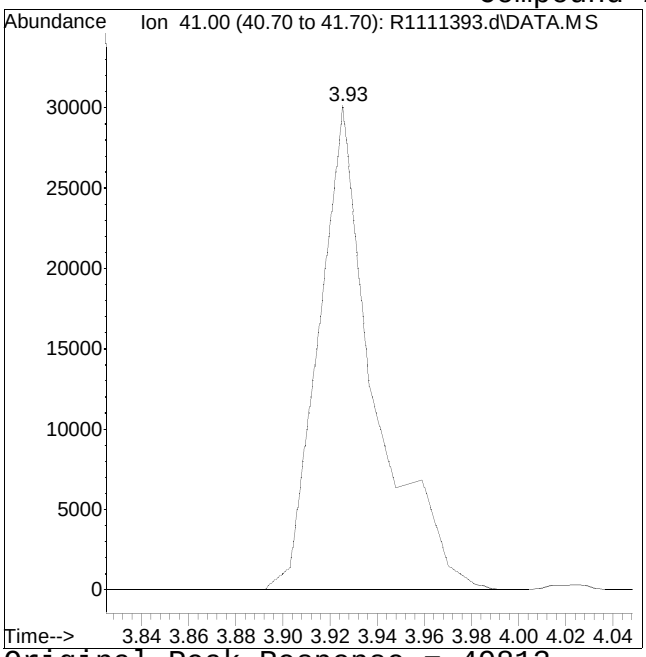
Sub List : Default-LCS-AP2 - All compounds listed



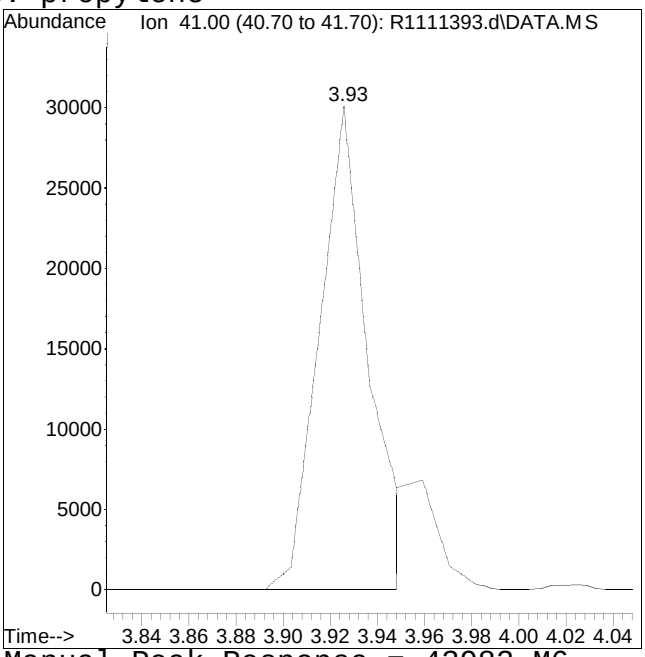
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\QMethod : TALL150827.M
Data File : R1111393.d Operator : AIRLAB11:RY
Date Inj'd : 9/2/2015 1:06 pm Instrument : Airlab 11
Sample : WG817978-2,3,250,250 Quant Date : 9/2/2015 1:49 pm

Compound #3: propylene



Original Peak Response = 49813



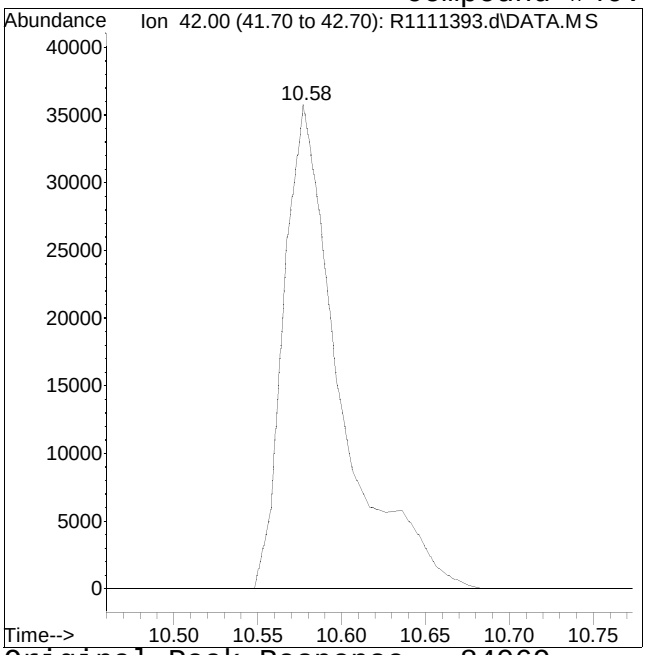
Manual Peak Response = 43983 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

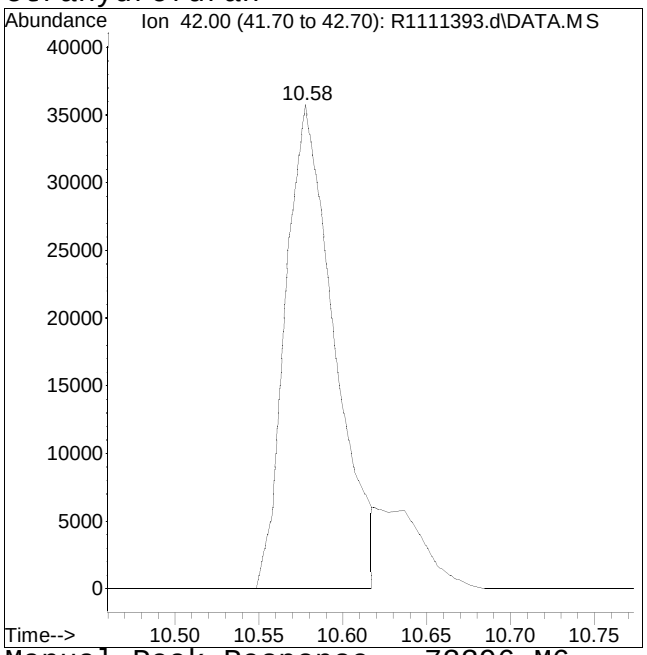
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\QMethod : TALL150827.M
Data File : R1111393.d Operator : AIRLAB11:RY
Date Inj'd : 9/2/2015 1:06 pm Instrument : Airlab 11
Sample : WG817978-2,3,250,250 Quant Date : 9/2/2015 1:49 pm

Compound #40: Tetrahydrofuran



Original Peak Response = 84069



Manual Peak Response = 73396 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

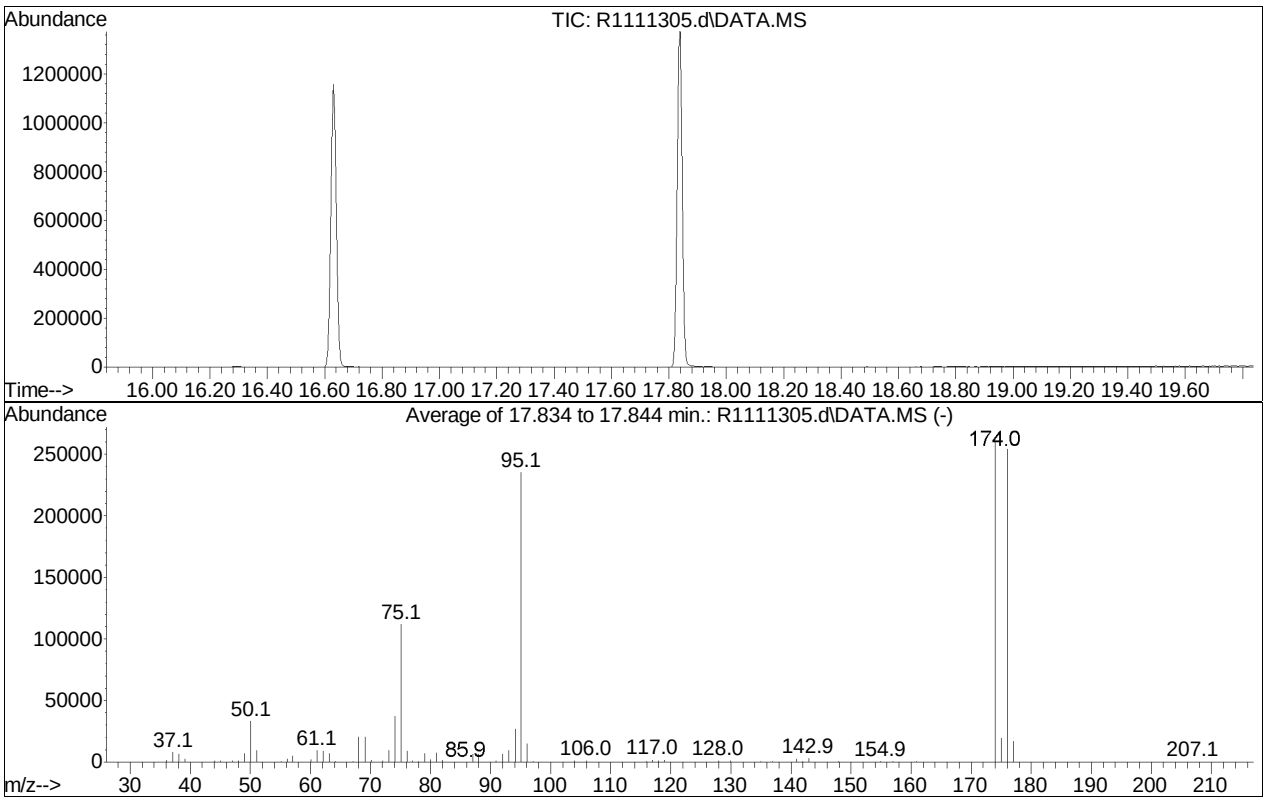
Raw Quality Control Data

BFB

Data Path : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\
Data File : R1111305.d
Acq On : 27 Aug 2015 11:38 pm
Operator : AIRLAB11:AR
Sample : WG816683-1
Misc : WG816683
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\Airlab11\2015\150827T_ICAL\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Fri Aug 28 08:37:33 2015



AutoFind: Scans 1646, 1647, 1648; Background Corrected with Scan 1638

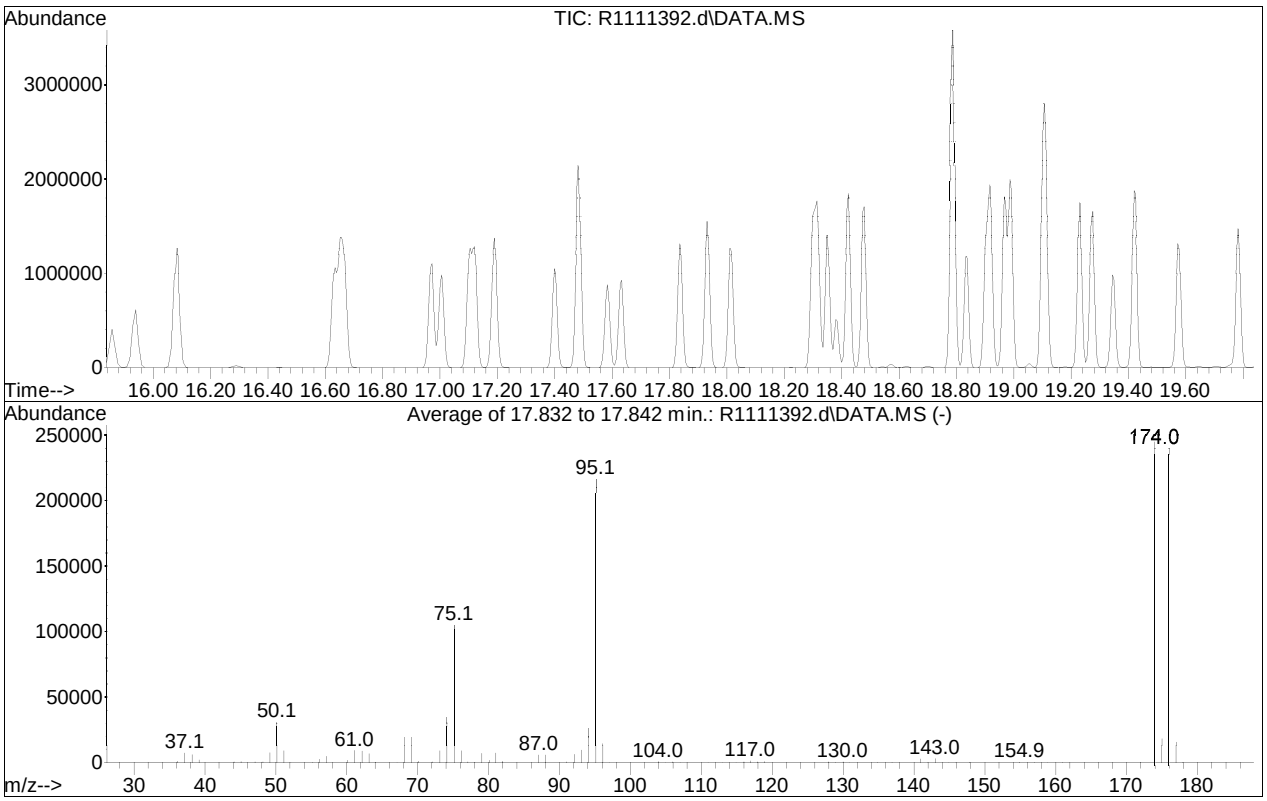
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	14.3	33587	PASS
75	95	30	66	47.6	112128	PASS
95	95	100	100	100.0	235349	PASS
96	95	5	9	6.3	14891	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	110.2	259456	PASS
175	174	4	9	7.4	19308	PASS
176	174	93	101	98.0	254251	PASS
177	176	5	9	6.6	16802	PASS

BFB

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111392.d
Acq On : 2 Sep 2015 12:24 pm
Operator : AIRLAB11:RY
Sample : WG817978-1,3,250,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis
Last Update : Fri Aug 28 08:37:33 2015



AutoFind: Scans 1679, 1680, 1681; Background Corrected with Scan 1672

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	14.2	30845	PASS
75	95	30	66	48.5	104939	PASS
95	95	100	100	100.0	216491	PASS
96	95	5	9	6.7	14568	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	113.2	245120	PASS
175	174	4	9	7.5	18360	PASS
176	174	93	101	98.2	240768	PASS
177	176	5	9	6.6	15910	PASS

Blank Data

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: WG817978-4	Date Collected :	NA
Client ID	: WG817978-4BLANK	Date Received :	NA
Sample Location	:	Date Analyzed :	09/02/15 16:19
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111396	Instrument ID	: AIRLAB11
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	ND	0.20	--	ND	1.	--	U
74-87-3	Chloromethane	ND	0.20	--	ND	0.4	--	U
76-14-2	Freon-114	ND	0.20	--	ND	1.	--	U
75-01-4	Vinyl chloride	ND	0.20	--	ND	0.5	--	U
106-99-0	1,3-Butadiene	ND	0.20	--	ND	0.4	--	U
106-97-8	Butane	ND	0.20	--	ND	0.5	--	U
74-83-9	Bromomethane	ND	0.20	--	ND	0.8	--	U
75-00-3	Chloroethane	ND	0.20	--	ND	0.5	--	U
64-17-5	Ethanol	ND	2.5	--	ND	5	--	U
593-60-2	Vinyl bromide	ND	0.20	--	ND	0.9	--	U
67-64-1	Acetone	ND	1.0	--	ND	2.	--	U
75-69-4	Trichlorofluoromethane	ND	0.20	--	ND	1.	--	U
67-63-0	Isopropanol	ND	0.50	--	ND	1.	--	U
75-35-4	1,1-Dichloroethene	ND	0.20	--	ND	0.8	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.50	--	ND	2.	--	U
75-09-2	Methylene chloride	ND	0.50	--	ND	2	--	U
107-05-1	3-Chloropropene	ND	0.20	--	ND	0.6	--	U
75-15-0	Carbon disulfide	ND	0.20	--	ND	0.6	--	U
76-13-1	Freon-113	ND	0.20	--	ND	2.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.20	--	ND	0.8	--	U
75-34-3	1,1-Dichloroethane	ND	0.20	--	ND	0.8	--	U
1634-04-4	Methyl tert butyl ether	ND	0.20	--	ND	0.7	--	U
78-93-3	2-Butanone	ND	0.50	--	ND	1.	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.20	--	ND	0.8	--	U
67-66-3	Chloroform	ND	0.20	--	ND	1.	--	U
109-99-9	Tetrahydrofuran	ND	0.50	--	ND	1.	--	U
107-06-2	1,2-Dichloroethane	ND	0.20	--	ND	0.8	--	U
110-54-3	n-Hexane	ND	0.20	--	ND	0.7	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: WG817978-4	Date Collected :	NA
Client ID	: WG817978-4BLANK	Date Received :	NA
Sample Location	:	Date Analyzed :	09/02/15 16:19
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111396	Instrument ID	: AIRLAB11
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-55-6	1,1,1-Trichloroethane	ND	0.20	--	ND	1.	--	U
71-43-2	Benzene	ND	0.20	--	ND	0.6	--	U
56-23-5	Carbon tetrachloride	ND	0.20	--	ND	1.	--	U
110-82-7	Cyclohexane	ND	0.20	--	ND	0.7	--	U
78-87-5	1,2-Dichloropropane	ND	0.20	--	ND	0.9	--	U
75-27-4	Bromodichloromethane	ND	0.20	--	ND	1.	--	U
123-91-1	1,4-Dioxane	ND	0.20	--	ND	0.7	--	U
79-01-6	Trichloroethene	ND	0.20	--	ND	1.	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.20	--	ND	0.9	--	U
80-62-6	Methyl Methacrylate	ND	0.50	--	ND	2.	--	U
142-82-5	Heptane	ND	0.20	--	ND	0.8	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	--	ND	0.9	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.50	--	ND	2.	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	--	ND	0.9	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.20	--	ND	1.	--	U
108-88-3	Toluene	ND	0.20	--	ND	0.8	--	U
124-48-1	Dibromochloromethane	ND	0.20	--	ND	2.	--	U
106-93-4	1,2-Dibromoethane	ND	0.20	--	ND	2.	--	U
127-18-4	Tetrachloroethene	ND	0.20	--	ND	1.	--	U
108-90-7	Chlorobenzene	ND	0.20	--	ND	0.9	--	U
100-41-4	Ethylbenzene	ND	0.20	--	ND	0.9	--	U
179601-23-1	p/m-Xylene	ND	0.40	--	ND	2.	--	U
75-25-2	Bromoform	ND	0.20	--	ND	2.	--	U
100-42-5	Styrene	ND	0.20	--	ND	0.9	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	--	ND	1.	--	U
95-47-6	o-Xylene	ND	0.20	--	ND	0.9	--	U
95-49-8	2-Chlorotoluene	ND	0.20	--	ND	1.	--	U
622-96-8	4-Ethyltoluene	ND	0.20	--	ND	1.	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: WG817978-4	Date Collected :	NA
Client ID	: WG817978-4BLANK	Date Received :	NA
Sample Location	:	Date Analyzed :	09/02/15 16:19
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111396	Instrument ID	: AIRLAB11
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
108-67-8	1,3,5-Trimethybenzene	ND	0.20	--	ND	1.	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	--	ND	1.	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.20	--	ND	1.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	--	ND	1.	--	U
87-68-3	Hexachlorobutadiene	ND	0.20	--	ND	2.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111396.d
Acq On : 2 Sep 2015 4:19 pm
Operator : AIRLAB11:RY
Sample : WG817978-4,3,250,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 02 16:56:02 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.94	49	80143	10.000	ppbV	0.00
Standard Area = 81084			Recovery = 98.84%			
43) 1,4-difluorobenzene	12.15	114	492154	10.000	ppbV	0.00
Standard Area = 489060			Recovery = 100.63%			
67) chlorobenzene-D5	16.63	54	79484	10.000	ppbV	0.00
Standard Area = 80649			Recovery = 98.56%			

System Monitoring Compounds

Target Compounds						Qvalue
5) dichlorodifluoromethane	0.00		0	N.D.		
6) chloromethane	0.00		0	N.D.		
7) Freon-114	0.00		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	0.00		0	N.D.		
11) butane	0.00		0	N.D.		
13) bromomethane	0.00		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	5.58	31	1059	0.293	ppbV #	70
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.25		0	N.D.		
21) trichlorofluoromethane	0.00		0	N.D.		
22) isopropyl alcohol	0.00		0	N.D.		
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	0.00		0	N.D.		
28) methylene chloride	7.35	49	835	0.083	ppbV #	62
29) 3-chloropropene	0.00		0	N.D.		
30) carbon disulfide	0.00		0	N.D.		
31) Freon 113	0.00		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	0.00		0	N.D.		
36) 2-butanone	0.00		0	N.D.		
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	0.00		0	N.D.		
40) Tetrahydrofuran	0.00		0	N.D.		
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	0.00		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111396.d
Acq On : 2 Sep 2015 4:19 pm
Operator : AIRLAB11:RY
Sample : WG817978-4,3,250,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 02 16:56:02 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
48) 1,1,1-trichloroethane	0.00		0	N.D.	
50) benzene	0.00		0	N.D.	
52) carbon tetrachloride	0.00		0	N.D.	
53) cyclohexane	0.00		0	N.D.	d
56) 1,2-dichloropropane	0.00		0	N.D.	
57) bromodichloromethane	0.00		0	N.D.	
58) 1,4-dioxane	0.00		0	N.D.	
59) trichloroethene	0.00		0	N.D.	
60) 2,2,4-trimethylpentane	0.00		0	N.D.	
61) methyl methacrylate	0.00		0	N.D.	
62) heptane	0.00		0	N.D.	
63) cis-1,3-dichloropropene	0.00		0	N.D.	
64) 4-methyl-2-pentanone	0.00		0	N.D.	
65) trans-1,3-dichloropropene	0.00		0	N.D.	
66) 1,1,2-trichloroethane	0.00		0	N.D.	
68) toluene	0.00		0	N.D.	
74) dibromochloromethane	0.00		0	N.D.	
75) 1,2-dibromoethane	0.00		0	N.D.	
78) tetrachloroethene	0.00		0	N.D.	
80) chlorobenzene	0.00		0	N.D.	
81) ethylbenzene	0.00		0	N.D.	
83) m+p-xylene	0.00		0	N.D.	
84) bromoform	0.00		0	N.D.	
85) styrene	0.00		0	N.D.	
86) 1,1,2,2-tetrachloroethane	0.00		0	N.D.	
87) o-xylene	0.00		0	N.D.	
93) 2-chlorotoluene	0.00		0	N.D.	
96) 4-ethyl toluene	0.00		0	N.D.	
97) 1,3,5-trimethylbenzene	0.00		0	N.D.	
99) 1,2,4-trimethylbenzene	0.00		0	N.D.	
102) 1,3-dichlorobenzene	18.92		0	N.D.	
103) 1,4-dichlorobenzene	18.98		0	N.D.	
107) 1,2-dichlorobenzene	19.24		0	N.D.	
115) 1,2,4-trichlorobenzene	20.67		0	N.D.	
119) hexachlorobutadiene	0.00		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111396.d
Acq On : 2 Sep 2015 4:19 pm
Operator : AIRLAB11:RY
Sample : WG817978-4,3,250,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 02 16:56:02 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : Default-LCS-AP2 - All compounds listed

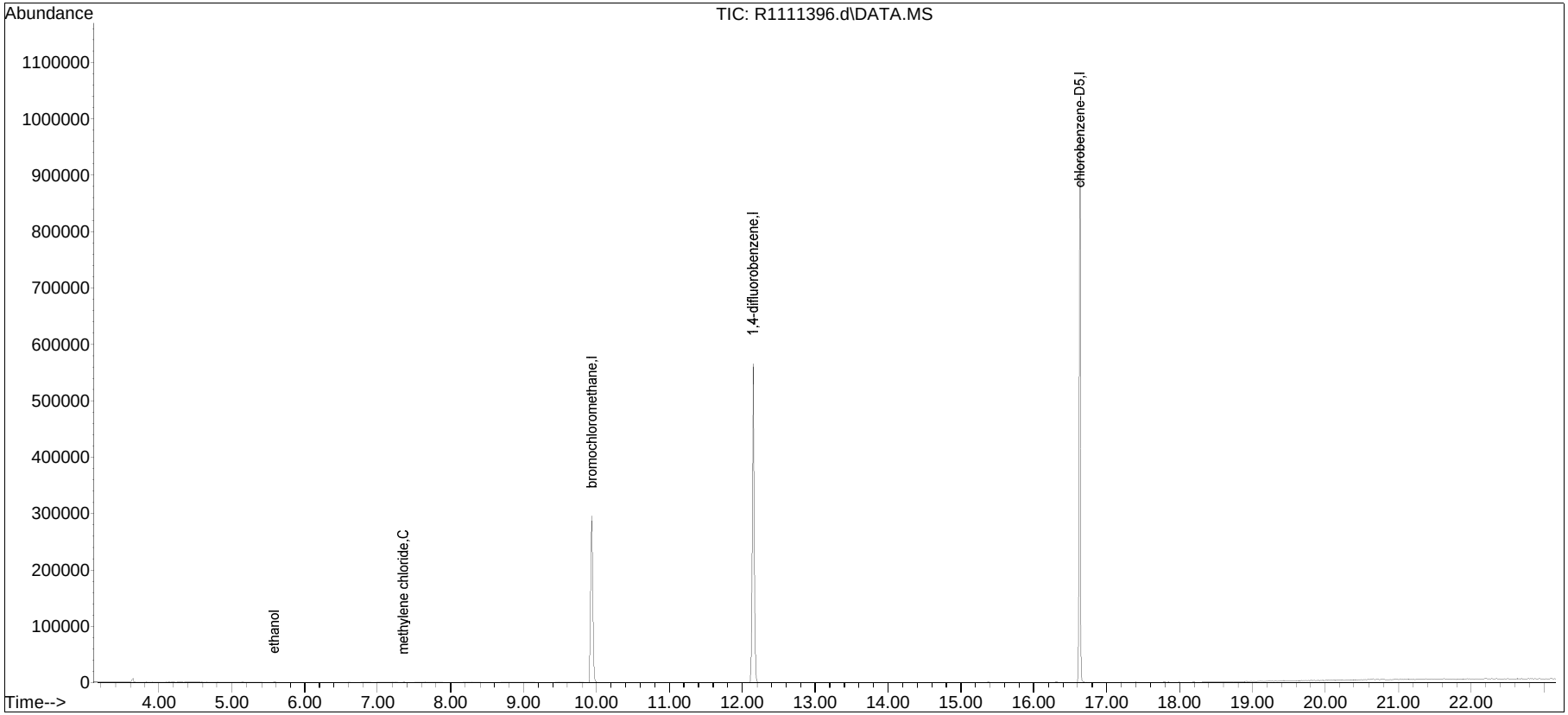
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

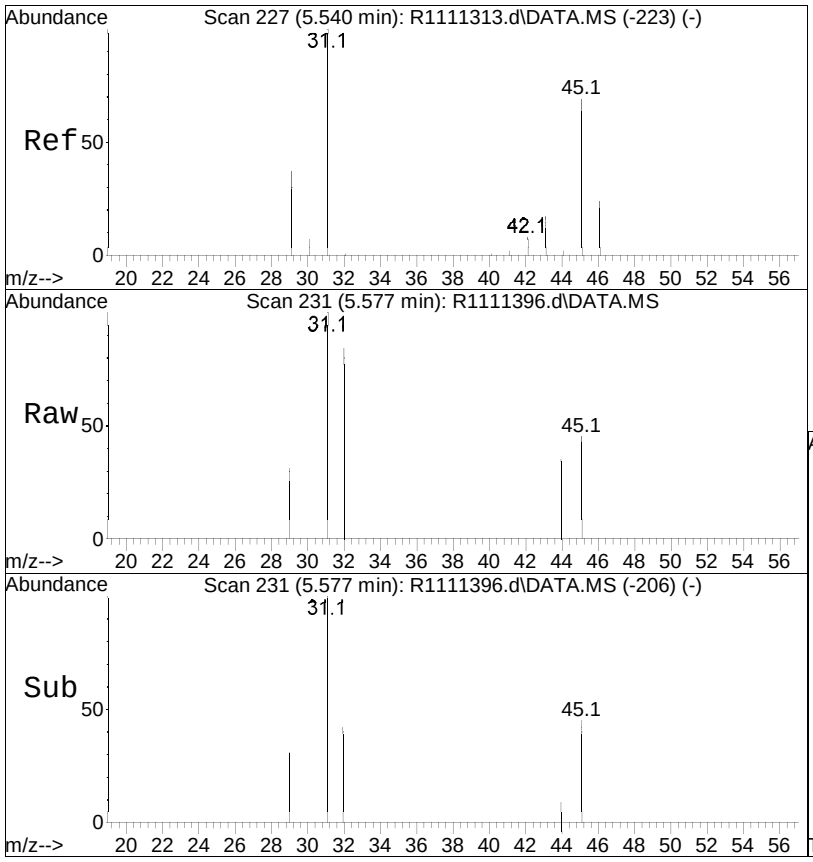
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111396.d
Acq On : 2 Sep 2015 4:19 pm
Operator : AIRLAB11:RY
Sample : WG817978-4,3,250,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 02 16:56:02 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listedT\R1111393.d

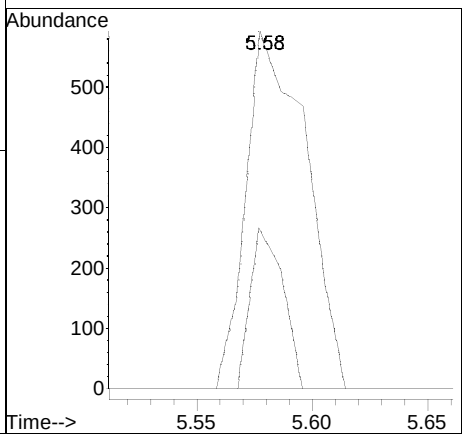


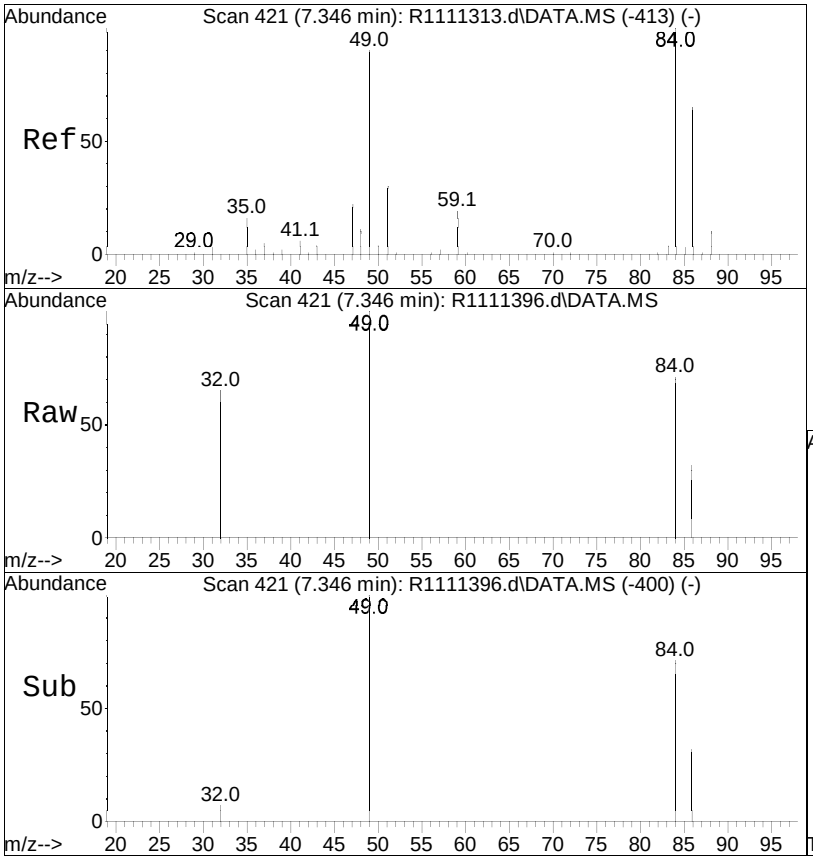


#15
ethanol
Concen: 0.29 ppbV
RT: 5.58 min Scan# 231
Delta R.T. 0.037 min
Lab File: R1111396.d
Acq: 2 Sep 2015 4:19 pm

Tgt Ion: 31 Resp: 1059

Ion	Ratio	Lower	Upper
31	100		
45	45.1	55.4	83.2#

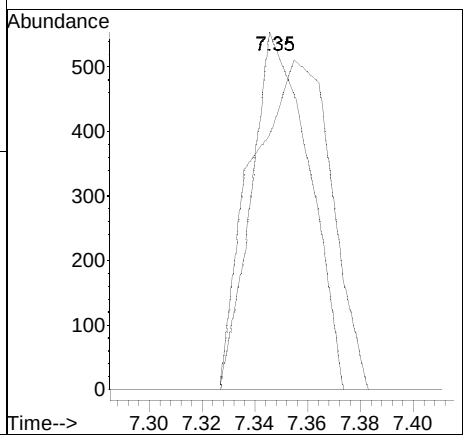




#28
methylene chloride
Concen: 0.08 ppbV
RT: 7.35 min Scan# 421
Delta R.T. 0.000 min
Lab File: R1111396.d
Acq: 2 Sep 2015 4:19 pm

Tgt Ion: 49 Resp: 835

Ion	Ratio	Lower	Upper
49	100		
84	71.1	89.0	133.4#



Tentatively Identified Compounds
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number	: 0809-15
Lab ID	: WG817978-4	Date Collected	: NA
Client ID	: WG817978-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 09/02/15 16:19
Sample Matrix	: SOIL_VAPOR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111396	Instrument ID	: AIRLAB11
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0

Concentration Units:

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111396.d
Acq On : 2 Sep 2015 4:19 pm
Operator : AIRLAB11:RY
Sample : WG817978-4,3,250,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R1111396.d\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	9.941	717	721	728	rBV	296005	560887	43.29%	19.293%
2	12.147	923	927	932	rBV	565344	1050731	81.10%	36.143%
3	16.633	1431	1438	1454	rBV	974728	1295530	100.00%	44.564%

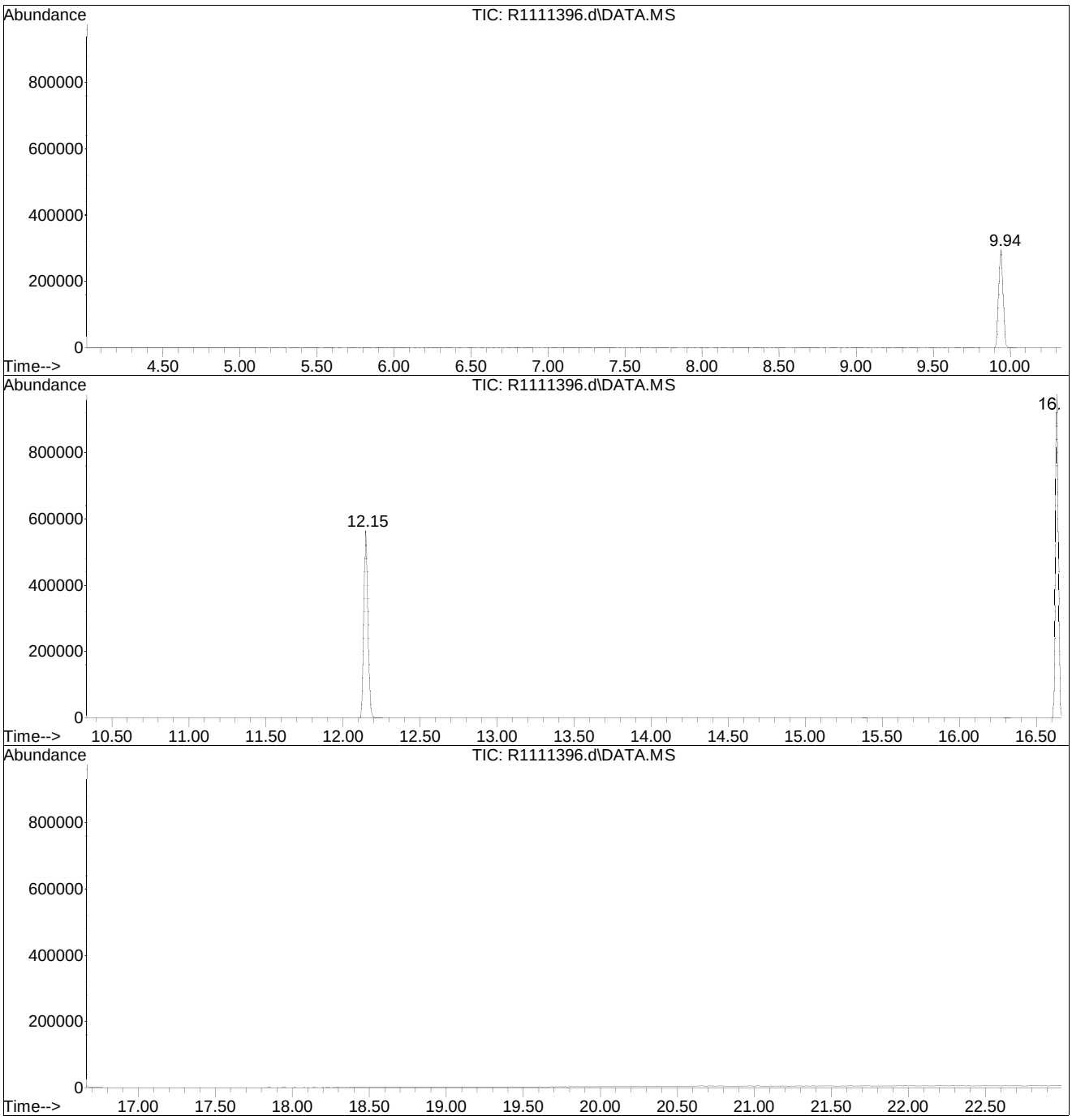
Sum of corrected areas: 2907148

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111396.d
Acq On : 2 Sep 2015 4:19 pm
Operator : AIRLAB11:RY
Sample : WG817978-4,3,250,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111396.d
Acq On : 2 Sep 2015 4:19 pm
Operator : AIRLAB11:RY
Sample : WG817978-4,3,250,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

```
Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111396.d
Acq On    :  2 Sep 2015   4:19 pm
Operator  : AIRLAB11:RY
Sample    : WG817978-4,3,250,250
Misc      : WG817978,ICAL11393
ALS Vial  : 1   Sample Multiplier: 1

Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title  : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library   : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

                                                      |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-------------------------------------------------------------------------------
```

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: WG817978-3	Date Collected :	
Client ID	: WG817978-3LCS	Date Received :	
Sample Location	:	Date Analyzed :	09/02/15 14:13
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111394	Instrument ID	: AIRLAB11
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	7.4	0.20	--	26.	0.71	--	
115-07-1	Propylene	8.4	0.50	--	14.	0.86	--	
74-98-6	Propane	6.6	0.50	--	12.	0.90	--	
75-71-8	Dichlorodifluoromethane	8.0	0.20	--	40.	0.99	--	
74-87-3	Chloromethane	8.4	0.20	--	17.	0.41	--	
76-14-2	Freon-114	8.7	0.20	--	61.	1.4	--	
67-56-1	Methanol	38.	5.0	--	50.	6.6	--	
75-01-4	Vinyl chloride	8.6	0.20	--	22.	0.51	--	
106-99-0	1,3-Butadiene	9.0	0.20	--	20.	0.44	--	
106-97-8	Butane	7.7	0.20	--	18.	0.48	--	
74-83-9	Bromomethane	8.5	0.20	--	33.	0.78	--	
75-00-3	Chloroethane	8.8	0.20	--	23.	0.53	--	
64-17-5	Ethanol	41.	2.5	--	77.	4.7	--	
75-43-4	Dichlorofluoromethane	8.1	0.20	--	34.	0.84	--	
593-60-2	Vinyl bromide	8.5	0.20	--	37.	0.87	--	
107-02-8	Acrolein	7.8	0.50	--	18.	1.1	--	
67-64-1	Acetone	42.	1.0	--	100	2.4	--	
75-05-8	Acetonitrile	7.8	0.20	--	13.	0.34	--	
75-69-4	Trichlorofluoromethane	8.8	0.20	--	49.	1.1	--	
67-63-0	Isopropanol	21.	0.50	--	52.	1.2	--	
107-13-1	Acrylonitrile	8.2	0.50	--	18.	1.1	--	
109-66-0	Pentane	7.6	0.20	--	22.	0.59	--	
60-29-7	Ethyl ether	7.8	0.20	--	24.	0.61	--	
75-35-4	1,1-Dichloroethene	8.5	0.20	--	34.	0.79	--	
75-65-0	Tertiary butyl Alcohol	7.9	0.50	--	24.	1.5	--	
75-09-2	Methylene chloride	8.6	0.50	--	30.	1.7	--	
107-05-1	3-Chloropropene	8.7	0.20	--	27.	0.63	--	
75-15-0	Carbon disulfide	8.7	0.20	--	27.	0.62	--	

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: WG817978-3	Date Collected :	
Client ID	: WG817978-3LCS	Date Received :	
Sample Location	:	Date Analyzed :	09/02/15 14:13
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111394	Instrument ID	: AIRLAB11
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	8.7	0.20	--	67.	1.5	--	
156-60-5	trans-1,2-Dichloroethene	7.6	0.20	--	30.	0.79	--	
75-34-3	1,1-Dichloroethane	8.3	0.20	--	34.	0.81	--	
1634-04-4	Methyl tert butyl ether	8.3	0.20	--	30.	0.72	--	
108-05-4	Vinyl acetate	9.6	1.0	--	34.	3.5	--	
78-93-3	2-Butanone	8.2	0.50	--	24.	1.5	--	
156-59-2	cis-1,2-Dichloroethene	9.6	0.20	--	38.	0.79	--	
141-78-6	Ethyl Acetate	8.5	0.50	--	31.	1.8	--	
67-66-3	Chloroform	8.6	0.20	--	42.	0.98	--	
109-99-9	Tetrahydrofuran	8.0	0.50	--	24.	1.5	--	
594-20-7	2,2-Dichloropropane	7.8	0.20	--	36.	0.92	--	
107-06-2	1,2-Dichloroethane	8.2	0.20	--	33.	0.81	--	
110-54-3	n-Hexane	8.4	0.20	--	30.	0.70	--	
108-20-3	Diisopropyl ether	8.0	0.20	--	33.	0.84	--	
637-92-3	tert-Butyl Ethyl Ether	7.7	0.20	--	32.	0.84	--	
71-55-6	1,1,1-Trichloroethane	8.8	0.20	--	48.	1.1	--	
563-58-6	1,1-Dichloropropene	8.5	0.20	--	39.	0.91	--	
71-43-2	Benzene	8.4	0.20	--	27.	0.64	--	
56-23-5	Carbon tetrachloride	8.9	0.20	--	56.	1.3	--	
110-82-7	Cyclohexane	8.5	0.20	--	29.	0.69	--	
994-05-8	tert-Amyl Methyl Ether	7.8	0.20	--	33.	0.84	--	
74-95-3	Dibromomethane	8.1	0.20	--	58.	1.4	--	
78-87-5	1,2-Dichloropropane	8.6	0.20	--	40.	0.92	--	
75-27-4	Bromodichloromethane	8.8	0.20	--	59.	1.3	--	
123-91-1	1,4-Dioxane	8.4	0.20	--	30.	0.72	--	
79-01-6	Trichloroethene	8.8	0.20	--	47.	1.1	--	
540-84-1	2,2,4-Trimethylpentane	8.4	0.20	--	39.	0.93	--	
80-62-6	Methyl Methacrylate	8.7	0.50	--	36.	2.0	--	

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: WG817978-3	Date Collected :	
Client ID	: WG817978-3LCS	Date Received :	
Sample Location	:	Date Analyzed :	09/02/15 14:13
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111394	Instrument ID	: AIRLAB11
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	8.4	0.20	--	34.	0.82	--	
10061-01-5	cis-1,3-Dichloropropene	20.	0.20	--	91.	0.91	--	
108-10-1	4-Methyl-2-pentanone	7.5	0.50	--	31.	2.0	--	
10061-02-6	trans-1,3-Dichloropropene	7.7	0.20	--	35.	0.91	--	
79-00-5	1,1,2-Trichloroethane	9.1	0.20	--	50.	1.1	--	
108-88-3	Toluene	9.0	0.20	--	34.	0.75	--	
142-28-9	1,3-Dichloropropane	8.3	0.20	--	38.	0.92	--	
591-78-6	2-Hexanone	9.4	0.20	--	39.	0.82	--	
124-48-1	Dibromochloromethane	9.2	0.20	--	78.	1.7	--	
106-93-4	1,2-Dibromoethane	9.3	0.20	--	71.	1.5	--	
123-86-4	Butyl acetate	8.5	0.50	--	40.	2.4	--	
111-65-9	Octane	8.2	0.20	--	38.	0.93	--	
127-18-4	Tetrachloroethene	9.0	0.20	--	61.	1.4	--	
630-20-6	1,1,1,2-Tetrachloroethane	8.6	0.20	--	59.	1.4	--	
108-90-7	Chlorobenzene	9.0	0.20	--	41.	0.92	--	
100-41-4	Ethylbenzene	9.1	0.20	--	40.	0.87	--	
179601-23-1	p/m-Xylene	18.	0.40	--	78.	1.7	--	
75-25-2	Bromoform	9.4	0.20	--	97.	2.1	--	
100-42-5	Styrene	9.2	0.20	--	39.	0.85	--	
79-34-5	1,1,2,2-Tetrachloroethane	9.2	0.20	--	63.	1.4	--	
95-47-6	o-Xylene	9.2	0.20	--	40.	0.87	--	
96-18-4	1,2,3-Trichloropropane	8.3	0.20	--	50.	1.2	--	
111-84-2	Nonane	8.2	0.20	--	43.	1.0	--	
98-82-8	Isopropylbenzene	8.6	0.20	--	42.	0.98	--	
108-86-1	Bromobenzene	8.4	0.20	--	33.	0.79	--	
95-49-8	2-Chlorotoluene	8.4	0.20	--	43.	1.0	--	
103-65-1	n-Propylbenzene	8.5	0.20	--	42.	0.98	--	
106-43-4	4-Chlorotoluene	8.2	0.20	--	42.	1.0	--	

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: WG817978-3	Date Collected :	
Client ID	: WG817978-3LCS	Date Received :	
Sample Location	:	Date Analyzed :	09/02/15 14:13
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111394	Instrument ID	: AIRLAB11
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	8.5	0.20	--	42.	0.98	--	
108-67-8	1,3,5-Trimethybenzene	9.0	0.20	--	44.	0.98	--	
98-06-6	tert-Butylbenzene	8.5	0.20	--	47.	1.1	--	
95-63-6	1,2,4-Trimethylbenzene	9.4	0.20	--	46.	0.98	--	
124-18-5	Decane	8.3	0.20	--	48.	1.2	--	
100-44-7	Benzyl chloride	9.6	0.20	--	50.	1.0	--	
541-73-1	1,3-Dichlorobenzene	9.2	0.20	--	55.	1.2	--	
106-46-7	1,4-Dichlorobenzene	9.2	0.20	--	55.	1.2	--	
135-98-8	sec-Butylbenzene	8.5	0.20	--	47.	1.1	--	
99-87-6	p-Isopropyltoluene	8.2	0.20	--	45.	1.1	--	
95-50-1	1,2-Dichlorobenzene	9.2	0.20	--	55.	1.2	--	
104-51-8	n-Butylbenzene	8.8	0.20	--	48.	1.1	--	
96-12-8	1,2-Dibromo-3-chloropropane	8.5	0.20	--	82.	1.9	--	
1120-21-4	Undecane	8.8	0.20	--	56.	1.3	--	
112-40-3	Dodecane	9.6	0.20	--	67.	1.4	--	
120-82-1	1,2,4-Trichlorobenzene	9.9	0.20	--	73.	1.5	--	
91-20-3	Naphthalene	9.5	0.20	--	50.	1.0	--	
87-61-6	1,2,3-Trichlorobenzene	9.3	0.20	--	69.	1.5	--	
87-68-3	Hexachlorobutadiene	9.6	0.20	--	100	2.1	--	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111394.d
Acq On : 2 Sep 2015 2:13 pm
Operator : AIRLAB11:RY
Sample : WG817978-3,3,250,250
Misc : WG817978,ICAL11393
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 02 14:49:55 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.94	49	83999	10.000	ppbV	0.00
Standard Area = 81084			Recovery = 103.60%			
43) 1,4-difluorobenzene	12.15	114	493823	10.000	ppbV	0.00
Standard Area = 489060			Recovery = 100.97%			
67) chlorobenzene-D5	16.63	54	81616	10.000	ppbV	0.00
Standard Area = 80649			Recovery = 101.20%			
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	3.89	51	118840	7.358	ppbV	98
3) propylene	3.93	41	43549M6	8.443	ppbV	
4) propane	3.96	29	25334	6.559	ppbV	98
5) dichlorodifluoromethane	4.03	85	286153	8.013	ppbV	100
6) chloromethane	4.23	50	54956	8.395	ppbV	100
7) Freon-114	4.37	85	342147	8.713	ppbV	97
8) methanol	4.47	31	61683	37.898	ppbV	98
9) vinyl chloride	4.52	62	83185	8.658	ppbV	96
10) 1,3-butadiene	4.71	54	56593	8.964	ppbV	96
11) butane	4.79	43	84923	7.682	ppbV	96
13) bromomethane	5.07	94	113123	8.549	ppbV	100
14) chloroethane	5.32	64	43274	8.810	ppbV	94
15) ethanol	5.55	31	154918	40.893	ppbV	98
16) dichlorofluoromethane	5.47	67	216894	8.090	ppbV	98
17) vinyl bromide	5.79	106	129496	8.523	ppbV	99
18) acrolein	5.97	56	28869	7.815	ppbV	94
19) acetone	6.15	43	592162	42.280	ppbV	98
20) acetonitrile	5.80	41	44247	7.832	ppbV	97
21) trichlorofluoromethane	6.35	101	444495	8.838	ppbV	100
22) isopropyl alcohol	6.54	45	282337	21.059	ppbV	100
23) acrylonitrile	6.77	53	52975	8.226	ppbV	98
24) pentane	6.83	43	91377	7.613	ppbV	99
25) ethyl ether	6.90	31	47270	7.775	ppbV	89
26) 1,1-dichloroethene	7.18	61	170320	8.477	ppbV	98
27) tertiary butyl alcohol	7.31	59	192230	7.920	ppbV	98
28) methylene chloride	7.35	49	91263	8.620	ppbV	98
29) 3-chloropropene	7.49	41	86407	8.675	ppbV	99
30) carbon disulfide	7.66	76	309846	8.708	ppbV	99
31) Freon 113	7.69	101	284582	8.716	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111394.d
Acq On : 2 Sep 2015 2:13 pm
Operator : AIRLAB11:RY
Sample : WG817978-3,3,250,250
Misc : WG817978,ICAL11393
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 02 14:49:55 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) trans-1,2-dichloroethene	8.51	61	137492	7.550	ppbV	97
33) 1,1-dichloroethane	8.75	63	169908	8.306	ppbV	99
34) MTBE	8.86	73	331928	8.328	ppbV	99
35) vinyl acetate	8.97	43	116752	9.587	ppbV	96
36) 2-butanone	9.27	43	140992	8.151	ppbV	99
37) cis-1,2-dichloroethene	9.75	61	172705	9.659	ppbV	98
38) Ethyl Acetate	10.05	61	26387	8.491	ppbV	77
39) chloroform	10.10	83	273067	8.557	ppbV	98
40) Tetrahydrofuran	10.58	42	68297M6	8.055	ppbV	
41) 2,2-dichloropropane	10.11	77	221373	7.800	ppbV	98
42) 1,2-dichloroethane	10.93	62	176257	8.155	ppbV	97
44) hexane	9.99	57	122046	8.368	ppbV	97
45) diisopropyl ether	10.02	87	91961	7.980	ppbV	94
46) tert-butyl ethyl ether	10.64	59	279281	7.739	ppbV	99
48) 1,1,1-trichloroethane	11.21	97	339606	8.774	ppbV	98
49) 1,1-dichloropropene	11.58	75	170819	8.471	ppbV	97
50) benzene	11.74	78	322205	8.378	ppbV	99
52) carbon tetrachloride	11.90	117	397628	8.877	ppbV	99
53) cyclohexane	12.04	56	130735	8.519	ppbV	97
54) tert-amyl methyl ether	12.43	73	305454	7.827	ppbV	99
55) dibromomethane	12.64	93	150908	8.129	ppbV	95
56) 1,2-dichloropropane	12.67	63	94197	8.596	ppbV	98
57) bromodichloromethane	12.89	83	319010	8.798	ppbV	99
58) 1,4-dioxane	12.95	88	79306	8.441	ppbV	94
59) trichloroethene	12.94	130	221104	8.844	ppbV	98
60) 2,2,4-trimethylpentane	12.97	57	411417	8.446	ppbV	99
61) methyl methacrylate	13.17	41	95001	8.663	ppbV	100
62) heptane	13.28	43	122163	8.372	ppbV	95
63) cis-1,3-dichloropropene	13.92	75	247785	19.612	ppbV	98
64) 4-methyl-2-pentanone	13.97	43	228070	7.468	ppbV	99
65) trans-1,3-dichloropropene	14.50	75	132030	7.737	ppbV	97
66) 1,1,2-trichloroethane	14.71	97	163766	9.118	ppbV	97
68) toluene	15.00	91	459560	8.982	ppbV	100
71) 1,3-dichloropropane	15.03	76	175597	8.260	ppbV	96
72) 2-hexanone	15.27	43	176242	9.389	ppbV	97
74) dibromochloromethane	15.42	129	403601	9.207	ppbV	99
75) 1,2-dibromoethane	15.66	107	283728	9.318	ppbV	99
76) butyl acetate	15.86	73	45300	8.485	ppbV	99
77) octane	15.94	85	129284	8.244	ppbV	99
78) tetrachloroethene	16.08	166	351854	8.960	ppbV	99

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111394.d
Acq On : 2 Sep 2015 2:13 pm
Operator : AIRLAB11:RY
Sample : WG817978-3,3,250,250
Misc : WG817978,ICAL11393
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 02 14:49:55 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : Default-LCS-AP2 - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79)	1,1,1,2-tetrachloroethane	16.65	131	254790	8.608	ppbV	98
80)	chlorobenzene	16.67	112	412265	9.001	ppbV	99
81)	ethylbenzene	16.97	91	636472	9.090	ppbV	100
83)	m+p-xylene	17.12	91	1060629	18.215	ppbV	99
84)	bromoform	17.19	173	507973	9.441	ppbV	99
85)	styrene	17.40	104	400120	9.181	ppbV	99
86)	1,1,2,2-tetrachloroethane	17.48	83	309098	9.194	ppbV	99
87)	o-xylene	17.48	91	541617	9.191	ppbV	100
88)	1,2,3-trichloropropane	17.58	75	242155	8.308	ppbV	99
89)	nonane	17.63	43	173903	8.247	ppbV	99
91)	isopropylbenzene	17.93	105	742633	8.608	ppbV	100
92)	bromobenzene	18.02	77	330973	8.385	ppbV	97
93)	2-chlorotoluene	18.30	126	202437	8.448	ppbV	91
94)	n-propylbenzene	18.31	120	213804	8.503	ppbV	88
95)	4-chlorotoluene	18.35	91	532032	8.207	ppbV	100
96)	4-ethyl toluene	18.42	105	809602M6	8.547	ppbV	
97)	1,3,5-trimethylbenzene	18.48	105	715323	8.992	ppbV	99
98)	tert-butylbenzene	18.79	119	728807	8.520	ppbV	100
99)	1,2,4-trimethylbenzene	18.79	105	709863	9.357	ppbV	99
100)	decane	18.84	57	252657	8.273	ppbV	98
101)	Benzyl Chloride	18.90	91	591645	9.564	ppbV	99
102)	1,3-dichlorobenzene	18.92	146	561593	9.225	ppbV	98
103)	1,4-dichlorobenzene	18.97	146	563730	9.168	ppbV	99
104)	sec-butylbenzene	18.99	105	891405	8.492	ppbV	100
106)	p-isopropyltoluene	19.10	119	850825	8.150	ppbV	98
107)	1,2-dichlorobenzene	19.23	146	544776	9.196	ppbV	99
108)	n-butylbenzene	19.42	91	728462	8.834	ppbV	100
111)	1,2-dibromo-3-chloropr...	19.57	75	207990	8.541	ppbV	96
112)	undecane	19.78	57	306054	8.823	ppbV	97
114)	dodecane	20.67	57	331052	9.623	ppbV	100
115)	1,2,4-trichlorobenzene	20.65	180	620552	9.884	ppbV	99
116)	naphthalene	20.77	128	1007828	9.530	ppbV	99
117)	1,2,3-trichlorobenzene	21.01	180	556241	9.323	ppbV	99
119)	hexachlorobutadiene	21.07	225	671513	9.597	ppbV	97

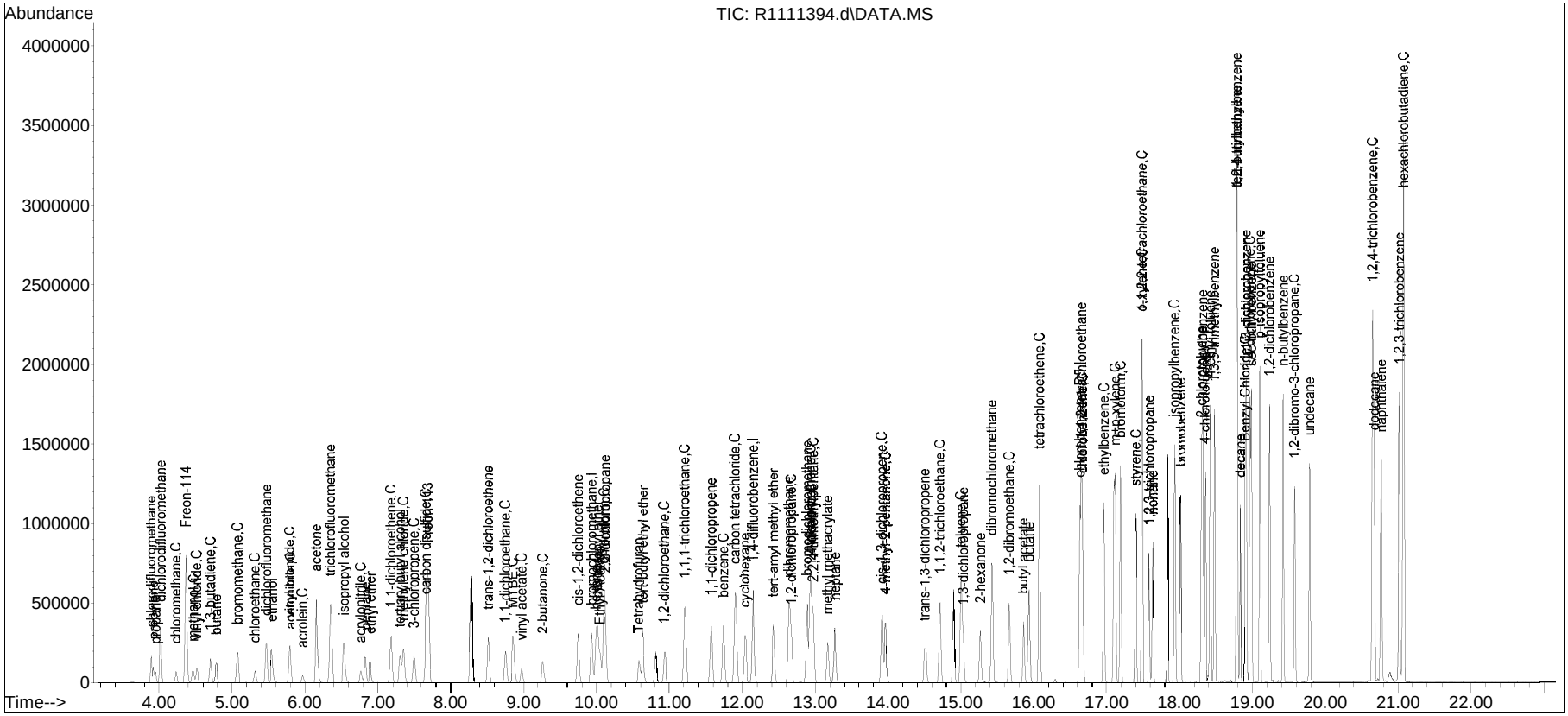
(#) = qualifier out of range (m) = manual integration (+) = signals summed

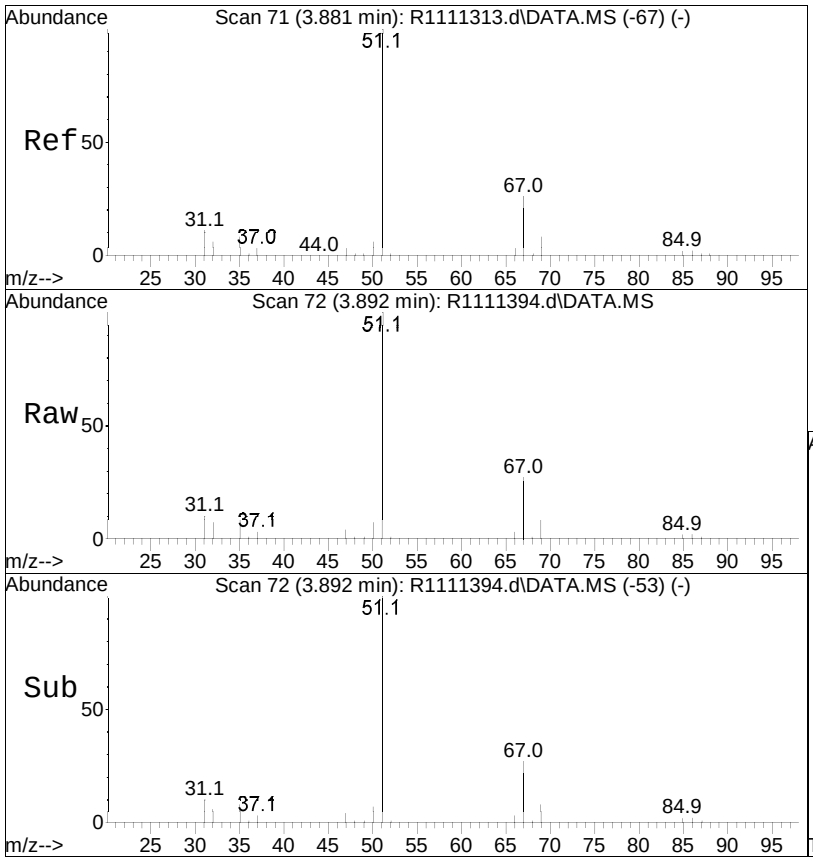
Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111394.d
Acq On : 2 Sep 2015 2:13 pm
Operator : AIRLAB11:RY
Sample : WG817978-3,3,250,250
Misc : WG817978,ICAL11393
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 02 14:49:55 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

Sub List : Default-LCS-AP2 - All compounds listedT\R1111393.d

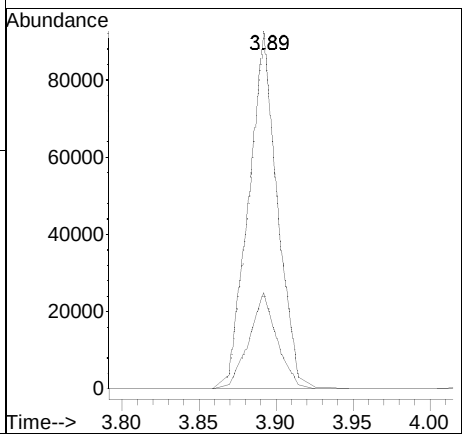


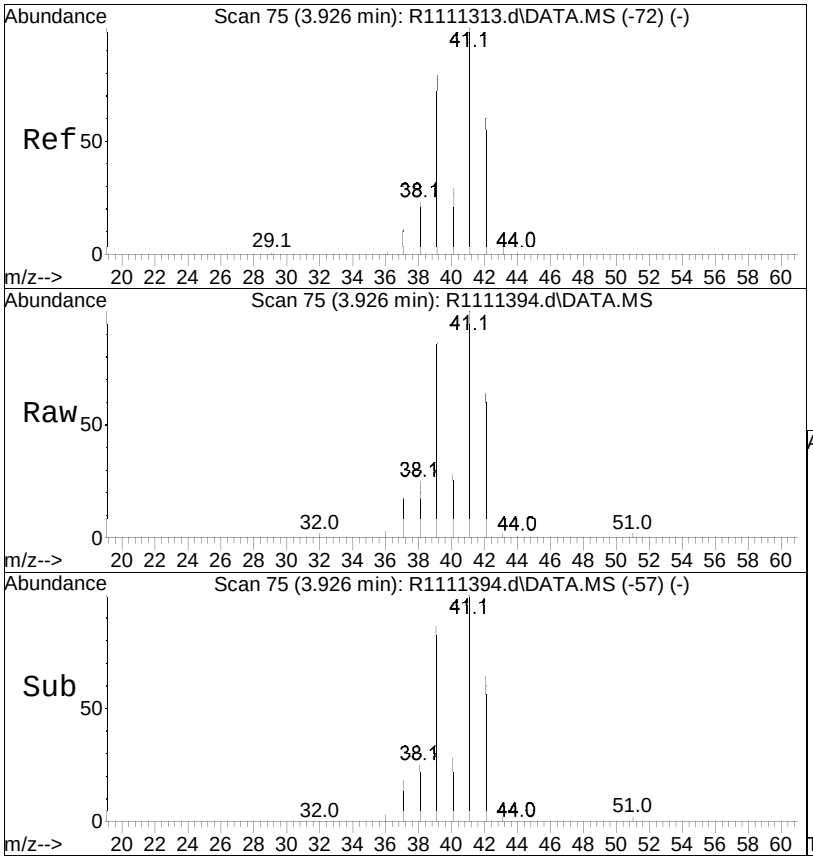


#2
chlorodifluoromethane
Concen: 7.36 ppbV
RT: 3.89 min Scan# 72
Delta R.T. 0.011 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 51 Resp: 118840

Ion	Ratio	Lower	Upper
51	100		
67	27.1	20.9	31.3

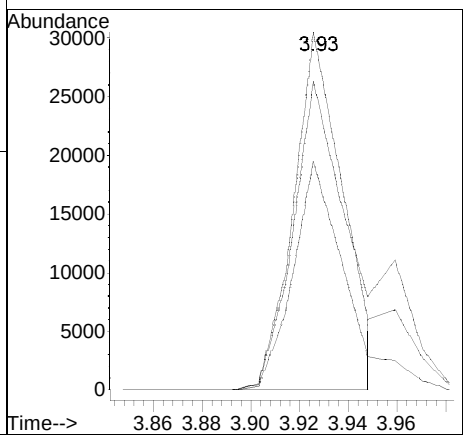


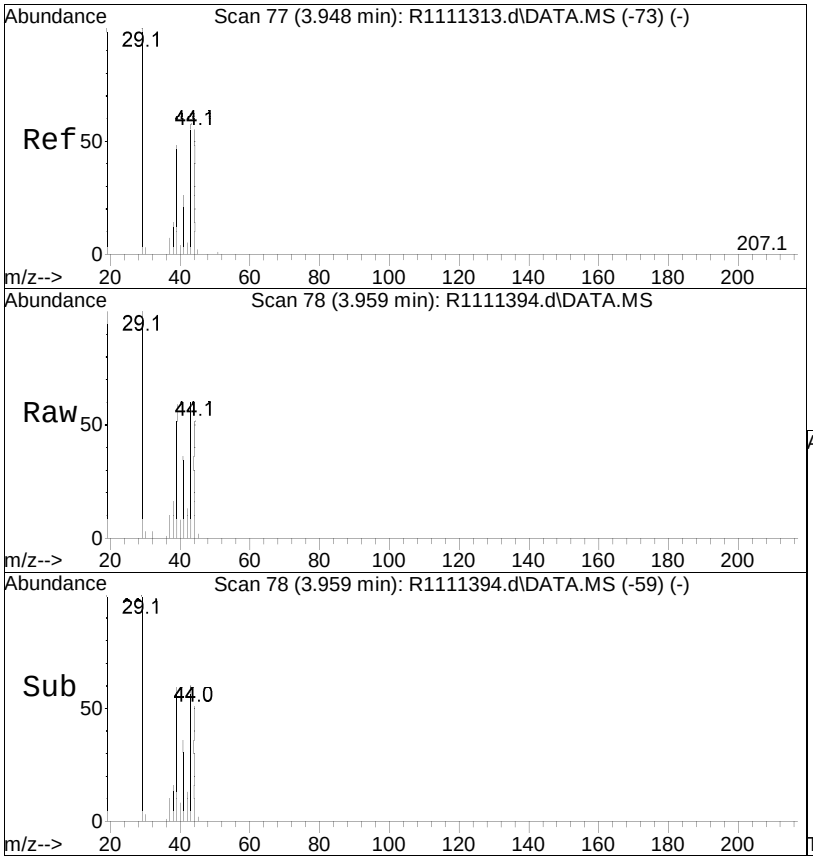


#3
propylene
Concen: 8.44 ppbV m
RT: 3.93 min Scan# 75
Delta R.T. -0.000 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 41 Resp: 43549

Ion	Ratio	Lower	Upper
41	100		
42	63.9	48.0	72.0
39	86.4	63.0	94.4

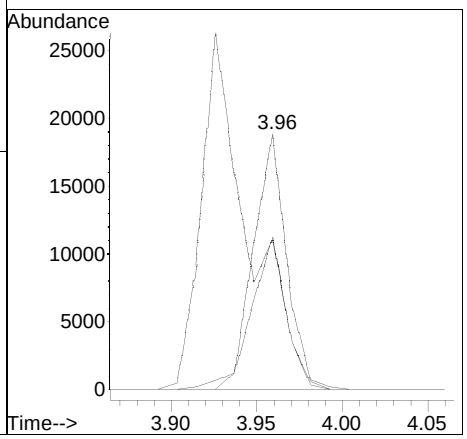


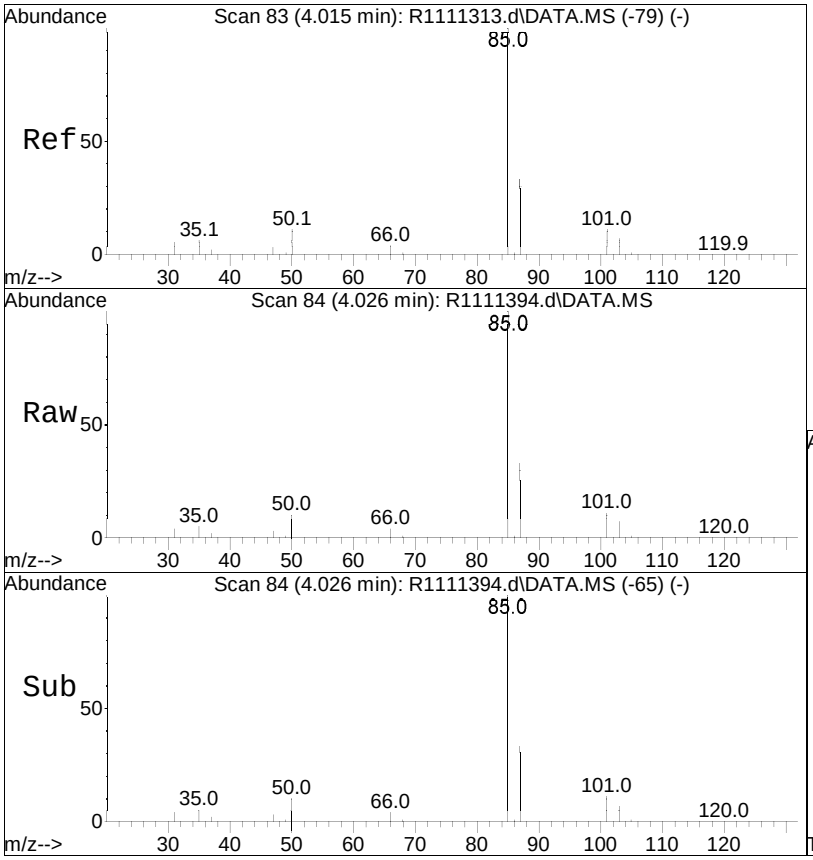


#4
propane
Concen: 6.56 ppbV
RT: 3.96 min Scan# 78
Delta R.T. 0.011 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 29 Resp: 25334

Ion	Ratio	Lower	Upper
29	100		
43	59.8	46.3	69.5
39	58.7	46.1	69.1

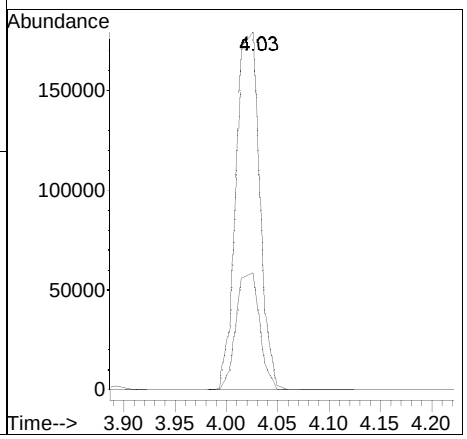


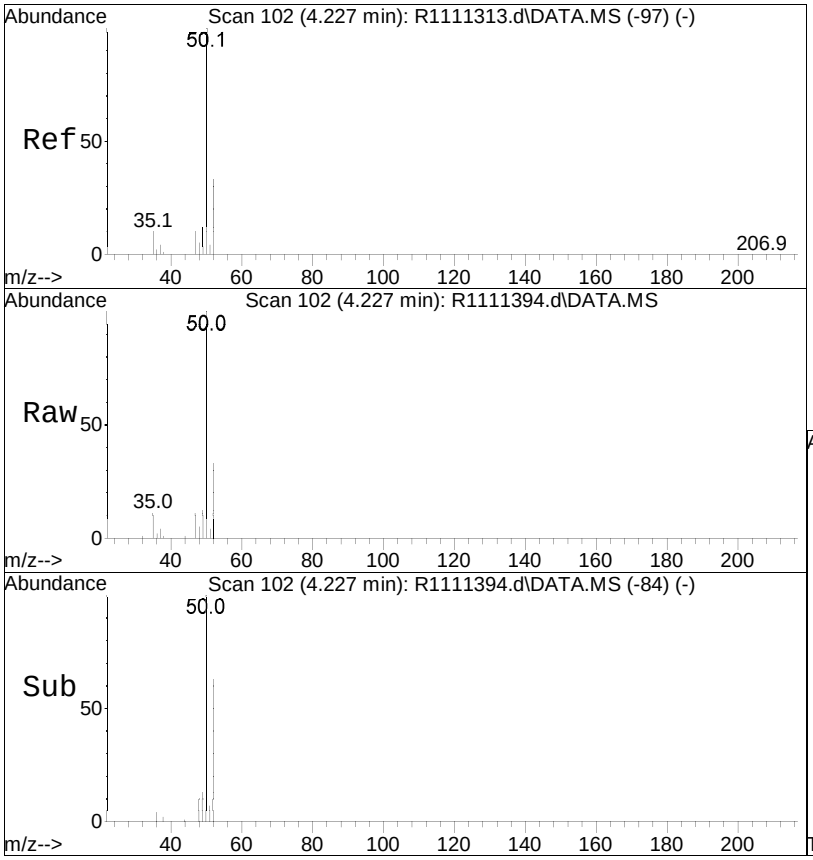


#5
dichlorodifluoromethane
Concen: 8.01 ppbV
RT: 4.03 min Scan# 84
Delta R.T. 0.011 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 85 Resp: 286153

Ion	Ratio	Lower	Upper
85	100		
87	32.7	26.1	39.1

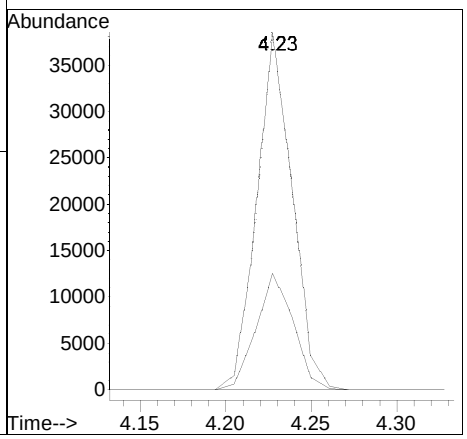


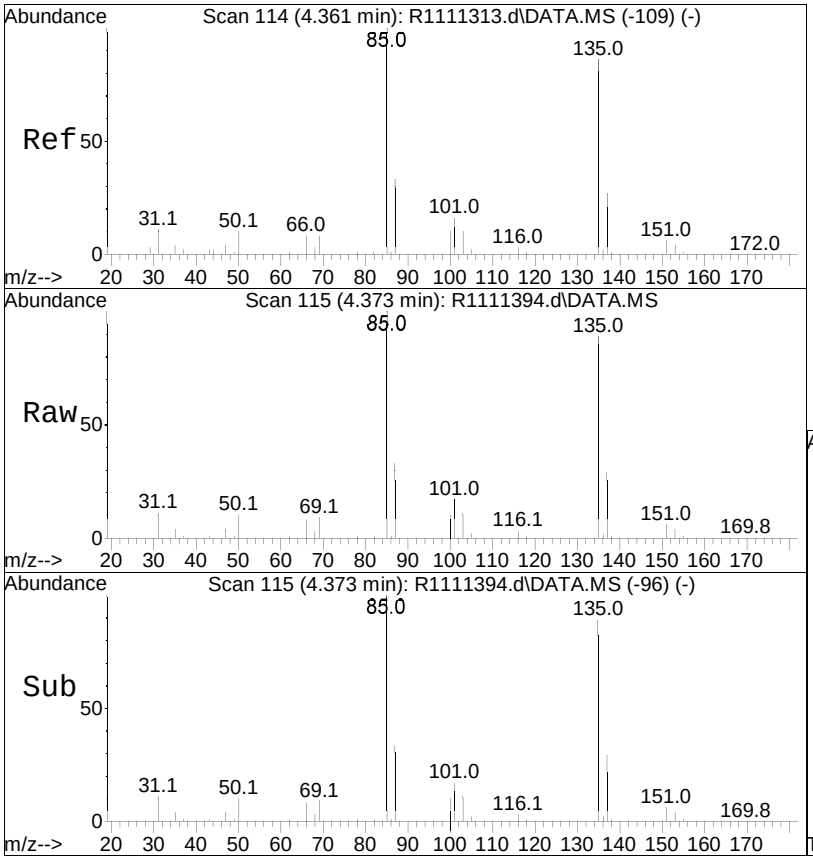


#6
chloromethane
Concen: 8.39 ppbV
RT: 4.23 min Scan# 102
Delta R.T. -0.000 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 50 Resp: 54956

Ion	Ratio	Lower	Upper
50	100		
52	32.7	26.2	39.4

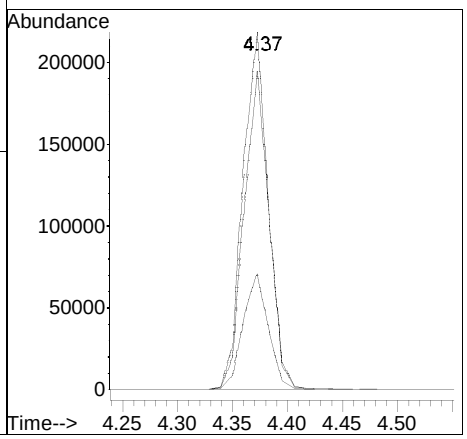


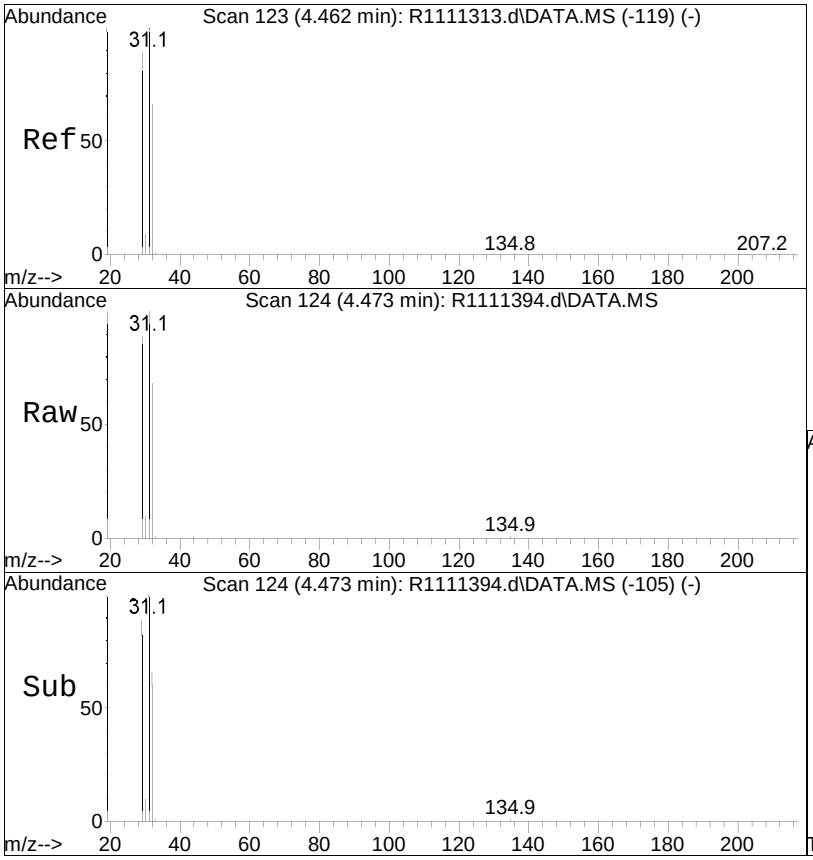


#7
Freon-114
Concen: 8.71 ppbV
RT: 4.37 min Scan# 115
Delta R.T. 0.011 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 85 Resp: 342147

Ion	Ratio	Lower	Upper
85	100		
87	32.7	26.6	40.0
135	89.1	68.5	102.7

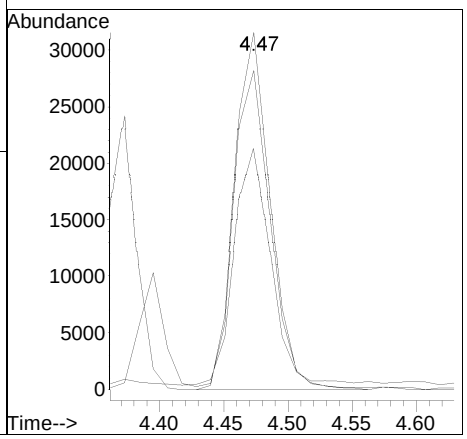


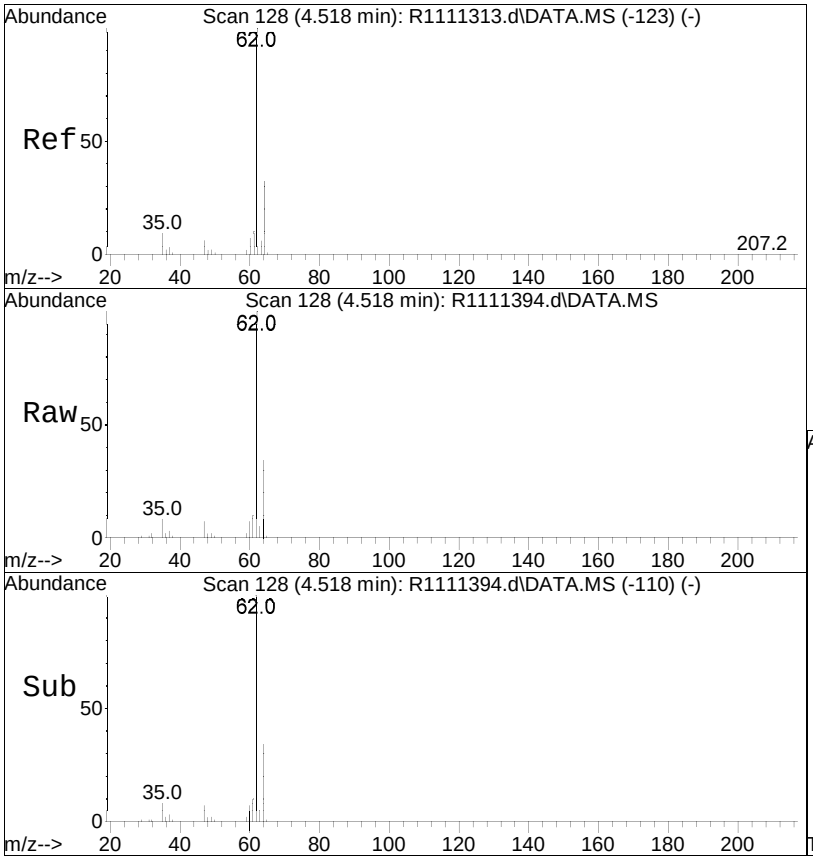


#8
methanol
Concen: 37.90 ppbV
RT: 4.47 min Scan# 124
Delta R.T. 0.011 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 31 Resp: 61683

Ion	Ratio	Lower	Upper
31	100		
32	67.6	53.8	80.6
29	89.5	73.8	110.8

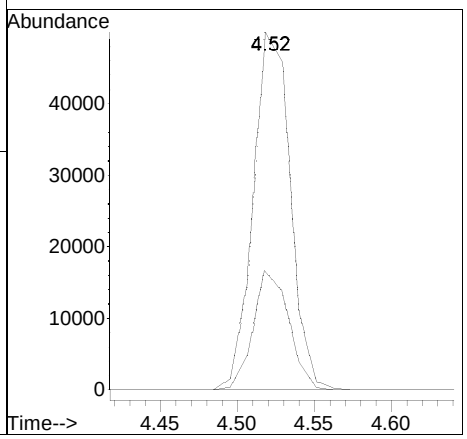


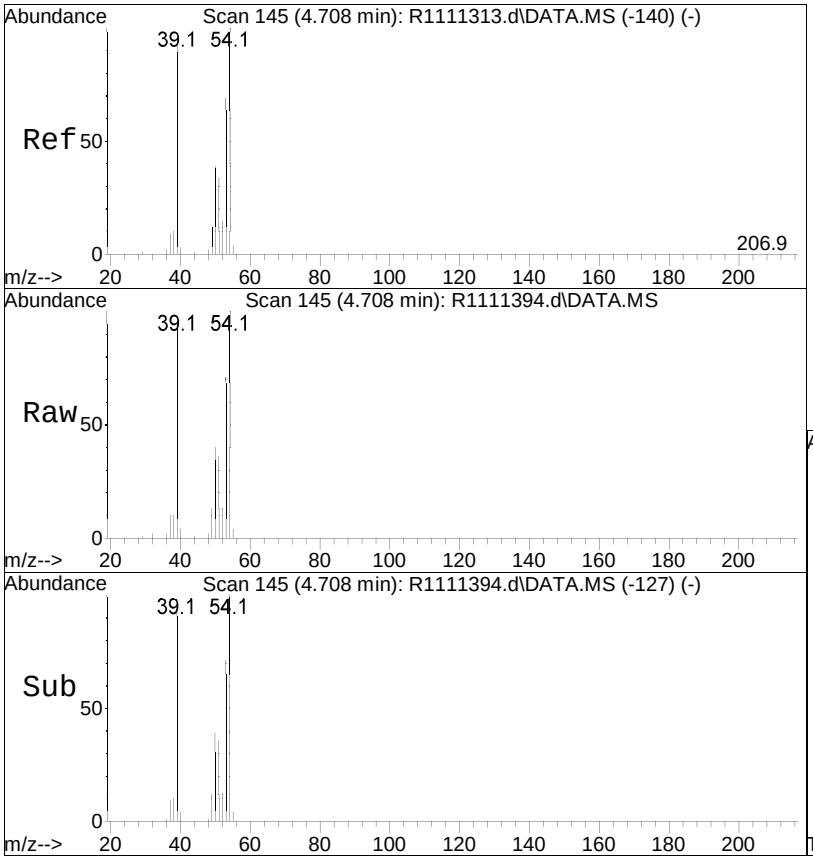


#9
vinyl chloride
Concen: 8.66 ppbV
RT: 4.52 min Scan# 128
Delta R.T. -0.000 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 62 Resp: 83185

Ion	Ratio	Lower	Upper
62	100		
64	33.6	25.3	37.9

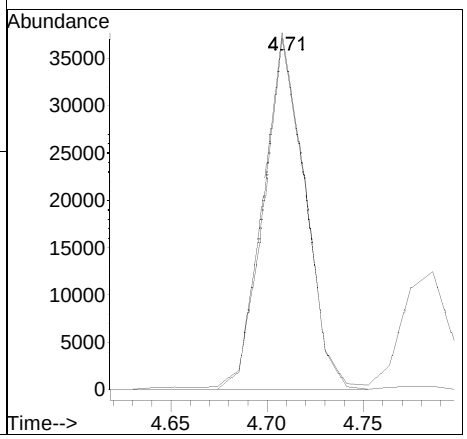


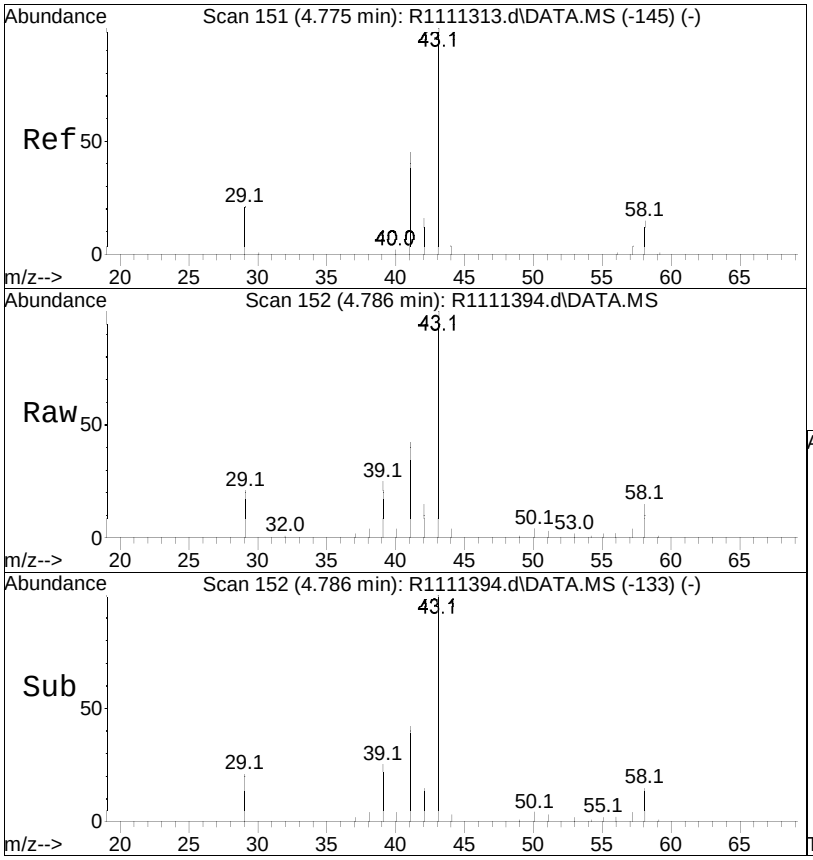


#10
1,3-butadiene
Concen: 8.96 ppbV
RT: 4.71 min Scan# 145
Delta R.T. -0.000 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 54 Resp: 56593

Ion	Ratio	Lower	Upper
54	100		
39	98.5	75.7	113.5

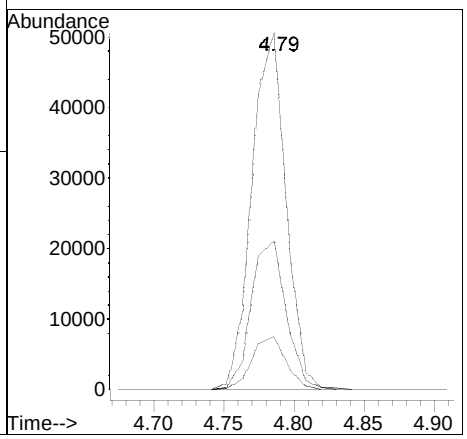


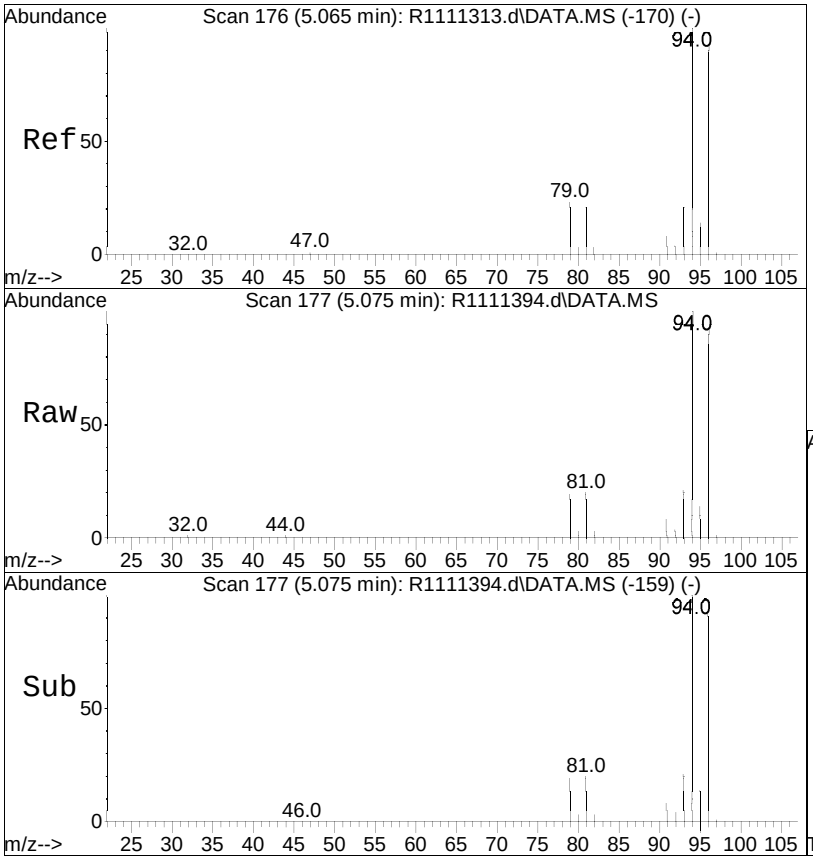


#11
butane
Concen: 7.68 ppbV
RT: 4.79 min Scan# 152
Delta R.T. 0.011 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 43 Resp: 84923

Ion	Ratio	Lower	Upper
43	100		
58	14.8	12.2	18.4
41	41.8	36.1	54.1

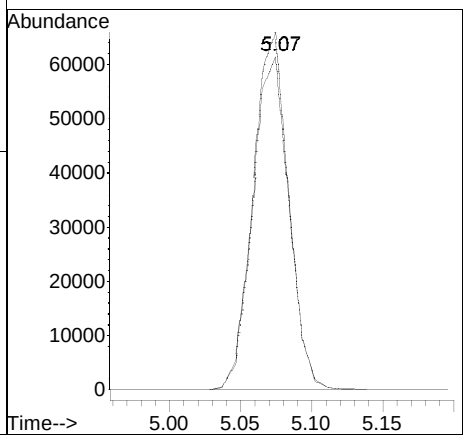


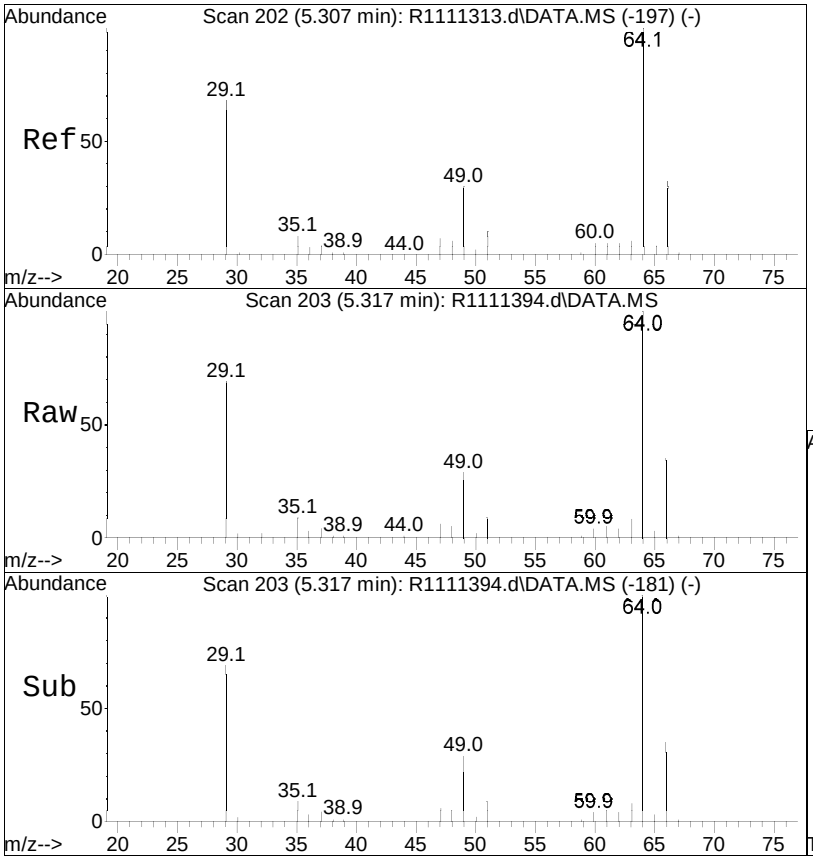


#13
bromomethane
Concen: 8.55 ppbV
RT: 5.07 min Scan# 177
Delta R.T. 0.009 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 94 Resp: 113123

Ion	Ratio	Lower	Upper
94	100		
96	93.1	74.5	111.7

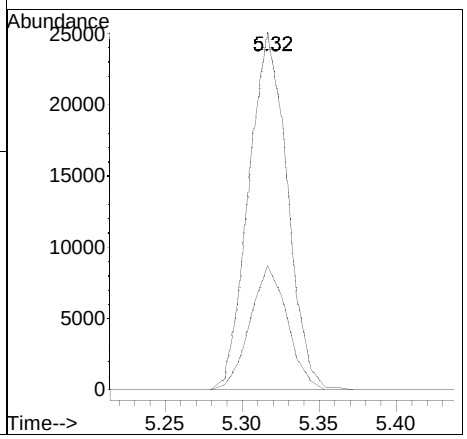


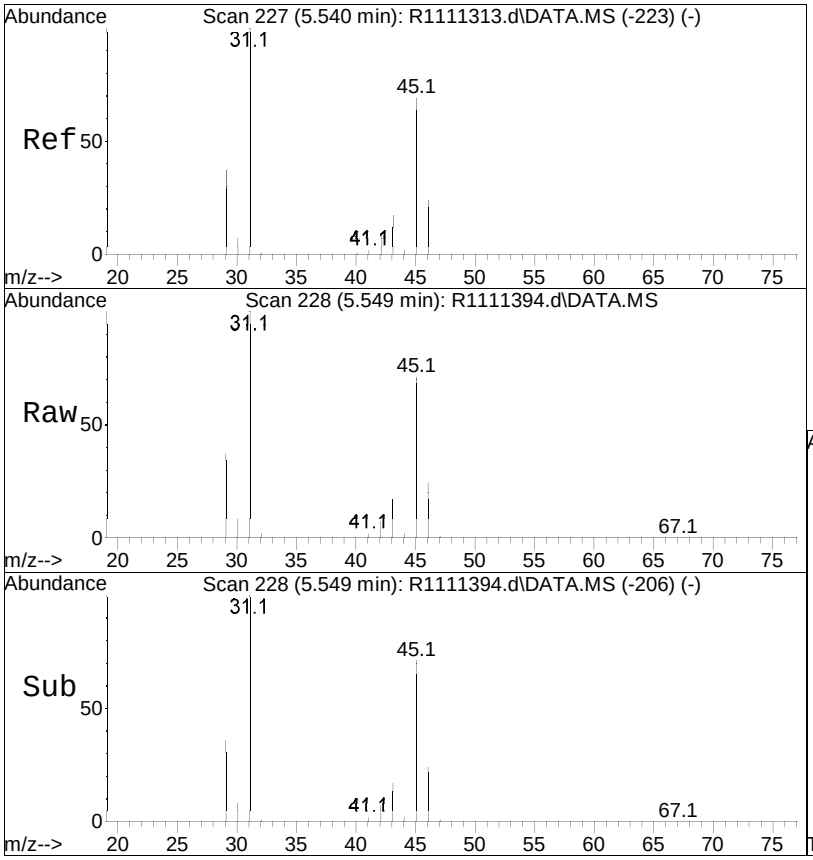


#14
chloroethane
Concen: 8.81 ppbV
RT: 5.32 min Scan# 203
Delta R.T. 0.009 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 64 Resp: 43274

Ion	Ratio	Lower	Upper
64	100		
66	34.8	25.4	38.0

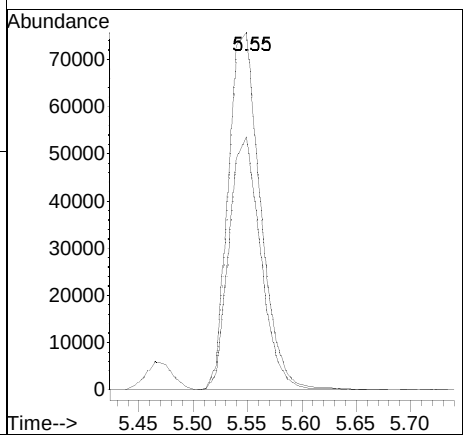


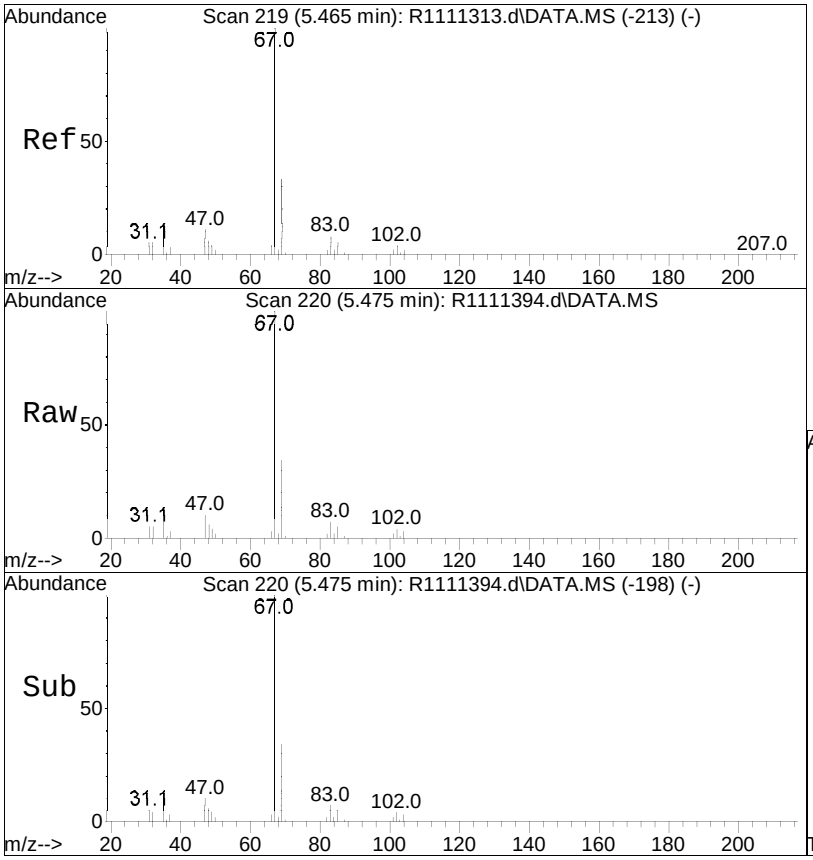


#15
ethanol
Concen: 40.89 ppbV
RT: 5.55 min Scan# 228
Delta R.T. 0.009 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 31 Resp: 154918

Ion	Ratio	Lower	Upper
31	100		
45	70.9	55.4	83.2

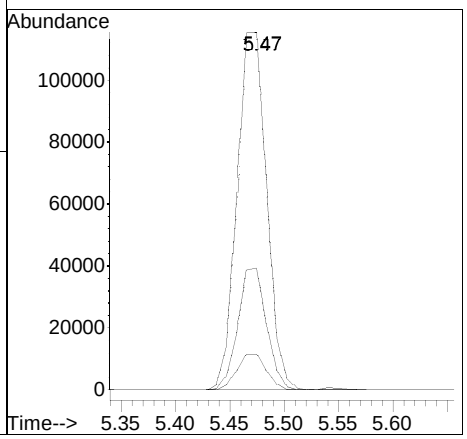


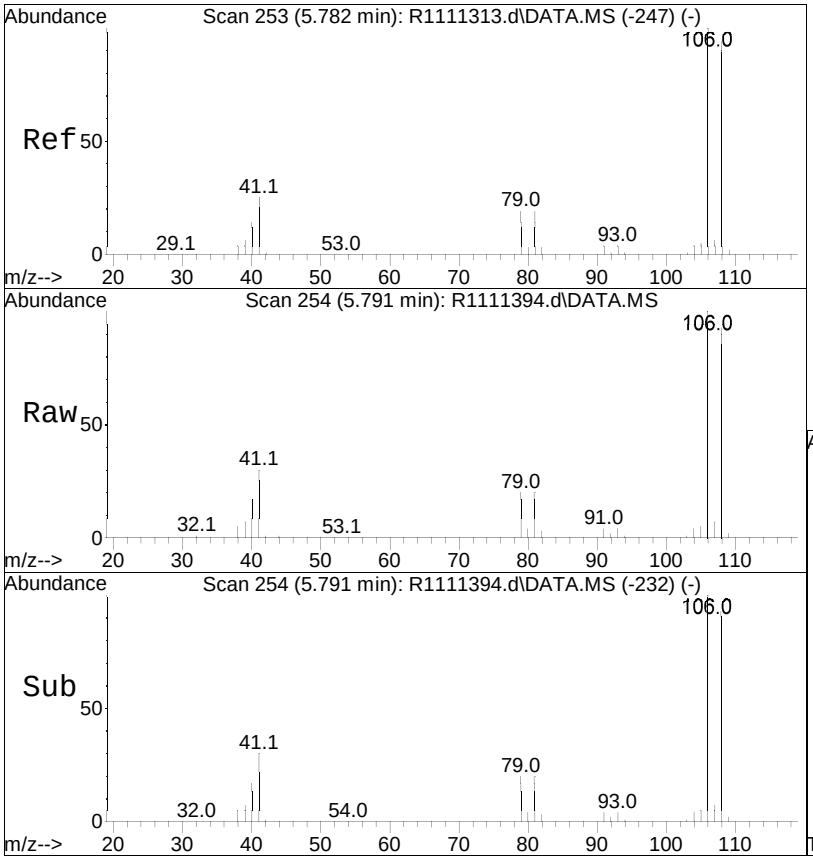


#16
dichlorofluoromethane
Concen: 8.09 ppbV
RT: 5.47 min Scan# 220
Delta R.T. 0.009 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 67 Resp: 216894

Ion	Ratio	Lower	Upper
67	100		
69	34.1	26.2	39.4
47	10.2	8.6	13.0

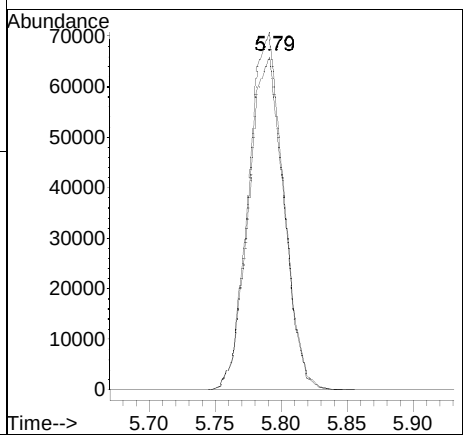


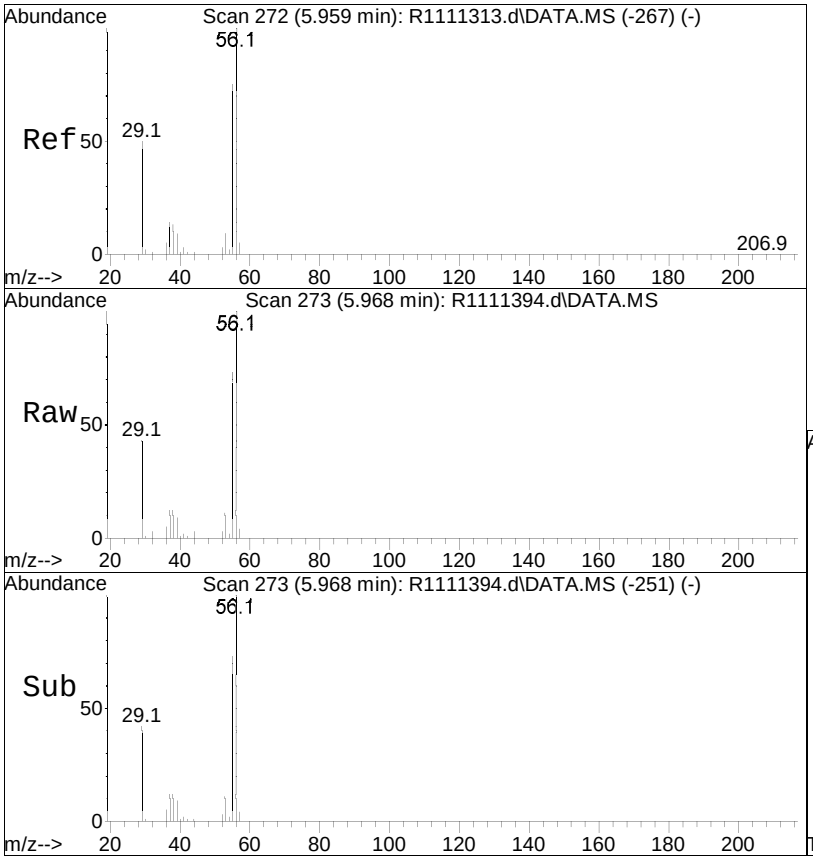


#17
vinyl bromide
Concen: 8.52 ppbV
RT: 5.79 min Scan# 254
Delta R.T. 0.009 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:106 Resp: 129496

Ion	Ratio	Lower	Upper
106	100		
108	93.4	75.4	113.2

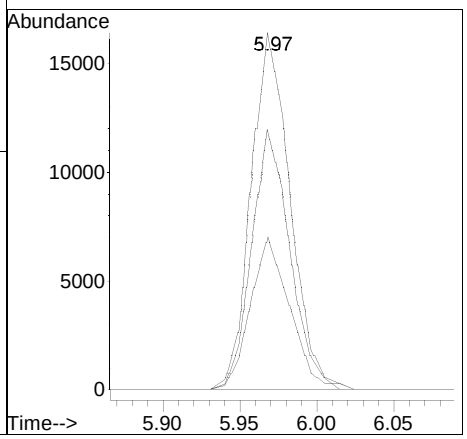


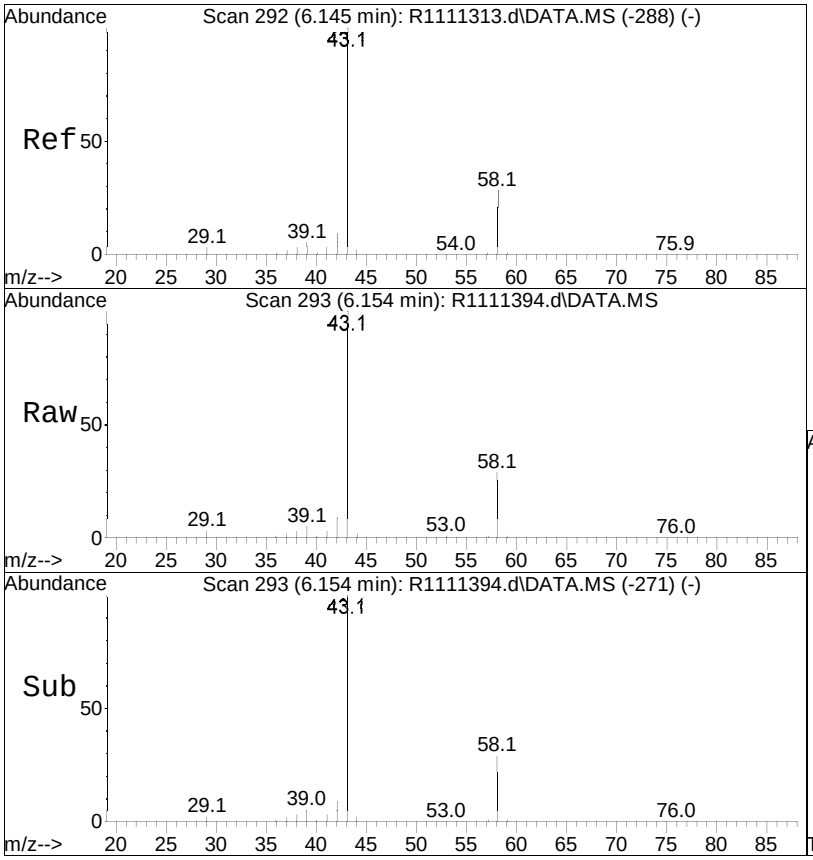


#18
acrolein
Concen: 7.82 ppbV
RT: 5.97 min Scan# 273
Delta R.T. 0.009 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 56 Resp: 28869

Ion	Ratio	Lower	Upper
56	100		
55	72.7	60.4	90.6
29	42.8	39.8	59.8

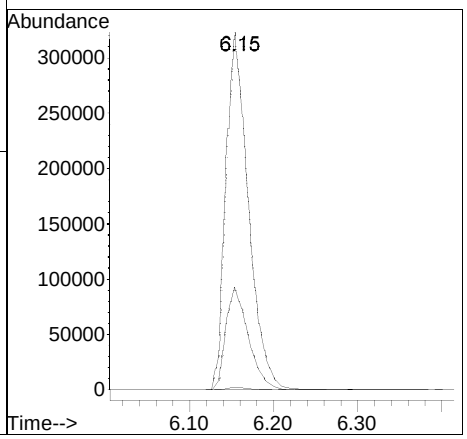


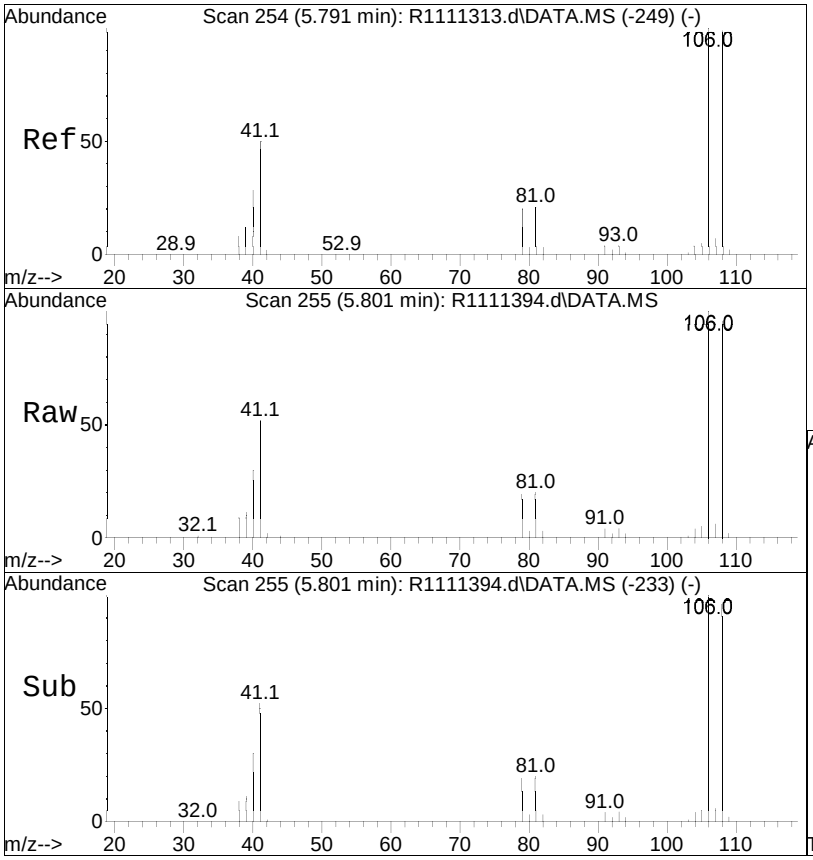


#19
acetone
Concen: 42.28 ppbV
RT: 6.15 min Scan# 293
Delta R.T. 0.009 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 43 Resp: 592162

Ion	Ratio	Lower	Upper
43	100		
58	28.7	22.2	33.2
57	0.9	0.6	1.0

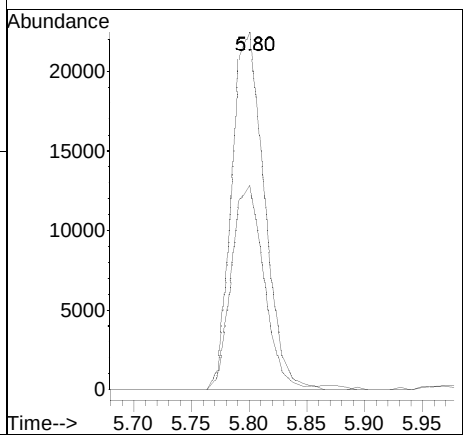


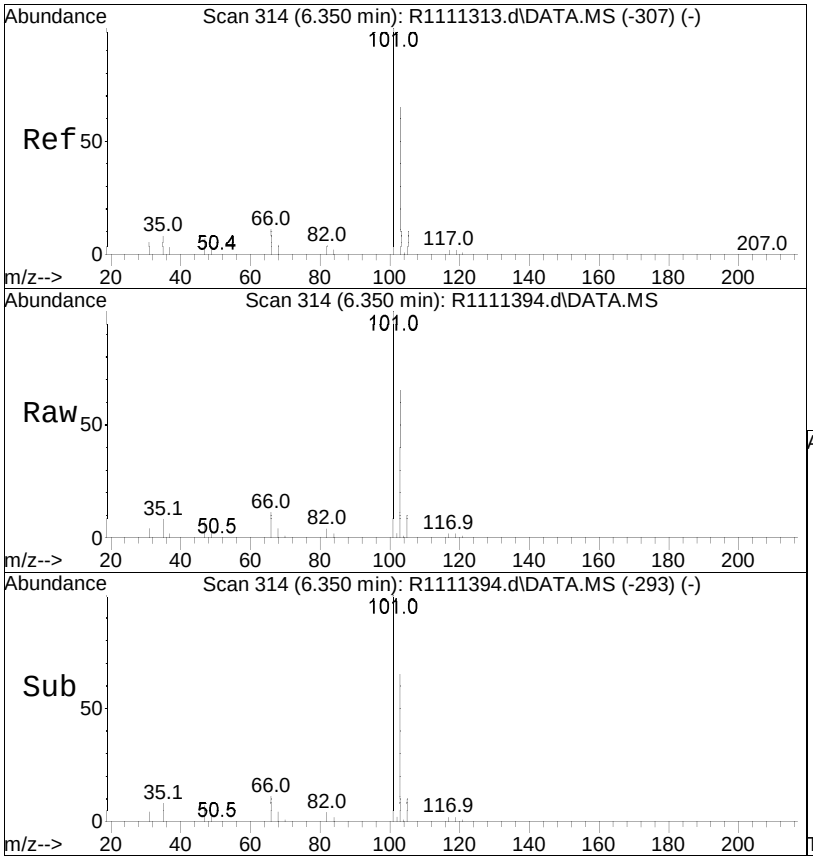


#20
acetonitrile
Concen: 7.83 ppbV
RT: 5.80 min Scan# 255
Delta R.T. 0.009 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 41 Resp: 44247

Ion	Ratio	Lower	Upper
41	100		
40	57.3	44.2	66.4

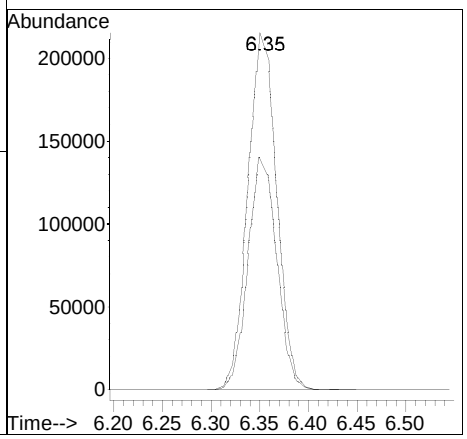


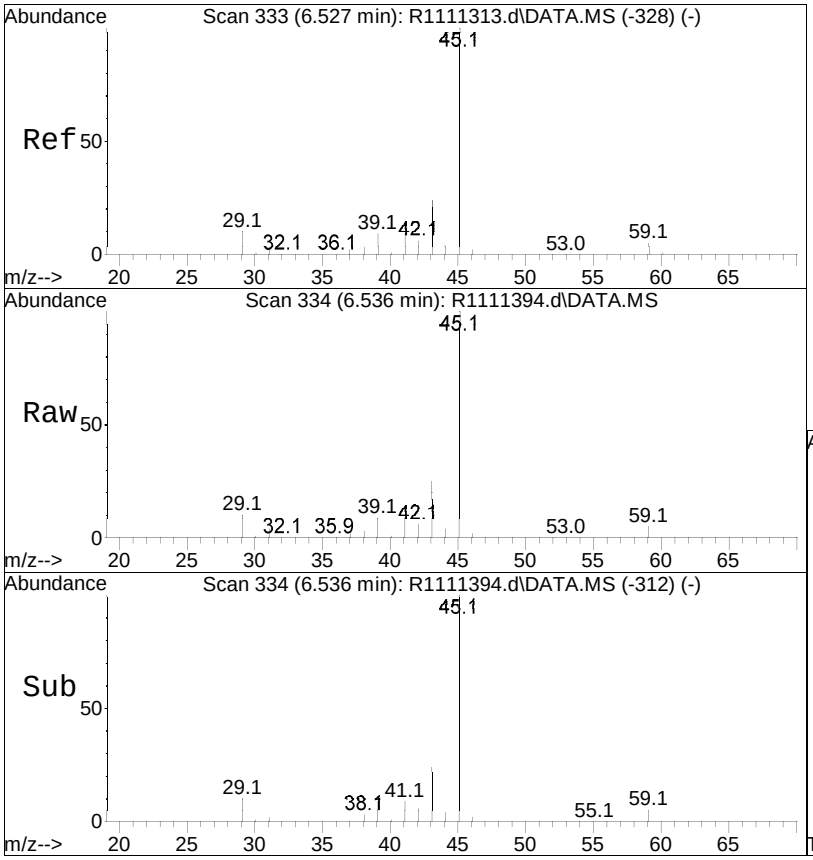


#21
trichlorofluoromethane
Concen: 8.84 ppbV
RT: 6.35 min Scan# 314
Delta R.T. -0.000 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:101 Resp: 444495

Ion	Ratio	Lower	Upper
101	100		
103	65.1	52.3	78.5

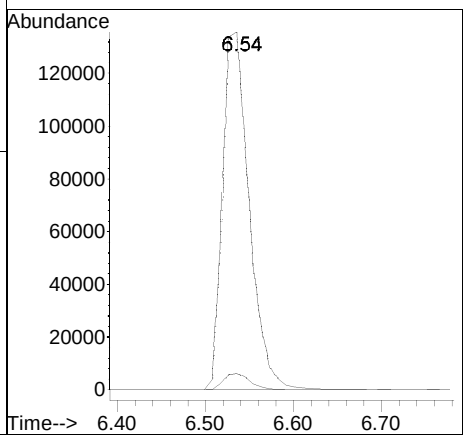


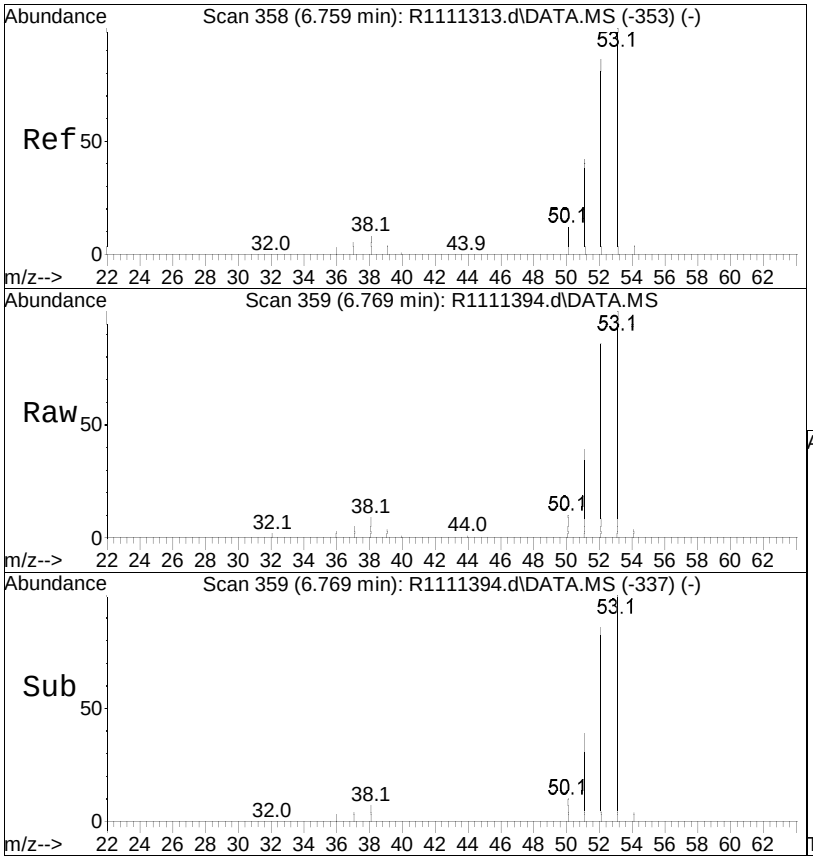


#22
isopropyl alcohol
Concen: 21.06 ppbV
RT: 6.54 min Scan# 334
Delta R.T. 0.009 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 45 Resp: 282337

Ion	Ratio	Lower	Upper
45	100		
59	4.7	3.8	5.6

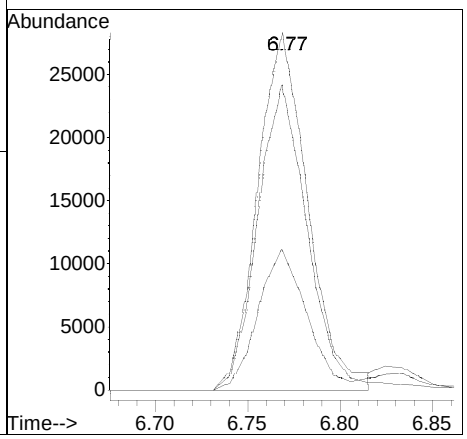


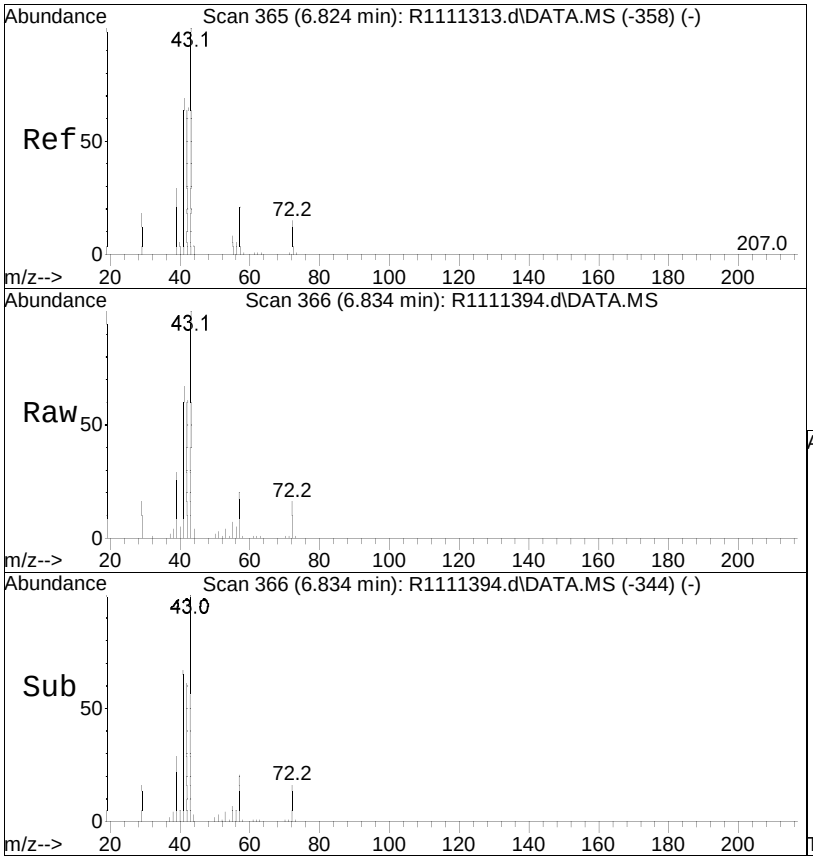


#23
acrylonitrile
Concen: 8.23 ppbV
RT: 6.77 min Scan# 359
Delta R.T. 0.009 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 53 Resp: 52975

Ion	Ratio	Lower	Upper
53	100		
52	85.5	69.2	103.8
51	39.5	33.6	50.4

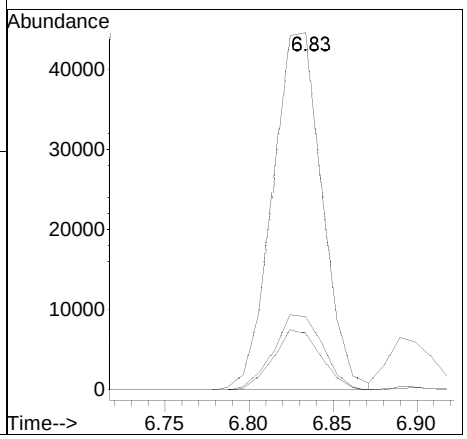


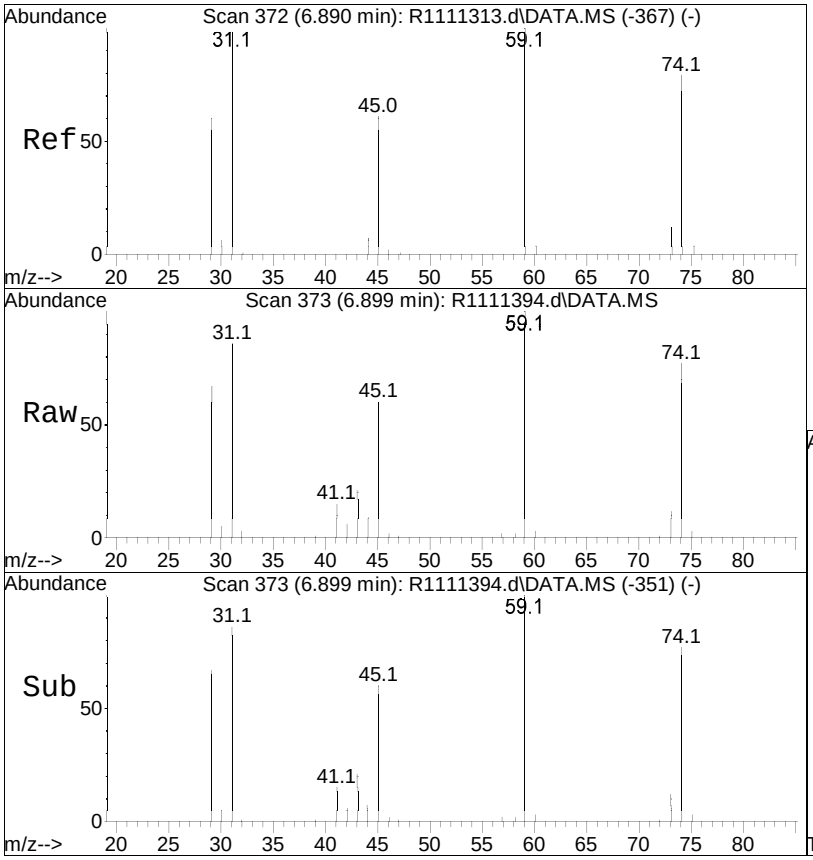


#24
pentane
Concen: 7.61 ppbV
RT: 6.83 min Scan# 366
Delta R.T. 0.009 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 43 Resp: 91377

Ion	Ratio	Lower	Upper
43	100		
57	20.5	16.8	25.2
72	15.8	12.2	18.4

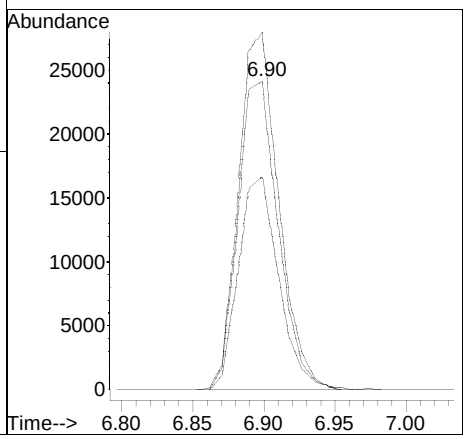


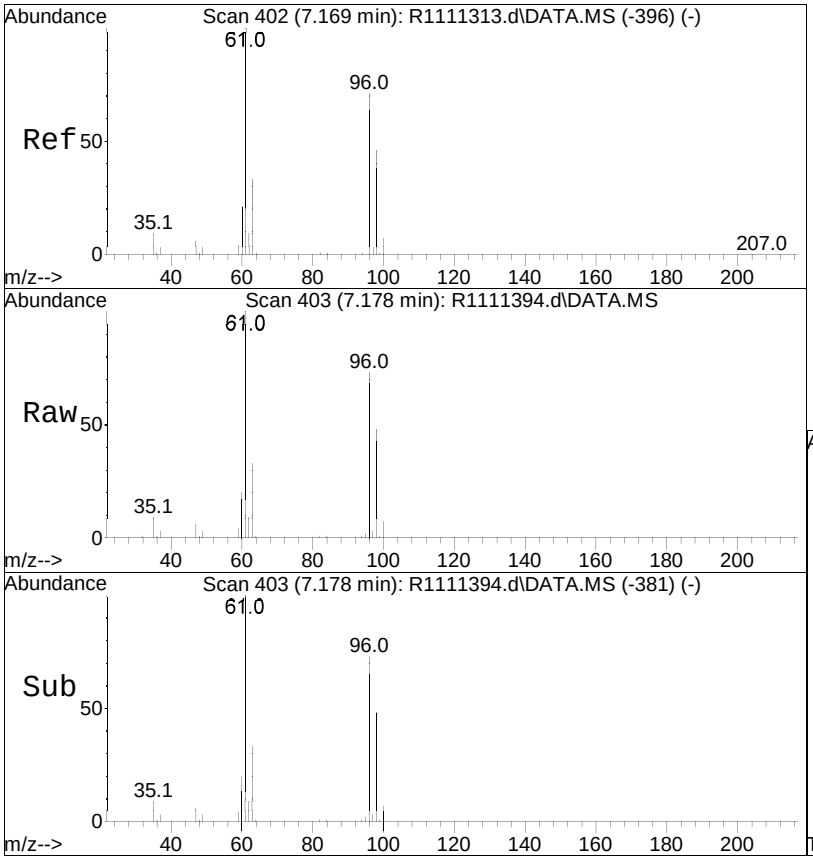


#25
ethyl ether
Concen: 7.78 ppbV
RT: 6.90 min Scan# 373
Delta R.T. 0.009 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 31 Resp: 47270

Ion	Ratio	Lower	Upper
31	100		
59	115.6	81.8	122.8
45	68.9	50.1	75.1

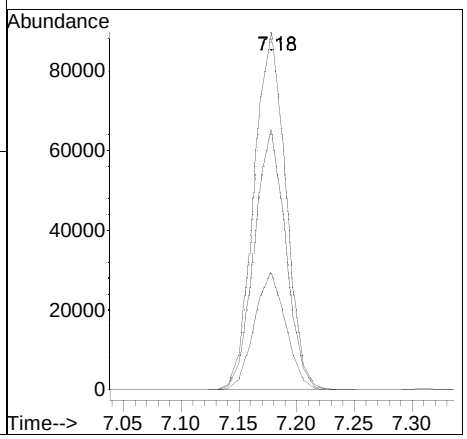


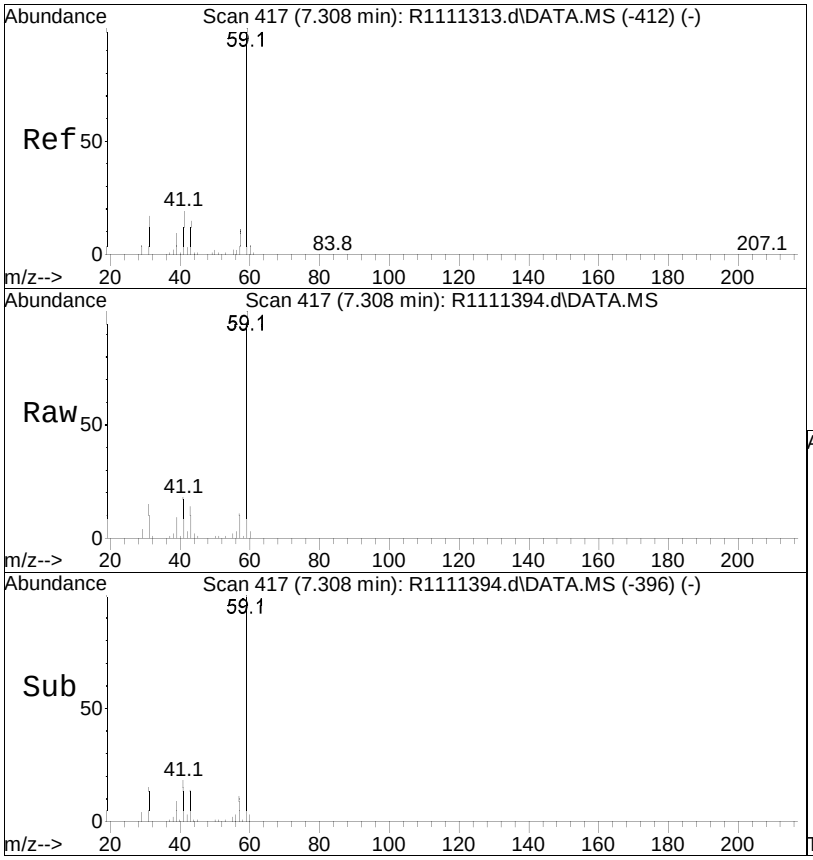


#26
1,1-dichloroethene
Concen: 8.48 ppbV
RT: 7.18 min Scan# 403
Delta R.T. 0.009 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 61 Resp: 170320

Ion	Ratio	Lower	Upper
61	100		
96	72.9	56.6	84.8
63	33.1	26.6	40.0

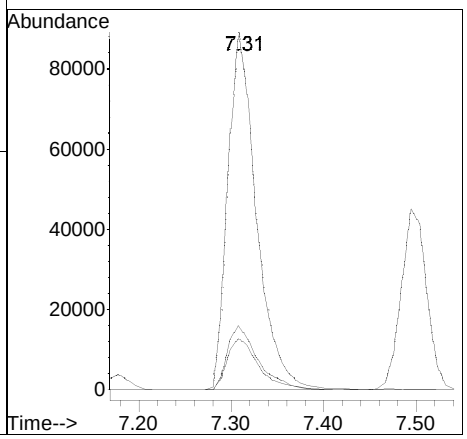


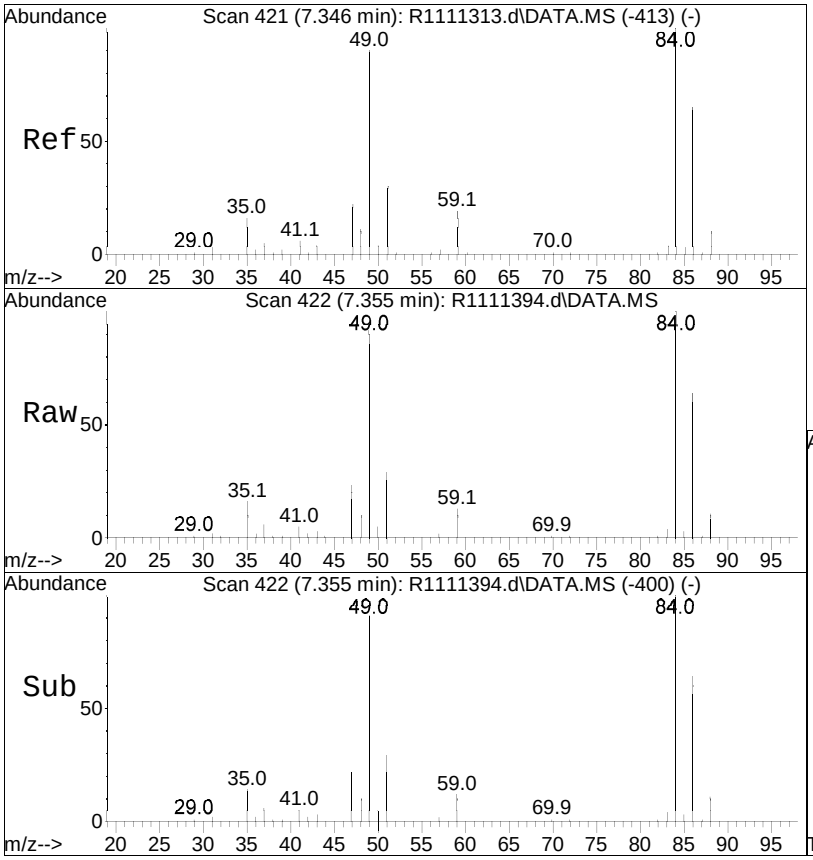


#27
tertiary butyl alcohol
Concen: 7.92 ppbV
RT: 7.31 min Scan# 417
Delta R.T. -0.000 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 59 Resp: 192230

Ion	Ratio	Lower	Upper
59	100		
41	17.8	15.1	22.7
43	14.4	11.8	17.6

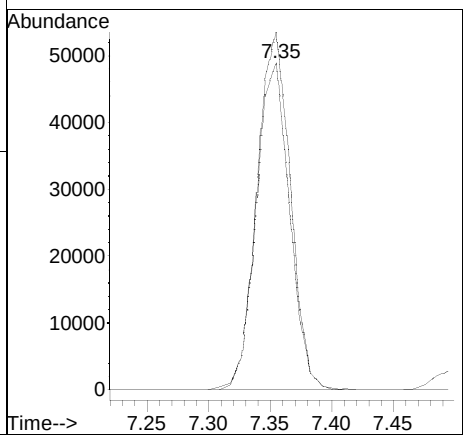


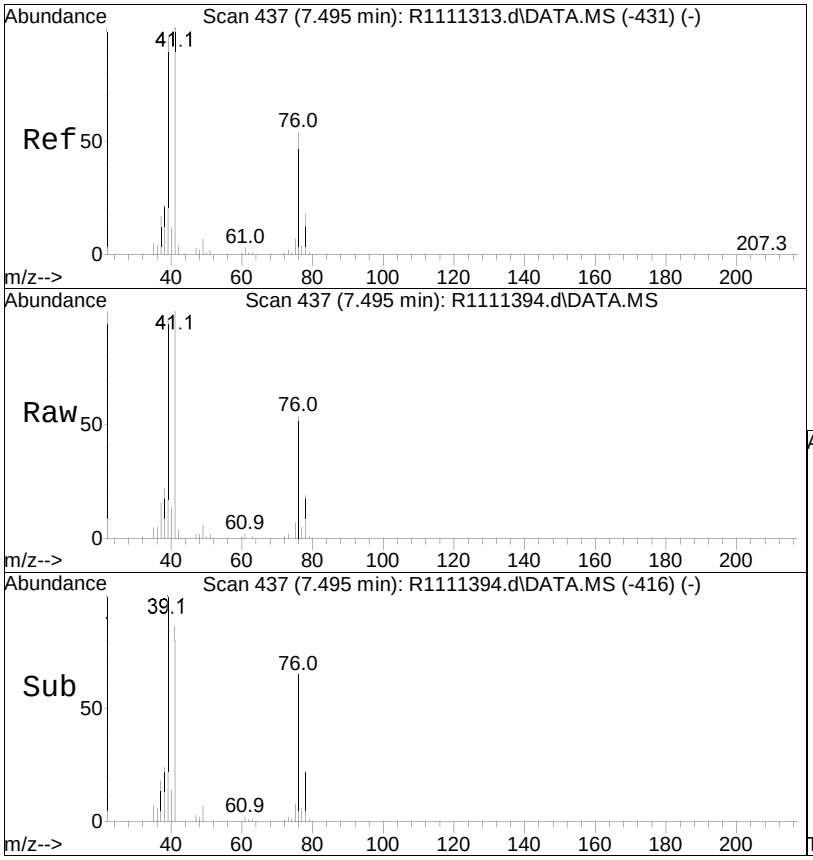


#28
methylene chloride
Concen: 8.62 ppbV
RT: 7.35 min Scan# 422
Delta R.T. 0.009 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 49 Resp: 91263

Ion	Ratio	Lower	Upper
49	100		
84	109.1	89.0	133.4

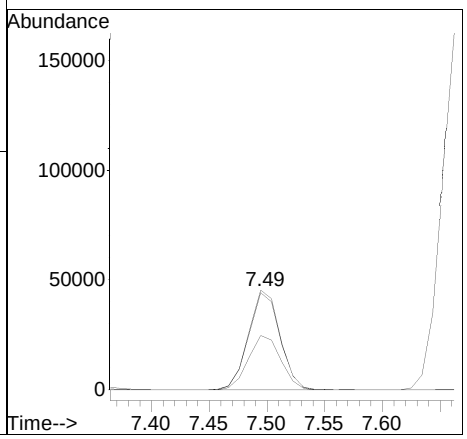


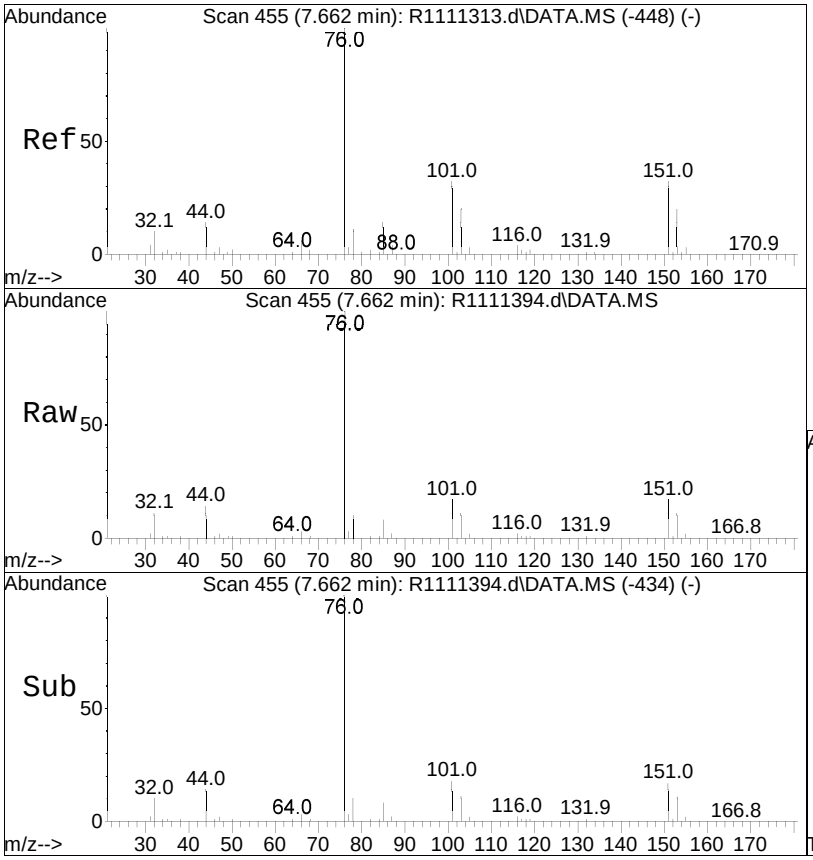


#29
3-chloropropene
Concen: 8.67 ppbV
RT: 7.49 min Scan# 437
Delta R.T. -0.000 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 41 Resp: 86407

Ion	Ratio	Lower	Upper
41	100		
39	97.3	76.5	114.7
76	54.4	43.3	64.9

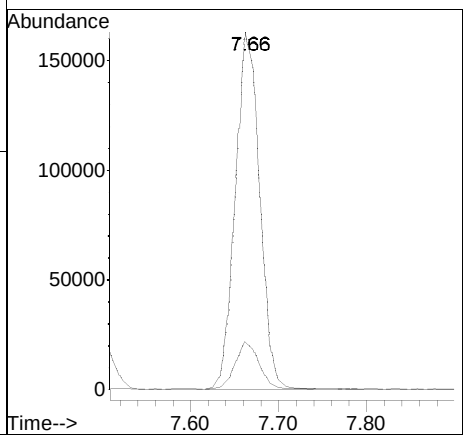


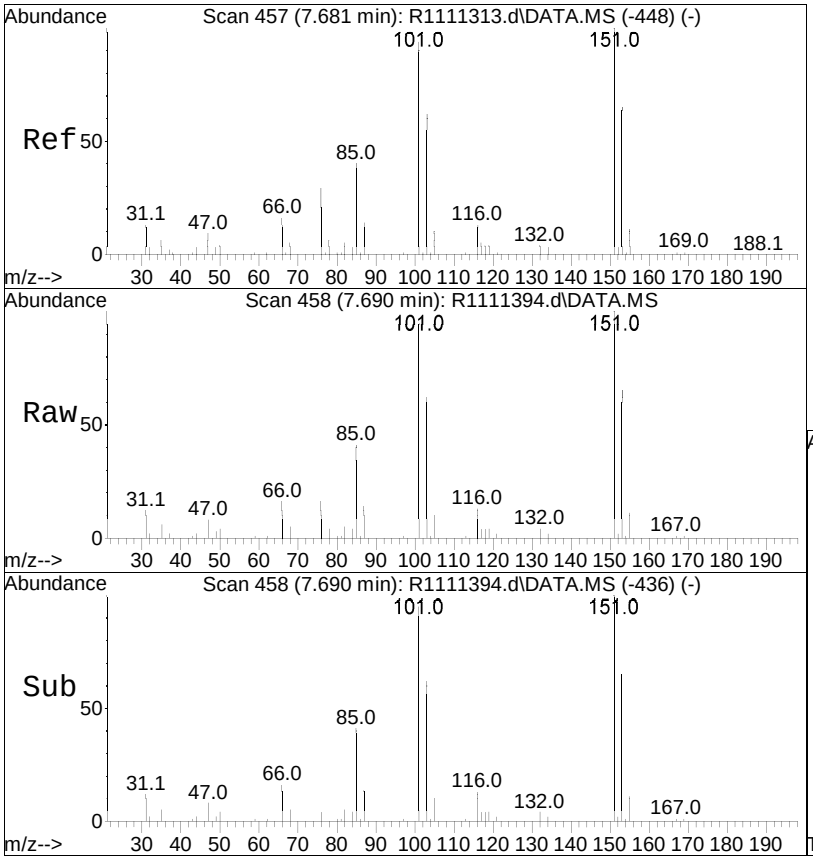


#30
carbon disulfide
Concen: 8.71 ppbV
RT: 7.66 min Scan# 455
Delta R.T. -0.000 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 76 Resp: 309846

Ion	Ratio	Lower	Upper
76	100		
44	13.5	11.0	16.6

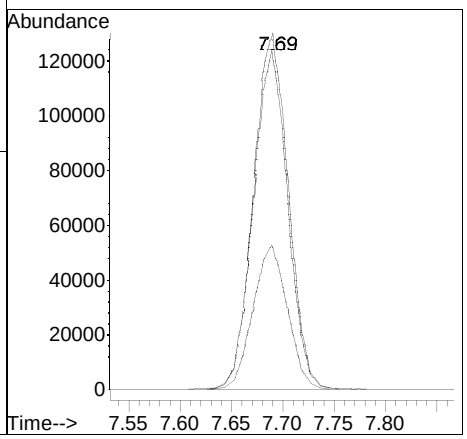


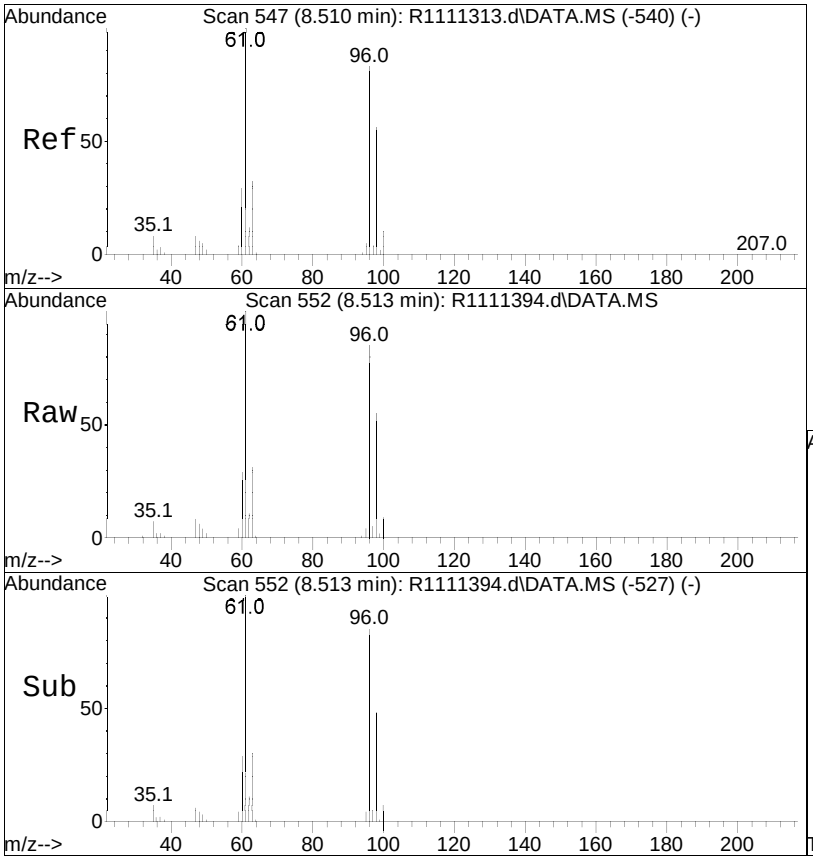


#31
Freon 113
Concen: 8.72 ppbV
RT: 7.69 min Scan# 458
Delta R.T. 0.009 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:101 Resp: 284582

Ion	Ratio	Lower	Upper
101	100		
85	42.8	34.3	51.5
151	105.4	85.1	127.7

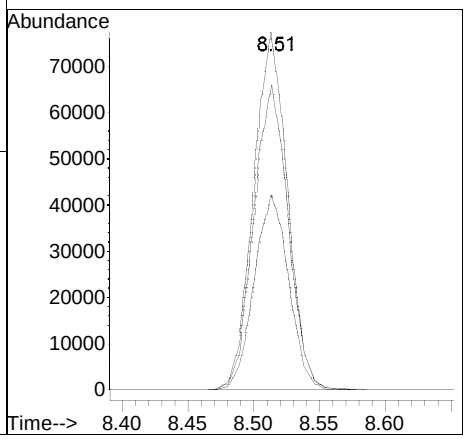


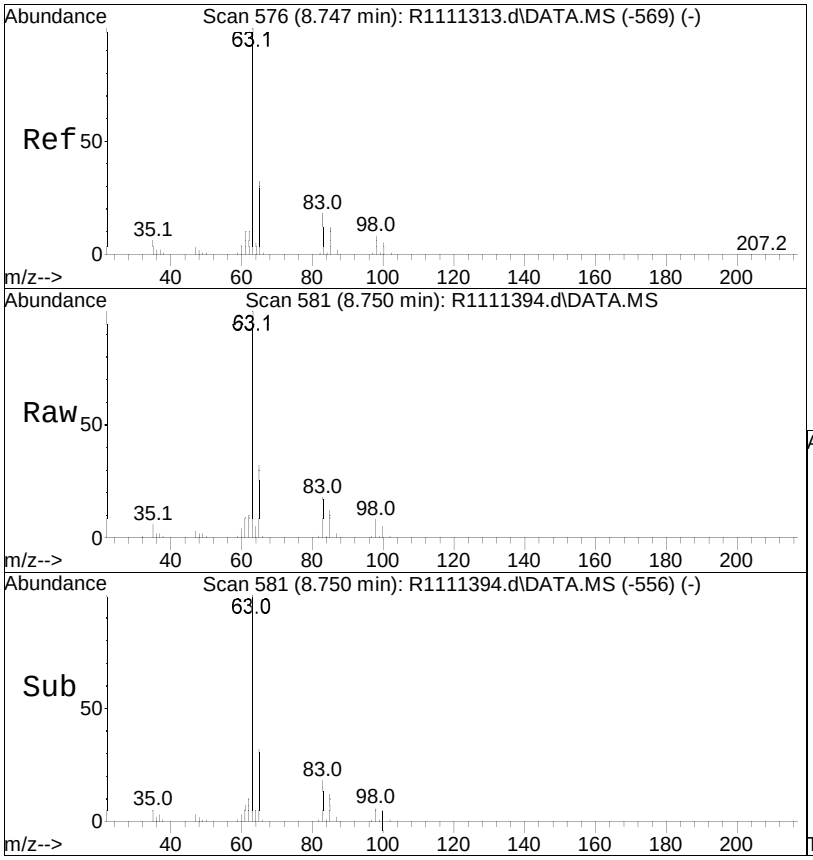


#32
trans-1,2-dichloroethene
Concen: 7.55 ppbV
RT: 8.51 min Scan# 552
Delta R.T. 0.004 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 61 Resp: 137492

Ion	Ratio	Lower	Upper
61	100		
96	85.5	66.6	99.8
98	54.5	45.1	67.7

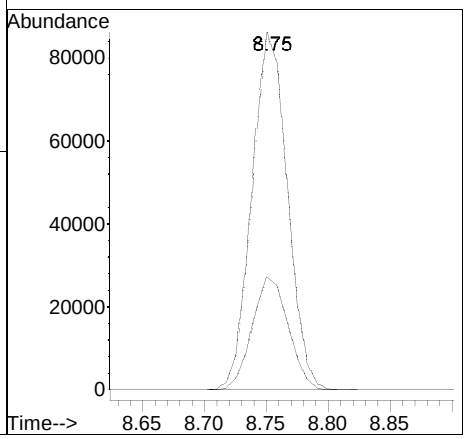


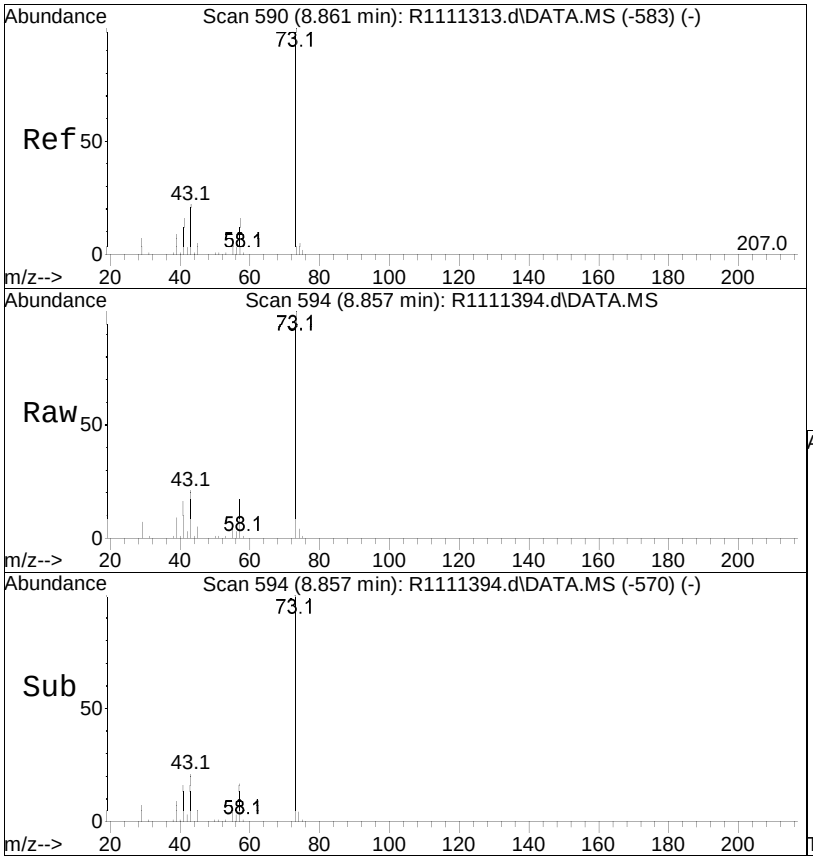


#33
1,1-dichloroethane
Concen: 8.31 ppbV
RT: 8.75 min Scan# 581
Delta R.T. 0.004 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 63 Resp: 169908

Ion	Ratio	Lower	Upper
63	100		
65	31.6	25.6	38.4

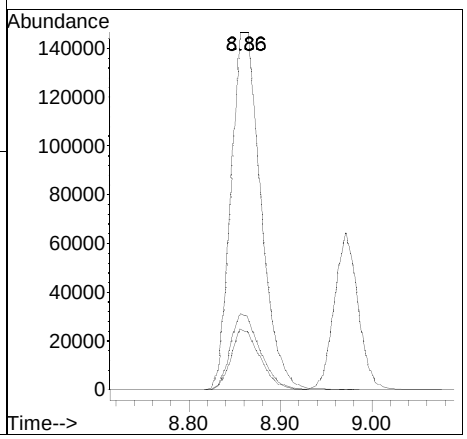


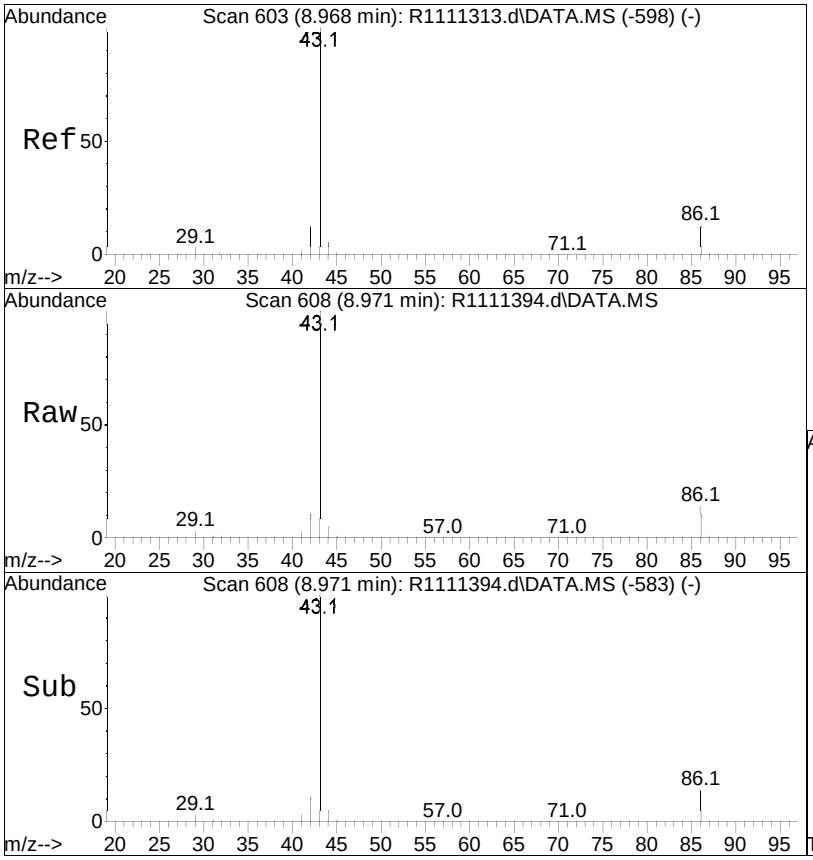


#34
MTBE
Concen: 8.33 ppbV
RT: 8.86 min Scan# 594
Delta R.T. -0.005 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 73 Resp: 331928

Ion	Ratio	Lower	Upper
73	100		
57	17.2	13.2	19.8
43	21.2	17.3	25.9

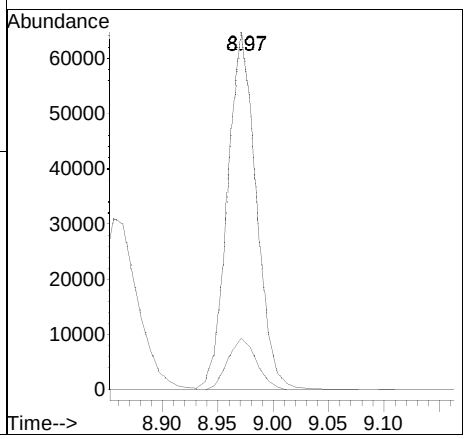


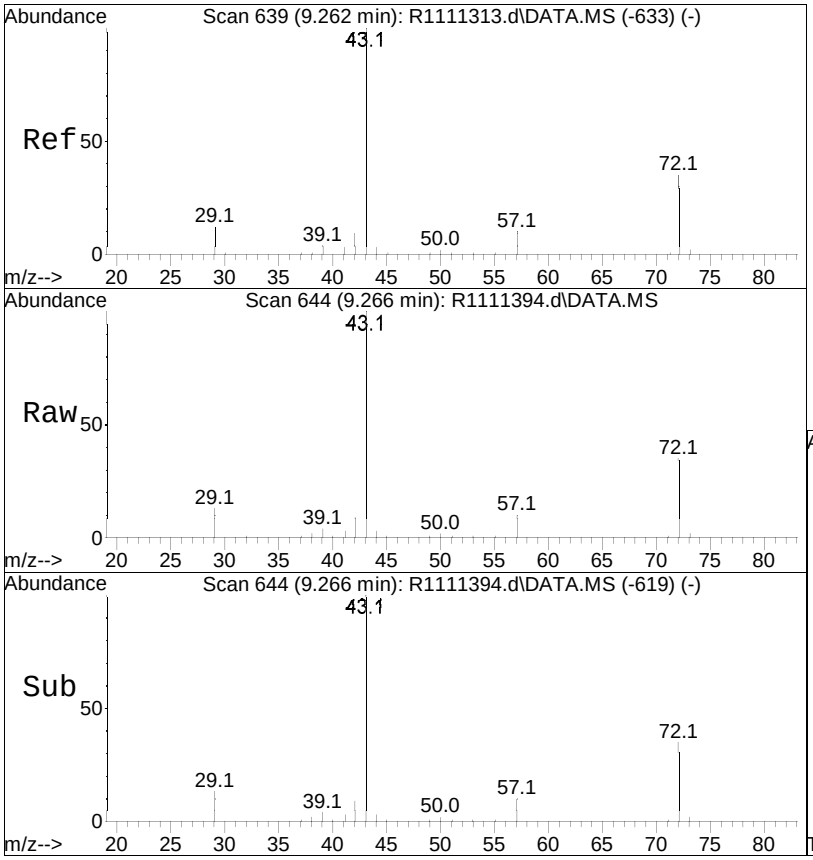


#35
vinyl acetate
Concen: 9.59 ppbV
RT: 8.97 min Scan# 608
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 43 Resp: 116752

Ion	Ratio	Lower	Upper
43	100		
86	14.4	10.3	15.5

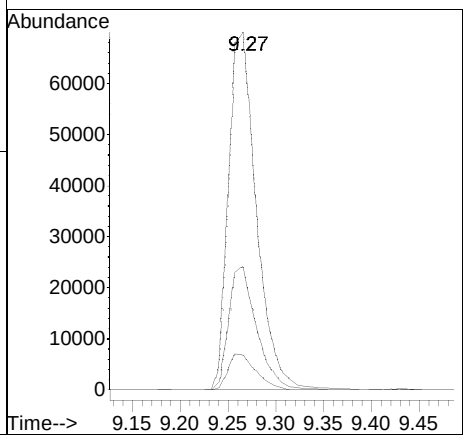


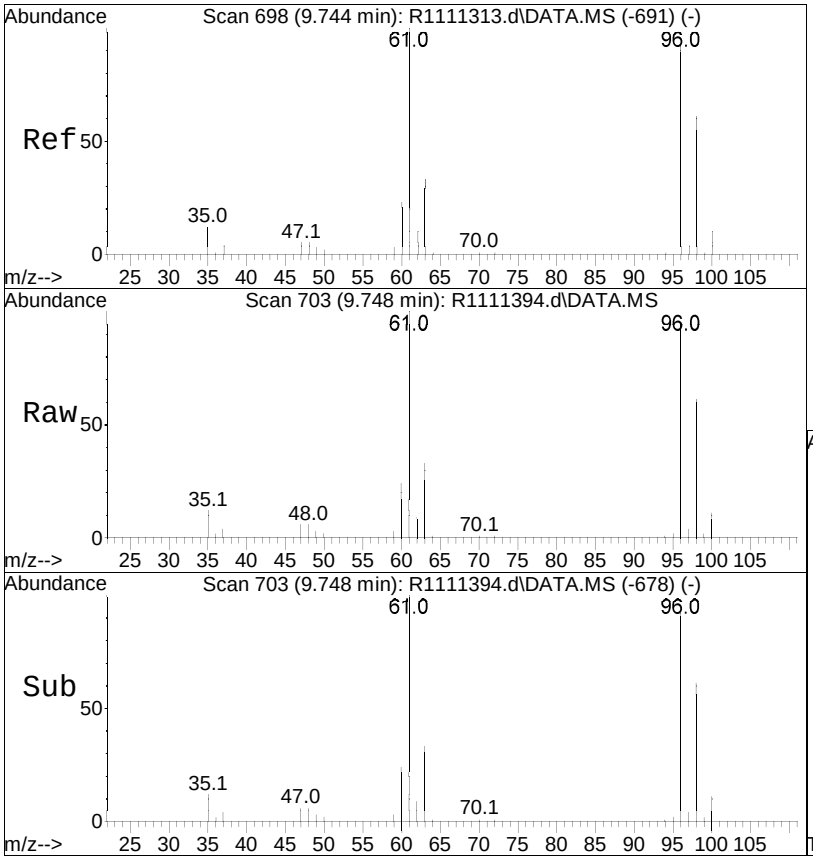


#36
2-butanone
Concen: 8.15 ppbV
RT: 9.27 min Scan# 644
Delta R.T. 0.004 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 43 Resp: 140992

Ion	Ratio	Lower	Upper
43	100		
72	34.6	28.1	42.1
57	10.0	8.3	12.5

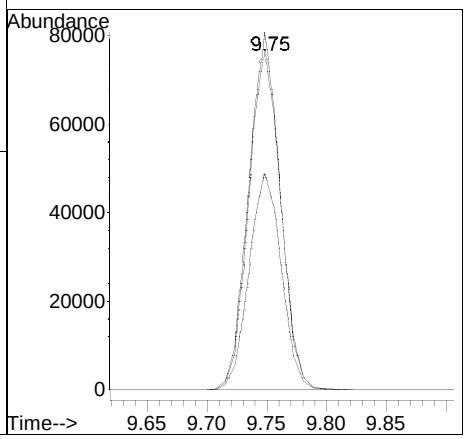


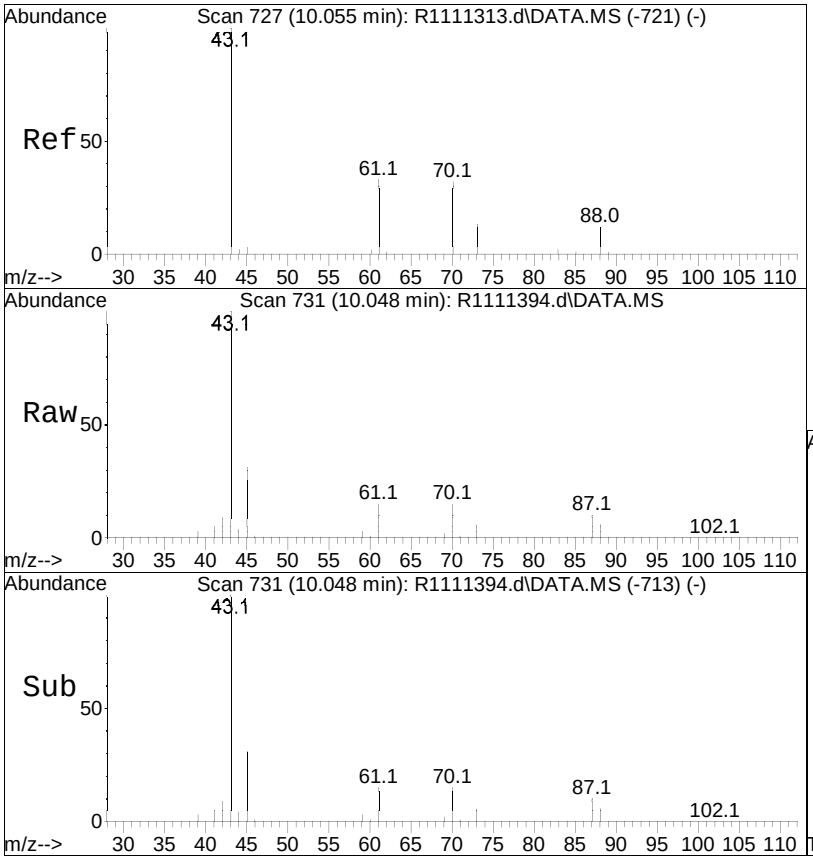


#37
cis-1,2-dichloroethene
Concen: 9.66 ppbV
RT: 9.75 min Scan# 703
Delta R.T. 0.004 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 61 Resp: 172705

Ion	Ratio	Lower	Upper
61	100		
96	95.3	74.3	111.5
98	60.8	49.2	73.8

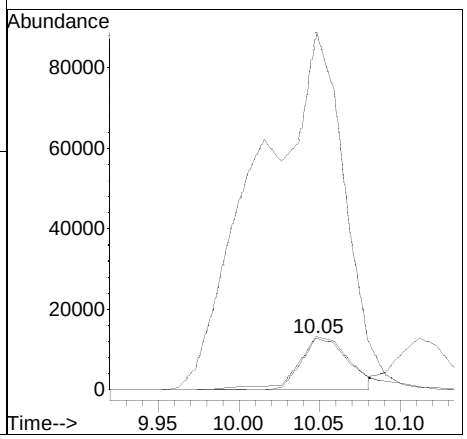


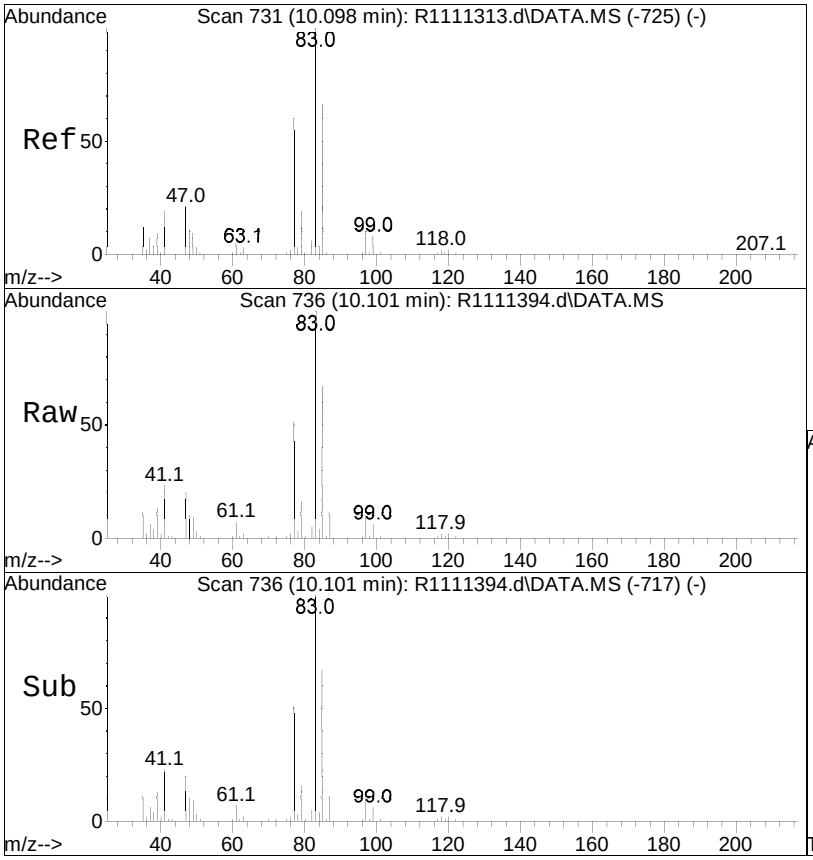


#38
Ethyl Acetate
Concen: 8.49 ppbV
RT: 10.05 min Scan# 731
Delta R.T. -0.007 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 61 Resp: 26387

Ion	Ratio	Lower	Upper
61	100		
70	102.7	86.5	129.7
43	686.6	482.6	724.0

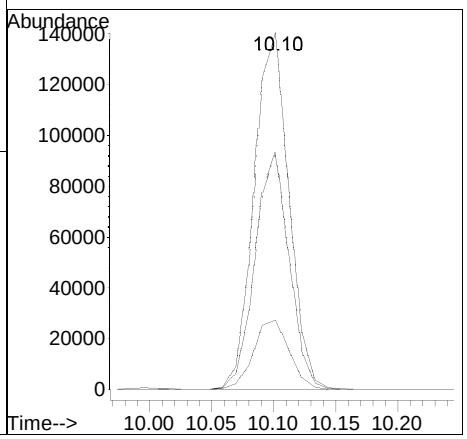


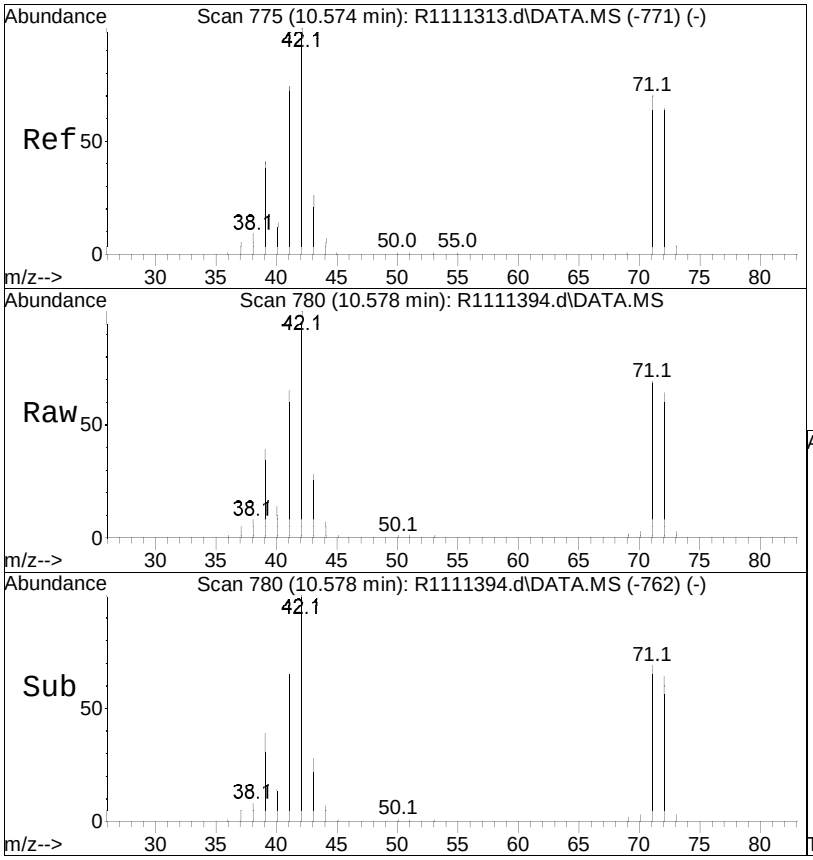


#39
chloroform
Concen: 8.56 ppbV
RT: 10.10 min Scan# 736
Delta R.T. 0.004 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 83 Resp: 273067

Ion	Ratio	Lower	Upper
83	100		
85	66.6	52.4	78.6
47	19.6	16.5	24.7

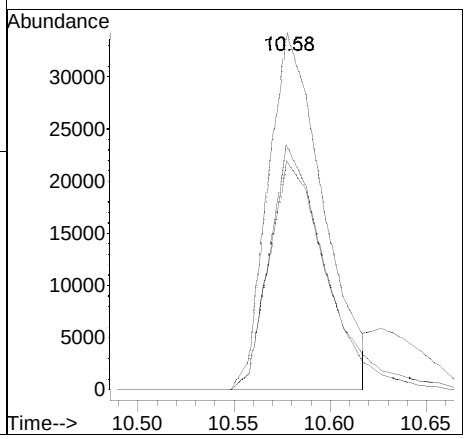


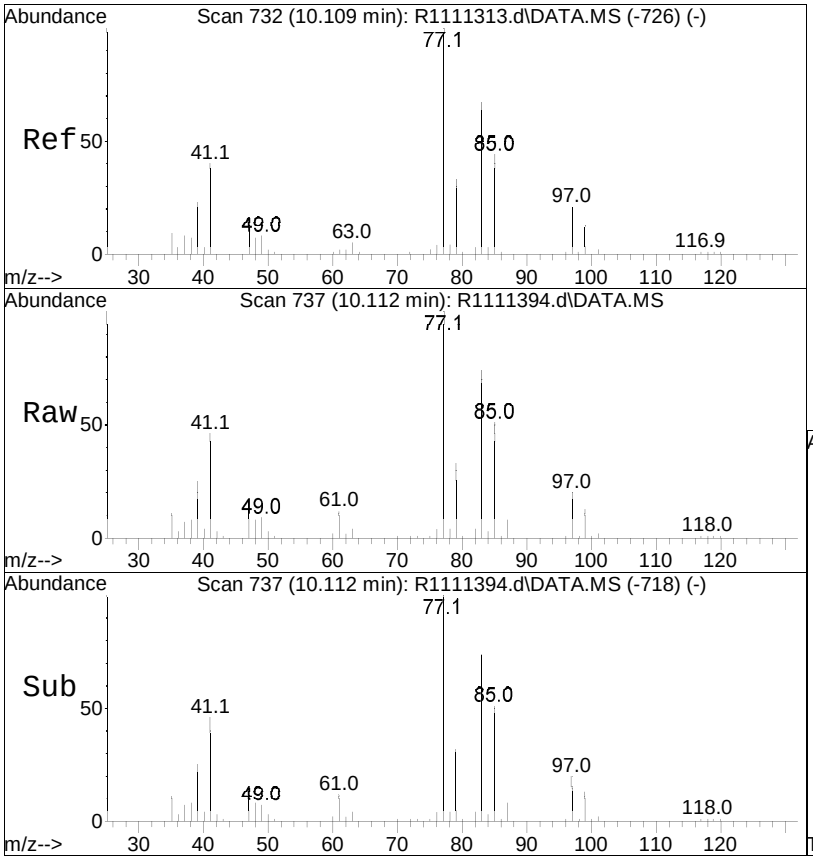


#40
Tetrahydrofuran
Concen: 8.05 ppbV m
RT: 10.58 min Scan# 780
Delta R.T. 0.004 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 42 Resp: 68297

Ion	Ratio	Lower	Upper
42	100		
71	68.6	56.0	84.0
72	64.1	51.8	77.6

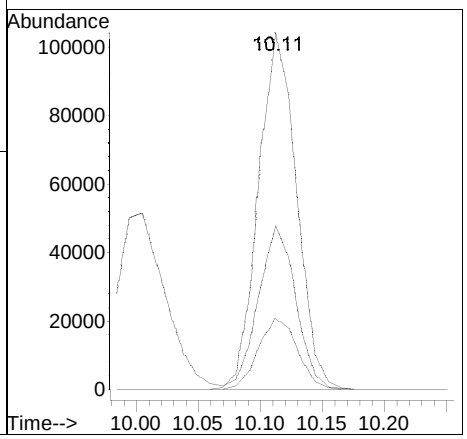


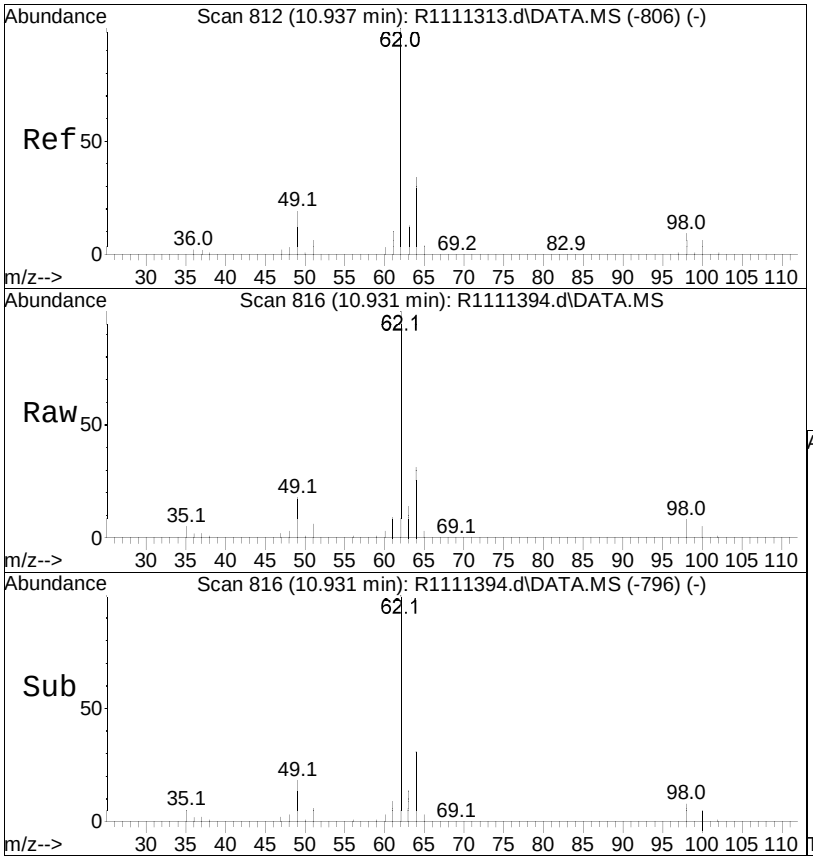


#41
2,2-dichloropropane
Concen: 7.80 ppbV
RT: 10.11 min Scan# 737
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 77 Resp: 221373

Ion	Ratio	Lower	Upper
77	100		
41	46.0	35.9	53.9
97	20.1	16.6	25.0

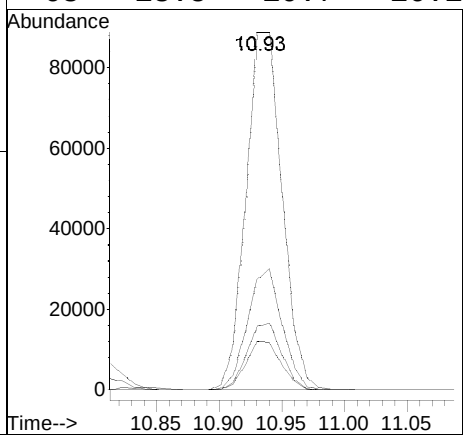


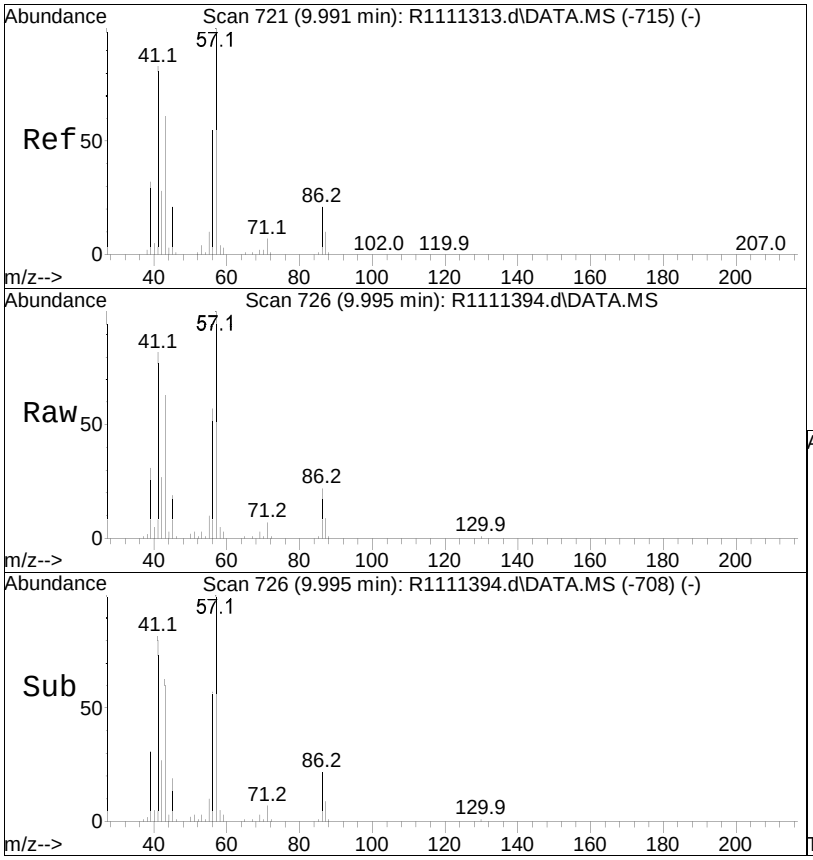


#42
1,2-dichloroethane
Concen: 8.15 ppbV
RT: 10.93 min Scan# 816
Delta R.T. -0.006 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 62 Resp: 176257

Ion	Ratio	Lower	Upper
62	100		
64	30.9	27.3	40.9
49	17.8	14.8	22.2
63	13.5	10.7	16.1

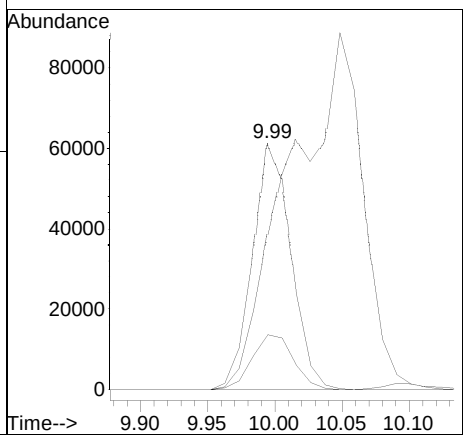


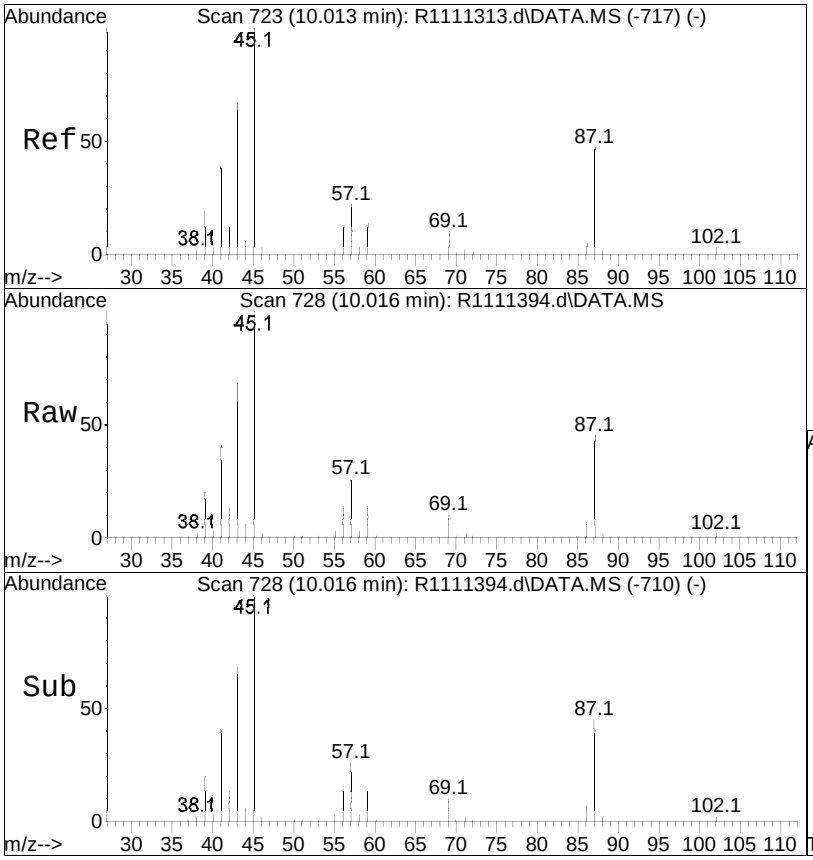


#44
hexane
Concen: 8.37 ppbV
RT: 9.99 min Scan# 726
Delta R.T. 0.004 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 57 Resp: 122046

Ion	Ratio	Lower	Upper
57	100		
43	63.3	48.6	73.0
86	22.2	17.2	25.8

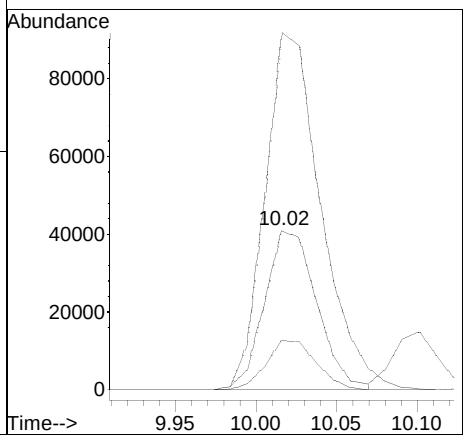


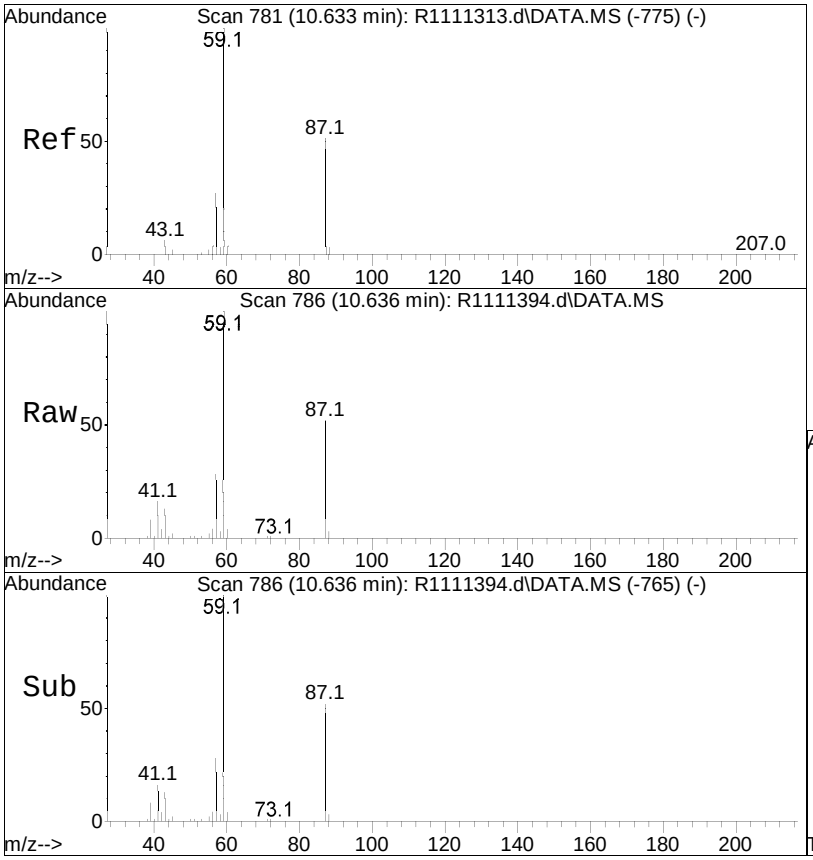


#45
diisopropyl ether
Concen: 7.98 ppbV
RT: 10.02 min Scan# 728
Delta R.T. 0.004 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 87 Resp: 91961

Ion	Ratio	Lower	Upper
87	100		
59	31.1	23.6	35.4
45	223.8	171.4	257.2

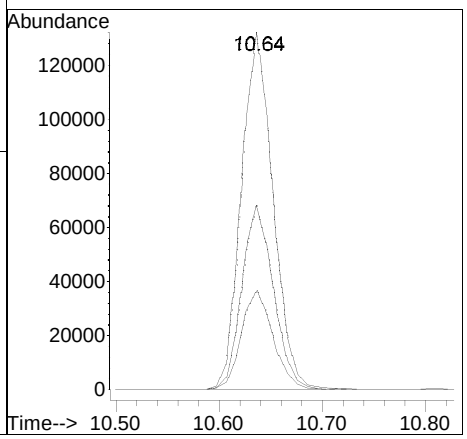


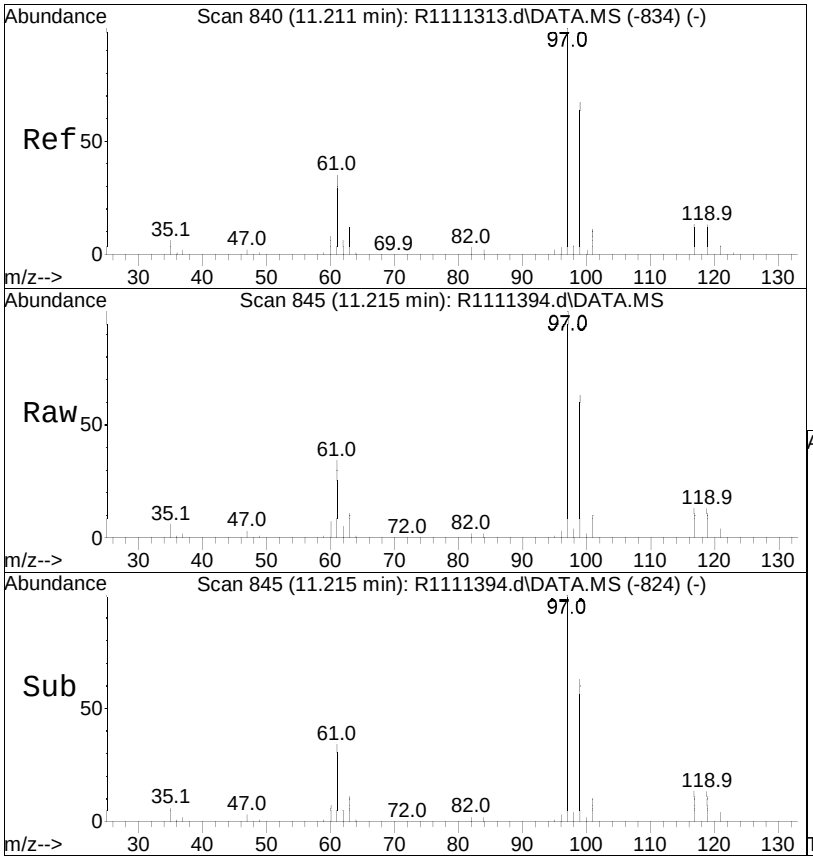


#46
tert-butyl ethyl ether
Concen: 7.74 ppbV
RT: 10.64 min Scan# 786
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 59 Resp: 279281

Ion	Ratio	Lower	Upper
59	100		
87	51.7	41.0	61.4
57	27.9	21.4	32.0

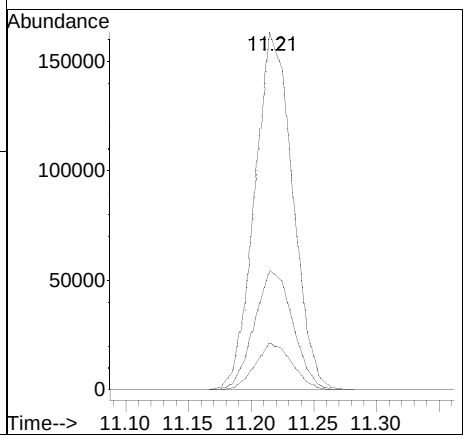


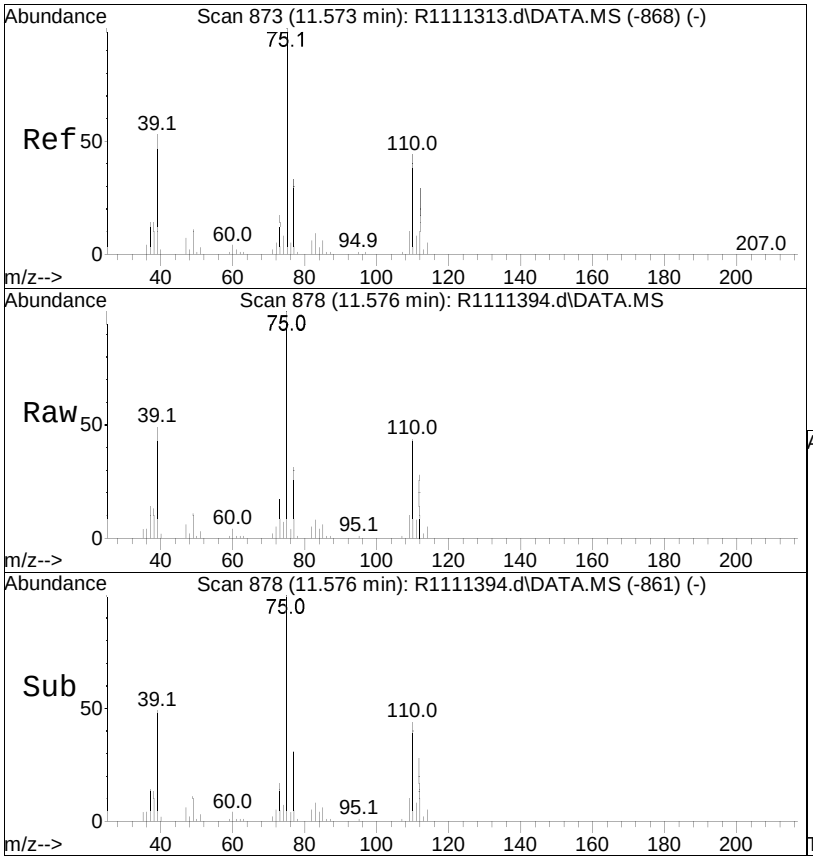


#48
1,1,1-trichloroethane
Concen: 8.77 ppbV
RT: 11.21 min Scan# 845
Delta R.T. 0.004 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 97 Resp: 339606

Ion	Ratio	Lower	Upper
97	100		
61	33.6	27.7	41.5
119	13.1	10.2	15.2

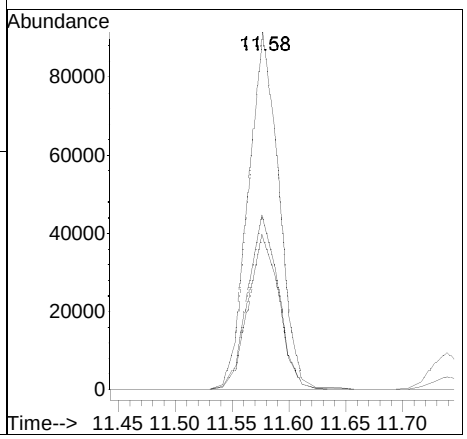


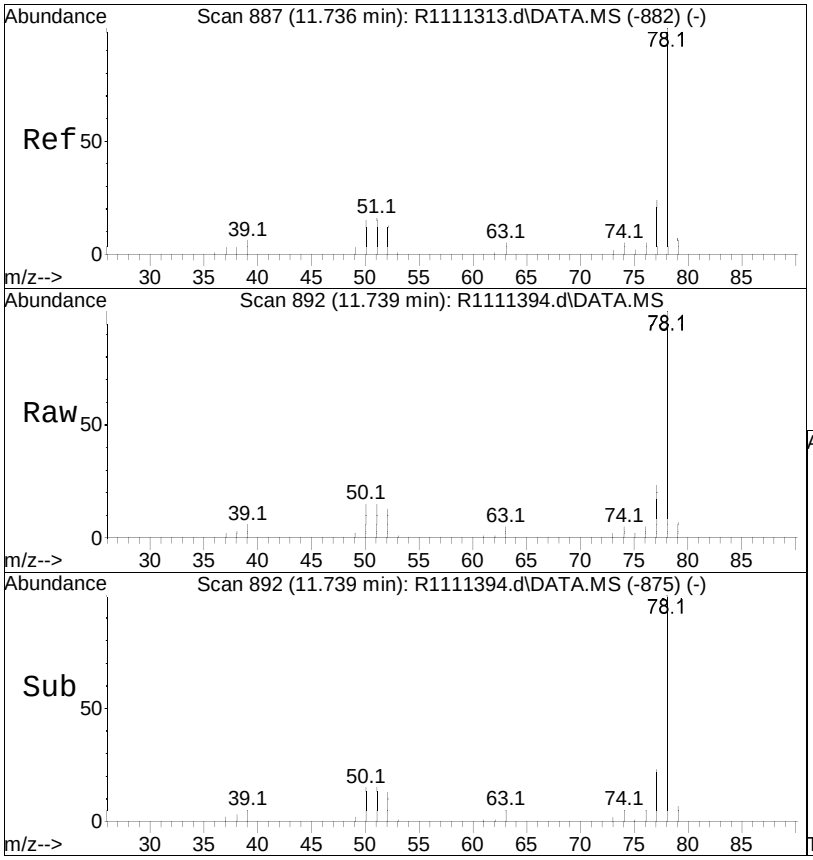


#49
1,1-dichloropropene
Concen: 8.47 ppbV
RT: 11.58 min Scan# 878
Delta R.T. 0.004 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 75 Resp: 170819

Ion	Ratio	Lower	Upper
75	100		
110	43.5	35.2	52.8
39	49.0	42.2	63.2

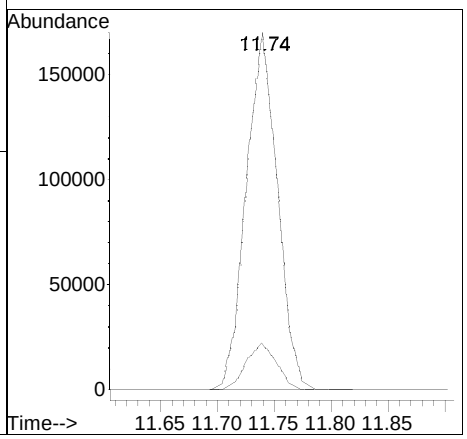


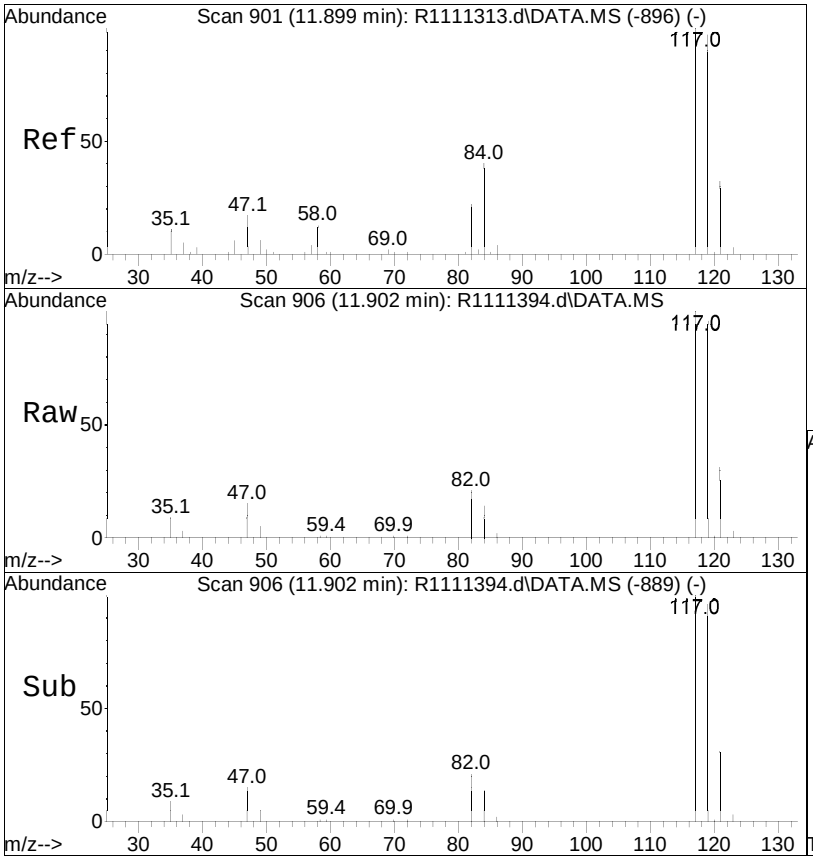


#50
benzene
Concen: 8.38 ppbV
RT: 11.74 min Scan# 892
Delta R.T. 0.004 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 78 Resp: 322205

Ion	Ratio	Lower	Upper
78	100		
52	13.1	10.6	16.0

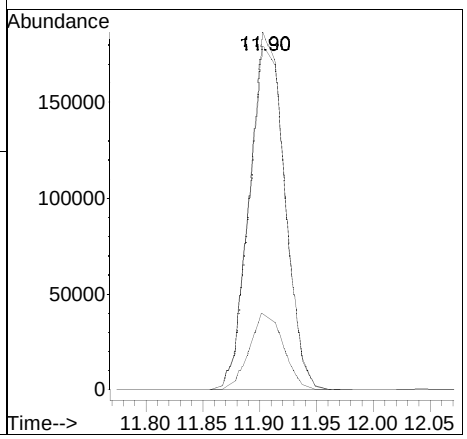


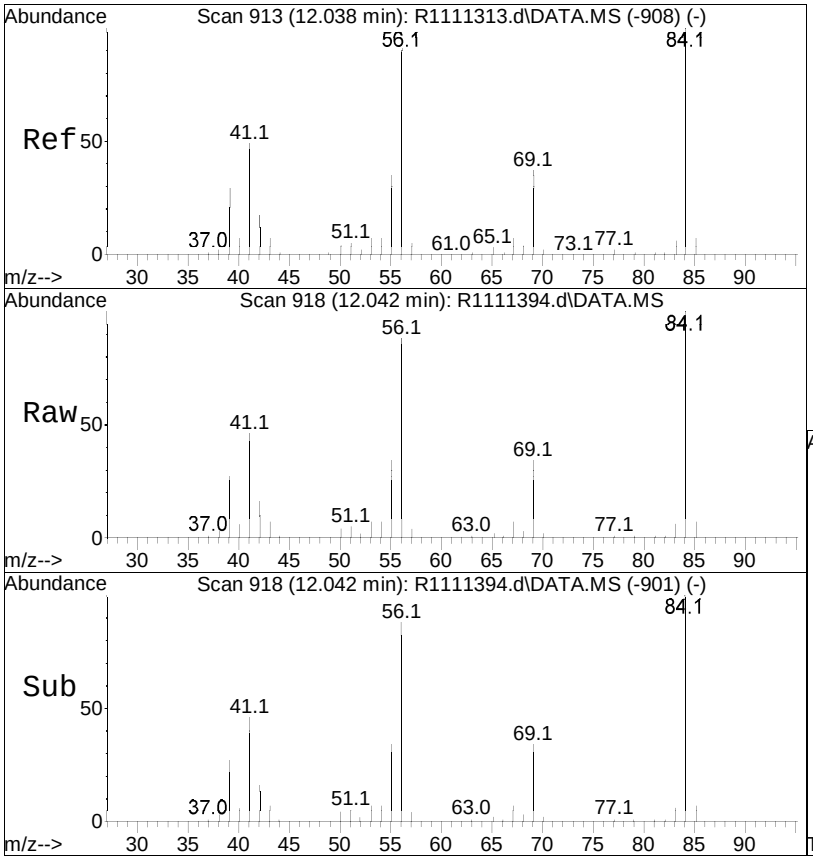


#52
carbon tetrachloride
Concen: 8.88 ppbV
RT: 11.90 min Scan# 906
Delta R.T. 0.004 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:117 Resp: 397628

Ion	Ratio	Lower	Upper
117	100		
119	96.4	77.8	116.8
82	21.4	17.8	26.6

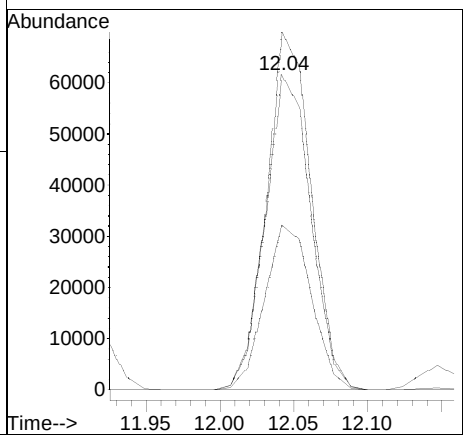


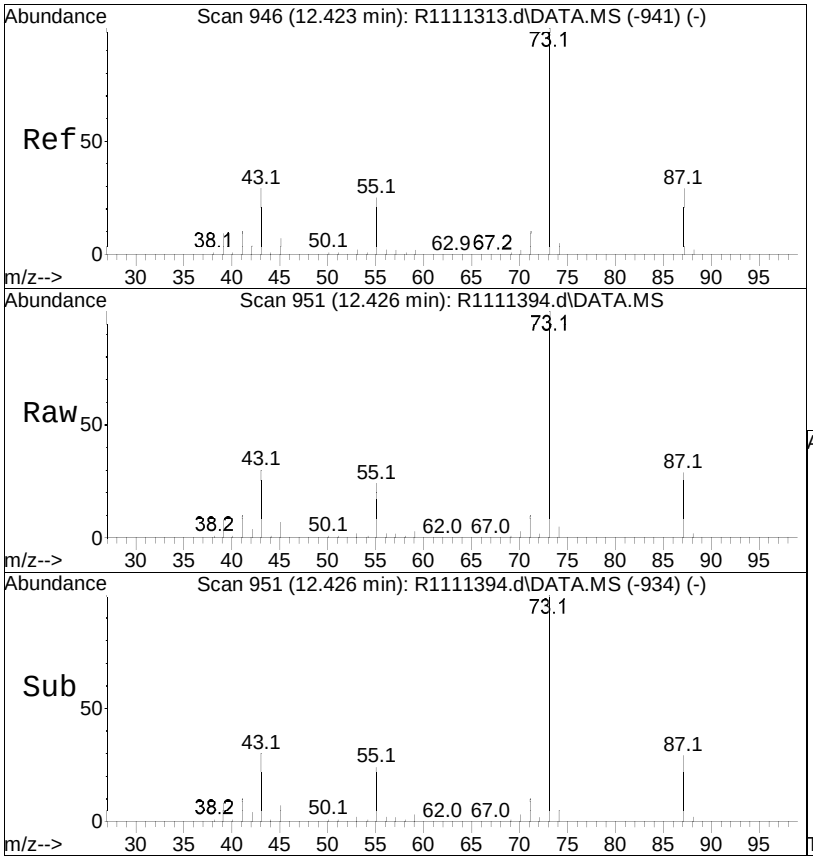


#53
cyclohexane
Concen: 8.52 ppbV
RT: 12.04 min Scan# 918
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 56 Resp: 130735

Ion	Ratio	Lower	Upper
56	100		
84	113.3	88.4	132.6
41	52.2	43.4	65.0

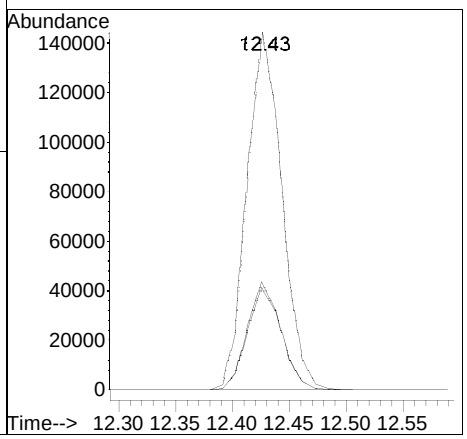


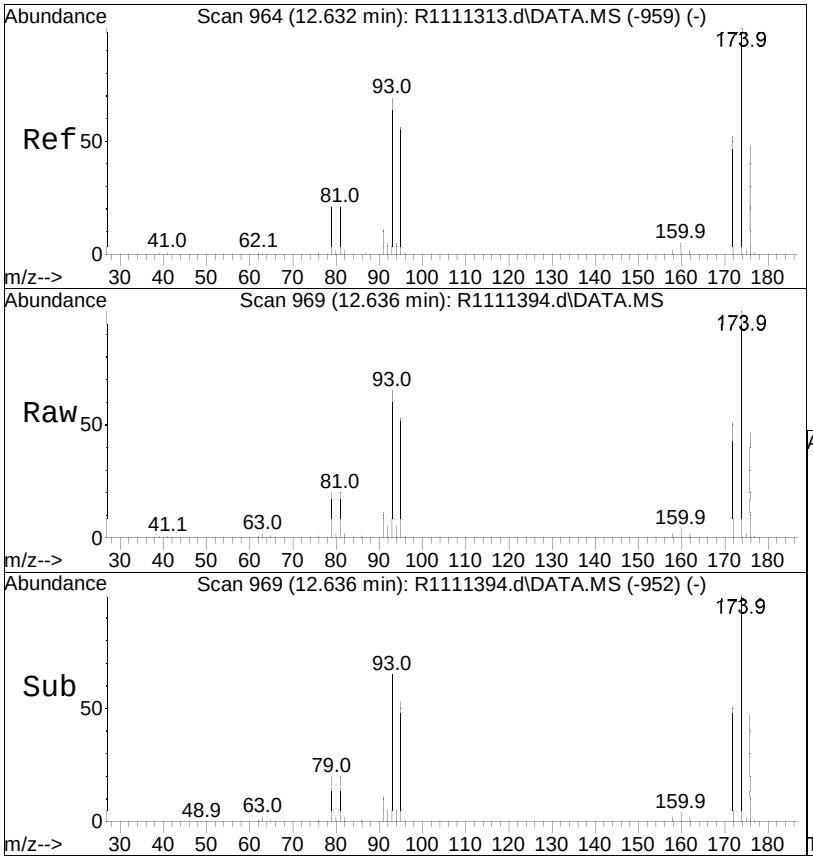


#54
tert-amyl methyl ether
Concen: 7.83 ppbV
RT: 12.43 min Scan# 951
Delta R.T. 0.004 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 73 Resp: 305454

Ion	Ratio	Lower	Upper
73	100		
43	30.2	23.5	35.3
87	28.5	23.4	35.0

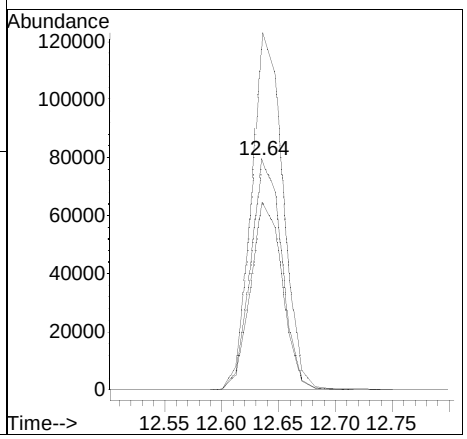


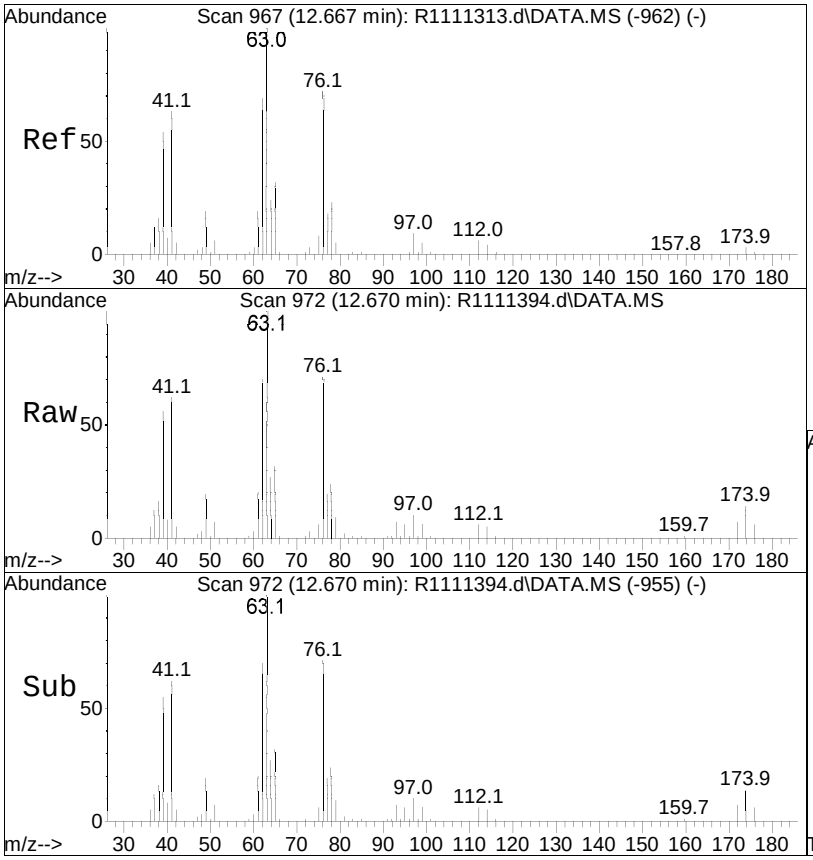


#55
dibromomethane
Concen: 8.13 ppbV
RT: 12.64 min Scan# 969
Delta R.T. 0.004 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 93 Resp: 150908

Ion	Ratio	Lower	Upper
93	100		
174	154.9	116.2	174.2
95	81.5	64.8	97.2

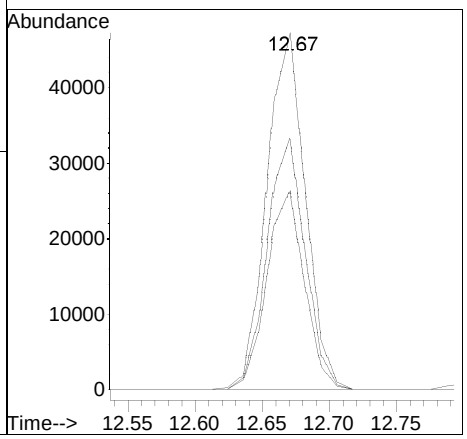


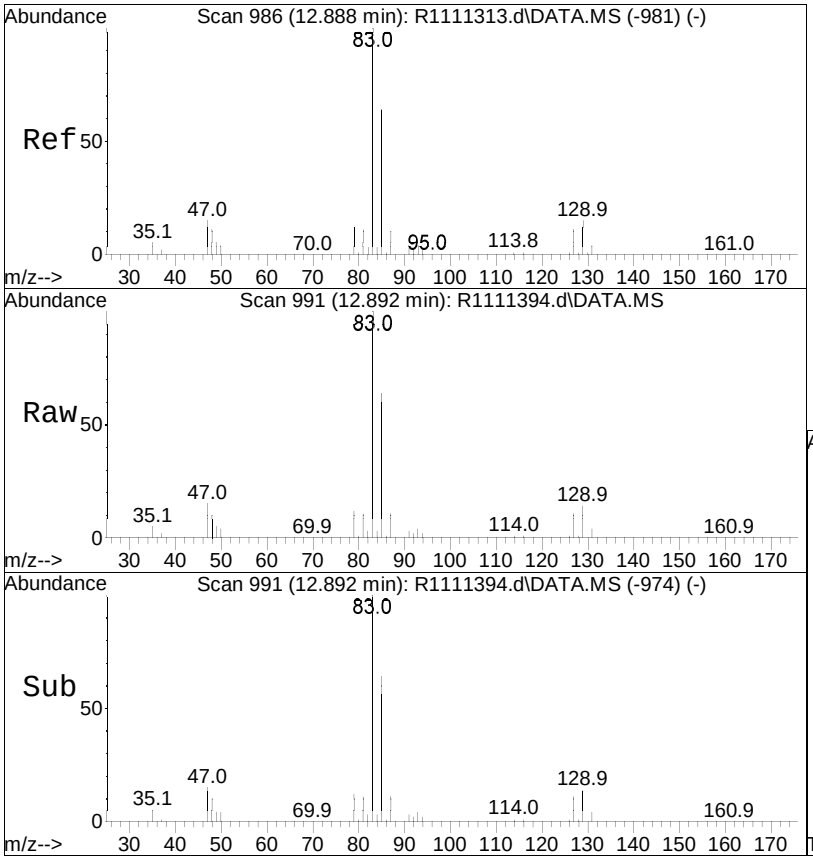


#56
1,2-dichloropropane
Concen: 8.60 ppbV
RT: 12.67 min Scan# 972
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 63 Resp: 94197

Ion	Ratio	Lower	Upper
63	100		
62	70.5	55.0	82.4
39	55.8	43.2	64.8

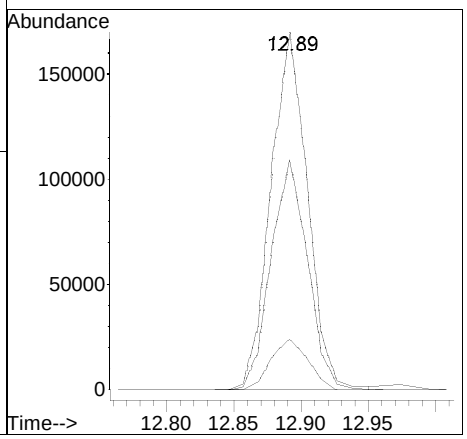


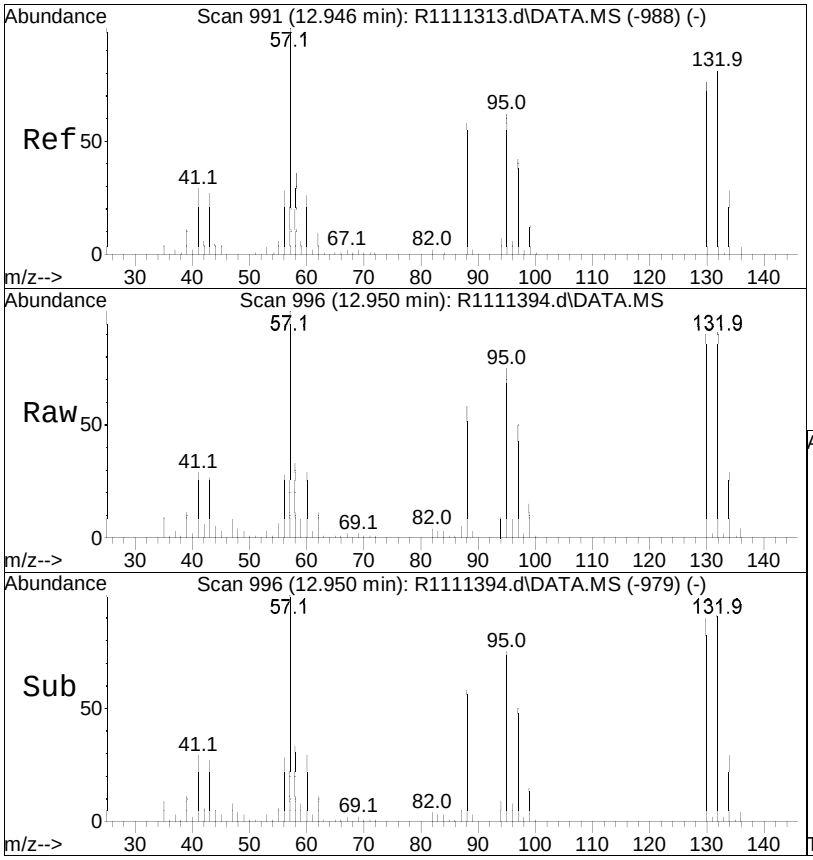


#57
bromodichloromethane
Concen: 8.80 ppbV
RT: 12.89 min Scan# 991
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 83 Resp: 319010

Ion	Ratio	Lower	Upper
83	100		
85	64.4	51.1	76.7
129	14.3	12.1	18.1

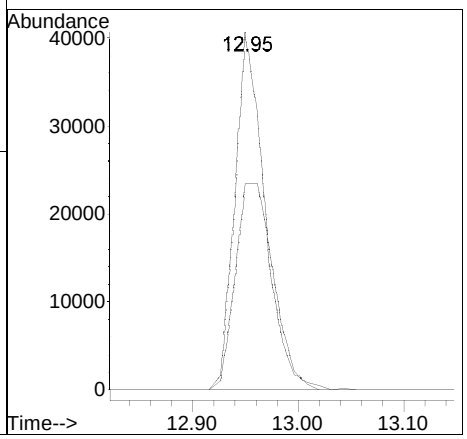


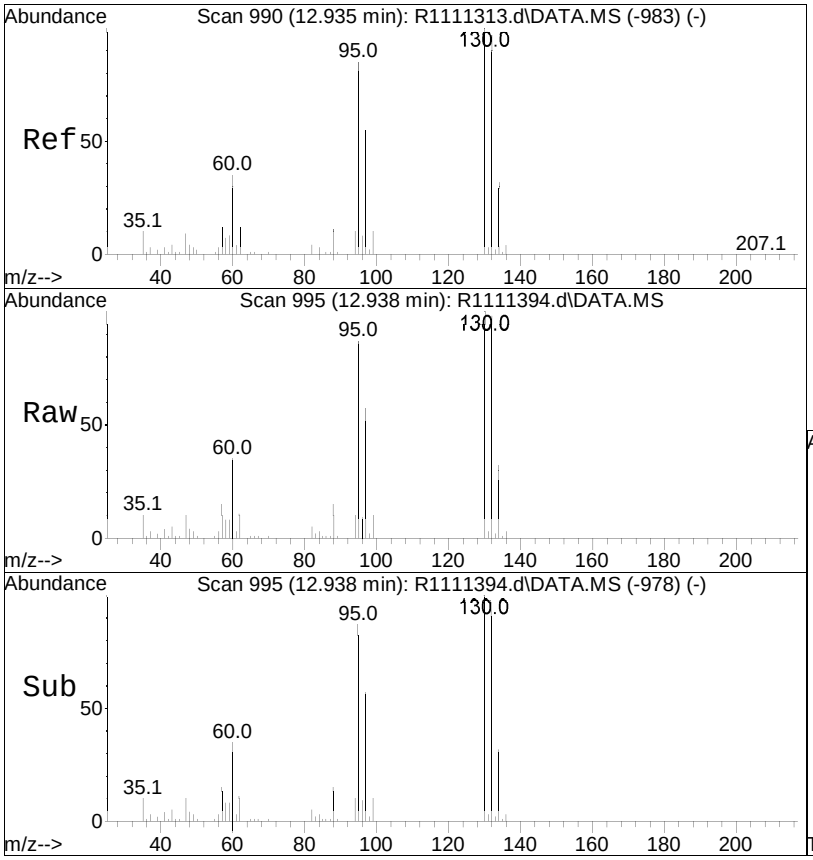


#58
1,4-dioxane
Concen: 8.44 ppbV
RT: 12.95 min Scan# 996
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 88 Resp: 79306

Ion	Ratio	Lower	Upper
88	100		
58	57.7	49.6	74.4

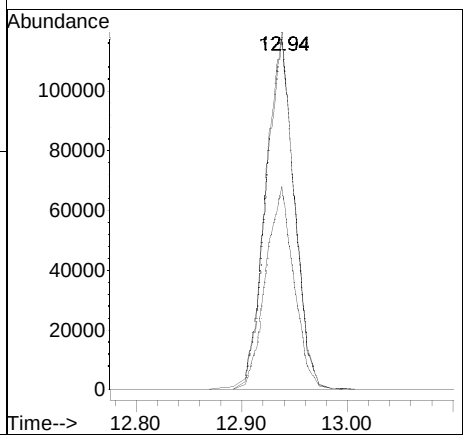


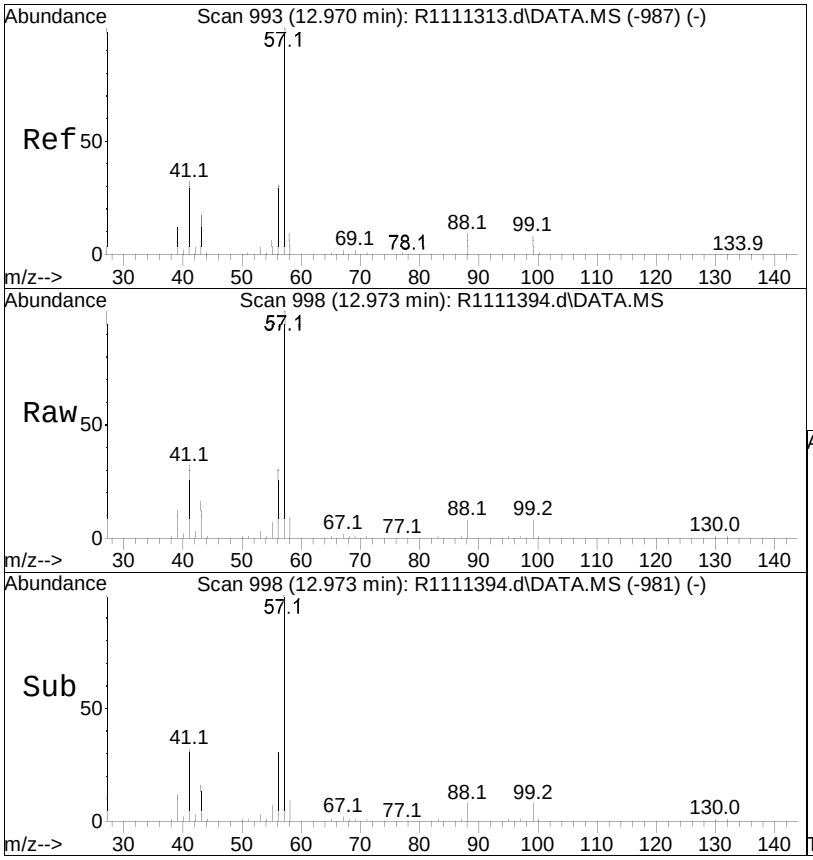


#59
trichloroethene
Concen: 8.84 ppbV
RT: 12.94 min Scan# 995
Delta R.T. 0.004 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:130 Resp: 221104

Ion	Ratio	Lower	Upper
130	100		
132	98.1	77.6	116.4
97	57.0	44.0	66.0

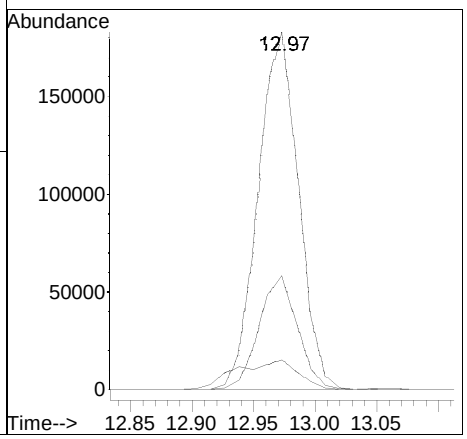


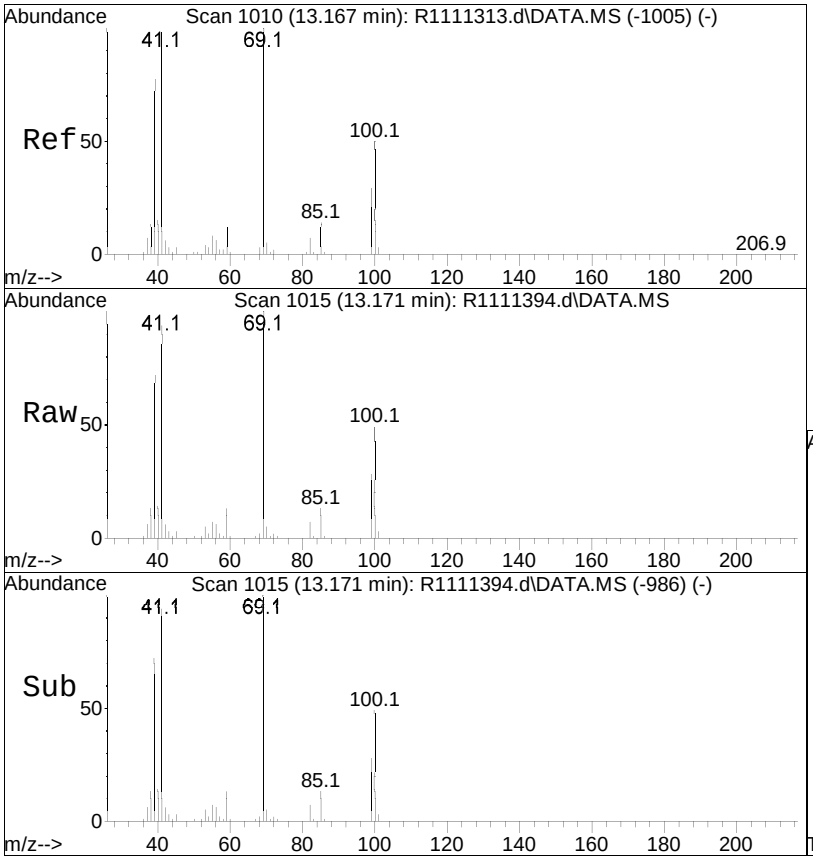


#60
2,2,4-trimethylpentane
Concen: 8.45 ppbV
RT: 12.97 min Scan# 998
Delta R.T. 0.004 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 57 Resp: 411417

Ion	Ratio	Lower	Upper
57	100		
99	8.4	6.4	9.6
41	31.8	25.3	37.9

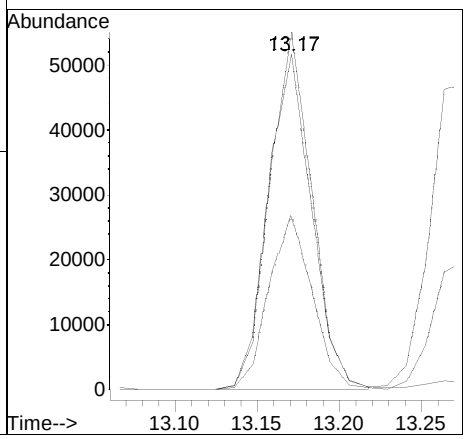


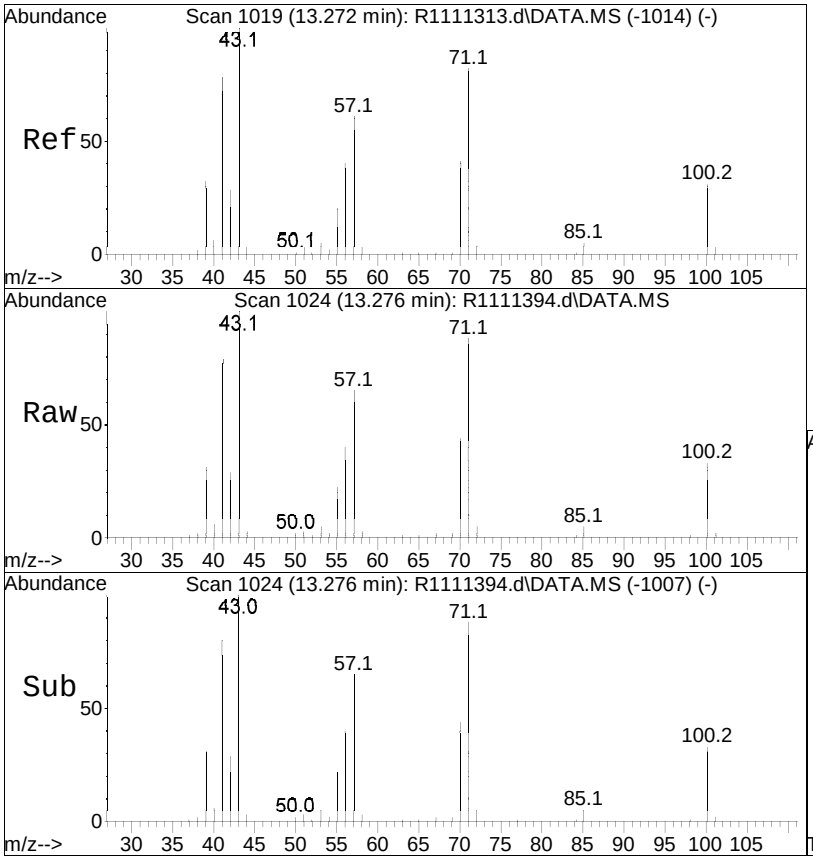


#61
methyl methacrylate
Concen: 8.66 ppbV
RT: 13.17 min Scan# 1015
Delta R.T. 0.004 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 41 Resp: 95001

Ion	Ratio	Lower	Upper
41	100		
69	103.5	82.9	124.3
100	52.0	42.0	63.0

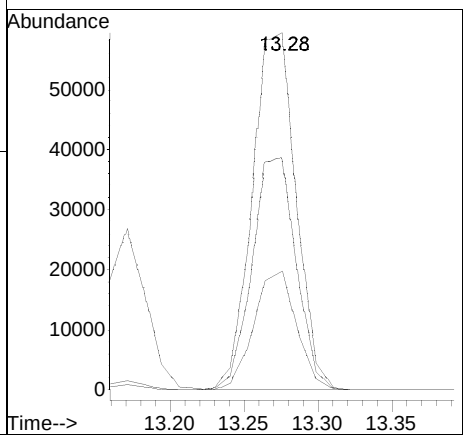


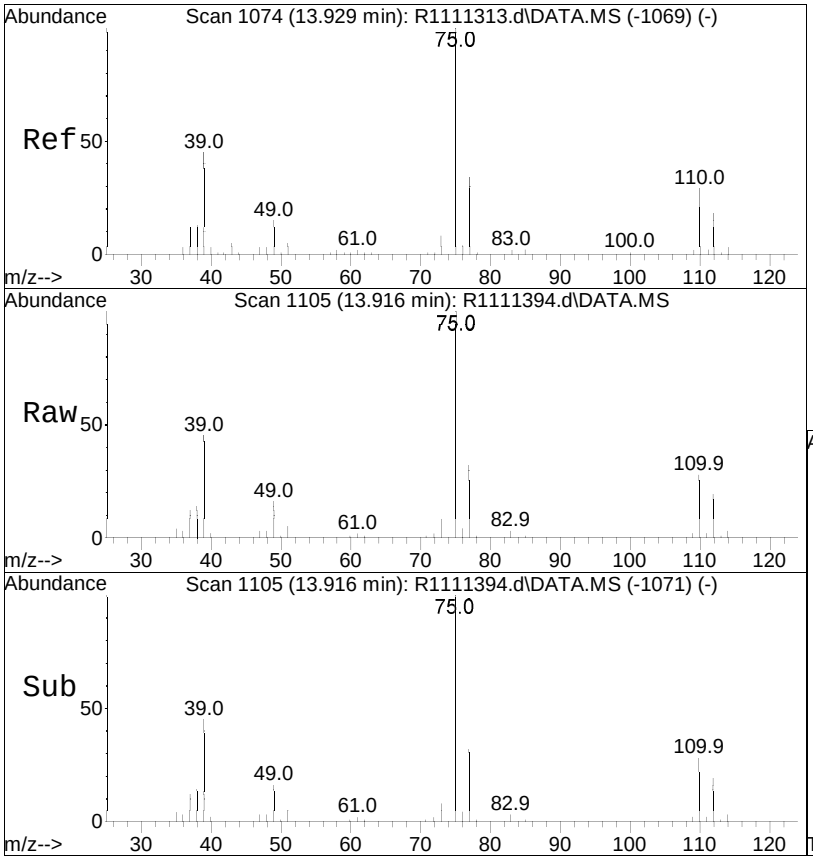


#62
heptane
Concen: 8.37 ppbV
RT: 13.28 min Scan# 1024
Delta R.T. 0.004 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 43 Resp: 122163

Ion	Ratio	Lower	Upper
43	100		
57	65.1	49.0	73.4
100	33.2	24.6	36.8

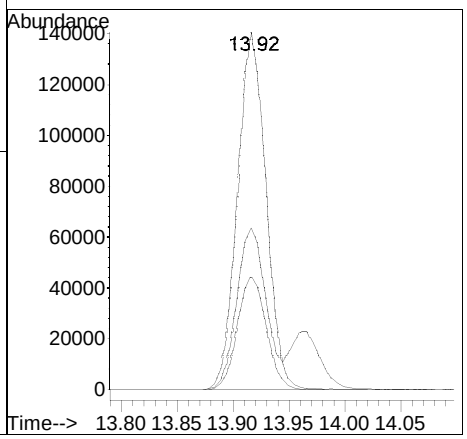


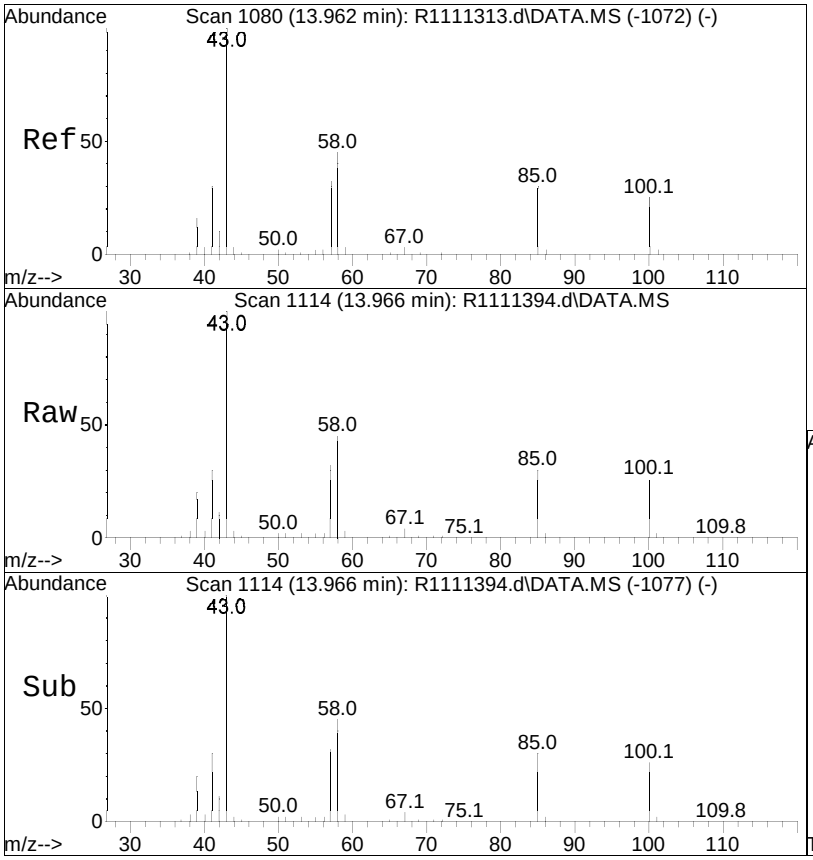


#63
cis-1,3-dichloropropene
Concen: 19.61 ppbV
RT: 13.92 min Scan# 1105
Delta R.T. -0.013 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 75 Resp: 247785

Ion	Ratio	Lower	Upper
75	100		
39	45.3	36.1	54.1
77	31.7	27.0	40.4

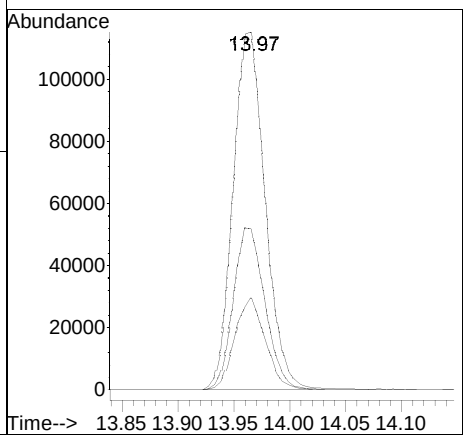


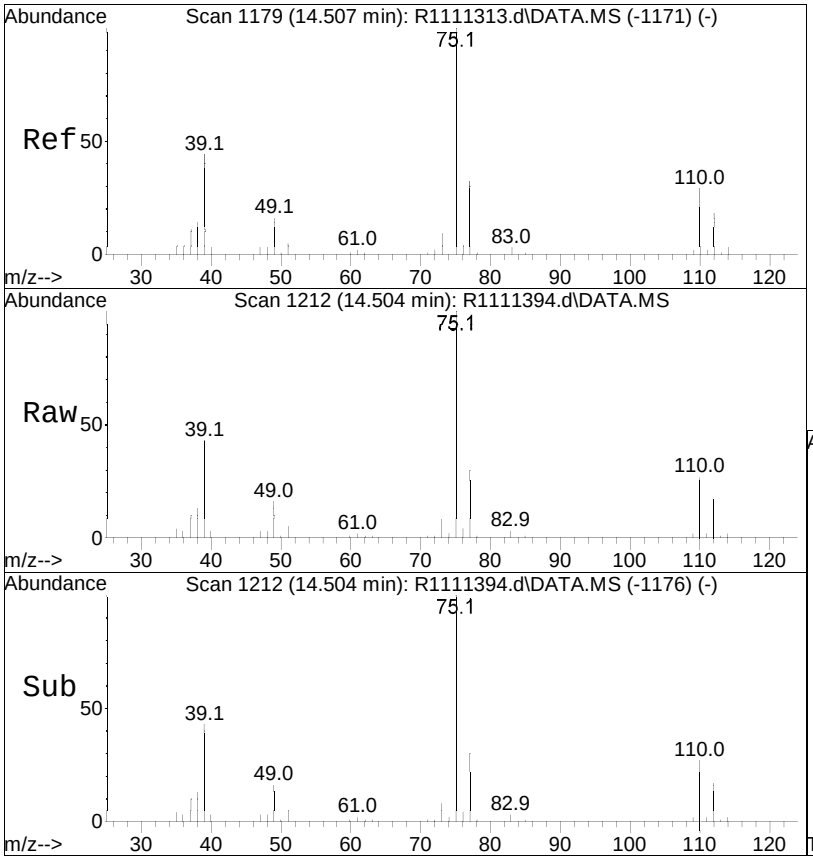


#64
4-methyl-2-pentanone
Concen: 7.47 ppbV
RT: 13.97 min Scan# 1114
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 43 Resp: 228070

Ion	Ratio	Lower	Upper
43	100		
58	44.8	35.8	53.6
100	25.8	19.8	29.6

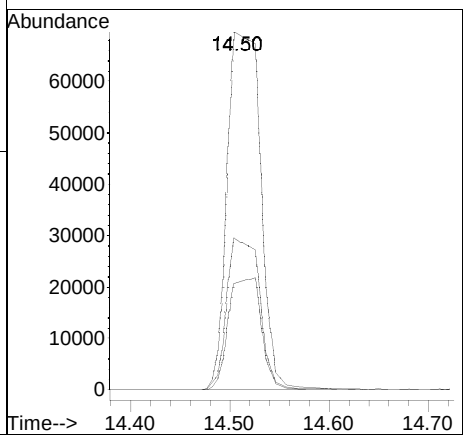


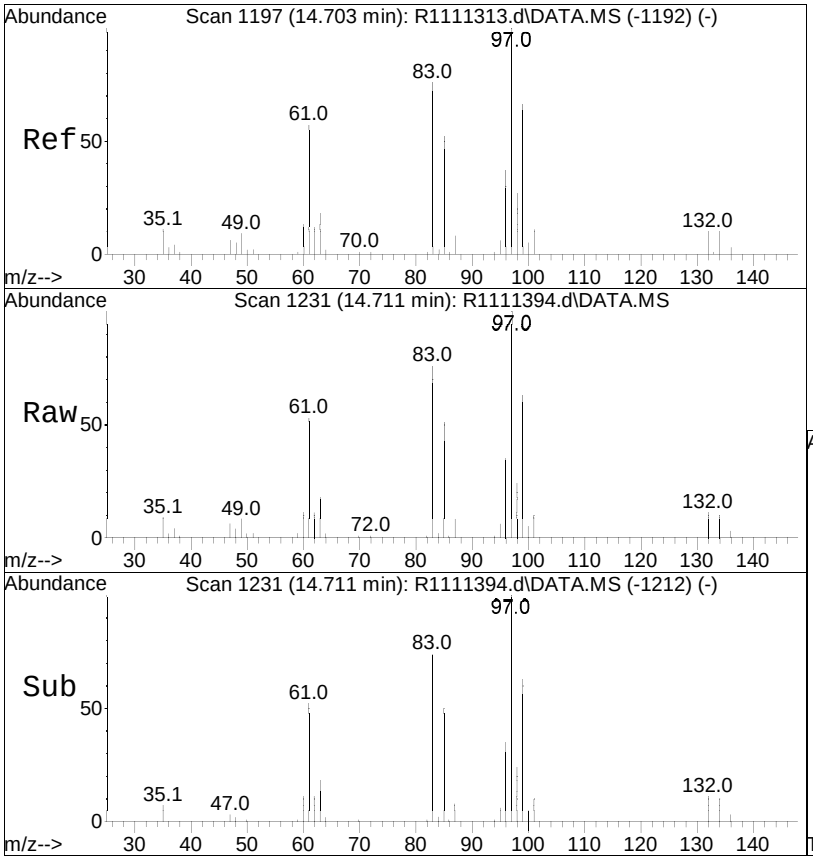


#65
trans-1,3-dichloropropene
Concen: 7.74 ppbV
RT: 14.50 min Scan# 1212
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 75 Resp: 132030

Ion	Ratio	Lower	Upper
75	100		
77	29.8	25.8	38.8
39	42.5	35.0	52.6

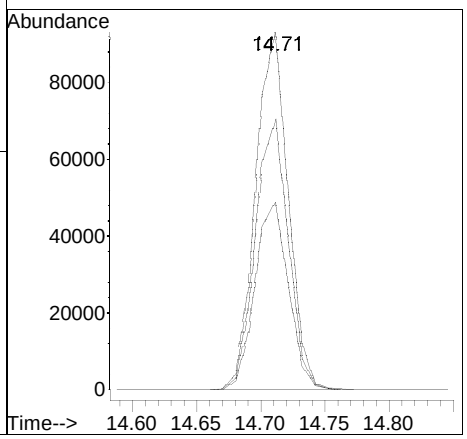


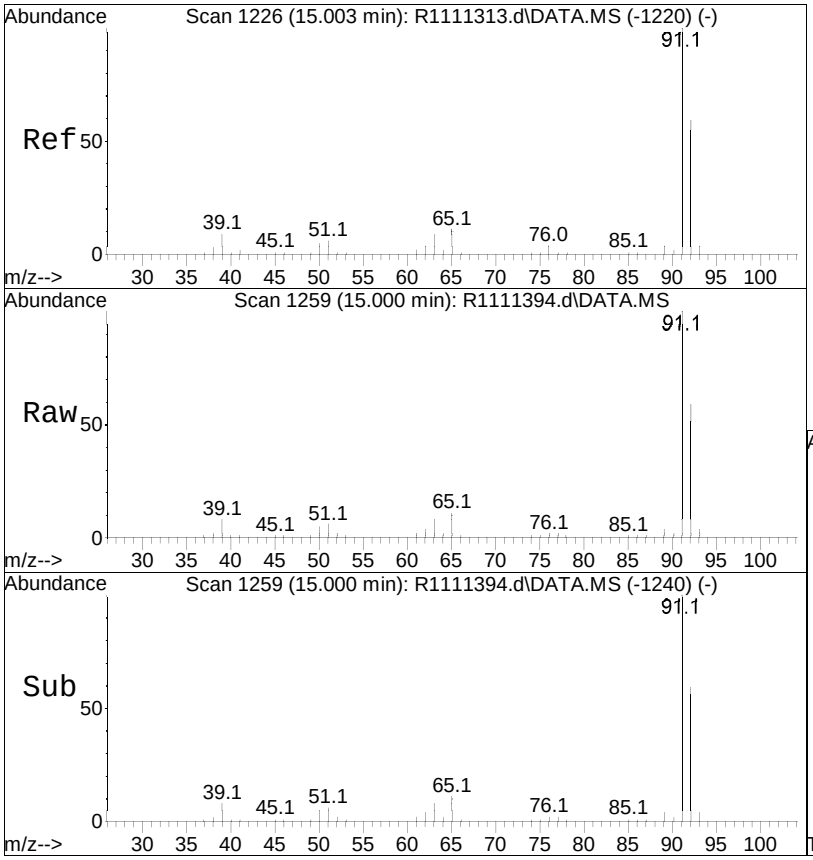


#66
1,1,2-trichloroethane
Concen: 9.12 ppbV
RT: 14.71 min Scan# 1231
Delta R.T. 0.008 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 97 Resp: 163766

Ion	Ratio	Lower	Upper
97	100		
83	75.8	61.1	91.7
61	52.7	45.9	68.9

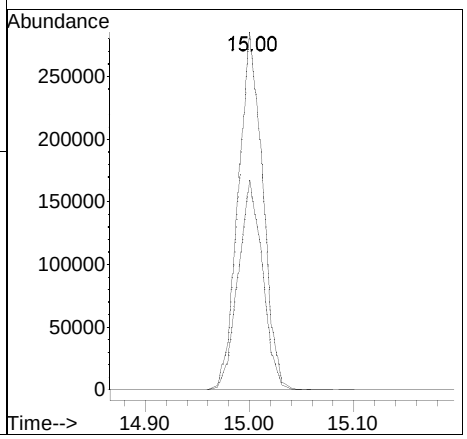


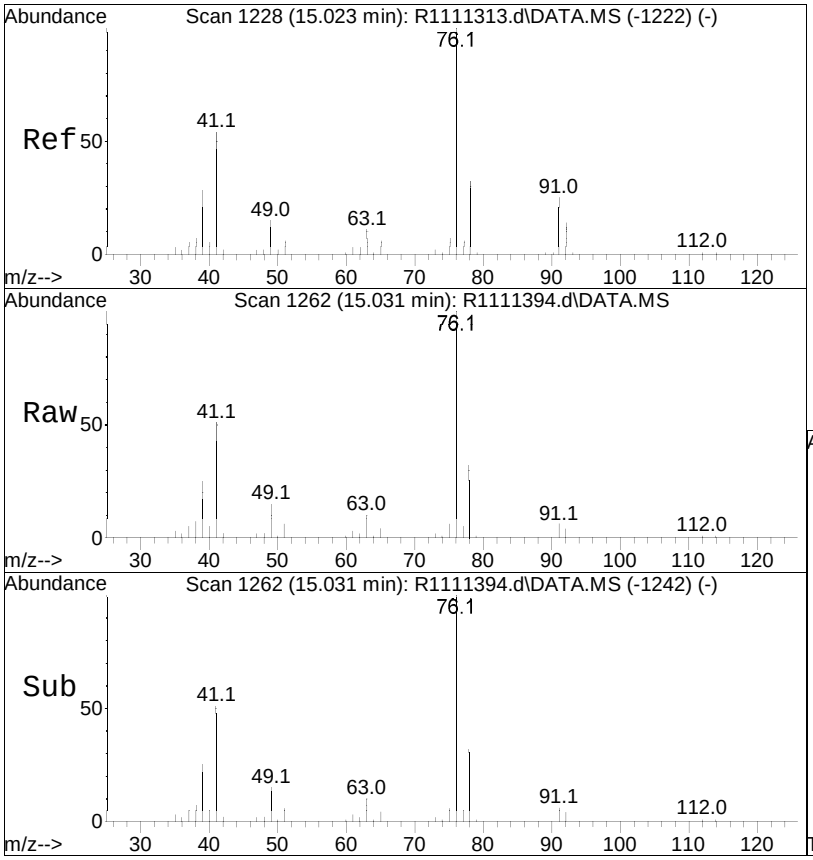


#68
toluene
Concen: 8.98 ppbV
RT: 15.00 min Scan# 1259
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 91 Resp: 459560

Ion	Ratio	Lower	Upper
91	100		
92	58.7	47.0	70.6

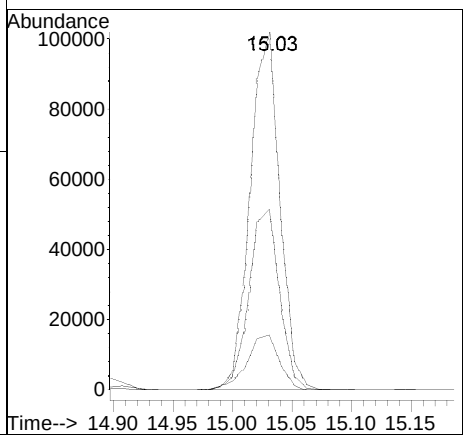


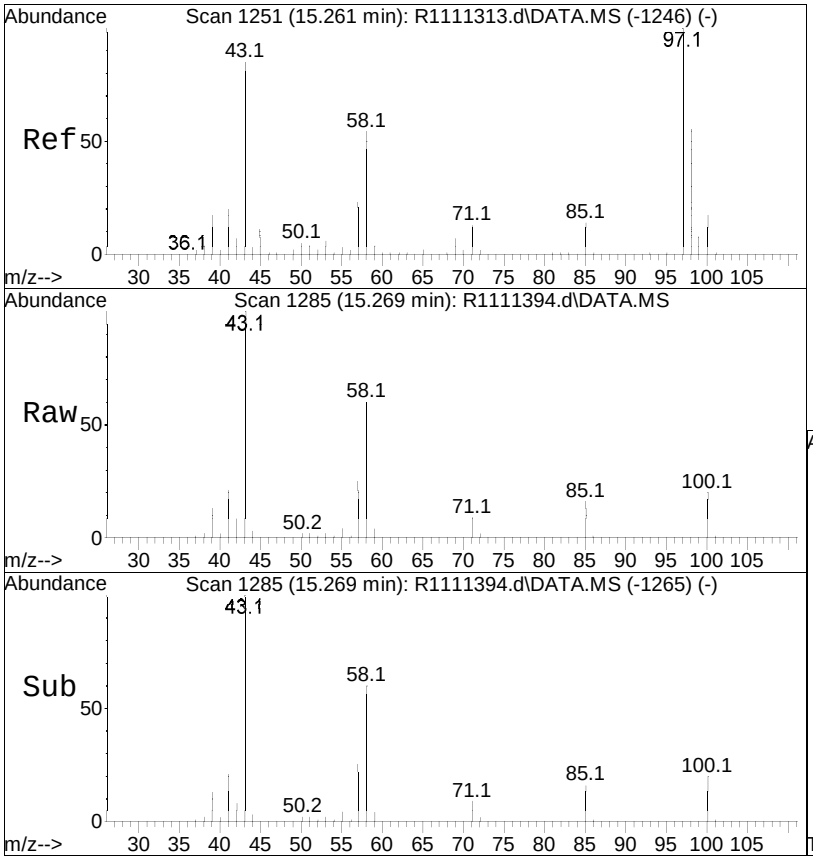


#71
1,3-dichloropropane
Concen: 8.26 ppbV
RT: 15.03 min Scan# 1262
Delta R.T. 0.008 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 76 Resp: 175597

Ion	Ratio	Lower	Upper
76	100		
41	50.5	43.0	64.4
49	15.2	12.2	18.4

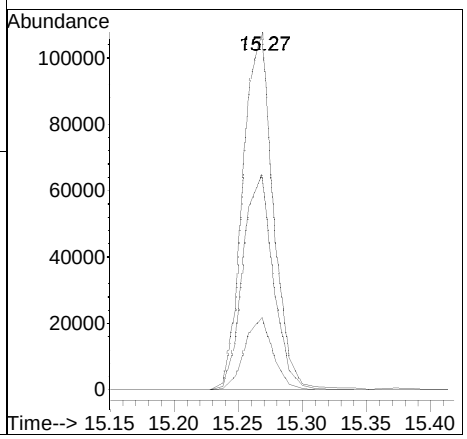


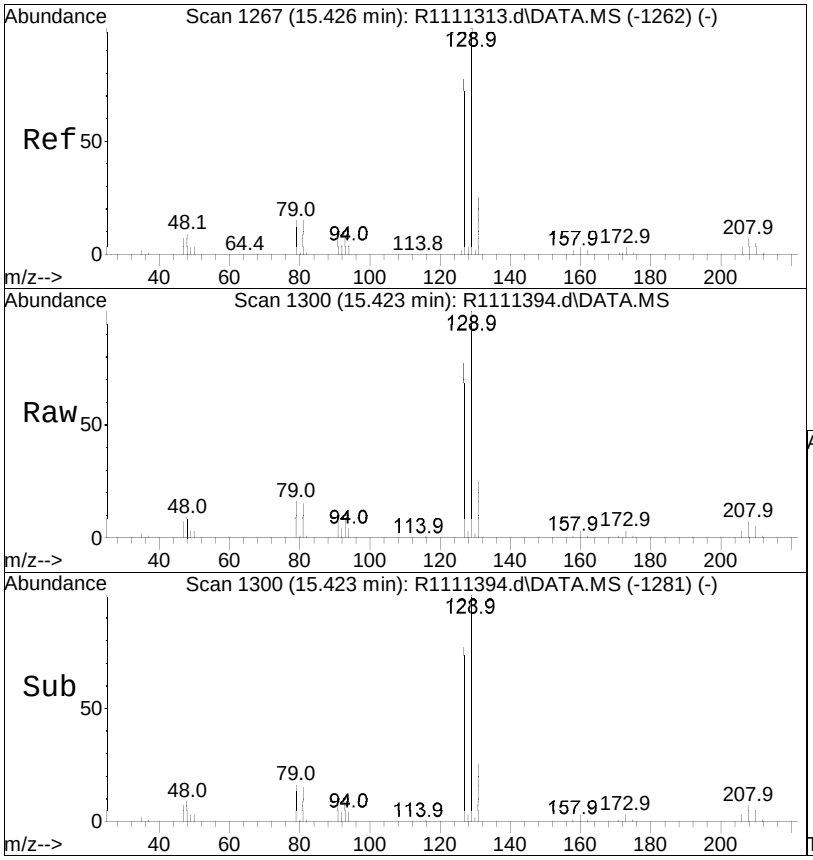


#72
2-hexanone
Concen: 9.39 ppbV
RT: 15.27 min Scan# 1285
Delta R.T. 0.008 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 43 Resp: 176242

Ion	Ratio	Lower	Upper
43	100		
58	60.3	50.6	76.0
100	20.2	16.2	24.2

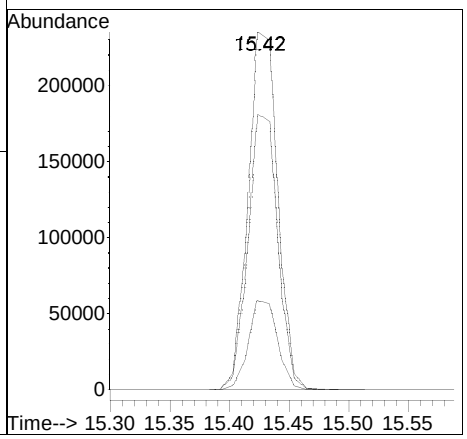


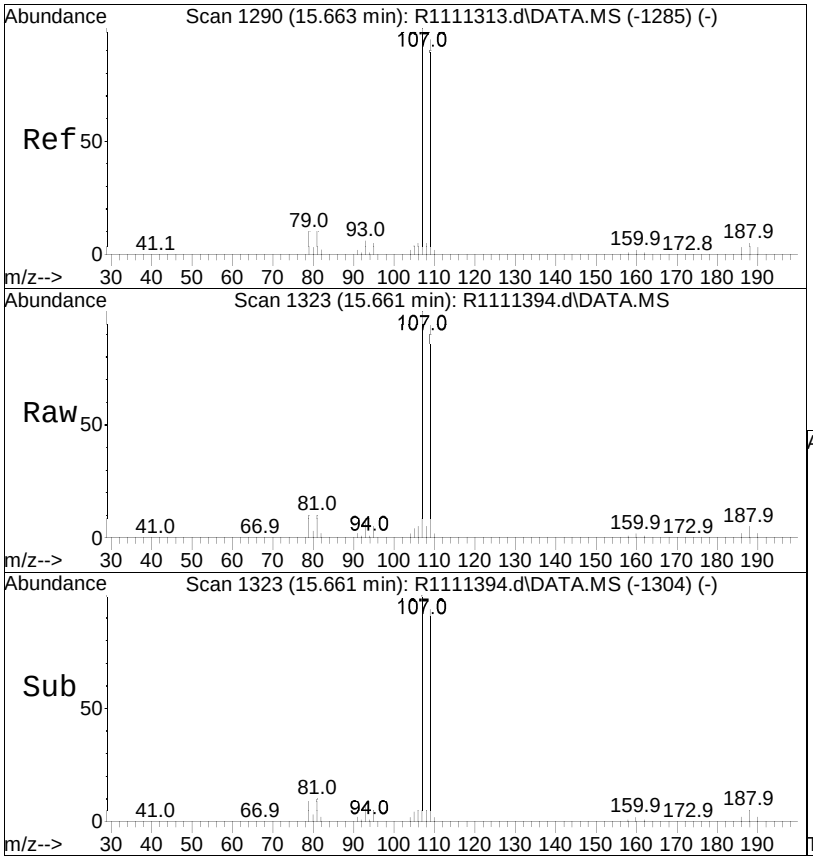


#74
dibromochloromethane
Concen: 9.21 ppbV
RT: 15.42 min Scan# 1300
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:129 Resp: 403601

Ion	Ratio	Lower	Upper
129	100		
127	77.2	61.3	91.9
131	25.1	19.8	29.6

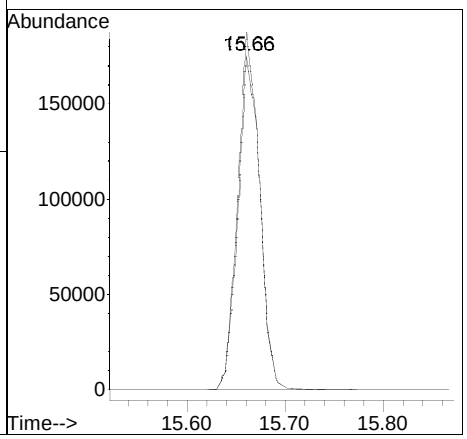


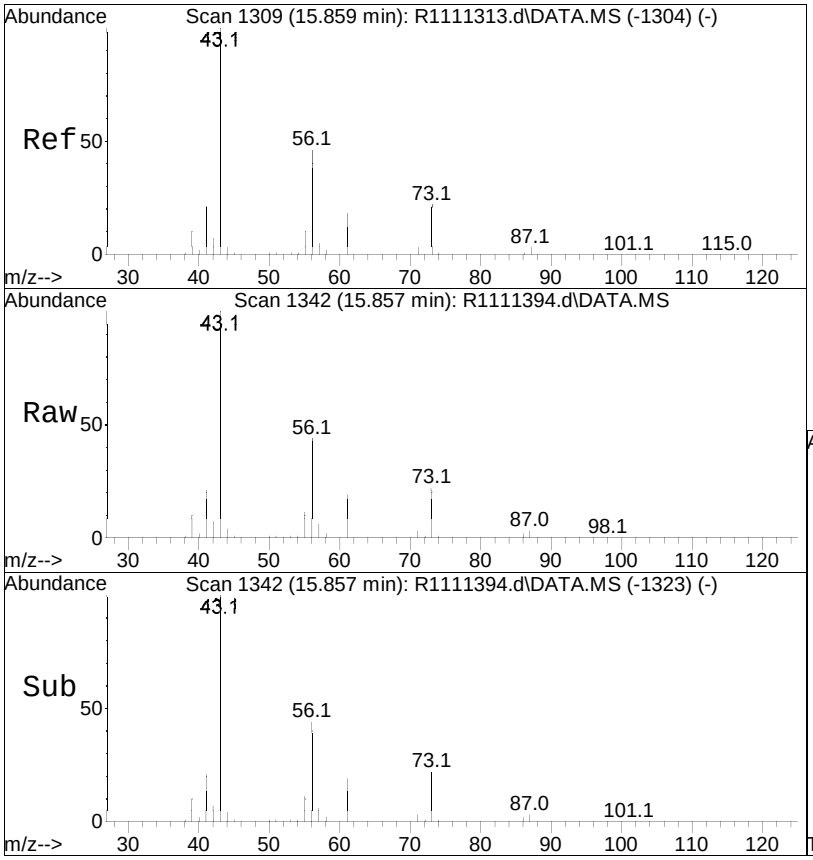


#75
1,2-dibromoethane
Concen: 9.32 ppbV
RT: 15.66 min Scan# 1323
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:107 Resp: 283728

Ion	Ratio	Lower	Upper
107	100		
109	93.5	75.8	113.8

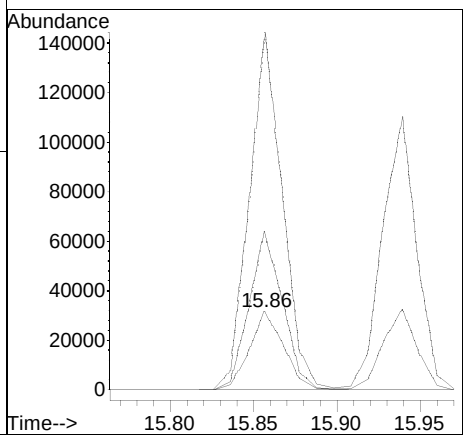


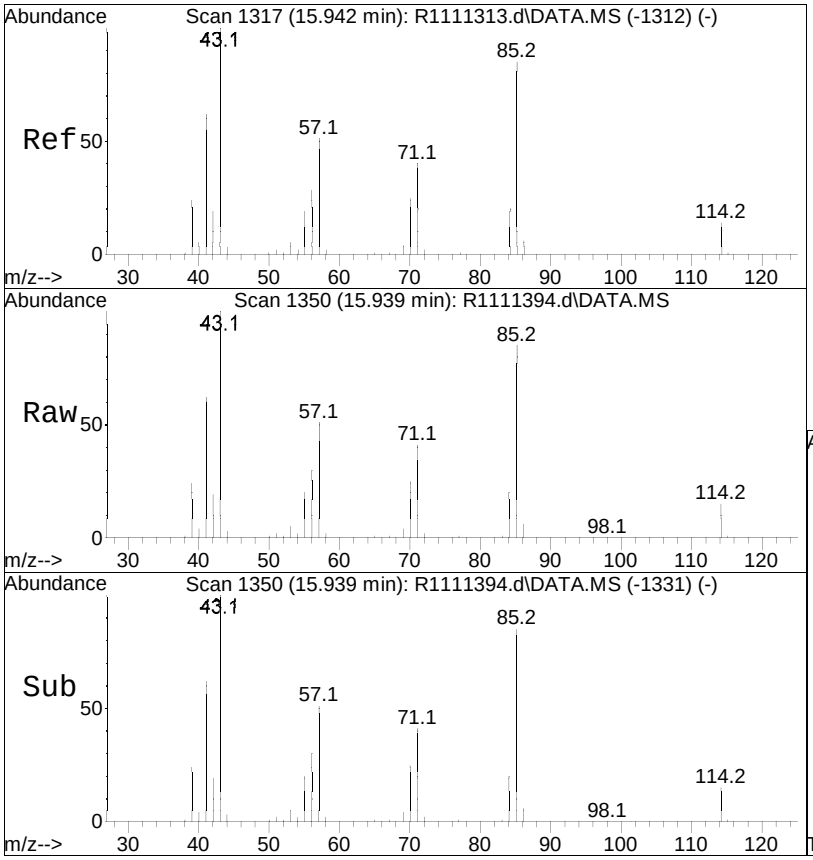


#76
butyl acetate
Concen: 8.49 ppbV
RT: 15.86 min Scan# 1342
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 73 Resp: 45300

Ion	Ratio	Lower	Upper
73	100		
56	202.2	165.8	248.6
43	454.8	363.5	545.3

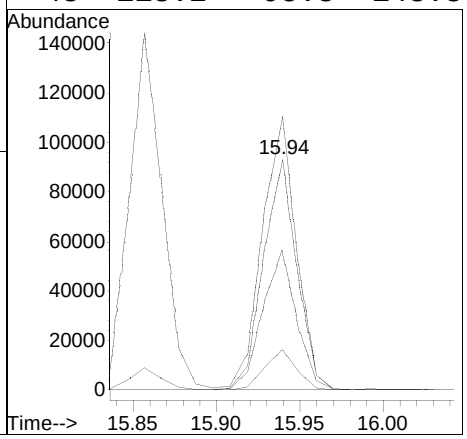


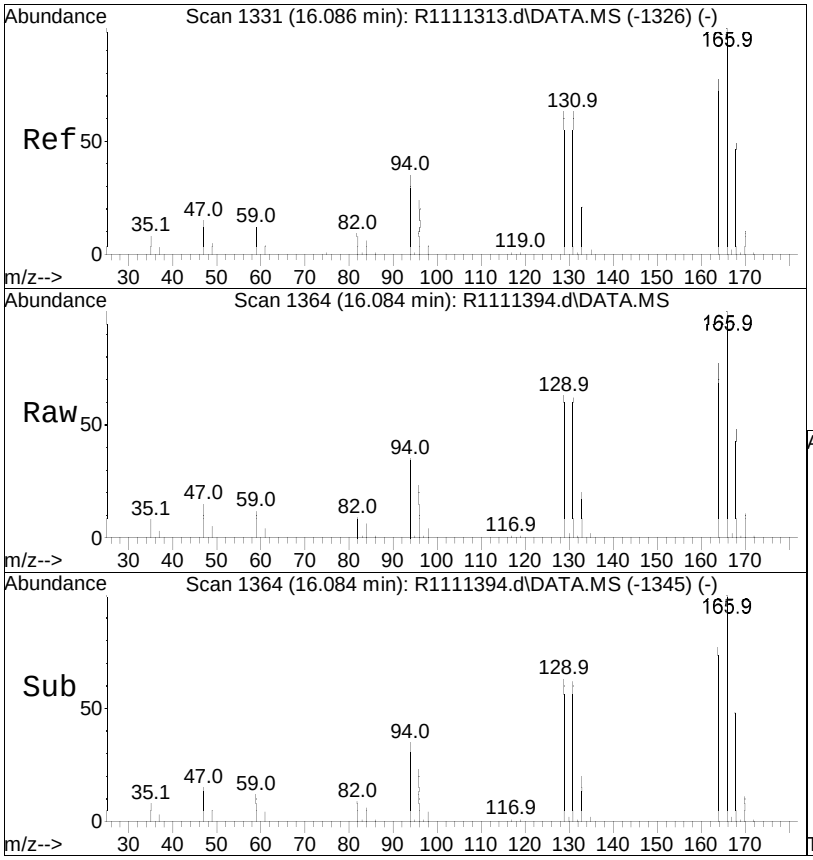


#77
octane
Concen: 8.24 ppbV
RT: 15.94 min Scan# 1350
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 85 Resp: 129284

Ion	Ratio	Lower	Upper
85	100		
57	60.3	48.1	72.1
114	17.4	13.0	19.6
43	118.2	95.8	143.8

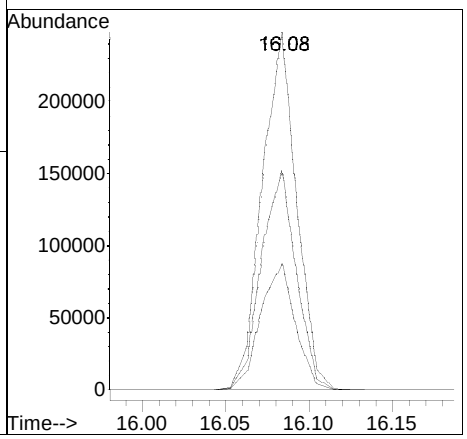


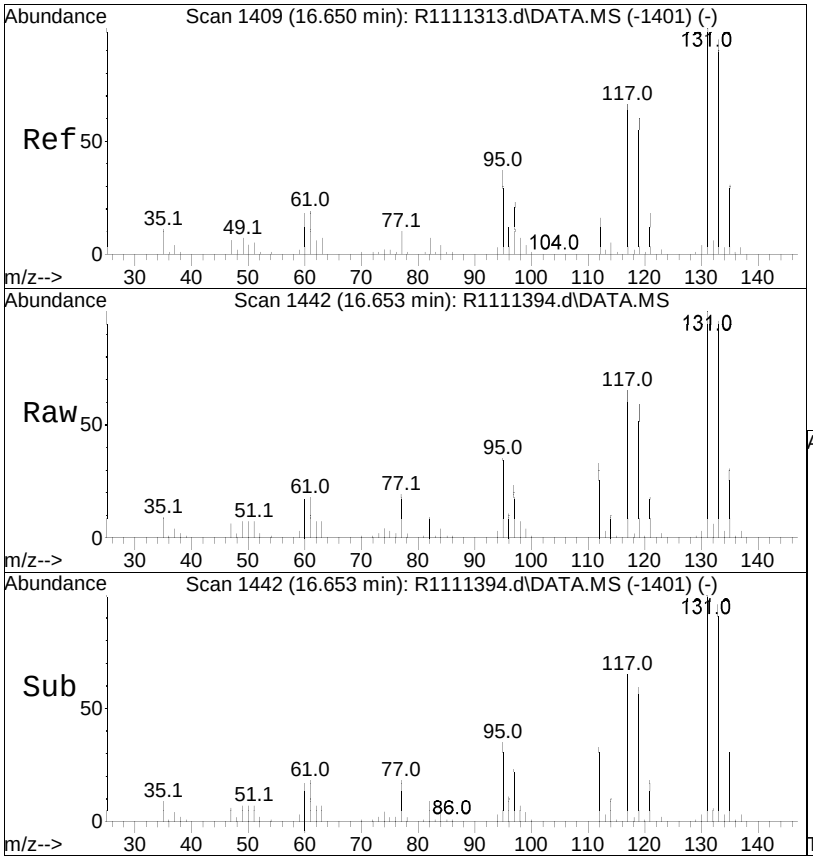


#78
tetrachloroethene
Concen: 8.96 ppbV
RT: 16.08 min Scan# 1364
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:166 Resp: 351854

Ion	Ratio	Lower	Upper
166	100		
131	61.5	50.1	75.1
94	35.4	28.2	42.4

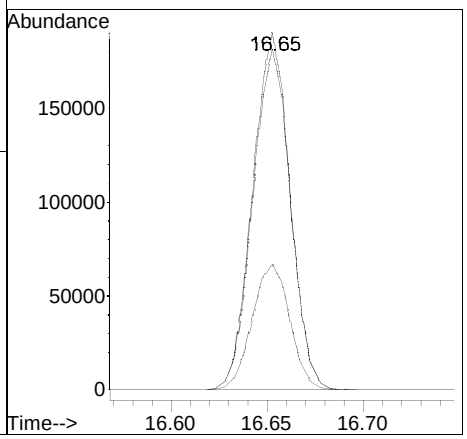


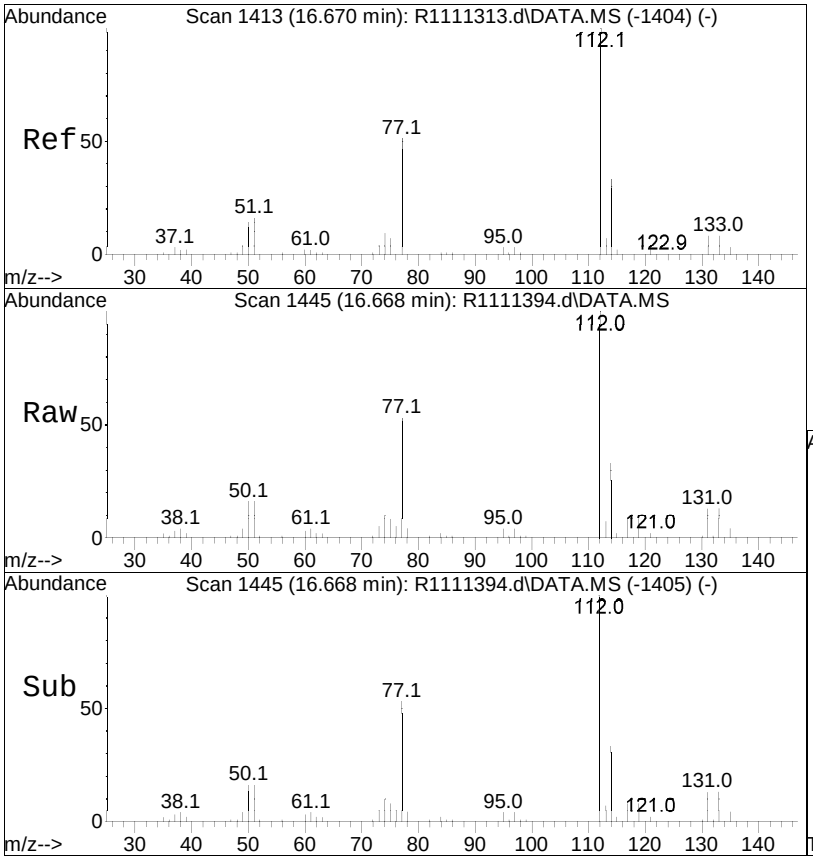


#79
1,1,1,2-tetrachloroethane
Concen: 8.61 ppbV
RT: 16.65 min Scan# 1442
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:131 Resp: 254790

Ion	Ratio	Lower	Upper
131	100		
133	95.6	76.0	114.0
95	35.0	29.9	44.9

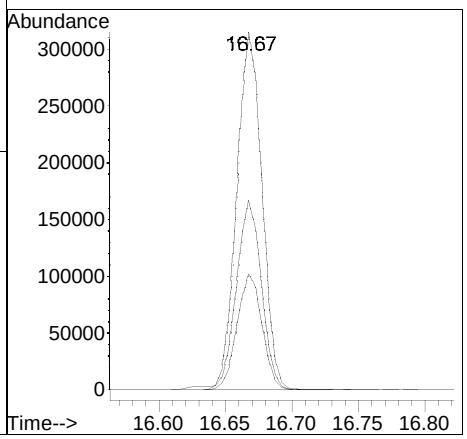


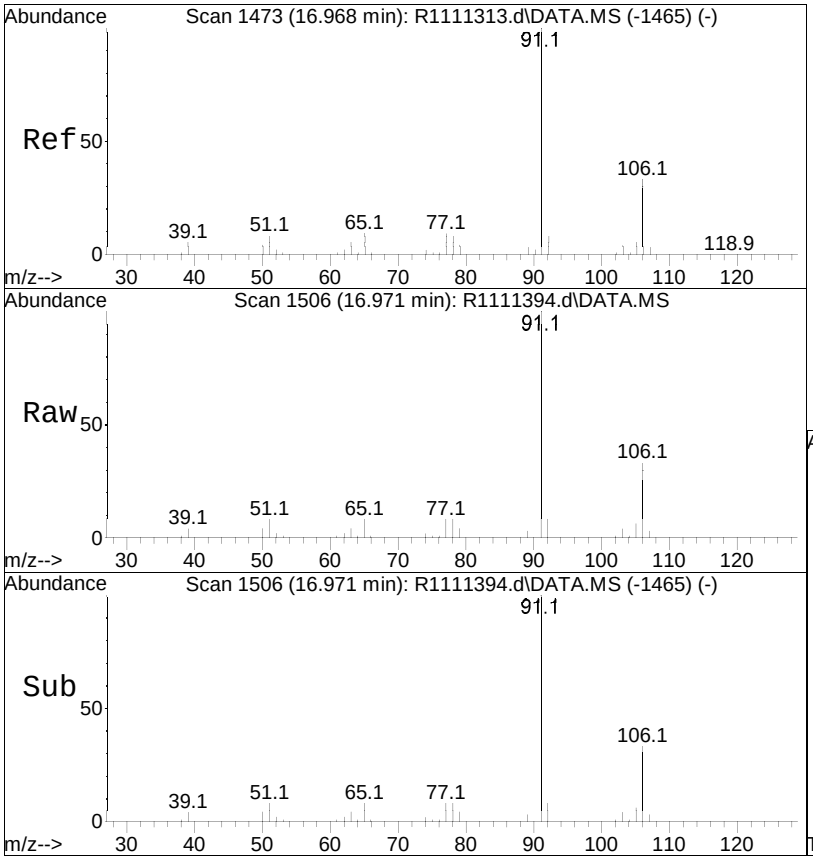


#80
chlorobenzene
Concen: 9.00 ppbV
RT: 16.67 min Scan# 1445
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:112 Resp: 412265

Ion	Ratio	Lower	Upper
112	100		
114	32.7	26.6	40.0
77	53.2	41.8	62.6

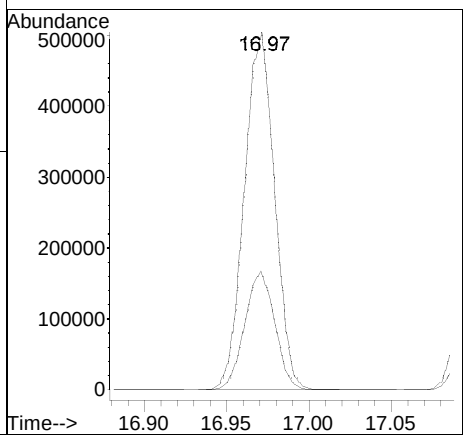


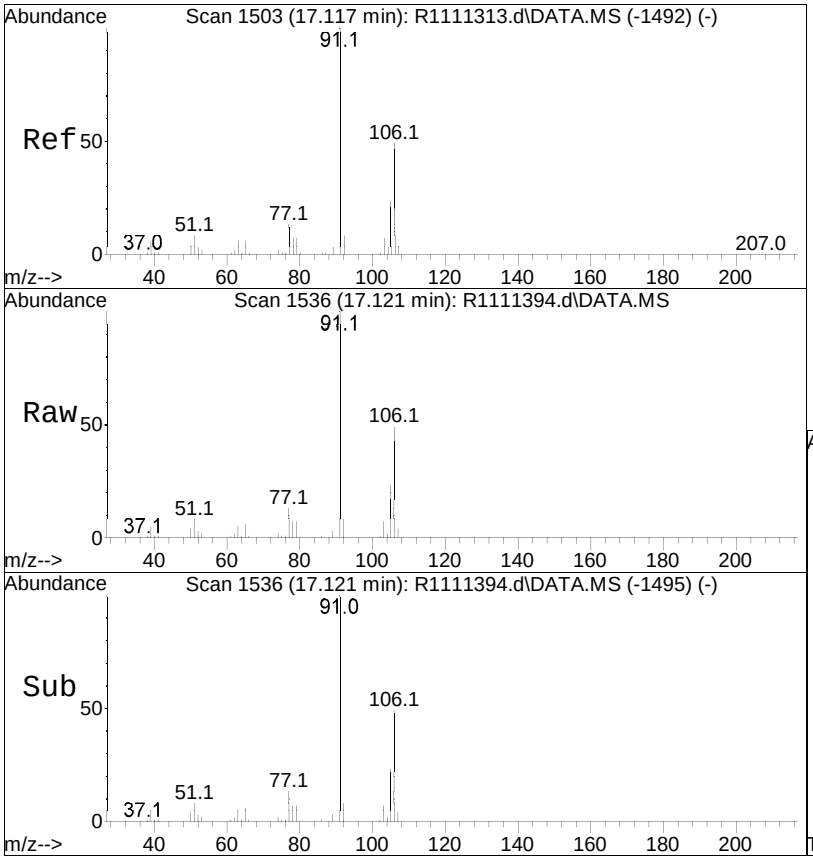


#81
ethylbenzene
Concen: 9.09 ppbV
RT: 16.97 min Scan# 1506
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 91 Resp: 636472

Ion	Ratio	Lower	Upper
91	100		
106	33.3	26.6	39.8

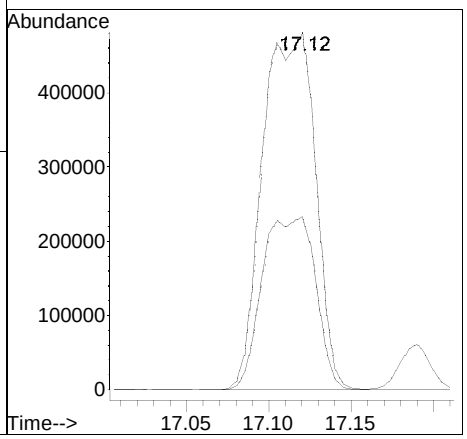


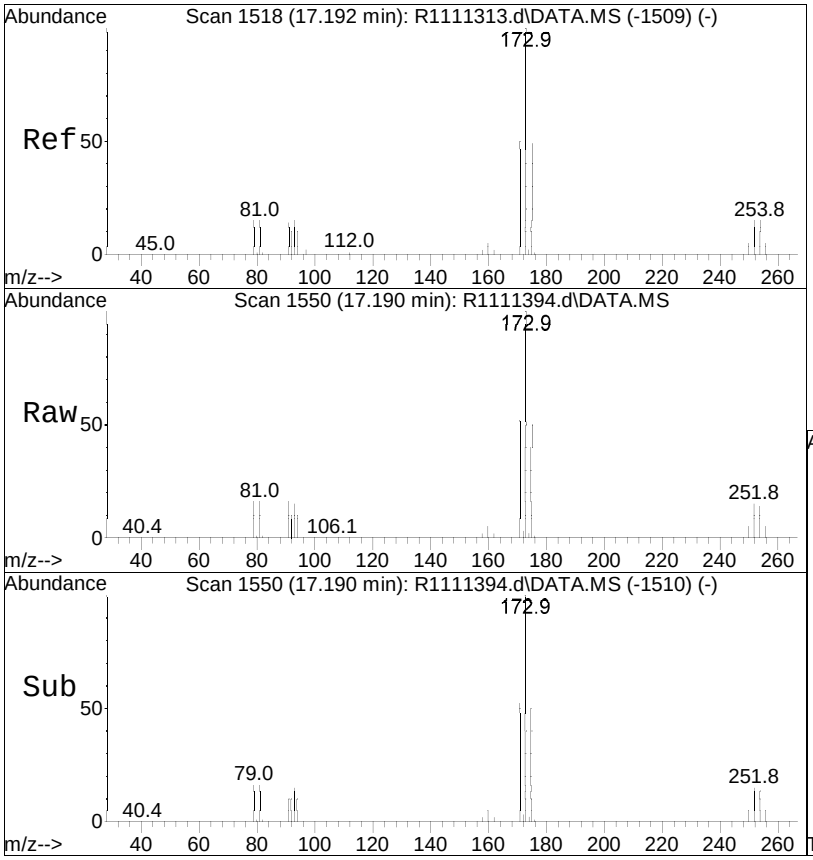


#83
m+p-xylene
Concen: 18.21 ppbV
RT: 17.12 min Scan# 1536
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 91 Resp: 1060629

Ion	Ratio	Lower	Upper
91	100		
106	48.5	39.4	59.0

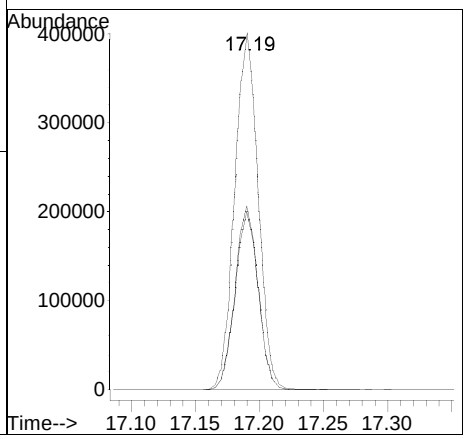


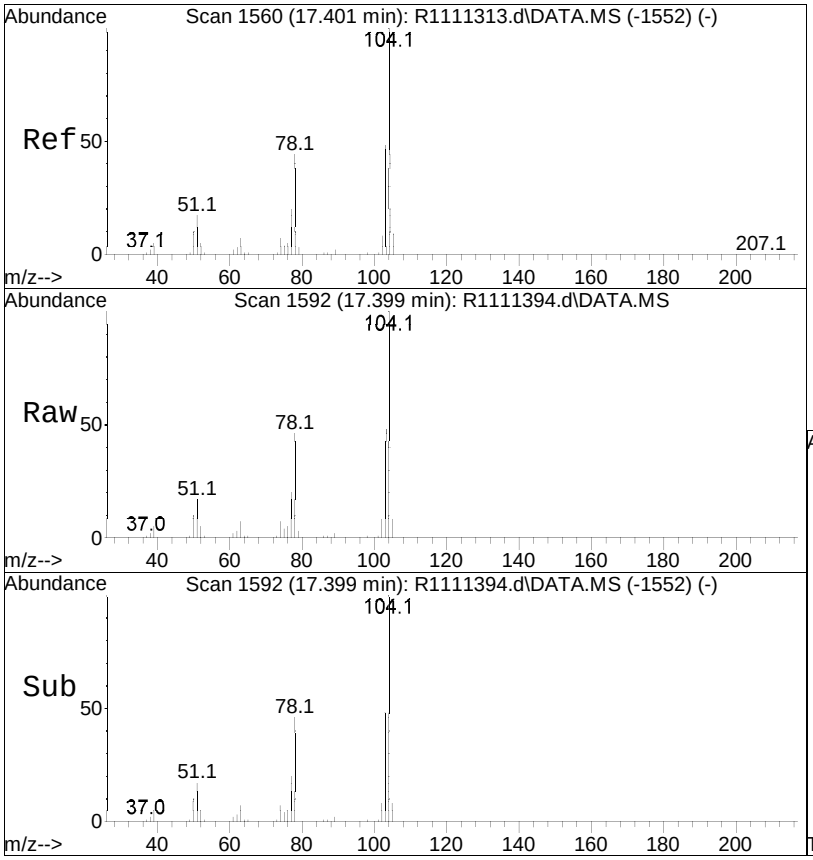


#84
bromoform
Concen: 9.44 ppbV
RT: 17.19 min Scan# 1550
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:173 Resp: 507973

Ion	Ratio	Lower	Upper
173	100		
175	49.8	39.1	58.7
171	51.6	40.4	60.6

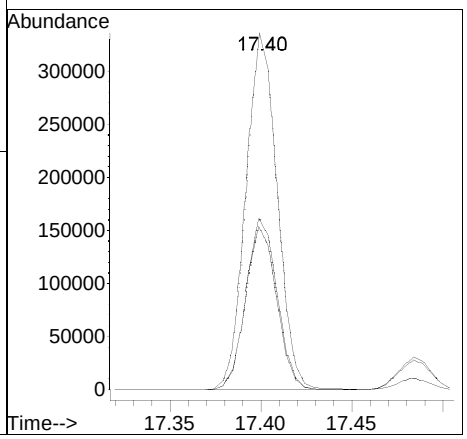


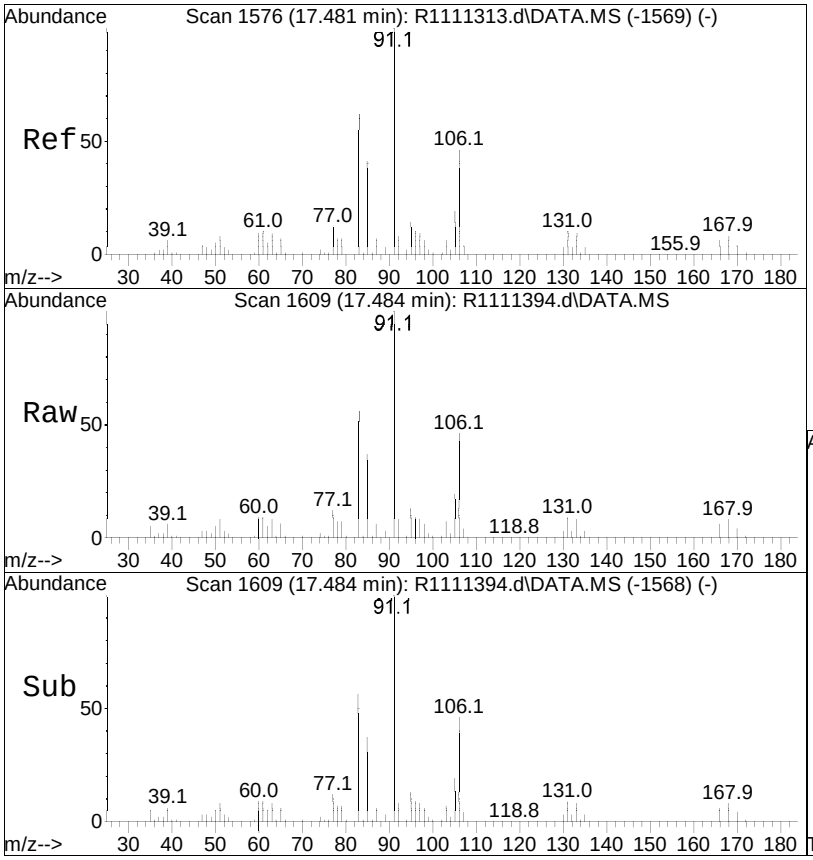


#85
styrene
Concen: 9.18 ppbV
RT: 17.40 min Scan# 1592
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:104 Resp: 400120

Ion	Ratio	Lower	Upper
104	100		
103	48.1	38.6	57.8
78	45.9	35.4	53.2

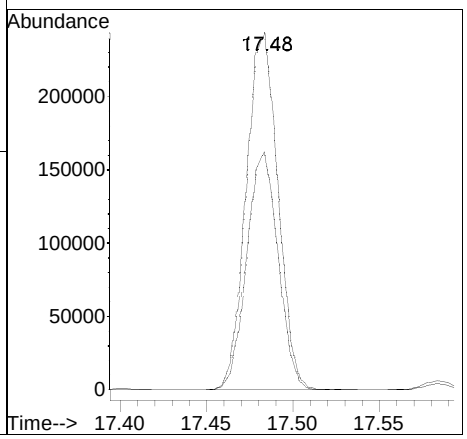


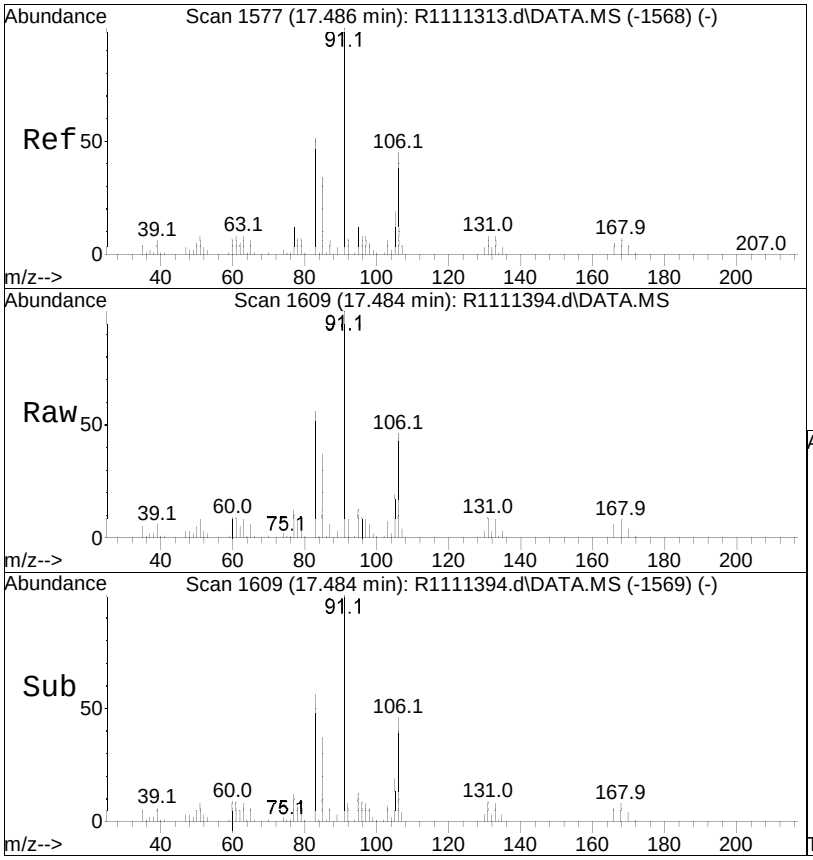


#86
1,1,2,2-tetrachloroethane
Concen: 9.19 ppbV
RT: 17.48 min Scan# 1609
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 83 Resp: 309098

Ion	Ratio	Lower	Upper
83	100		
85	66.8	53.0	79.4

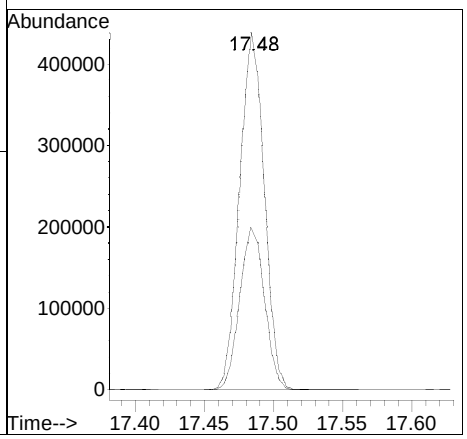


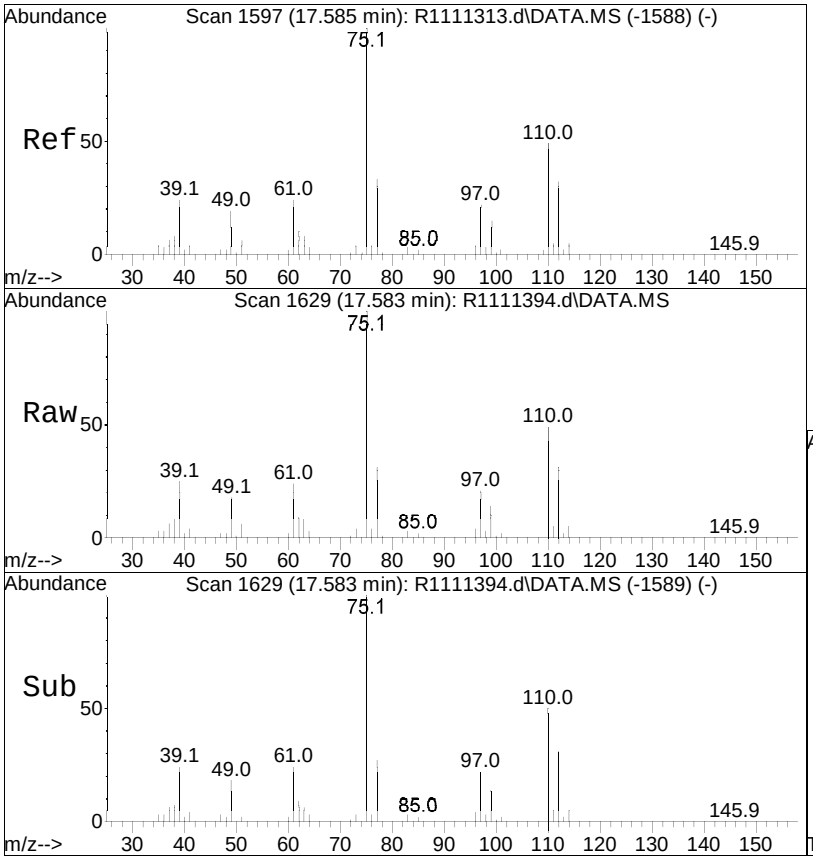


#87
o-xylene
Concen: 9.19 ppbV
RT: 17.48 min Scan# 1609
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 91 Resp: 541617

Ion	Ratio	Lower	Upper
91	100		
106	45.6	36.3	54.5

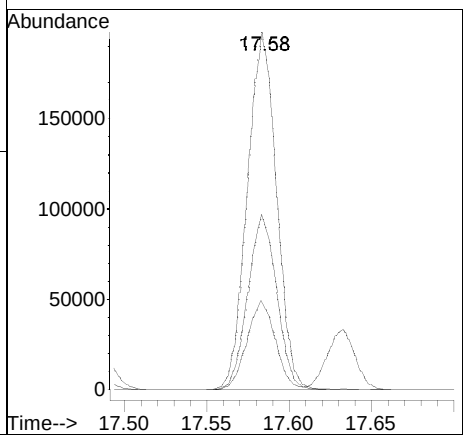


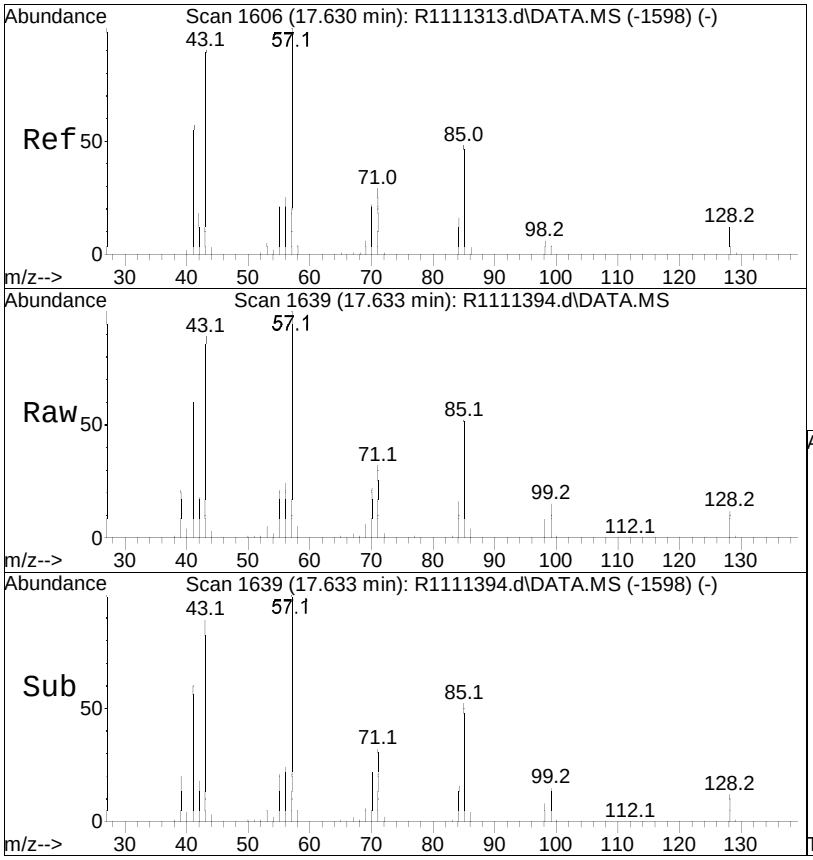


#88
1,2,3-trichloropropane
Concen: 8.31 ppbV
RT: 17.58 min Scan# 1629
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 75 Resp: 242155

Ion	Ratio	Lower	Upper
75	100		
110	49.2	39.5	59.3
39	24.9	19.5	29.3

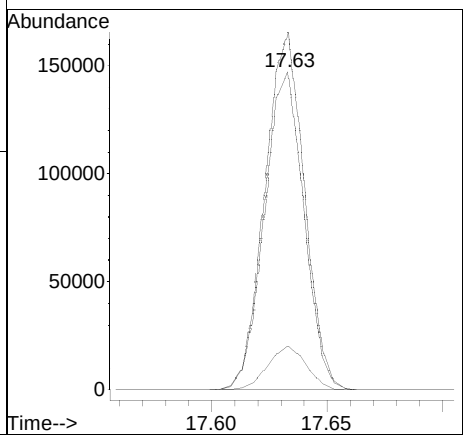


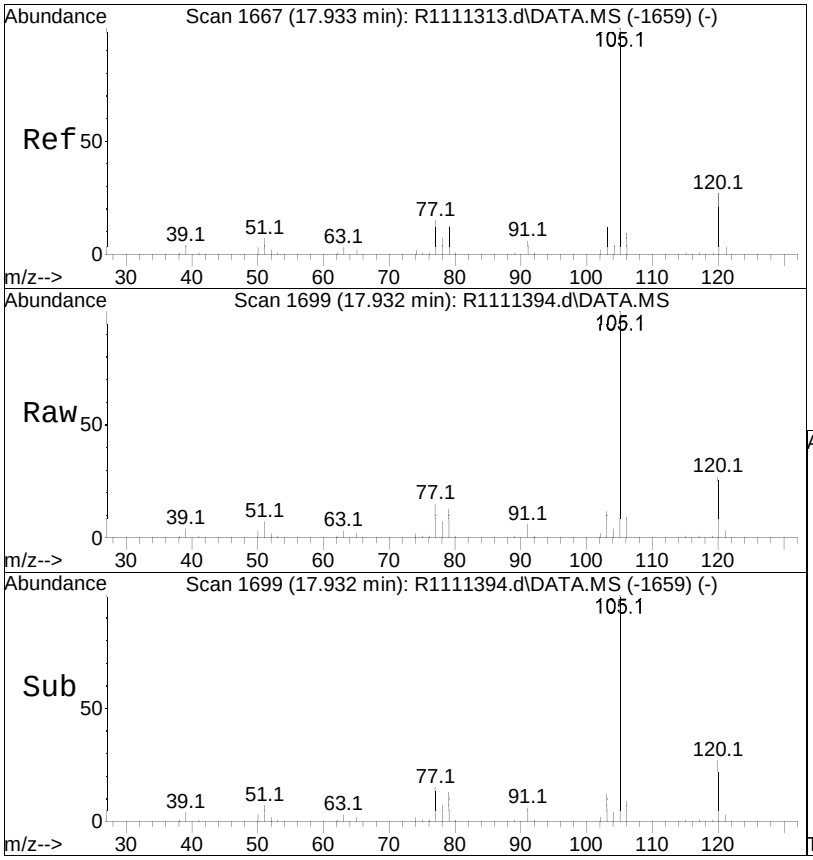


#89
nonane
Concen: 8.25 ppbV
RT: 17.63 min Scan# 1639
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 43 Resp: 173903

Ion	Ratio	Lower	Upper
43	100		
57	112.4	88.8	133.2
128	13.8	10.5	15.7

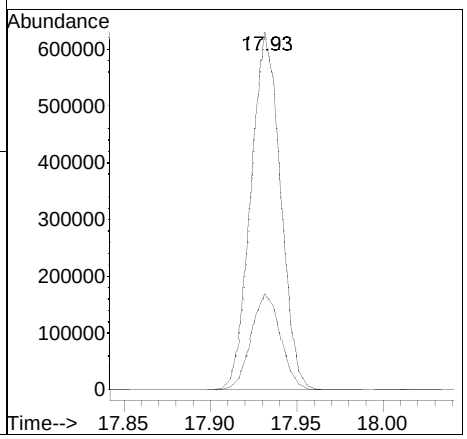


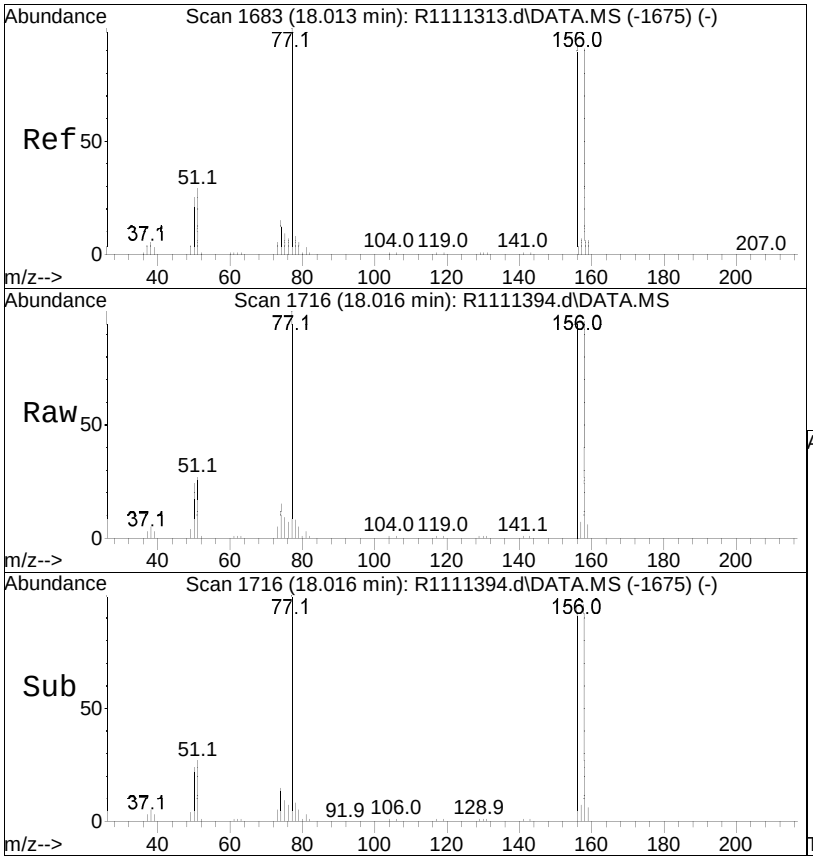


#91
isopropylbenzene
Concen: 8.61 ppbV
RT: 17.93 min Scan# 1699
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:105 Resp: 742633

Ion	Ratio	Lower	Upper
105	100		
120	27.0	21.5	32.3

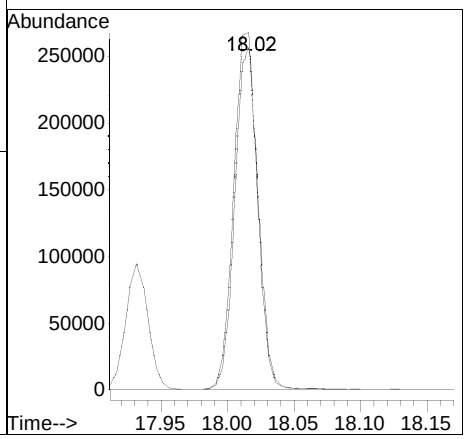


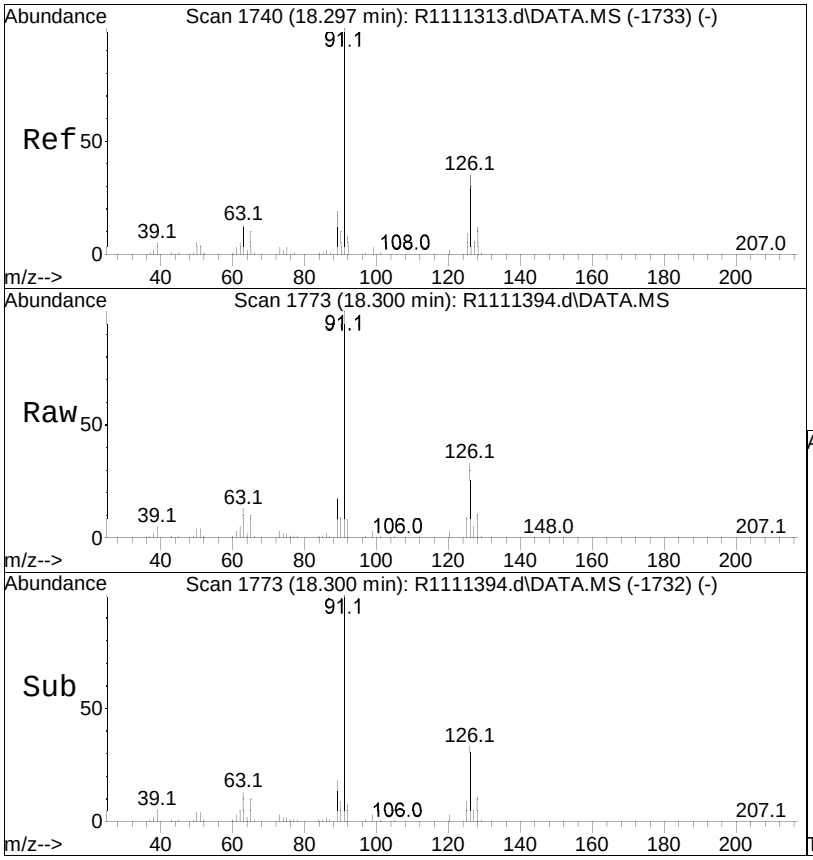


#92
bromobenzene
Concen: 8.38 ppbV
RT: 18.02 min Scan# 1716
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 77 Resp: 330973

Ion	Ratio	Lower	Upper
77	100		
156	96.1	74.5	111.7

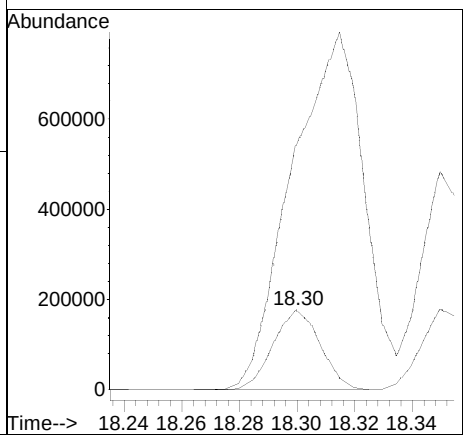


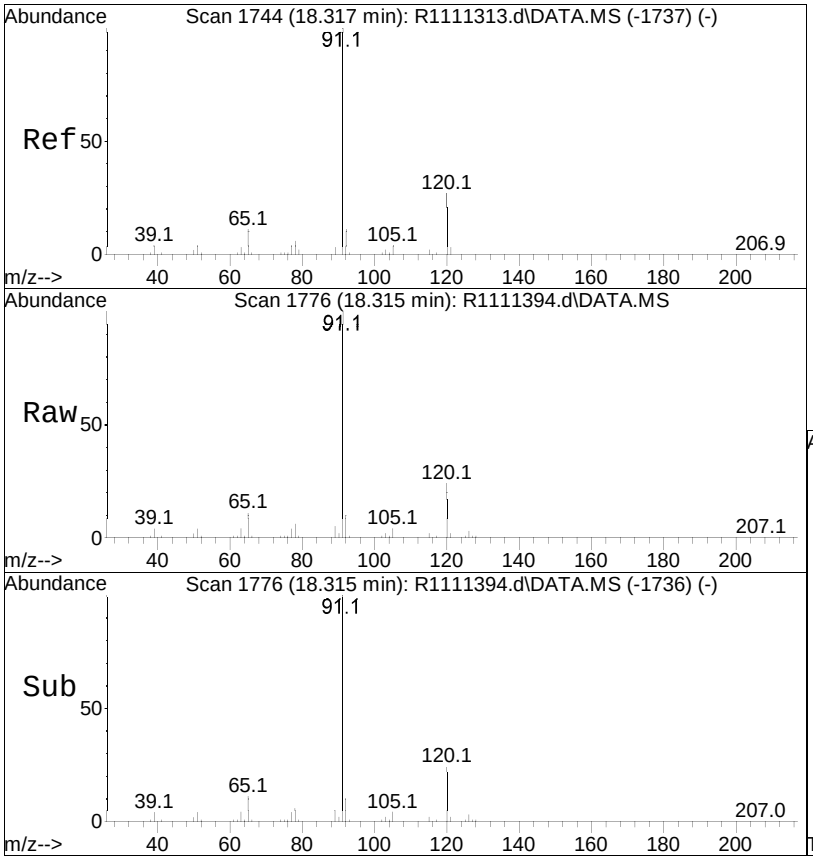


#93
2-chlorotoluene
Concen: 8.45 ppbV
RT: 18.30 min Scan# 1773
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:126 Resp: 202437

Ion	Ratio	Lower	Upper
126	100		
91	304.9	229.6	344.4

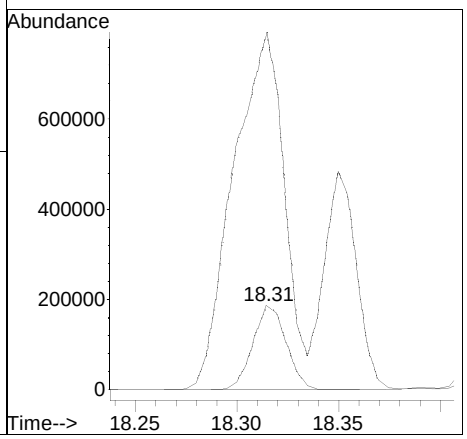


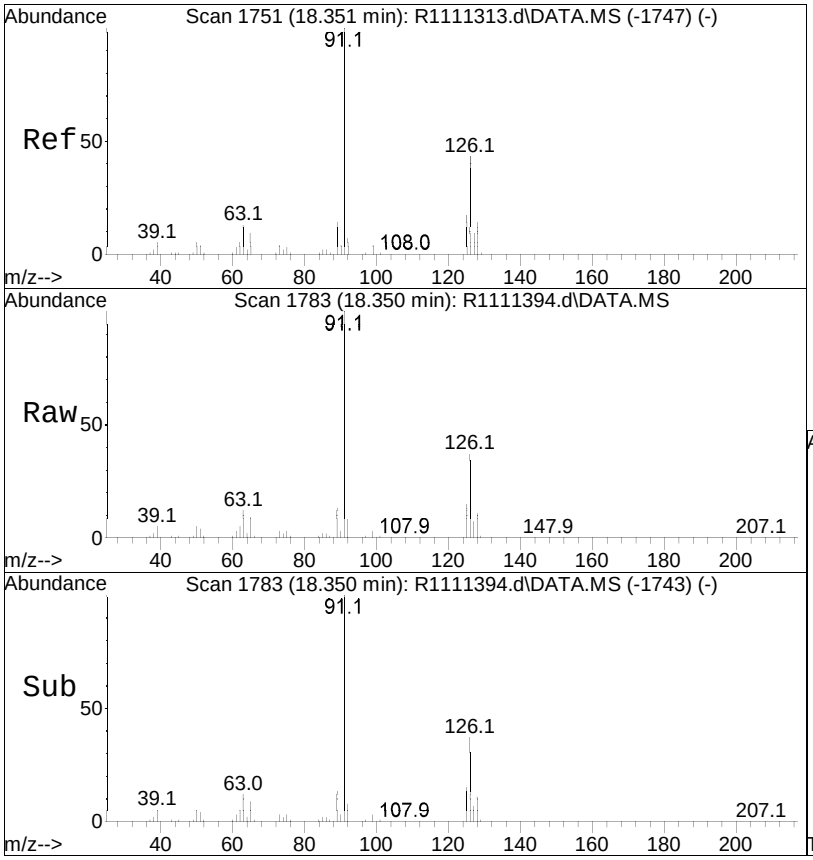


#94
n-propylbenzene
Concen: 8.50 ppbV
RT: 18.31 min Scan# 1776
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:120 Resp: 213804

Ion	Ratio	Lower	Upper
120	100		
91	423.4	317.0	475.4

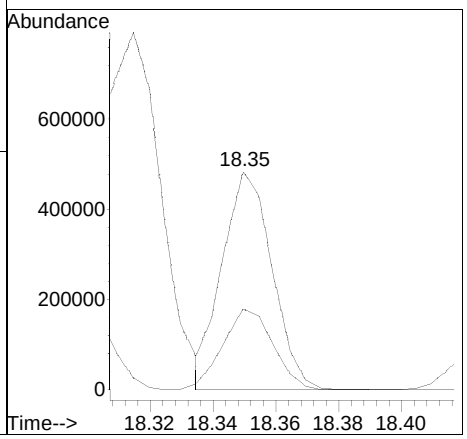


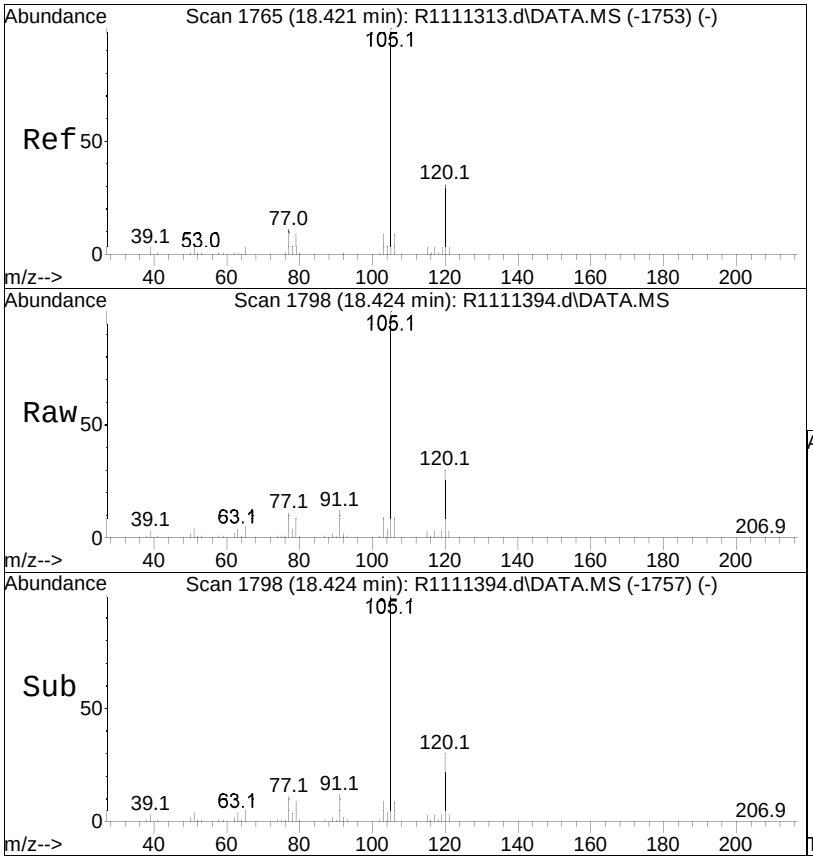


#95
4-chlorotoluene
Concen: 8.21 ppbV
RT: 18.35 min Scan# 1783
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 91 Resp: 532032

Ion	Ratio	Lower	Upper
91	100		
126	37.0	29.6	44.4

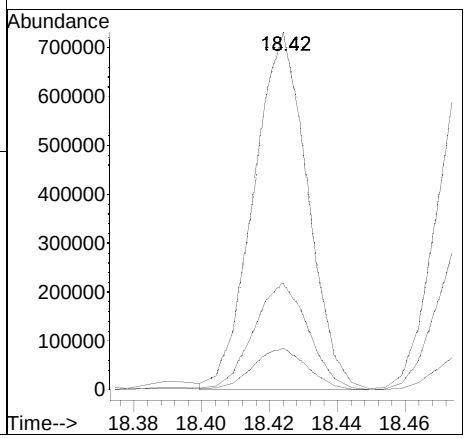


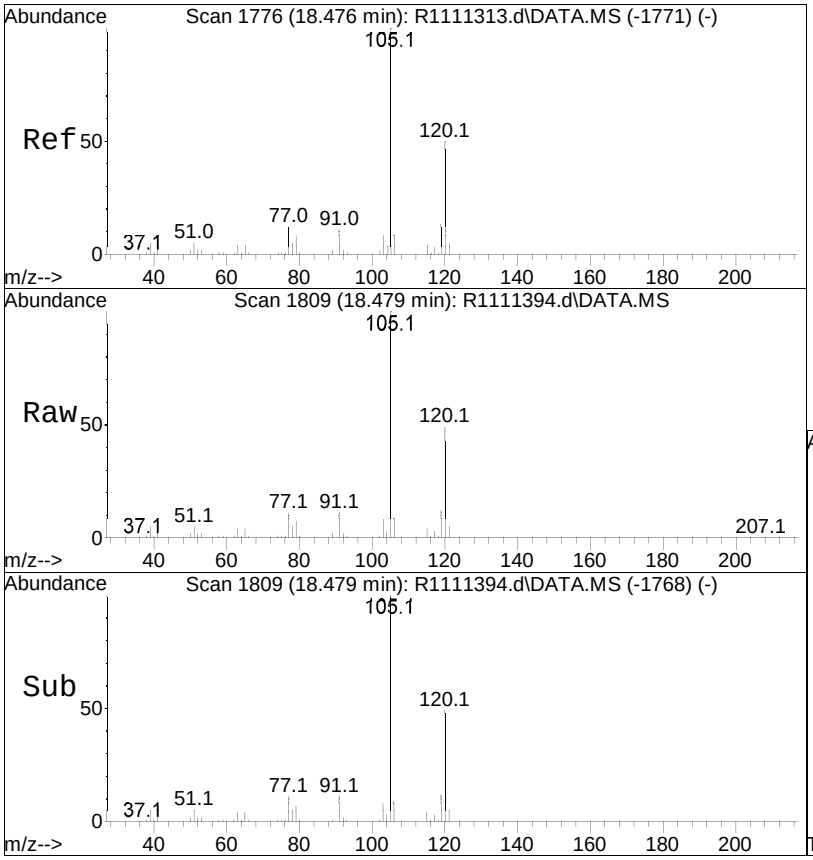


#96
4-ethyl toluene
Concen: 8.55 ppbV m
RT: 18.42 min Scan# 1798
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:105 Resp: 809602

Ion	Ratio	Lower	Upper
105	100		
120	29.9	25.0	37.6
91	11.6	9.5	14.3

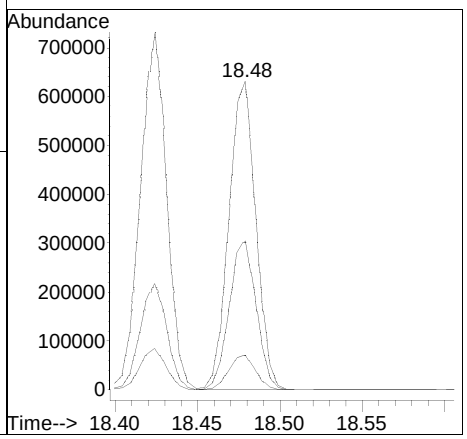


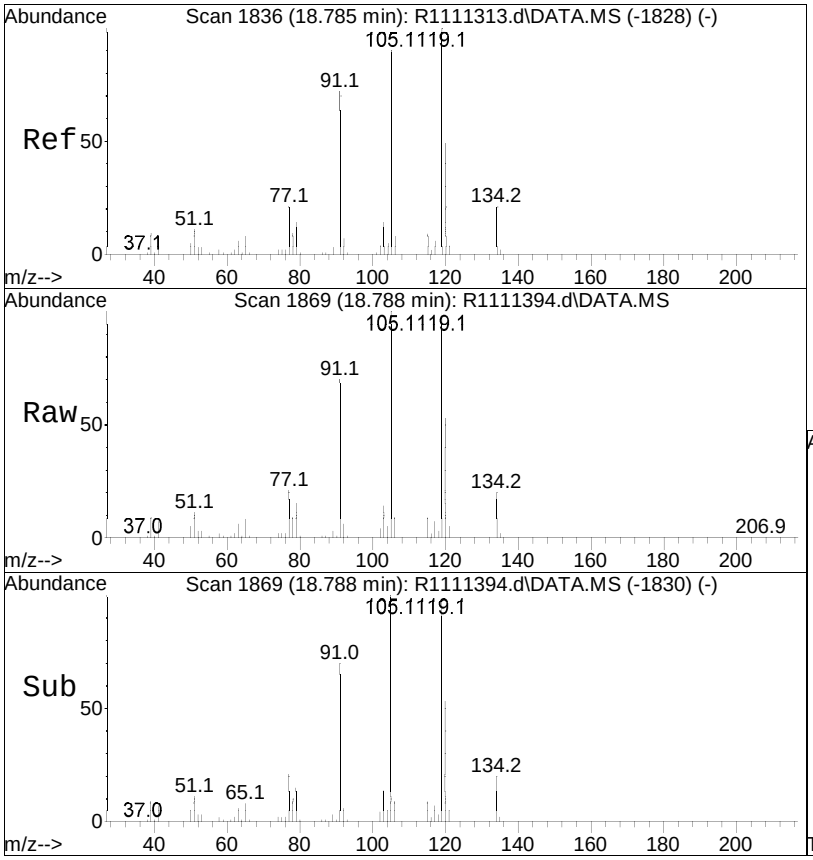


#97
1,3,5-trimethylbenzene
Concen: 8.99 ppbV
RT: 18.48 min Scan# 1809
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:105 Resp: 715323

Ion	Ratio	Lower	Upper
105	100		
120	48.6	39.7	59.5
91	11.2	8.9	13.3

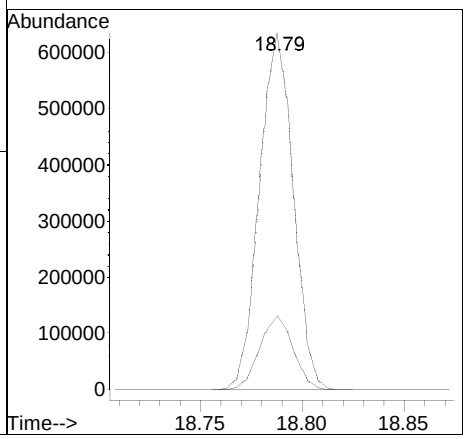


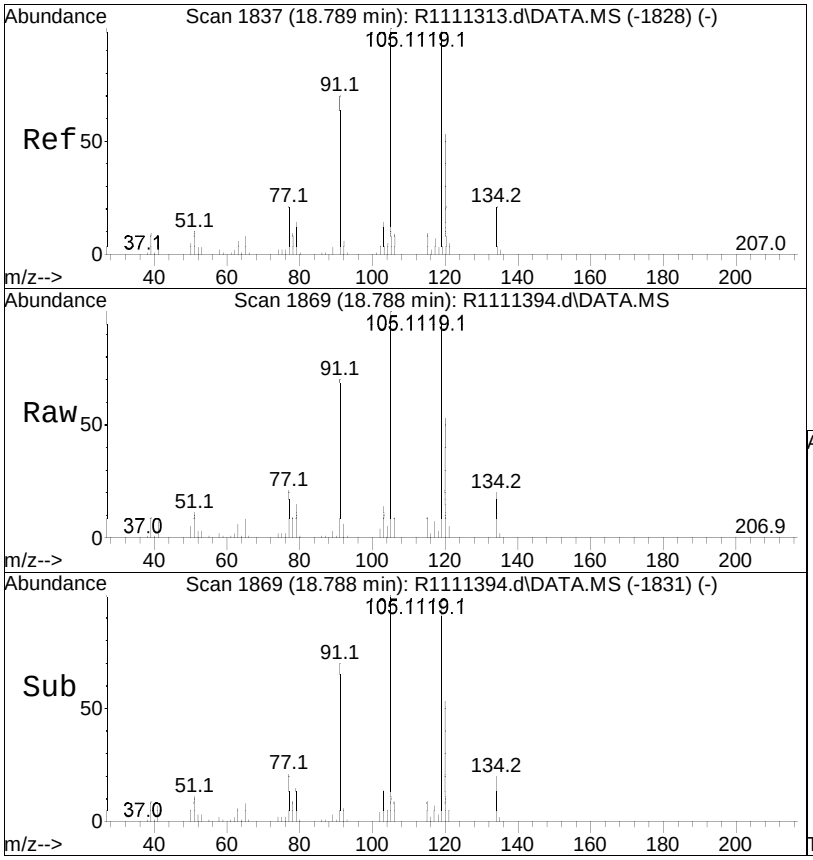


#98
tert-butylbenzene
Concen: 8.52 ppbV
RT: 18.79 min Scan# 1869
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:119 Resp: 728807

Ion	Ratio	Lower	Upper
119	100		
134	20.7	16.6	24.8

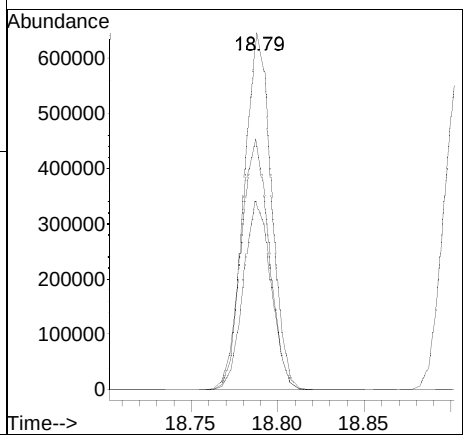


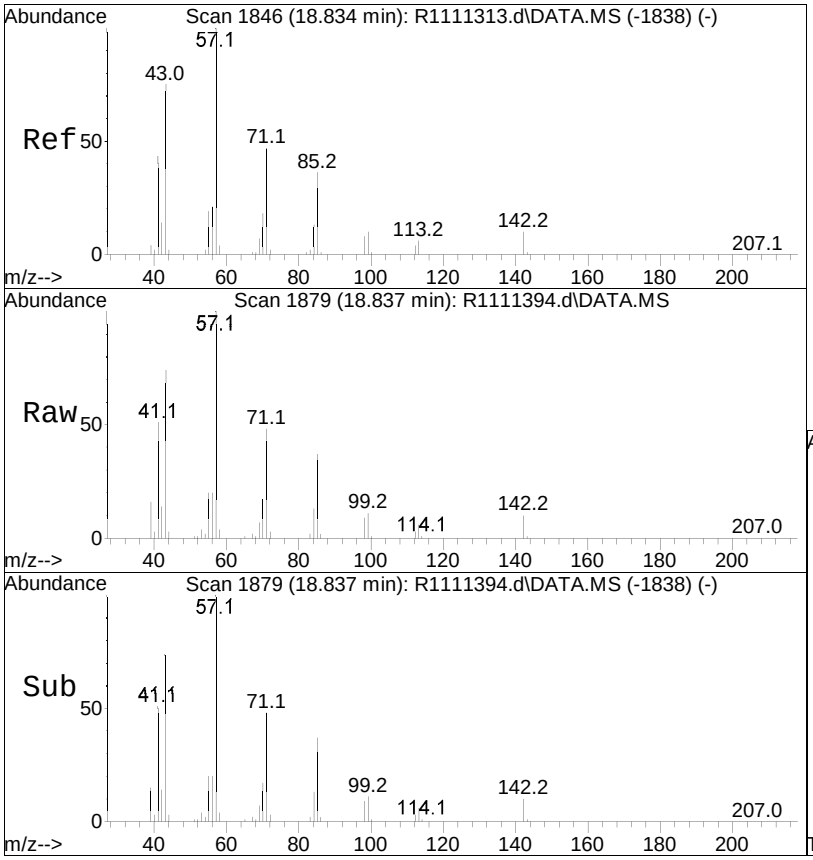


#99
1,2,4-trimethylbenzene
Concen: 9.36 ppbV
RT: 18.79 min Scan# 1869
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:105 Resp: 709863

Ion	Ratio	Lower	Upper
105	100		
120	53.0	42.2	63.2
91	70.2	55.8	83.6

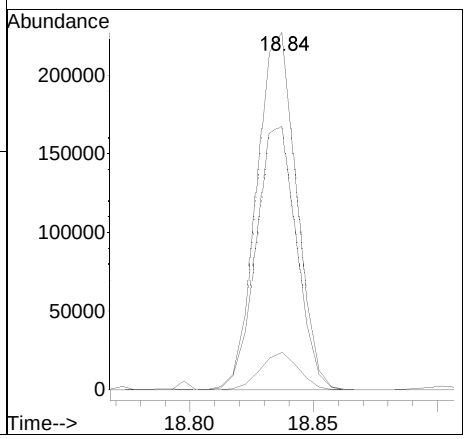


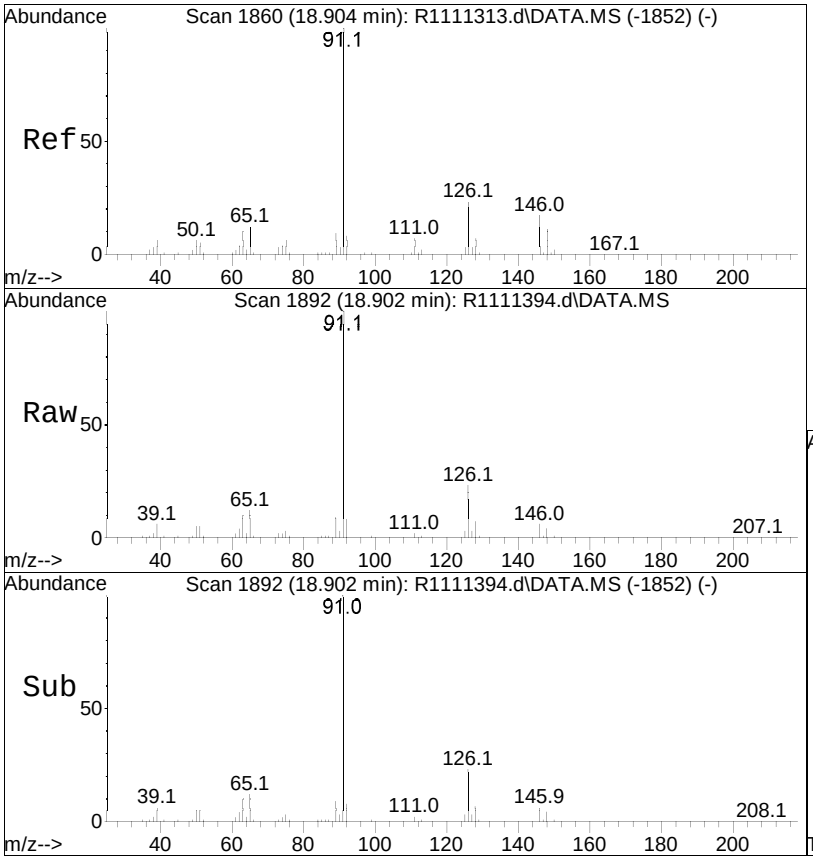


#100
decane
Concen: 8.27 ppbV
RT: 18.84 min Scan# 1879
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 57 Resp: 252657

Ion	Ratio	Lower	Upper
57	100		
43	74.0	60.4	90.6
142	10.5	8.2	12.4

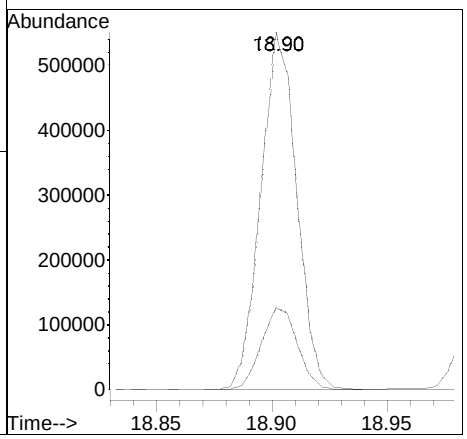


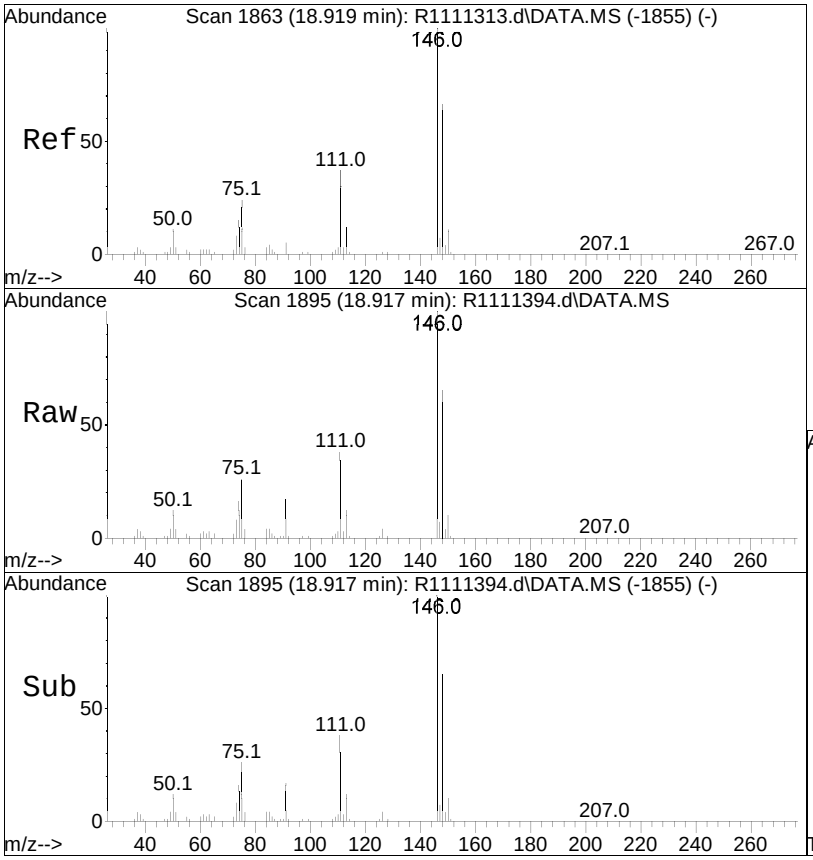


#101
Benzyl Chloride
Concen: 9.56 ppbV
RT: 18.90 min Scan# 1892
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 91 Resp: 591645

Ion	Ratio	Lower	Upper
91	100		
126	23.0	18.6	27.8

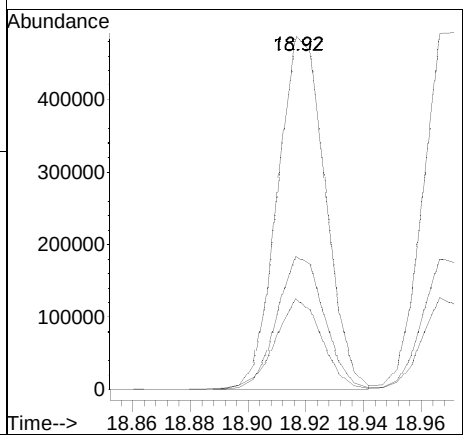


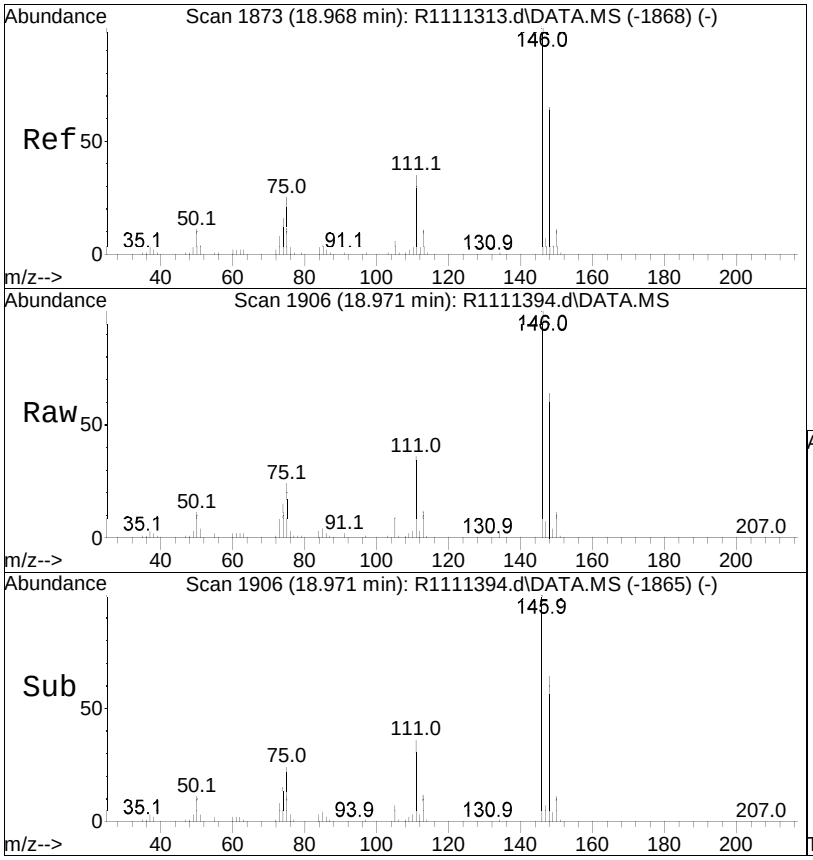


#102
1,3-dichlorobenzene
Concen: 9.23 ppbV
RT: 18.92 min Scan# 1895
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:146 Resp: 561593

Ion	Ratio	Lower	Upper
146	100		
111	37.9	29.9	44.9
75	25.7	19.2	28.8

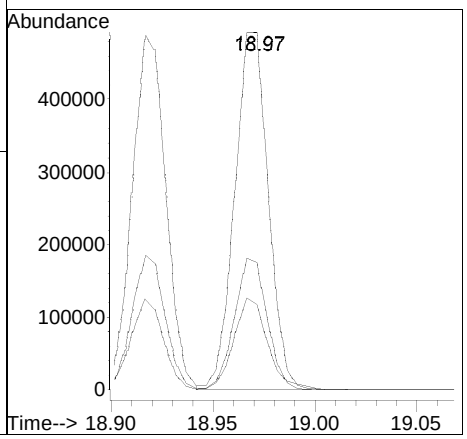


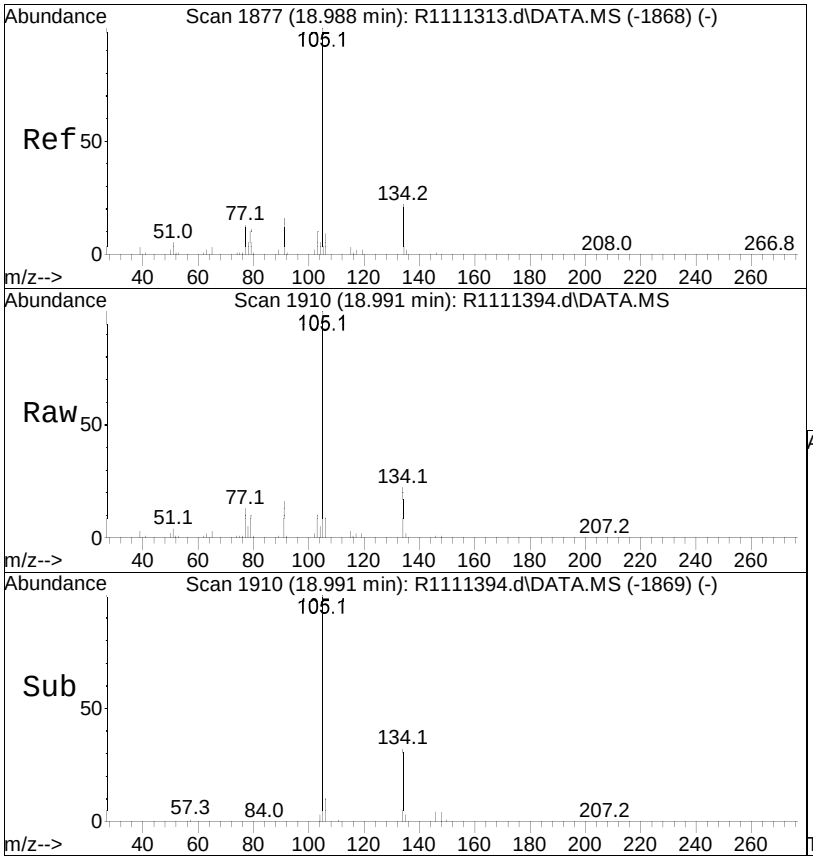


#103
1,4-dichlorobenzene
Concen: 9.17 ppbV
RT: 18.97 min Scan# 1906
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:146 Resp: 563730

Ion	Ratio	Lower	Upper
146	100		
111	35.6	28.3	42.5
75	23.9	19.8	29.6

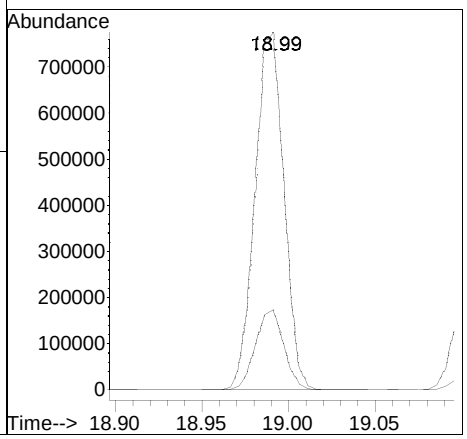


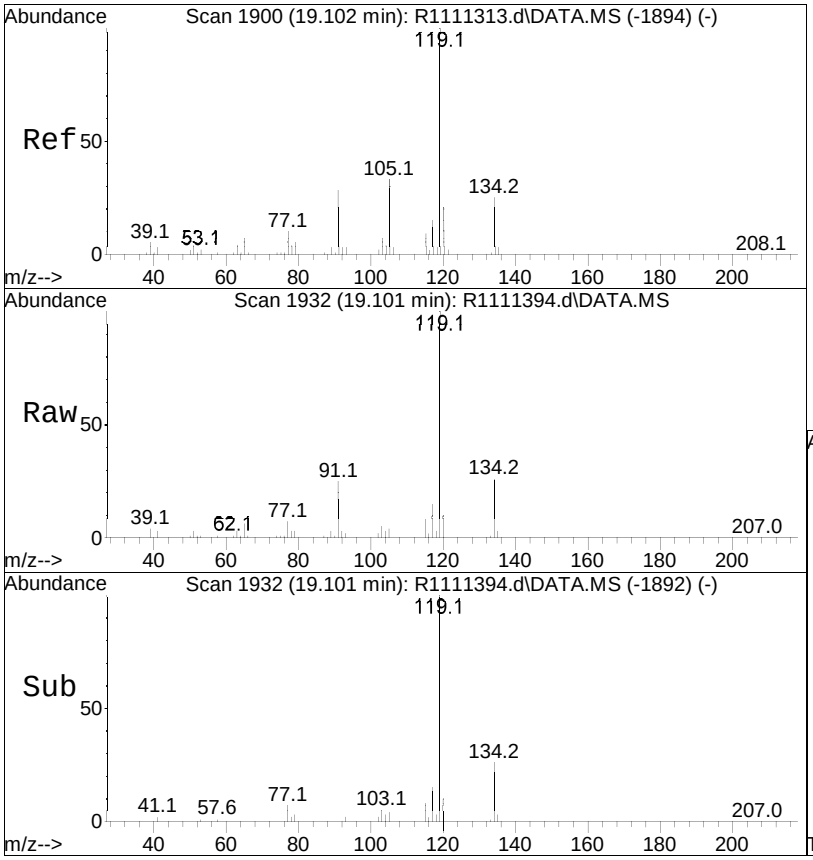


#104
sec-butylbenzene
Concen: 8.49 ppbV
RT: 18.99 min Scan# 1910
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:105 Resp: 891405

Ion	Ratio	Lower	Upper
105	100		
134	22.4	18.0	27.0

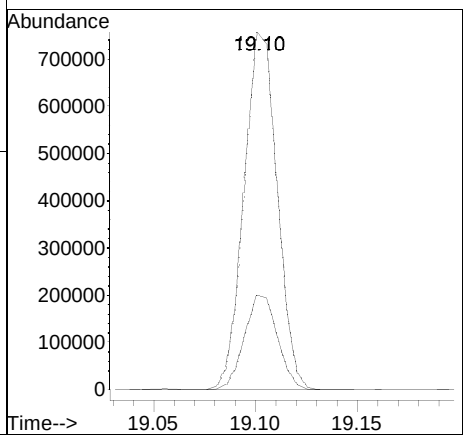


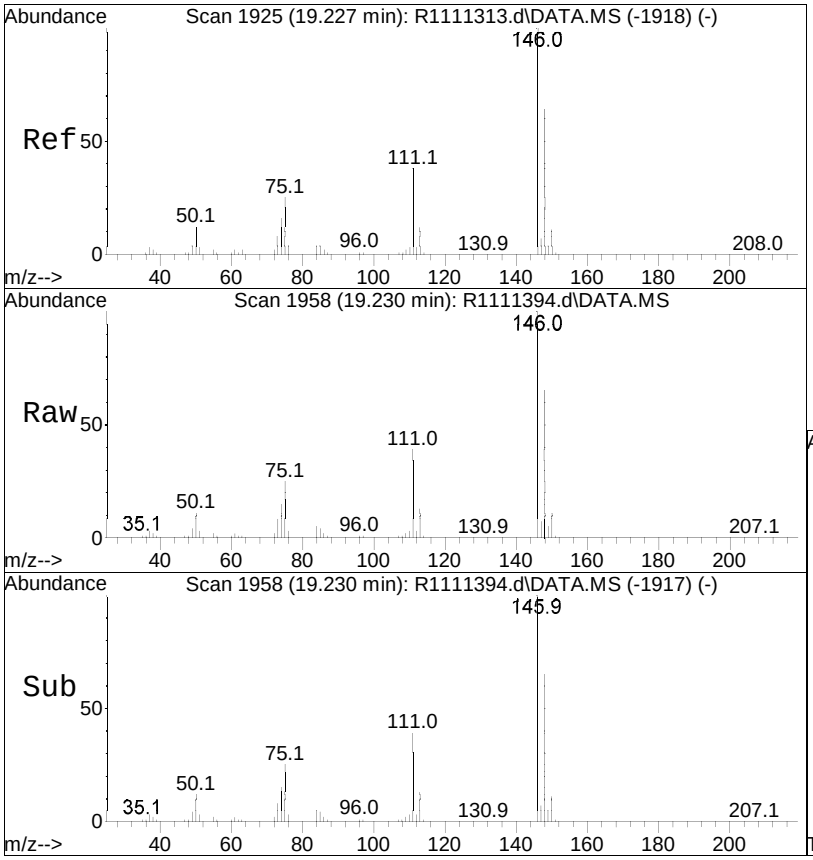


#106
p-isopropyltoluene
Concen: 8.15 ppbV
RT: 19.10 min Scan# 1932
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:119 Resp: 850825

Ion	Ratio	Lower	Upper
119	100		
134	26.5	20.3	30.5

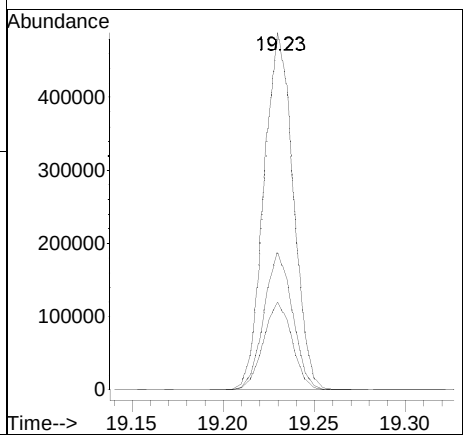


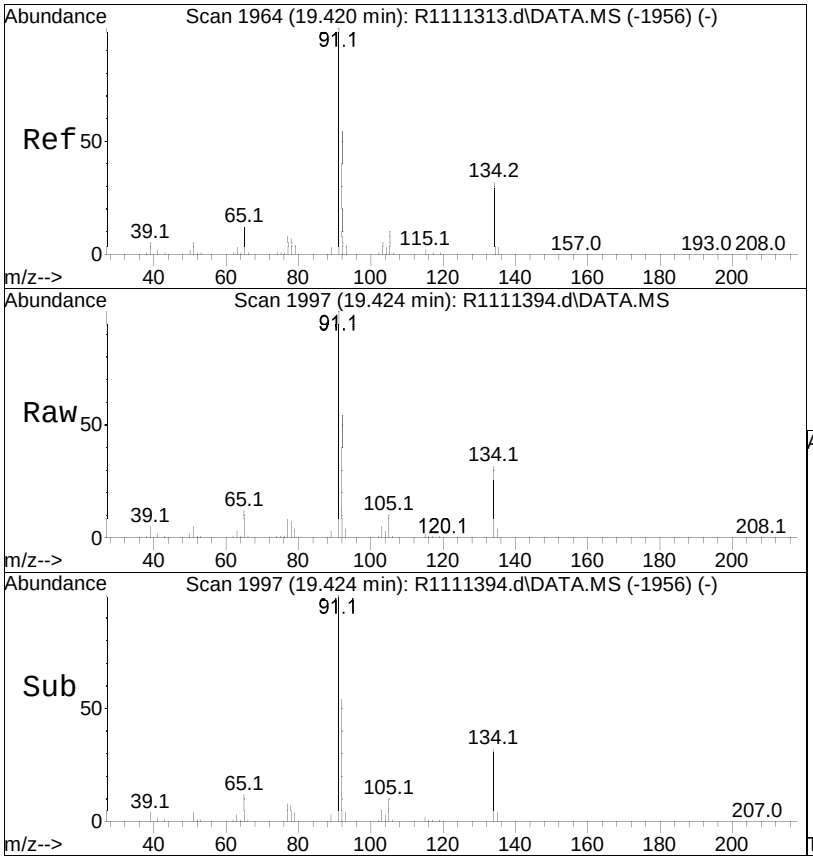


#107
1,2-dichlorobenzene
Concen: 9.20 ppbV
RT: 19.23 min Scan# 1958
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:146 Resp: 544776

Ion	Ratio	Lower	Upper
146	100		
111	38.5	30.4	45.6
75	24.6	20.2	30.2

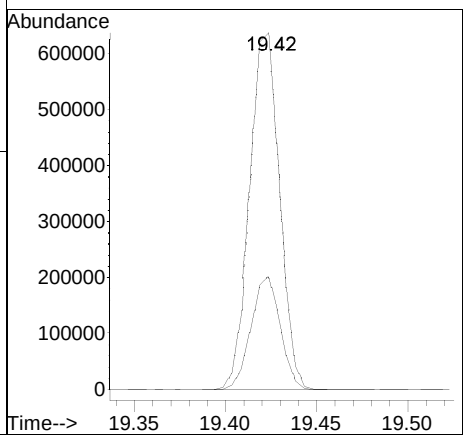


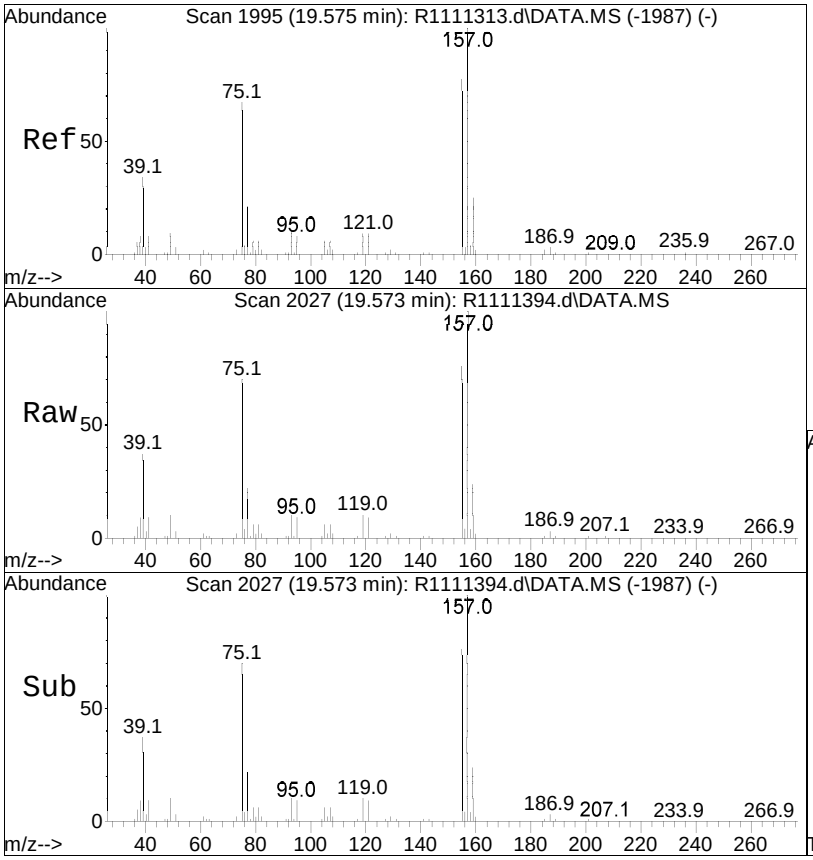


#108
n-butylbenzene
Concen: 8.83 ppbV
RT: 19.42 min Scan# 1997
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 91 Resp: 728462

Ion	Ratio	Lower	Upper
91	100		
134	31.8	25.6	38.4

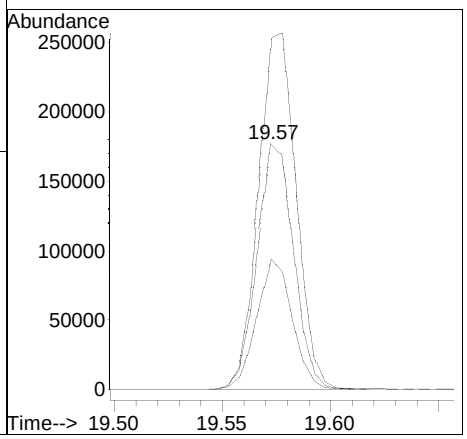


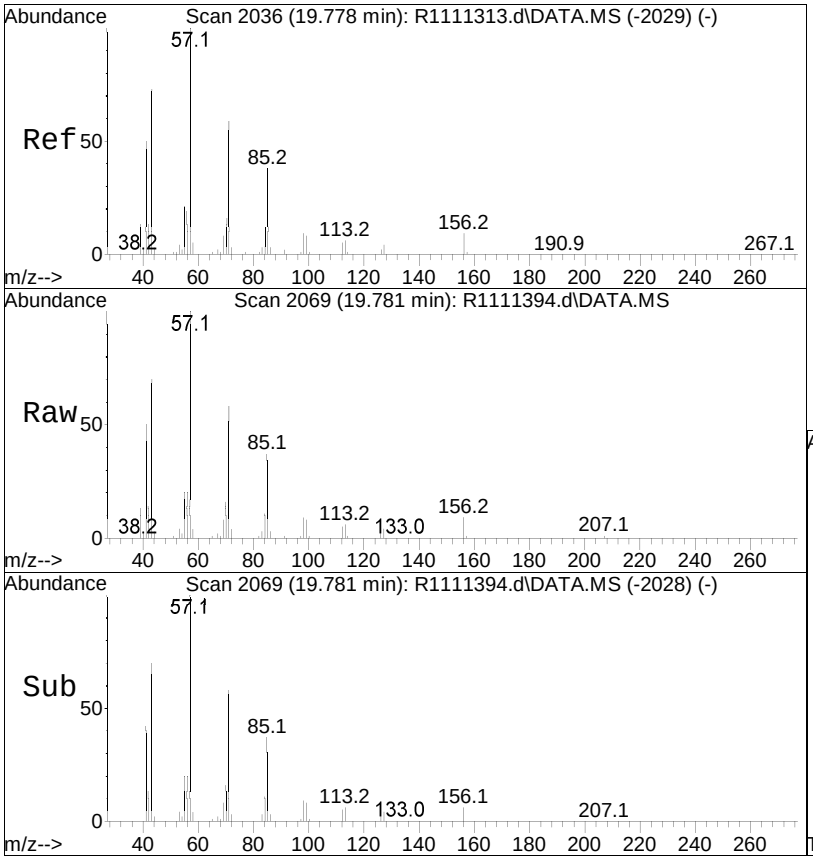


#111
1,2-dibromo-3-chloropropane
Concen: 8.54 ppbV
RT: 19.57 min Scan# 2027
Delta R.T. -0.002 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 75 Resp: 207990

Ion	Ratio	Lower	Upper
75	100		
157	143.3	119.1	178.7
39	53.2	40.5	60.7

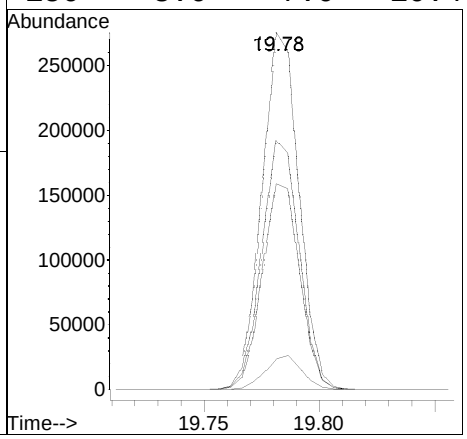


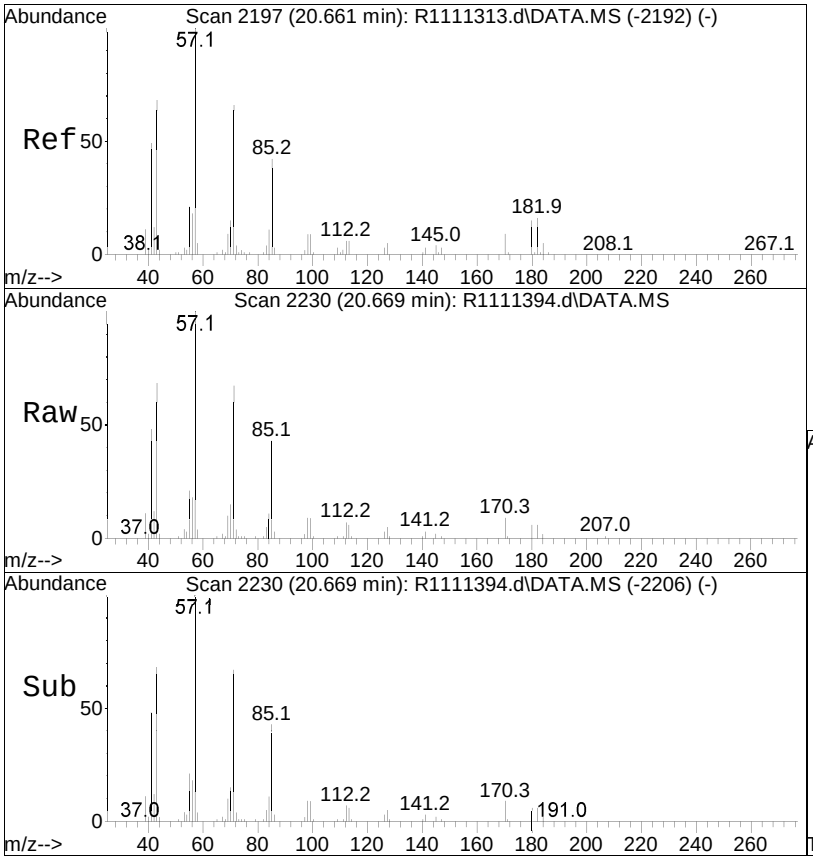


#112
undecane
Concen: 8.82 ppbV
RT: 19.78 min Scan# 2069
Delta R.T. 0.003 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 57 Resp: 306054

Ion	Ratio	Lower	Upper
57	100		
43	70.0	58.2	87.2
71	57.6	47.5	71.3
156	8.6	7.0	10.4

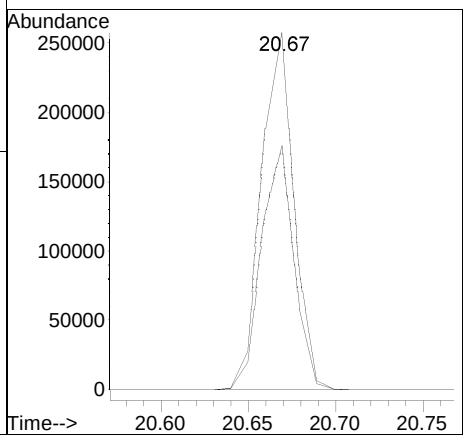


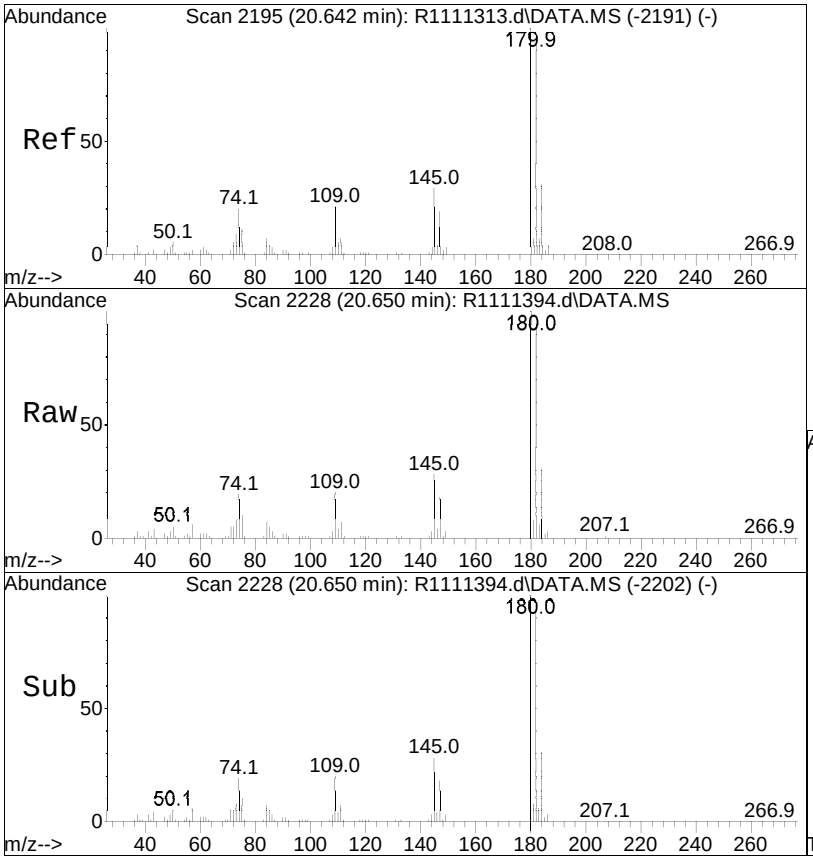


#114
dodecane
Concen: 9.62 ppbV
RT: 20.67 min Scan# 2230
Delta R.T. 0.008 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion: 57 Resp: 331052

Ion	Ratio	Lower	Upper
57	100		
43	68.4	54.5	81.7

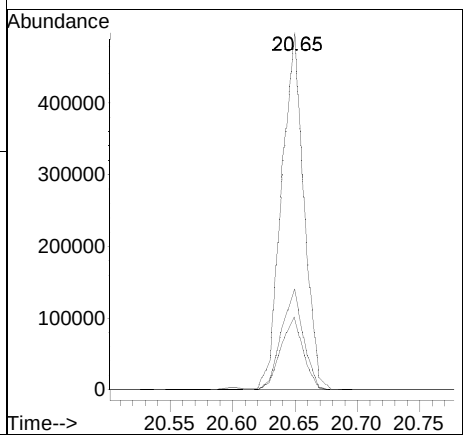


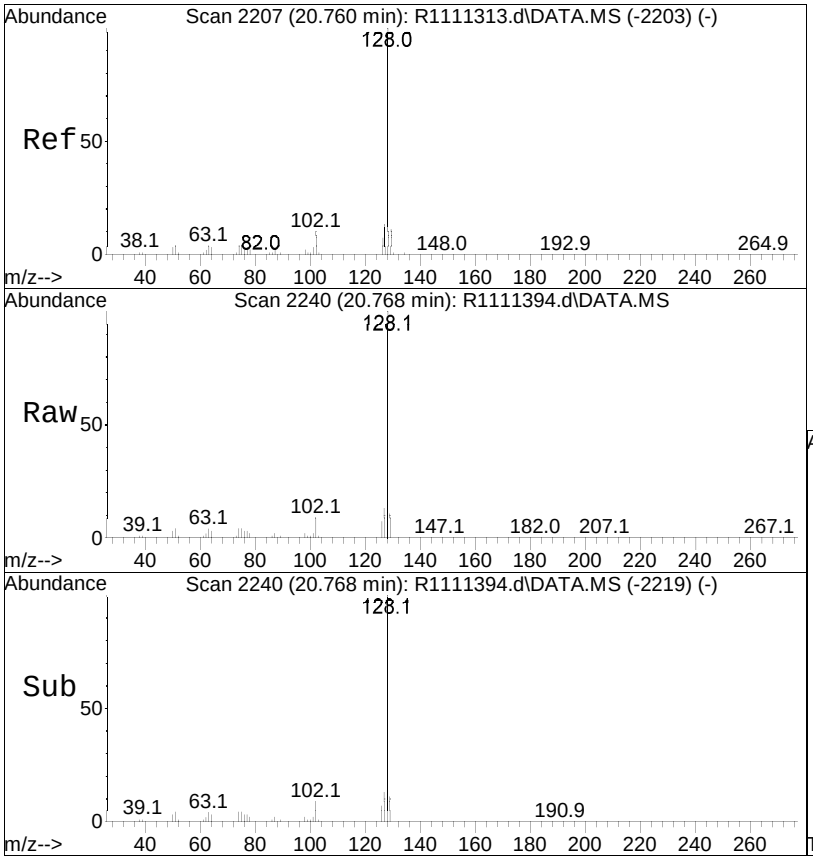


#115
1,2,4-trichlorobenzene
Concen: 9.88 ppbV
RT: 20.65 min Scan# 2228
Delta R.T. 0.008 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:180 Resp: 620552

Ion	Ratio	Lower	Upper
180	100		
145	28.1	23.0	34.4
109	20.4	17.0	25.4

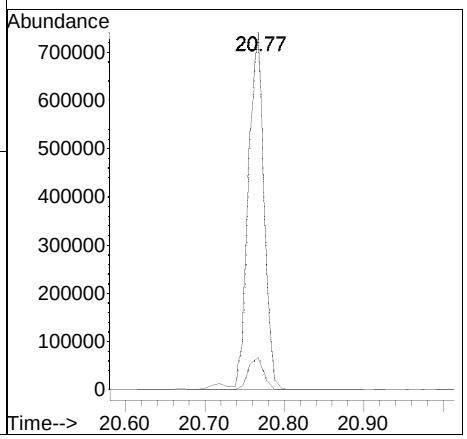


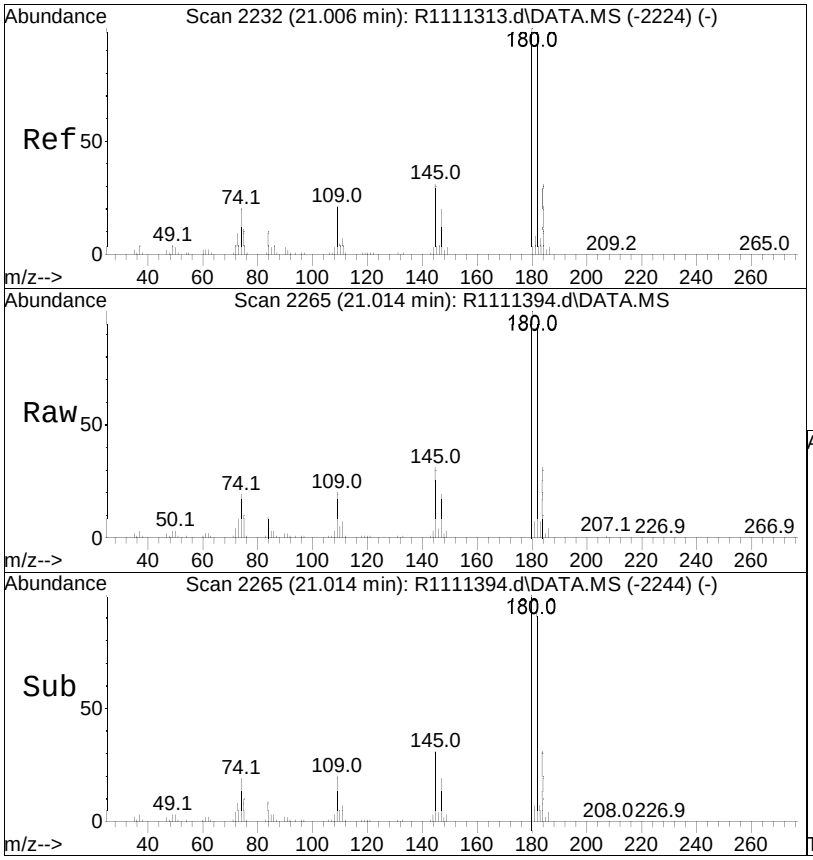


#116
naphthalene
Concen: 9.53 ppbV
RT: 20.77 min Scan# 2240
Delta R.T. 0.008 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:128 Resp: 1007828

Ion	Ratio	Lower	Upper
128	100		
102	9.1	7.7	11.5

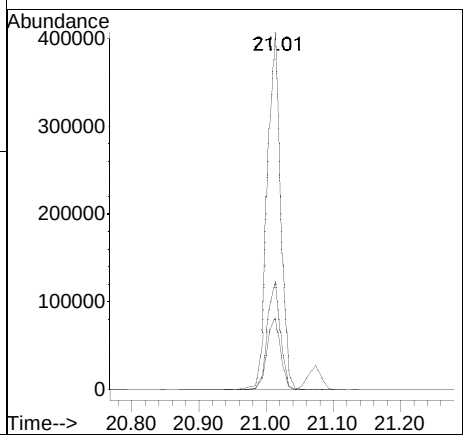


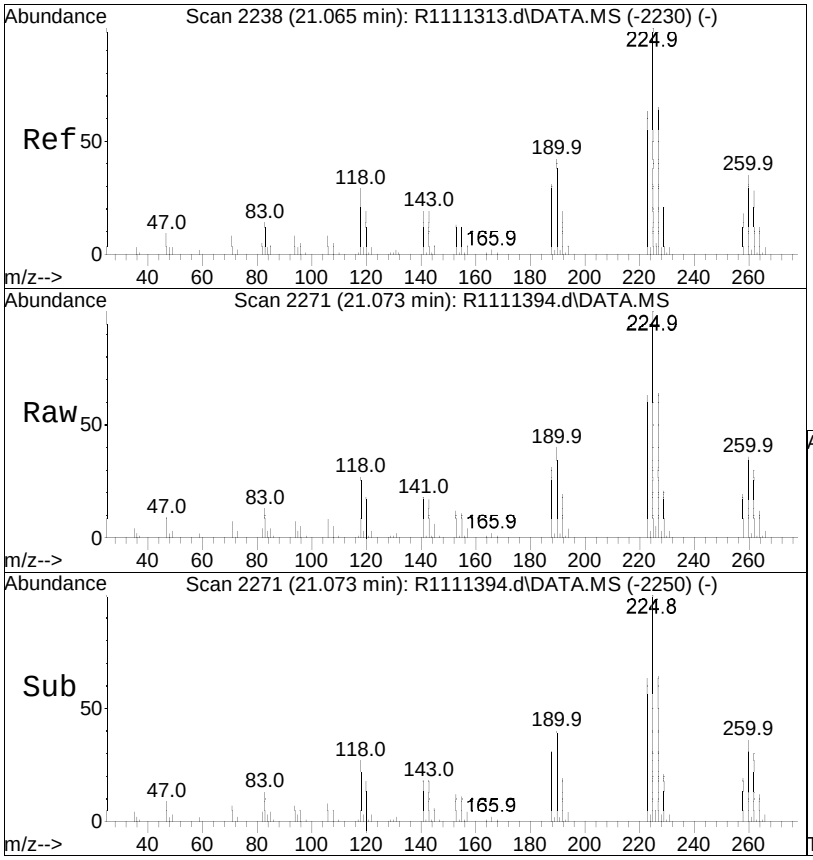


#117
1,2,3-trichlorobenzene
Concen: 9.32 ppbV
RT: 21.01 min Scan# 2265
Delta R.T. 0.008 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:180 Resp: 556241

Ion	Ratio	Lower	Upper
180	100		
145	30.5	24.6	36.8
109	20.3	16.8	25.2

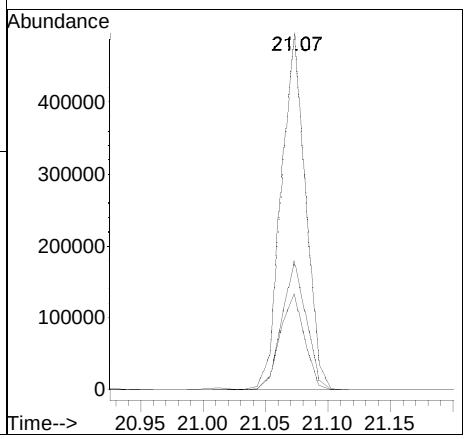




#119
hexachlorobutadiene
Concen: 9.60 ppbV
RT: 21.07 min Scan# 2271
Delta R.T. 0.008 min
Lab File: R1111394.d
Acq: 2 Sep 2015 2:13 pm

Tgt Ion:225 Resp: 671513

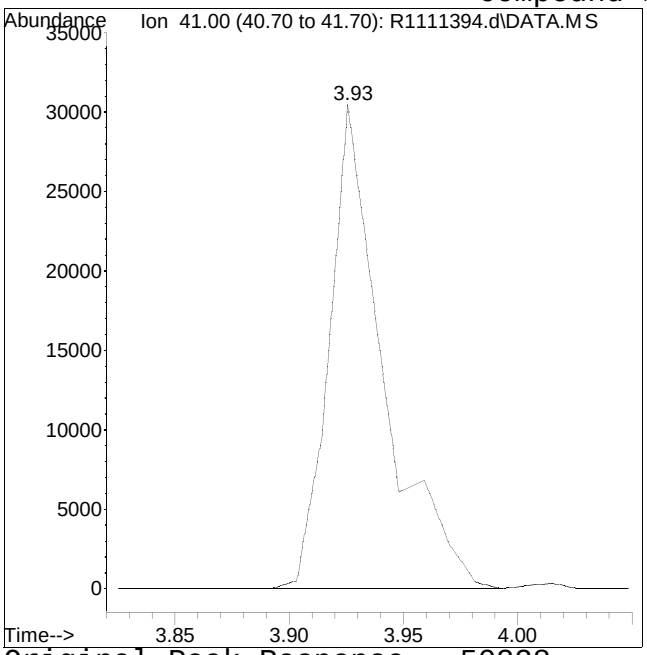
Ion	Ratio	Lower	Upper
225	100		
260	36.1	28.3	42.5
118	26.8	23.5	35.3



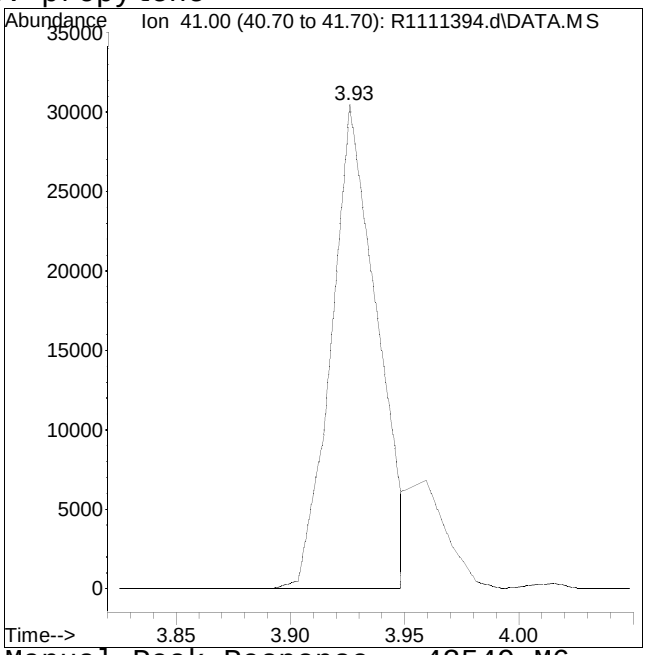
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\QMethod : TALL150827.M
Data File : R1111394.d Operator : AIRLAB11:RY
Date Inj'd : 9/2/2015 2:13 pm Instrument : Airlab 11
Sample : WG817978-3,3,250,250 Quant Date : 9/2/2015 2:49 pm

Compound #3: propylene



Original Peak Response = 50228



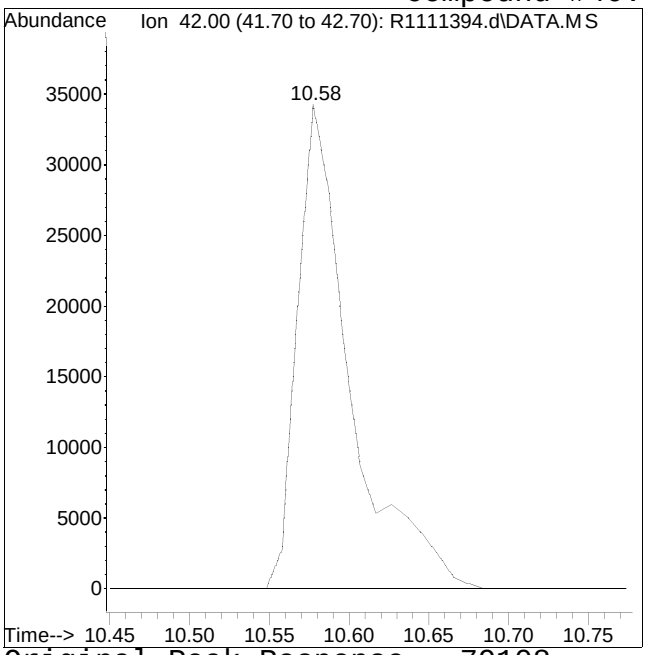
Manual Peak Response = 43549 M6

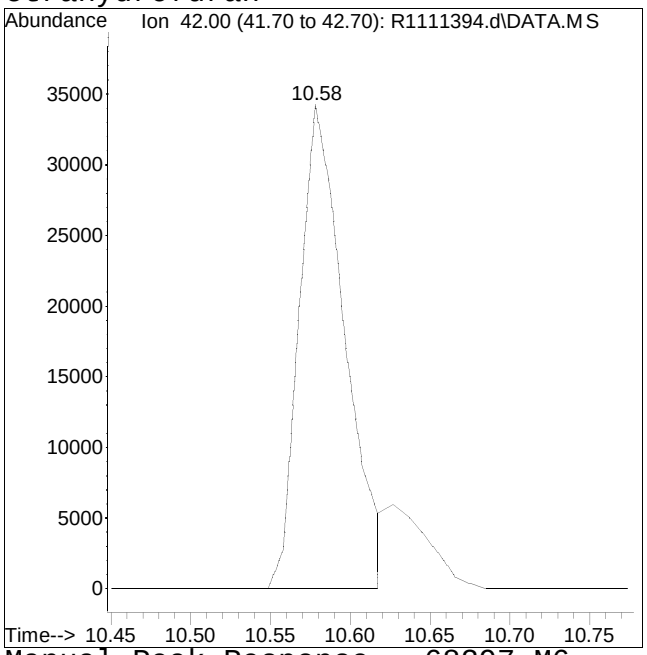
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\QMethod : TALL150827.M
Data File : R1111394.d Operator : AIRLAB11:RY
Date Inj'd : 9/2/2015 2:13 pm Instrument : Airlab 11
Sample : WG817978-3,3,250,250 Quant Date : 9/2/2015 2:49 pm

Compound #40: Tetrahydrofuran



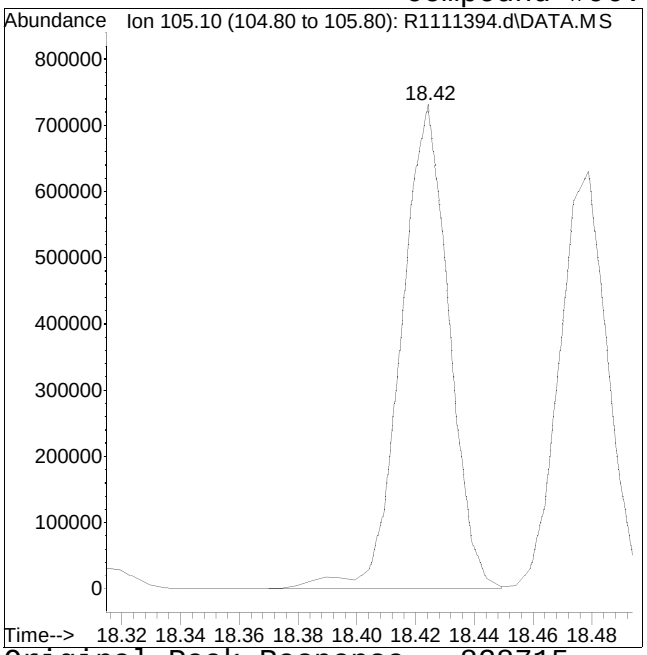


Original Peak Response = 79108 Manual Peak Response = 68297 M6
M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

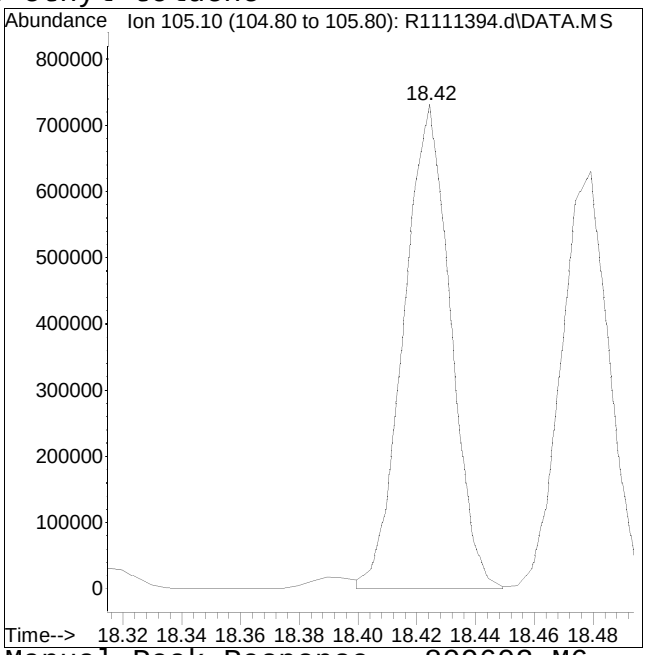
Manual Integration/Negative Proof Report

Data Path : O:\Forensics\Data\Airlab11\QMethod : TALL150827.M
Data File : R1111394.d Operator : AIRLAB11:RY
Date Inj'd : 9/2/2015 2:13 pm Instrument : Airlab 11
Sample : WG817978-3,3,250,250 Quant Date : 9/2/2015 2:49 pm

Compound #96: 4-ethyl toluene



Original Peak Response = 828715



Manual Peak Response = 809602 M6

M6 = Misassignment of peak valley by automated integration (poor split of 2 peaks).

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: WG817978-5DL	Date Collected :	08/27/15 14:25
Client ID	: UPS-SS-2DUP	Date Received :	08/28/15
Sample Location	:	Date Analyzed :	09/02/15 21:33
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.193
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111402	Instrument ID	: AIRLAB11
Sample Amount	: 114 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-71-8	Dichlorodifluoromethane	0.53	0.44	--	3.	2.	--	
74-87-3	Chloromethane	ND	0.44	--	ND	0.9	--	U
76-14-2	Freon-114	ND	0.44	--	ND	3.	--	U
75-01-4	Vinyl chloride	ND	0.44	--	ND	1.	--	U
106-99-0	1,3-Butadiene	ND	0.44	--	ND	1.	--	U
74-83-9	Bromomethane	ND	0.44	--	ND	2.	--	U
75-00-3	Chloroethane	ND	0.44	--	ND	1.	--	U
64-17-5	Ethanol	110	5.5	--	210	10.	--	
593-60-2	Vinyl bromide	ND	0.44	--	ND	2.	--	U
67-64-1	Acetone	140	2.2	--	330	5.2	--	
75-69-4	Trichlorofluoromethane	ND	0.44	--	ND	2.	--	U
67-63-0	Isopropanol	16.	1.1	--	39.	2.7	--	
75-35-4	1,1-Dichloroethene	ND	0.44	--	ND	2.	--	U
75-65-0	Tertiary butyl Alcohol	2.0	1.1	--	6.	3.	--	
75-09-2	Methylene chloride	ND	1.1	--	ND	4.	--	U
107-05-1	3-Chloropropene	ND	0.44	--	ND	1.	--	U
75-15-0	Carbon disulfide	ND	0.44	--	ND	1.	--	U
76-13-1	Freon-113	ND	0.44	--	ND	3.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.44	--	ND	2.	--	U
75-34-3	1,1-Dichloroethane	ND	0.44	--	ND	2.	--	U
1634-04-4	Methyl tert butyl ether	ND	0.44	--	ND	2.	--	U
78-93-3	2-Butanone	19.	1.1	--	56.	3.2	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.44	--	ND	2.	--	U
67-66-3	Chloroform	ND	0.44	--	ND	2.	--	U
109-99-9	Tetrahydrofuran	2.2	1.1	--	6.	3.	--	
107-06-2	1,2-Dichloroethane	ND	0.44	--	ND	2.	--	U
110-54-3	n-Hexane	ND	0.44	--	ND	2.	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.44	--	ND	2.	--	U

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: WG817978-5DL	Date Collected :	08/27/15 14:25
Client ID	: UPS-SS-2DUP	Date Received :	08/28/15
Sample Location	:	Date Analyzed :	09/02/15 21:33
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.193
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111402	Instrument ID	: AIRLAB11
Sample Amount	: 114 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
71-43-2	Benzene	ND	0.44	--	ND	1.	--	U
56-23-5	Carbon tetrachloride	ND	0.44	--	ND	3.	--	U
110-82-7	Cyclohexane	ND	0.44	--	ND	2.	--	U
78-87-5	1,2-Dichloropropane	ND	0.44	--	ND	2.	--	U
75-27-4	Bromodichloromethane	ND	0.44	--	ND	3.	--	U
123-91-1	1,4-Dioxane	ND	0.44	--	ND	2.	--	U
79-01-6	Trichloroethene	3.7	0.44	--	20.	2.4	--	
540-84-1	2,2,4-Trimethylpentane	ND	0.44	--	ND	2.	--	U
80-62-6	Methyl Methacrylate	ND	1.1	--	ND	5.	--	U
142-82-5	Heptane	ND	0.44	--	ND	2.	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.44	--	ND	2.	--	U
108-10-1	4-Methyl-2-pentanone	ND	1.1	--	ND	5.	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.44	--	ND	2.	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.44	--	ND	2.	--	U
108-88-3	Toluene	2.1	0.44	--	8.	2.	--	
124-48-1	Dibromochloromethane	ND	0.44	--	ND	4.	--	U
106-93-4	1,2-Dibromoethane	ND	0.44	--	ND	3.	--	U
127-18-4	Tetrachloroethene	20.	0.44	--	140	3.0	--	
108-90-7	Chlorobenzene	ND	0.44	--	ND	2.	--	U
100-41-4	Ethylbenzene	0.86	0.44	--	4.	2.	--	
179601-23-1	p/m-Xylene	3.1	0.88	--	13.	3.8	--	
75-25-2	Bromoform	ND	0.44	--	ND	5.	--	U
100-42-5	Styrene	ND	0.44	--	ND	2.	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.44	--	ND	3.	--	U
95-47-6	o-Xylene	1.1	0.44	--	5.	2.	--	
95-49-8	2-Chlorotoluene	ND	0.44	--	ND	2.	--	U
622-96-8	4-Ethyltoluene	0.73	0.44	--	4.	2.	--	
108-67-8	1,3,5-Trimethybenzene	0.73	0.44	--	4.	2.	--	

Form 1
Volatile Organics

Client	: Viridian, Inc.	Lab Number	: L1521092
Project Name	: US1 CLEANERS-TELLURIAN	Project Number:	0809-15
Lab ID	: WG817978-5DL	Date Collected :	08/27/15 14:25
Client ID	: UPS-SS-2DUP	Date Received :	08/28/15
Sample Location	:	Date Analyzed :	09/02/15 21:33
Sample Matrix	: SOIL_VAPOR	Dilution Factor :	2.193
Analytical Method	: 48,TO-15	Analyst	: RY
Lab File ID	: R1111402	Instrument ID	: AIRLAB11
Sample Amount	: 114 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
95-63-6	1,2,4-Trimethylbenzene	3.2	0.44	--	16.	2.2	--	
541-73-1	1,3-Dichlorobenzene	ND	0.44	--	ND	3.	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.44	--	ND	3.	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.44	--	ND	3.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.44	--	ND	3.	--	U
87-68-3	Hexachlorobutadiene	ND	0.44	--	ND	5.	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111402.d
Acq On : 2 Sep 2015 9:33 pm
Operator : AIRLAB11:RY
Sample : WG817978-5D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 03 08:51:35 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	9.94	49	63748	10.000	ppbV	0.00
Standard Area = 81084			Recovery =		78.62%	
43) 1,4-difluorobenzene	12.16	114	381258	10.000	ppbV	0.02
Standard Area = 489060			Recovery =		77.96%	
67) chlorobenzene-D5	16.63	54	63935	10.000	ppbV	0.00
Standard Area = 80649			Recovery =		79.28%	
System Monitoring Compounds						
Target Compounds						Qvalue
5) dichlorodifluoromethane	4.03	85	6515	0.240	ppbV	97
6) chloromethane	0.00		0	N.D.		
7) Freon-114	0.00		0	N.D.		
9) vinyl chloride	0.00		0	N.D.		
10) 1,3-butadiene	0.00		0	N.D.		
13) bromomethane	0.00		0	N.D.		
14) chloroethane	0.00		0	N.D.		
15) ethanol	5.55	31	143008	49.741	ppbV	99
17) vinyl bromide	0.00		0	N.D.		
19) acetone	6.15	43	666588	62.714	ppbV #	98
21) trichlorofluoromethane	6.36	101	5131	0.134	ppbV	98
22) isopropyl alcohol	6.55	45	73382	7.212	ppbV #	97
26) 1,1-dichloroethene	0.00		0	N.D.		
27) tertiary butyl alcohol	7.34	59	16437	0.892	ppbV #	88
28) methylene chloride	7.36	49	2695	0.335	ppbV	100
29) 3-chloropropene	0.00		0	N.D.		
30) carbon disulfide	7.67	76	1833	0.068	ppbV #	38
31) Freon 113	7.69		0	N.D.		
32) trans-1,2-dichloroethene	0.00		0	N.D.		
33) 1,1-dichloroethane	0.00		0	N.D.		
34) MTBE	8.87		0	N.D.		
36) 2-butanone	9.27	43	115706	8.814	ppbV	97
37) cis-1,2-dichloroethene	0.00		0	N.D.		
39) chloroform	10.10		0	N.D.		
40) Tetrahydrofuran	10.62	42	6333	0.984	ppbV #	86
42) 1,2-dichloroethane	0.00		0	N.D.		
44) hexane	9.99		0	N.D.		
48) 1,1,1-trichloroethane	0.00		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111402.d
Acq On : 2 Sep 2015 9:33 pm
Operator : AIRLAB11:RY
Sample : WG817978-5D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 03 08:51:35 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
50)	benzene	11.74	78	1612	0.054 ppbV #	67
52)	carbon tetrachloride	11.90		0	N.D.	
53)	cyclohexane	12.04		0	N.D.	
56)	1,2-dichloropropane	0.00		0	N.D.	
57)	bromodichloromethane	12.94		0	N.D.	
58)	1,4-dioxane	0.00		0	N.D.	
59)	trichloroethene	12.94	130	32876	1.703 ppbV	98
60)	2,2,4-trimethylpentane	12.97		0	N.D.	
61)	methyl methacrylate	13.26		0	N.D.	
62)	heptane	13.28		0	N.D.	
63)	cis-1,3-dichloropropene	0.00		0	N.D.	
64)	4-methyl-2-pentanone	14.00	43	1711	0.073 ppbV #	74
65)	trans-1,3-dichloropropene	0.00		0	N.D.	
66)	1,1,2-trichloroethane	0.00		0	N.D.	
68)	toluene	15.01	91	38904	0.971 ppbV	93
74)	dibromochloromethane	0.00		0	N.D.	
75)	1,2-dibromoethane	0.00		0	N.D.	
78)	tetrachloroethene	16.08	166	282182	9.173 ppbV	99
80)	chlorobenzene	16.67		0	N.D.	
81)	ethylbenzene	16.98	91	21594	0.394 ppbV	99
83)	m+p-xylene	17.11	91	65108	1.427 ppbV	99
84)	bromoform	0.00		0	N.D.	
85)	styrene	17.41		0	N.D.	
86)	1,1,2,2-tetrachloroethane	0.00		0	N.D.	
87)	o-xylene	17.49	91	23874	0.517 ppbV	99
93)	2-chlorotoluene	18.16		0	N.D.	
96)	4-ethyl toluene	18.42	105	24702	0.333 ppbV	98
97)	1,3,5-trimethylbenzene	18.48	105	20814	0.334 ppbV	99
99)	1,2,4-trimethylbenzene	18.79	105	86920	1.463 ppbV #	54
102)	1,3-dichlorobenzene	18.92		0	N.D.	
103)	1,4-dichlorobenzene	18.97		0	N.D.	
107)	1,2-dichlorobenzene	19.23		0	N.D.	
115)	1,2,4-trichlorobenzene	20.65		0	N.D.	
119)	hexachlorobutadiene	0.00		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111402.d
Acq On : 2 Sep 2015 9:33 pm
Operator : AIRLAB11:RY
Sample : WG817978-5D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 03 08:51:35 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\Airlab11\2015\150902T\R1111393.d
Sub List : NJ-LL_New - .

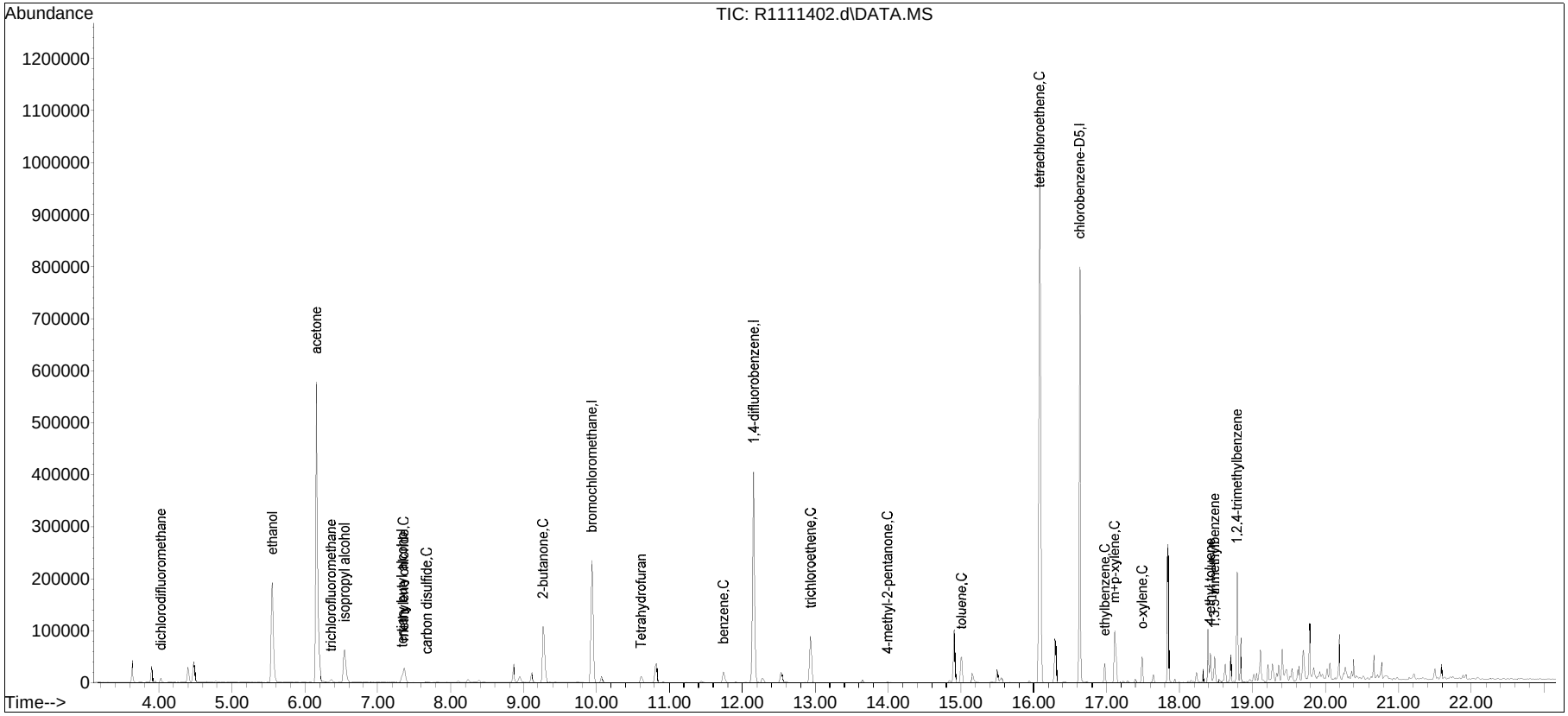
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Quantitation Report (QT Reviewed)

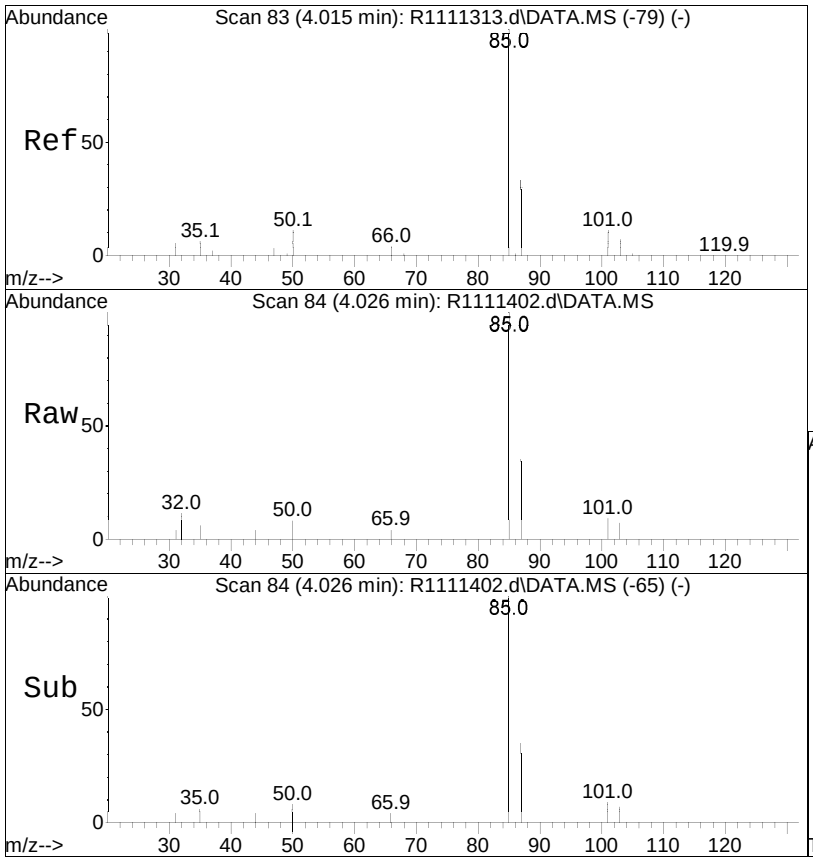
Data Path : O:\Forensics\Data\Airlab11\2015\150902T\
Data File : R1111402.d
Acq On : 2 Sep 2015 9:33 pm
Operator : AIRLAB11:RY
Sample : WG817978-5D,3,114.0203,250
Misc : WG817978,ICAL11393
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 03 08:51:35 2015
Quant Method : O:\Forensics\Data\Airlab11\2015\150902T\TALL150827.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Fri Aug 28 08:37:33 2015
Response via : Initial Calibration

Sub List : NJ-LL_New - .Data\Airlab11\2015\150902T\R1111393.d



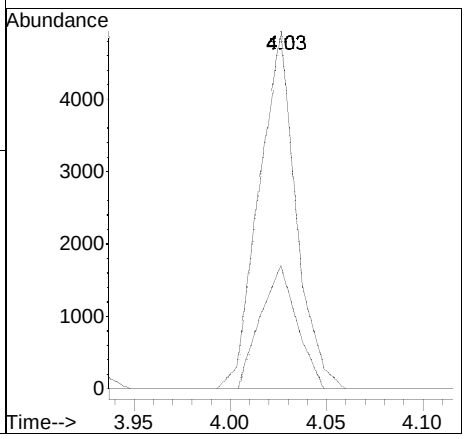
TALL150827.M Thu Sep 03 16:44:20 2015

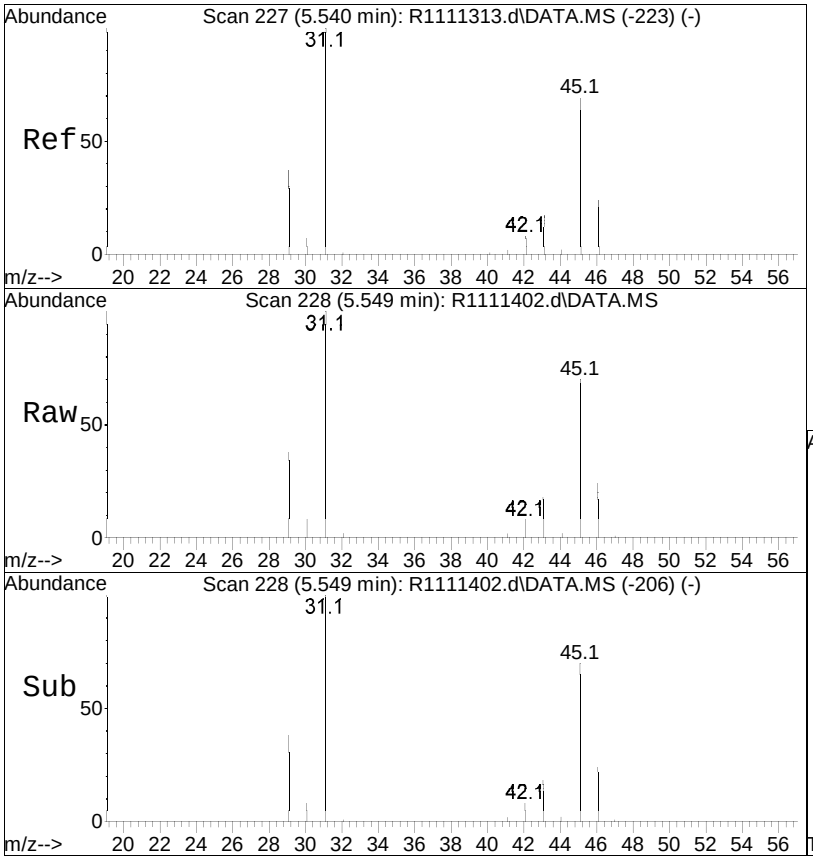


#5
dichlorodifluoromethane
Concen: 0.24 ppbV
RT: 4.03 min Scan# 84
Delta R.T. 0.011 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion: 85 Resp: 6515

Ion	Ratio	Lower	Upper
85	100		
87	34.5	26.1	39.1

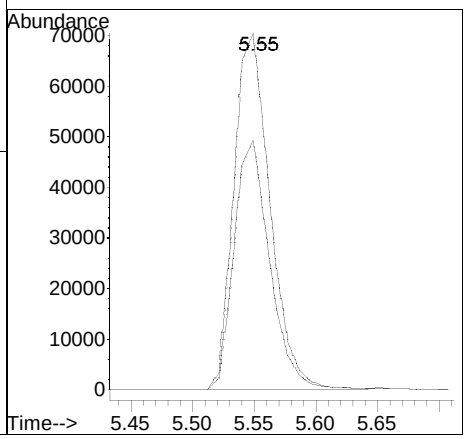


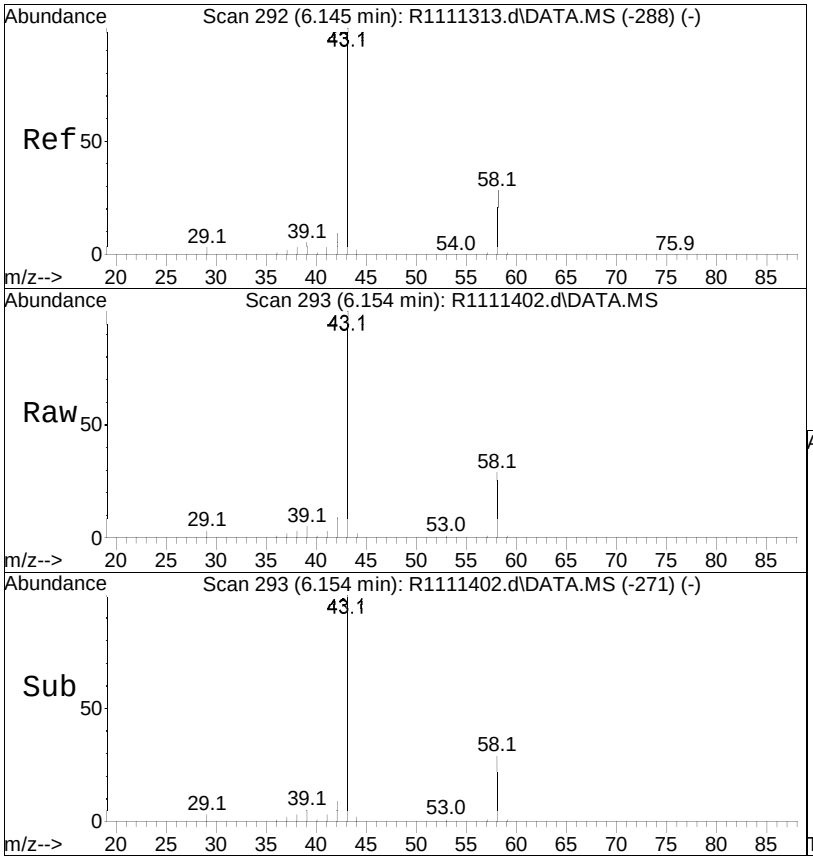


#15
ethanol
Concen: 49.74 ppbV
RT: 5.55 min Scan# 228
Delta R.T. 0.009 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion: 31 Resp: 143008

Ion	Ratio	Lower	Upper
31	100		
45	69.8	55.4	83.2

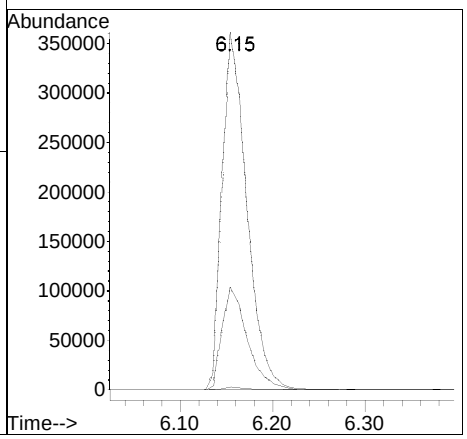


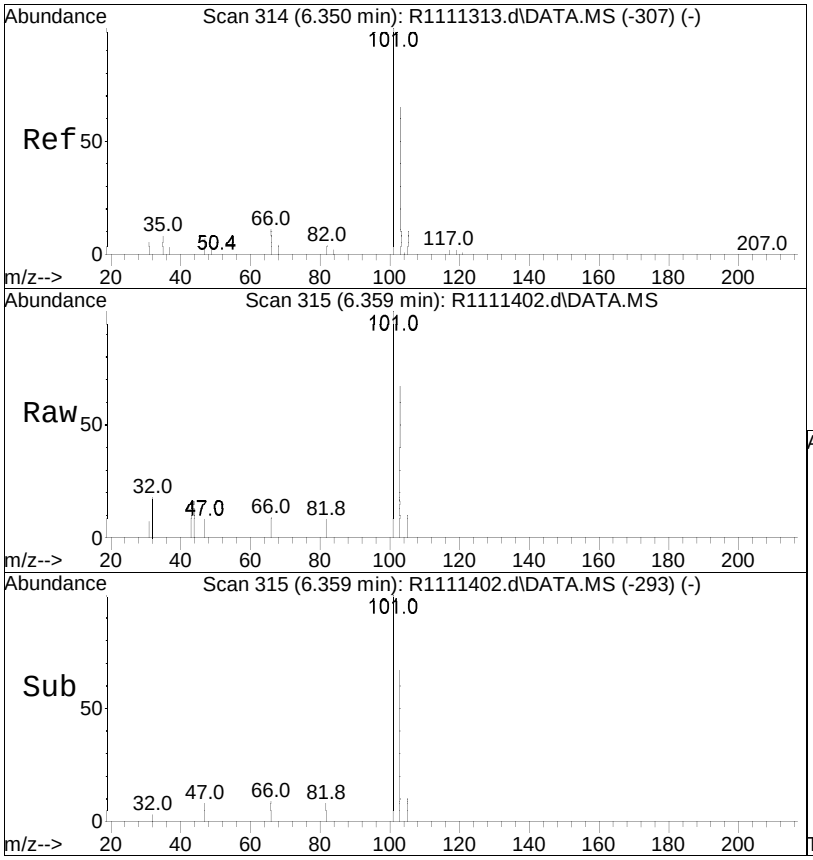


#19
acetone
Concen: 62.71 ppbV
RT: 6.15 min Scan# 293
Delta R.T. 0.009 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion: 43 Resp: 666588

Ion	Ratio	Lower	Upper
43	100		
58	28.7	22.2	33.2
57	1.0	0.6	1.0#

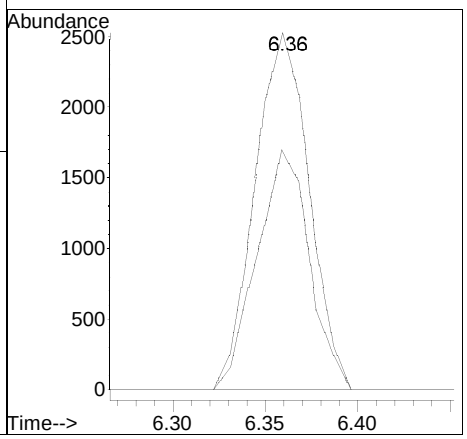


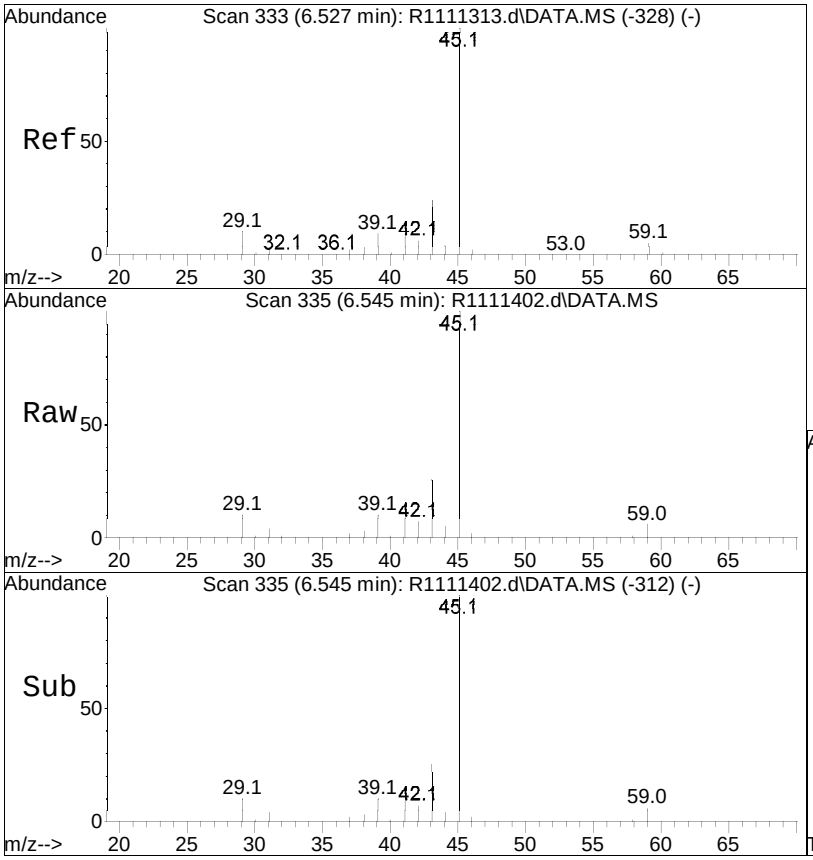


#21
trichlorofluoromethane
Concen: 0.13 ppbV
RT: 6.36 min Scan# 315
Delta R.T. 0.009 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion:101 Resp: 5131

Ion	Ratio	Lower	Upper
101	100		
103	67.1	52.3	78.5

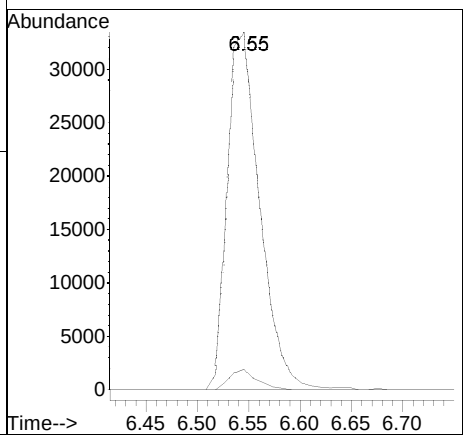


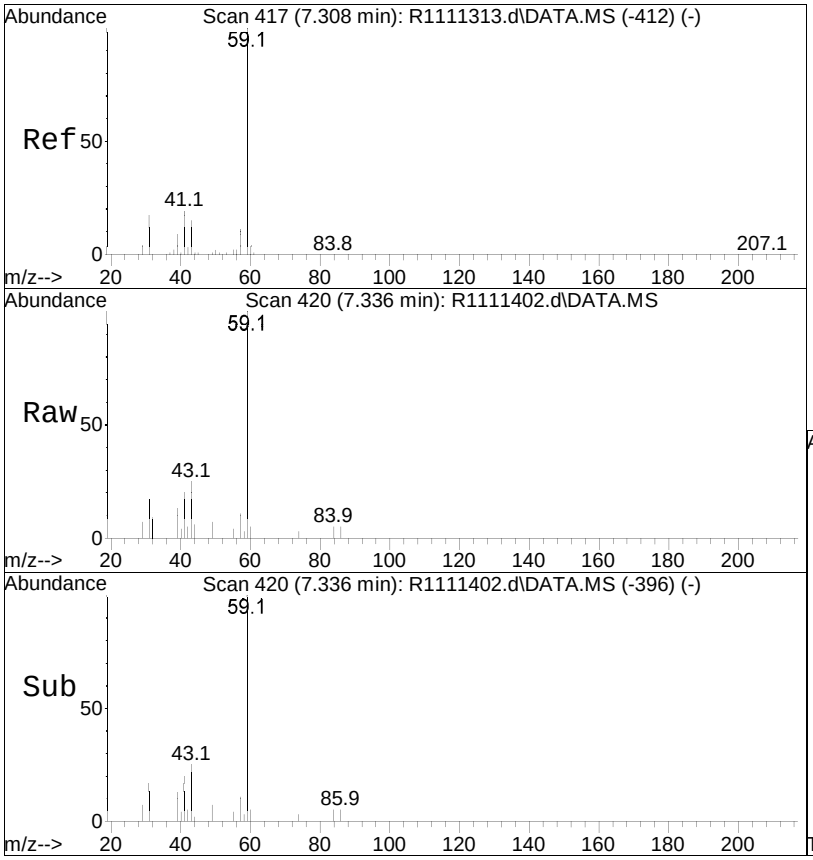


#22
isopropyl alcohol
Concen: 7.21 ppbV
RT: 6.55 min Scan# 335
Delta R.T. 0.018 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion: 45 Resp: 73382

Ion	Ratio	Lower	Upper
45	100		
59	5.7	3.8	5.6#

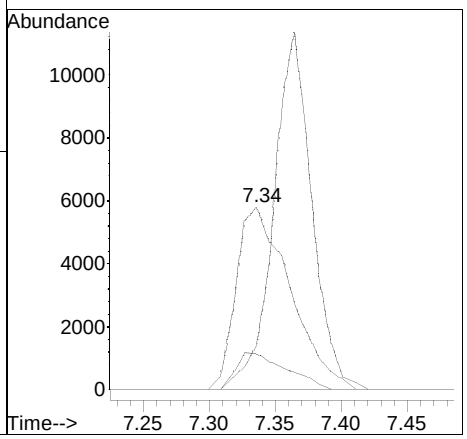


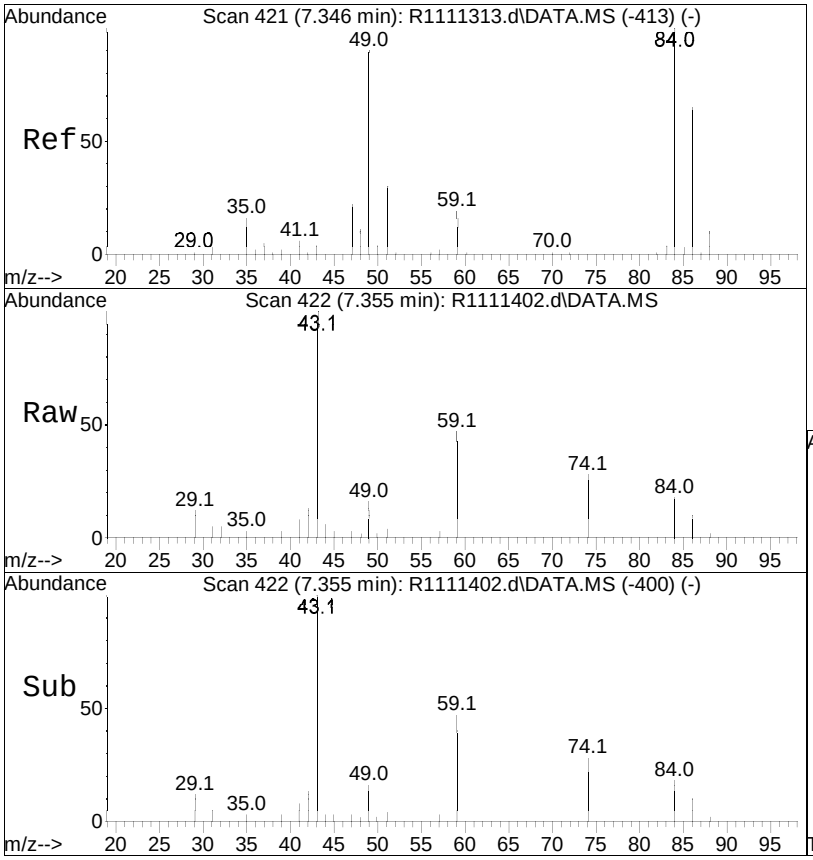


#27
tertiary butyl alcohol
Concen: 0.89 ppbV
RT: 7.34 min Scan# 420
Delta R.T. 0.028 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion: 59 Resp: 16437

Ion	Ratio	Lower	Upper
59	100		
41	19.8	15.1	22.7
43	25.4	11.8	17.6#

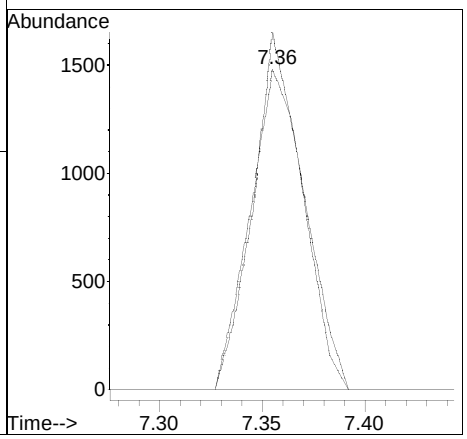


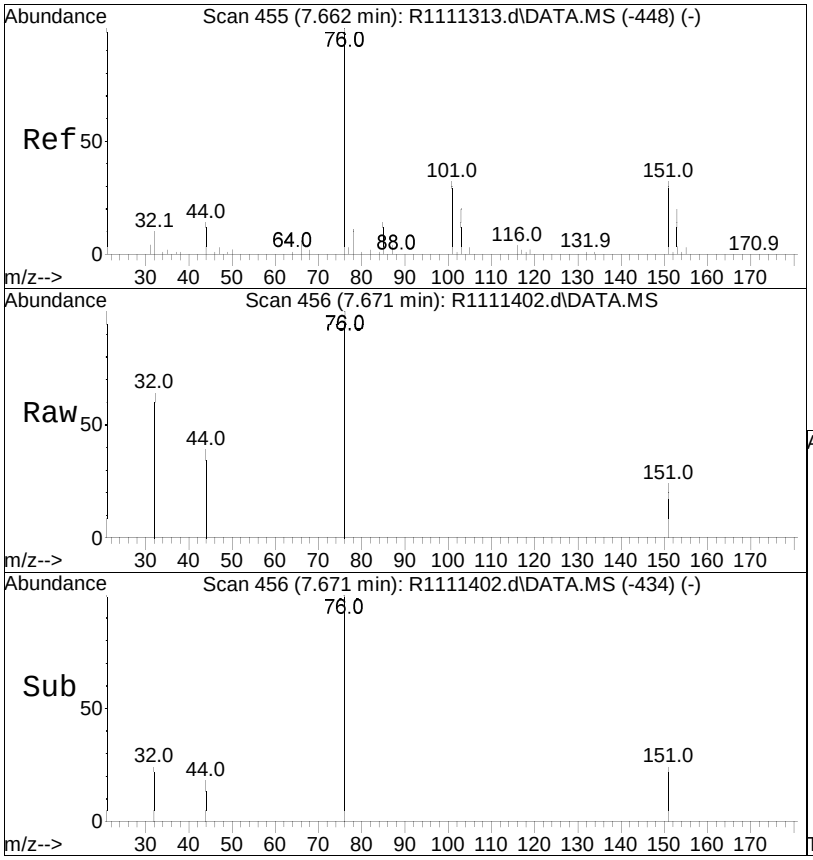


#28
methylene chloride
Concen: 0.34 ppbV
RT: 7.36 min Scan# 422
Delta R.T. 0.009 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion: 49 Resp: 2695

Ion	Ratio	Lower	Upper
49	100		
84	111.3	89.0	133.4

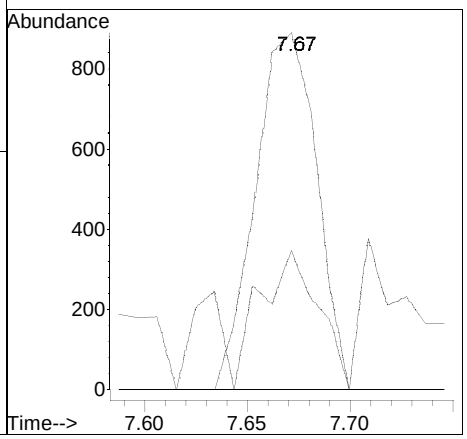


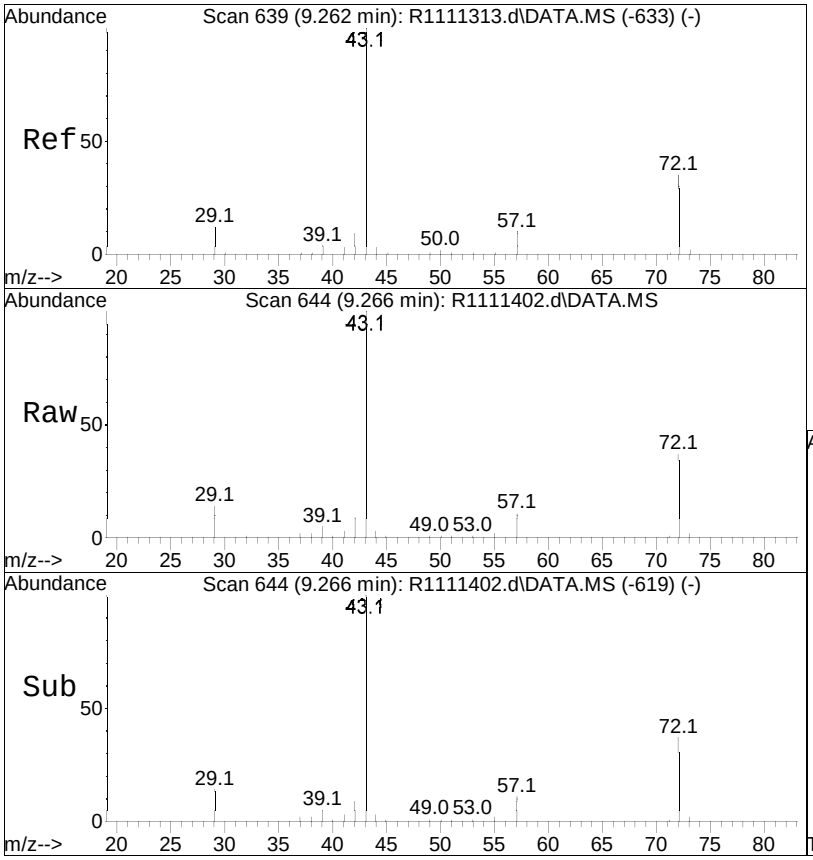


#30
carbon disulfide
Concen: 0.07 ppbV
RT: 7.67 min Scan# 456
Delta R.T. 0.009 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion: 76 Resp: 1833

Ion	Ratio	Lower	Upper
76	100		
44	39.0	11.0	16.6#

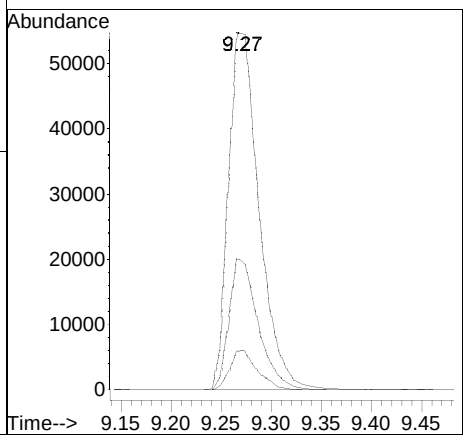


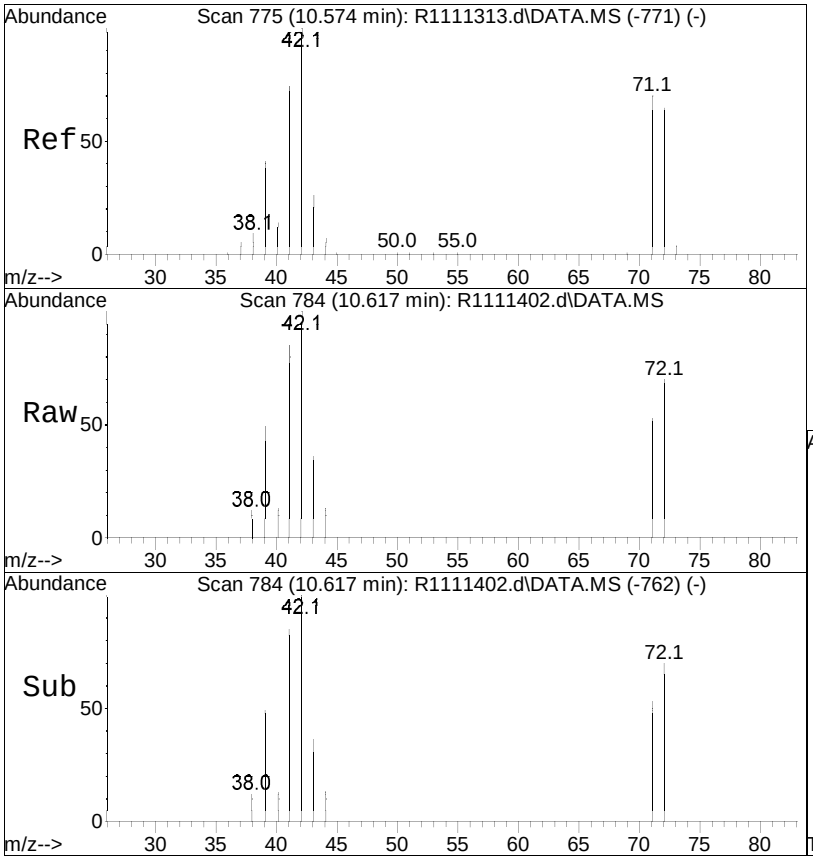


#36
2-butanone
Concen: 8.81 ppbV
RT: 9.27 min Scan# 644
Delta R.T. 0.004 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion: 43 Resp: 115706

Ion	Ratio	Lower	Upper
43	100		
72	37.1	28.1	42.1
57	10.7	8.3	12.5

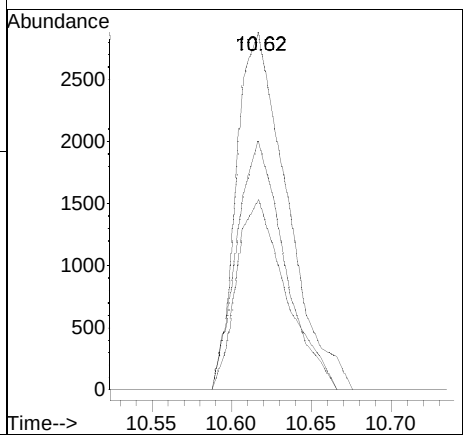


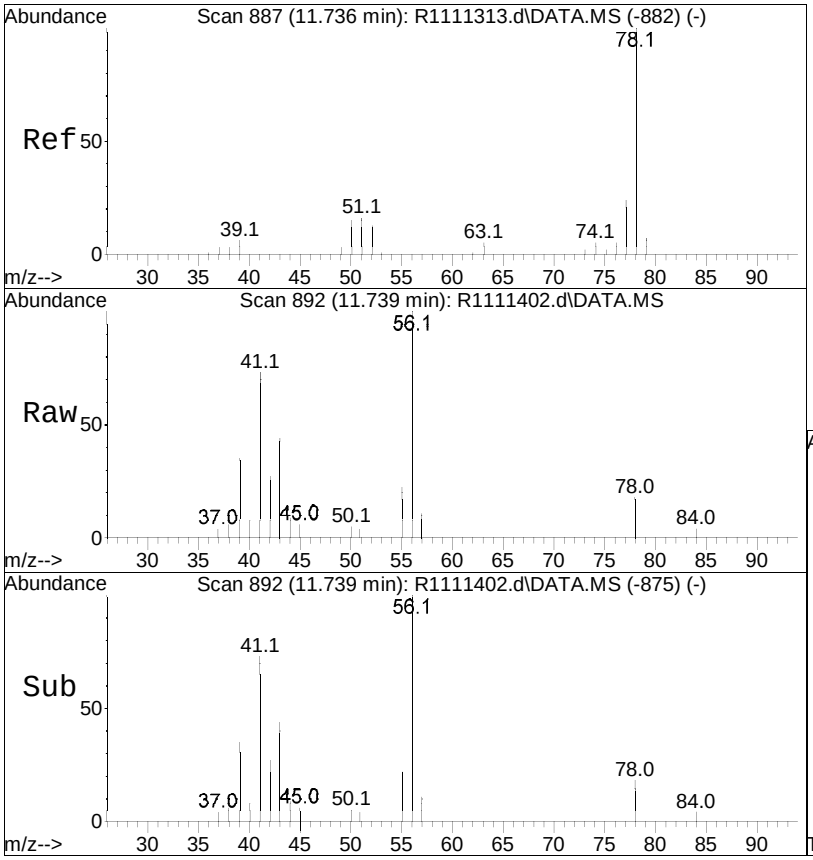


#40
Tetrahydrofuran
Concen: 0.98 ppbV
RT: 10.62 min Scan# 784
Delta R.T. 0.043 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion: 42 Resp: 6333

Ion	Ratio	Lower	Upper
42	100		
71	53.4	56.0	84.0#
72	69.8	51.8	77.6

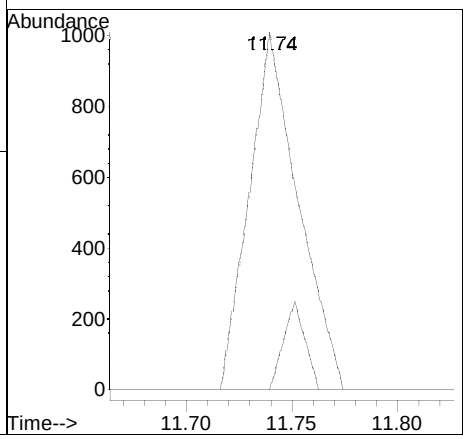


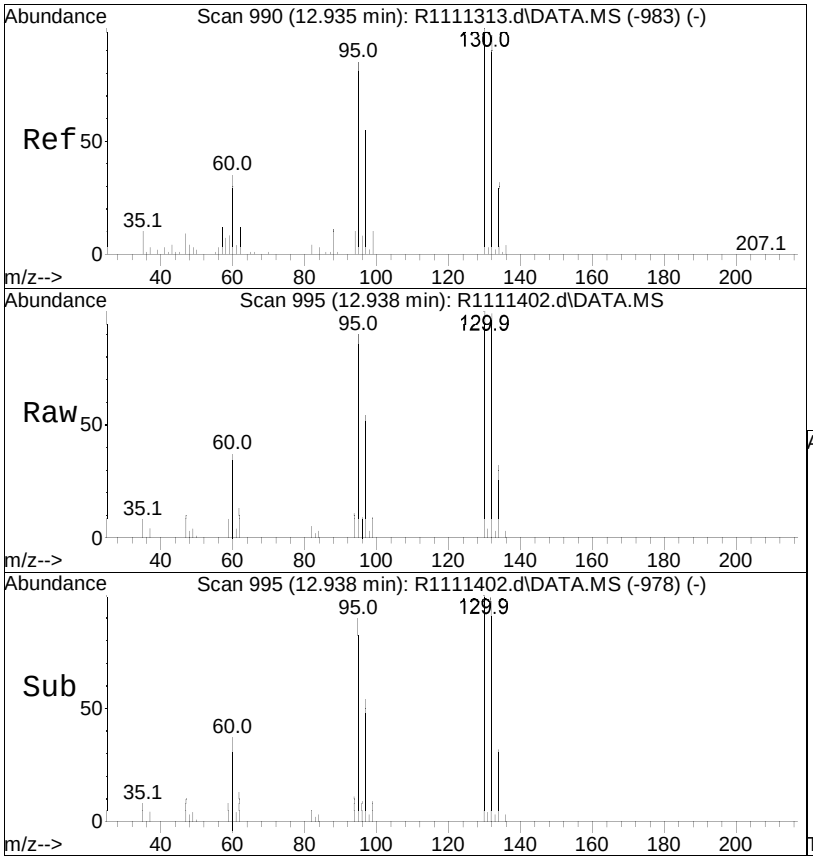


#50
benzene
Concen: 0.05 ppbV
RT: 11.74 min Scan# 892
Delta R.T. 0.004 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion: 78 Resp: 1612

Ion	Ratio	Lower	Upper
78	100		
52	0.0	10.6	16.0#

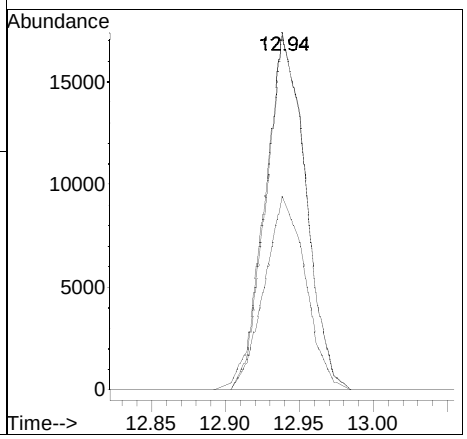


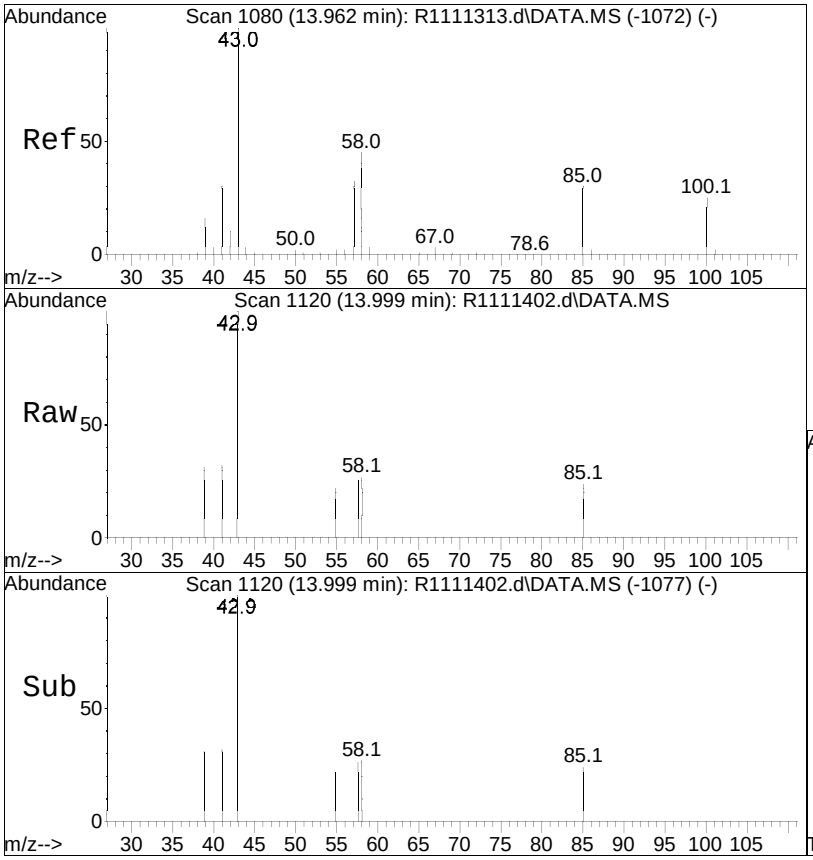


#59
trichloroethene
Concen: 1.70 ppbV
RT: 12.94 min Scan# 995
Delta R.T. 0.004 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion:130 Resp: 32876

Ion	Ratio	Lower	Upper
130	100		
132	99.3	77.6	116.4
97	54.1	44.0	66.0

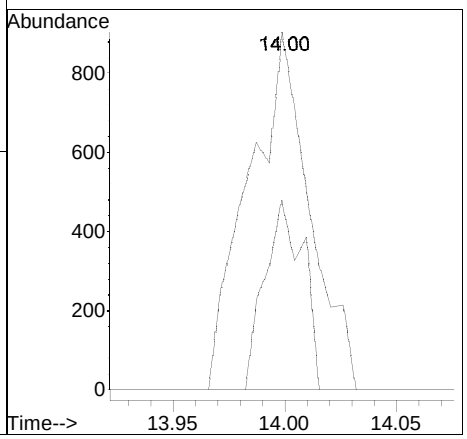


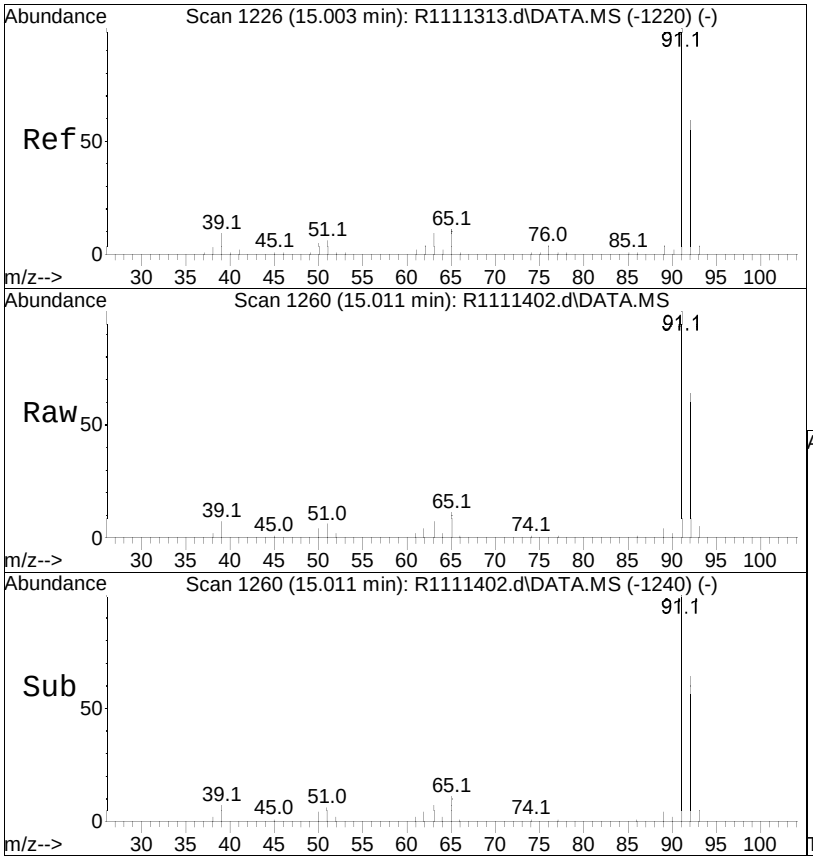


#64
4-methyl-2-pentanone
Concen: 0.07 ppbV
RT: 14.00 min Scan# 1120
Delta R.T. 0.036 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion: 43 Resp: 1711

Ion	Ratio	Lower	Upper
43	100		
58	53.2	35.8	53.6
100	0.0	19.8	29.6#

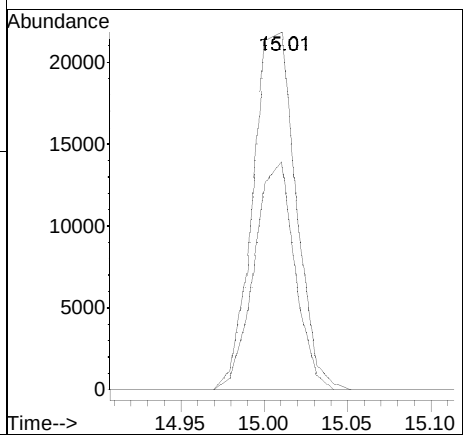


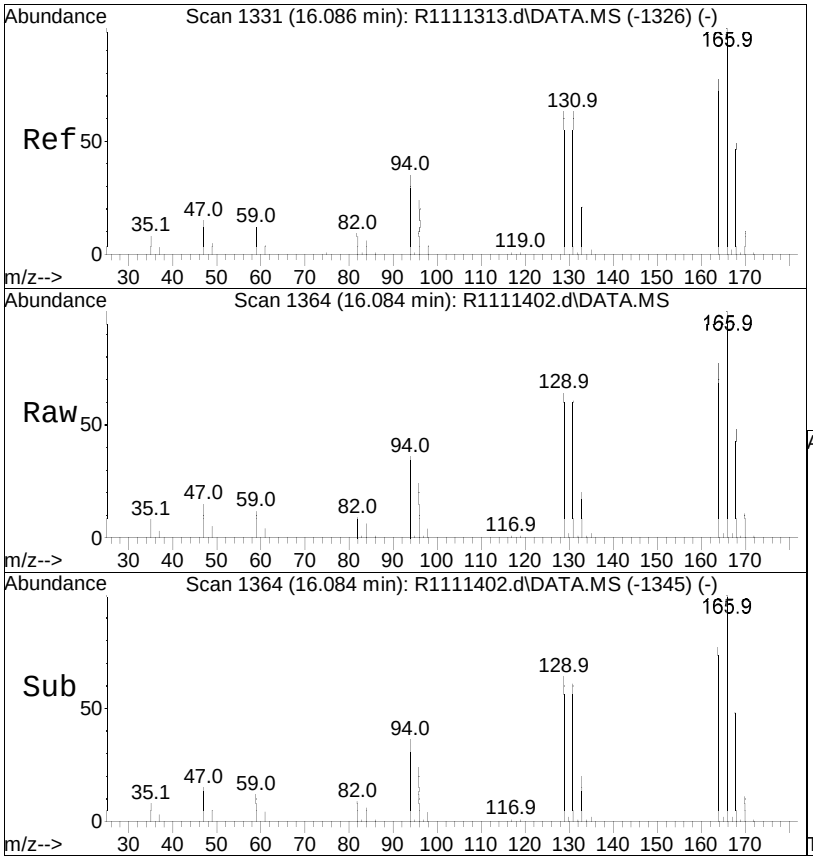


#68
toluene
Concen: 0.97 ppbV
RT: 15.01 min Scan# 1260
Delta R.T. 0.008 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion: 91 Resp: 38904

Ion	Ratio	Lower	Upper
91	100		
92	63.7	47.0	70.6

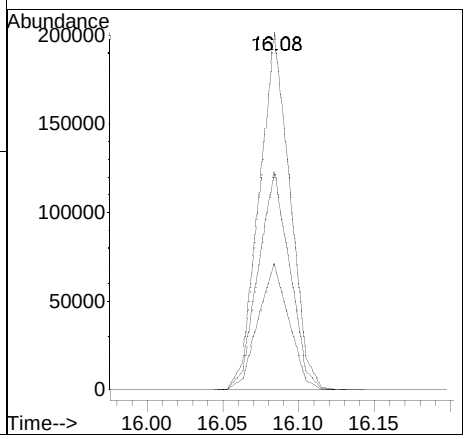


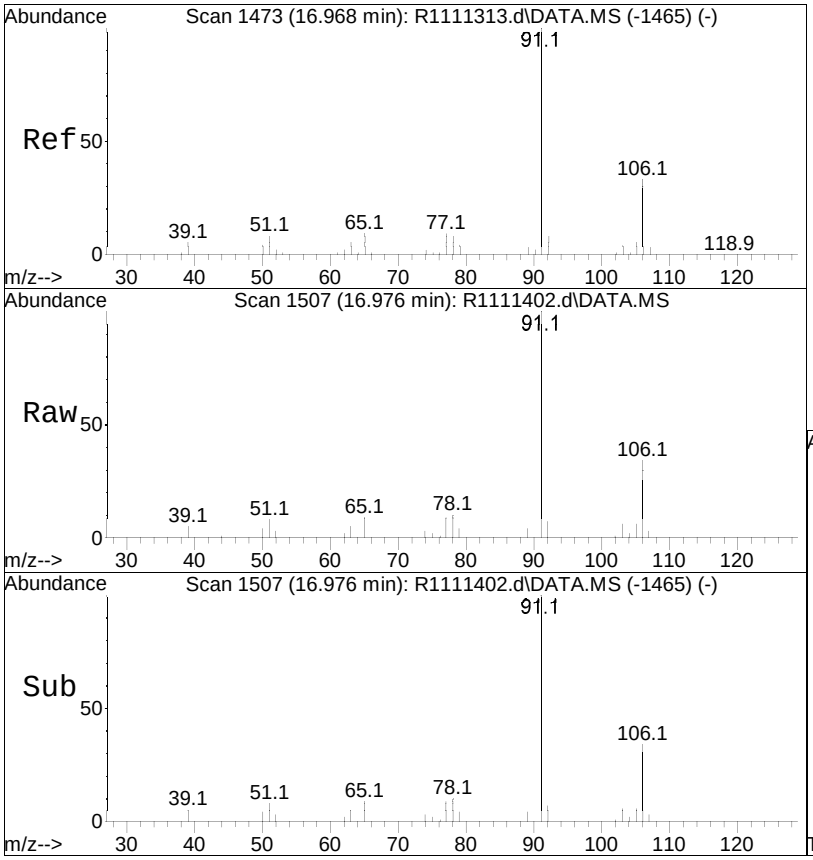


#78
tetrachloroethene
Concen: 9.17 ppbV
RT: 16.08 min Scan# 1364
Delta R.T. -0.002 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion:166 Resp: 282182

Ion	Ratio	Lower	Upper
166	100		
131	61.3	50.1	75.1
94	35.5	28.2	42.4

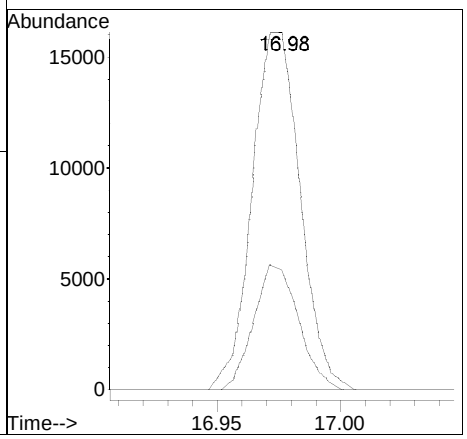


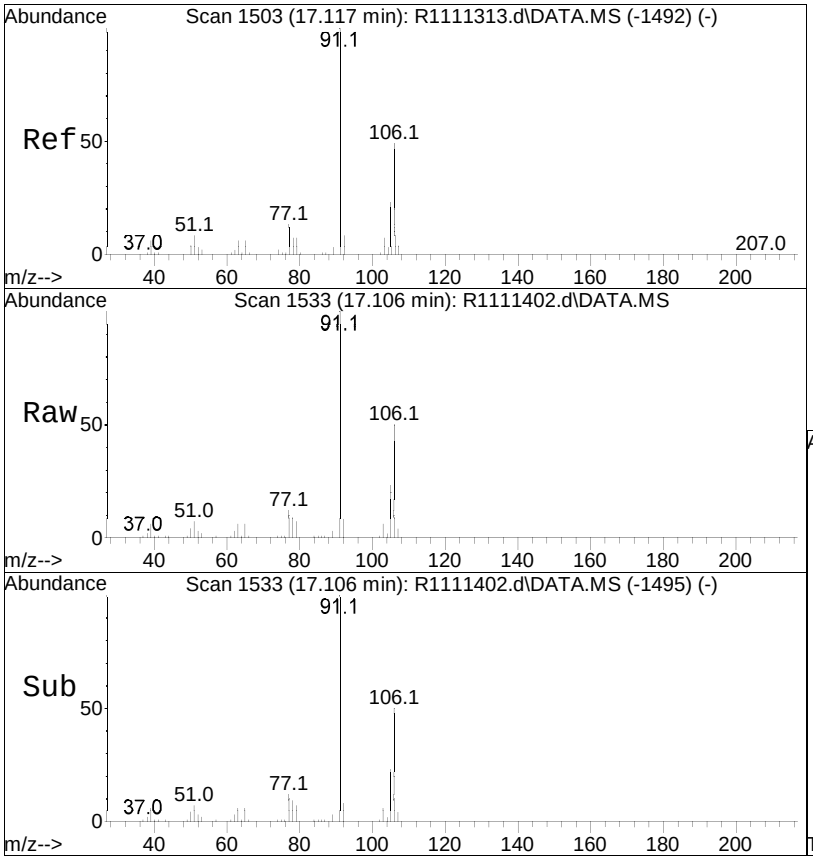


#81
ethylbenzene
Concen: 0.39 ppbV
RT: 16.98 min Scan# 1507
Delta R.T. 0.008 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion: 91 Resp: 21594

Ion	Ratio	Lower	Upper
91	100		
106	33.6	26.6	39.8

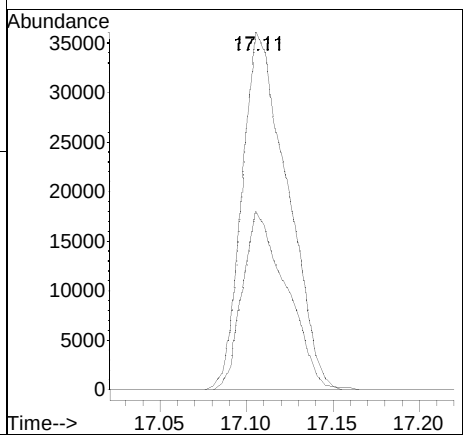


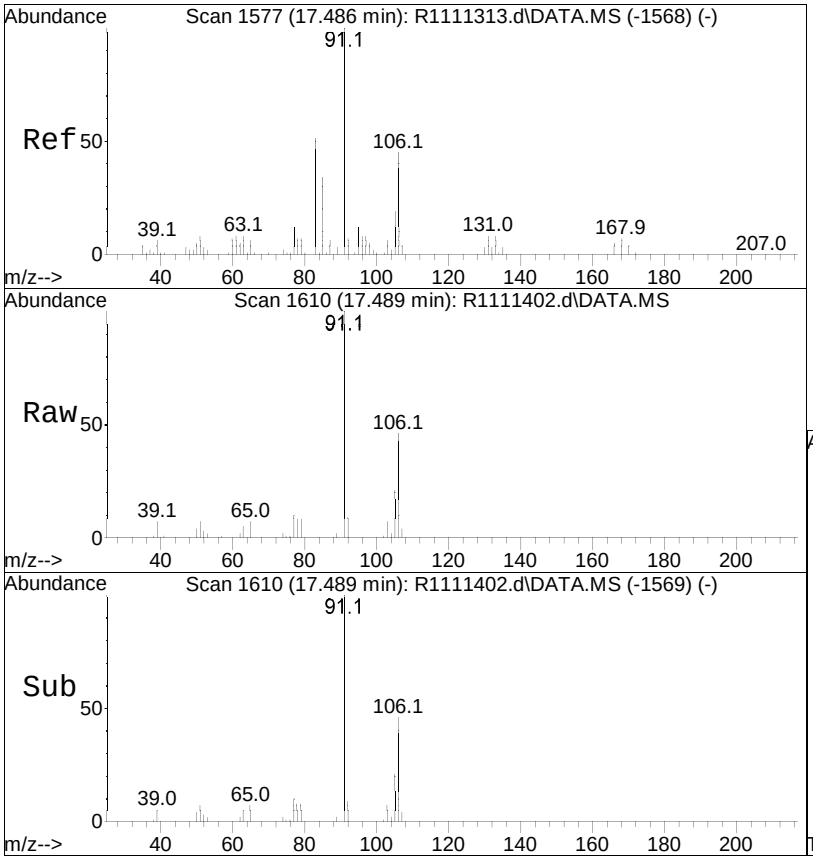


#83
m+p-xylene
Concen: 1.43 ppbV
RT: 17.11 min Scan# 1533
Delta R.T. -0.012 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion: 91 Resp: 65108

Ion	Ratio	Lower	Upper
91	100		
106	49.9	39.4	59.0

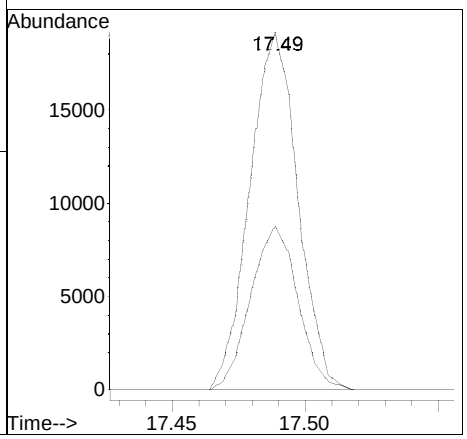


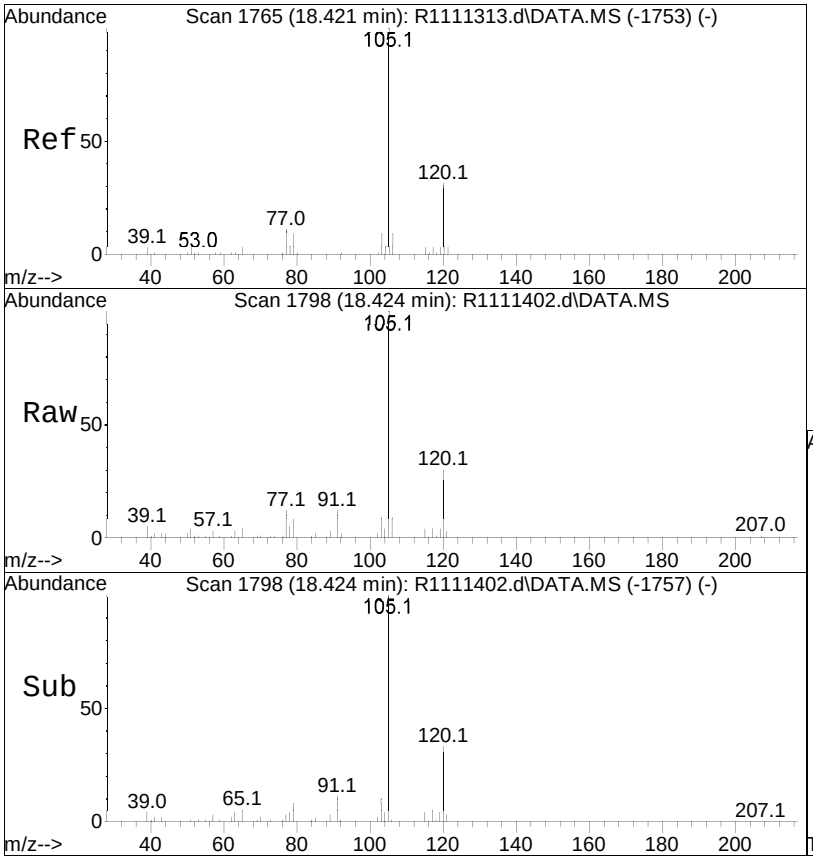


#87
o-xylene
Concen: 0.52 ppbV
RT: 17.49 min Scan# 1610
Delta R.T. 0.003 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion: 91 Resp: 23874

Ion	Ratio	Lower	Upper
91	100		
106	46.0	36.3	54.5

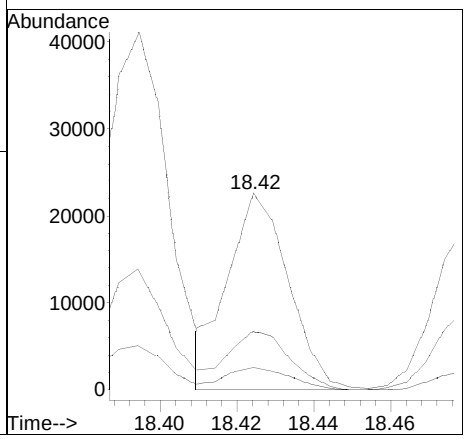


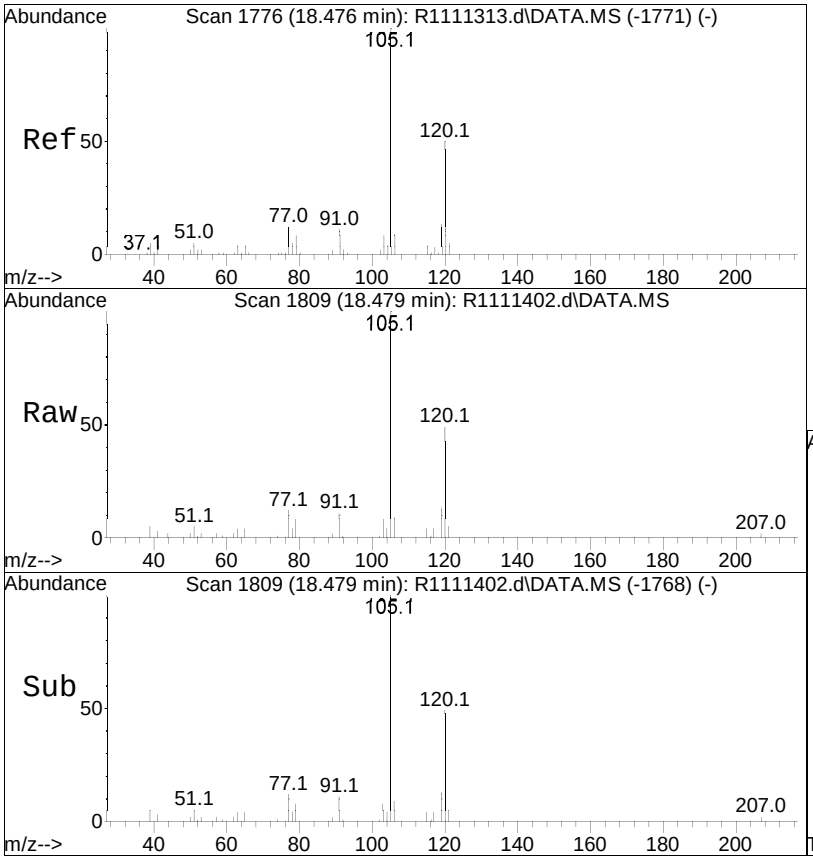


#96
4-ethyl toluene
Concen: 0.33 ppbV
RT: 18.42 min Scan# 1798
Delta R.T. 0.003 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion:105 Resp: 24702

Ion	Ratio	Lower	Upper
105	100		
120	29.6	25.0	37.6
91	11.5	9.5	14.3

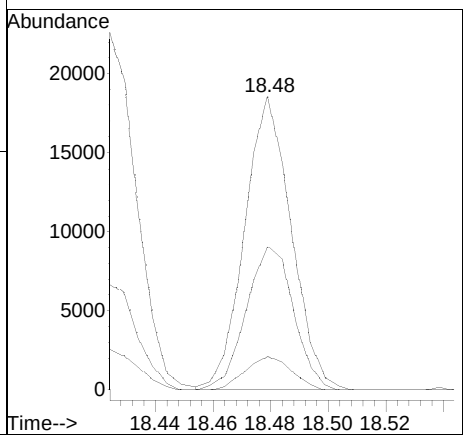


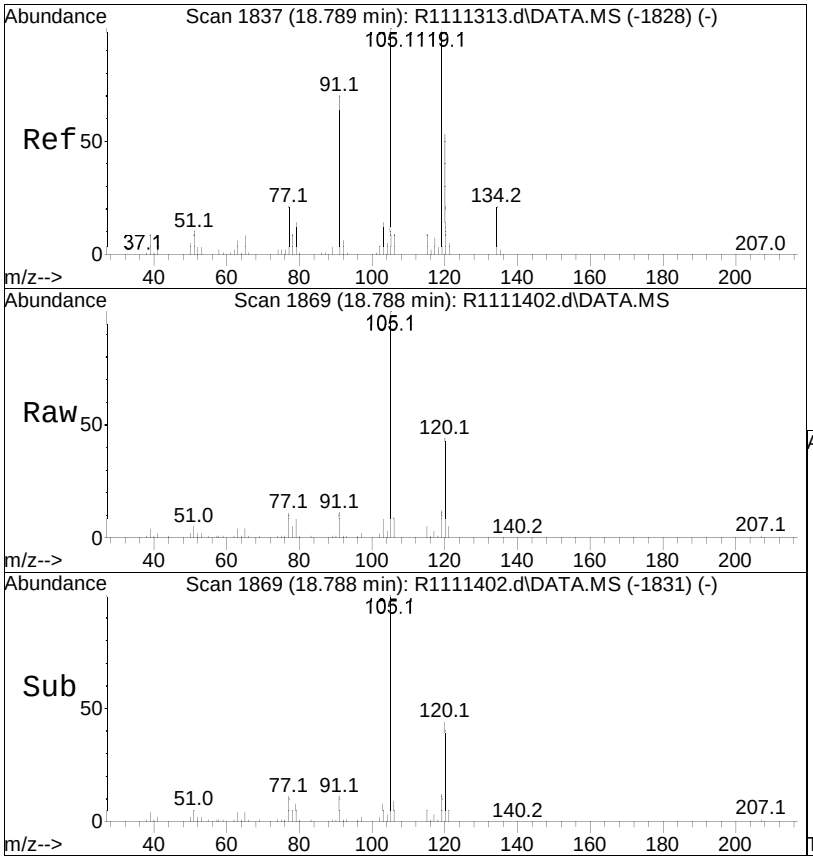


#97
1,3,5-trimethylbenzene
Concen: 0.33 ppbV
RT: 18.48 min Scan# 1809
Delta R.T. 0.003 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion:105 Resp: 20814

Ion	Ratio	Lower	Upper
105	100		
120	48.9	39.7	59.5
91	11.4	8.9	13.3

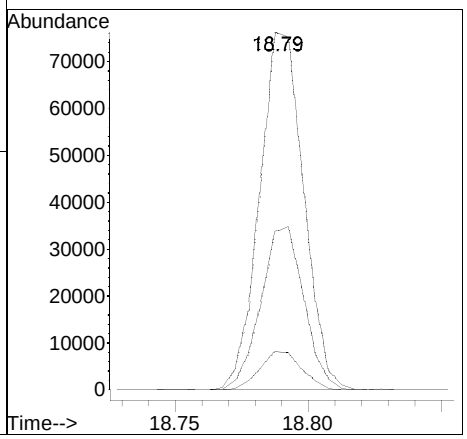




#99
1,2,4-trimethylbenzene
Concen: 1.46 ppbV
RT: 18.79 min Scan# 1869
Delta R.T. -0.002 min
Lab File: R1111402.d
Acq: 2 Sep 2015 9:33 pm

Tgt Ion:105 Resp: 86920

Ion	Ratio	Lower	Upper
105	100		
120	44.3	42.2	63.2
91	11.0	55.8	83.6#



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\Airlab11\	QMethod	: TALL150827.M
Data File	: R1111402.d	Operator	: AIRLAB11:RY
Date Inj'd	: 9/2/2015 9:33 pm	Instrument	: Airlab 11
Sample	: WG817978-5D,3,114.0203,250	Quant Date	: 9/3/2015 8:51 am

There are no manual integrations or false positives in this file.

Clean Canister Certification Data

Quality Control Data Summary

3

LAB CONTROL SAMPLE RECOVERY

AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1519787 Matrix: Air

Lab Control Sample: WG813182-3LCS Injected: 08/18/15 13:44 Lab File ID: R143502

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Chlorodifluoromethane	10	NA	9.90	99	-	-	-		70-130
Propylene	10	NA	11.9	119	-	-	-		70-130
Propane	10	NA	8.83	88	-	-	-		70-130
Dichlorodifluoromethane	10	NA	9.68	97	-	-	-		70-130
Chloromethane	10	NA	11.5	115	-	-	-		70-130
Freon-114	10	NA	11.8	118	-	-	-		70-130
Methanol	50	NA	55.8	112	-	-	-		70-130
Vinyl chloride	10	NA	11.8	118	-	-	-		70-130
1,3-Butadiene	10	NA	12.7	127	-	-	-		70-130
Butane	10	NA	10.8	108	-	-	-		70-130
Bromomethane	10	NA	11.0	110	-	-	-		70-130
Chloroethane	10	NA	11.2	112	-	-	-		70-130
Ethanol	50	NA	58.0	116	-	-	-		70-130
Dichlorofluoromethane	10	NA	10.7	107	-	-	-		70-130
Vinyl bromide	10	NA	11.5	115	-	-	-		70-130
Acrolein	10	NA	11.8	118	-	-	-		70-130
Acetone	50	NA	58.8	118	-	-	-		70-130
Acetonitrile	10	NA	11.1	111	-	-	-		70-130
Trichlorofluoromethane	10	NA	11.2	112	-	-	-		70-130
Isopropanol	10	NA	12.6	126	-	-	-		70-130
Acrylonitrile	10	NA	11.9	119	-	-	-		70-130
Pentane	10	NA	10.7	107	-	-	-		70-130
Ethyl ether	10	NA	10.7	107	-	-	-		70-130
1,1-Dichloroethene	10	NA	11.3	113	-	-	-		70-130
Tertiary butyl Alcohol	10	NA	11.1	111	-	-	-		70-130
Methylene chloride	10	NA	12.0	120	-	-	-		70-130
3-Chloropropene	10	NA	12.1	121	-	-	-		70-130
Carbon disulfide	10	NA	11.3	113	-	-	-		70-130
Freon-113	10	NA	11.7	117	-	-	-		70-130
trans-1,2-Dichloroethene	10	NA	9.70	97	-	-	-		70-130
1,1-Dichloroethane	10	NA	10.0	100	-	-	-		70-130
Methyl tert butyl ether	10	NA	10.1	101	-	-	-		70-130
Vinyl acetate	10	NA	10.7	107	-	-	-		70-130
2-Butanone	10	NA	9.86	99	-	-	-		70-130
cis-1,2-Dichloroethene	10	NA	10.8	108	-	-	-		70-130
Ethyl Acetate	10	NA	11.6	116	-	-	-		70-130
Chloroform	10	NA	11.2	112	-	-	-		70-130
Tetrahydrofuran	10	NA	10.6	106	-	-	-		70-130
2,2-Dichloropropane	10	NA	10.0	100	-	-	-		70-130
1,2-Dichloroethane	10	NA	10.9	109	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

3

LAB CONTROL SAMPLE RECOVERY

AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1519787 Matrix: Air

Lab Control Sample: WG813182-3LCS Injected: 08/18/15 13:44 Lab File ID: R143502

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
n-Hexane	10	NA	9.20	92	-	-	-		70-130
Diisopropyl Ether	10	NA	8.86	89	-	-	-		70-130
tert-Butyl ethyl ether	10	NA	8.90	89	-	-	-		70-130
1,1,1-Trichloroethane	10	NA	9.49	95	-	-	-		70-130
1,1-Dichloropropene	10	NA	9.21	92	-	-	-		70-130
Benzene	10	NA	9.33	93	-	-	-		70-130
Carbon tetrachloride	10	NA	10.0	100	-	-	-		70-130
Cyclohexane	10	NA	9.57	96	-	-	-		70-130
tert-amyl methyl ether	10	NA	8.98	90	-	-	-		70-130
Dibromomethane	10	NA	8.82	88	-	-	-		70-130
1,2-Dichloropropane	10	NA	9.50	95	-	-	-		70-130
Bromodichloromethane	10	NA	9.48	95	-	-	-		70-130
1,4-Dioxane	10	NA	10.2	102	-	-	-		70-130
Trichloroethene	10	NA	9.83	98	-	-	-		70-130
2,2,4-Trimethylpentane	10	NA	9.41	94	-	-	-		70-130
Methyl Methacrylate	10	NA	8.90	89	-	-	-		70-130
Heptane	10	NA	9.13	91	-	-	-		70-130
cis-1,3-Dichloropropene	10	NA	10.0	100	-	-	-		70-130
4-Methyl-2-pentanone	10	NA	9.53	95	-	-	-		70-130
trans-1,3-Dichloropropen	10	NA	8.79	88	-	-	-		70-130
1,1,2-Trichloroethane	10	NA	9.76	98	-	-	-		70-130
Toluene	10	NA	9.56	96	-	-	-		70-130
1,3-Dichloropropane	10	NA	9.07	91	-	-	-		70-130
2-Hexanone	10	NA	10.1	101	-	-	-		70-130
Dibromochloromethane	10	NA	10.2	102	-	-	-		70-130
1,2-Dibromoethane	10	NA	10.2	102	-	-	-		70-130
Butyl Acetate	10	NA	9.84	98	-	-	-		70-130
Octane	10	NA	8.92	89	-	-	-		70-130
Tetrachloroethene	10	NA	9.63	96	-	-	-		70-130
1,1,1,2-Tetrachloroethan	10	NA	9.29	93	-	-	-		70-130
Chlorobenzene	10	NA	9.80	98	-	-	-		70-130
Ethylbenzene	10	NA	9.70	97	-	-	-		70-130
p/m-Xylene	20	NA	19.6	98	-	-	-		70-130
Bromoform	10	NA	9.99	100	-	-	-		70-130
Styrene	10	NA	9.91	99	-	-	-		70-130
1,1,2,2-Tetrachloroethan	10	NA	10.4	104	-	-	-		70-130
o-Xylene	10	NA	10.1	101	-	-	-		70-130
1,2,3-Trichloropropane	10	NA	9.39	94	-	-	-		70-130
Nonane	10	NA	9.02	90	-	-	-		70-130
Isopropylbenzene	10	NA	9.59	96	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

3

LAB CONTROL SAMPLE RECOVERY

AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1519787 Matrix: Air

Lab Control Sample: WG813182-3LCS Injected: 08/18/15 13:44 Lab File ID: R143502

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Bromobenzene	10	NA	9.33	93	-	-	-		70-130
2-Chlorotoluene	10	NA	9.40	94	-	-	-		70-130
n-Propylbenzene	10	NA	9.37	94	-	-	-		70-130
4-Chlorotoluene	10	NA	9.44	94	-	-	-		70-130
4-Ethyltoluene	10	NA	9.36	94	-	-	-		70-130
1,3,5-Trimethylbenzene	10	NA	9.78	98	-	-	-		70-130
tert-Butylbenzene	10	NA	9.41	94	-	-	-		70-130
1,2,4-Trimethylbenzene	10	NA	10.2	102	-	-	-		70-130
Decane	10	NA	9.39	94	-	-	-		70-130
Benzyl chloride	10	NA	10.1	101	-	-	-		70-130
1,3-Dichlorobenzene	10	NA	10.2	102	-	-	-		70-130
1,4-Dichlorobenzene	10	NA	10.2	102	-	-	-		70-130
sec-Butylbenzene	10	NA	9.59	96	-	-	-		70-130
p-Isopropyltoluene	10	NA	9.00	90	-	-	-		70-130
1,2-Dichlorobenzene	10	NA	10.2	102	-	-	-		70-130
n-Butylbenzene	10	NA	9.86	99	-	-	-		70-130
1,2-Dibromo-3-chloroprop	10	NA	9.36	94	-	-	-		70-130
Undecane	10	NA	10.4	104	-	-	-		70-130
Dodecane	10	NA	12.7	127	-	-	-		70-130
1,2,4-Trichlorobenzene	10	NA	11.9	119	-	-	-		70-130
Naphthalene	10	NA	11.4	114	-	-	-		70-130
1,2,3-Trichlorobenzene	10	NA	11.2	112	-	-	-		70-130
Hexachlorobutadiene	10	NA	11.2	112	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG813182-4BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1519787

Lab File ID: R143504 Lab Sample ID: WG813182-4

Date Analyzed: 08/18/15 Time Analyzed: 15:33

Instrument ID: AIRPIANO1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WG813182-3LCS	WG813182-3	R143502	08/18/15 13:44
02	CAN 397 SHELF 1	L1519787-01	R143508	08/18/15 18:18
03	CAN 723 SHELF 7	L1519787-02	R143509	08/18/15 18:50
04	SV-1DUP	WG813182-5D	R143512	08/18/15 20:26

COMMENTS: _____

page 1 of 1

FORM IV TO15-LL LOW

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519787
Project Name	: BATCH CANISTER CERTIFICATION	Project Number:	CANISTER QC BAT
Lab ID	: WG813182-4	Date Collected :	NA
Client ID	: WG813182-4BLANK	Date Received :	NA
Sample Location	:	Date Analyzed :	08/18/15 15:33
Sample Matrix	: AIR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143504	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethan	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethyl Alcohol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.500	--	ND	1.09	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519787
Project Name	: BATCH CANISTER CERTIFICATION	Project Number:	CANISTER QC BAT
Lab ID	: WG813182-4	Date Collected :	NA
Client ID	: WG813182-4BLANK	Date Received :	NA
Sample Location	:	Date Analyzed :	08/18/15 15:33
Sample Matrix	: AIR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143504	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	1.00	--	ND	3.52	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Isopropyl Ether	ND	0.200	--	ND	0.836	--	U
637-92-3	Ethyl-Tert-Butyl-Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	Tertiary-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519787
Project Name	: BATCH CANISTER CERTIFICATION	Project Number:	CANISTER QC BAT
Lab ID	: WG813182-4	Date Collected :	NA
Client ID	: WG813182-4BLANK	Date Received :	NA
Sample Location	:	Date Analyzed :	08/18/15 15:33
Sample Matrix	: AIR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143504	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl Acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane (C9)	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	o-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	p-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519787
Project Name	: BATCH CANISTER CERTIFICATION	Project Number:	CANISTER QC BAT
Lab ID	: WG813182-4	Date Collected :	NA
Client ID	: WG813182-4BLANK	Date Received :	NA
Sample Location	:	Date Analyzed :	08/18/15 15:33
Sample Matrix	: AIR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143504	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane (C10)	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane (C12)	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143504.D
Acq On : 18 Aug 2015 3:33 pm
Operator : AIRPIANO1:MB
Sample : WG813182-4,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 18 16:00:45 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150818T\R143501.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.211	49	129398	10.000	ppbV	0.00
Standard Area = 140276			Recovery =		92.25%	
43) 1,4-difluorobenzene	12.419	114	292820	10.000	ppbV	0.00
Standard Area = 308484			Recovery =		94.92%	
67) chlorobenzene-D5	16.842	54	52016	10.000	ppbV	0.00
Standard Area = 58478			Recovery =		88.95%	
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	0.000		0	N.D.		
3) propylene	0.000		0	N.D.		
4) propane	3.975		0	N.D.		
5) dichlorodifluoromethane	0.000		0	N.D.		
6) chloromethane	4.379		0	N.D.		
7) Freon-114	0.000		0	N.D.		
8) methanol	0.000		0	N.D.		
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
11) butane	0.000		0	N.D.		
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	0.000		0	N.D.		
16) dichlorofluoromethane	0.000		0	N.D.		
17) vinyl bromide	0.000		0	N.D.		
18) acrolein	0.000		0	N.D.		
19) acetone	6.338		0	N.D.		
20) acetonitrile	0.000		0	N.D.		
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	0.000		0	N.D.		
23) acrylonitrile	0.000		0	N.D.		
24) pentane	7.018		0	N.D.		
25) ethyl ether	0.000		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	7.601	49	2863	0.326	ppbV	96
29) 3-chloropropene	0.000		0	N.D.		
30) carbon disulfide	7.929		0	N.D.		
31) Freon 113	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143504.D
Acq On : 18 Aug 2015 3:33 pm
Operator : AIRPIANO1:MB
Sample : WG813182-4,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 18 16:00:45 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150818T\R143501.D
Sub List : Default-LCS-AP2 - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32)	trans-1,2-dichloroethene	0.000		0	N.D.		
33)	1,1-dichloroethane	0.000		0	N.D.		
34)	MTBE	0.000		0	N.D.		
35)	vinyl acetate	0.000		0	N.D.		
36)	2-butanone	0.000		0	N.D.		
37)	cis-1,2-dichloroethene	0.000		0	N.D.		
38)	Ethyl Acetate	0.000		0	N.D.		
39)	chloroform	0.000		0	N.D.		
40)	Tetrahydrofuran	0.000		0	N.D.		
41)	2,2-dichloropropane	0.000		0	N.D.		
42)	1,2-dichloroethane	0.000		0	N.D.		
44)	hexane	0.000		0	N.D.		
45)	diisopropyl ether	0.000		0	N.D.		
46)	tert-butyl ethyl ether	0.000		0	N.D.		
48)	1,1,1-trichloroethane	0.000		0	N.D.		
49)	1,1-dichloropropene	0.000		0	N.D.		
50)	benzene	0.000		0	N.D.		
52)	carbon tetrachloride	0.000		0	N.D.		
53)	cyclohexane	0.000		0	N.D.	d	
54)	tert-amyl methyl ether	0.000		0	N.D.		
55)	dibromomethane	0.000		0	N.D.		
56)	1,2-dichloropropane	0.000		0	N.D.		
57)	bromodichloromethane	0.000		0	N.D.		
58)	1,4-dioxane	0.000		0	N.D.		
59)	trichloroethene	0.000		0	N.D.		
60)	2,2,4-trimethylpentane	0.000		0	N.D.		
61)	methyl methacrylate	0.000		0	N.D.		
62)	heptane	13.506		0	N.D.		
63)	cis-1,3-dichloropropene	0.000		0	N.D.		
64)	4-methyl-2-pentanone	0.000		0	N.D.		
65)	trans-1,3-dichloropropene	0.000		0	N.D.		
66)	1,1,2-trichloroethane	0.000		0	N.D.		
68)	toluene	0.000		0	N.D.		
71)	1,3-dichloropropane	0.000		0	N.D.		
72)	2-hexanone	0.000		0	N.D.		
74)	dibromochloromethane	0.000		0	N.D.		
75)	1,2-dibromoethane	0.000		0	N.D.		
76)	butyl acetate	0.000		0	N.D.		
77)	octane	0.000		0	N.D.		
78)	tetrachloroethene	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143504.D
Acq On : 18 Aug 2015 3:33 pm
Operator : AIRPIANO1:MB
Sample : WG813182-4,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 18 16:00:45 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150818T\R143501.D
Sub List : Default-LCS-AP2 - All compounds listed

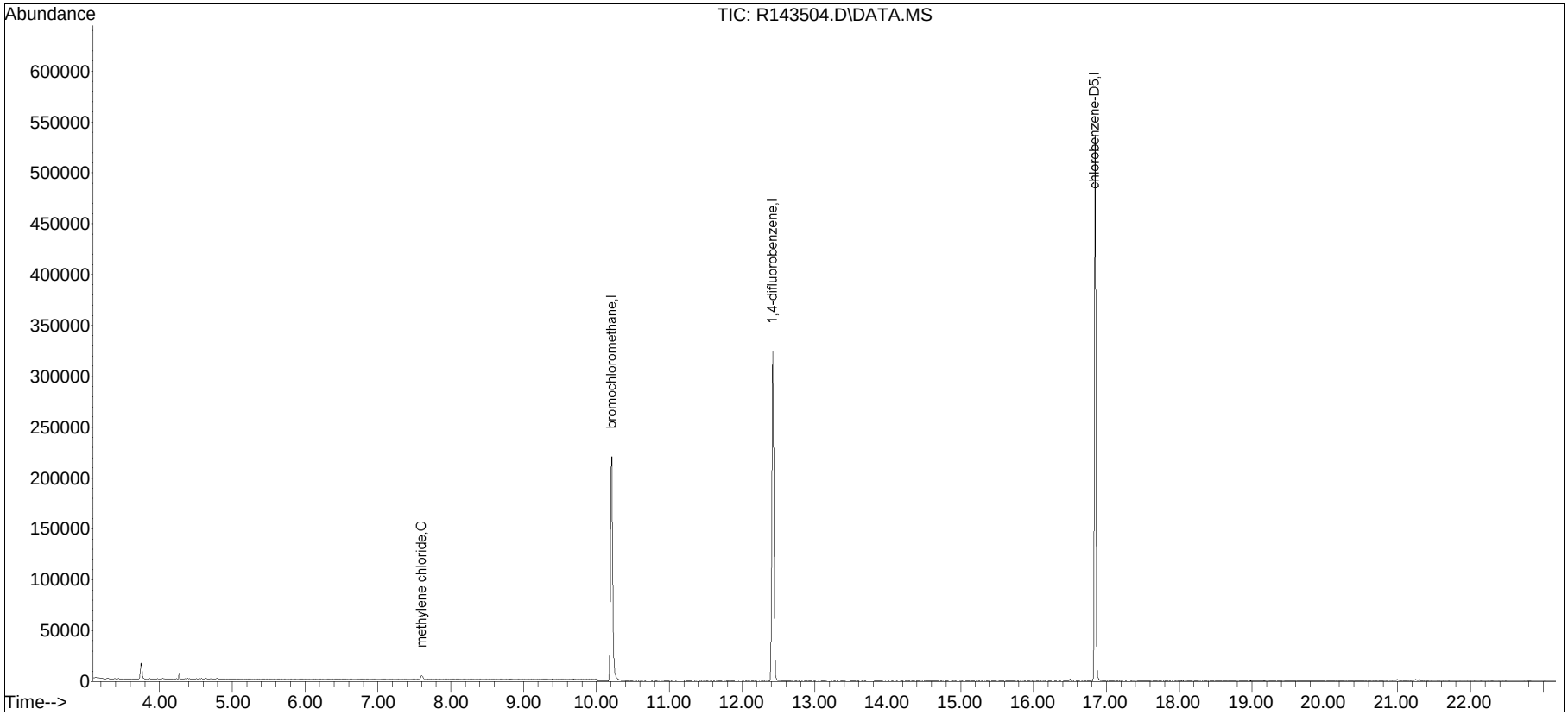
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
79)	1,1,1,2-tetrachloroethane	0.000		0	N.D.	
80)	chlorobenzene	0.000		0	N.D.	
81)	ethylbenzene	0.000		0	N.D.	
83)	m+p-xylene	0.000		0	N.D.	
84)	bromoform	0.000		0	N.D.	
85)	styrene	0.000		0	N.D.	
86)	1,1,2,2-tetrachloroethane	0.000		0	N.D.	
87)	o-xylene	0.000		0	N.D.	
88)	1,2,3-trichloropropane	0.000		0	N.D.	
89)	nonane	17.799		0	N.D.	
91)	isopropylbenzene	18.132		0	N.D.	
92)	bromobenzene	0.000		0	N.D.	
93)	2-chlorotoluene	0.000		0	N.D.	
94)	n-propylbenzene	18.667		0	N.D.	
95)	4-chlorotoluene	18.542		0	N.D.	
96)	4-ethyl toluene	18.619		0	N.D.	
97)	1,3,5-trimethylbenzene	18.667		0	N.D.	
98)	tert-butylbenzene	18.979		0	N.D.	
99)	1,2,4-trimethylbenzene	18.984		0	N.D.	
100)	decane	0.000		0	N.D.	
101)	Benzyl Chloride	0.000		0	N.D.	
102)	1,3-dichlorobenzene	19.112		0	N.D.	
103)	1,4-dichlorobenzene	19.164		0	N.D.	
104)	sec-butylbenzene	19.174		0	N.D.	
106)	p-isopropyltoluene	19.298		0	N.D.	
107)	1,2-dichlorobenzene	19.426		0	N.D.	
108)	n-butylbenzene	19.612		0	N.D.	
111)	1,2-dibromo-3-chloropr...	0.000		0	N.D.	
112)	undecane	0.000		0	N.D.	
114)	dodecane	0.000		0	N.D.	
115)	1,2,4-trichlorobenzene	20.870		0	N.D.	
116)	naphthalene	20.988		0	N.D.	
117)	1,2,3-trichlorobenzene	21.246		0	N.D.	
119)	hexachlorobutadiene	21.299		0	N.D.	

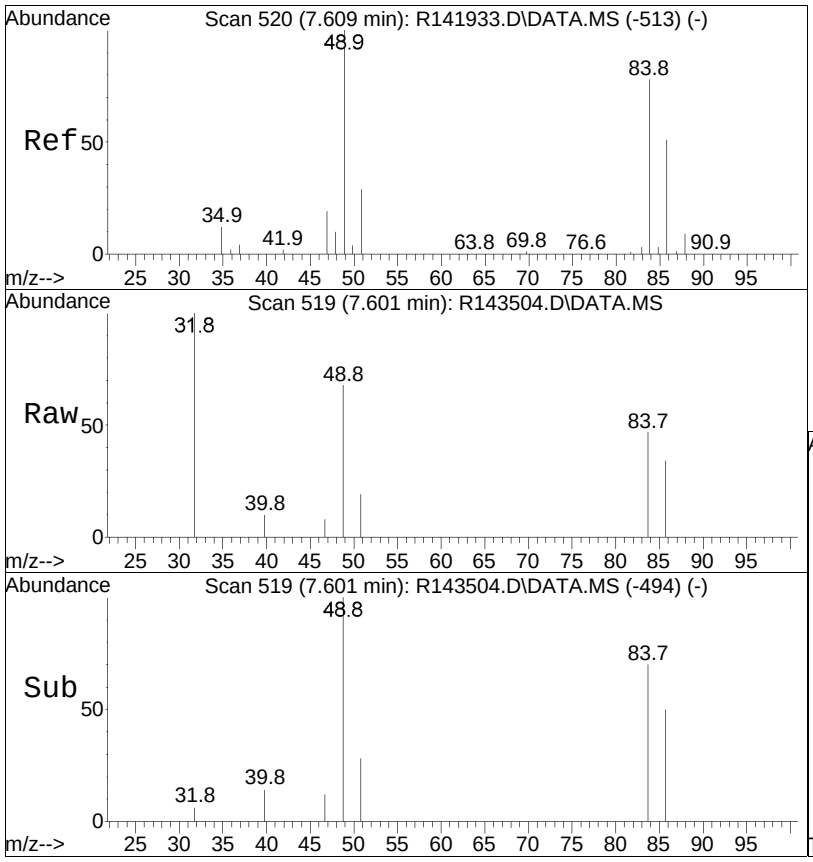
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-LCS-AP2 - All compounds listed43501.D

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143504.D
Acq On : 18 Aug 2015 3:33 pm
Operator : AIRPIANO1:MB
Sample : WG813182-4,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 18 16:00:45 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

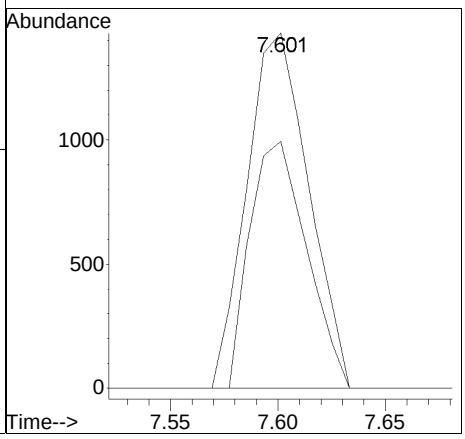




#28
methylene chloride
Concen: 0.33 ppbV
RT: 7.601 min Scan# 519
Delta R.T. -0.000 min
Lab File: R143504.D
Acq: 18 Aug 2015 3:33 pm

Tgt Ion: 49 Resp: 2863

Ion	Ratio	Lower	Upper
49	100		
84	69.5	52.9	79.3



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR1\2015	QMethod	: TALL150710.M
Data File	: R143504.D	Operator	: AIRPIANO1:MB
Date Inj'd	: 8/18/2015 3:33 pm	Instrument	: Air Piano 1
Sample	: WG813182-4,3,250,250	Quant Date	: 8/18/2015 4:00 pm

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519787
Project Name	: BATCH CANISTER CERTIFICATION	Project Number:	CANISTER QC BAT
Lab ID	: WG813182-4	Date Collected :	NA
Client ID	: WG813182-4BLANK	Date Received :	NA
Sample Location	:	Date Analyzed :	08/18/15 15:33
Sample Matrix	: AIR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143504	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0

Concentration Units:

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143504.D
Acq On : 18 Aug 2015 3:33 pm
Operator : AIRPIANO1:MB
Sample : WG813182-4,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R143504.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.044	96	98	99	rBV2	763	1098	0.15%	0.058%
2	4.271	120	121	123	rBV	6261	4587	0.61%	0.243%
3	4.783	172	173	176	rBV2	615	1087	0.14%	0.057%
4	5.931	309	310	313	rBV	831	1137	0.15%	0.060%
5	6.202	341	344	347	rBV2	705	1274	0.17%	0.067%
6	6.466	375	377	381	rBV	633	861	0.11%	0.046%
7	7.601	514	519	526	rBV3	3956	8551	1.14%	0.452%
8	7.793	542	543	546	rBV	685	866	0.12%	0.046%
9	7.945	557	562	564	rVB2	911	1843	0.24%	0.097%
10	8.271	602	604	606	rBV	652	811	0.11%	0.043%
11	8.758	673	675	677	rBV	693	830	0.11%	0.044%
12	9.931	845	846	849	rBV2	776	1138	0.15%	0.060%
13	9.986	852	854	856	rVV	1871	2398	0.32%	0.127%
14	10.007	856	857	858	rVB	2337	962	0.13%	0.051%
15	10.211	874	879	899	rBV	220823	462901	61.50%	24.473%
16	10.455	903	905	910	rVB	596	1474	0.20%	0.078%
17	11.208	978	982	984	rBV	405	868	0.12%	0.046%
18	11.513	1011	1013	1015	rBV	431	780	0.10%	0.041%
19	11.683	1027	1030	1032	rBV	479	758	0.10%	0.040%
20	12.419	1097	1101	1108	rBV	324243	614022	81.57%	32.462%
21	13.506	1203	1206	1207	rBV	485	1013	0.13%	0.054%
22	14.796	1303	1306	1308	rBV	366	774	0.10%	0.041%
23	15.257	1354	1357	1359	rVB	470	797	0.11%	0.042%
24	15.366	1366	1369	1371	rBV2	481	1082	0.14%	0.057%
25	15.772	1413	1414	1418	rBV	433	867	0.12%	0.046%
26	15.872	1423	1425	1428	rVB	465	830	0.11%	0.044%
27	16.360	1476	1479	1482	rVB	480	994	0.13%	0.053%
28	16.432	1483	1487	1489	rBV2	578	1249	0.17%	0.066%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143504.D
Acq On : 18 Aug 2015 3:33 pm
Operator : AIRPIANO1:MB
Sample : WG813182-4,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	16.504	1491	1495	1499	rVV	2346	3894	0.52%	0.206%
30	16.604	1503	1506	1507	rBV	551	757	0.10%	0.040%
31	16.846	1560	1570	1590	rBV	537556	752727	100.00%	39.795%
32	18.043	1889	1894	1895	rBV	845	766	0.10%	0.040%
33	18.979	2135	2137	2143	rVB	811	786	0.10%	0.042%
34	19.426	2227	2231	2236	rBV3	1029	1454	0.19%	0.077%
35	20.827	2484	2489	2491	rBV2	446	945	0.13%	0.050%
36	20.870	2491	2493	2495	rBV	1110	1598	0.21%	0.084%
37	20.988	2502	2504	2509	rVB3	1359	2605	0.35%	0.138%
38	21.246	2525	2528	2531	rBV2	1406	2303	0.31%	0.122%
39	21.299	2531	2533	2535	rVB	1191	1017	0.14%	0.054%
40	21.449	2544	2547	2548	rBV2	448	831	0.11%	0.044%
41	21.589	2559	2560	2563	rVB2	525	924	0.12%	0.049%
42	22.103	2606	2608	2612	rVB	489	965	0.13%	0.051%
43	22.264	2620	2623	2626	rVB2	519	887	0.12%	0.047%
44	22.350	2626	2631	2632	rBV2	462	1305	0.17%	0.069%
45	22.532	2646	2648	2650	rBV	466	948	0.13%	0.050%
46	22.853	2675	2678	2680	rBV	486	937	0.12%	0.050%

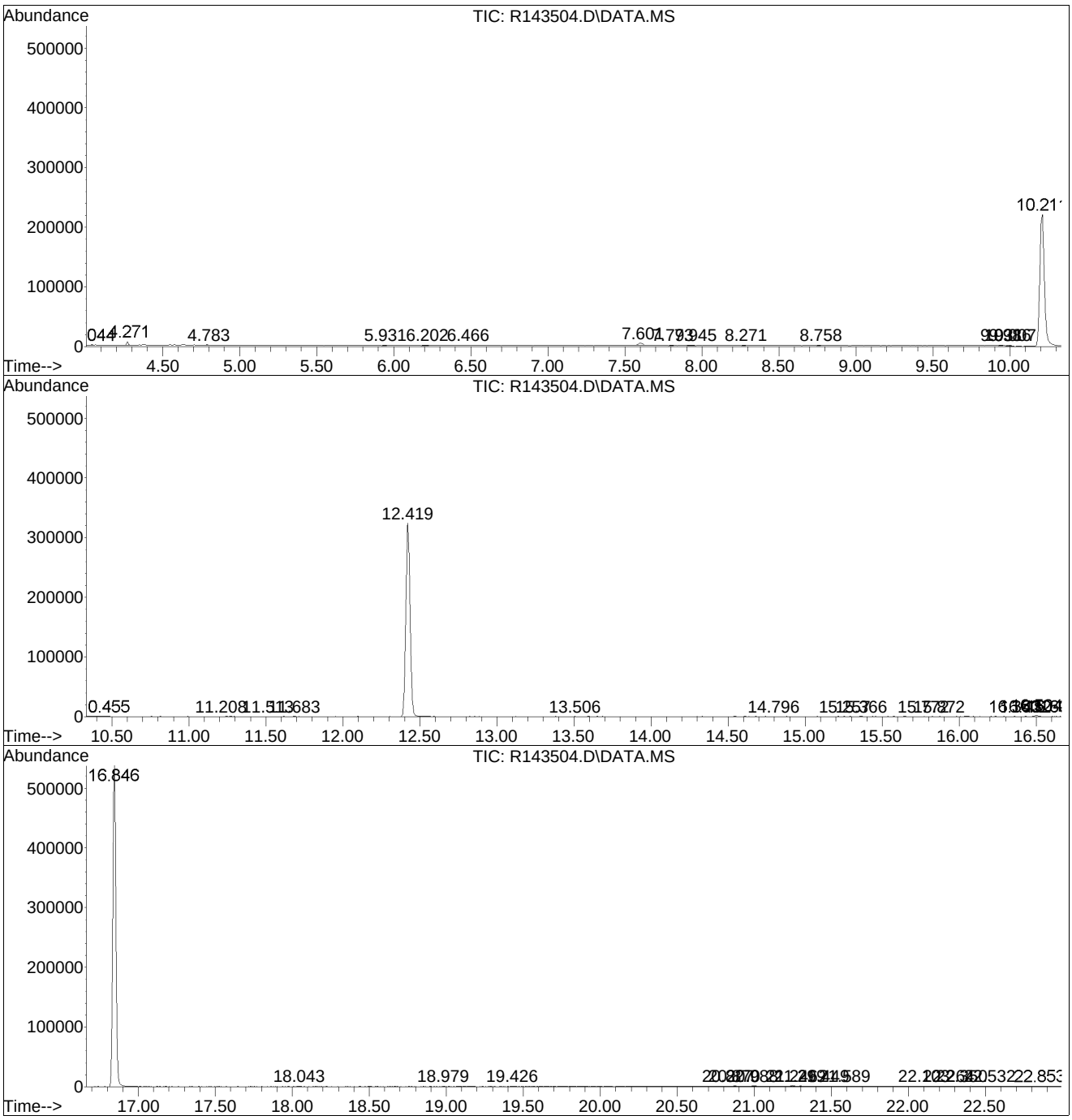
Sum of corrected areas: 1891501

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143504.D
Acq On : 18 Aug 2015 3:33 pm
Operator : AIRPIANO1:MB
Sample : WG813182-4,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143504.D
Acq On : 18 Aug 2015 3:33 pm
Operator : AIRPIANO1:MB
Sample : WG813182-4,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

```
Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143504.D
Acq On    : 18 Aug 2015   3:33 pm
Operator  : AIRPIANO1:MB
Sample    : WG813182-4,3,250,250
Misc      : WG813182,ICAL11250
ALS Vial  : 1   Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title  : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library   : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

                                                      |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-------------------------------------------------------------------------------
```

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1519787

Lab File ID: R142703_tune BFB Injection Date: 07/10/15

Instrument ID: AIRPIANO1 BFB Injection Time: 12:25

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	8.0 - 40.0% of mass 95	18.1
75	30.0 - 66.0% of mass 95	41.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	100.8
175	4.0 - 9.0% of mass 174	7.2 (7.1)1
176	93.0 - 101% of mass 174	94.5 (93.8)1
177	5.0 - 9.0% of mass 176	6.1 (6.5)2

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

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	0.2	0.2	R142707	07/10/15	14:43
02	0.5	0.5	R142708	07/10/15	15:14
03	1.0	1.0	R142709	07/10/15	15:48
04	5.0	5.0	R142710	07/10/15	16:19
05	10	10	R142711	07/10/15	16:53
06	20	20	R142712	07/10/15	17:25
07	50.0	50.0	R142713	07/10/15	17:56
08	100.0	100.0	R142714	07/10/15	18:30
09	ICV QUANT REPORT	ICV QUANT REPO	R142717	07/11/15	09:13

page 1 of 1

FORM V TO15-LL

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1519787

Lab File ID: R143499_tune BFB Injection Date: 08/18/15

Instrument ID: AIRPIANO1 BFB Injection Time: 11:37

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	8.0 - 40.0% of mass 95	17.9
75	30.0 - 66.0% of mass 95	41.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	103
175	4.0 - 9.0% of mass 174	7.3 (7.1)1
176	93.0 - 101% of mass 174	97.3 (94.5)1
177	5.0 - 9.0% of mass 176	6.4 (6.6)2

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

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCAL	WG813182-2	R143501	08/18/15	12:55
02	WG813182-3LCS	WG813182-3	R143502	08/18/15	13:44
03	WG813182-4BLANK	WG813182-4	R143504	08/18/15	15:33
04	CAN 397 SHELF 1	L1519787-01	R143508	08/18/15	18:18
05	CAN 723 SHELF 7	L1519787-02	R143509	08/18/15	18:50
06	Duplicate Sample	WG813182-5D	R143512	08/18/15	20:26

page 1 of 1

FORM V TO15-LL

8A

VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1519787

Lab File ID (Standard): R143501 Date Analyzed: 08/18/15

Instrument ID : AIRPIANO1 Time Analyzed: 12:55

		IS1 AREA	RT	IS2 AREA	RT	IS3 AREA	RT
	24 HOUR STD	140276	10.21	308484	12.43	58478	16.85
	UPPER LIMIT	196386	10.54	431878	12.76	81869	17.18
	LOWER LIMIT	84166	9.88	185090	12.10	35087	16.52
	EPA SAMPLE NO.						
01	WG813182-3LCS	121508	10.21	304672	12.43	57011	16.85
02	WG813182-4BLANK	129398	10.21	292820	12.42	52016	16.84
03	CAN 397 SHELF 1	127482	10.20	289193	12.42	53672	16.84
04	CAN 723 SHELF 7	128913	10.20	291461	12.42	53597	16.84
05	WG813182-5DUP	126588	10.21	284082	12.42	54622	16.84

IS1 = BROMOCHLOROMETHANE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = + 40% of internal standard area
AREA LOWER LIMIT = - 40 % of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

* Values outside of QC limits.

page 1 of 1 FORM VIII - TO15-LL

Sample Data Summary

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519787
Project Name	: BATCH CANISTER CERTIFICATION	Project Number:	CANISTER QC BAT
Lab ID	: L1519787-01	Date Collected :	08/17/15 16:00
Client ID	: CAN 397 SHELF 1	Date Received :	08/18/15
Sample Location	:	Date Analyzed :	08/18/15 18:18
Sample Matrix	: AIR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143508	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.500	--	ND	1.09	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519787
Project Name	: BATCH CANISTER CERTIFICATION	Project Number:	CANISTER QC BAT
Lab ID	: L1519787-01	Date Collected :	08/17/15 16:00
Client ID	: CAN 397 SHELF 1	Date Received :	08/18/15
Sample Location	:	Date Analyzed :	08/18/15 18:18
Sample Matrix	: AIR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143508	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	1.00	--	ND	3.52	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519787
Project Name	: BATCH CANISTER CERTIFICATION	Project Number:	CANISTER QC BAT
Lab ID	: L1519787-01	Date Collected :	08/17/15 16:00
Client ID	: CAN 397 SHELF 1	Date Received :	08/18/15
Sample Location	:	Date Analyzed :	08/18/15 18:18
Sample Matrix	: AIR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143508	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519787
Project Name	: BATCH CANISTER CERTIFICATION	Project Number:	CANISTER QC BAT
Lab ID	: L1519787-01	Date Collected :	08/17/15 16:00
Client ID	: CAN 397 SHELF 1	Date Received :	08/18/15
Sample Location	:	Date Analyzed :	08/18/15 18:18
Sample Matrix	: AIR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143508	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143508.D
Acq On : 18 Aug 2015 6:18 pm
Operator : AIRPIANO1:MB
Sample : L1519787-01,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 19 10:09:53 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150818T\R143501.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.201	49	127482	10.000	ppbV	0.00
Standard Area = 140276			Recovery =		90.88%	
43) 1,4-difluorobenzene	12.419	114	289193	10.000	ppbV	0.00
Standard Area = 308484			Recovery =		93.75%	
67) chlorobenzene-D5	16.842	54	53672	10.000	ppbV	0.00
Standard Area = 58478			Recovery =		91.78%	
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	0.000		0	N.D.		
3) propylene	0.000		0	N.D.		
4) propane	4.103		0	N.D.		
5) dichlorodifluoromethane	0.000		0	N.D.		
6) chloromethane	0.000		0	N.D.		
7) Freon-114	0.000		0	N.D.		
8) methanol	4.626	31	742	0.424	ppbV #	1
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
11) butane	0.000		0	N.D.		
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	0.000		0	N.D.		
16) dichlorofluoromethane	0.000		0	N.D.		
17) vinyl bromide	0.000		0	N.D.		
18) acrolein	0.000		0	N.D.		
19) acetone	6.386		0	N.D.		
20) acetonitrile	0.000		0	N.D.		
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	0.000		0	N.D.		
23) acrylonitrile	0.000		0	N.D.		
24) pentane	7.090		0	N.D.		
25) ethyl ether	0.000		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	7.593	49	3072	0.355	ppbV	91
29) 3-chloropropene	0.000		0	N.D.		
30) carbon disulfide	0.000		0	N.D.		
31) Freon 113	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143508.D
Acq On : 18 Aug 2015 6:18 pm
Operator : AIRPIANO1:MB
Sample : L1519787-01,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 19 10:09:53 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150818T\R143501.D
Sub List : Default-LCS-AP2 - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32)	trans-1,2-dichloroethene	0.000		0	N.D.		
33)	1,1-dichloroethane	0.000		0	N.D.		
34)	MTBE	0.000		0	N.D.		
35)	vinyl acetate	0.000		0	N.D.		
36)	2-butanone	0.000		0	N.D.		
37)	cis-1,2-dichloroethene	0.000		0	N.D.		
38)	Ethyl Acetate	0.000		0	N.D.		
39)	chloroform	0.000		0	N.D.		
40)	Tetrahydrofuran	0.000		0	N.D.		
41)	2,2-dichloropropane	0.000		0	N.D.		
42)	1,2-dichloroethane	0.000		0	N.D.		
44)	hexane	0.000		0	N.D.		
45)	diisopropyl ether	0.000		0	N.D.		
46)	tert-butyl ethyl ether	0.000		0	N.D.		
48)	1,1,1-trichloroethane	0.000		0	N.D.		
49)	1,1-dichloropropene	0.000		0	N.D.		
50)	benzene	0.000		0	N.D.		
52)	carbon tetrachloride	0.000		0	N.D.		
53)	cyclohexane	0.000		0	N.D.	d	
54)	tert-amyl methyl ether	0.000		0	N.D.		
55)	dibromomethane	0.000		0	N.D.		
56)	1,2-dichloropropane	0.000		0	N.D.		
57)	bromodichloromethane	0.000		0	N.D.		
58)	1,4-dioxane	0.000		0	N.D.		
59)	trichloroethene	0.000		0	N.D.		
60)	2,2,4-trimethylpentane	0.000		0	N.D.		
61)	methyl methacrylate	0.000		0	N.D.		
62)	heptane	0.000		0	N.D.		
63)	cis-1,3-dichloropropene	0.000		0	N.D.		
64)	4-methyl-2-pentanone	0.000		0	N.D.		
65)	trans-1,3-dichloropropene	0.000		0	N.D.		
66)	1,1,2-trichloroethane	0.000		0	N.D.		
68)	toluene	0.000		0	N.D.		
71)	1,3-dichloropropane	0.000		0	N.D.		
72)	2-hexanone	0.000		0	N.D.		
74)	dibromochloromethane	0.000		0	N.D.		
75)	1,2-dibromoethane	0.000		0	N.D.		
76)	butyl acetate	0.000		0	N.D.		
77)	octane	0.000		0	N.D.		
78)	tetrachloroethene	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143508.D
Acq On : 18 Aug 2015 6:18 pm
Operator : AIRPIANO1:MB
Sample : L1519787-01,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 19 10:09:53 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150818T\R143501.D
Sub List : Default-LCS-AP2 - All compounds listed

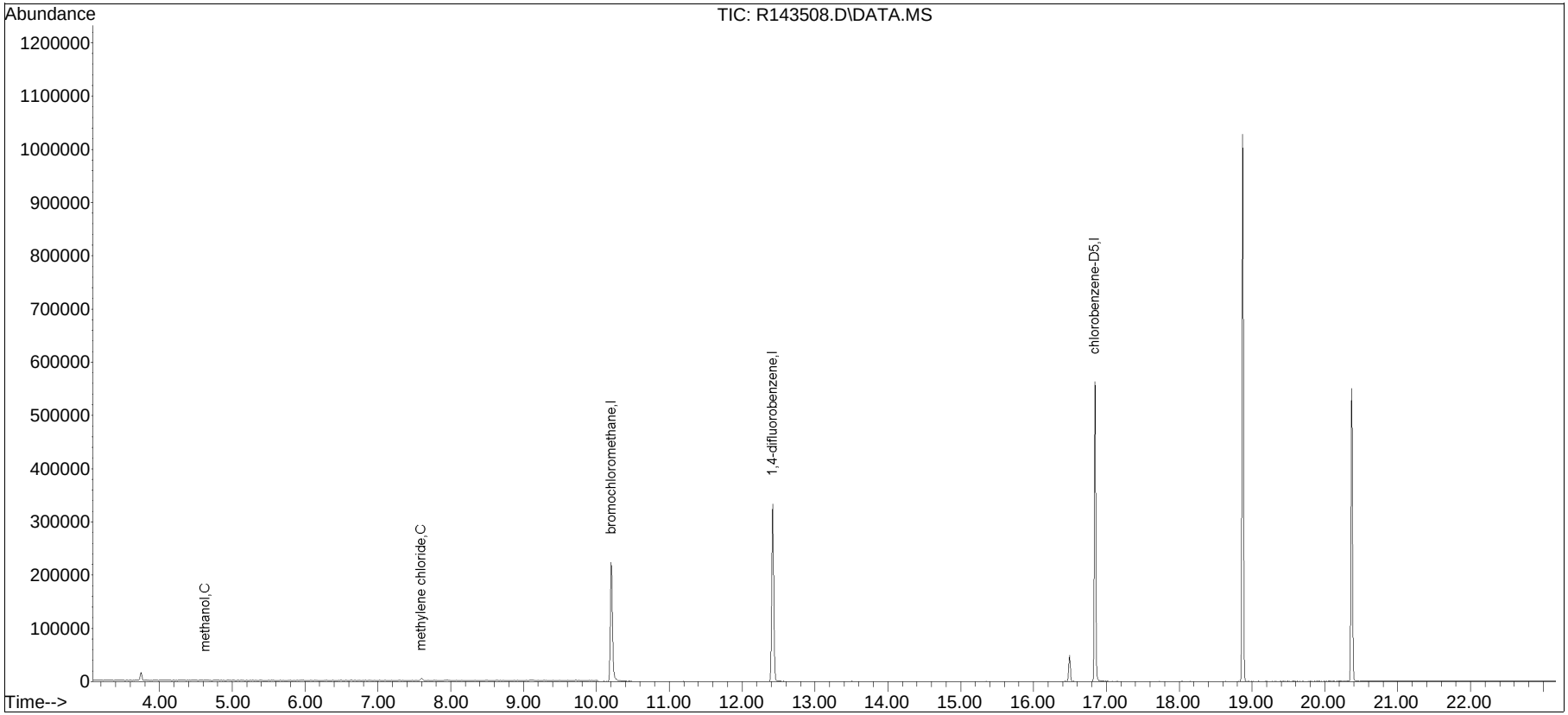
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
79)	1,1,1,2-tetrachloroethane	0.000		0	N.D.	
80)	chlorobenzene	0.000		0	N.D.	
81)	ethylbenzene	0.000		0	N.D.	
83)	m+p-xylene	0.000		0	N.D.	
84)	bromoform	0.000		0	N.D.	
85)	styrene	0.000		0	N.D.	
86)	1,1,2,2-tetrachloroethane	0.000		0	N.D.	
87)	o-xylene	0.000		0	N.D.	
88)	1,2,3-trichloropropane	0.000		0	N.D.	
89)	nonane	17.759		0	N.D.	
91)	isopropylbenzene	0.000		0	N.D.	
92)	bromobenzene	0.000		0	N.D.	
93)	2-chlorotoluene	0.000		0	N.D.	
94)	n-propylbenzene	0.000		0	N.D.	
95)	4-chlorotoluene	0.000		0	N.D.	
96)	4-ethyl toluene	0.000		0	N.D.	
97)	1,3,5-trimethylbenzene	0.000		0	N.D.	
98)	tert-butylbenzene	0.000		0	N.D.	d
99)	1,2,4-trimethylbenzene	0.000		0	N.D.	d
100)	decane	0.000		0	N.D.	d
101)	Benzyl Chloride	0.000		0	N.D.	
102)	1,3-dichlorobenzene	0.000		0	N.D.	
103)	1,4-dichlorobenzene	0.000		0	N.D.	
104)	sec-butylbenzene	0.000		0	N.D.	
106)	p-isopropyltoluene	0.000		0	N.D.	
107)	1,2-dichlorobenzene	0.000		0	N.D.	
108)	n-butylbenzene	0.000		0	N.D.	
111)	1,2-dibromo-3-chloropr...	0.000		0	N.D.	
112)	undecane	0.000		0	N.D.	
114)	dodecane	0.000		0	N.D.	
115)	1,2,4-trichlorobenzene	0.000		0	N.D.	
116)	naphthalene	0.000		0	N.D.	
117)	1,2,3-trichlorobenzene	0.000		0	N.D.	
119)	hexachlorobutadiene	0.000		0	N.D.	

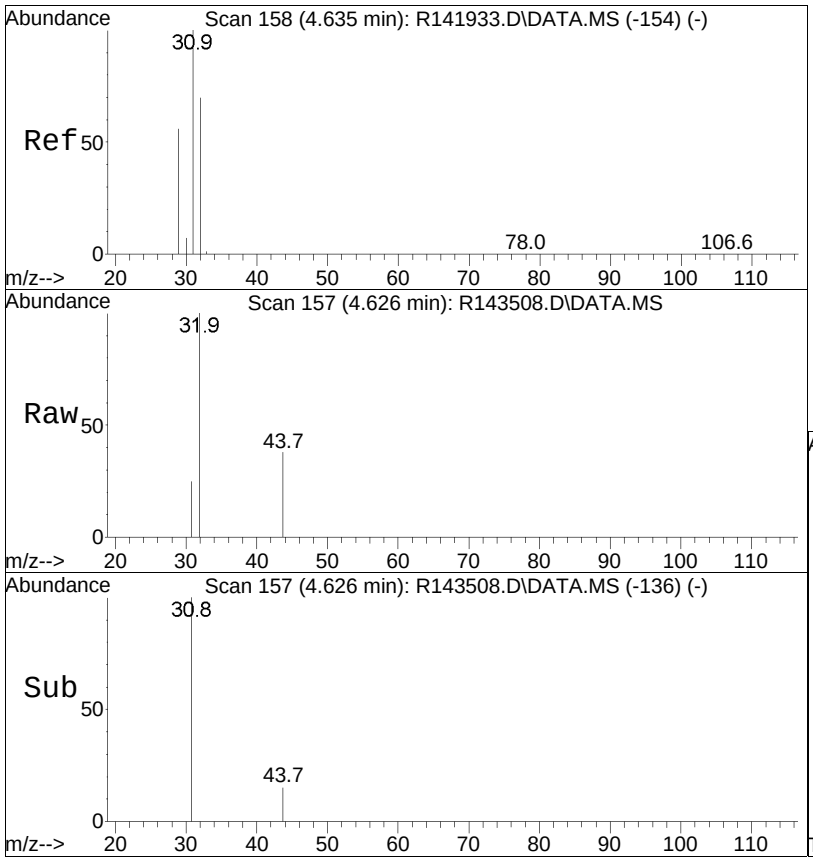
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-LCS-AP2 - All compounds listed43501.D

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143508.D
Acq On : 18 Aug 2015 6:18 pm
Operator : AIRPIANO1:MB
Sample : L1519787-01,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 19 10:09:53 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

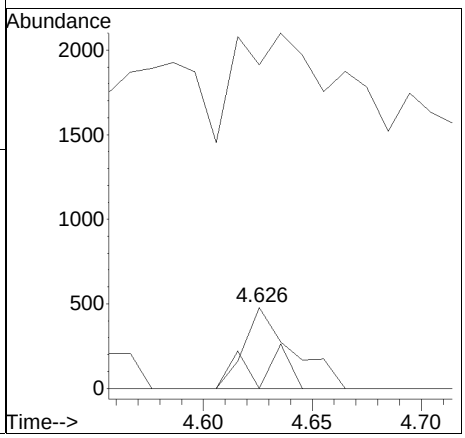


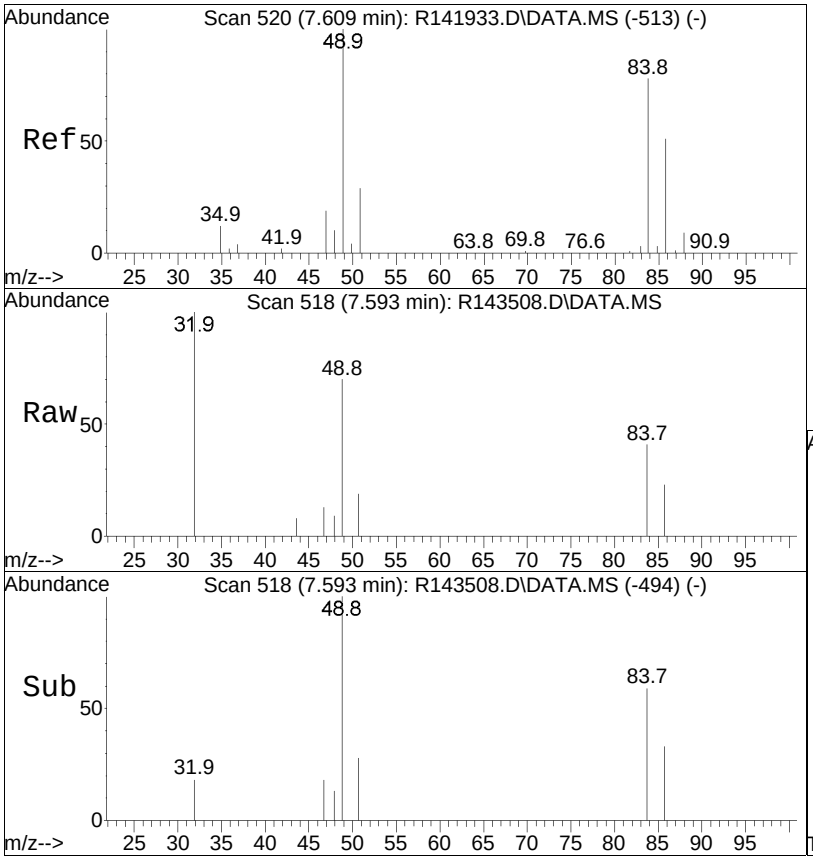


#8
methanol
Concen: 0.42 ppbV
RT: 4.626 min Scan# 157
Delta R.T. 0.010 min
Lab File: R143508.D
Acq: 18 Aug 2015 6:18 pm

Tgt Ion: 31 Resp: 742

Ion	Ratio	Lower	Upper
31	100		
32	400.2	57.2	85.8#
29	0.0	46.4	69.6#

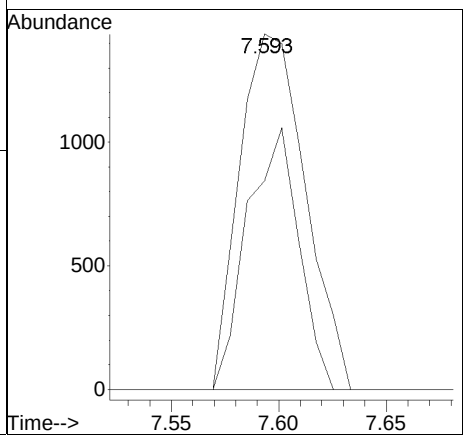




#28
methylene chloride
Concen: 0.36 ppbV
RT: 7.593 min Scan# 518
Delta R.T. -0.008 min
Lab File: R143508.D
Acq: 18 Aug 2015 6:18 pm

Tgt Ion: 49 Resp: 3072

Ion	Ratio	Lower	Upper
49	100		
84	58.7	52.9	79.3



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR1\2015	QMethod	: TALL150710.M
Data File	: R143508.D	Operator	: AIRPIANO1:MB
Date Inj'd	: 8/18/2015 6:18 pm	Instrument	: Air Piano 1
Sample	: L1519787-01,3,250,250	Quant Date	: 8/19/2015 8:47 am

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519787
Project Name	: BATCH CANISTER CERTIFICATION	Project Number:	CANISTER QC BAT
Lab ID	: L1519787-01	Date Collected :	08/17/15 16:00
Client ID	: CAN 397 SHELF 1	Date Received :	08/18/15
Sample Location	:	Date Analyzed :	08/18/15 18:18
Sample Matrix	: AIR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143508	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 3

Concentration Units: ppbV

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
000541-05-9	Cyclotrisiloxane, hexamethyl-	16.50	1	NJ
	unknown siloxane	18.87	17	J
	unknown siloxane	20.37	10	J
	Total TIC Compounds		28	

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143508.D
Acq On : 18 Aug 2015 6:18 pm
Operator : AIRPIANO1:MB
Sample : L1519787-01,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R143508.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.566	148	151	152	rBV2	1090	1786	0.13%	0.044%
2	4.635	155	158	163	rBV3	1133	3165	0.24%	0.078%
3	4.951	186	190	191	rVB2	823	1415	0.11%	0.035%
4	7.601	515	519	524	rBV3	4235	8327	0.63%	0.205%
5	9.094	721	724	727	rBV3	862	1659	0.12%	0.041%
6	10.201	873	878	894	rBV2	224189	459933	34.55%	11.309%
7	11.199	977	981	985	rVB2	596	1626	0.12%	0.040%
8	12.419	1097	1101	1114	rVB	334053	618144	46.44%	15.199%
9	16.495	1489	1494	1498	rBV	48888	78094	5.87%	1.920%
10	16.842	1559	1569	1588	rBV	562979	779636	58.57%	19.170%
11	18.869	2107	2114	2125	rBV	1027624	1331037	100.00%	32.729%
12	20.369	2421	2429	2439	rBV	549763	782064	58.76%	19.230%

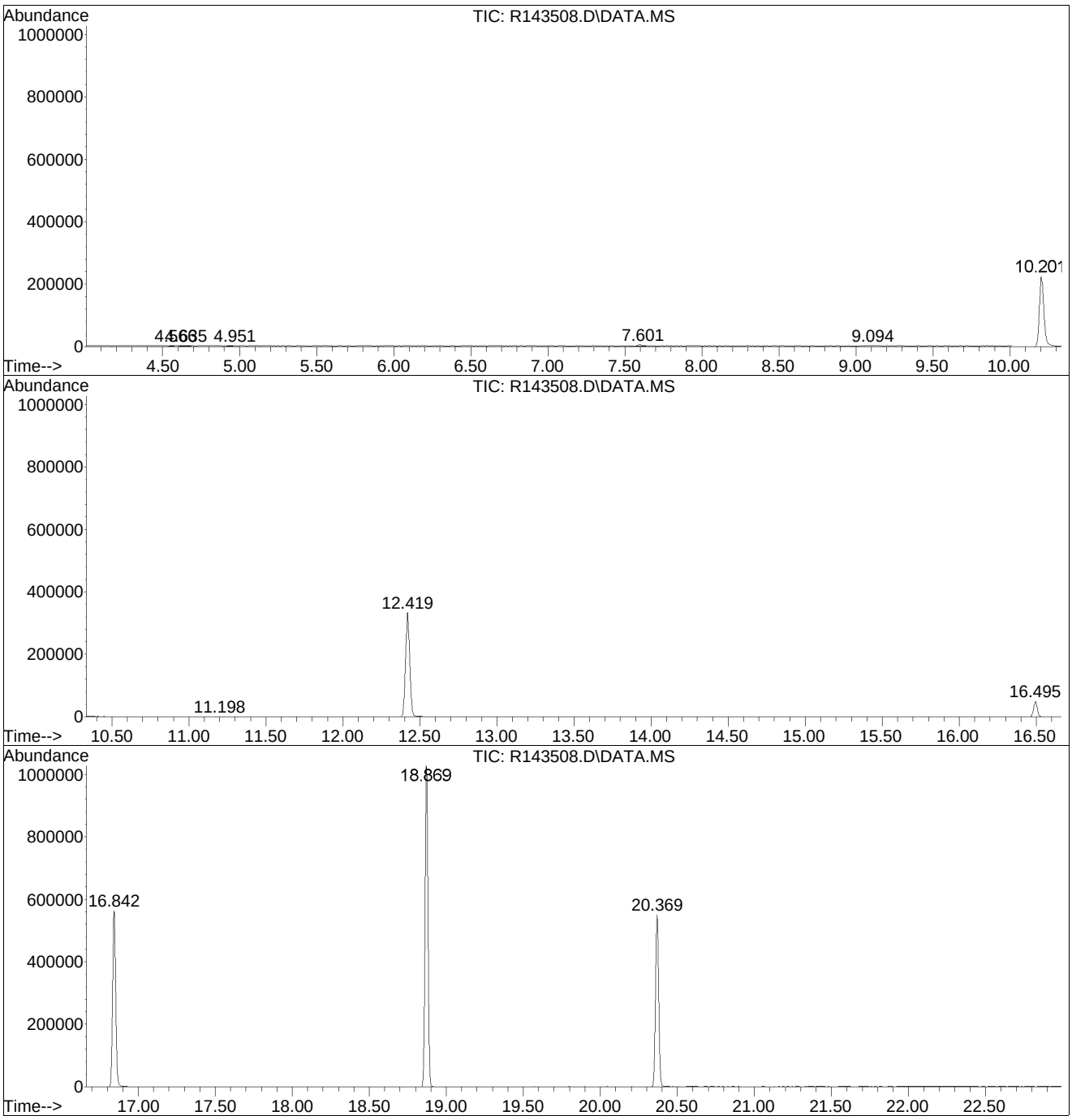
Sum of corrected areas: 4066886

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143508.D
Acq On : 18 Aug 2015 6:18 pm
Operator : AIRPIANO1:MB
Sample : L1519787-01,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143508.D
Acq On : 18 Aug 2015 6:18 pm
Operator : AIRPIANO1:MB
Sample : L1519787-01,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

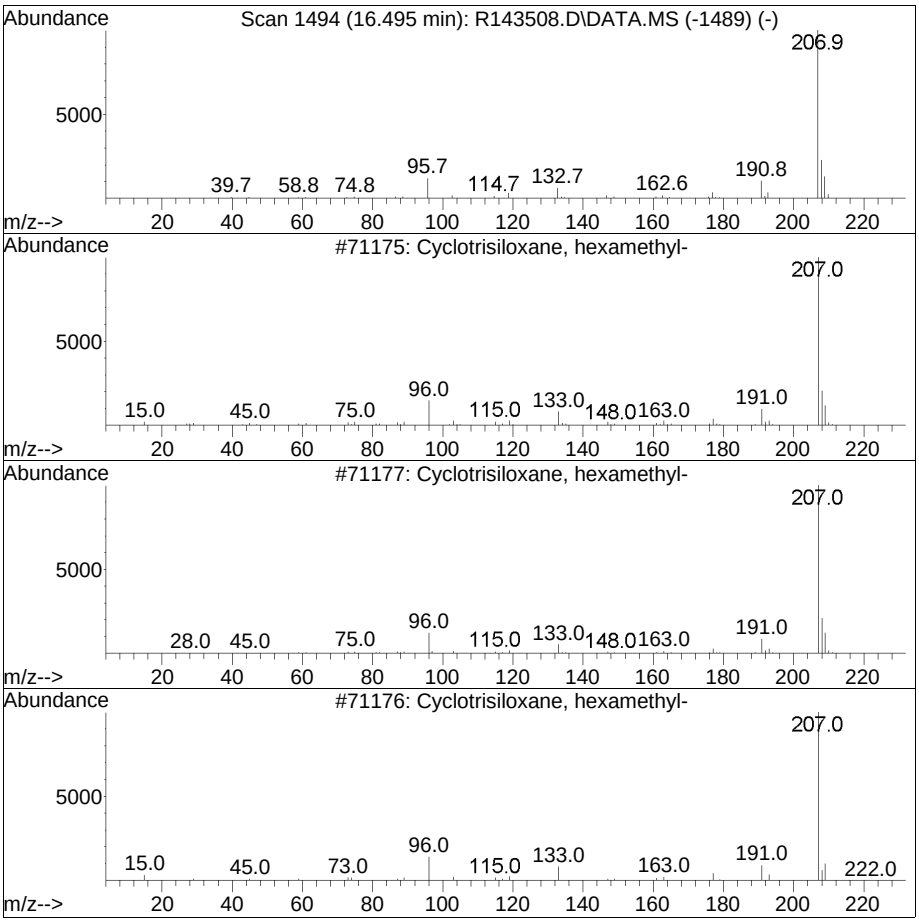
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

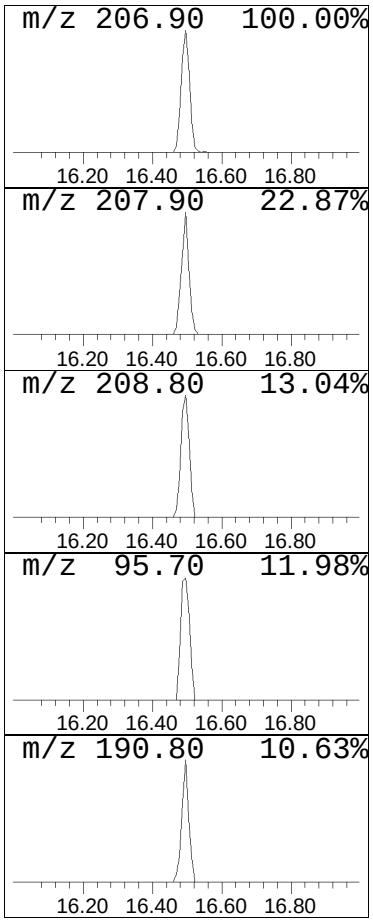
****

Peak Number 1 Cyclotrisiloxane, hexamethyl- Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
16.496	1.00 ppbV	78094	chlorobenzene-D5	16.842

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	83
2	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	83
3	Cyclotrisiloxane, hexamethyl-	222	C6H18O3Si3	000541-05-9	72
4	5-Methyl-2-phenylindolizine	207	C15H13N	036944-99-7	64
5	Benzo[h]quinoline, 2,4-dimethyl-	207	C15H13N	000605-67-4	64





Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143508.D
Acq On : 18 Aug 2015 6:18 pm
Operator : AIRPIANO1:MB
Sample : L1519787-01,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

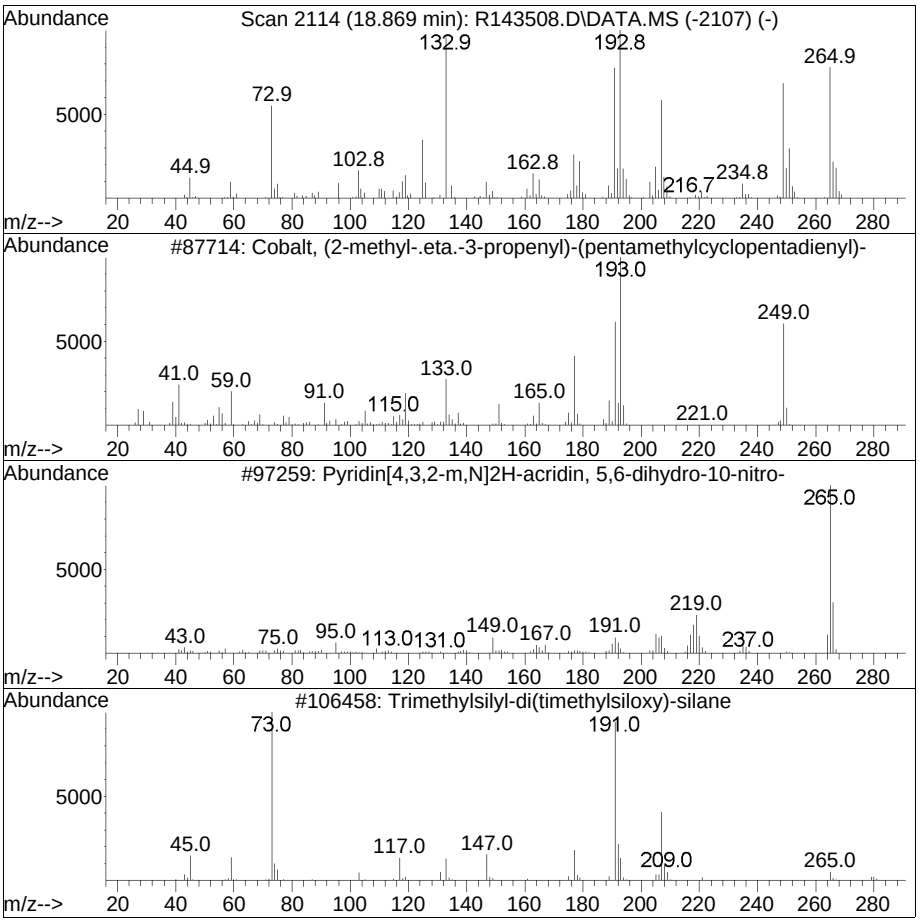
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

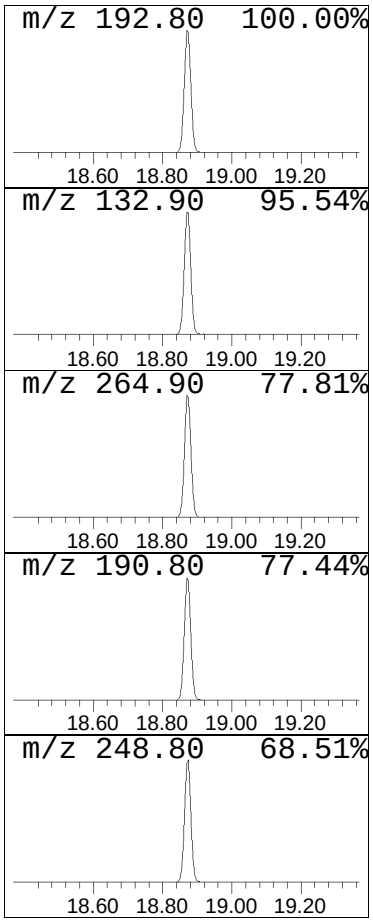
****

Peak Number 2 unknown siloxane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.869	17.07 ppbV	1331040	chlorobenzene-D5	16.842

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cobalt, (2-methyl-.eta.-3-propen...	249	C14H22Co	1000157-04-3	38
2	Pyridin[4,3,2-m,N]2H-acridin, 5,...	265	C15H11N3O2	160724-44-7	25
3	Trimethylsilyl-di(timethylsiloxy...	280	C9H28O2Si4	139347-50-5	22
4	7a-Isopropenyl-4,5-dimethyloctah...	236	C15H24O2	1000192-14-7	11
5	3-Indolethanamine, N-acetyl-5-fl...	250	C13H15FN2O2	1000116-27-1	11





Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143508.D
Acq On : 18 Aug 2015 6:18 pm
Operator : AIRPIANO1:MB
Sample : L1519787-01,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

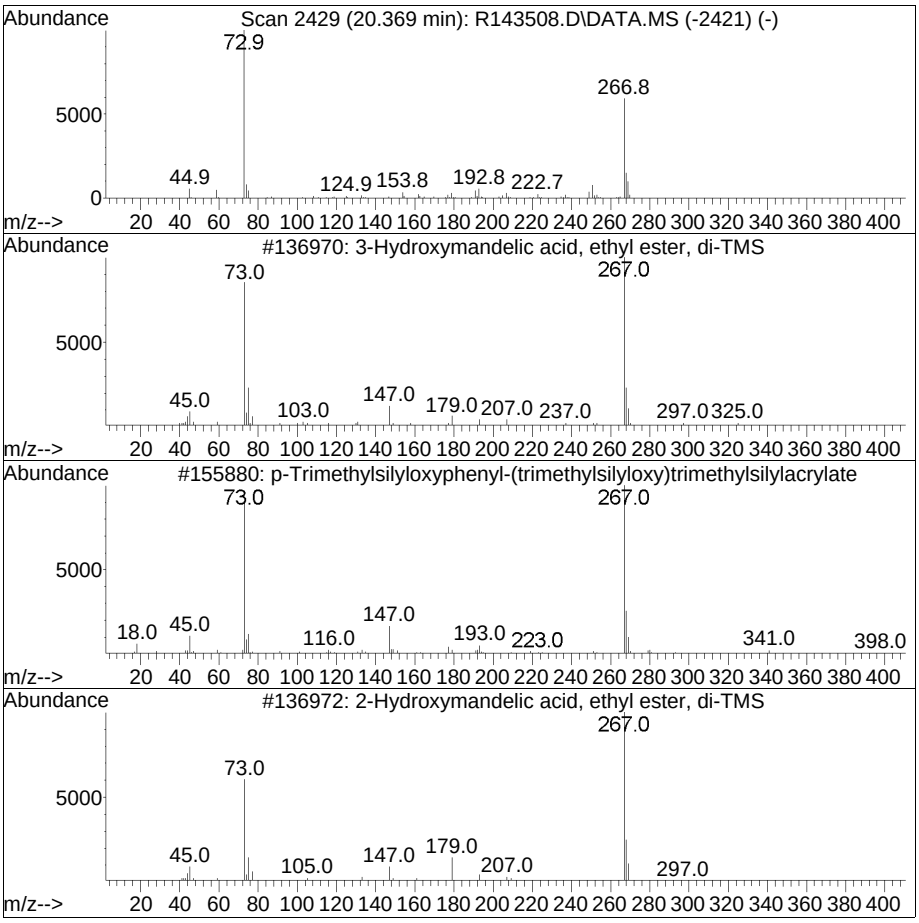
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

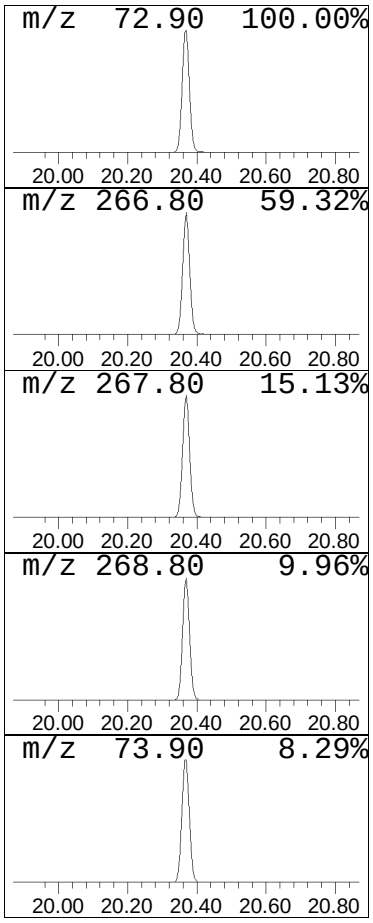
****

Peak Number 3 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.369	10.03 ppbV	782064	chlorobenzene-D5	16.842

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-88-9	45
2	p-Trimethylsilyloxyphenyl-(trime...	398	C18H34O4Si3	1000079-05-1	39
3	2-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-88-8	39
4	7H-Dibenzo(a,g)carbazole	267	C20H13N	000207-84-1	38
5	4-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-53-3	36





Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143508.D
Acq On : 18 Aug 2015 6:18 pm
Operator : AIRPIANO1:MB
Sample : L1519787-01,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc
Cyclotrisiloxan...	16.496	1.0	ppbV	78094	3	16.842	779636	10.0
unknown siloxane	18.869	17.1	ppbV	1331040	3	16.842	779636	10.0
unknown siloxane	20.369	10.0	ppbV	782064	3	16.842	779636	10.0

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519787
Project Name	: BATCH CANISTER CERTIFICATION	Project Number:	CANISTER QC BAT
Lab ID	: L1519787-02	Date Collected :	08/17/15 16:00
Client ID	: CAN 723 SHELF 7	Date Received :	08/18/15
Sample Location	:	Date Analyzed :	08/18/15 18:50
Sample Matrix	: AIR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143509	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.500	--	ND	1.09	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519787
Project Name	: BATCH CANISTER CERTIFICATION	Project Number:	CANISTER QC BAT
Lab ID	: L1519787-02	Date Collected :	08/17/15 16:00
Client ID	: CAN 723 SHELF 7	Date Received :	08/18/15
Sample Location	:	Date Analyzed :	08/18/15 18:50
Sample Matrix	: AIR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143509	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	1.00	--	ND	3.52	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Diisopropyl ether	ND	0.200	--	ND	0.836	--	U
637-92-3	tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519787
Project Name	: BATCH CANISTER CERTIFICATION	Project Number:	CANISTER QC BAT
Lab ID	: L1519787-02	Date Collected :	08/17/15 16:00
Client ID	: CAN 723 SHELF 7	Date Received :	08/18/15
Sample Location	:	Date Analyzed :	08/18/15 18:50
Sample Matrix	: AIR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143509	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	2-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	4-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519787
Project Name	: BATCH CANISTER CERTIFICATION	Project Number:	CANISTER QC BAT
Lab ID	: L1519787-02	Date Collected :	08/17/15 16:00
Client ID	: CAN 723 SHELF 7	Date Received :	08/18/15
Sample Location	:	Date Analyzed :	08/18/15 18:50
Sample Matrix	: AIR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143509	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143509.D
Acq On : 18 Aug 2015 6:50 pm
Operator : AIRPIANO1:MB
Sample : L1519787-02,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 19 10:10:51 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150818T\R143501.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.201	49	128913	10.000	ppbV	0.00
Standard Area = 140276			Recovery =		91.90%	
43) 1,4-difluorobenzene	12.419	114	291461	10.000	ppbV	0.00
Standard Area = 308484			Recovery =		94.48%	
67) chlorobenzene-D5	16.842	54	53597	10.000	ppbV	0.00
Standard Area = 58478			Recovery =		91.65%	
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	0.000		0	N.D.		
3) propylene	0.000		0	N.D.		
4) propane	4.103		0	N.D.		
5) dichlorodifluoromethane	0.000		0	N.D.		
6) chloromethane	0.000		0	N.D.		
7) Freon-114	0.000		0	N.D.		
8) methanol	4.635	31	275	0.155	ppbV #	1
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
11) butane	5.099		0	N.D.		
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	0.000		0	N.D.		
16) dichlorofluoromethane	0.000		0	N.D.		
17) vinyl bromide	0.000		0	N.D.		
18) acrolein	0.000		0	N.D.		
19) acetone	6.434		0	N.D.		
20) acetonitrile	0.000		0	N.D.		
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	0.000		0	N.D.		
23) acrylonitrile	0.000		0	N.D.		
24) pentane	7.162		0	N.D.		
25) ethyl ether	0.000		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	7.601	49	2555	0.292	ppbV	85
29) 3-chloropropene	0.000		0	N.D.		
30) carbon disulfide	7.929		0	N.D.		
31) Freon 113	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143509.D
Acq On : 18 Aug 2015 6:50 pm
Operator : AIRPIANO1:MB
Sample : L1519787-02,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 19 10:10:51 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150818T\R143501.D
Sub List : Default-LCS-AP2 - All compounds listed

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
32)	trans-1,2-dichloroethene	0.000		0	N.D.	
33)	1,1-dichloroethane	0.000		0	N.D.	
34)	MTBE	0.000		0	N.D.	
35)	vinyl acetate	0.000		0	N.D.	
36)	2-butanone	0.000		0	N.D.	
37)	cis-1,2-dichloroethene	0.000		0	N.D.	
38)	Ethyl Acetate	0.000		0	N.D.	
39)	chloroform	0.000		0	N.D.	
40)	Tetrahydrofuran	0.000		0	N.D.	
41)	2,2-dichloropropane	0.000		0	N.D.	
42)	1,2-dichloroethane	0.000		0	N.D.	
44)	hexane	0.000		0	N.D.	
45)	diisopropyl ether	0.000		0	N.D.	
46)	tert-butyl ethyl ether	0.000		0	N.D.	
48)	1,1,1-trichloroethane	0.000		0	N.D.	
49)	1,1-dichloropropene	0.000		0	N.D.	
50)	benzene	0.000		0	N.D.	
52)	carbon tetrachloride	0.000		0	N.D.	
53)	cyclohexane	0.000		0	N.D.	d
54)	tert-amyl methyl ether	0.000		0	N.D.	
55)	dibromomethane	0.000		0	N.D.	
56)	1,2-dichloropropane	0.000		0	N.D.	
57)	bromodichloromethane	0.000		0	N.D.	
58)	1,4-dioxane	0.000		0	N.D.	
59)	trichloroethene	0.000		0	N.D.	
60)	2,2,4-trimethylpentane	0.000		0	N.D.	
61)	methyl methacrylate	0.000		0	N.D.	
62)	heptane	13.548		0	N.D.	
63)	cis-1,3-dichloropropene	0.000		0	N.D.	
64)	4-methyl-2-pentanone	0.000		0	N.D.	
65)	trans-1,3-dichloropropene	0.000		0	N.D.	
66)	1,1,2-trichloroethane	0.000		0	N.D.	
68)	toluene	0.000		0	N.D.	
71)	1,3-dichloropropane	0.000		0	N.D.	
72)	2-hexanone	0.000		0	N.D.	
74)	dibromochloromethane	0.000		0	N.D.	
75)	1,2-dibromoethane	0.000		0	N.D.	
76)	butyl acetate	0.000		0	N.D.	
77)	octane	0.000		0	N.D.	
78)	tetrachloroethene	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143509.D
Acq On : 18 Aug 2015 6:50 pm
Operator : AIRPIANO1:MB
Sample : L1519787-02,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 19 10:10:51 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150818T\R143501.D
Sub List : Default-LCS-AP2 - All compounds listed

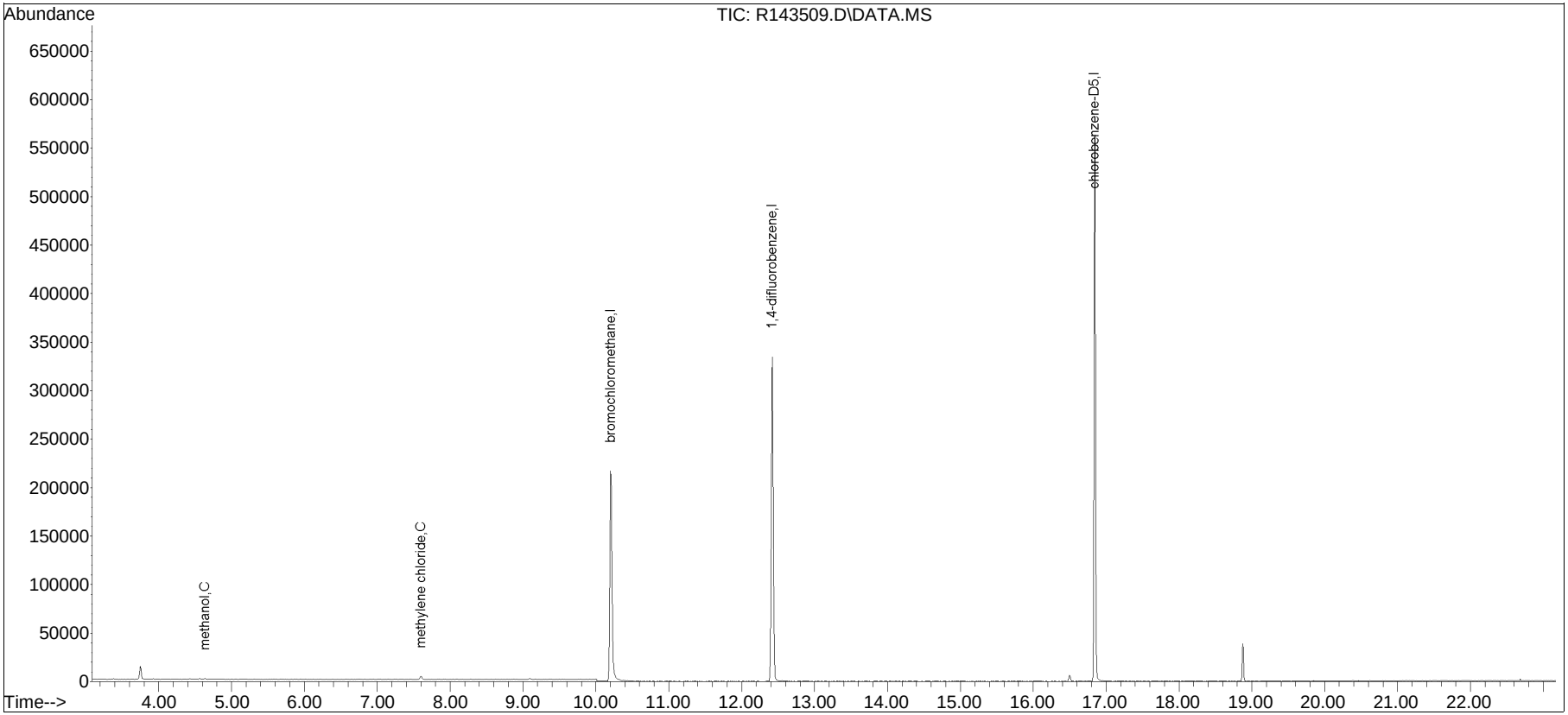
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
79)	1,1,1,2-tetrachloroethane	0.000		0	N.D.	
80)	chlorobenzene	0.000		0	N.D.	
81)	ethylbenzene	0.000		0	N.D.	
83)	m+p-xylene	0.000		0	N.D.	
84)	bromoform	0.000		0	N.D.	
85)	styrene	0.000		0	N.D.	
86)	1,1,2,2-tetrachloroethane	0.000		0	N.D.	
87)	o-xylene	0.000		0	N.D.	
88)	1,2,3-trichloropropane	0.000		0	N.D.	
89)	nonane	17.858		0	N.D.	
91)	isopropylbenzene	0.000		0	N.D.	
92)	bromobenzene	0.000		0	N.D.	
93)	2-chlorotoluene	0.000		0	N.D.	
94)	n-propylbenzene	0.000		0	N.D.	
95)	4-chlorotoluene	0.000		0	N.D.	
96)	4-ethyl toluene	0.000		0	N.D.	
97)	1,3,5-trimethylbenzene	0.000		0	N.D.	
98)	tert-butylbenzene	0.000		0	N.D.	d
99)	1,2,4-trimethylbenzene	0.000		0	N.D.	
100)	decane	0.000		0	N.D.	
101)	Benzyl Chloride	0.000		0	N.D.	
102)	1,3-dichlorobenzene	0.000		0	N.D.	
103)	1,4-dichlorobenzene	0.000		0	N.D.	
104)	sec-butylbenzene	0.000		0	N.D.	
106)	p-isopropyltoluene	0.000		0	N.D.	
107)	1,2-dichlorobenzene	0.000		0	N.D.	
108)	n-butylbenzene	0.000		0	N.D.	
111)	1,2-dibromo-3-chloropr...	0.000		0	N.D.	
112)	undecane	0.000		0	N.D.	
114)	dodecane	0.000		0	N.D.	
115)	1,2,4-trichlorobenzene	0.000		0	N.D.	
116)	naphthalene	0.000		0	N.D.	
117)	1,2,3-trichlorobenzene	0.000		0	N.D.	
119)	hexachlorobutadiene	0.000		0	N.D.	

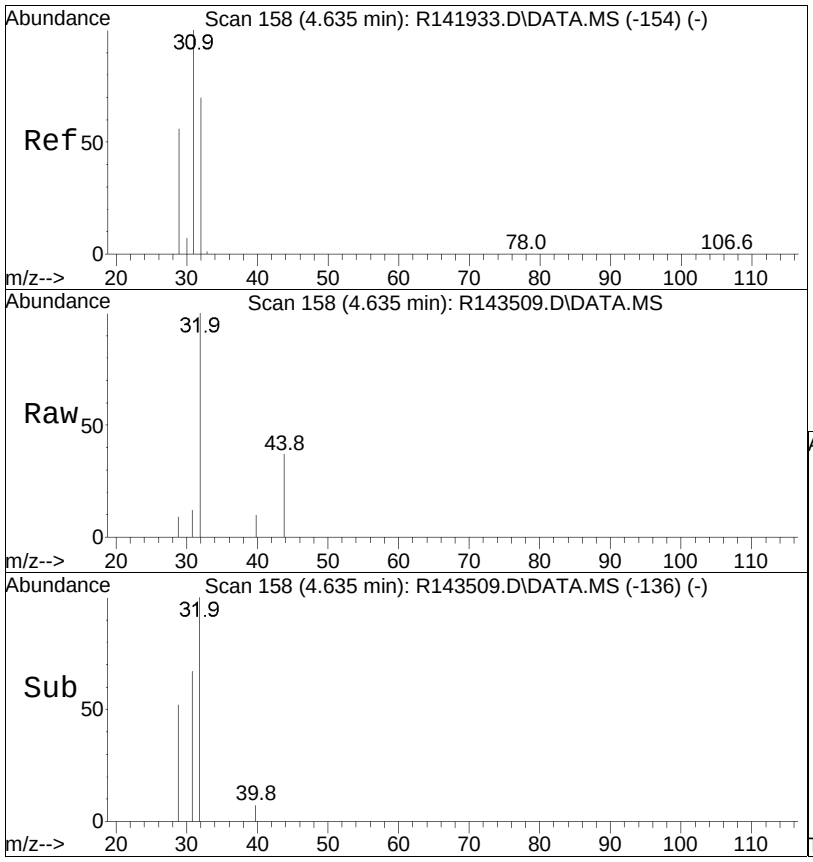
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-LCS-AP2 - All compounds listed43501.D

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143509.D
Acq On : 18 Aug 2015 6:50 pm
Operator : AIRPIANO1:MB
Sample : L1519787-02,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 19 10:10:51 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

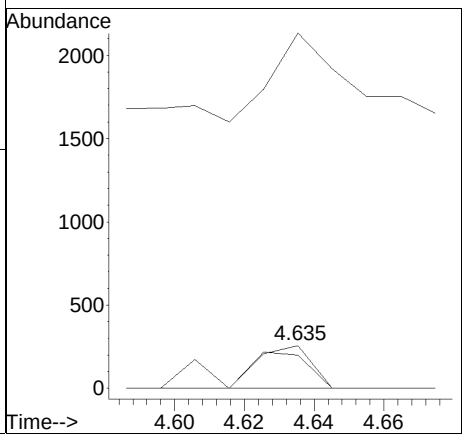


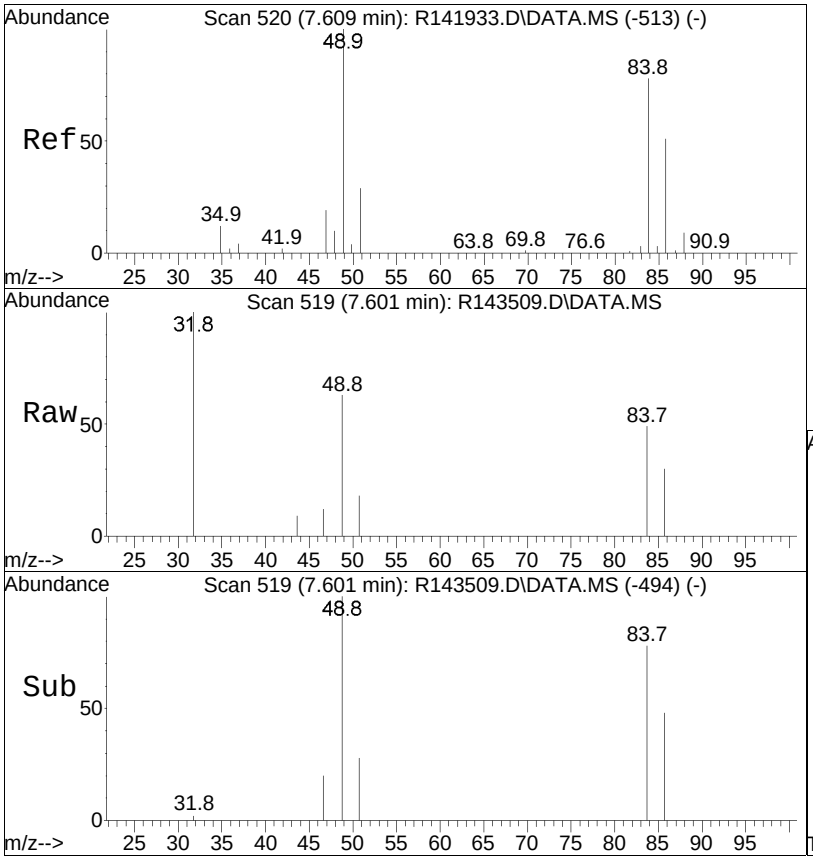


#8
methanol
Concen: 0.16 ppbV
RT: 4.635 min Scan# 158
Delta R.T. 0.020 min
Lab File: R143509.D
Acq: 18 Aug 2015 6:50 pm

Tgt Ion: 31 Resp: 275

Ion	Ratio	Lower	Upper
31	100		
32	830.4	57.2	85.8#
29	77.8	46.4	69.6#

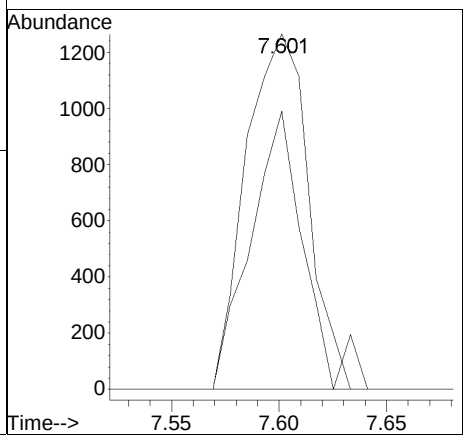




#28
methylene chloride
Concen: 0.29 ppbV
RT: 7.601 min Scan# 519
Delta R.T. -0.000 min
Lab File: R143509.D
Acq: 18 Aug 2015 6:50 pm

Tgt Ion: 49 Resp: 2555

Ion	Ratio	Lower	Upper
49	100		
84	78.3	52.9	79.3



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR1\2015Q	Method	: TALL150710.M
Data File	: R143509.D	Operator	: AIRPIANO1:MB
Date Inj'd	: 8/18/2015 6:50 pm	Instrument	: Air Piano 1
Sample	: L1519787-02,3,250,250	Quant Date	: 8/19/2015 8:47 am

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519787
Project Name	: BATCH CANISTER CERTIFICATION	Project Number:	CANISTER QC BAT
Lab ID	: L1519787-02	Date Collected :	08/17/15 16:00
Client ID	: CAN 723 SHELF 7	Date Received :	08/18/15
Sample Location	:	Date Analyzed :	08/18/15 18:50
Sample Matrix	: AIR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143509	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0

Concentration Units:

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143509.D
Acq On : 18 Aug 2015 6:50 pm
Operator : AIRPIANO1:MB
Sample : L1519787-02,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R143509.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.064	96	100	102	rBV	581	1779	0.23%	0.091%
2	4.290	122	123	126	rVB	846	1148	0.15%	0.058%
3	4.330	126	127	128	rBV	748	796	0.10%	0.041%
4	4.428	135	137	139	rBV	614	837	0.11%	0.043%
5	4.556	149	150	153	rBV2	799	1460	0.19%	0.074%
6	4.635	156	158	159	rVV	1301	1257	0.16%	0.064%
7	4.714	162	166	170	rVV2	579	1578	0.20%	0.080%
8	4.783	171	173	177	rVB2	519	1015	0.13%	0.052%
9	5.000	193	195	198	rBV	547	1041	0.13%	0.053%
10	5.059	198	201	204	rVV2	516	1029	0.13%	0.052%
11	5.323	230	234	235	rBV2	686	1240	0.16%	0.063%
12	5.827	294	297	298	rBV	751	1048	0.14%	0.053%
13	6.730	406	410	412	rBV	769	1173	0.15%	0.060%
14	6.826	420	422	425	rBV2	775	938	0.12%	0.048%
15	7.090	454	455	457	rBV2	673	807	0.10%	0.041%
16	7.146	459	462	464	rBV	653	1224	0.16%	0.062%
17	7.305	480	482	486	rBV2	490	848	0.11%	0.043%
18	7.449	497	500	503	rBV	690	1489	0.19%	0.076%
19	7.601	515	519	525	rVB3	3405	6212	0.80%	0.316%
20	9.101	719	725	726	rBV2	935	1924	0.25%	0.098%
21	9.540	785	789	790	rBV2	756	854	0.11%	0.044%
22	9.869	833	837	840	rBV2	786	1361	0.18%	0.069%
23	10.006	856	857	859	rVB2	2623	1264	0.16%	0.064%
24	10.201	873	878	893	rBV	217219	459522	59.20%	23.409%
25	10.380	896	897	901	rVV2	1146	2278	0.29%	0.116%
26	10.426	901	902	906	rVV2	663	1404	0.18%	0.072%
27	10.492	907	909	914	rVB	720	1031	0.13%	0.053%
28	11.365	995	998	1000	rVB	502	946	0.12%	0.048%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143509.D
Acq On : 18 Aug 2015 6:50 pm
Operator : AIRPIANO1:MB
Sample : L1519787-02,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	12.419	1097	1101	1111	rBV	334473	613982	79.10%	31.277%
30	12.854	1140	1143	1145	rBV	499	1218	0.16%	0.062%
31	12.968	1151	1154	1157	rVB	432	991	0.13%	0.050%
32	13.854	1233	1238	1239	rBV	479	1545	0.20%	0.079%
33	15.592	1388	1394	1396	rBV	460	1390	0.18%	0.071%
34	15.664	1399	1402	1404	rBV	484	957	0.12%	0.049%
35	16.495	1491	1494	1498	rBV	6463	10821	1.39%	0.551%
36	16.846	1560	1570	1589	rBV	563672	776222	100.00%	39.542%
37	16.920	1589	1590	1594	rVV2	1036	797	0.10%	0.041%
38	18.874	2109	2115	2122	rVB3	39199	50132	6.46%	2.554%
39	21.835	2581	2583	2586	rVB	537	876	0.11%	0.045%
40	22.339	2626	2630	2632	rBV	501	1363	0.18%	0.069%
41	22.414	2635	2637	2641	rVV	336	872	0.11%	0.044%
42	22.532	2645	2648	2649	rBV2	466	866	0.11%	0.044%
43	22.682	2661	2662	2664	rBV2	1968	1529	0.20%	0.078%
44	22.789	2670	2672	2675	rVB2	401	889	0.11%	0.045%
45	22.907	2680	2683	2686	rVB	484	1072	0.14%	0.055%

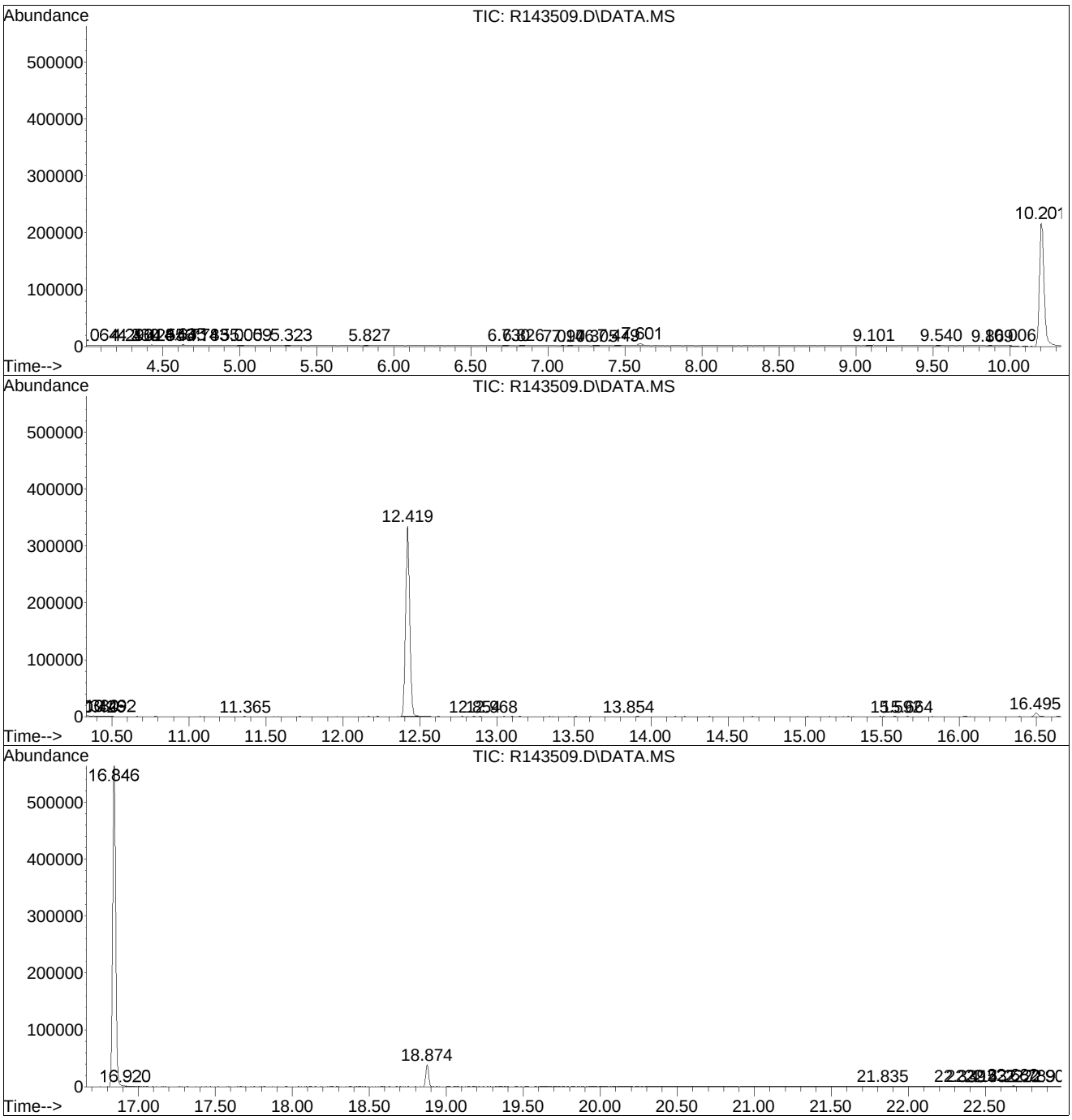
Sum of corrected areas: 1963025

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143509.D
Acq On : 18 Aug 2015 6:50 pm
Operator : AIRPIANO1:MB
Sample : L1519787-02,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143509.D
Acq On : 18 Aug 2015 6:50 pm
Operator : AIRPIANO1:MB
Sample : L1519787-02,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

```
  Data Path : O:\Forensics\Data\AIR1\2015\150818T\
  Data File : R143509.D
  Acq On    : 18 Aug 2015   6:50 pm
  Operator  : AIRPIANO1:MB
  Sample    : L1519787-02,3,250,250
  Misc      : WG813182,ICAL11250
  ALS Vial  : 5   Sample Multiplier: 1

  Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
  Quant Title  : TO-14A/TO-15 SIM/Full Scan Analysis

  TIC Library   : O:\Organics\DATABASE\NIST02.L
  TIC Integration Parameters: LSCINT.P

                                                        |--Internal Standard---|
  TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-------------------------------------------------------------------------------
```

Standards Data Summary

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1519787

Instrument ID: AIRPIANO1 Calibration Date(s): 07/10/15 07/10/15

Calibration Times: 14:43 18:30

Calibration Files
0.2 =R142707.D 0.5 =R142708.D 1.0 =R142709.D 5.0 =R142710.D 10 =R142711.D 20 =R142712.D
50 =R142713.D 100 =R142714.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1)	I	bromochloromethane	----------ISTD----------									
2)		chlorodifluoromethane	1.103	1.052	0.955	0.897	0.875	0.865	0.835	0.752	0.9168	12.56
3)		propylene		0.505	0.507	0.462	0.434	0.430	0.418	0.374	0.4468	10.74
4)		propane		0.602	0.526	0.415	0.409	0.414	0.377	0.329	0.4390	21.26
5)		dichlorodifluoromethane	1.210	0.843	1.027	0.786	0.827	0.836	0.630	0.620	0.8474	23.04
6)	C	chloromethane	0.579	0.570	0.583	0.484	0.477	0.470	0.439	0.402	0.5007	13.72
7)		Freon-114	1.535	1.535	1.505	1.332	1.307	1.288	1.144	1.040	1.3358	13.73
8)	C	methanol			0.183	0.145	0.136	0.133	0.121	0.107	0.1374	18.95
9)	C	vinyl chloride	0.551	0.553	0.561	0.506	0.499	0.491	0.466	0.421	0.5059	9.52
10)	C	1,3-butadiene	0.420	0.425	0.400	0.374	0.371	0.367	0.342	0.305	0.3756	10.63
11)		butane	1.200	0.933	0.879	0.759	0.702	0.701	0.647	0.558	0.7974	25.42
12)	C	acetaldehyde	0.333	0.258	0.244	0.202	0.193	0.189	0.164	0.135	0.2147	28.80
13)	C	bromomethane	0.665	0.593	0.564	0.509	0.479	0.474	0.450	0.407	0.5176	16.27
14)	C	chloroethane	0.310	0.275	0.285	0.242	0.228	0.225	0.211	0.193	0.2463	16.31
15)		ethanol		0.331	0.307	0.294	0.268	0.270	0.241	0.203	0.2736	15.53
16)		dichlorofluoromethane	1.215	1.143	1.097	0.991	0.960	0.958	0.904	0.819	1.0108	12.98
17)	C	vinyl bromide	0.625	0.592	0.575	0.532	0.516	0.513	0.485	0.437	0.5345	11.38
18)	C	acrolein	0.208	0.219	0.223	0.219	0.206	0.203	0.192	0.176	0.2058	7.67
19)		acetone	0.941	0.861	0.813	0.715	0.694	0.668	0.622	0.536	0.7312	18.13
20)	C	acetonitrile	0.636	0.509	0.513	0.433	0.419	0.409	0.374	0.326	0.4524	21.46
21)		trichlorofluoromethane	1.697	1.464	1.431	1.292	1.270	1.241	1.173	1.065	1.3292	14.80
22)		isopropyl alcohol		1.121	1.098	0.897	0.846	0.836	0.785	0.706	0.8984	17.34
23)	C	acrylonitrile	0.384	0.473	0.442	0.377	0.374	0.370	0.352	0.324	0.3869	12.37
24)		pentane	1.332	1.081	0.971	0.869	0.823	0.796	0.763	0.677	0.9140	22.98
25)		ethyl ether	0.630	0.613	0.552	0.537	0.505	0.491	0.449	0.395	0.5217	15.16
26)	C	1,1-dichloroethene	1.012	0.922	0.920	0.841	0.800	0.793	0.742	0.670	0.8377	13.14
27)		tertiary butyl alcohol		1.215	1.218	1.046	1.004	0.982	0.938	0.851	1.0362	13.23
28)	C	methylene chloride		0.908	0.830	0.656	0.631	0.627	0.580	0.517	0.6782	20.58
29)	C	3-chloropropene	0.933	0.805	0.768	0.674	0.653	0.642	0.602	0.531	0.7010	18.22
30)	C	carbon disulfide	1.842	1.628	1.556	1.457	1.414	1.379	1.306	1.153	1.4669	14.33
31)		Freon 113	1.256	1.233	1.219	1.093	1.070	1.034	0.982	0.870	1.0947	12.36
32)		trans-1,2-dichloroethene	1.006	0.973	0.960	0.918	0.894	0.883	0.833	0.662	0.8911	12.10
33)	C	1,1-dichloroethane	1.327	1.164	1.197	1.085	1.052	1.045	0.977	0.891	1.0923	12.44
34)	C	MTBE	1.696	1.663	1.629	1.480	1.456	1.441	1.358	1.248	1.4963	10.45
35)	C	vinyl acetate	1.868	1.528	1.506	1.432	1.457	1.458	1.406	1.291	1.4933	11.21
36)	C	2-butanone	1.711	1.556	1.518	1.393	1.344	1.342	1.259	1.137	1.4075	12.88
37)		cis-1,2-dichloroethene	1.221	1.067	1.047	1.010	0.979	0.996	0.919	0.845	1.0106	10.95
38)		Ethyl Acetate	0.298	0.279	0.270	0.258	0.256	0.257	0.245	0.218	0.2601	9.04
39)	C	chloroform	1.723	1.619	1.576	1.416	1.405	1.395	1.307	1.171	1.4514	12.30
40)		Tetrahydrofuran	0.924	0.950	0.959	0.822	0.771	0.770	0.733	0.657	0.8233	13.44
41)		2,2-dichloropropane	1.416	1.374	1.344	1.169	1.146	1.152	1.087	0.982	1.2086	12.63
42)	C	1,2-dichloroethane	0.864	0.849	0.817	0.769	0.747	0.743	0.702	0.643	0.7666	9.79
43)	I	1,4-difluorobenzene	----------ISTD----------									

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1519787

Instrument ID: AIRPIANO1 Calibration Date(s): 07/10/15 07/10/15

Calibration Times: 14:43 18:30

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
44)	C	hexane	0.753	0.607	0.592	0.585	0.565	0.559	0.512	0.494	0.5834	13.50
45)		diisopropyl ether	0.300	0.279	0.262	0.255	0.245	0.244	0.232	0.226	0.2554	9.63
46)		tert-butyl ethyl ether	0.984	0.896	0.912	0.856	0.831	0.805	0.784	0.770	0.8547	8.50
47)	s	1,2-dichloroethane-D4	0.254	0.253	0.259	0.268	0.259	0.249	0.254	0.253	0.2560	2.30
48)	C	1,1,1-trichloroethane	0.616	0.564	0.570	0.543	0.526	0.523	0.505	0.506	0.5441	6.99
49)		1,1-dichloropropene	0.423	0.418	0.398	0.400	0.388	0.377	0.357	0.368	0.3910	5.97
50)	C	benzene	0.931	0.889	0.864	0.822	0.785	0.780	0.752	0.732	0.8195	8.55
51)		thiophene	0.533	0.532	0.549	0.521	0.507	0.502	0.484	0.468	0.5120	5.28
52)	C	carbon tetrachloride	0.522	0.532	0.552	0.556	0.562	0.560	0.548	0.539	0.5465	2.56
53)		cyclohexane	0.471	0.502	0.508	0.467	0.463	0.455	0.436	0.424	0.4656	6.25
54)		tert-amyl methyl ether	0.786	0.774	0.777	0.751	0.721	0.713	0.687	0.665	0.7342	6.09
55)		dibromomethane	0.413	0.356	0.343	0.327	0.326	0.322	0.310	0.304	0.3376	10.28
56)	C	1,2-dichloropropane	0.347	0.345	0.348	0.329	0.323	0.314	0.302	0.289	0.3248	6.83
57)		bromodichloromethane	0.703	0.652	0.636	0.620	0.608	0.596	0.584	0.571	0.6214	6.84
58)	C	1,4-dioxane	0.166	0.192	0.179	0.194	0.188	0.189	0.182	0.173	0.1828	5.35
59)	C	trichloroethene	0.504	0.456	0.428	0.435	0.415	0.411	0.390	0.369	0.4260	9.75
60)	C	2,2,4-trimethylpentane	1.801	1.707	1.608	1.547	1.499	1.465	1.384	1.295	1.5382	10.79
61)		methyl methacrylate	0.486	0.439	0.426	0.407	0.403	0.404	0.386	0.370	0.4152	8.65
62)		heptane	0.712	0.697	0.614	0.604	0.585	0.570	0.534	0.502	0.6022	12.13
63)	C	cis-1,3-dichloropropene	0.408	0.440	0.423	0.423	0.429	0.428	0.421	0.416	0.4237	2.24
64)	C	4-methyl-2-pentanone	0.804	0.891	0.815	0.808	0.777	0.772	0.699	0.674	0.7800	8.79
65)		trans-1,3-dichloropropene	0.355	0.379	0.407	0.421	0.420	0.426	0.423	0.425	0.4071	6.41
66)	C	1,1,2-trichloroethane	0.391	0.380	0.366	0.364	0.355	0.349	0.334	0.326	0.3582	6.08
67)	I	chlorobenzene-D5	----------ISTD----------									
68)	C	toluene	6.192	6.247	5.772	5.458	5.464	5.429	5.212	4.953	5.5908	8.10
69)	s	toluene-D8	3.992	4.043	4.001	3.944	4.040	4.037	4.104	4.027	4.0235	1.15
70)		2-methylthiophene	5.194	4.922	4.967	4.483	4.514	4.507	4.383	4.128	4.6371	7.65
71)		1,3-dichloropropane	2.590	2.427	2.350	2.275	2.286	2.277	2.204	2.099	2.3135	6.38
72)		2-hexanone	4.268	4.054	4.117	3.840	3.940	3.889	3.538	2.984	3.8287	10.55
73)		3-methylthiophene	5.380	5.141	5.067	4.633	4.664	4.749	4.503	4.086	4.7779	8.55
74)		dibromochloromethane	3.727	3.595	3.633	3.646	3.748	3.795	3.687	3.553	3.6730	2.22
75)	C	1,2-dibromoethane	3.297	3.026	3.119	3.100	3.075	3.064	3.005	2.844	3.0662	4.13
76)		butyl acetate	0.372	0.451	0.534	0.507	0.530	0.525	0.501	0.478	0.4873	11.14
77)		octane	1.704	1.582	1.547	1.419	1.426	1.409	1.373	1.280	1.4677	9.18
78)	C	tetrachloroethene	3.551	3.334	3.128	2.978	3.002	2.961	2.850	2.630	3.0543	9.34
79)		1,1,1,2-tetrachloroethane	2.623	2.569	2.582	2.453	2.501	2.496	2.398	2.184	2.4757	5.59
80)	C	chlorobenzene	5.350	5.018	4.948	4.588	4.645	4.636	4.350	3.913	4.6809	9.36
81)	C	ethylbenzene	8.264	7.726	7.482	7.067	7.108	7.098	6.738	6.187	7.2087	8.72
82)		2-ethylthiophene	5.756	5.807	5.641	5.267	5.252	5.341	5.056	4.646	5.3457	7.27
83)	C	m+p-xylene	6.271	5.962	5.790	5.453	5.526	5.483	5.096	4.560	5.5175	9.54
84)	C	bromoform	3.777	3.677	3.820	3.863	4.063	4.151	3.928	3.564	3.8554	5.00
85)	C	styrene	4.782	4.563	4.607	4.432	4.478	4.511	4.298	3.929	4.4500	5.67
86)	C	1,1,2,2-tetrachloroethane	4.739	4.433	4.248	4.191	4.174	4.158	3.731	3.141	4.1018	11.71
87)	C	o-xylene	6.403	6.059	5.988	5.665	5.576	5.651	5.023	4.348	5.5892	11.54
88)		1,2,3-trichloropropane	3.213	3.140	3.131	3.028	3.058	3.035	2.890	2.701	3.0245	5.36
89)		nonane	5.369	4.928	4.766	4.520	4.499	4.375	3.813	3.081	4.4188	15.90
90)	s	bromofluorobenzene	2.887	2.913	2.906	2.862	2.924	2.962	2.921	2.926	2.9127	1.02

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1519787

Instrument ID: AIRPIANO1 Calibration Date(s): 07/10/15 07/10/15

Calibration Times: 14:43 18:30

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
91)	C	isopropylbenzene	8.909	8.285	8.147	7.789	7.832	7.728	7.204	6.607	7.8128	8.88
92)		bromobenzene	4.395	4.000	3.893	3.756	3.699	3.733	3.541	3.251	3.7836	8.85
93)		2-chlorotoluene	2.676	2.463	2.361	2.273	2.281	2.255	2.115	1.896	2.2901	10.06
94)		n-propylbenzene	2.737	2.444	2.493	2.355	2.328	2.308	2.127	1.818	2.3264	11.60
95)		4-chlorotoluene	6.629	6.416	6.137	5.899	5.768	5.733	5.428	4.912	5.8652	9.31
96)		4-ethyl toluene	9.567	9.343	9.208	8.887	9.004	8.784	8.123	7.202	8.7647	8.73
97)		1,3,5-trimethylbenzene	7.912	7.442	7.285	6.937	6.951	6.679	6.417	5.754	6.9220	9.56
98)		tert-butylbenzene	8.729	8.247	8.034	7.516	7.564	7.188	6.456	5.533	7.4084	13.83
99)		1,2,4-trimethylbenzene	7.606	7.361	7.331	6.943	7.052	6.614	6.027	5.097	6.7539	12.32
100)		decane	4.999	4.885	5.019	4.775	4.691	4.399	4.077	3.363	4.5260	12.54
101)	C	Benzyl Chloride	4.956	5.179	5.334	5.623	6.076	6.072	6.056	5.589	5.6106	7.74
102)		1,3-dichlorobenzene	5.746	5.659	5.733	5.420	5.526	5.192	4.813	4.170	5.2821	10.38
103)	C	1,4-dichlorobenzene	5.709	5.864	5.782	5.568	5.508	5.296	4.900	4.224	5.3564	10.29
104)		sec-butylbenzene	1.120	1.097	1.065	1.022	1.012	0.954	0.866	0.713	0.9812	13.80
105)		1,2,3-trimethylbenzene	6.855	6.724	6.665	6.256	6.158	5.908	5.537	4.773	6.1095	11.44
106)		p-isopropyltoluene	9.834	9.862	9.776	9.434	9.498	8.656	8.224	6.999	9.0354	11.22
107)		1,2-dichlorobenzene	5.398	5.456	5.461	5.215	5.263	4.929	4.840	4.353	5.1145	7.53
108)		n-butylbenzene	8.265	8.467	8.428	8.318	8.329	7.527	7.295	6.478	7.8883	9.11
109)		indan	7.407	7.684	7.437	6.955	6.992	6.724	6.463	5.681	6.9180	9.26
110)		indene	4.732	4.770	4.816	4.625	4.663	4.571	4.514	4.164	4.6069	4.46
111)	C	1,2-dibromo-3-chloropropane	1.761	1.839	1.812	1.881	1.980	1.745	1.869	1.763	1.8315	4.31
112)		undecane	4.455	5.081	5.274	5.640	5.736	4.489	4.598	3.862	4.8918	13.28
113)		1,2,4,5-tetramethylbenzene	1.157	1.230	1.229	1.233	1.240	0.986	1.050	0.940	1.1332	10.87
114)		dodecane	2.165	2.996	4.182	6.092	6.424	3.795	3.801	3.077	4.0664	36.67#
115)	C	1,2,4-trichlorobenzene	3.488	3.982	4.274	4.986	5.253	3.545	3.914	3.702	4.1430	15.85
116)		naphthalene	0.722	0.869	0.928	1.072	1.148	0.734	0.880	0.882	0.9045	16.34
117)		1,2,3-trichlorobenzene	3.054	3.685	4.083	4.632	4.983	3.050	3.631	3.758	3.8596	17.80
118)		benzothiophene	6.909	8.033	8.573	9.253	9.906	7.142	8.613	8.620	8.3810	11.98
119)	C	hexachlorobutadiene	3.246	3.766	3.915	4.230	4.398	2.913	3.297	3.120	3.6106	15.09
120)		2-methylnaphthalene			1.867	3.752	4.541	2.748	3.375	3.902	3.3639	28.03
121)		1-methylnaphthalene			2.622	3.499	3.937	2.681	3.248	3.705	3.2822	16.43

FORM VI-TO15-LL

7A
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1519787

Instrument ID: AIRPIANO1 Calibration Date: 08/18/2015 Time: 12:55

Lab File ID: R143501 Init. Calib. Date(s): 07/10/15 07/10/15

Sample No: WG813182-2,3,25 Init. Calib. Times : 14:43 18:30

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	78	0.00
2		chlorodifluoromethane	0.917	0.918	-0.1	82	0.00
3		propylene	0.447	0.460	-2.9	83	0.00
4		propane	0.439	0.412	6.2	79	0.00
5		dichlorodifluoromethane	0.847	0.724	14.5	69	0.00
6	C	chloromethane	0.501	0.534	-6.6	88	0.00
7		Freon-114	1.336	1.452	-8.7	87	-0.01
8	C	methanol	0.137	0.160	-16.8	92	0.00
9	C	vinyl chloride	0.506	0.545	-7.7	86	0.00
10	C	1,3-butadiene	0.376	0.402	-6.9	85	0.00
11		butane	0.797	0.799	-0.3	89	-0.01
13	C	bromomethane	0.518	0.533	-2.9	87	0.00
14	C	chloroethane	0.246	0.250	-1.6	86	0.00
15		ethanol	0.274	0.297	-8.4	87	0.00
16		dichlorofluoromethane	1.011	1.058	-4.6	86	0.00
17	C	vinyl bromide	0.534	0.560	-4.9	85	0.00
18	C	acrolein	0.206	0.222	-7.8	84	0.00
19		acetone	0.731	0.761	-4.1	86	0.00
20	C	acetonitrile	0.452	0.466	-3.1	87	0.00
21		trichlorofluoromethane	1.329	1.340	-0.8	83	0.00
22		isopropyl alcohol	0.898	0.973	-8.4	90	0.00
23	C	acrylonitrile	0.387	0.423	-9.3	89	0.00
24		pentane	0.914	0.924	-1.1	88	0.00
25		ethyl ether	0.522	0.564	-8.0	87	0.00
26	C	1,1-dichloroethene	0.838	0.849	-1.3	83	0.00
27		tertiary butyl alcohol	1.036	1.080	-4.2	84	0.00
28	C	methylene chloride	0.678	0.734	-8.3	91	0.00
29	C	3-chloropropene	0.701	0.713	-1.7	86	0.00
30	C	carbon disulfide	1.467	1.528	-4.2	85	0.00
31		Freon 113	1.095	1.140	-4.1	83	0.00
32		trans-1,2-dichloroethene	0.891	0.858	3.7	75	0.00
33	C	1,1-dichloroethane	1.092	0.982	10.1	73	0.00
34	C	MTBE	1.496	1.356	9.4	73	0.00
35	C	vinyl acetate	1.493	1.310	12.3	70	0.00
36	C	2-butanone	1.407	1.251	11.1	73	0.00
37		cis-1,2-dichloroethene	1.011	0.912	9.8	73	0.00
38		Ethyl Acetate	0.260	0.268	-3.1	82	0.00
39	C	chloroform	1.451	1.459	-0.6	81	0.00
40		Tetrahydrofuran	0.823	0.816	0.9	83	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143501.D
Acq On : 18 Aug 2015 12:55 pm
Operator : AIRPIANO1:MB
Sample : WG813182-2,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 18 13:22:31 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	1.209	1.175	2.8	80	0.00
42	C	1,2-dichloroethane	0.767	0.773	-0.8	81	0.00
43	I	1,4-difluorobenzene	1.000	1.000	0.0	80	0.01
44	C	hexane	0.583	0.564	3.3	79	0.00
45		diisopropyl ether	0.255	0.252	1.2	82	0.00
46		tert-butyl ethyl ether	0.855	0.825	3.5	79	0.00
48	C	1,1,1-trichloroethane	0.544	0.531	2.4	80	0.00
49		1,1-dichloropropene	0.391	0.384	1.8	79	0.00
50	C	benzene	0.819	0.813	0.7	82	0.01
52	C	carbon tetrachloride	0.547	0.561	-2.6	79	0.00
53		cyclohexane	0.466	0.457	1.9	79	0.00
54		tert-amyl methyl ether	0.734	0.711	3.1	78	0.01
55		dibromomethane	0.338	0.333	1.5	81	0.00
56	C	1,2-dichloropropane	0.325	0.315	3.1	78	0.00
57		bromodichloromethane	0.621	0.607	2.3	79	0.00
58	C	1,4-dioxane	0.183	0.186	-1.6	79	0.00
59	C	trichloroethene	0.426	0.419	1.6	80	0.00
60	C	2,2,4-trimethylpentane	1.538	1.475	4.1	78	0.00
61		methyl methacrylate	0.415	0.400	3.6	79	0.00
62		heptane	0.602	0.571	5.1	78	0.00
63	C	cis-1,3-dichloropropene	0.424	0.421	0.7	78	0.00
64	C	4-methyl-2-pentanone	0.780	0.771	1.2	79	0.00
65		trans-1,3-dichloropropene	0.407	0.411	-1.0	78	0.00
66	C	1,1,2-trichloroethane	0.358	0.348	2.8	78	0.00
67	I	chlorobenzene-D5	1.000	1.000	0.0	80	0.00
68	C	toluene	5.591	5.458	2.4	80	0.00
71		1,3-dichloropropane	2.313	2.323	-0.4	81	0.00
72		2-hexanone	3.829	3.892	-1.6	79	0.00
74		dibromochloromethane	3.673	3.809	-3.7	81	0.00
75	C	1,2-dibromoethane	3.066	3.129	-2.1	81	0.00
76		butyl acetate	0.487	0.528	-8.4	80	0.00
77		octane	1.468	1.410	4.0	79	0.00
78	C	tetrachloroethene	3.054	3.054	0.0	81	0.00
79		1,1,1,2-tetrachloroethane	2.476	2.482	-0.2	79	0.00
80	C	chlorobenzene	4.681	4.645	0.8	80	0.00
81	C	ethylbenzene	7.209	7.081	1.8	80	0.00
83	C	m+p-xylene	5.518	5.449	1.3	79	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2015\150818T\
Data File : R143501.D
Acq On : 18 Aug 2015 12:55 pm
Operator : AIRPIANO1:MB
Sample : WG813182-2,3,250,250
Misc : WG813182,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 18 13:22:31 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150818T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
84	C	bromoform	3.855	3.905	-1.3	77	0.00
85	C	styrene	4.450	4.463	-0.3	80	0.00
86	C	1,1,2,2-tetrachloroethane	4.102	4.227	-3.0	81	0.00
87	C	o-xylene	5.589	5.653	-1.1	81	0.00
88		1,2,3-trichloropropane	3.025	3.005	0.7	79	0.00
89		nonane	4.419	4.301	2.7	76	0.00
91	C	isopropylbenzene	7.813	7.724	1.1	79	0.00
92		bromobenzene	3.784	3.721	1.7	80	0.00
93		2-chlorotoluene	2.290	2.227	2.8	78	0.00
94		n-propylbenzene	2.326	2.341	-0.6	80	0.00
95		4-chlorotoluene	5.865	5.885	-0.3	82	0.00
96		4-ethyl toluene	8.765	8.830	-0.7	78	0.00
97		1,3,5-trimethylbenzene	6.922	6.910	0.2	79	0.00
98		tert-butylbenzene	7.408	7.571	-2.2	80	0.00
99		1,2,4-trimethylbenzene	6.754	6.980	-3.3	79	0.00
100		decane	4.526	4.629	-2.3	79	0.00
101	C	Benzyl Chloride	5.611	5.697	-1.5	75	0.00
102		1,3-dichlorobenzene	5.282	5.462	-3.4	79	0.00
103	C	1,4-dichlorobenzene	5.356	5.514	-2.9	80	0.00
104		sec-butylbenzene	9.812	9.895	-0.8	78	0.00
106		p-isopropyltoluene	9.035	9.493	-5.1	80	0.00
107		1,2-dichlorobenzene	5.115	5.174	-1.2	79	0.00
108		n-butylbenzene	7.888	8.155	-3.4	78	0.00
111	C	1,2-dibromo-3-chloropropane	1.831	1.760	3.9	71	0.00
112		undecane	4.892	5.331	-9.0	74	0.00
114		dodecane	4.066	5.507	-35.4#	68	0.00
115	C	1,2,4-trichlorobenzene	4.143	4.773	-15.2	73	0.00
116		naphthalene	9.045	10.722	-18.5	75	-0.01
117		1,2,3-trichlorobenzene	3.860	4.256	-10.3	68	0.00
119	C	hexachlorobutadiene	3.611	3.995	-10.6	73	-0.01

* Evaluation of CC level amount vs concentration.

FORM VII TO15-LL

Quality Control Data Summary

3

LAB CONTROL SAMPLE RECOVERY

AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1519055 Matrix: Air

Lab Control Sample: WG811107-3LCS Injected: 08/11/15 12:47 Lab File ID: R143360

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Chlorodifluoromethane	10	NA	8.86	89	-	-	-		70-130
Propylene	10	NA	12.3	123	-	-	-		70-130
Propane	10	NA	7.78	78	-	-	-		70-130
Dichlorodifluoromethane	10	NA	7.80	78	-	-	-		70-130
Chloromethane	10	NA	10.1	101	-	-	-		70-130
Freon-114	10	NA	10.1	101	-	-	-		70-130
Methanol	50	NA	47.8	96	-	-	-		70-130
Vinyl chloride	10	NA	10.1	101	-	-	-		70-130
1,3-Butadiene	10	NA	11.0	110	-	-	-		70-130
Butane	10	NA	9.22	92	-	-	-		70-130
Bromomethane	10	NA	9.56	96	-	-	-		70-130
Chloroethane	10	NA	9.59	96	-	-	-		70-130
Ethanol	50	NA	50.3	101	-	-	-		70-130
Dichlorofluoromethane	10	NA	9.29	93	-	-	-		70-130
Vinyl bromide	10	NA	9.67	97	-	-	-		70-130
Acrolein	10	NA	9.78	98	-	-	-		70-130
Acetone	50	NA	51.2	102	-	-	-		70-130
Acetonitrile	10	NA	9.78	98	-	-	-		70-130
Trichlorofluoromethane	10	NA	9.73	97	-	-	-		70-130
Isopropanol	10	NA	10.7	107	-	-	-		70-130
Acrylonitrile	10	NA	10.1	101	-	-	-		70-130
Pentane	10	NA	9.82	98	-	-	-		70-130
Ethyl ether	10	NA	9.60	96	-	-	-		70-130
1,1-Dichloroethene	10	NA	9.73	97	-	-	-		70-130
Tertiary butyl Alcohol	10	NA	9.52	95	-	-	-		70-130
Methylene chloride	10	NA	10.3	103	-	-	-		70-130
3-Chloropropene	10	NA	10.5	105	-	-	-		70-130
Carbon disulfide	10	NA	9.59	96	-	-	-		70-130
Freon-113	10	NA	10.0	100	-	-	-		70-130
trans-1,2-Dichloroethene	10	NA	8.17	82	-	-	-		70-130
1,1-Dichloroethane	10	NA	8.53	85	-	-	-		70-130
Methyl tert butyl ether	10	NA	8.70	87	-	-	-		70-130
Vinyl acetate	10	NA	9.88	99	-	-	-		70-130
2-Butanone	10	NA	9.61	96	-	-	-		70-130
cis-1,2-Dichloroethene	10	NA	10.3	103	-	-	-		70-130
Ethyl Acetate	10	NA	9.78	98	-	-	-		70-130
Chloroform	10	NA	9.71	97	-	-	-		70-130
Tetrahydrofuran	10	NA	9.72	97	-	-	-		70-130
2,2-Dichloropropane	10	NA	8.75	88	-	-	-		70-130
1,2-Dichloroethane	10	NA	9.54	95	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

3

LAB CONTROL SAMPLE RECOVERY

AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1519055 Matrix: Air

Lab Control Sample: WG811107-3LCS Injected: 08/11/15 12:47 Lab File ID: R143360

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
n-Hexane	10	NA	9.30	93	-	-	-		70-130
Diisopropyl Ether	10	NA	8.98	90	-	-	-		70-130
tert-Butyl ethyl ether	10	NA	8.87	89	-	-	-		70-130
1,1,1-Trichloroethane	10	NA	9.60	96	-	-	-		70-130
1,1-Dichloropropene	10	NA	9.50	95	-	-	-		70-130
Benzene	10	NA	9.49	95	-	-	-		70-130
Carbon tetrachloride	10	NA	10.1	101	-	-	-		70-130
Cyclohexane	10	NA	9.76	98	-	-	-		70-130
tert-amyl methyl ether	10	NA	8.96	90	-	-	-		70-130
Dibromomethane	10	NA	9.06	91	-	-	-		70-130
1,2-Dichloropropane	10	NA	9.64	96	-	-	-		70-130
Bromodichloromethane	10	NA	9.56	96	-	-	-		70-130
1,4-Dioxane	10	NA	9.86	99	-	-	-		70-130
Trichloroethene	10	NA	9.76	98	-	-	-		70-130
2,2,4-Trimethylpentane	10	NA	9.41	94	-	-	-		70-130
Methyl Methacrylate	10	NA	8.98	90	-	-	-		70-130
Heptane	10	NA	9.23	92	-	-	-		70-130
cis-1,3-Dichloropropene	10	NA	9.89	99	-	-	-		70-130
4-Methyl-2-pentanone	10	NA	9.55	96	-	-	-		70-130
trans-1,3-Dichloropropen	10	NA	8.76	88	-	-	-		70-130
1,1,2-Trichloroethane	10	NA	9.87	99	-	-	-		70-130
Toluene	10	NA	9.29	93	-	-	-		70-130
1,3-Dichloropropane	10	NA	8.92	89	-	-	-		70-130
2-Hexanone	10	NA	9.73	97	-	-	-		70-130
Dibromochloromethane	10	NA	9.88	99	-	-	-		70-130
1,2-Dibromoethane	10	NA	9.78	98	-	-	-		70-130
Butyl Acetate	10	NA	9.31	93	-	-	-		70-130
Octane	10	NA	8.78	88	-	-	-		70-130
Tetrachloroethene	10	NA	9.58	96	-	-	-		70-130
1,1,1,2-Tetrachloroethan	10	NA	9.06	91	-	-	-		70-130
Chlorobenzene	10	NA	9.62	96	-	-	-		70-130
Ethylbenzene	10	NA	9.39	94	-	-	-		70-130
p/m-Xylene	20	NA	19.2	96	-	-	-		70-130
Bromoform	10	NA	9.76	98	-	-	-		70-130
Styrene	10	NA	9.64	96	-	-	-		70-130
1,1,2,2-Tetrachloroethan	10	NA	10.1	101	-	-	-		70-130
o-Xylene	10	NA	9.67	97	-	-	-		70-130
1,2,3-Trichloropropane	10	NA	9.02	90	-	-	-		70-130
Nonane	10	NA	8.86	89	-	-	-		70-130
Isopropylbenzene	10	NA	9.44	94	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

3

LAB CONTROL SAMPLE RECOVERY

AIR VOLATILE ORGANICS

Lab Name: Alpha Analytical Labs

SDG No.: L1519055 Matrix: Air

Lab Control Sample: WG811107-3LCS Injected: 08/11/15 12:47 Lab File ID: R143360

COMPOUND	SPIKE ADDED ppbV	SAMPLE CONC ppbV	LCS CONC ppbV	LCS % REC	LCSD CONC ppbV	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC.
Bromobenzene	10	NA	9.13	91	-	-	-		70-130
2-Chlorotoluene	10	NA	8.98	90	-	-	-		70-130
n-Propylbenzene	10	NA	8.82	88	-	-	-		70-130
4-Chlorotoluene	10	NA	8.82	88	-	-	-		70-130
4-Ethyltoluene	10	NA	9.37	94	-	-	-		70-130
1,3,5-Trimethylbenzene	10	NA	9.58	96	-	-	-		70-130
tert-Butylbenzene	10	NA	9.15	92	-	-	-		70-130
1,2,4-Trimethylbenzene	10	NA	9.96	100	-	-	-		70-130
Decane	10	NA	9.16	92	-	-	-		70-130
Benzyl chloride	10	NA	9.67	97	-	-	-		70-130
1,3-Dichlorobenzene	10	NA	10.0	100	-	-	-		70-130
1,4-Dichlorobenzene	10	NA	9.83	98	-	-	-		70-130
sec-Butylbenzene	10	NA	9.20	92	-	-	-		70-130
p-Isopropyltoluene	10	NA	8.88	89	-	-	-		70-130
1,2-Dichlorobenzene	10	NA	10.1	101	-	-	-		70-130
n-Butylbenzene	10	NA	9.74	97	-	-	-		70-130
1,2-Dibromo-3-chloroprop	10	NA	9.25	92	-	-	-		70-130
Undecane	10	NA	9.96	100	-	-	-		70-130
Dodecane	10	NA	12.5	125	-	-	-		70-130
1,2,4-Trichlorobenzene	10	NA	11.5	115	-	-	-		70-130
Naphthalene	10	NA	10.9	109	-	-	-		70-130
1,2,3-Trichlorobenzene	10	NA	11.1	111	-	-	-		70-130
Hexachlorobutadiene	10	NA	10.9	109	-	-	-		70-130

* Values outside of QC limits.

COMMENTS: _____

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FORM III TO15-LL

4A

VOLATILE ORGANICS METHOD BLANK SUMMARY

SAMPLE NO.

WG811107-4BLANK

Lab Name: Alpha Analytical Labs

SDG No.: L1519055

Lab File ID: R143363 Lab Sample ID: WG811107-4

Date Analyzed: 08/11/15 Time Analyzed: 15:29

Instrument ID: AIRPIANO1

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	WG811107-3LCS	WG811107-3	R143360	08/11/15 12:47
02	CAN 335 SHELF 1	L1519055-01	R143369	08/11/15 19:59
03	CAN 752 SHELF 8	L1519055-02	R143370	08/11/15 20:31

COMMENTS: _____

page 1 of 1

FORM IV TO15-LL LOW

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519055
Project Name	:	Project Number:	CANISTER QC BAT
Lab ID	: WG811107-4	Date Collected :	NA
Client ID	: WG811107-4BLANK	Date Received :	NA
Sample Location	:	Date Analyzed :	08/11/15 15:29
Sample Matrix	: AIR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143363	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethan	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethyl Alcohol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.500	--	ND	1.09	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519055
Project Name	:	Project Number:	CANISTER QC BAT
Lab ID	: WG811107-4	Date Collected	: NA
Client ID	: WG811107-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 08/11/15 15:29
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143363	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	1.00	--	ND	3.52	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Isopropyl Ether	ND	0.200	--	ND	0.836	--	U
637-92-3	Ethyl-Tert-Butyl-Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	Tertiary-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519055
Project Name	:	Project Number:	CANISTER QC BAT
Lab ID	: WG811107-4	Date Collected :	NA
Client ID	: WG811107-4BLANK	Date Received :	NA
Sample Location	:	Date Analyzed :	08/11/15 15:29
Sample Matrix	: AIR	Dilution Factor :	1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143363	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl Acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane (C9)	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	o-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	p-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519055
Project Name	:	Project Number:	CANISTER QC BAT
Lab ID	: WG811107-4	Date Collected	: NA
Client ID	: WG811107-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 08/11/15 15:29
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143363	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane (C10)	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane (C12)	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143363.D
Acq On : 11 Aug 2015 3:29 pm
Operator : AIRPIANO1:MB
Sample : WG811107-4,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 11 15:53:15 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150811T\R143358.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.201	49	141448	10.000	ppbV	0.00
Standard Area = 159544			Recovery =		88.66%	
43) 1,4-difluorobenzene	12.419	114	316070	10.000	ppbV	0.00
Standard Area = 339195			Recovery =		93.18%	
67) chlorobenzene-D5	16.846	54	59222	10.000	ppbV	0.00
Standard Area = 64629			Recovery =		91.63%	
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	0.000		0	N.D.		
3) propylene	0.000		0	N.D.		
4) propane	3.975		0	N.D.		
5) dichlorodifluoromethane	0.000		0	N.D.		
6) chloromethane	0.000		0	N.D.		
7) Freon-114	0.000		0	N.D.		
8) methanol	0.000		0	N.D.		
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
11) butane	4.961		0	N.D.		
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	0.000		0	N.D.		
16) dichlorofluoromethane	0.000		0	N.D.		
17) vinyl bromide	0.000		0	N.D.		
18) acrolein	0.000		0	N.D.		
19) acetone	6.322		0	N.D.		
20) acetonitrile	0.000		0	N.D.		
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	0.000		0	N.D.		
23) acrylonitrile	0.000		0	N.D.		
24) pentane	7.090		0	N.D.		
25) ethyl ether	0.000		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	7.601	49	2860	0.298	ppbV	97
29) 3-chloropropene	0.000		0	N.D.		
30) carbon disulfide	7.937		0	N.D.		
31) Freon 113	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143363.D
Acq On : 11 Aug 2015 3:29 pm
Operator : AIRPIANO1:MB
Sample : WG811107-4,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 11 15:53:15 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150811T\R143358.D
Sub List : Default-LCS-AP2 - All compounds listed

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
32)	trans-1,2-dichloroethene	0.000		0	N.D.	
33)	1,1-dichloroethane	0.000		0	N.D.	
34)	MTBE	0.000		0	N.D.	
35)	vinyl acetate	9.094		0	N.D.	
36)	2-butanone	0.000		0	N.D.	
37)	cis-1,2-dichloroethene	0.000		0	N.D.	
38)	Ethyl Acetate	0.000		0	N.D.	
39)	chloroform	0.000		0	N.D.	
40)	Tetrahydrofuran	0.000		0	N.D.	
41)	2,2-dichloropropane	0.000		0	N.D.	
42)	1,2-dichloroethane	0.000		0	N.D.	
44)	hexane	0.000		0	N.D.	
45)	diisopropyl ether	0.000		0	N.D.	
46)	tert-butyl ethyl ether	0.000		0	N.D.	
48)	1,1,1-trichloroethane	0.000		0	N.D.	
49)	1,1-dichloropropene	0.000		0	N.D.	
50)	benzene	0.000		0	N.D.	
52)	carbon tetrachloride	0.000		0	N.D.	
53)	cyclohexane	0.000		0	N.D.	d
54)	tert-amyl methyl ether	0.000		0	N.D.	
55)	dibromomethane	0.000		0	N.D.	
56)	1,2-dichloropropane	0.000		0	N.D.	
57)	bromodichloromethane	0.000		0	N.D.	
58)	1,4-dioxane	0.000		0	N.D.	
59)	trichloroethene	0.000		0	N.D.	
60)	2,2,4-trimethylpentane	0.000		0	N.D.	
61)	methyl methacrylate	0.000		0	N.D.	
62)	heptane	13.548		0	N.D.	
63)	cis-1,3-dichloropropene	0.000		0	N.D.	
64)	4-methyl-2-pentanone	0.000		0	N.D.	
65)	trans-1,3-dichloropropene	0.000		0	N.D.	
66)	1,1,2-trichloroethane	0.000		0	N.D.	
68)	toluene	0.000		0	N.D.	
71)	1,3-dichloropropane	0.000		0	N.D.	
72)	2-hexanone	0.000		0	N.D.	
74)	dibromochloromethane	0.000		0	N.D.	
75)	1,2-dibromoethane	0.000		0	N.D.	
76)	butyl acetate	0.000		0	N.D.	
77)	octane	0.000		0	N.D.	
78)	tetrachloroethene	0.000		0	N.D.	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143363.D
Acq On : 11 Aug 2015 3:29 pm
Operator : AIRPIANO1:MB
Sample : WG811107-4,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 11 15:53:15 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150811T\R143358.D
Sub List : Default-LCS-AP2 - All compounds listed

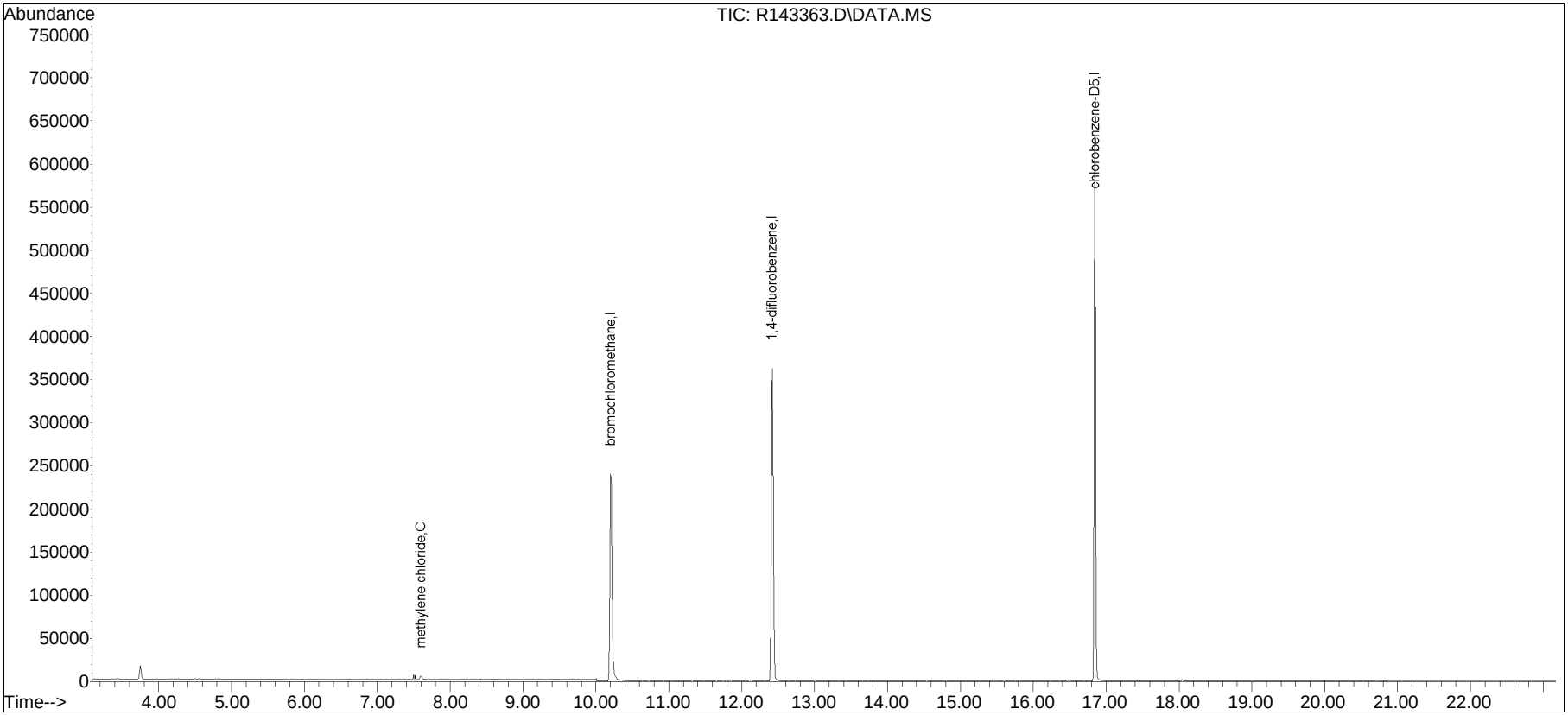
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
79)	1,1,1,2-tetrachloroethane	0.000		0	N.D.	
80)	chlorobenzene	0.000		0	N.D.	
81)	ethylbenzene	0.000		0	N.D.	
83)	m+p-xylene	0.000		0	N.D.	
84)	bromoform	0.000		0	N.D.	
85)	styrene	0.000		0	N.D.	
86)	1,1,2,2-tetrachloroethane	0.000		0	N.D.	
87)	o-xylene	0.000		0	N.D.	
88)	1,2,3-trichloropropane	0.000		0	N.D.	
89)	nonane	17.806		0	N.D.	
91)	isopropylbenzene	0.000		0	N.D.	
92)	bromobenzene	0.000		0	N.D.	
93)	2-chlorotoluene	0.000		0	N.D.	
94)	n-propylbenzene	0.000		0	N.D.	
95)	4-chlorotoluene	0.000		0	N.D.	
96)	4-ethyl toluene	0.000		0	N.D.	
97)	1,3,5-trimethylbenzene	0.000		0	N.D.	
98)	tert-butylbenzene	0.000		0	N.D.	
99)	1,2,4-trimethylbenzene	0.000		0	N.D.	
100)	decane	0.000		0	N.D.	
101)	Benzyl Chloride	18.988		0	N.D.	
102)	1,3-dichlorobenzene	0.000		0	N.D.	
103)	1,4-dichlorobenzene	0.000		0	N.D.	
104)	sec-butylbenzene	0.000		0	N.D.	
106)	p-isopropyltoluene	0.000		0	N.D.	
107)	1,2-dichlorobenzene	0.000		0	N.D.	
108)	n-butylbenzene	0.000		0	N.D.	
111)	1,2-dibromo-3-chloropr...	0.000		0	N.D.	
112)	undecane	0.000		0	N.D.	
114)	dodecane	0.000		0	N.D.	
115)	1,2,4-trichlorobenzene	0.000		0	N.D.	
116)	naphthalene	21.020		0	N.D.	
117)	1,2,3-trichlorobenzene	21.246		0	N.D.	
119)	hexachlorobutadiene	21.299		0	N.D.	

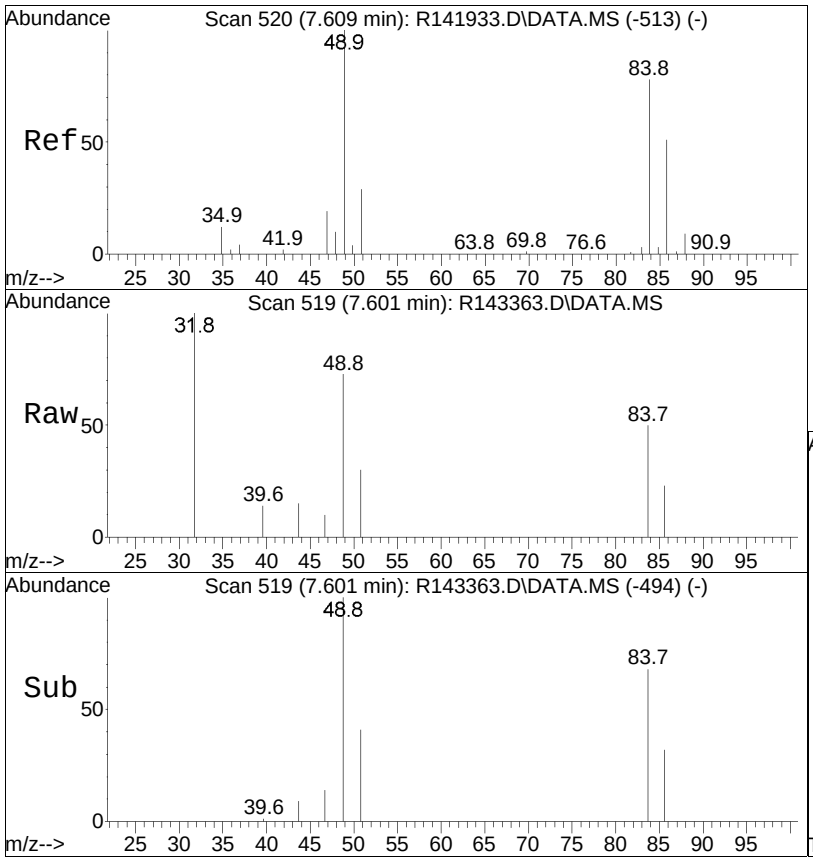
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-LCS-AP2 - All compounds listed43358.D

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143363.D
Acq On : 11 Aug 2015 3:29 pm
Operator : AIRPIANO1:MB
Sample : WG811107-4,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 11 15:53:15 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

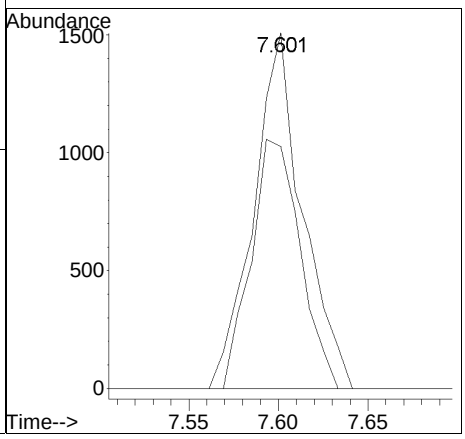




#28
methylene chloride
Concen: 0.30 ppbV
RT: 7.601 min Scan# 519
Delta R.T. -0.000 min
Lab File: R143363.D
Acq: 11 Aug 2015 3:29 pm

Tgt Ion: 49 Resp: 2860

Ion	Ratio	Lower	Upper
49	100		
84	68.1	52.9	79.3



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR1\2015Q	Method	: TALL150710.M
Data File	: R143363.D	Operator	: AIRPIANO1:MB
Date Inj'd	: 8/11/2015 3:29 pm	Instrument	: Air Piano 1
Sample	: WG811107-4,3,250,250	Quant Date	: 8/11/2015 3:52 pm

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519055
Project Name	:	Project Number:	CANISTER QC BAT
Lab ID	: WG811107-4	Date Collected	: NA
Client ID	: WG811107-4BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 08/11/15 15:29
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143363	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 0

Concentration Units:

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	NO TENTATIVELY IDENTIFIED COMPOUNDS			J

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143363.D
Acq On : 11 Aug 2015 3:29 pm
Operator : AIRPIANO1:MB
Sample : WG811107-4,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 1 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 0.1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R143363.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.921	185	187	189	rBV	675	1082	0.12%	0.052%
2	5.395	239	243	244	rBV2	654	1247	0.14%	0.060%
3	5.971	314	315	318	rBV	863	1161	0.13%	0.056%
4	6.162	335	339	341	rVB2	827	1232	0.14%	0.059%
5	7.497	504	506	508	rBV	5579	3393	0.39%	0.163%
6	7.521	508	509	511	rVV	5130	2590	0.30%	0.125%
7	7.593	514	518	524	rBV2	3953	7921	0.91%	0.381%
8	7.841	545	549	550	rBV	733	1112	0.13%	0.053%
9	7.921	557	559	561	rBV	673	980	0.11%	0.047%
10	9.684	806	810	811	rVV	691	1123	0.13%	0.054%
11	10.007	856	857	859	rVB	3243	1548	0.18%	0.074%
12	10.201	874	878	888	rBV	240315	501080	57.77%	24.096%
13	10.380	896	897	901	rVB2	834	1055	0.12%	0.051%
14	11.891	1046	1050	1052	rBV2	344	984	0.11%	0.047%
15	12.098	1066	1070	1073	rVB	556	1458	0.17%	0.070%
16	12.149	1073	1075	1077	rBV	620	1058	0.12%	0.051%
17	12.419	1097	1101	1110	rBV	362503	671159	77.39%	32.275%
18	13.392	1192	1195	1199	rVB	326	900	0.10%	0.043%
19	15.646	1395	1400	1403	rBV2	359	1048	0.12%	0.050%
20	16.504	1491	1495	1499	rBV	1870	3728	0.43%	0.179%
21	16.846	1560	1570	1585	rBV	633699	867298	100.00%	41.707%
22	16.909	1585	1587	1591	rVB3	1486	939	0.11%	0.045%
23	18.043	1888	1894	1900	rBV4	2044	2492	0.29%	0.120%
24	20.155	2381	2384	2387	rBV2	622	948	0.11%	0.046%
25	21.846	2581	2584	2587	rBV3	580	1005	0.12%	0.048%
26	22.757	2666	2669	2671	rBV	533	960	0.11%	0.046%

LSC Area Percent Report

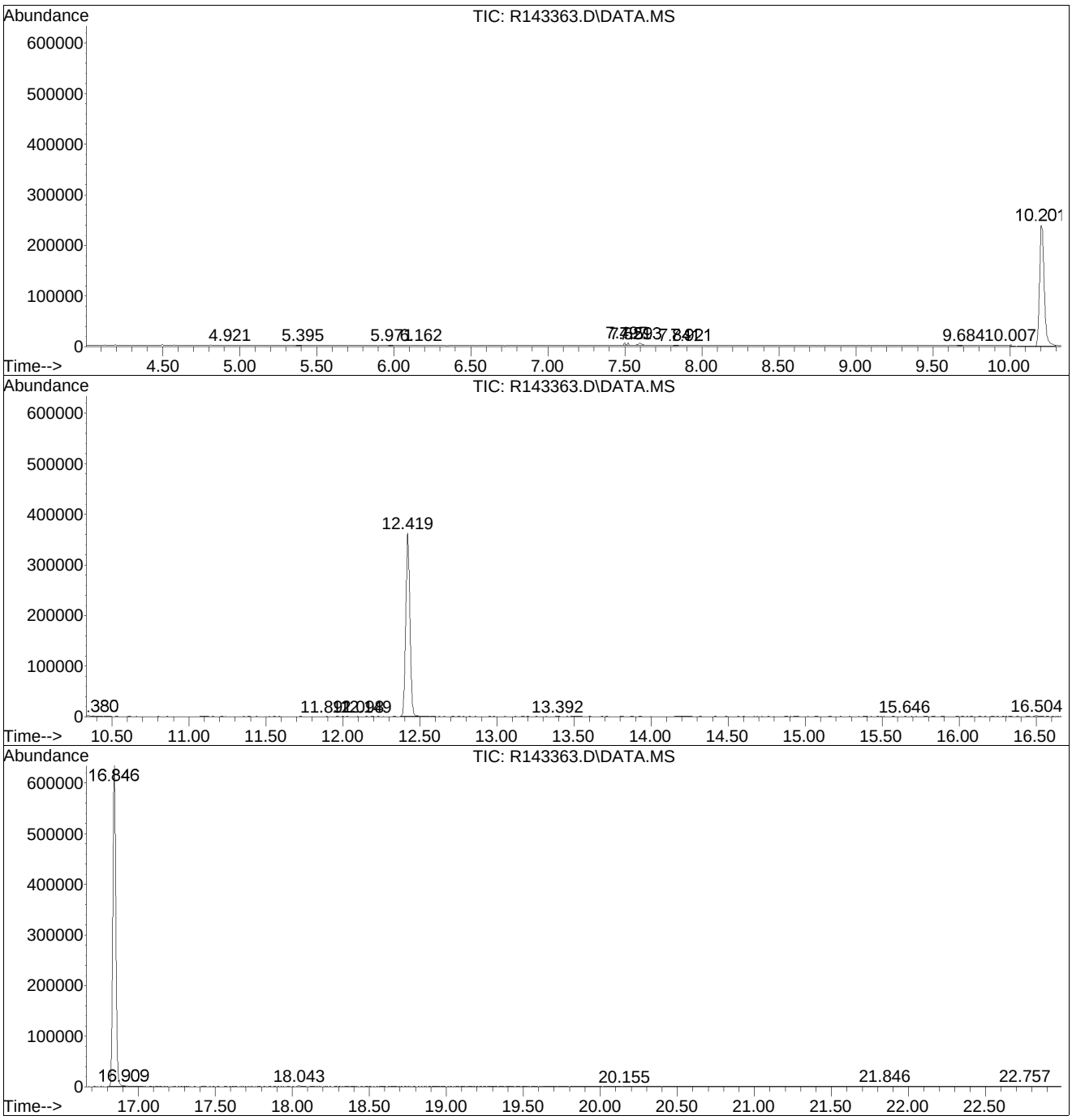
```
Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143363.D
Acq On    : 11 Aug 2015   3:29 pm
Operator  : AIRPIANO1:MB
Sample    : WG811107-4,3,250,250
Misc      : WG811107,ICAL11250
ALS Vial  : 1   Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF                            Filtering: 5
Sampling  : 1                               Min Area: 0.1 % of largest Peak
Start Thrs: 0.2                            Max Peaks: 100
Stop Thrs : 0                           Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method    : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Title     : TO-14A/TO-15 SIM/Full Scan Analysis

                       Sum of corrected areas:     2079501
```

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143363.D
Acq On : 11 Aug 2015 3:29 pm
Operator : AIRPIANO1:MB
Sample : WG811107-4,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143363.D
Acq On : 11 Aug 2015 3:29 pm
Operator : AIRPIANO1:MB
Sample : WG811107-4,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 1 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

```
Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143363.D
Acq On    : 11 Aug 2015   3:29 pm
Operator  : AIRPIANO1:MB
Sample    : WG811107-4,3,250,250
Misc      : WG811107,ICAL11250
ALS Vial  : 1   Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title  : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library   : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

                                                      |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-------------------------------------------------------------------------------
```

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1519055

Lab File ID: R142703_tune BFB Injection Date: 07/10/15

Instrument ID: AIRPIANO1 BFB Injection Time: 12:25

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	8.0 - 40.0% of mass 95	18.1
75	30.0 - 66.0% of mass 95	41.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	100.8
175	4.0 - 9.0% of mass 174	7.2 (7.1)1
176	93.0 - 101% of mass 174	94.5 (93.8)1
177	5.0 - 9.0% of mass 176	6.1 (6.5)2

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

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	0.2	0.2	R142707	07/10/15	14:43
02	0.5	0.5	R142708	07/10/15	15:14
03	1.0	1.0	R142709	07/10/15	15:48
04	5.0	5.0	R142710	07/10/15	16:19
05	10	10	R142711	07/10/15	16:53
06	20	20	R142712	07/10/15	17:25
07	50.0	50.0	R142713	07/10/15	17:56
08	100.0	100.0	R142714	07/10/15	18:30
09	ICV QUANT REPORT	ICV QUANT REPO	R142717	07/11/15	09:13

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FORM V TO15-LL

5A
VOLATILE ORGANICS INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Alpha Analytical Labs

SDG No.: L1519055

Lab File ID: R143357_tune BFB Injection Date: 08/11/15

Instrument ID: AIRPIANO1 BFB Injection Time: 10:50

m/e	ION ABUNDANCE CRITERIA	% Relative Abundance
50	8.0 - 40.0% of mass 95	17.9
75	30.0 - 66.0% of mass 95	41
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0 (0)1
174	50.0 - 120.0% of mass 95	103.3
175	4.0 - 9.0% of mass 174	7.1 (6.9)1
176	93.0 - 101% of mass 174	97.1 (94.1)1
177	5.0 - 9.0% of mass 176	6.4 (6.6)2

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

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	CCAL	WG811107-2	R143358	08/11/15	11:26
02	WG811107-3LCS	WG811107-3	R143360	08/11/15	12:47
03	WG811107-4BLANK	WG811107-4	R143363	08/11/15	15:29
04	CAN 335 SHELF 1	L1519055-01	R143369	08/11/15	19:59
05	CAN 752 SHELF 8	L1519055-02	R143370	08/11/15	20:31

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FORM V TO15-LL

8A

VOLATILE ORGANICS INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Alpha Analytical Labs

SDG No.: L1519055

Lab File ID (Standard): R143358 Date Analyzed: 08/11/15

Instrument ID : AIRPIANO1 Time Analyzed: 11:26

		IS1 AREA	RT	IS2 AREA	RT	IS3 AREA	RT
	24 HOUR STD	159544	10.21	339195	12.42	64629	16.84
	UPPER LIMIT	223362	10.54	474873	12.75	90481	17.17
	LOWER LIMIT	95726	9.88	203517	12.09	38777	16.51
	EPA SAMPLE NO.						
01	WG811107-3LCS	154738	10.21	333143	12.43	64779	16.85
02	WG811107-4BLANK	141448	10.20	316070	12.42	59222	16.85
03	CAN 335 SHELF 1	141836	10.21	311133	12.42	59891	16.85
04	CAN 752 SHELF 8	138251	10.20	309913	12.42	59396	16.85

IS1 = BROMOCHLOROMETHANE
IS2 = 1,4-DIFLUOROBENZENE
IS3 = CHLOROBENZENE-D5

AREA UPPER LIMIT = + 40% of internal standard area
AREA LOWER LIMIT = - 40 % of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

* Values outside of QC limits.

page 1 of 1 FORM VIII - TO15-LL

Sample Data Summary

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519055
Project Name	:	Project Number:	CANISTER QC BAT
Lab ID	: L1519055-01	Date Collected	: 08/10/15 18:00
Client ID	: CAN 335 SHELF 1	Date Received	: 08/11/15
Sample Location	:	Date Analyzed	: 08/11/15 19:59
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143369	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethan	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethyl Alcohol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.500	--	ND	1.09	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519055
Project Name	:	Project Number:	CANISTER QC BAT
Lab ID	: L1519055-01	Date Collected	: 08/10/15 18:00
Client ID	: CAN 335 SHELF 1	Date Received	: 08/11/15
Sample Location	:	Date Analyzed	: 08/11/15 19:59
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143369	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	1.00	--	ND	3.52	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Isopropyl Ether	ND	0.200	--	ND	0.836	--	U
637-92-3	Ethyl-Tert-Butyl-Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	Tertiary-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519055
Project Name	:	Project Number:	CANISTER QC BAT
Lab ID	: L1519055-01	Date Collected	: 08/10/15 18:00
Client ID	: CAN 335 SHELF 1	Date Received	: 08/11/15
Sample Location	:	Date Analyzed	: 08/11/15 19:59
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143369	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl Acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane (C9)	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	o-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	p-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519055
Project Name	:	Project Number:	CANISTER QC BAT
Lab ID	: L1519055-01	Date Collected	: 08/10/15 18:00
Client ID	: CAN 335 SHELF 1	Date Received	: 08/11/15
Sample Location	:	Date Analyzed	: 08/11/15 19:59
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143369	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane (C10)	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane (C12)	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143369.D
Acq On : 11 Aug 2015 7:59 pm
Operator : AIRPIANO1:MB
Sample : L1519055-01,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 12 10:38:10 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150811T\R143358.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.211	49	141836	10.000	ppbV	0.00
Standard Area = 159544			Recovery =		88.90%	
43) 1,4-difluorobenzene	12.419	114	311133	10.000	ppbV	0.00
Standard Area = 339195			Recovery =		91.73%	
67) chlorobenzene-D5	16.846	54	59891	10.000	ppbV	0.00
Standard Area = 64629			Recovery =		92.67%	
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	0.000		0	N.D.		
3) propylene	0.000		0	N.D.		
4) propane	0.000		0	N.D.		
5) dichlorodifluoromethane	0.000		0	N.D.		
6) chloromethane	0.000		0	N.D.		
7) Freon-114	0.000		0	N.D.		
8) methanol	0.000		0	N.D.		
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
11) butane	5.000		0	N.D.		
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	0.000		0	N.D.		
16) dichlorofluoromethane	0.000		0	N.D.		
17) vinyl bromide	0.000		0	N.D.		
18) acrolein	0.000		0	N.D.		
19) acetone	6.354		0	N.D.		
20) acetonitrile	0.000		0	N.D.		
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	0.000		0	N.D.		
23) acrylonitrile	0.000		0	N.D.		
24) pentane	7.026		0	N.D.		
25) ethyl ether	0.000		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	7.593	49	2986	0.310	ppbV	100
29) 3-chloropropene	0.000		0	N.D.		
30) carbon disulfide	7.929		0	N.D.		
31) Freon 113	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143369.D
Acq On : 11 Aug 2015 7:59 pm
Operator : AIRPIANO1:MB
Sample : L1519055-01,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 12 10:38:10 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150811T\R143358.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32) trans-1,2-dichloroethene	0.000		0		N.D.	
33) 1,1-dichloroethane	0.000		0		N.D.	
34) MTBE	0.000		0		N.D.	
35) vinyl acetate	0.000		0		N.D.	
36) 2-butanone	0.000		0		N.D.	
37) cis-1,2-dichloroethene	0.000		0		N.D.	
38) Ethyl Acetate	0.000		0		N.D.	
39) chloroform	0.000		0		N.D.	
40) Tetrahydrofuran	0.000		0		N.D.	
41) 2,2-dichloropropane	0.000		0		N.D.	
42) 1,2-dichloroethane	0.000		0		N.D.	
44) hexane	0.000		0		N.D.	
45) diisopropyl ether	0.000		0		N.D.	
46) tert-butyl ethyl ether	0.000		0		N.D.	
48) 1,1,1-trichloroethane	0.000		0		N.D.	
49) 1,1-dichloropropene	0.000		0		N.D.	
50) benzene	0.000		0		N.D.	
52) carbon tetrachloride	0.000		0		N.D.	
53) cyclohexane	0.000		0		N.D.	d
54) tert-amyl methyl ether	0.000		0		N.D.	
55) dibromomethane	0.000		0		N.D.	
56) 1,2-dichloropropane	0.000		0		N.D.	
57) bromodichloromethane	0.000		0		N.D.	
58) 1,4-dioxane	0.000		0		N.D.	
59) trichloroethene	0.000		0		N.D.	
60) 2,2,4-trimethylpentane	0.000		0		N.D.	
61) methyl methacrylate	0.000		0		N.D.	
62) heptane	0.000		0		N.D.	
63) cis-1,3-dichloropropene	0.000		0		N.D.	
64) 4-methyl-2-pentanone	0.000		0		N.D.	
65) trans-1,3-dichloropropene	0.000		0		N.D.	
66) 1,1,2-trichloroethane	0.000		0		N.D.	
68) toluene	0.000		0		N.D.	
71) 1,3-dichloropropane	0.000		0		N.D.	
72) 2-hexanone	0.000		0		N.D.	
74) dibromochloromethane	0.000		0		N.D.	
75) 1,2-dibromoethane	0.000		0		N.D.	
76) butyl acetate	0.000		0		N.D.	
77) octane	0.000		0		N.D.	
78) tetrachloroethene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143369.D
Acq On : 11 Aug 2015 7:59 pm
Operator : AIRPIANO1:MB
Sample : L1519055-01,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 12 10:38:10 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150811T\R143358.D
Sub List : Default-LCS-AP2 - All compounds listed

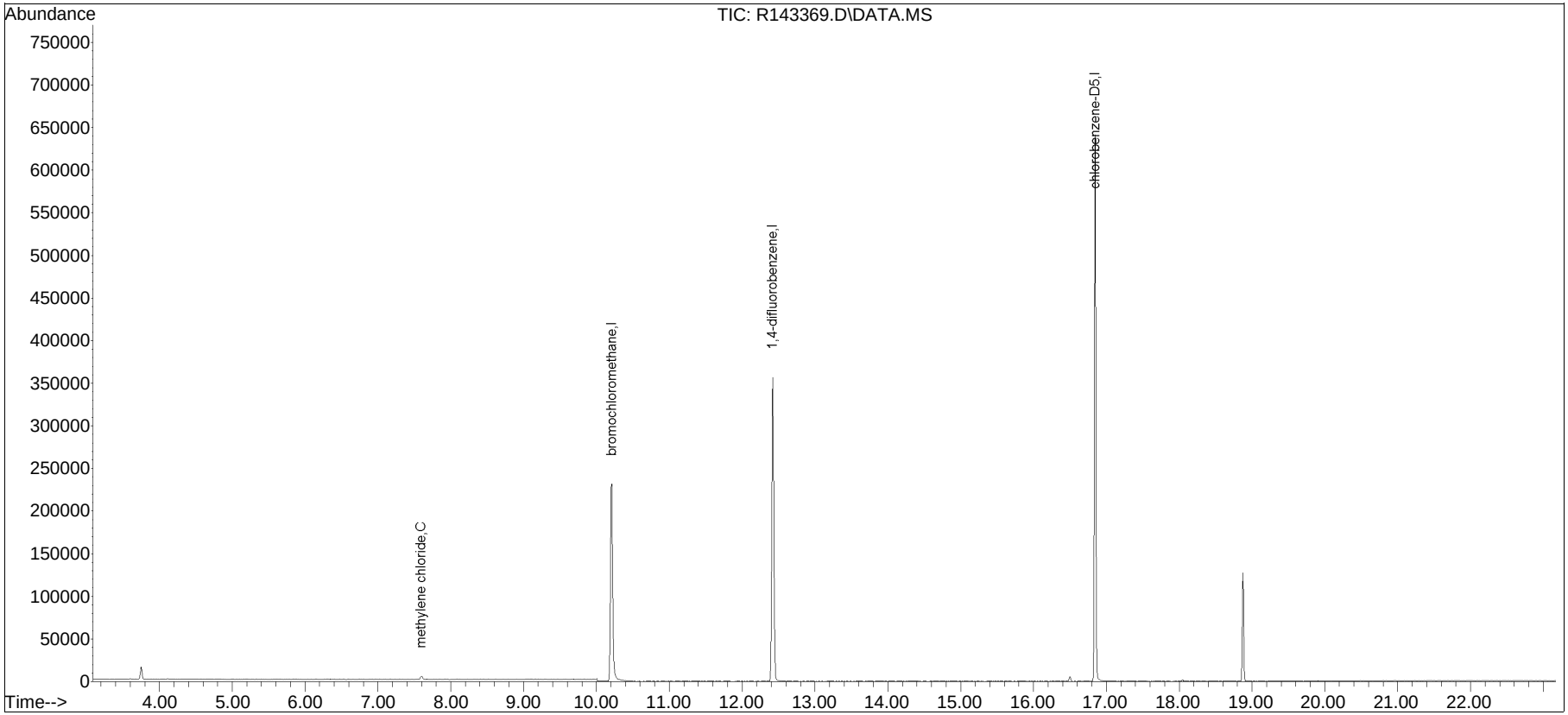
	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
79)	1,1,1,2-tetrachloroethane	0.000		0	N.D.	
80)	chlorobenzene	0.000		0	N.D.	
81)	ethylbenzene	0.000		0	N.D.	
83)	m+p-xylene	0.000		0	N.D.	
84)	bromoform	0.000		0	N.D.	
85)	styrene	0.000		0	N.D.	
86)	1,1,2,2-tetrachloroethane	0.000		0	N.D.	
87)	o-xylene	0.000		0	N.D.	
88)	1,2,3-trichloropropane	0.000		0	N.D.	
89)	nonane	17.825		0	N.D.	
91)	isopropylbenzene	0.000		0	N.D.	
92)	bromobenzene	0.000		0	N.D.	
93)	2-chlorotoluene	0.000		0	N.D.	
94)	n-propylbenzene	0.000		0	N.D.	
95)	4-chlorotoluene	0.000		0	N.D.	
96)	4-ethyl toluene	0.000		0	N.D.	
97)	1,3,5-trimethylbenzene	0.000		0	N.D.	
98)	tert-butylbenzene	18.874		0	N.D.	
99)	1,2,4-trimethylbenzene	18.874		0	N.D.	
100)	decane	0.000		0	N.D.	
101)	Benzyl Chloride	0.000		0	N.D.	
102)	1,3-dichlorobenzene	0.000		0	N.D.	
103)	1,4-dichlorobenzene	0.000		0	N.D.	
104)	sec-butylbenzene	0.000		0	N.D.	
106)	p-isopropyltoluene	0.000		0	N.D.	
107)	1,2-dichlorobenzene	0.000		0	N.D.	
108)	n-butylbenzene	0.000		0	N.D.	
111)	1,2-dibromo-3-chloropr...	0.000		0	N.D.	
112)	undecane	0.000		0	N.D.	
114)	dodecane	0.000		0	N.D.	
115)	1,2,4-trichlorobenzene	0.000		0	N.D.	
116)	naphthalene	0.000		0	N.D.	
117)	1,2,3-trichlorobenzene	0.000		0	N.D.	
119)	hexachlorobutadiene	0.000		0	N.D.	

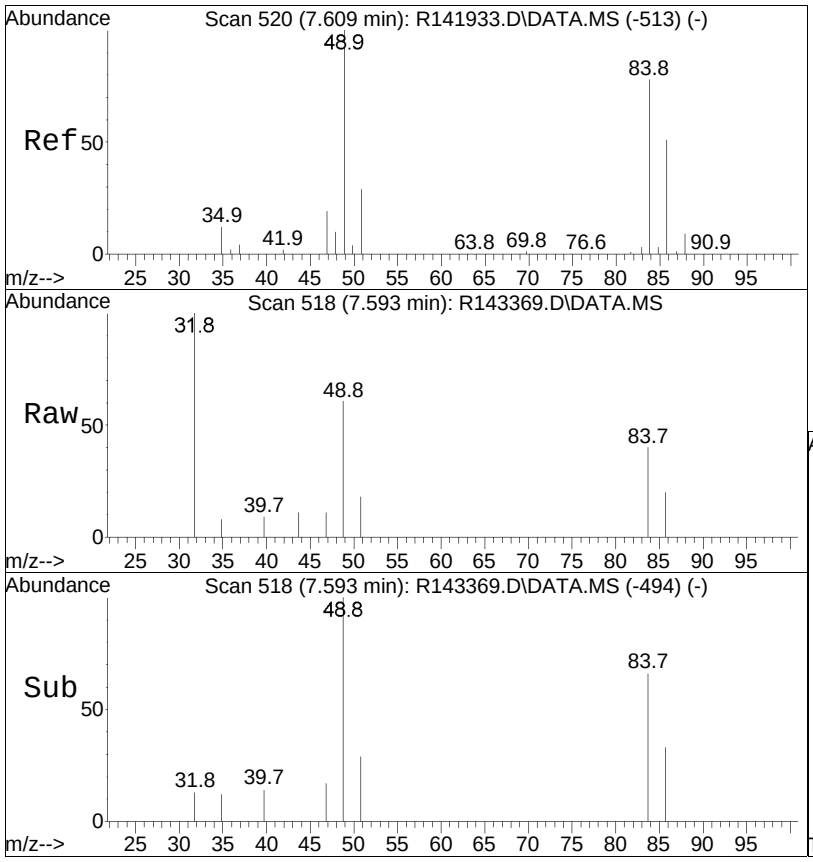
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-LCS-AP2 - All compounds listed43358.D

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143369.D
Acq On : 11 Aug 2015 7:59 pm
Operator : AIRPIANO1:MB
Sample : L1519055-01,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 12 10:38:10 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

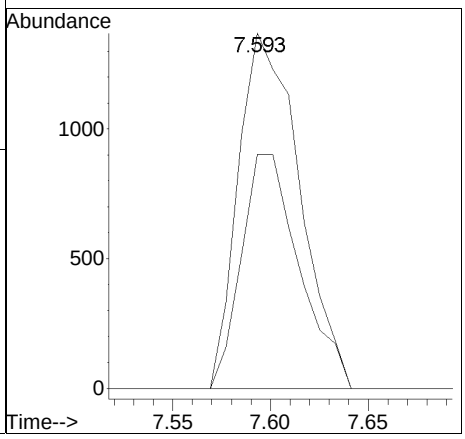




#28
methylene chloride
Concen: 0.31 ppbV
RT: 7.593 min Scan# 518
Delta R.T. -0.008 min
Lab File: R143369.D
Acq: 11 Aug 2015 7:59 pm

Tgt Ion: 49 Resp: 2986

Ion	Ratio	Lower	Upper
49	100		
84	65.8	52.9	79.3



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR1\2015	QMethod	: TALL150710.M
Data File	: R143369.D	Operator	: AIRPIANO1:MB
Date Inj'd	: 8/11/2015 7:59 pm	Instrument	: Air Piano 1
Sample	: L1519055-01,3,250,250	Quant Date	: 8/12/2015 9:12 am

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519055
Project Name	:	Project Number:	CANISTER QC BAT
Lab ID	: L1519055-01	Date Collected	: 08/10/15 18:00
Client ID	: CAN 335 SHELF 1	Date Received	: 08/11/15
Sample Location	:	Date Analyzed	: 08/11/15 19:59
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143369	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 1

Concentration Units: ppbV

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	unknown	18.87	1.9	J
	Total TIC Compounds		1.9	

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143369.D
Acq On : 11 Aug 2015 7:59 pm
Operator : AIRPIANO1:MB
Sample : L1519055-01,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R143369.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.773	170	172	176	rBV2	681	1756	0.20%	0.079%
2	5.651	274	275	278	rBV	699	957	0.11%	0.043%
3	6.594	390	393	397	rBV	1094	1991	0.23%	0.089%
4	6.922	432	434	438	rVB	764	1098	0.13%	0.049%
5	6.970	438	440	441	rBV	1049	888	0.10%	0.040%
6	7.178	462	466	468	rBV	693	1083	0.13%	0.049%
7	7.521	507	509	512	rVB2	825	1035	0.12%	0.046%
8	7.601	515	519	525	rVV3	4125	9593	1.12%	0.430%
9	7.841	547	549	552	rBV2	670	1137	0.13%	0.051%
10	7.921	557	559	561	rVV2	1042	1340	0.16%	0.060%
11	7.953	561	563	567	rVB	1147	1384	0.16%	0.062%
12	8.009	567	570	571	rBV	611	876	0.10%	0.039%
13	8.744	671	673	676	rBV	651	916	0.11%	0.041%
14	8.785	676	679	681	rBV	735	1116	0.13%	0.050%
15	9.114	725	727	729	rVB	983	967	0.11%	0.043%
16	9.156	731	733	738	rBV	642	936	0.11%	0.042%
17	10.006	856	857	859	rVB	3314	1540	0.18%	0.069%
18	10.211	873	879	894	rBV	231431	499368	58.11%	22.387%
19	10.737	927	934	936	rVB2	313	1041	0.12%	0.047%
20	11.642	1024	1026	1028	rBV2	511	870	0.10%	0.039%
21	12.118	1069	1072	1078	rBV2	346	1173	0.14%	0.053%
22	12.419	1097	1101	1111	rBV	356676	662111	77.05%	29.684%
23	15.366	1366	1369	1371	rBV	542	1162	0.14%	0.052%
24	16.495	1491	1494	1500	rVB	5570	9168	1.07%	0.411%
25	16.846	1559	1570	1586	rBV	641600	859295	100.00%	38.524%
26	18.043	1890	1894	1900	rVB2	1998	1984	0.23%	0.089%
27	18.874	2109	2115	2124	rBV	127148	159993	18.62%	7.173%
28	20.483	2449	2453	2457	rBV3	546	913	0.11%	0.041%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143369.D
Acq On : 11 Aug 2015 7:59 pm
Operator : AIRPIANO1:MB
Sample : L1519055-01,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	20.806	2483	2487	2489	rBV2	616	987	0.11%	0.044%
30	20.956	2497	2501	2502	rBV	385	1093	0.13%	0.049%
31	22.082	2604	2606	2609	rBV2	566	1336	0.16%	0.060%
32	22.843	2673	2677	2678	rVB	686	1461	0.17%	0.065%

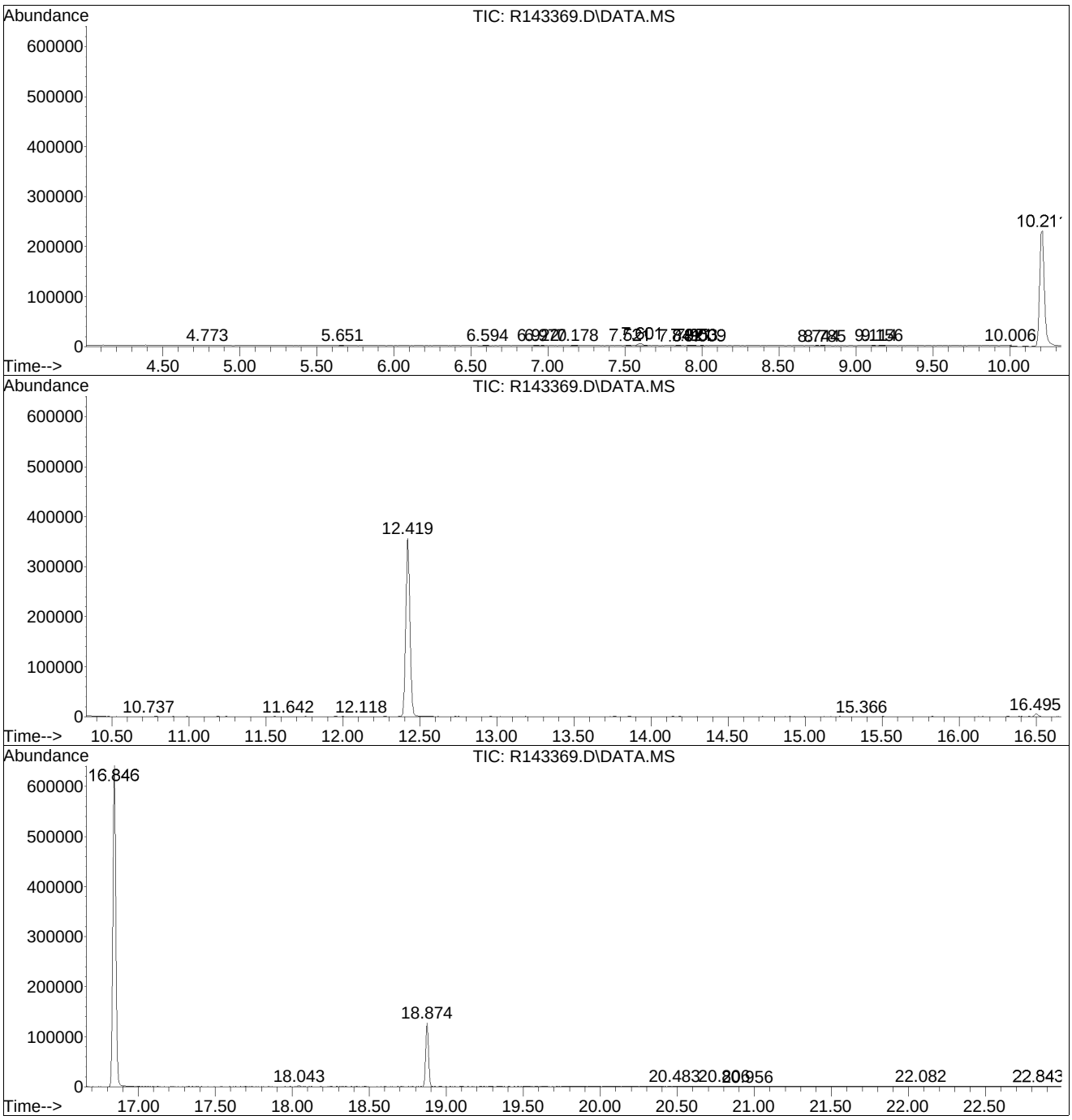
Sum of corrected areas: 2230568

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143369.D
Acq On : 11 Aug 2015 7:59 pm
Operator : AIRPIANO1:MB
Sample : L1519055-01,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143369.D
Acq On : 11 Aug 2015 7:59 pm
Operator : AIRPIANO1:MB
Sample : L1519055-01,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

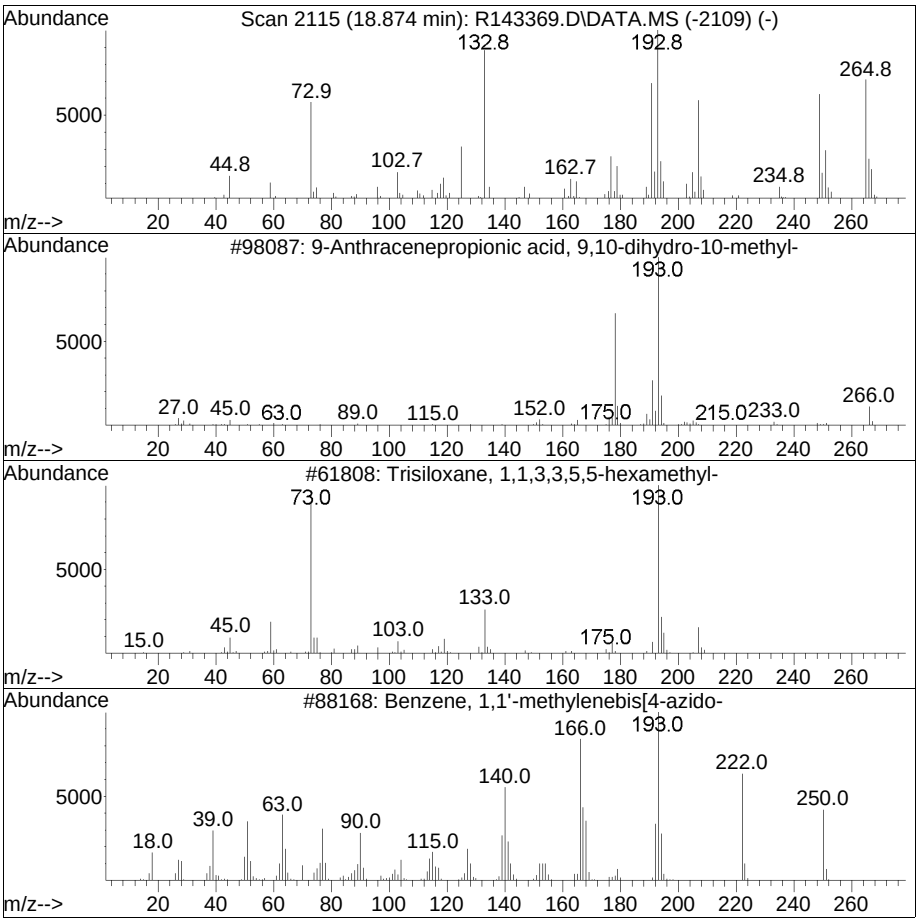
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

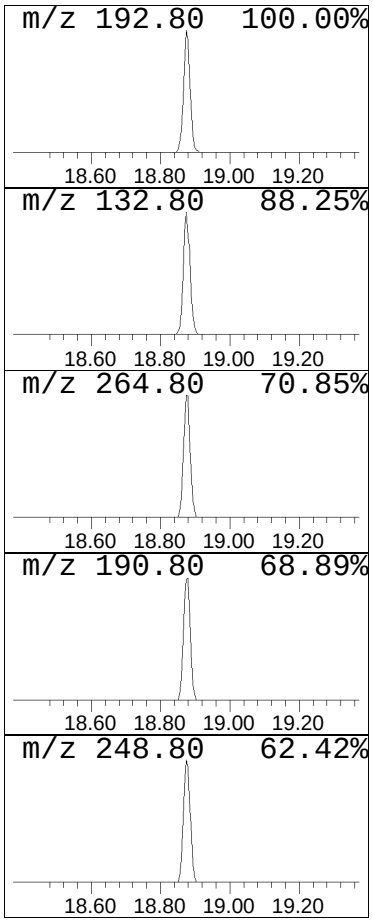
****

Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.874	1.86 ppbV	159993	chlorobenzene-D5	16.846

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	9-Anthracenepropionic acid, 9,10...	266	C18H18O2	109393-72-8	22
2	Trisiloxane, 1,1,3,3,5,5-hexamet...	208	C6H20O2Si3	001189-93-1	22
3	Benzene, 1,1'-methylenebis[4-azido-	250	C13H10N6	002915-44-8	18
4	9,10-Dihydrophenanthren-2-butyri...	266	C18H18O2	007494-59-9	14
5	aS-Triazine-3,5(2H,4H)-dione, 6-...	191	C3H2BrN3O2	004956-05-2	14





Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143369.D
Acq On : 11 Aug 2015 7:59 pm
Operator : AIRPIANO1:MB
Sample : L1519055-01,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 4 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc
unknown	18.874	1.9	ppbV	159993	3	16.846	859295	10.0

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519055
Project Name	:	Project Number:	CANISTER QC BAT
Lab ID	: L1519055-02	Date Collected	: 08/10/15 18:00
Client ID	: CAN 752 SHELF 8	Date Received	: 08/11/15
Sample Location	:	Date Analyzed	: 08/11/15 20:31
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143370	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
75-45-6	Chlorodifluoromethane	ND	0.200	--	ND	0.707	--	U
115-07-1	Propylene	ND	0.500	--	ND	0.861	--	U
74-98-6	Propane	ND	0.500	--	ND	0.902	--	U
75-71-8	Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--	U
74-87-3	Chloromethane	ND	0.200	--	ND	0.413	--	U
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethan	ND	0.200	--	ND	1.40	--	U
67-56-1	Methanol	ND	5.00	--	ND	6.55	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
106-97-8	Butane	ND	0.200	--	ND	0.475	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethyl Alcohol	ND	2.50	--	ND	4.71	--	U
75-43-4	Dichlorofluoromethane	ND	0.200	--	ND	0.842	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
107-02-8	Acrolein	ND	0.500	--	ND	1.15	--	U
67-64-1	Acetone	ND	1.00	--	ND	2.38	--	U
75-05-8	Acetonitrile	ND	0.200	--	ND	0.336	--	U
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--	U
107-13-1	Acrylonitrile	ND	0.500	--	ND	1.09	--	U
109-66-0	Pentane	ND	0.200	--	ND	0.590	--	U
60-29-7	Ethyl ether	ND	0.200	--	ND	0.606	--	U
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	tert-Butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519055
Project Name	:	Project Number:	CANISTER QC BAT
Lab ID	: L1519055-02	Date Collected	: 08/10/15 18:00
Client ID	: CAN 752 SHELF 8	Date Received	: 08/11/15
Sample Location	:	Date Analyzed	: 08/11/15 20:31
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143370	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
108-05-4	Vinyl acetate	ND	1.00	--	ND	3.52	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
594-20-7	2,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
108-20-3	Isopropyl Ether	ND	0.200	--	ND	0.836	--	U
637-92-3	Ethyl-Tert-Butyl-Ether	ND	0.200	--	ND	0.836	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
563-58-6	1,1-Dichloropropene	ND	0.200	--	ND	0.908	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
994-05-8	Tertiary-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--	U
74-95-3	Dibromomethane	ND	0.200	--	ND	1.42	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
80-62-6	Methyl Methacrylate	ND	0.500	--	ND	2.05	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519055
Project Name	:	Project Number:	CANISTER QC BAT
Lab ID	: L1519055-02	Date Collected	: 08/10/15 18:00
Client ID	: CAN 752 SHELF 8	Date Received	: 08/11/15
Sample Location	:	Date Analyzed	: 08/11/15 20:31
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143370	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
142-28-9	1,3-Dichloropropane	ND	0.200	--	ND	0.924	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
123-86-4	Butyl Acetate	ND	0.500	--	ND	2.38	--	U
111-65-9	Octane	ND	0.200	--	ND	0.934	--	U
127-18-4	Tetrachloroethene	ND	0.200	--	ND	1.36	--	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
96-18-4	1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--	U
111-84-2	Nonane (C9)	ND	0.200	--	ND	1.05	--	U
98-82-8	Isopropylbenzene	ND	0.200	--	ND	0.983	--	U
108-86-1	Bromobenzene	ND	0.200	--	ND	0.793	--	U
95-49-8	o-Chlorotoluene	ND	0.200	--	ND	1.04	--	U
103-65-1	n-Propylbenzene	ND	0.200	--	ND	0.983	--	U
106-43-4	p-Chlorotoluene	ND	0.200	--	ND	1.04	--	U

Form 1
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519055
Project Name	:	Project Number:	CANISTER QC BAT
Lab ID	: L1519055-02	Date Collected	: 08/10/15 18:00
Client ID	: CAN 752 SHELF 8	Date Received	: 08/11/15
Sample Location	:	Date Analyzed	: 08/11/15 20:31
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143370	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

		ppbV			ug/m3			
CAS NO.	Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
98-06-6	tert-Butylbenzene	ND	0.200	--	ND	1.10	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
124-18-5	Decane (C10)	ND	0.200	--	ND	1.16	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
135-98-8	sec-Butylbenzene	ND	0.200	--	ND	1.10	--	U
99-87-6	p-Isopropyltoluene	ND	0.200	--	ND	1.10	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
104-51-8	n-Butylbenzene	ND	0.200	--	ND	1.10	--	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--	U
1120-21-4	Undecane	ND	0.200	--	ND	1.28	--	U
112-40-3	Dodecane (C12)	ND	0.200	--	ND	1.39	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
91-20-3	Naphthalene	ND	0.200	--	ND	1.05	--	U
87-61-6	1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143370.D
Acq On : 11 Aug 2015 8:31 pm
Operator : AIRPIANO1:MB
Sample : L1519055-02,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 12 10:40:54 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150811T\R143358.D
Sub List : Default-LCS-AP2 - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) bromochloromethane	10.201	49	138251	10.000	ppbV	0.00
Standard Area = 159544			Recovery =		86.65%	
43) 1,4-difluorobenzene	12.419	114	309913	10.000	ppbV	0.00
Standard Area = 339195			Recovery =		91.37%	
67) chlorobenzene-D5	16.846	54	59396	10.000	ppbV	0.00
Standard Area = 64629			Recovery =		91.90%	
System Monitoring Compounds						
Target Compounds						Qvalue
2) chlorodifluoromethane	0.000		0	N.D.		
3) propylene	0.000		0	N.D.		
4) propane	4.005		0	N.D.		
5) dichlorodifluoromethane	0.000		0	N.D.		
6) chloromethane	0.000		0	N.D.		
7) Freon-114	0.000		0	N.D.		
8) methanol	0.000		0	N.D.		
9) vinyl chloride	0.000		0	N.D.		
10) 1,3-butadiene	0.000		0	N.D.		
11) butane	5.059		0	N.D.		
13) bromomethane	0.000		0	N.D.		
14) chloroethane	0.000		0	N.D.		
15) ethanol	0.000		0	N.D.		
16) dichlorofluoromethane	0.000		0	N.D.		
17) vinyl bromide	0.000		0	N.D.		
18) acrolein	0.000		0	N.D.		
19) acetone	0.000		0	N.D.		
20) acetonitrile	0.000		0	N.D.		
21) trichlorofluoromethane	0.000		0	N.D.		
22) isopropyl alcohol	0.000		0	N.D.		
23) acrylonitrile	0.000		0	N.D.		
24) pentane	7.050		0	N.D.		
25) ethyl ether	0.000		0	N.D.		
26) 1,1-dichloroethene	0.000		0	N.D.		
27) tertiary butyl alcohol	0.000		0	N.D.		
28) methylene chloride	7.593	49	2933	0.313	ppbV	88
29) 3-chloropropene	0.000		0	N.D.		
30) carbon disulfide	7.921		0	N.D.		
31) Freon 113	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143370.D
Acq On : 11 Aug 2015 8:31 pm
Operator : AIRPIANO1:MB
Sample : L1519055-02,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 12 10:40:54 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150811T\R143358.D
Sub List : Default-LCS-AP2 - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
32)	trans-1,2-dichloroethene	0.000		0	N.D.		
33)	1,1-dichloroethane	0.000		0	N.D.		
34)	MTBE	0.000		0	N.D.		
35)	vinyl acetate	0.000		0	N.D.		
36)	2-butanone	0.000		0	N.D.		
37)	cis-1,2-dichloroethene	0.000		0	N.D.		
38)	Ethyl Acetate	0.000		0	N.D.		
39)	chloroform	0.000		0	N.D.		
40)	Tetrahydrofuran	0.000		0	N.D.		
41)	2,2-dichloropropane	0.000		0	N.D.		
42)	1,2-dichloroethane	0.000		0	N.D.		
44)	hexane	0.000		0	N.D.		
45)	diisopropyl ether	0.000		0	N.D.		
46)	tert-butyl ethyl ether	0.000		0	N.D.		
48)	1,1,1-trichloroethane	0.000		0	N.D.		
49)	1,1-dichloropropene	0.000		0	N.D.		
50)	benzene	0.000		0	N.D.		
52)	carbon tetrachloride	0.000		0	N.D.		
53)	cyclohexane	0.000		0	N.D.	d	
54)	tert-amyl methyl ether	0.000		0	N.D.		
55)	dibromomethane	0.000		0	N.D.		
56)	1,2-dichloropropane	0.000		0	N.D.		
57)	bromodichloromethane	0.000		0	N.D.		
58)	1,4-dioxane	0.000		0	N.D.		
59)	trichloroethene	0.000		0	N.D.		
60)	2,2,4-trimethylpentane	0.000		0	N.D.		
61)	methyl methacrylate	0.000		0	N.D.		
62)	heptane	13.579		0	N.D.		
63)	cis-1,3-dichloropropene	0.000		0	N.D.		
64)	4-methyl-2-pentanone	0.000		0	N.D.		
65)	trans-1,3-dichloropropene	0.000		0	N.D.		
66)	1,1,2-trichloroethane	0.000		0	N.D.		
68)	toluene	0.000		0	N.D.		
71)	1,3-dichloropropane	0.000		0	N.D.		
72)	2-hexanone	15.375		0	N.D.		
74)	dibromochloromethane	0.000		0	N.D.		
75)	1,2-dibromoethane	0.000		0	N.D.		
76)	butyl acetate	0.000		0	N.D.		
77)	octane	0.000		0	N.D.		
78)	tetrachloroethene	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143370.D
Acq On : 11 Aug 2015 8:31 pm
Operator : AIRPIANO1:MB
Sample : L1519055-02,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 12 10:40:54 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

CCAL FILE : O:\Forensics\Data\AIR1\2015\150811T\R143358.D
Sub List : Default-LCS-AP2 - All compounds listed

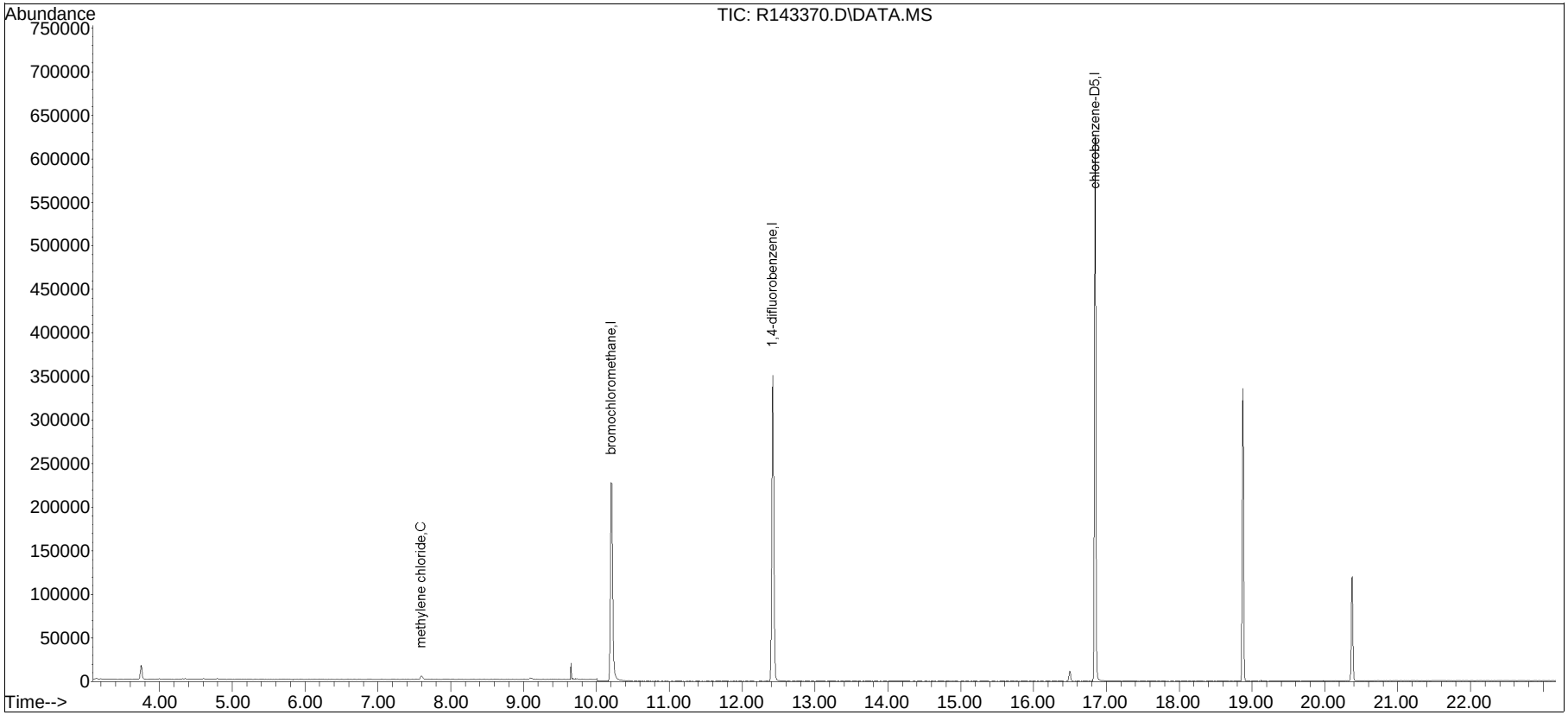
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
79)	1,1,1,2-tetrachloroethane	0.000		0	N.D.		
80)	chlorobenzene	0.000		0	N.D.		
81)	ethylbenzene	0.000		0	N.D.		
83)	m+p-xylene	0.000		0	N.D.		
84)	bromoform	0.000		0	N.D.		
85)	styrene	0.000		0	N.D.		
86)	1,1,2,2-tetrachloroethane	0.000		0	N.D.		
87)	o-xylene	0.000		0	N.D.		
88)	1,2,3-trichloropropane	0.000		0	N.D.		
89)	nonane	17.832		0	N.D.		
91)	isopropylbenzene	0.000		0	N.D.		
92)	bromobenzene	0.000		0	N.D.		
93)	2-chlorotoluene	0.000		0	N.D.		
94)	n-propylbenzene	0.000		0	N.D.		
95)	4-chlorotoluene	0.000		0	N.D.		
96)	4-ethyl toluene	0.000		0	N.D.		
97)	1,3,5-trimethylbenzene	0.000		0	N.D.		
98)	tert-butylbenzene	0.000		0	N.D.	d	
99)	1,2,4-trimethylbenzene	18.874		0	N.D.		
100)	decane	18.869		0	N.D.		
101)	Benzyl Chloride	0.000		0	N.D.		
102)	1,3-dichlorobenzene	0.000		0	N.D.		
103)	1,4-dichlorobenzene	0.000		0	N.D.		
104)	sec-butylbenzene	0.000		0	N.D.		
106)	p-isopropyltoluene	0.000		0	N.D.		
107)	1,2-dichlorobenzene	0.000		0	N.D.		
108)	n-butylbenzene	0.000		0	N.D.		
111)	1,2-dibromo-3-chloropr...	0.000		0	N.D.		
112)	undecane	0.000		0	N.D.		
114)	dodecane	0.000		0	N.D.		
115)	1,2,4-trichlorobenzene	0.000		0	N.D.		
116)	naphthalene	0.000		0	N.D.		
117)	1,2,3-trichlorobenzene	0.000		0	N.D.		
119)	hexachlorobutadiene	0.000		0	N.D.		

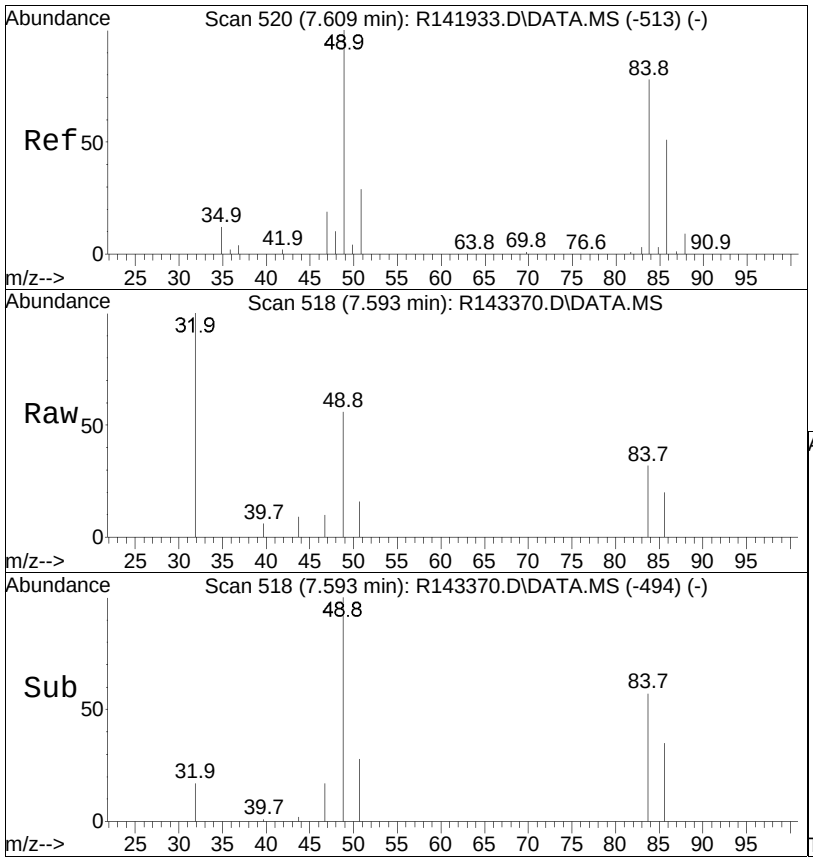
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sub List : Default-LCS-AP2 - All compounds listed43358.D

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143370.D
Acq On : 11 Aug 2015 8:31 pm
Operator : AIRPIANO1:MB
Sample : L1519055-02,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Aug 12 10:40:54 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015
Response via : Initial Calibration

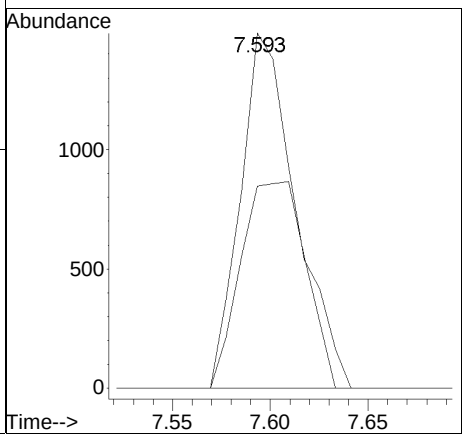




#28
methylene chloride
Concen: 0.31 ppbV
RT: 7.593 min Scan# 518
Delta R.T. -0.008 min
Lab File: R143370.D
Acq: 11 Aug 2015 8:31 pm

Tgt Ion: 49 Resp: 2933

Ion	Ratio	Lower	Upper
49	100		
84	56.9	52.9	79.3



Manual Integration/Negative Proof Report

Data Path	: O:\Forensics\Data\AIR1\2015Q	Method	: TALL150710.M
Data File	: R143370.D	Operator	: AIRPIANO1:MB
Date Inj'd	: 8/11/2015 8:31 pm	Instrument	: Air Piano 1
Sample	: L1519055-02,3,250,250	Quant Date	: 8/12/2015 9:13 am

There are no manual integrations or false positives in this file.

Tentatively Identified Compounds
Volatile Organics

Client	: Alpha Analytical	Lab Number	: L1519055
Project Name	:	Project Number:	CANISTER QC BAT
Lab ID	: L1519055-02	Date Collected	: 08/10/15 18:00
Client ID	: CAN 752 SHELF 8	Date Received	: 08/11/15
Sample Location	:	Date Analyzed	: 08/11/15 20:31
Sample Matrix	: AIR	Dilution Factor	: 1
Analytical Method	: 48,TO-15	Analyst	: MB
Lab File ID	: R143370	Instrument ID	: AIRPIANO1
Sample Amount	: 250 ml	GC Column	: RTX-1

Number TICS found: 2

Concentration Units: ppbV

CAS Number	Compound Name	RT	EST. CONC.	Qualifier
	unknown	18.87	5.1	J
	unknown siloxane	20.37	2	J
	Total TIC Compounds		7.1	

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143370.D
Acq On : 11 Aug 2015 8:31 pm
Operator : AIRPIANO1:MB
Sample : L1519055-02,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

Signal : TIC: R143370.D\DATA.MS

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.231	115	117	120	rBV2	800	1281	0.15%	0.048%
2	4.409	132	135	138	rBV2	652	1384	0.16%	0.052%
3	4.606	153	155	157	rBV	970	924	0.11%	0.034%
4	5.891	303	305	308	rVB	873	1001	0.12%	0.037%
5	7.042	448	449	453	rVB2	616	852	0.10%	0.032%
6	7.409	493	495	500	rVB	862	1269	0.15%	0.047%
7	7.481	500	504	505	rBV	586	1015	0.12%	0.038%
8	7.593	514	518	526	rBV3	4324	10859	1.28%	0.405%
9	8.105	580	582	586	rBV	654	1075	0.13%	0.040%
10	8.394	620	622	625	rBV	793	1008	0.12%	0.038%
11	9.087	719	723	726	rBV2	1848	3484	0.41%	0.130%
12	9.266	747	749	752	rBV2	788	1076	0.13%	0.040%
13	9.650	804	805	808	rBV	18972	10082	1.19%	0.376%
14	9.677	808	809	811	rVB	1777	908	0.11%	0.034%
15	9.712	811	814	815	rBV	1380	1260	0.15%	0.047%
16	9.732	815	817	820	rVB	1132	902	0.11%	0.034%
17	10.007	855	857	858	rVB	3173	2383	0.28%	0.089%
18	10.201	873	878	892	rBV	227784	493457	58.20%	18.404%
19	10.445	900	904	907	rVB	521	1202	0.14%	0.045%
20	12.419	1097	1101	1113	rBV	350916	658953	77.72%	24.576%
21	15.067	1335	1336	1339	rBV	570	986	0.12%	0.037%
22	15.447	1374	1378	1383	rBV2	383	1083	0.13%	0.040%
23	16.495	1490	1494	1501	rVB	12106	20548	2.42%	0.766%
24	16.846	1561	1570	1584	rBV	627640	847906	100.00%	31.623%
25	18.874	2109	2115	2123	rVB	336164	434496	51.24%	16.205%
26	19.122	2166	2167	2170	rBV	1565	854	0.10%	0.032%
27	20.374	2421	2430	2438	rBV	120099	170458	20.10%	6.357%
28	20.688	2473	2476	2477	rBV2	554	939	0.11%	0.035%

LSC Area Percent Report

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143370.D
Acq On : 11 Aug 2015 8:31 pm
Operator : AIRPIANO1:MB
Sample : L1519055-02,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 5 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Title : TO-14A/TO-15 SIM/Full Scan Analysis

29	20.731	2477	2480	2483	rVV2	333	1030	0.12%	0.038%
30	21.031	2506	2508	2512	rBV	405	1066	0.13%	0.040%
31	21.396	2538	2542	2543	rBV	543	1066	0.13%	0.040%
32	22.082	2605	2606	2609	rBV	514	967	0.11%	0.036%
33	22.157	2609	2613	2614	rVV2	570	1250	0.15%	0.047%
34	22.232	2617	2620	2624	rVB2	731	1881	0.22%	0.070%
35	22.360	2631	2632	2636	rBV	566	1220	0.14%	0.046%
36	22.864	2678	2679	2682	rBV	586	1136	0.13%	0.042%

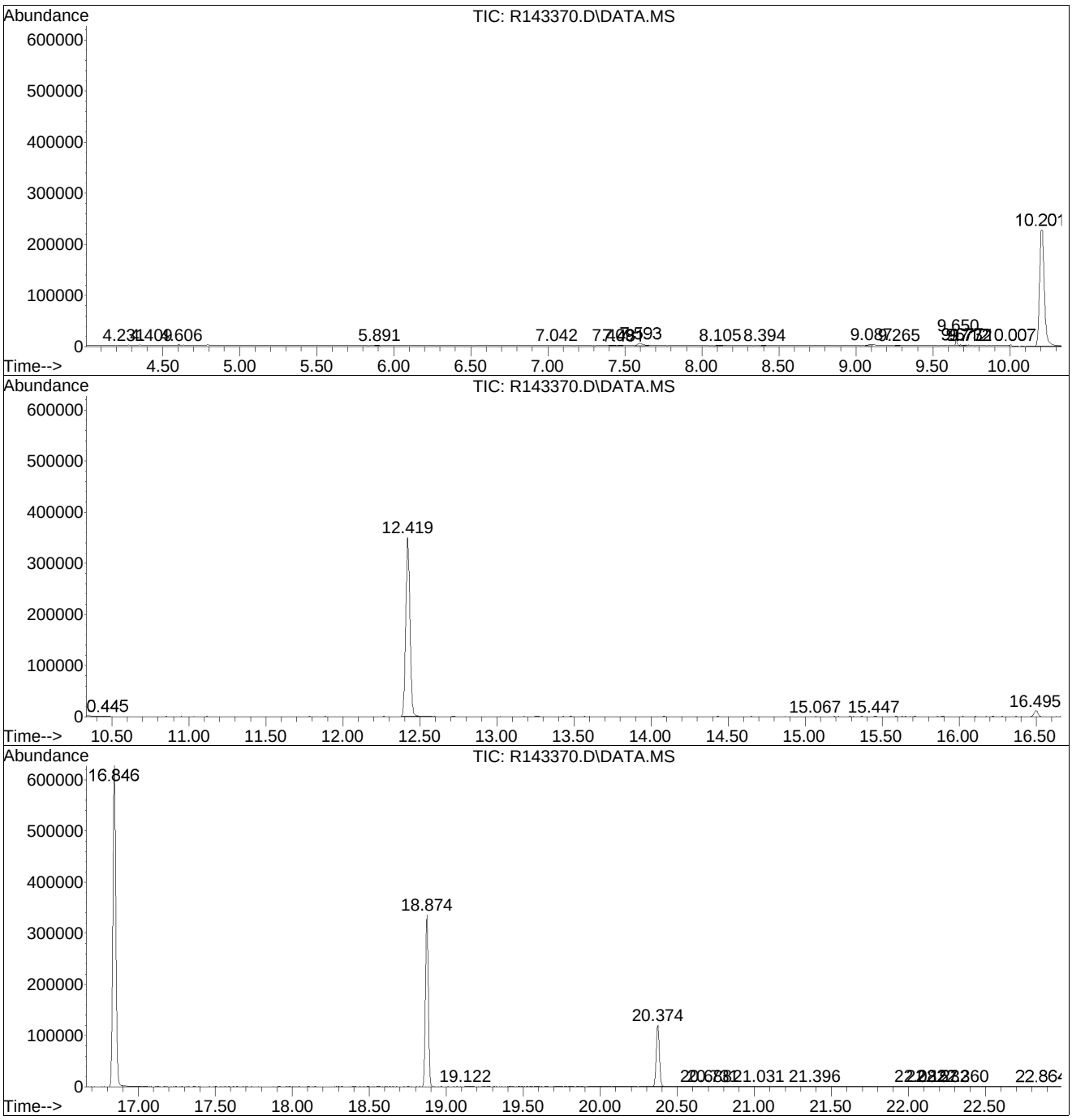
Sum of corrected areas: 2681261

LSC Report - Integrated Chromatogram

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143370.D
Acq On : 11 Aug 2015 8:31 pm
Operator : AIRPIANO1:MB
Sample : L1519055-02,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143370.D
Acq On : 11 Aug 2015 8:31 pm
Operator : AIRPIANO1:MB
Sample : L1519055-02,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

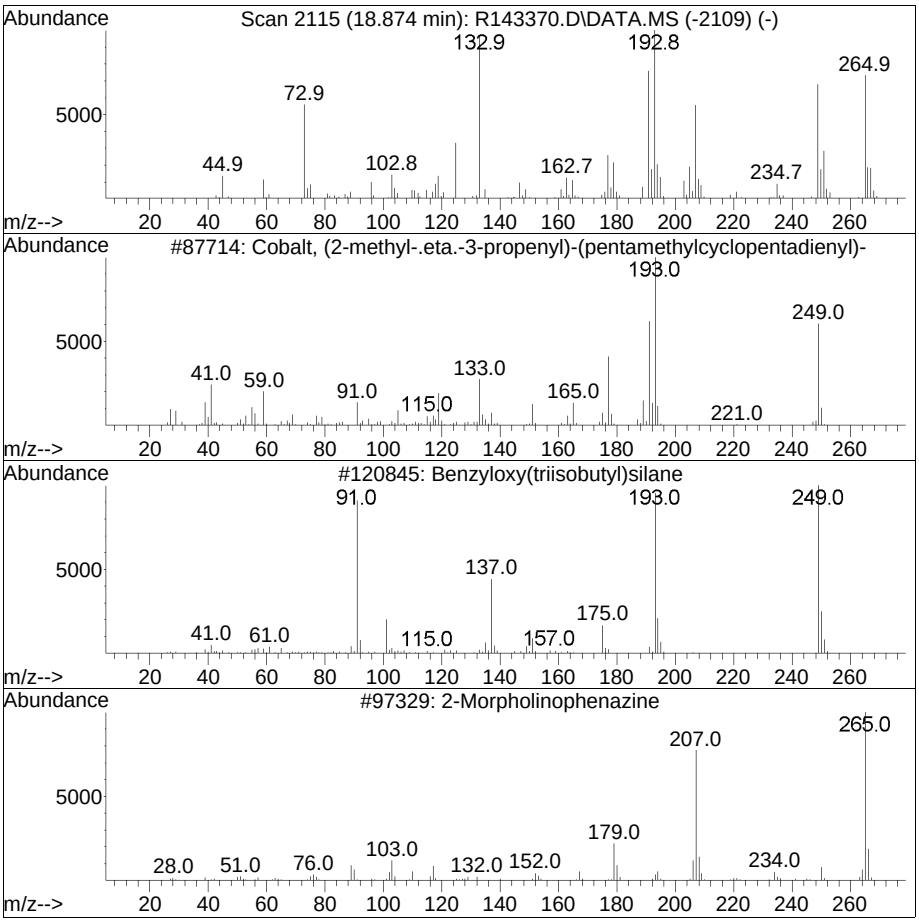
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

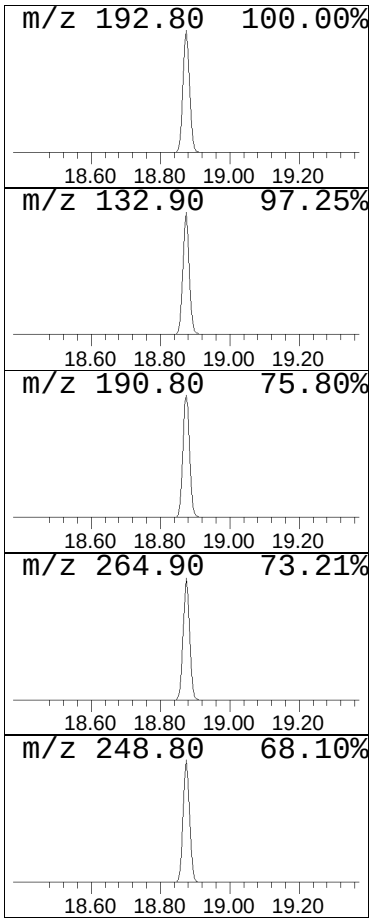
****

Peak Number 1 unknown Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
18.874	5.12 ppbV	434496	chlorobenzene-D5	16.846

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cobalt, (2-methyl-.eta.-3-propen...	249	C14H22Co	1000157-04-3	43
2	Benzyloxy(triisobutyl)silane	306	C19H34OSi	1000282-18-0	22
3	2-Morpholinophenazine	265	C16H15N3O	022316-93-4	14
4	Ethyl 6-methyl-2-oxo-4-(2-thieny...	266	C12H14N2O3S	005948-72-1	11
5	Acridine orange,CI 46005	265	C17H19N3	010127-02-3	11





Library Search Compound Report

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143370.D
Acq On : 11 Aug 2015 8:31 pm
Operator : AIRPIANO1:MB
Sample : L1519055-02,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

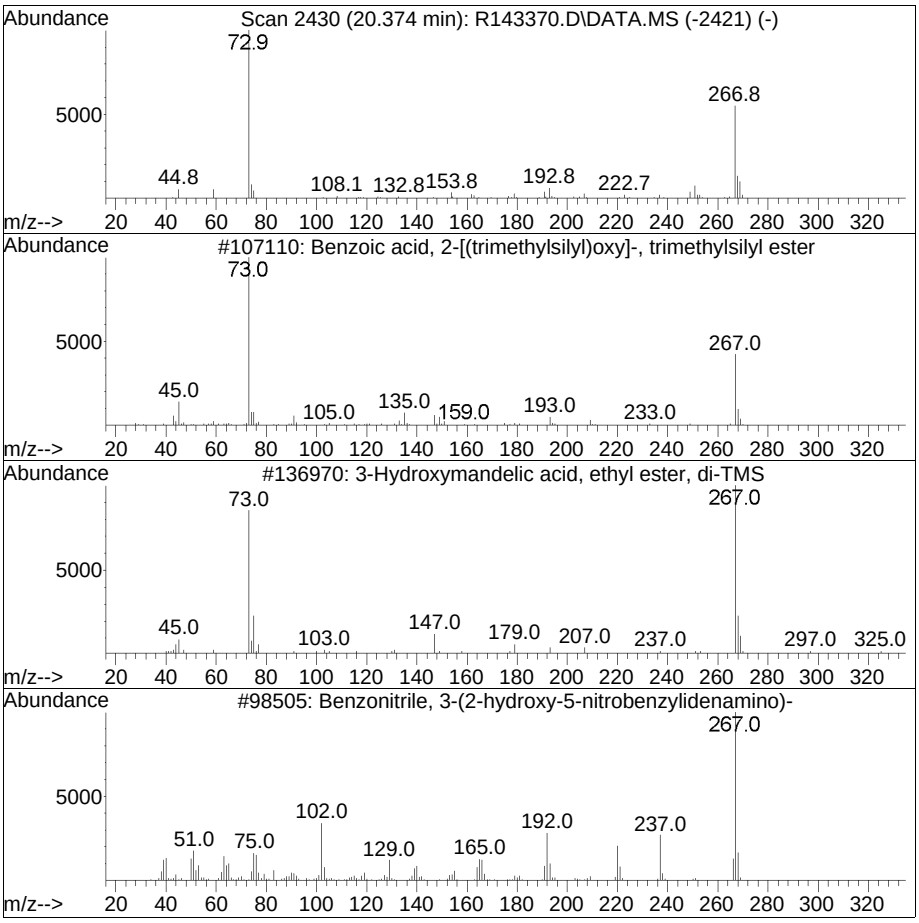
TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

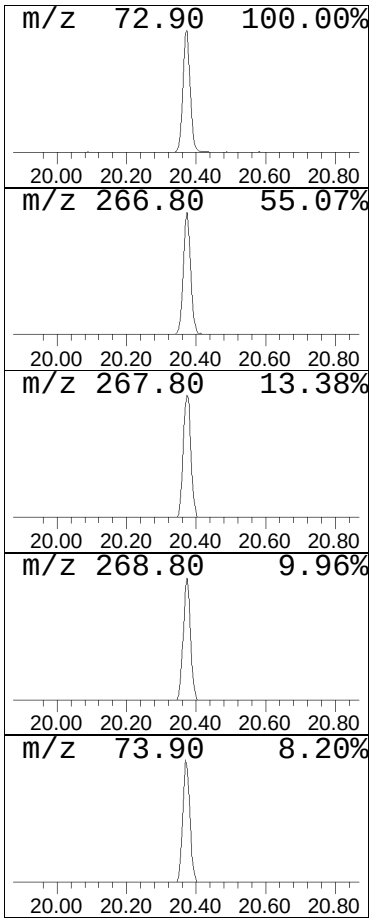
****

Peak Number 2 unknown siloxane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
20.374	2.01 ppbV	170458	chlorobenzene-D5	16.846

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzoic acid, 2-[(trimethylsilyl...	282	C13H22O3Si2	003789-85-3	56
2	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-88-9	56
3	Benzonitrile, 3-(2-hydroxy-5-nit...	267	C14H9N3O3	304454-14-6	43
4	2-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-88-8	39
5	Butanamide, 2,2,3,3,4,4,4-heptaf...	493	C18H26F7NO3Si2	055471-01-7	38





Tentatively Identified Compound (LSC) summary

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143370.D
Acq On : 11 Aug 2015 8:31 pm
Operator : AIRPIANO1:MB
Sample : L1519055-02,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 5 Sample Multiplier: 1

Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis

TIC Library : O:\Organics\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc
unknown	18.874	5.1	ppbV	434496	3	16.846	847906	10.0
unknown siloxane	20.374	2.0	ppbV	170458	3	16.846	847906	10.0

Standards Data Summary

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1519055

Instrument ID: AIRPIANO1 Calibration Date(s): 07/10/15 07/10/15

Calibration Times: 14:43 18:30

Calibration Files
0.2 =R142707.D 0.5 =R142708.D 1.0 =R142709.D 5.0 =R142710.D 10 =R142711.D 20 =R142712.D
50 =R142713.D 100 =R142714.D

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
1)	I	bromochloromethane	----------ISTD----------									
2)		chlorodifluoromethane	1.103	1.052	0.955	0.897	0.875	0.865	0.835	0.752	0.9168	12.56
3)		propylene		0.505	0.507	0.462	0.434	0.430	0.418	0.374	0.4468	10.74
4)		propane		0.602	0.526	0.415	0.409	0.414	0.377	0.329	0.4390	21.26
5)		dichlorodifluoromethane	1.210	0.843	1.027	0.786	0.827	0.836	0.630	0.620	0.8474	23.04
6)	C	chloromethane	0.579	0.570	0.583	0.484	0.477	0.470	0.439	0.402	0.5007	13.72
7)		Freon-114	1.535	1.535	1.505	1.332	1.307	1.288	1.144	1.040	1.3358	13.73
8)	C	methanol			0.183	0.145	0.136	0.133	0.121	0.107	0.1374	18.95
9)	C	vinyl chloride	0.551	0.553	0.561	0.506	0.499	0.491	0.466	0.421	0.5059	9.52
10)	C	1,3-butadiene	0.420	0.425	0.400	0.374	0.371	0.367	0.342	0.305	0.3756	10.63
11)		butane	1.200	0.933	0.879	0.759	0.702	0.701	0.647	0.558	0.7974	25.42
12)	C	acetaldehyde	0.333	0.258	0.244	0.202	0.193	0.189	0.164	0.135	0.2147	28.80
13)	C	bromomethane	0.665	0.593	0.564	0.509	0.479	0.474	0.450	0.407	0.5176	16.27
14)	C	chloroethane	0.310	0.275	0.285	0.242	0.228	0.225	0.211	0.193	0.2463	16.31
15)		ethanol		0.331	0.307	0.294	0.268	0.270	0.241	0.203	0.2736	15.53
16)		dichlorofluoromethane	1.215	1.143	1.097	0.991	0.960	0.958	0.904	0.819	1.0108	12.98
17)	C	vinyl bromide	0.625	0.592	0.575	0.532	0.516	0.513	0.485	0.437	0.5345	11.38
18)	C	acrolein	0.208	0.219	0.223	0.219	0.206	0.203	0.192	0.176	0.2058	7.67
19)		acetone	0.941	0.861	0.813	0.715	0.694	0.668	0.622	0.536	0.7312	18.13
20)	C	acetonitrile	0.636	0.509	0.513	0.433	0.419	0.409	0.374	0.326	0.4524	21.46
21)		trichlorofluoromethane	1.697	1.464	1.431	1.292	1.270	1.241	1.173	1.065	1.3292	14.80
22)		isopropyl alcohol		1.121	1.098	0.897	0.846	0.836	0.785	0.706	0.8984	17.34
23)	C	acrylonitrile	0.384	0.473	0.442	0.377	0.374	0.370	0.352	0.324	0.3869	12.37
24)		pentane	1.332	1.081	0.971	0.869	0.823	0.796	0.763	0.677	0.9140	22.98
25)		ethyl ether	0.630	0.613	0.552	0.537	0.505	0.491	0.449	0.395	0.5217	15.16
26)	C	1,1-dichloroethene	1.012	0.922	0.920	0.841	0.800	0.793	0.742	0.670	0.8377	13.14
27)		tertiary butyl alcohol		1.215	1.218	1.046	1.004	0.982	0.938	0.851	1.0362	13.23
28)	C	methylene chloride		0.908	0.830	0.656	0.631	0.627	0.580	0.517	0.6782	20.58
29)	C	3-chloropropene	0.933	0.805	0.768	0.674	0.653	0.642	0.602	0.531	0.7010	18.22
30)	C	carbon disulfide	1.842	1.628	1.556	1.457	1.414	1.379	1.306	1.153	1.4669	14.33
31)		Freon 113	1.256	1.233	1.219	1.093	1.070	1.034	0.982	0.870	1.0947	12.36
32)		trans-1,2-dichloroethene	1.006	0.973	0.960	0.918	0.894	0.883	0.833	0.662	0.8911	12.10
33)	C	1,1-dichloroethane	1.327	1.164	1.197	1.085	1.052	1.045	0.977	0.891	1.0923	12.44
34)	C	MTBE	1.696	1.663	1.629	1.480	1.456	1.441	1.358	1.248	1.4963	10.45
35)	C	vinyl acetate	1.868	1.528	1.506	1.432	1.457	1.458	1.406	1.291	1.4933	11.21
36)	C	2-butanone	1.711	1.556	1.518	1.393	1.344	1.342	1.259	1.137	1.4075	12.88
37)		cis-1,2-dichloroethene	1.221	1.067	1.047	1.010	0.979	0.996	0.919	0.845	1.0106	10.95
38)		Ethyl Acetate	0.298	0.279	0.270	0.258	0.256	0.257	0.245	0.218	0.2601	9.04
39)	C	chloroform	1.723	1.619	1.576	1.416	1.405	1.395	1.307	1.171	1.4514	12.30
40)		Tetrahydrofuran	0.924	0.950	0.959	0.822	0.771	0.770	0.733	0.657	0.8233	13.44
41)		2,2-dichloropropane	1.416	1.374	1.344	1.169	1.146	1.152	1.087	0.982	1.2086	12.63
42)	C	1,2-dichloroethane	0.864	0.849	0.817	0.769	0.747	0.743	0.702	0.643	0.7666	9.79
43)	I	1,4-difluorobenzene	----------ISTD----------									

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1519055

Instrument ID: AIRPIANO1 Calibration Date(s): 07/10/15 07/10/15

Calibration Times: 14:43 18:30

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
44)	C	hexane	0.753	0.607	0.592	0.585	0.565	0.559	0.512	0.494	0.5834	13.50
45)		diisopropyl ether	0.300	0.279	0.262	0.255	0.245	0.244	0.232	0.226	0.2554	9.63
46)		tert-butyl ethyl ether	0.984	0.896	0.912	0.856	0.831	0.805	0.784	0.770	0.8547	8.50
47)	s	1,2-dichloroethane-D4	0.254	0.253	0.259	0.268	0.259	0.249	0.254	0.253	0.2560	2.30
48)	C	1,1,1-trichloroethane	0.616	0.564	0.570	0.543	0.526	0.523	0.505	0.506	0.5441	6.99
49)		1,1-dichloropropene	0.423	0.418	0.398	0.400	0.388	0.377	0.357	0.368	0.3910	5.97
50)	C	benzene	0.931	0.889	0.864	0.822	0.785	0.780	0.752	0.732	0.8195	8.55
51)		thiophene	0.533	0.532	0.549	0.521	0.507	0.502	0.484	0.468	0.5120	5.28
52)	C	carbon tetrachloride	0.522	0.532	0.552	0.556	0.562	0.560	0.548	0.539	0.5465	2.56
53)		cyclohexane	0.471	0.502	0.508	0.467	0.463	0.455	0.436	0.424	0.4656	6.25
54)		tert-amyl methyl ether	0.786	0.774	0.777	0.751	0.721	0.713	0.687	0.665	0.7342	6.09
55)		dibromomethane	0.413	0.356	0.343	0.327	0.326	0.322	0.310	0.304	0.3376	10.28
56)	C	1,2-dichloropropane	0.347	0.345	0.348	0.329	0.323	0.314	0.302	0.289	0.3248	6.83
57)		bromodichloromethane	0.703	0.652	0.636	0.620	0.608	0.596	0.584	0.571	0.6214	6.84
58)	C	1,4-dioxane	0.166	0.192	0.179	0.194	0.188	0.189	0.182	0.173	0.1828	5.35
59)	C	trichloroethene	0.504	0.456	0.428	0.435	0.415	0.411	0.390	0.369	0.4260	9.75
60)	C	2,2,4-trimethylpentane	1.801	1.707	1.608	1.547	1.499	1.465	1.384	1.295	1.5382	10.79
61)		methyl methacrylate	0.486	0.439	0.426	0.407	0.403	0.404	0.386	0.370	0.4152	8.65
62)		heptane	0.712	0.697	0.614	0.604	0.585	0.570	0.534	0.502	0.6022	12.13
63)	C	cis-1,3-dichloropropene	0.408	0.440	0.423	0.423	0.429	0.428	0.421	0.416	0.4237	2.24
64)	C	4-methyl-2-pentanone	0.804	0.891	0.815	0.808	0.777	0.772	0.699	0.674	0.7800	8.79
65)		trans-1,3-dichloropropene	0.355	0.379	0.407	0.421	0.420	0.426	0.423	0.425	0.4071	6.41
66)	C	1,1,2-trichloroethane	0.391	0.380	0.366	0.364	0.355	0.349	0.334	0.326	0.3582	6.08
67)	I	chlorobenzene-D5	----------ISTD----------									
68)	C	toluene	6.192	6.247	5.772	5.458	5.464	5.429	5.212	4.953	5.5908	8.10
69)	s	toluene-D8	3.992	4.043	4.001	3.944	4.040	4.037	4.104	4.027	4.0235	1.15
70)		2-methylthiophene	5.194	4.922	4.967	4.483	4.514	4.507	4.383	4.128	4.6371	7.65
71)		1,3-dichloropropane	2.590	2.427	2.350	2.275	2.286	2.277	2.204	2.099	2.3135	6.38
72)		2-hexanone	4.268	4.054	4.117	3.840	3.940	3.889	3.538	2.984	3.8287	10.55
73)		3-methylthiophene	5.380	5.141	5.067	4.633	4.664	4.749	4.503	4.086	4.7779	8.55
74)		dibromochloromethane	3.727	3.595	3.633	3.646	3.748	3.795	3.687	3.553	3.6730	2.22
75)	C	1,2-dibromoethane	3.297	3.026	3.119	3.100	3.075	3.064	3.005	2.844	3.0662	4.13
76)		butyl acetate	0.372	0.451	0.534	0.507	0.530	0.525	0.501	0.478	0.4873	11.14
77)		octane	1.704	1.582	1.547	1.419	1.426	1.409	1.373	1.280	1.4677	9.18
78)	C	tetrachloroethene	3.551	3.334	3.128	2.978	3.002	2.961	2.850	2.630	3.0543	9.34
79)		1,1,1,2-tetrachloroethane	2.623	2.569	2.582	2.453	2.501	2.496	2.398	2.184	2.4757	5.59
80)	C	chlorobenzene	5.350	5.018	4.948	4.588	4.645	4.636	4.350	3.913	4.6809	9.36
81)	C	ethylbenzene	8.264	7.726	7.482	7.067	7.108	7.098	6.738	6.187	7.2087	8.72
82)		2-ethylthiophene	5.756	5.807	5.641	5.267	5.252	5.341	5.056	4.646	5.3457	7.27
83)	C	m+p-xylene	6.271	5.962	5.790	5.453	5.526	5.483	5.096	4.560	5.5175	9.54
84)	C	bromoform	3.777	3.677	3.820	3.863	4.063	4.151	3.928	3.564	3.8554	5.00
85)	C	styrene	4.782	4.563	4.607	4.432	4.478	4.511	4.298	3.929	4.4500	5.67
86)	C	1,1,2,2-tetrachloroethane	4.739	4.433	4.248	4.191	4.174	4.158	3.731	3.141	4.1018	11.71
87)	C	o-xylene	6.403	6.059	5.988	5.665	5.576	5.651	5.023	4.348	5.5892	11.54
88)		1,2,3-trichloropropane	3.213	3.140	3.131	3.028	3.058	3.035	2.890	2.701	3.0245	5.36
89)		nonane	5.369	4.928	4.766	4.520	4.499	4.375	3.813	3.081	4.4188	15.90
90)	s	bromofluorobenzene	2.887	2.913	2.906	2.862	2.924	2.962	2.921	2.926	2.9127	1.02

6A

VOLATILE ORGANICS ORGANICS INITIAL CALIBRATION DATA

Lab Name: Alpha Analytical Labs

SDG No.: L1519055

Instrument ID: AIRPIANO1 Calibration Date(s): 07/10/15 07/10/15

Calibration Times: 14:43 18:30

		Compound	0.2	0.5	1.0	5.0	10	20	50	100	Avg	%RSD
91)	C	isopropylbenzene	8.909	8.285	8.147	7.789	7.832	7.728	7.204	6.607	7.8128	8.88
92)		bromobenzene	4.395	4.000	3.893	3.756	3.699	3.733	3.541	3.251	3.7836	8.85
93)		2-chlorotoluene	2.676	2.463	2.361	2.273	2.281	2.255	2.115	1.896	2.2901	10.06
94)		n-propylbenzene	2.737	2.444	2.493	2.355	2.328	2.308	2.127	1.818	2.3264	11.60
95)		4-chlorotoluene	6.629	6.416	6.137	5.899	5.768	5.733	5.428	4.912	5.8652	9.31
96)		4-ethyl toluene	9.567	9.343	9.208	8.887	9.004	8.784	8.123	7.202	8.7647	8.73
97)		1,3,5-trimethylbenzene	7.912	7.442	7.285	6.937	6.951	6.679	6.417	5.754	6.9220	9.56
98)		tert-butylbenzene	8.729	8.247	8.034	7.516	7.564	7.188	6.456	5.533	7.4084	13.83
99)		1,2,4-trimethylbenzene	7.606	7.361	7.331	6.943	7.052	6.614	6.027	5.097	6.7539	12.32
100)		decane	4.999	4.885	5.019	4.775	4.691	4.399	4.077	3.363	4.5260	12.54
101)	C	Benzyl Chloride	4.956	5.179	5.334	5.623	6.076	6.072	6.056	5.589	5.6106	7.74
102)		1,3-dichlorobenzene	5.746	5.659	5.733	5.420	5.526	5.192	4.813	4.170	5.2821	10.38
103)	C	1,4-dichlorobenzene	5.709	5.864	5.782	5.568	5.508	5.296	4.900	4.224	5.3564	10.29
104)		sec-butylbenzene	1.120	1.097	1.065	1.022	1.012	0.954	0.866	0.713	0.9812	13.80
105)		1,2,3-trimethylbenzene	6.855	6.724	6.665	6.256	6.158	5.908	5.537	4.773	6.1095	11.44
106)		p-isopropyltoluene	9.834	9.862	9.776	9.434	9.498	8.656	8.224	6.999	9.0354	11.22
107)		1,2-dichlorobenzene	5.398	5.456	5.461	5.215	5.263	4.929	4.840	4.353	5.1145	7.53
108)		n-butylbenzene	8.265	8.467	8.428	8.318	8.329	7.527	7.295	6.478	7.8883	9.11
109)		indan	7.407	7.684	7.437	6.955	6.992	6.724	6.463	5.681	6.9180	9.26
110)		indene	4.732	4.770	4.816	4.625	4.663	4.571	4.514	4.164	4.6069	4.46
111)	C	1,2-dibromo-3-chloropropane	1.761	1.839	1.812	1.881	1.980	1.745	1.869	1.763	1.8315	4.31
112)		undecane	4.455	5.081	5.274	5.640	5.736	4.489	4.598	3.862	4.8918	13.28
113)		1,2,4,5-tetramethylbenzene	1.157	1.230	1.229	1.233	1.240	0.986	1.050	0.940	1.1332	10.87
114)		dodecane	2.165	2.996	4.182	6.092	6.424	3.795	3.801	3.077	4.0664	36.67#
115)	C	1,2,4-trichlorobenzene	3.488	3.982	4.274	4.986	5.253	3.545	3.914	3.702	4.1430	15.85
116)		naphthalene	0.722	0.869	0.928	1.072	1.148	0.734	0.880	0.882	0.9045	16.34
117)		1,2,3-trichlorobenzene	3.054	3.685	4.083	4.632	4.983	3.050	3.631	3.758	3.8596	17.80
118)		benzothiophene	6.909	8.033	8.573	9.253	9.906	7.142	8.613	8.620	8.3810	11.98
119)	C	hexachlorobutadiene	3.246	3.766	3.915	4.230	4.398	2.913	3.297	3.120	3.6106	15.09
120)		2-methylnaphthalene			1.867	3.752	4.541	2.748	3.375	3.902	3.3639	28.03
121)		1-methylnaphthalene			2.622	3.499	3.937	2.681	3.248	3.705	3.2822	16.43

FORM VI-TO15-LL

7A
Volatile Organics CONTINUING CALIBRATION CHECK

Lab Name: Alpha Analytical Labs

SDG No.: L1519055

Instrument ID: AIRPIANO1 Calibration Date: 08/11/2015 Time: 11:26

Lab File ID: R143358 Init. Calib. Date(s): 07/10/15 07/10/15

Sample No: WG811107-2,3,25 Init. Calib. Times : 14:43 18:30

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	bromochloromethane	1.000	1.000	0.0	89	0.00
2		chlorodifluoromethane	0.917	0.900	1.9	92	0.00
3		propylene	0.447	0.452	-1.1	93	0.00
4		propane	0.439	0.406	7.5	88	0.00
5		dichlorodifluoromethane	0.847	0.748	11.7	81	0.00
6	C	chloromethane	0.501	0.506	-1.0	94	0.00
7		Freon-114	1.336	1.386	-3.7	94	0.00
8	C	methanol	0.137	0.150	-9.5	98	0.00
9	C	vinyl chloride	0.506	0.527	-4.2	94	0.00
10	C	1,3-butadiene	0.376	0.393	-4.5	94	0.00
11		butane	0.797	0.787	1.3	100	0.00
13	C	bromomethane	0.518	0.517	0.2	96	0.00
14	C	chloroethane	0.246	0.249	-1.2	97	0.00
15		ethanol	0.274	0.294	-7.3	98	0.00
16		dichlorofluoromethane	1.011	1.030	-1.9	95	0.00
17	C	vinyl bromide	0.534	0.534	0.0	92	0.00
18	C	acrolein	0.206	0.222	-7.8	96	0.00
19		acetone	0.731	0.755	-3.3	97	0.00
20	C	acetonitrile	0.452	0.466	-3.1	99	0.00
21		trichlorofluoromethane	1.329	1.318	0.8	92	0.00
22		isopropyl alcohol	0.898	0.941	-4.8	99	0.00
23	C	acrylonitrile	0.387	0.413	-6.7	98	0.00
24		pentane	0.914	0.908	0.7	98	0.00
25		ethyl ether	0.522	0.549	-5.2	97	0.00
26	C	1,1-dichloroethene	0.838	0.832	0.7	93	0.00
27		tertiary butyl alcohol	1.036	1.049	-1.3	93	0.00
28	C	methylene chloride	0.678	0.706	-4.1	100	0.00
29	C	3-chloropropene	0.701	0.706	-0.7	96	0.00
30	C	carbon disulfide	1.467	1.472	-0.3	93	0.00
31		Freon 113	1.095	1.108	-1.2	92	0.00
32		trans-1,2-dichloroethene	0.891	0.816	8.4	81	0.00
33	C	1,1-dichloroethane	1.092	0.975	10.7	83	0.00
34	C	MTBE	1.496	1.326	11.4	81	0.00
35	C	vinyl acetate	1.493	1.291	13.5	79	0.00
36	C	2-butanone	1.407	1.218	13.4	81	0.00
37		cis-1,2-dichloroethene	1.011	1.001	1.0	91	0.00
38		Ethyl Acetate	0.260	0.251	3.5	87	0.00
39	C	chloroform	1.451	1.424	1.9	90	0.00
40		Tetrahydrofuran	0.823	0.801	2.7	92	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143358.D
Acq On : 11 Aug 2015 11:26 am
Operator : AIRPIANO1:MB
Sample : WG811107-2,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 11 11:56:27 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41		2,2-dichloropropane	1.209	1.140	5.7	89	0.00
42	C	1,2-dichloroethane	0.767	0.733	4.4	87	0.00
43	I	1,4-difluorobenzene	1.000	1.000	0.0	88	0.00
44	C	hexane	0.583	0.571	2.1	88	0.00
45		diisopropyl ether	0.255	0.246	3.5	88	0.00
46		tert-butyl ethyl ether	0.855	0.845	1.2	89	0.00
48	C	1,1,1-trichloroethane	0.544	0.538	1.1	90	0.00
49		1,1-dichloropropene	0.391	0.378	3.3	85	0.00
50	C	benzene	0.819	0.798	2.6	89	0.00
52	C	carbon tetrachloride	0.547	0.563	-2.9	88	0.00
53		cyclohexane	0.466	0.463	0.6	87	0.00
54		tert-amyl methyl ether	0.734	0.717	2.3	87	0.00
55		dibromomethane	0.338	0.328	3.0	88	0.00
56	C	1,2-dichloropropane	0.325	0.319	1.8	86	0.00
57		bromodichloromethane	0.621	0.606	2.4	87	0.00
58	C	1,4-dioxane	0.183	0.189	-3.3	88	0.00
59	C	trichloroethene	0.426	0.426	0.0	90	0.00
60	C	2,2,4-trimethylpentane	1.538	1.497	2.7	87	0.00
61		methyl methacrylate	0.415	0.398	4.1	86	0.00
62		heptane	0.602	0.571	5.1	85	0.00
63	C	cis-1,3-dichloropropene	0.424	0.414	2.4	84	0.00
64	C	4-methyl-2-pentanone	0.780	0.785	-0.6	88	0.00
65		trans-1,3-dichloropropene	0.407	0.414	-1.7	86	0.00
66	C	1,1,2-trichloroethane	0.358	0.360	-0.6	89	0.00
67	I	chlorobenzene-D5	1.000	1.000	0.0	88	0.00
68	C	toluene	5.591	5.436	2.8	88	0.00
71		1,3-dichloropropane	2.313	2.271	1.8	88	0.00
72		2-hexanone	3.829	3.936	-2.8	88	0.00
74		dibromochloromethane	3.673	3.776	-2.8	89	0.00
75	C	1,2-dibromoethane	3.066	3.092	-0.8	89	0.00
76		butyl acetate	0.487	0.509	-4.5	85	0.00
77		octane	1.468	1.417	3.5	88	0.00
78	C	tetrachloroethene	3.054	3.013	1.3	89	0.00
79		1,1,1,2-tetrachloroethane	2.476	2.447	1.2	86	0.00
80	C	chlorobenzene	4.681	4.597	1.8	87	0.00
81	C	ethylbenzene	7.209	7.033	2.4	87	0.00
83	C	m+p-xylene	5.518	5.426	1.7	87	0.00

Evaluate Continuing Calibration Report

Data Path : O:\Forensics\Data\AIR1\2015\150811T\
Data File : R143358.D
Acq On : 11 Aug 2015 11:26 am
Operator : AIRPIANO1:MB
Sample : WG811107-2,3,250,250
Misc : WG811107,ICAL11250
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 11 11:56:27 2015
Quant Method : O:\Forensics\Data\AIR1\2015\150811T\TALL150710.M
Quant Title : TO-14A/TO-15 SIM/Full Scan Analysis
QLast Update : Sat Jul 11 08:48:29 2015

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
84	C	bromoform	3.855	3.897	-1.1	85	0.00
85	C	styrene	4.450	4.331	2.7	85	0.00
86	C	1,1,2,2-tetrachloroethane	4.102	4.216	-2.8	89	0.00
87	C	o-xylene	5.589	5.569	0.4	88	0.00
88		1,2,3-trichloropropane	3.025	3.014	0.4	87	0.00
89		nonane	4.419	4.321	2.2	85	0.00
91	C	isopropylbenzene	7.813	7.717	1.2	87	0.00
92		bromobenzene	3.784	3.700	2.2	88	0.00
93		2-chlorotoluene	2.290	2.273	0.7	88	0.00
94		n-propylbenzene	2.326	2.336	-0.4	89	0.00
95		4-chlorotoluene	5.865	5.724	2.4	88	0.00
96		4-ethyl toluene	8.765	8.556	2.4	84	0.00
97		1,3,5-trimethylbenzene	6.922	6.835	1.3	87	0.00
98		tert-butylbenzene	7.408	7.468	-0.8	87	0.00
99		1,2,4-trimethylbenzene	6.754	6.917	-2.4	87	0.00
100		decane	4.526	4.561	-0.8	86	0.00
101	C	Benzyl Chloride	5.611	5.669	-1.0	82	0.00
102		1,3-dichlorobenzene	5.282	5.431	-2.8	87	0.00
103	C	1,4-dichlorobenzene	5.356	5.513	-2.9	88	0.00
104		sec-butylbenzene	9.812	10.083	-2.8	88	0.00
106		p-isopropyltoluene	9.035	9.387	-3.9	87	0.00
107		1,2-dichlorobenzene	5.115	5.170	-1.1	87	0.00
108		n-butylbenzene	7.888	8.149	-3.3	86	0.00
111	C	1,2-dibromo-3-chloropropane	1.831	1.760	3.9	78	0.00
112		undecane	4.892	5.284	-8.0	81	0.00
114		dodecane	4.066	5.430	-33.5#	75	0.00
115	C	1,2,4-trichlorobenzene	4.143	4.815	-16.2	81	0.00
116		naphthalene	9.045	10.559	-16.7	81	0.00
117		1,2,3-trichlorobenzene	3.860	4.375	-13.3	78	0.00
119	C	hexachlorobutadiene	3.611	3.982	-10.3	80	0.00

* Evaluation of CC level amount vs concentration.

FORM VII TO15-LL

Sample Preparation

Alpha Analytical Air Lab
Instrument Run Log

Instrument ID: AIRLAB 11

Internal Standard/Surrogate IDs: CSS15-013 / CSS14-015

Date: 09/02/15

Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: RY

Sequence File Name: 150902.S

Full Scan ICAL# 11393 SIM ICAL# TO-15 NJ ICAL # APH ICAL# 10829

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/ sublist	Leak Check Pass ? Y/N
1	TA11090201	TO15_SFS	R1111392	250mL	TUNE		NA
2	CA11090201	TO15_SFS	R1111393	SS15-024F 250ML	CC		NA
		Pause					NA
3	CTO15-LLSTD10	TO15_SFS	R1111394	250mL SS15-026B	LCS		NA
1	BA11090201	TO15_SFS	R1111395	250mL	BLANK FAILED		NA
1	BA11090202	TO15_SFS	R1111396	250mL	BLANK		NA
13	L1520876-04,3,250,250	TO15_SFS	R1111397	WG817978,ICAL11393		9 CL	Y
14	L1520876-01,3,250,250	TO15_SFS	R1111398	WG817978,ICAL11393		9 CL	Y
15	L1520876-02,3,250,250	TO15_SFS	R1111399	WG817978,ICAL11393		9 CL	Y
16	L1520876-03,3,250,250	TO15_SFS	R1111400	WG817978,ICAL11393		9 CL	Y
1	L1521092-01D,3,114.0203,250	TO15_SFS	R1111401	WG817978,ICAL11393		NJ-NEW	Y
1	L1521092-01DDUP,3,114.0203,250	TO15_SFS	R1111402	WG817978,ICAL11393	NJ TO15 DUP	NJ-NEW	Y
2	L1521092-02D,3,115.7095,250	TO15_SFS	R1111403	WG817978,ICAL11393		NJ-NEW	Y
3	L1521092-03D,3,115.7095,250	TO15_SFS	R1111404	WG817978,ICAL11393		NJ-NEW	Y
4	L1521092-04D,3,56.3973,250	TO15_SFS	R1111405	WG817978,ICAL11393		NJ-NEW	Y
5	L1521092-05D,3,55.3691,250	TO15_SFS	R1111406	WG817978,ICAL11393		NJ-NEW	Y
6	L1521092-06D,3,114.8649,250	TO15_SFS	R1111407	WG817978,ICAL11393		NJ-NEW	Y
7	L1521092-07D,3,114.0203,250	TO15_SFS	R1111408	WG817978,ICAL11393		NJ-NEW	Y
8	L1521092-08D,3,114.8649,250	TO15_SFS	R1111409	WG817978,ICAL11393		NJ-NEW	Y
9	L1521092-09D,3,114.0203,250	TO15_SFS	R1111410	WG817978,ICAL11393		NJ-NEW	Y
10	L1521092-10D,3,117.4497,250	TO15_SFS	R1111411	WG817978,ICAL11393		NJ-NEW	Y
11	L1521041-02,3,250,250	TO15_SFS	R1111412	WG817976,ICAL11393		MCP-TO15	Y

Alpha Analytical Air Lab
Instrument Run Log

12	L1521041-01D,3,2.5074,250	TO15_SFS	R1111413	WG817976,ICAL11393		MCP-TO15	Y
12	L1521041-01DDUP,3,2.5074,250	TO15_SFS	R1111414	WG817976,ICAL11393	MCP-TO15 DUP	MCP-TO15	Y

Data File Path: refer to quantitation report header section and/or chromatogram

Column ID: Rtx-1 0.25 mm ID

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,250 { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume analyzed (mL) }

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Alpha Analytical Air Lab
Instrument Run Log

Instrument ID: Airpiano 1

Internal Standard/Surrogate IDs: CSS15-014 / CSS14-015

Date: 08/18/15

Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: MB

Sequence File Name: 150818.S

SIM ICAL# 11251 PIANO ICAL # 11244 Full Scan ICAL# 11250 APH ICAL# 11252

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/sublist	Leak Check Pass ? Y/N
1	TA1081801	TO15_SFS	R143499	250ml	TUNE		NA
2	CAPH10-STD10.0	TO15_SFS	R143500	SS15-017B1 125ML 10.0	APH CC		NA
		Pause					
4	CA1081801	TO15_SFS	R143501	SS15-014B2 250ML 10.0	LL CC		NA
		Pause					
3	CTO15-LLSTD10.0	TO15_SFS	R143502	SS15-018D 250ML 10.0	APH / LL LCS		NA
3	CTO15-SIMSTD5.0	TO15_SFS	R143503	SS15-018D 125ML 5.0	SIM LCS		NA
1	BA1081801	TO15_SFS	R143504	250ml	LL BLANK		NA
1	BA1081802	TO15_SFS	R143505	250ml	SIM BLANK		NA
		Pause					
2	L1519788-01,3,250,250	TO15_SFS	R143506	WG813182,ICAL11250		A, LL, SIM	NA
3	L1519788-02,3,250,250	TO15_SFS	R143507	WG813182,ICAL11250		A, LL, SIM	NA
4	L1519787-01,3,250,250	TO15_SFS	R143508	WG813182,ICAL11250		A, LL, SIM	NA
5	L1519787-02,3,250,250	TO15_SFS	R143509	WG813182,ICAL11250		A, LL, SIM	NA
6	L1519669-01,3,250,250	TO15_SFS	R143510	WG813182,ICAL11250		NY	Y
7	L1519577-01D,3,88.6824,250	TO15_SFS	R143511	WG813182,ICAL11250		NY	Y
7	L1519577-01DDUP,3,88.6824,250	TO15_SFS	R143512	WG813182,ICAL11250	TO15-LL DUP	NY	Y
8	L1519577-02D,3,17.5084,250	TO15_SFS	R143513	WG813182,ICAL11250		NY	Y
9	L1519577-03D,3,33.5570,250	TO15_SFS	R143514	WG813182,ICAL11250		NY	Y
10	L1519577-04D,3,34.1216,250	TO15_SFS	R143515	WG813182,ICAL11250		NY	Y
11	L1519577-05D,3,86.1486,250	TO15_SFS	R143516	WG813182,ICAL11250		NY	Y
12	L1519671-02D,3,110.2694,250	TO15_SFS	R143517	WG813182,ICAL11250		NY	Y

Alpha Analytical Air Lab
Instrument Run Log

13	L1519671-01D,3,0.5614,250	TO15_SFS	R143518	WG813182,ICAL11250		NY	Y
14	L1519650-01D,3,2.1627,250	TO15_SFS	R143519	WG813182,ICAL11250	OVERDILUTED	APH / STD+NAPH	Y
14	L1519650-01DDUP,3,2.1627,250	TO15_SFS	R143520	WG813182,ICAL11250	OVERDILUTED	APH / STD+NAPH	Y
1	BA1081803	TO15_SFS	R143521	250ml			NA
2	L1519947-01,3,250,250	TO15_SFS	R143522	WG813182,ICAL11250		A, LL, SIM	NA
3	L1519947-02,3,250,250	TO15_SFS	R143523	WG813182,ICAL11250		A, LL, SIM	NA
14	L1519650-01D,3,4.3253,250	TO15_SFS	R143524	WG813182,ICAL11250		APH / STD+NAPH	Y
14	L1519650-01DDUP,3,4.3253,250	TO15_SFS	R143525	WG813182,ICAL11250	APH DUP	APH / STD+NAPH	Y

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,2 { Lab sample ID, dept #, actual volume analyzed (mL), nominal volume analyzed (mL) }

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Alpha Analytical Air Lab
Instrument Run Log

Instrument ID: Airpiano 1

Internal Standard/Surrogate IDs: CSS15-014 / CSS14-015

Date: 08/11/15

Internal Standard/Surrogate Volume: 100 ml

Analyst Initials: MB

Sequence File Name: 150811.S

SIM ICAL# 11251 PIANO ICAL # 11244 Full Scan ICAL# 11250 APH ICAL# 11252

AS Position #	Sample ID	Acquisition Method	Data File ID	Standard ID or Batch ID #, ICAL Ref #	Comment (s)	Product/sublist	Leak Check Pass ? Y/N
1	TA1081101	TO15_SFS	R143357	250ml	TUNE		NA
2	CA1081101	TO15_SFS	R143358	SS15-014B2 250ml 10.0	LL CC		NA
		Pause					
3	CAPH-10STD10.0	TO15_SFS	R143359	SS15-017B2 125ML 10.0	APH CC		NA
4	CTO15-LLSTD10.0	TO15_SFS	R143360	SS15-018D 250ML 10.0	APH / LL LCS		NA
4	CTO15-SIMSTD5.0	TO15_SFS	R143361	SS15-018D 125ML 5.0	SIM LCS		NA
1	BA1081101	TO15_SFS	R143362	250ml	LL BLANK		NA
1	BA1081102	TO15_SFS	R143363	250ml	SIM BLANK		NA
2	L1519066-01,3,250,250	TO15_SFS	R143364	WG811108,ICAL11250	WITH SURROGATES	KEYSPAN	NA
2	L1519066-01,3,250,250	TO15_SFS	R143365	WG811107,ICAL11250	WITHOUT SURROGATES	APH/ LL/ SIM	NA
3	L1519066-02,3,250,250	TO15_SFS	R143366	WG811108,ICAL11250	WITH SURROGATES	KEYSPAN	NA
3	L1519066-02,3,250,250	TO15_SFS	R143367	WG811107,ICAL11250	WITHOUT SURROGATES	APH/ LL/ SIM	NA
4	L1519055-01,3,250,250	TO15_SFS	R143368	WG811108,ICAL11250	WITH SURROGATES	KEYSPAN	NA
4	L1519055-01,3,250,250	TO15_SFS	R143369	WG811107,ICAL11250	WITHOUT SURROGATES	APH/ LL/ SIM	NA
5	L1519055-02,3,250,250	TO15_SFS	R143370	WG811107,ICAL11250		APH/ LL/ SIM	NA
6	L1518957-05,3,250,250	TO15_SFS	R143371	WG811105,ICAL11250		NJ_NEW	Y
7	L1518957-01,3,250,250	TO15_SFS	R143372	WG811105,ICAL11250		NJ_NEW	Y
7	L1518957-01DUP,3,250,250	TO15_SFS	R143373	WG811105,ICAL11250	NJ-TO15 DUP	NJ_NEW	Y
8	L1518957-02,3,250,250	TO15_SFS	R143374	WG811105,ICAL11250		NJ_NEW	Y
9	L1518957-03,3,250,250	TO15_SFS	R143375	WG811105,ICAL11250		NJ_NEW	Y
10	L1518957-04,3,250,250	TO15_SFS	R143376	WG811105,ICAL11250		NJ_NEW	Y

Alpha Analytical Air Lab
Instrument Run Log

11	L1518967-01,3,250,250	TO15_SFS	R143377	WG811104,ICAL11250		MCP-TO15	Y
12	L1518967-02,3,250,250	TO15_SFS	R143378	WG811104,ICAL11250		MCP-TO15	Y
13	L1518946-01,3,250,250	TO15_SFS	R143379	WG811103,ICAL11252		APH	Y
14	L1518621-01D,3,95.6376,250	TO15_SFS	R143380	WG811105,ICAL11250		NJ_NEW	Y
15	L1518567-01,3,250,250	TO15_SFS	R143381	WG811103,ICAL11252		APH	Y
16	L1518780-01,3,250,250	TO15_SFS	R143382	WG811103,ICAL11252		APH	Y
1	L1518802-01D,3,175,250	TO15_SFS	R143383	WG811103,ICAL11252		APH / MCP	Y
1	L1518802-01DDUP,3,175,250	TO15_SFS	R143384	WG811103,ICAL11252	APH / MCP-TO15 DUP	APH / MCP	Y

Date(s) of Initial Calibration: Refer to Initial Calibration Summary Form 6

Date Acquired: see Instrument Performance Check Summary and/or quantitation report.

Sample ID information: L1301234-01,3,250,2{ Lab sample ID, dept #, actual volume analyzed (mL), nominal volume analyzed (mL) }

Dilution Factor: See Form 1 report, or divide nominal volume by actual volume analyzed

Project Name: US1 CLEANERS-TELLURIAN

Lab Number: L1521092

Project Number: 0809-15

Report Date: 09/04/15

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1521092-01	UPS-SS-2	0506	SV200	08/26/15	208634		-	-	-	Pass	220	217	1
L1521092-01	UPS-SS-2	564	1.0L Can	08/26/15	208634	L1519787-02	Pass	-29.5	-0.7	-	-	-	-
L1521092-02	KUMON-SS-1	0508	SV200	08/26/15	208634		-	-	-	Pass	214	214	0
L1521092-02	KUMON-SS-1	662	1.0L Can	08/26/15	208634	L1519787-02	Pass	-29.4	0.1	-	-	-	-
L1521092-03	KUMON-SS-2	0514	SV200	08/26/15	208634		-	-	-	Pass	215	215	0
L1521092-03	KUMON-SS-2	735	1.0L Can	08/26/15	208634	L1519787-02	Pass	-29.5	0.2	-	-	-	-
L1521092-04	PNC-SS-1	0540	SV200	08/26/15	208634		-	-	-	Pass	223	218	2
L1521092-04	PNC-SS-1	1933	1.0L Can	08/26/15	208634	L1519055-02	Pass	-29.3	-0.9	-	-	-	-
L1521092-05	PNC-SS-2	0687	SV200	08/26/15	208634		-	-	-	Pass	220	214	3
L1521092-05	PNC-SS-2	854	1.0L Can	08/26/15	208634	L1519787-02	Pass	-29.5	-0.9	-	-	-	-
L1521092-06	OMF-SS-2	0566	SV200	08/26/15	208634		-	-	-	Pass	219	213	3
L1521092-06	OMF-SS-2	1951	1.0L Can	08/26/15	208634	L1519787-02	Pass	-29.6	-0.2	-	-	-	-
L1521092-07	BS-SS-2	0527	SV200	08/26/15	208634		-	-	-	Pass	220	213	3
L1521092-07	BS-SS-2	714	1.0L Can	08/26/15	208634	L1519055-02	Pass	-29.5	-0.3	-	-	-	-
L1521092-08	BS-SS-1	0669	SV200	08/26/15	208634		-	-	-	Pass	218	216	1

Project Name: US1 CLEANERS-TELLURIAN

Lab Number: L1521092

Project Number: 0809-15

Report Date: 09/04/15

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1521092-08	BS-SS-1	1918	1.0L Can	08/26/15	208634	L1519787-02	Pass	-29.1	-0.1	-	-	-	-
L1521092-09	UPS-SS-1	0692	SV200	08/26/15	208634		-	-	-	Pass	223	147	41
L1521092-09	UPS-SS-1	716	1.0L Can	08/26/15	208634	L1519787-02	Pass	-29.5	-0.3	-	-	-	-
L1521092-10	OMF-SS-1	0564	SV200	08/26/15	208634		-	-	-	Pass	214	206	4
L1521092-10	OMF-SS-1	1959	1.0L Can	08/26/15	208634	L1519787-02	Pass	-29.4	-0.2	-	-	-	-

Alpha Analytical, Inc.
Canister Dilution Worksheet

	NJDEP Required Information							Pressurization Dilution				Can Dilution				Instrument Dilution				
Sample ID	Can size, L	P_1, in Hg	P_1, atm	V_1, L	P_2, in Hg	P_2, atm	V_2, L	P_1, psia	P_2, psia	Dilution factor	Gas Used*	Volume injected, mL	Final Pressure, psia	Volume of Dilution Gas in Can, L	Can dilution factor	Volume of Bag or Can Analyzed, mL	Instrument Dilution Factor	Final Dilution Factor	Final Volume Injected, mL	Analyst Initials
L1521092-01D	1.0	-2.39	0.92	0.92	30.47	2.02	2.02	13.5	29.6	2.19	N2	1000	14.7	1.00	1.00	250	1.00	2.19	114.0203	MJB
L1521092-02D	1.0	-1.98	0.93	0.93	30.47	2.02	2.02	13.7	29.6	2.16	N2	1000	14.7	1.00	1.00	250	1.00	2.16	115.7095	MJB
L1521092-03D	1.0	-1.98	0.93	0.93	30.47	2.02	2.02	13.7	29.6	2.16	N2	1000	14.7	1.00	1.00	250	1.00	2.16	115.7095	MJB
L1521092-04D	1.0	-2.59	0.91	0.91	30.67	2.02	2.02	13.4	29.7	2.22	N2	1000	14.7	1.00	1.00	125	2.00	4.43	56.3973	MJB
L1521092-05D	1.0	-3.00	0.90	0.90	30.88	2.03	2.03	13.2	29.8	2.26	N2	1000	14.7	1.00	1.00	125	2.00	4.52	55.3691	MJB
L1521092-06D	1.0	-2.18	0.93	0.93	30.47	2.02	2.02	13.6	29.6	2.18	N2	1000	14.7	1.00	1.00	250	1.00	2.18	114.8649	MJB
L1521092-07D	1.0	-2.39	0.92	0.92	30.47	2.02	2.02	13.5	29.6	2.19	N2	1000	14.7	1.00	1.00	250	1.00	2.19	114.0203	MJB
L1521092-08D	1.0	-2.18	0.93	0.93	30.47	2.02	2.02	13.6	29.6	2.18	N2	1000	14.7	1.00	1.00	250	1.00	2.18	114.8649	MJB
L1521092-09D	1.0	-2.39	0.92	0.92	30.47	2.02	2.02	13.5	29.6	2.19	N2	1000	14.7	1.00	1.00	250	1.00	2.19	114.0203	MJB
L1521092-10D	1.0	-1.37	0.95	0.95	30.88	2.03	2.03	14.0	29.8	2.13	N2	1000	14.7	1.00	1.00	250	1.00	2.13	117.4497	MJB

*N2 = Nitrogen and H2= Hydrogen

Analyst data input fields

Analyst Comments:

in Hg = ((psia/14.67)*29.94)-29.94 atm =psia/14.67 psig=psia - 14.67 psia = dilution instrument reading

Form# 117-05
09/03/2015 17:13:26

Screening Data

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1521092\
Data File : R516387.D
Acq On : 1 Sep 2015 11:33 pm
Operator : AIRLAB5:MB
Sample : L1521092-01S,3,25,250
Misc : WG817978
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 02 11:35:10 2015
Quant Method : C:\msdchem\1\METHODS\TO15_QUI.M
Quant Title : TO-15 Screen Method
QLast Update : Tue Jul 14 11:12:24 2015
Response via : Initial Calibration

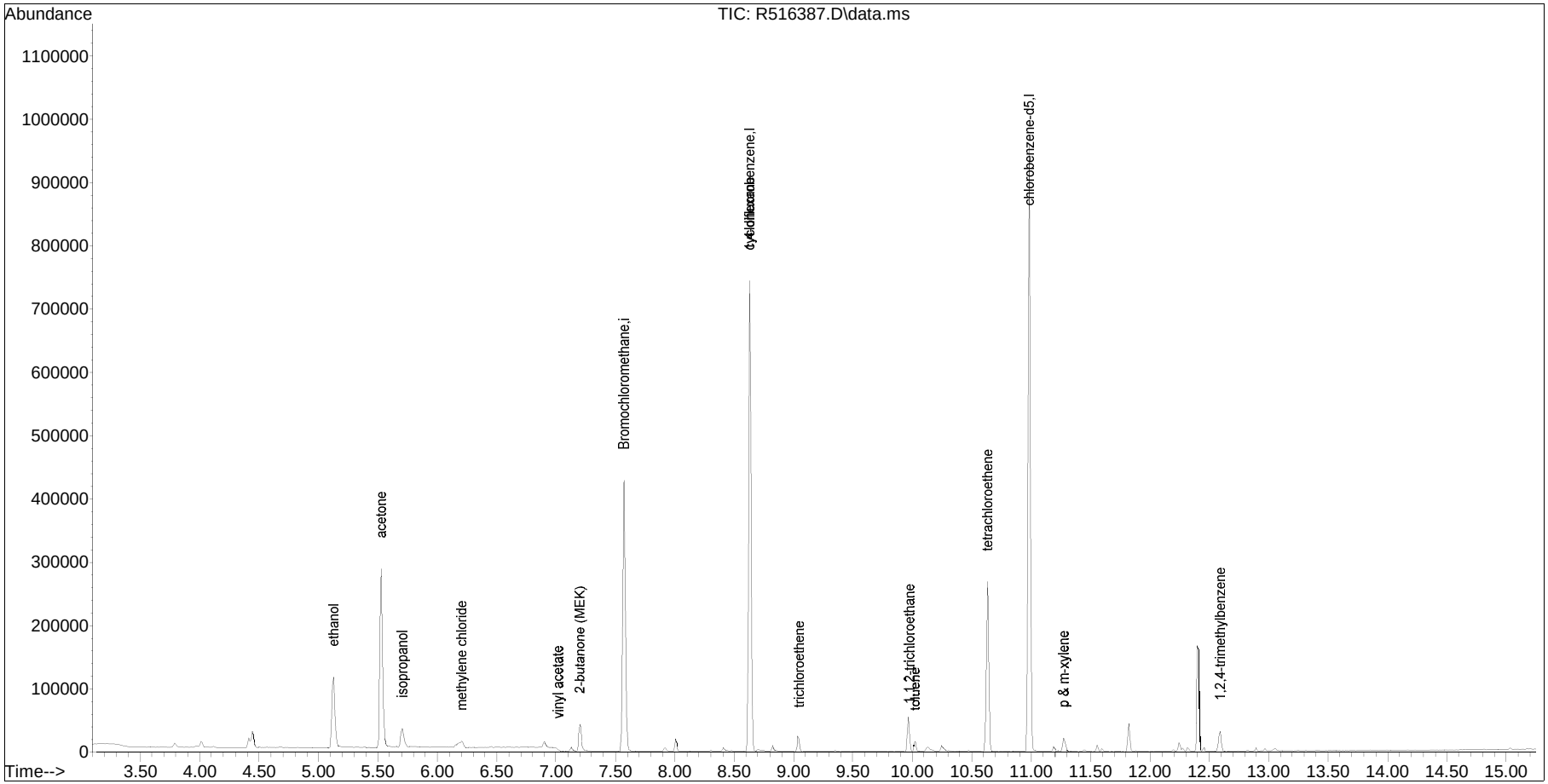
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	7.571	49	158175	10.00	ppbV		0.00
33) 1,4-difluorobenzene	8.628	114	415951	10.00	ppbV		0.00
48) chlorobenzene-d5	10.983	54	97099	10.00	ppbV		0.00
System Monitoring Compounds							
31) 1,2-dichloroethane-d4	0.000	65	0	0.00	ppbV		
49) toluene-d8	0.000	98	0	0.00	ppbV		
Target Compounds							Qvalue
10) ethanol	5.127	31	79276	11.10	ppbV		91
13) acetone	5.525	43	269789	15.74	ppbV		94
15) isopropanol	5.705	45	34435	1.82	ppbV	#	56
17) methylene chloride	6.203	49	4653	0.31	ppbV	#	75
24) vinyl acetate	7.018	43	5154	0.20	ppbV	#	95
25) 2-butanone (MEK)	7.202	43	49764	1.93	ppbV	#	91
37) cyclohexane	8.628	56	9380	0.37	ppbV	#	27
43) trichloroethene	9.044	130	6240	0.42	ppbV		96
47) 1,1,2-trichloroethane	9.975	97	2755	0.20	ppbV	#	5
50) toluene	10.024	91	9512	0.26	ppbV		93
54) tetrachloroethene	10.634	166	42417	2.72	ppbV		98
57) p & m-xylene	11.274	91	11839	0.31	ppbV		98
64) 1,2,4-trimethylbenzene	12.593	105	10947	0.25	ppbV	#	34

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1521092\
Data File : R516387.D
Acq On : 1 Sep 2015 11:33 pm
Operator : AIRLAB5:MB
Sample : L1521092-01S,3,25,250
Misc : WG817978
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 02 11:35:10 2015
Quant Method : C:\msdchem\1\METHODS\TO15_QUI.M
Quant Title : TO-15 Screen Method
QLast Update : Tue Jul 14 11:12:24 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1521092\
Data File : R516388.D
Acq On : 2 Sep 2015 12:00 am
Operator : AIRLAB5:MB
Sample : L1521092-02S,3,25,250
Misc : WG817978
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 02 11:35:18 2015
Quant Method : C:\msdchem\1\METHODS\TO15_QUI.M
Quant Title : TO-15 Screen Method
QLast Update : Tue Jul 14 11:12:24 2015
Response via : Initial Calibration

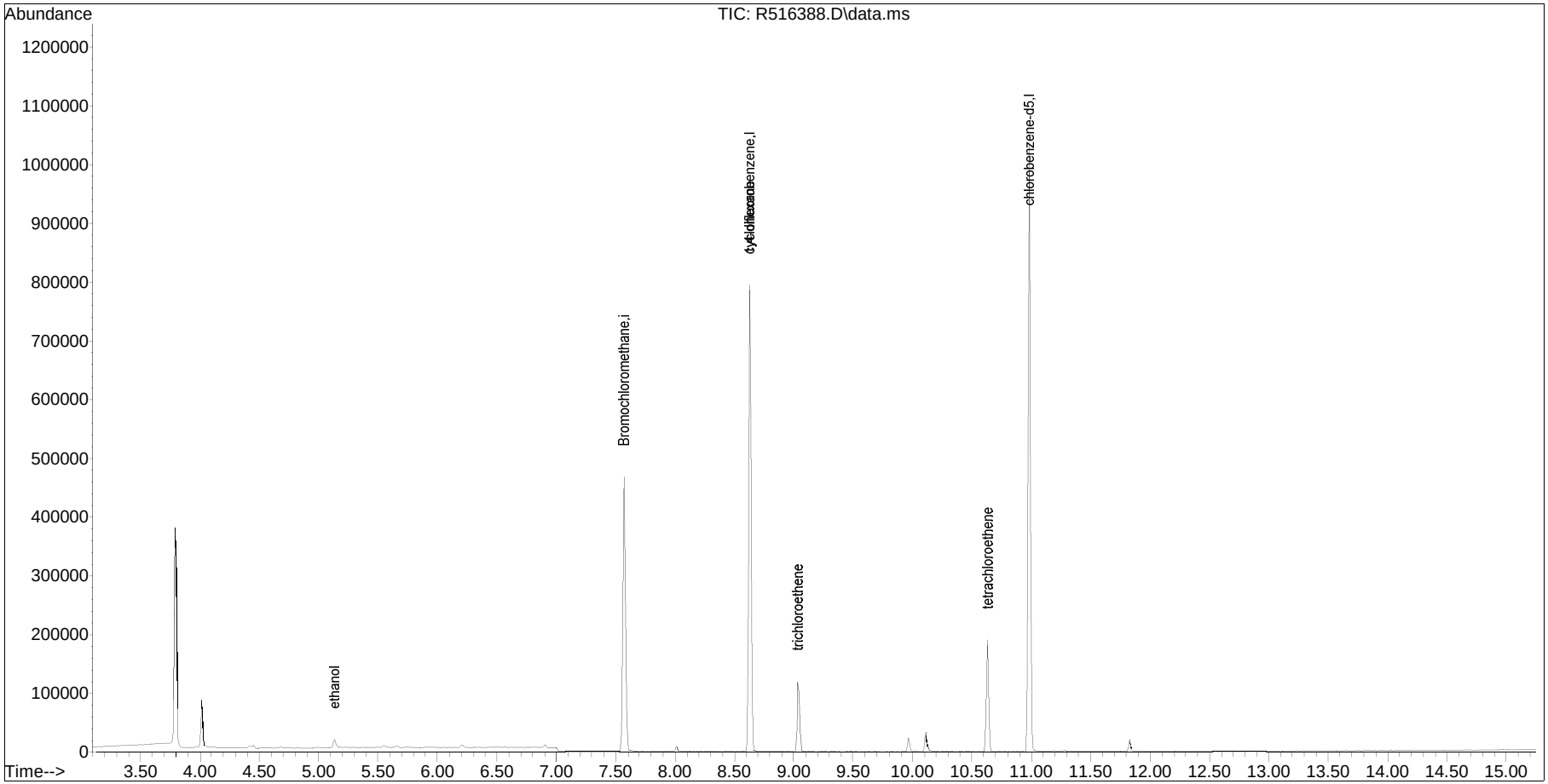
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	7.570	49	174503	10.00	ppbV		0.00
33) 1,4-difluorobenzene	8.627	114	448944	10.00	ppbV		0.00
48) chlorobenzene-d5	10.983	54	102679	10.00	ppbV		0.00
System Monitoring Compounds							
31) 1,2-dichloroethane-d4	0.000	65	0	0.00	ppbV		
49) toluene-d8	0.000	98	0	0.00	ppbV		
Target Compounds							Qvalue
10) ethanol	5.135	31	9406	1.19	ppbV		91
37) cyclohexane	8.627	56	9872	0.36	ppbV	#	26
43) trichloroethene	9.034	130	29875	1.87	ppbV		97
54) tetrachloroethene	10.634	166	34607	2.10	ppbV		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1521092\
Data File : R516388.D
Acq On : 2 Sep 2015 12:00 am
Operator : AIRLAB5:MB
Sample : L1521092-02S,3,25,250
Misc : WG817978
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 02 11:35:18 2015
Quant Method : C:\msdchem\1\METHODS\TO15_QUI.M
Quant Title : TO-15 Screen Method
QLast Update : Tue Jul 14 11:12:24 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1521092\
Data File : R516389.D
Acq On : 2 Sep 2015 12:28 am
Operator : AIRLAB5:MB
Sample : L1521092-03S,3,25,250
Misc : WG817978
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 02 11:35:25 2015
Quant Method : C:\msdchem\1\METHODS\TO15_QUI.M
Quant Title : TO-15 Screen Method
QLast Update : Tue Jul 14 11:12:24 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	7.571	49	172998	10.00	ppbV		0.00
33) 1,4-difluorobenzene	8.628	114	441479	10.00	ppbV		0.00
48) chlorobenzene-d5	10.984	54	101221	10.00	ppbV		0.00
System Monitoring Compounds							
31) 1,2-dichloroethane-d4	0.000	65	0	0.00	ppbV		
49) toluene-d8	0.000	98	0	0.00	ppbV		
Target Compounds							Qvalue
10) ethanol	5.136	31	25990	3.33	ppbV		94
13) acetone	5.545	43	24692	1.32	ppbV		93
15) isopropanol	5.714	45	5142	0.25	ppbV	#	84
37) cyclohexane	8.628	56	10571	0.39	ppbV	#	32
43) trichloroethene	9.045	130	8674	0.55	ppbV		94
54) tetrachloroethene	10.635	166	12881	0.79	ppbV		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1521092\
Data File : R516389.D
Acq On : 2 Sep 2015 12:28 am
Operator : AIRLAB5:MB
Sample : L1521092-03S,3,25,250
Misc : WG817978
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Sep 02 11:35:25 2015
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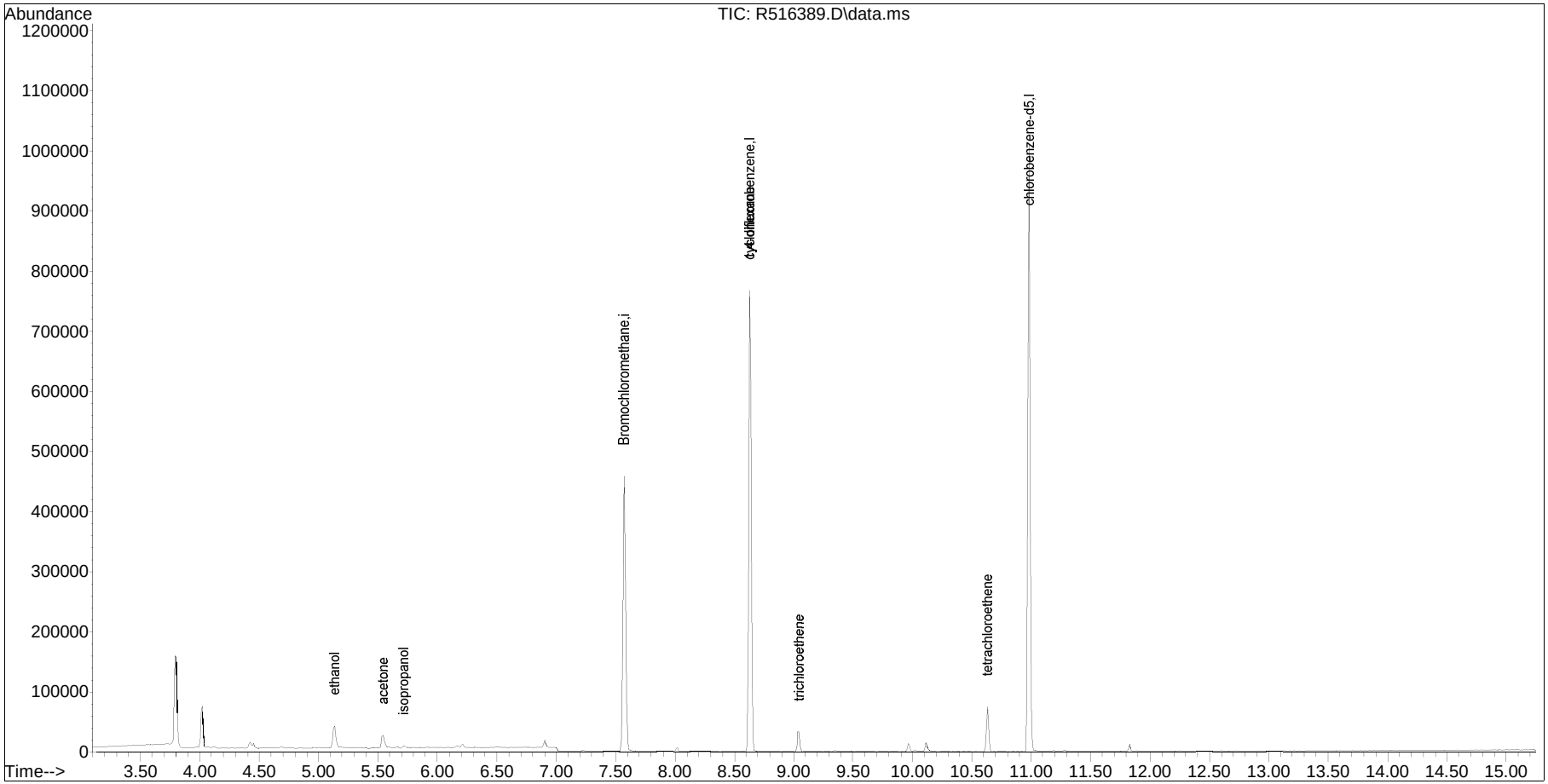
Quant Title : TO-15 Screen Method
QLast Update : Tue Jul 14 11:12:24 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1521092\
Data File : R516390.D
Acq On : 2 Sep 2015 12:55 am
Operator : AIRLAB5:MB
Sample : L1521092-04S,3,25,250
Misc : WG817978
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 02 11:35:31 2015
Quant Method : C:\msdchem\1\METHODS\TO15_QUI.M
Quant Title : TO-15 Screen Method
QLast Update : Tue Jul 14 11:12:24 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.571	49	169791	10.00	ppbV	0.00
33) 1,4-difluorobenzene	8.628	114	435519	10.00	ppbV	0.00
48) chlorobenzene-d5	10.984	54	101592	10.00	ppbV	0.00
System Monitoring Compounds						
31) 1,2-dichloroethane-d4	0.000	65	0	0.00	ppbV	
49) toluene-d8	0.000	98	0	0.00	ppbV	
Target Compounds						Qvalue
10) ethanol	5.136	31	7130	0.93	ppbV	87
13) acetone	5.544	43	7086	0.39	ppbV	96
37) cyclohexane	8.628	56	9970	0.37	ppbV #	28
43) trichloroethene	9.045	130	9817	0.63	ppbV	93
54) tetrachloroethene	10.635	166	461633	28.25	ppbV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1521092\
Data File : R516390.D
Acq On : 2 Sep 2015 12:55 am
Operator : AIRLAB5:MB
Sample : L1521092-04S,3,25,250
Misc : WG817978
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 02 11:35:31 2015
Quant Method : C:\msdchem\1\METHODS\TO15_QUI.M
Quant Title : TO-15 Screen Method
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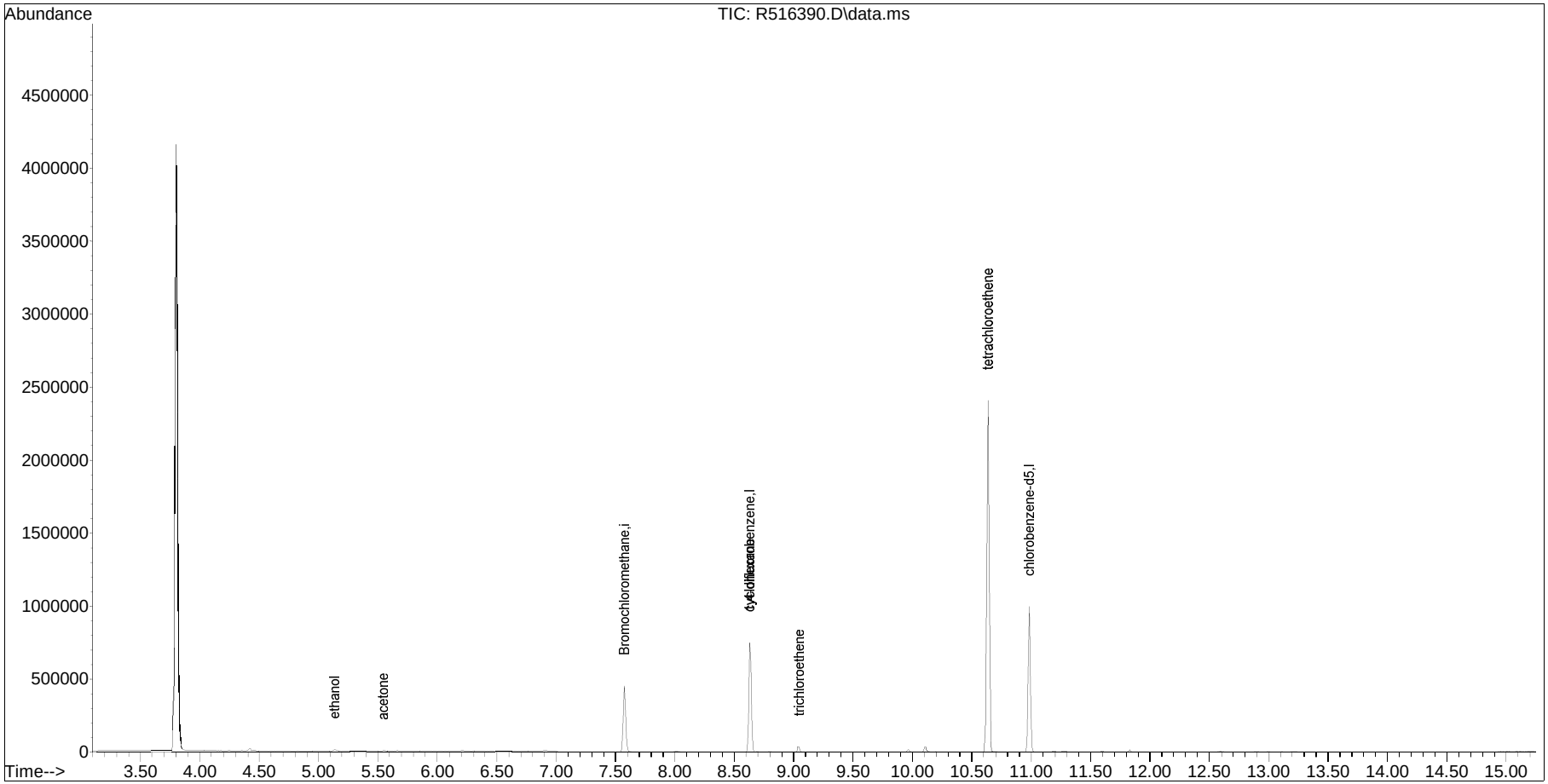
Response via : Initial Calibration



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Data Path : C:\msdchem\1\DATA\2015\L1521092\
Data File : R516391.D
Acq On : 2 Sep 2015 1:23 am
Operator : AIRLAB5:MB
Sample : L1521092-05S,3,25,250
Misc : WG817978
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 02 11:36:06 2015
Quant Method : C:\msdchem\1\METHODS\TO15_QUI.M
Quant Title : TO-15 Screen Method
QLast Update : Tue Jul 14 11:12:24 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.571	49	157049	10.00	ppbV	0.00
33) 1,4-difluorobenzene	8.638	114	403301	10.00	ppbV	0.00
48) chlorobenzene-d5	10.984	54	95308	10.00	ppbV	0.00
System Monitoring Compounds						
31) 1,2-dichloroethane-d4	0.000	65	0	0.00	ppbV	
49) toluene-d8	0.000	98	0	0.00	ppbV	
Target Compounds						Qvalue
10) ethanol	5.136	31	4934	0.70	ppbV	90
13) acetone	5.555	43	4406	0.26	ppbV	98
37) cyclohexane	8.628	56	10649	0.43	ppbV #	38
43) trichloroethene	9.045	130	9528	0.66	ppbV	100
54) tetrachloroethene	10.635	166	490472	31.99	ppbV	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1521092\
Data File : R516391.D
Acq On : 2 Sep 2015 1:23 am
Operator : AIRLAB5:MB
Sample : L1521092-05S,3,25,250
Misc : WG817978
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Sep 02 11:36:06 2015
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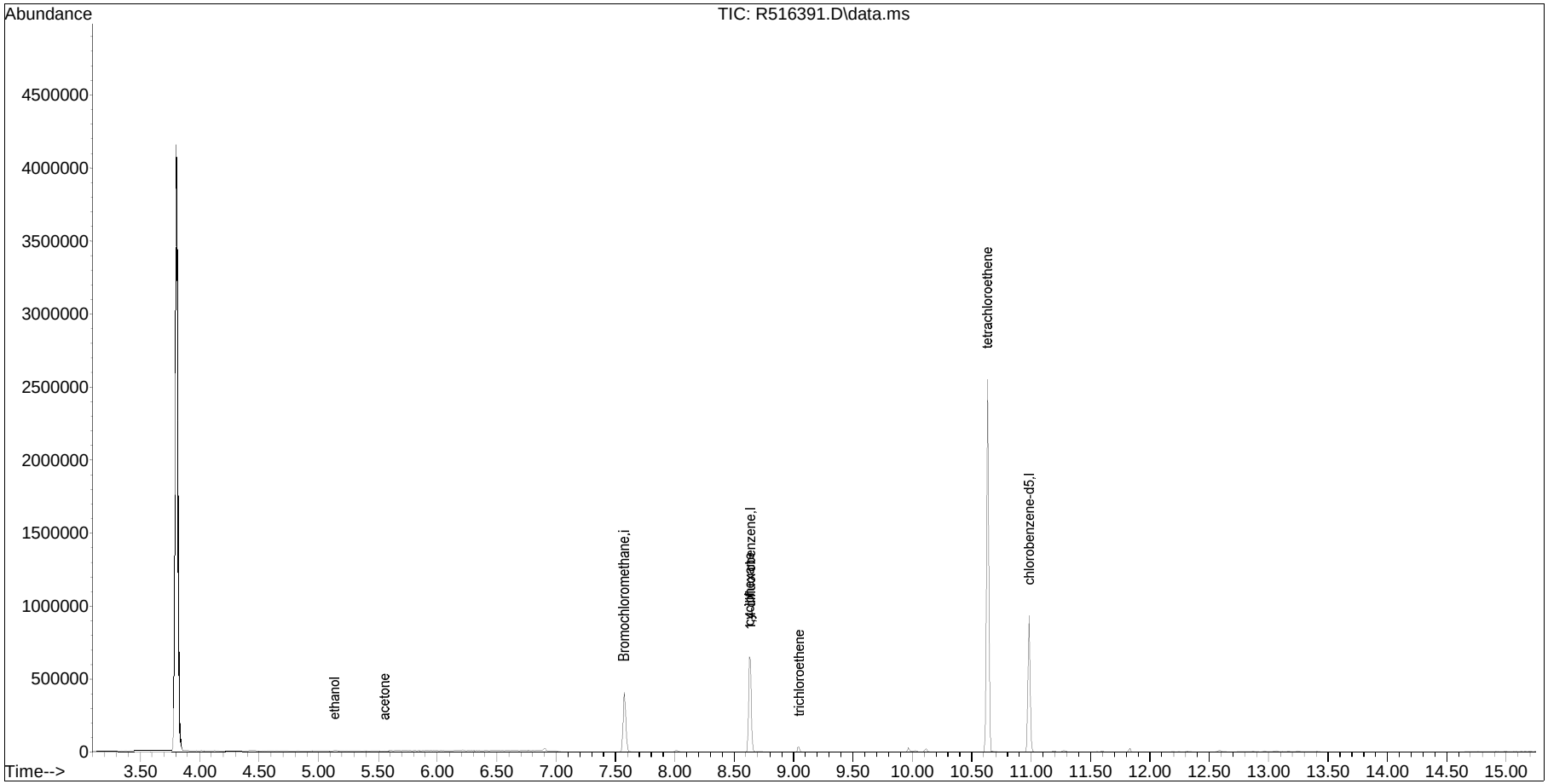
Quant Title : TO-15 Screen Method
QLast Update : Tue Jul 14 11:12:24 2015
Response via : Initial Calibration



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Data Path : C:\msdchem\1\DATA\2015\L1521092\
Data File : R516392.D
Acq On : 2 Sep 2015 1:50 am
Operator : AIRLAB5:MB
Sample : L1521092-06S,3,25,250
Misc : WG817978
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 02 11:36:21 2015
Quant Method : C:\msdchem\1\METHODS\TO15_QUI.M
Quant Title : TO-15 Screen Method
QLast Update : Tue Jul 14 11:12:24 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	7.570	49	161930	10.00	ppbV		0.00
33) 1,4-difluorobenzene	8.637	114	410752	10.00	ppbV		0.00
48) chlorobenzene-d5	10.983	54	95987	10.00	ppbV		0.00
System Monitoring Compounds							
31) 1,2-dichloroethane-d4	0.000	65	0	0.00	ppbV		
49) toluene-d8	0.000	98	0	0.00	ppbV		
Target Compounds							Qvalue
10) ethanol	5.126	31	57784	7.91	ppbV		95
13) acetone	5.535	43	69351	3.95	ppbV		97
15) isopropanol	5.714	45	14277	0.74	ppbV	#	65
25) 2-butanone (MEK)	7.211	43	9003	0.34	ppbV	#	89
37) cyclohexane	8.627	56	9469	0.38	ppbV	#	25
43) trichloroethene	9.044	130	12477	0.85	ppbV		96
50) toluene	10.023	91	8240	0.23	ppbV		94
54) tetrachloroethene	10.634	166	41928	2.72	ppbV		99
57) p & m-xylene	11.274	91	8949	0.24	ppbV		95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1521092\
Data File : R516392.D
Acq On : 2 Sep 2015 1:50 am
Operator : AIRLAB5:MB
Sample : L1521092-06S,3,25,250
Misc : WG817978
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 02 11:36:21 2015
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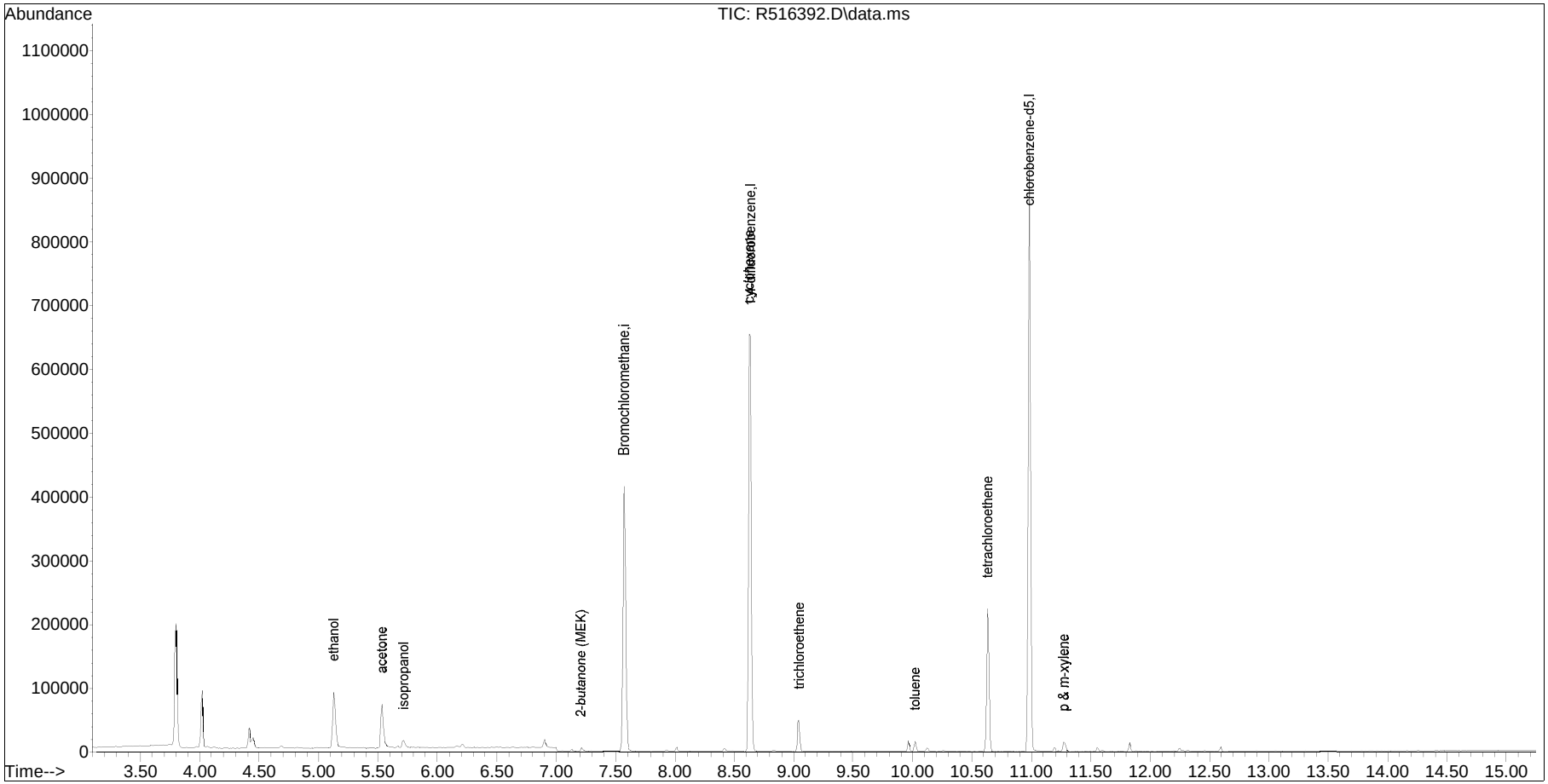
Quant Title : TO-15 Screen Method
QLast Update : Tue Jul 14 11:12:24 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1521092\
Data File : R516393.D
Acq On : 2 Sep 2015 2:18 am
Operator : AIRLAB5:MB
Sample : L1521092-07S,3,25,250
Misc : WG817978
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 02 11:36:32 2015
Quant Method : C:\msdchem\1\METHODS\TO15_QUI.M
Quant Title : TO-15 Screen Method
QLast Update : Tue Jul 14 11:12:24 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	7.571	49	150030	10.00	ppbV		0.00
33) 1,4-difluorobenzene	8.638	114	391395	10.00	ppbV		0.00
48) chlorobenzene-d5	10.984	54	91778	10.00	ppbV		0.00
System Monitoring Compounds							
31) 1,2-dichloroethane-d4	0.000	65	0	0.00	ppbV		
49) toluene-d8	0.000	98	0	0.00	ppbV		
Target Compounds							Qvalue
10) ethanol	5.138	31	5757	0.85	ppbV		94
13) acetone	5.546	43	8780	0.54	ppbV		89
28) chloroform	7.639	83	31070	1.87	ppbV	#	96
37) cyclohexane	8.628	56	8403	0.35	ppbV	#	25
39) bromodichloromethane	9.026	83	6133	0.25	ppbV		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1521092\
Data File : R516393.D
Acq On : 2 Sep 2015 2:18 am
Operator : AIRLAB5:MB
Sample : L1521092-07S,3,25,250
Misc : WG817978
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 02 11:36:32 2015
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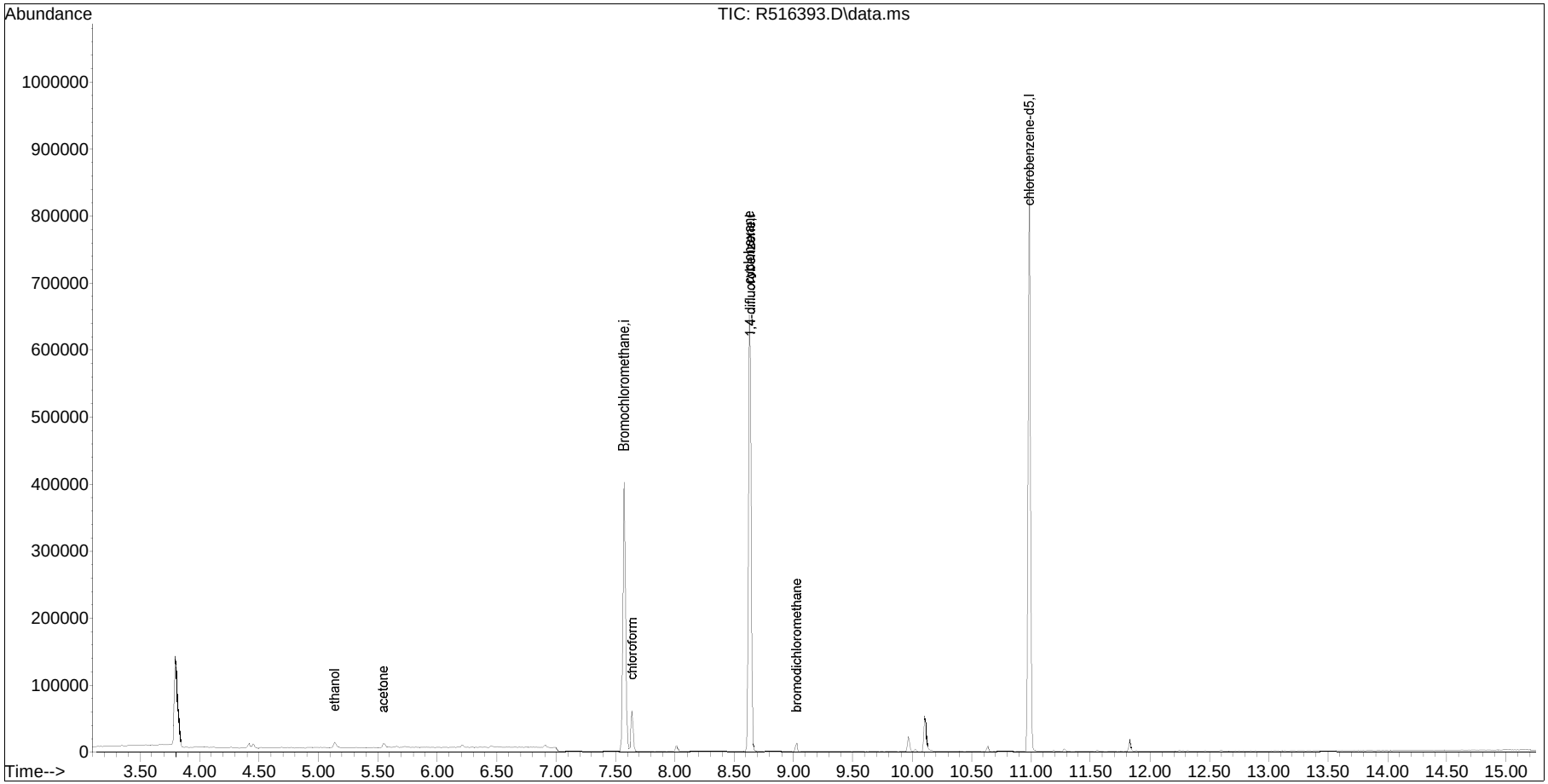

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Data Path : C:\msdchem\1\DATA\2015\L1521092\
Data File : R516394.D
Acq On : 2 Sep 2015 2:45 am
Operator : AIRLAB5:MB
Sample : L1521092-08S,3,25,250
Misc : WG817978
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 02 11:36:38 2015
Quant Method : C:\msdchem\1\METHODS\TO15_QUI.M
Quant Title : TO-15 Screen Method
QLast Update : Tue Jul 14 11:12:24 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.571	49	154095	10.00	ppbV	0.00
33) 1,4-difluorobenzene	8.637	114	393805	10.00	ppbV	0.00
48) chlorobenzene-d5	10.983	54	92044	10.00	ppbV	0.00
System Monitoring Compounds						
31) 1,2-dichloroethane-d4	0.000	65	0	0.00	ppbV	
49) toluene-d8	0.000	98	0	0.00	ppbV	
Target Compounds						Qvalue
10) ethanol	5.128	31	124905	17.96	ppbV	94
13) acetone	5.527	43	55147	3.30	ppbV	96
28) chloroform	7.638	83	8726	0.51	ppbV #	93
37) cyclohexane	8.627	56	9266	0.38	ppbV #	31

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1521092\
Data File : R516394.D
Acq On : 2 Sep 2015 2:45 am
Operator : AIRLAB5:MB
Sample : L1521092-08S,3,25,250
Misc : WG817978
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Sep 02 11:36:38 2015
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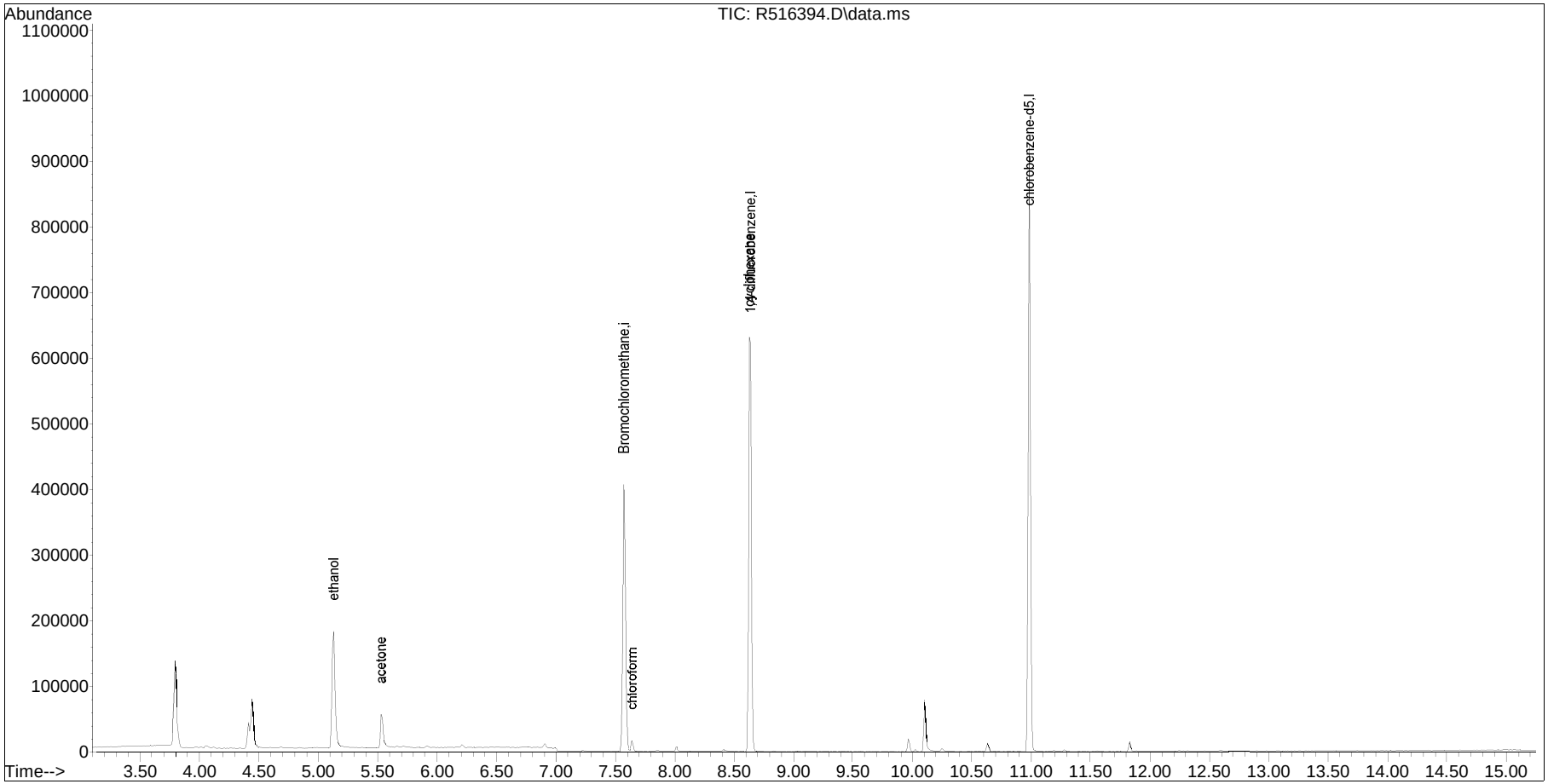

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Data File : R516395.D
Acq On : 2 Sep 2015 3:12 am
Operator : AIRLAB5:MB
Sample : L1521092-09S,3,25,250
Misc : WG817978
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 02 11:36:50 2015
Quant Method : C:\msdchem\1\METHODS\TO15_QUI.M
Quant Title : TO-15 Screen Method
QLast Update : Tue Jul 14 11:12:24 2015
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.571	49	160132	10.00	ppbV	0.00
33) 1,4-difluorobenzene	8.637	114	405097	10.00	ppbV	0.00
48) chlorobenzene-d5	10.984	54	97138	10.00	ppbV	0.00
System Monitoring Compounds						
31) 1,2-dichloroethane-d4	0.000	65	0	0.00	ppbV	
49) toluene-d8	0.000	98	0	0.00	ppbV	
Target Compounds						Qvalue
10) ethanol	5.138	31	11220	1.55	ppbV	92
13) acetone	5.547	43	5782	0.33	ppbV	95
37) cyclohexane	8.628	56	9162	0.37	ppbV #	27
43) trichloroethene	9.044	130	26249	1.82	ppbV	95
54) tetrachloroethene	10.635	166	102909	6.59	ppbV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1521092\
Data File : R516395.D
Acq On : 2 Sep 2015 3:12 am
Operator : AIRLAB5:MB
Sample : L1521092-09S,3,25,250
Misc : WG817978
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Sep 02 11:36:50 2015
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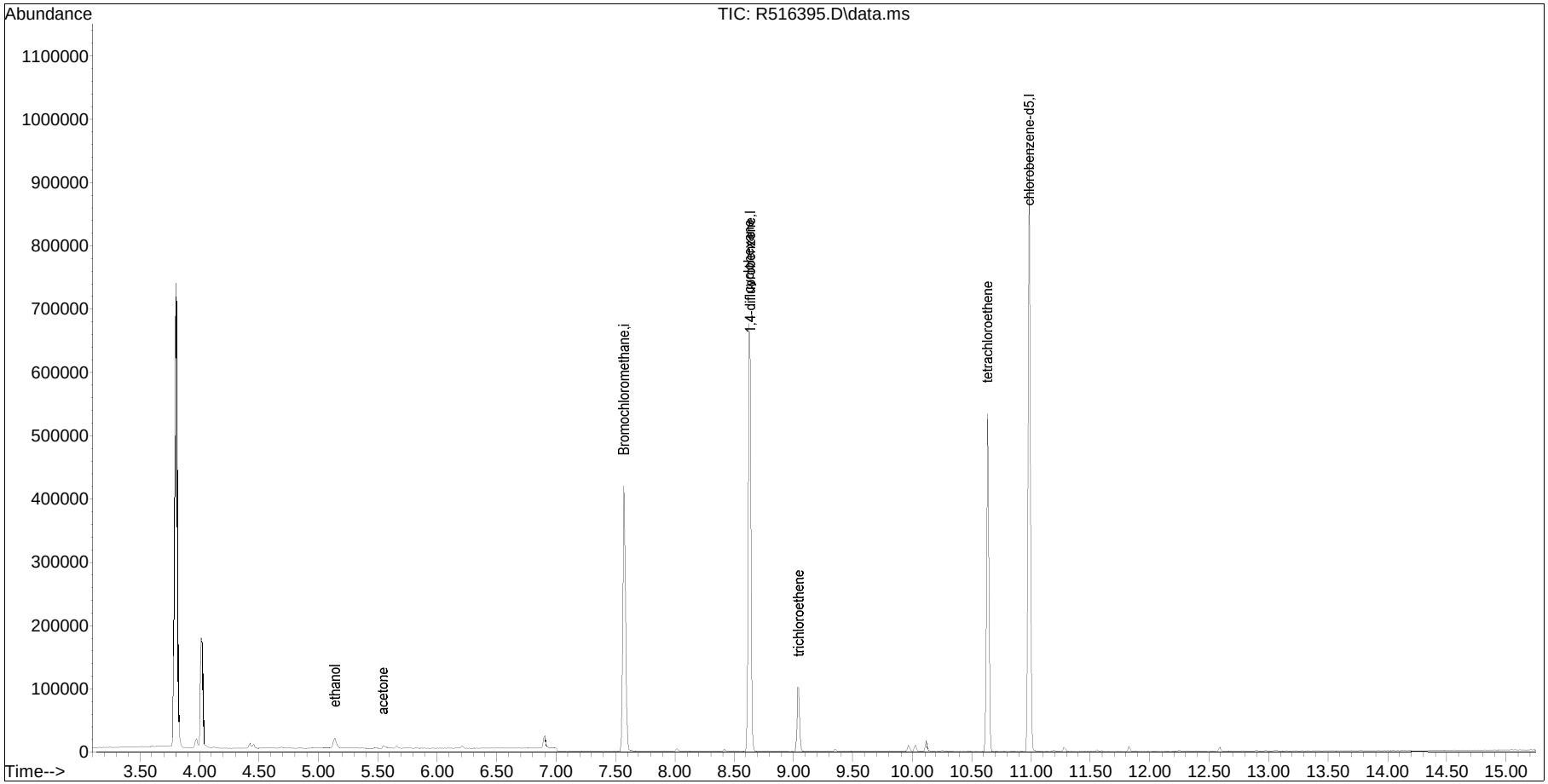
Quant Title : TO-15 Screen Method
QLast Update : Tue Jul 14 11:12:24 2015
Response via : Initial Calibration



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Data File : R516396.D
Acq On : 2 Sep 2015 3:40 am
Operator : AIRLAB5:MB
Sample : L1521092-10S,3,25,250
Misc : WG817978
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 02 11:37:02 2015
Quant Method : C:\msdchem\1\METHODS\TO15_QUI.M
Quant Title : TO-15 Screen Method
QLast Update : Tue Jul 14 11:12:24 2015
Response via : Initial Calibration

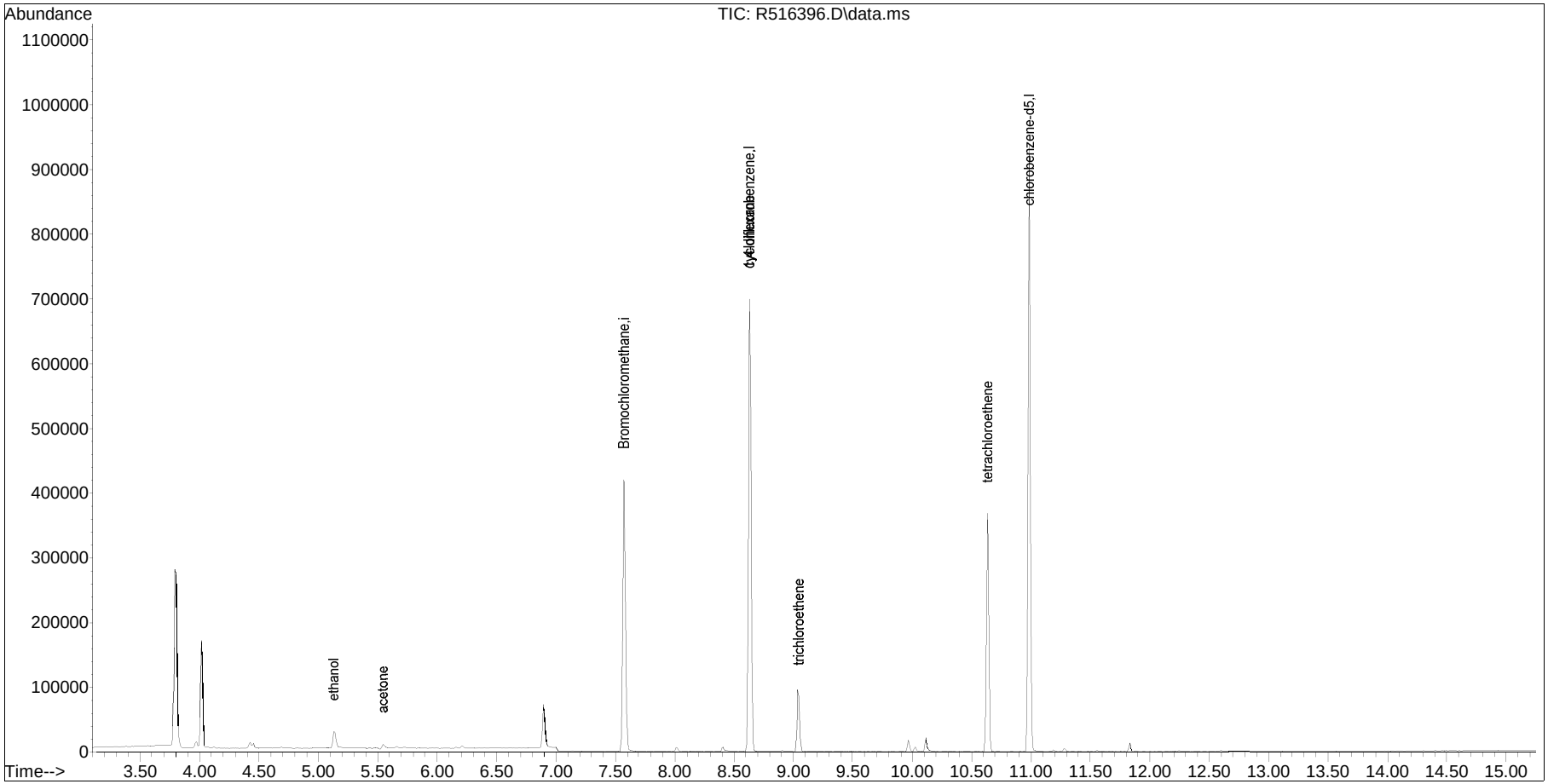
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	7.571	49	156050	10.00	ppbV	0.00
33) 1,4-difluorobenzene	8.628	114	396076	10.00	ppbV	0.00
48) chlorobenzene-d5	10.984	54	95590	10.00	ppbV	0.00
System Monitoring Compounds						
31) 1,2-dichloroethane-d4	0.000	65	0	0.00	ppbV	
49) toluene-d8	0.000	98	0	0.00	ppbV	
Target Compounds						Qvalue
10) ethanol	5.128	31	18799	2.67	ppbV	91
13) acetone	5.546	43	7448	0.44	ppbV	100
37) cyclohexane	8.628	56	9302	0.38	ppbV #	26
43) trichloroethene	9.045	130	24069	1.70	ppbV	95
54) tetrachloroethene	10.635	166	67509	4.39	ppbV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2015\L1521092\
Data File : R516396.D
Acq On : 2 Sep 2015 3:40 am
Operator : AIRLAB5:MB
Sample : L1521092-10S,3,25,250
Misc : WG817978
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Sep 02 11:37:02 2015
Quant Method : C:\msdchem\1\METHODS\TO15_QUI.M
Quant Title : TO-15 Screen Method
QLast Update : Tue Jul 14 11:12:24 2015
Response via : Initial Calibration



APPENDIX C
Vapor Intrusion Mitigation Plan Design – Clean Vapor LLC

VAPOR INTRUSION MITIGATION PLAN DESIGN
for:
US1 Cleaners Site
Kumon and Former PNC Tennant Spaces
10 Main Street, Woodbridge, New Jersey

Prepared for:

Mr. Ed Jakubowski, PG, LSRP (#594403)
Tellurian Environmental Management, LLC
P.O. Box 148
Flemington, New Jersey 08822

Prepared by:

Mr. Daniel Nuzzetti
Mr. Thomas E. Hatton
NJDEP MIS 10245
Clean Vapor, LLC
32 Lambert Road
P.O. Box 688
Blairstown, NJ 07825

Radon Mitigation Business Certification MIB92520

December 2015

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3.0 System Design and Installation **7**

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6.0 Administrative and Final Report **11**

7.0 Pictures **13**

Appendix A – Equipment Cut Sheets

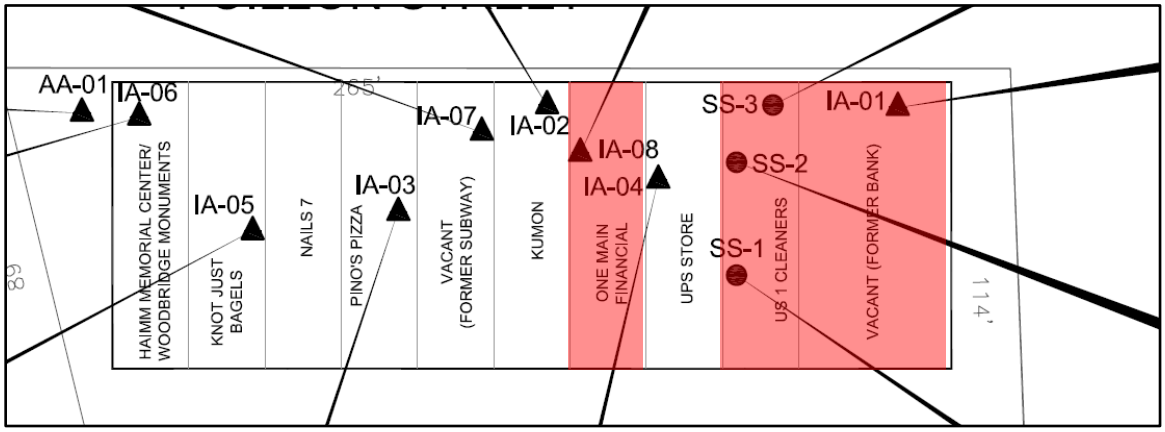
Appendix B – Drawings

Exterior of Building

1.0 Introduction

1.1 Background

Clean Vapor, LLC (Clean Vapor) was retained by Mr. Jakubowski of Tellurian Environmental Management, LLC to conduct a building investigation, diagnostic test, and prepare a vapor intrusion mitigation system (VIMS) design for the strip mall located at 10 Main Street in Woodbridge, NJ. The three tenant spaces of concern are the Kumon Learner Center, Drycleaner and the former PNC bank space which is currently vacant; these spaces are highlighted on the diagram below. The proposed vapor intrusion mitigation system is designed to prevent intrusion of sub slab soil gases into the building areas of concern.



Units of Concern Highlighted

The proposed VIMS has been designed to create a negative pressure field (relative to typical building pressures at the time of diagnostic testing) under the slab of the building areas of concern, so that sub slab vapors will be unlikely to migrate upwards into the building. Clean Vapor's design consists of specifications and drawings that provide details for construction of a Sub Slab Depressurization System (SSDS). If installed, operated and maintained per specifications, the SSDS will be able to maintain negative sub slab pressures under reasonably anticipated conditions and prevent soil borne vapors from entering into the building areas of concern. The goal of the system is to create a sub slab negative pressure field with a minimum vacuum field of -0.004 inches of water column ("w.c.).

The information in this report including text, photographs and diagrams shall be considered to be the intellectual property of Clean Vapor, LLC and is intended to facilitate the vapor intrusion mitigation of 10 Main Street, Woodbridge, New Jersey. Any reproduction of the content of this report in part or total for any other purpose is prohibited without the written consent of Clean Vapor, LLC. Copyright © 2015 Clean Vapor, LLC.

2.0 Diagnostics

2.1 Diagnostic Procedures

In accordance with the accepted design proposal and plan for diagnostics dated November 24, 2015, a building investigation and diagnostic test was performed on December 23, 2015. Two, 2 5/8 inch diagnostic suction hole(s) were drilled within the building. A calibrated shop vacuum was used to apply vacuum to the sub slab material to simulate vacuum fields. Smaller test holes were drilled throughout the areas within the suction holes' radii of influence. The motor speed of the vacuum was varied to develop a performance curve that would enable us to project the airflow characteristics of different blowers. Static vacuum and airflow measurements were conducted at the suction holes. A micro-manometer was used to measure pressure differentials at the remote test holes. A vane anemometer was used to measure airflow that was yielded from the sub slab. The acquired data has been interpolated to make reasonable assumptions to predict pressure field extension and airflow. Baseline pressure differential measurements were collected to establish building pressure relative to the sub slab material.

The results of vacuum field extension testing are shown in the Diagnostic Data Section of this report. Pictures of the vacuum field extension testing being performed can also be seen in the Pictures section and relevant points from testing are shown on a sheet in the attached drawings.

2.2 *Diagnostic Data*

Test hole locations can be found in the attached drawings. All distances are in feet and vacuum measurements in inches of water column.

2.2.1 Test Suction Point #1 (Kumon Learning Center)

Vacuum Applied ("wc):		Baseline	7.0	3.5	2.2
Airflow (cfm):		-	126	112	89
Test Hole #	**Distance (ft.)**				
T-1	17	0.0093	-0.1694	-0.1009	-0.0752
T-2	61	0.0064	-0.0103	-0.0072	-0.0054
T-3	57	0.0036	-0.0102	-0.0069	-0.0047

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2.2.2 Test Suction Point #2 (Former PNC)

Vacuum Applied ("wc):		Baseline	10.6
Airflow (cfm):		-	127
Test Hole #	**Distance (ft.)**		
T-4	11	-0.0021	-0.6439
T-5	32	0.0052	0.0018
T-6	60	0.0051	-
T-7	68	0.0007	-
T-8	60	-0.0009	-0.0038
T-9	36	-0.0002	-0.0599
T-10	40	-0.0003	-0.2120
T-11	44	-0.0005	-0.0045
T-12	24	0.0018	-0.0044
T-13	24	0.0090	-0.0526
T-14	56	0.0096	-0.0030
T-15	36	0.0016	-0.0137
T-16	44	0.0029	-0.0029

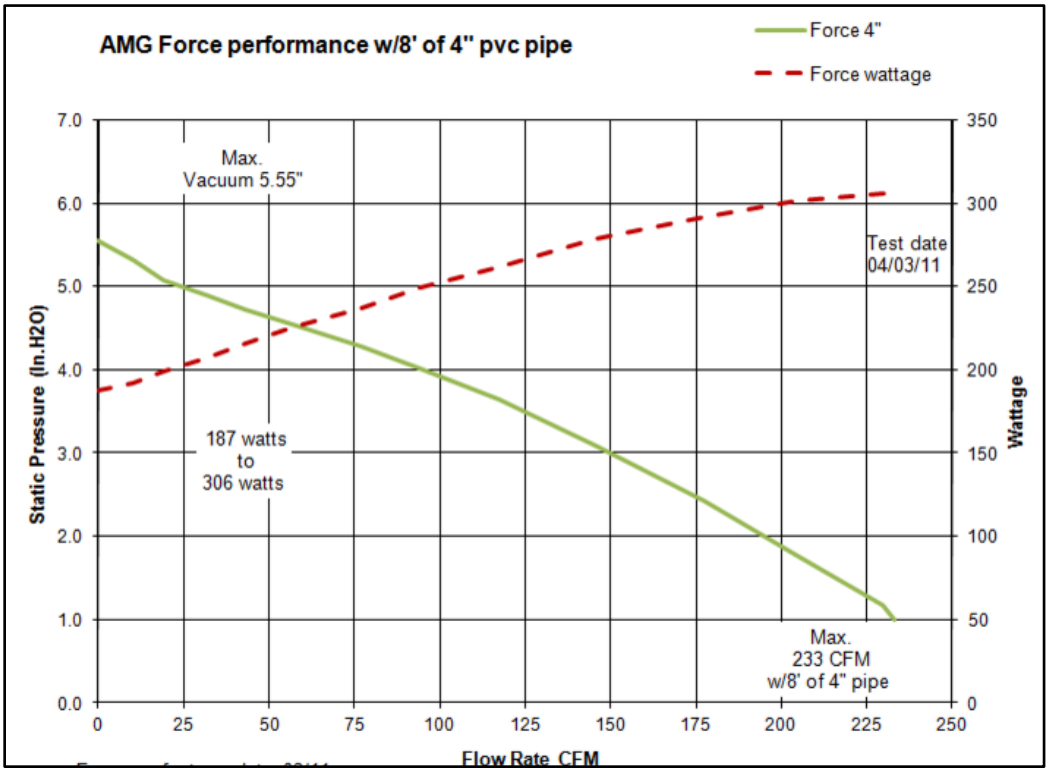
2.3 Interpretation of Diagnostics

Vacuum fields were determined by evaluating the results of the negative pressure field testing. The overall vacuum field extension testing provided data that could be used to develop a model capable of projecting the negative pressure field that will prevent the upward migration of soil gases into the building areas of concern. Crushed stone fill was encountered below the Kumon Learning Center, sandy soils and other unknown obstructions were encountered below the former bank.

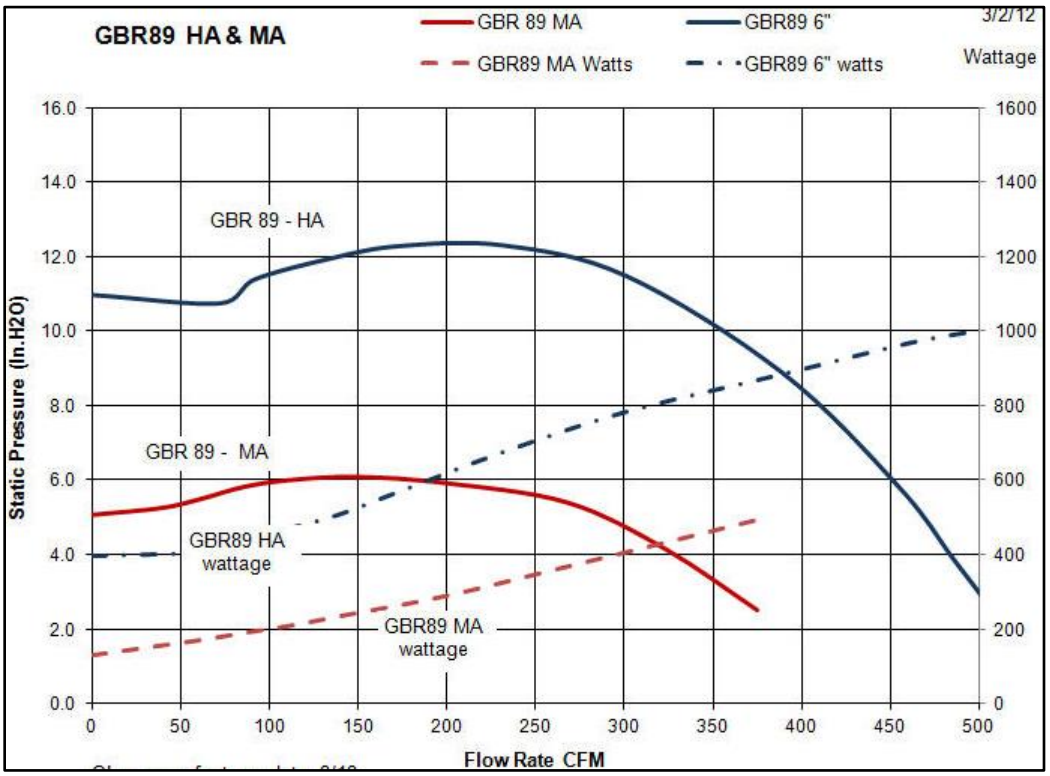
2.4 Blower Selection and Suction Point Locations

Blowers and suction points have been selected and specified based on the volume of air yield, static pressure readings, and measured vacuum field extension recorded during the diagnostic testing. The design objective is to create a negative pressure field with a minimum performance of -0.004" w.c. at the outer extent of the negative pressure field. Pressure field projections are adjusted to accommodate anticipated field installation conditions. For example, when removing one cubic foot of soil under the slab, the static pressure can drop 25% and the volume of air increase subject to the limitations of the soil and blower. The radius of the negative pressure field beneath the slab may also increase. Since variability in soils and permeability exist beneath the slab, the projected radius is not based on a pure mathematical extrapolation but a total approach that includes the aforementioned conditions. An examination of the soil matrix, sub slab permeability mapping data, and experience factors are all considered when developing these projections. The following graph shows the blower curve for the fans to be installed at the site.

2.4.1 AMG Force (System 1)



2.4.2 OBAR GBR-89 HA (System 2)



3.0 System Design and Installation

3.1 System Layout

There will be two Sub Slab Depressurization Systems installed. The table below displays the targeted applied vacuum and projected soil airflow yields to meet minimum pressure field requirements.

System #	Fan Model	Applied Vacuum ("w.c.)	Projected Airflow (cfm)	# of Suction Points	Location
1	AMG Force	3	150	1	Kumon
2	GBR-89-HA	8	400	4	Former PNC Bank

3.2 Suction Holes

A total of five (5) suction points will be installed in the two spaces. The Kumon Learning Center will have a single suction point and the former bank will have four (4) suction points. See Drawing Sheet 3 for the locations of suction points, mitigation piping and blower locations. To enhance the vacuum field distribution and limit any disruption to building use, the suction points will be located near existing permanent walls. The specific location of the suction points shall be agreed upon by Clean Vapor and the building owner's representative prior to installation. When drilling suction points, the procedures listed in the General Installation section shall be followed to minimize damaging any sub slab utilities. The riser pipe for SP#1 will be installed in the corner of the rear hallway of the Kumon Learning Center. The riser pipe will be installed behind a sheetrock enclosure on a 45 degree angle in the corner. The riser pipes for the four suction points in the former bank will be installed on exterior walls and the partition wall between the former bank and the dry cleaners. All suction point risers will be enclosed in sheetrock enclosures with access panels at the 60 inch elevation to allow for access to the riser pipe sample ports at O&M inspections. Approximately 2 cubic feet of soil will be removed from each suction point.

Tellurian Environmental is responsible for sub slab fill testing and disposal, it is estimated that two (2), 55 gallon drums will be required.

3.3 System Piping

All horizontal pipe runs between the fans and the first suction point will be installed with a one inch slope back to a suction point for each ten feet of horizontal pipe run. All vertical pipe runs will be installed plumb. All horizontal runs after the first suction point may be run level. However, in no case will the piping be installed so as to create a possible water trap in the piping. All piping and fittings installed, unless otherwise noted or specified, shall be Schedule 40 PVC pipe.

The PVC pipe will be supported at least every six feet of horizontal run and at least every ten feet of vertical run. Suction point riser pipes will be secured to the wall adjacent to the suction point. Conduit channel with pipe clamps can also be used to support pipe routed along the ceiling or walls. Pipe cannot be supported by other building piping or ducts. Swivel ring or standard bolt-type clevis will be used to support pipe.

There may be a need to balance airflow and equalize the distribution vacuum throughout the system in the former bank. Inline gate valves shall be installed in each suction point riser pipe.

3.4 Blower Installation and Start Up

There will be two roof mounted blowers installed. The location of the blowers is indicated on the attached drawings and a typical photo example can be seen in the Pictures section. The blowers were specified based on diagnostic vacuum distribution and airflow measurements as discussed earlier. When soil is removed from the suction point, solution channels that were not detected during the diagnostic phase are sometimes discovered. This can result in greater than expected airflow and decreased static vacuum. After the suction points have been developed they may be individually tested using a vapor blower or calibrated vacuum to confirm the vacuum to be applied by the permanent blower. This should be done before the permanent blower is mounted to the stand for final activation. If the system is yielding a greater or less than anticipated volume of soil gas, the blower shall be changed to a blower in an appropriate performance range.

The locations and blower types are noted by a symbol in the System Drawing. The blower exhaust will be a minimum of one foot above the roofline. The blower exhaust will be a minimum of twenty feet from windows, doors, air intakes and passive relief vents.

3.5 Roof Penetrations

All roof penetrations must be coordinated with the owner's representative prior to performing the work. The owner's roofer or an approved roofer that is certified by the roofing material manufacturer should perform the flashing related sealing work. All roof penetrations, cuts, repair flashing and related roof work will be made by a roofer that is certified by the roofing material manufacturer and is permitted by the manufacturer to perform roof work on warrantied roofs. The roofer should certify the work and continue the manufacturer's warranty after the work has been completed. *This applies only to roof sections that are covered by a manufacturer's warranty.*

3.6 Sealing

3.6.1 Cracks and Joints

Any visible expansion joints or slab cracks in the area being mitigated that have a 1/16 inch or greater opening will be sealed. Cracks will be cleaned with a walk behind rotary wheel device with a vacuum attachment to capture dust or debris. Cracks that are from concrete faults and identified expansion joints will be channel key cut prior to sealing using a crack saw fitted with a

dust collecting device. Cracks will be sealed with a gun-grade urethane caulk sealant. Any openings into the slab, such as those that may occur around conduit pipe penetrations through the slab, will be cleaned and sealed with gun-grade urethane caulk. Expansion joints that are greater than ¼ inch in width or greater than 3/8 inch below the floor surface may require the installation of backer rod and self-leveling urethane sealant.

3.7 Blower Wiring

A dedicated breaker shall be used for the mitigation blowers. This will prevent the blowers from being shut off when a circuit is powered down for an unrelated function. Based on the blower amperage requirements, a licensed electrician will determine the load for each circuit. The panel location and breaker number will be referenced in the final report and on the system labels. The electric will be pulled from the nearest available panel or other panel as identified by the building owner. When wiring the outdoor blower, the electrical contractor will use outdoor rated flexible conduit from each switch box to the blower. Power should be turned on in the former PNC bank space prior to mobilizing to perform the work.

3.8 Vacuum Indicators

Magnehelics will be installed to indicate the static vacuum generated by each system. To the extent practicable, the range of the Magnehelics will be selected so that the indicator needle is close to or just to the right of center on the dial face. The Magnehelics shall be enclosed in protective enclosures. The low pressure Magnehelic port will be connected with 1/4" O.D. rigid polyethylene tubing to a common conveyance pipe in the system. The polyethylene tubing should arc to a higher elevation than where it exits the riser pipe before it is connected with the Magnehelics. This will prevent condensation from running into the Magnehelics or creating a water trap in the tube. Exposed sections of tubing will be enclosed in rigid conduit. The exact location of the Magnehelic is at the discretion of Clean Vapor, with input from the owner's representative, and should be noted in the final system As-Built drawings.

In addition to the Magnehelics, an audible and visual vacuum alarm will be installed for each system. The alarm will notify occupants via an audible indicator and a red light if there is a loss of system vacuum.

3.9 Fire Stopping

PVC pipes that penetrate fire-rated walls or ceilings shall be protected using intumescent fire collars and fire-rated caulk. Hilti is the recommended manufacturer of fire stopping products.

3.10 Sampling Ports

Test ports for manually measuring vacuum and airflow shall be installed in each of the riser pipes. Ports shall be drilled, tapped and plugged using a 3/8-16 x ¾ stainless steel socket cap screw with a neoprene washer. Soil gas samples may also be collected from these ports. Permanent sub slab test ports will be installed at various locations throughout the building at the

outer extent of the vacuum field for the purpose of measuring sub slab vacuum. The location of these shall be shown on the As-Built drawings.

3.11 System Labeling

A label will be installed at the disconnect switch next to the fan that says "Active Soil Depressurization System, Do Not Alter." The electrical circuit at the panel that is used to control the fan will be labeled as "Active Soil Depressurization System". At least every 20 feet of exposed contaminant vent pipe length will have a label that reads "Active Soil Depressurization System" attached to the pipe. All labels shall be readable from three feet away.

4.0 General Installation Notes

All mitigation system components will be installed to facilitate servicing, maintenance and repair or replacement of other equipment components in or outside the building. Where mounting heights are not detailed or dimensions not given, system materials and equipment are to be installed to provide the maximum headroom or side clearance as is possible. The owner's representative will be contacted in cases where a conflict exists. All systems, materials and equipment will be installed level, plumb, parallel or perpendicular to other building systems and components unless otherwise specified.

Every reasonable precaution shall be made to avoid any damage to existing utilities located anywhere in the building or those located in or below the slab floor. Detailed blueprints indicating utility piping in or under the slab are not available. Undocumented sub slab utilities may alter the scope of work. A metal detecting relay box or another similar instrument should be used in conjunction with any slab drilling that does not involve wet coring.

All penetrations through the foundation walls and the roof shall be sealed. There will be no placement of piping or conduit that would inhibit intended use of any areas. No foreign materials shall be left or drawn into the vapor system piping or fan which might at a later period interfere with or in any way impair the vapor system performance. The entire system will have UL or equivalent ratings for both individual components and the entire system as applicable.

5.0 System Materials

I. Vapor Vent Piping
   a. PVC Schedule 40 pipe and fittings ASTM D-2665
      i. Hollow Core PVC is not permissible
   b. PVC cement clear primer will comply with ASTM F-656
   c. PVC cement adhesive will comply with ASTM D-2564
   d. 3 inch inline PVC slide valves (Valterra Bladex)

II. Piping Supports and Hardware
   a. 3" and 4" Hanging Pipe Supports
   b. Adjustable swivel ring or standard bolt type clevis hangers
   c. Adjustable band hangers

d. 3/8" threaded rod
e. 1/2" threaded rod
f. Conduit clamps
g. Assorted bolts, nuts & washers
h. 1 5/8" C- Profile Galvanized Unistrut
i. 13/16" C- Profile Galvanized Unistrut

III. Vapor Blowers
a. AMG Force
b. OBAR GBR-89-HA

IV. Blower Support Frames
a. 1 5/8" C- Profile Galvanized Unistrut
b. Pipe Pier Foam Blocks

V. Visual Pressure Indicator and Protective Enclosure
a. Dwyer Magnehelic (range to be determined)
b. Hoffman Enclosures
c. RadonAway Checkpoint IIA Alarm

VI. Sealing Materials
a. Gun Grade Urethane Caulk (Vulkem 116)
b. Flowable Urethane Caulk (Vulkem 45SSL)

Note: Hilti is the suggested manufacturer of fastening products and fire collars

6.0 Administrative and Final Report

6.1 Permits

It is the responsibility of the installation contractor to secure any municipal permits. The owner will need to provide building access for the municipal building inspectors or any other jurisdictional authority to inspect the relevant components of the SSDS.

6.2 Warranties

The mitigation contractor shall warranty all system components, workmanship, and a sub slab vacuum level of -0.004" w.c. for a period of one year from the date of system commissioning. Sub slab vacuum extension values are based on the conditions at the date of the diagnostic measurements. The client will not incur any cost for warranty work performed during this period. Fluctuating water tables, sink holes, and other unforeseen sub slab anomalous conditions that may affect sub slab soil gas channeling after commissioning values have been achieved may be considered outside of the warranty. Repairing system damage caused by others is not included in the warranty. Clean Vapor's warranty does not apply to systems installed by others.

6.3 Final Project Report

The pressure field extension beneath the slab created by the SSDS shall be measured with a digital micro-manometer capable of reading down to 0.0001 inches water column. The slide valves in the riser pipes shall be adjusted to facilitate maximum vacuum distribution. Static

vacuum measurements for each system will be recorded. All vacuum measurements will be measured in inches of water column. The exhaust airflow from the blower system shall be measured, calculated and reported in cfm.

The final report summarizing remedial activities shall include a summary of remedial activities, As-Built drawings, blower and system performance tables, photo documentation, equipment warranties and material submittals.

The As-Built drawings will be a modification of the original design print and include the specific locations of mechanical equipment and conveyance piping. The electrical panel location and breaker number will also be noted for the blower. The location of all low pressure gauges will also be on the drawing. The title block will include the final system installation date.

Photo documentation will include at least one picture of the blower installed, the low pressure panel, system labels, suction points, relevant sealing, fire stopping, post-mitigation vacuum testing and pictures thought to be important by the owner. Warranties and Submittals will include: blower warranties, performance and wiring information and Material "cut sheets".

The Operations and Maintenance Section will include a table of items to be checked quarterly and annually. A copy of the final report will be maintained by Clean Vapor, and the owner.

6.4 Submittals

The mitigation contractor shall provide copies of submittals to Tellurian;

I. Pre Work Submittals
    a. Copy of applicable licenses
        i. NJ PE with specific experience in building mitigation, LSRP or Radon Mitigation Specialist responsible for the installation of the system
    b. Equipment manufacturer cut sheets
II. Post Work Submittals
    a. As-Built drawings to include all applicable mechanical component locations
    b. Final project report certified by NJPE, LSRP, or Radon Mitigation Business
    c. OM&M instructions and recommendations

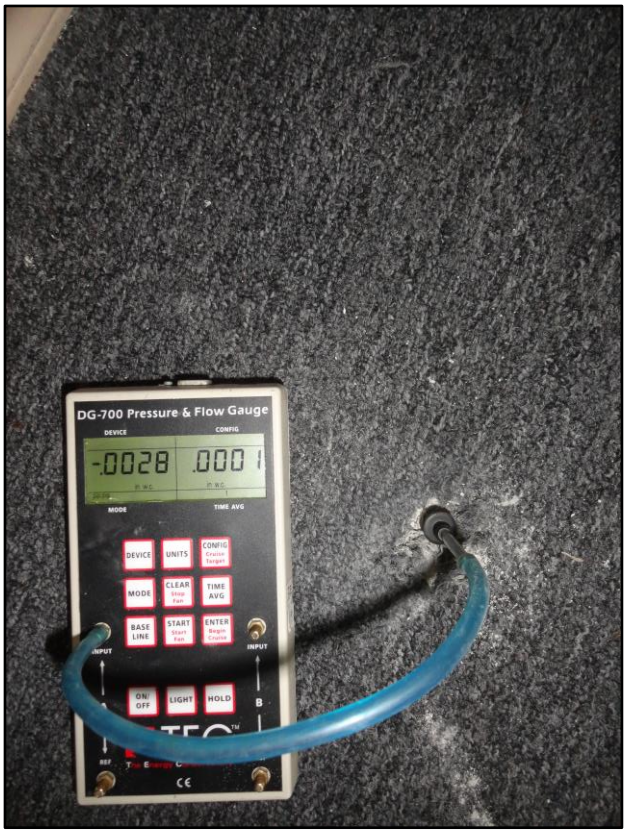
7.0 Pictures

7.1 Site Pictures

Coring Primary Diagnostic Suction Hole

Applying Vacuum to the Sub Slab Material

Measuring Soil Airflow Yield



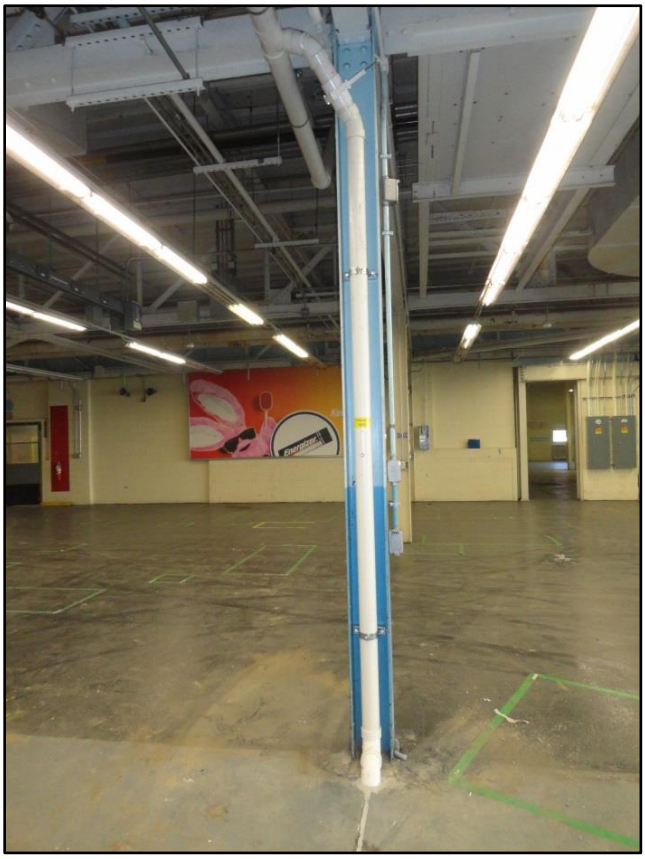
Measuring Sub Slab Pressure Differentials

Approximate Location of Blower #1

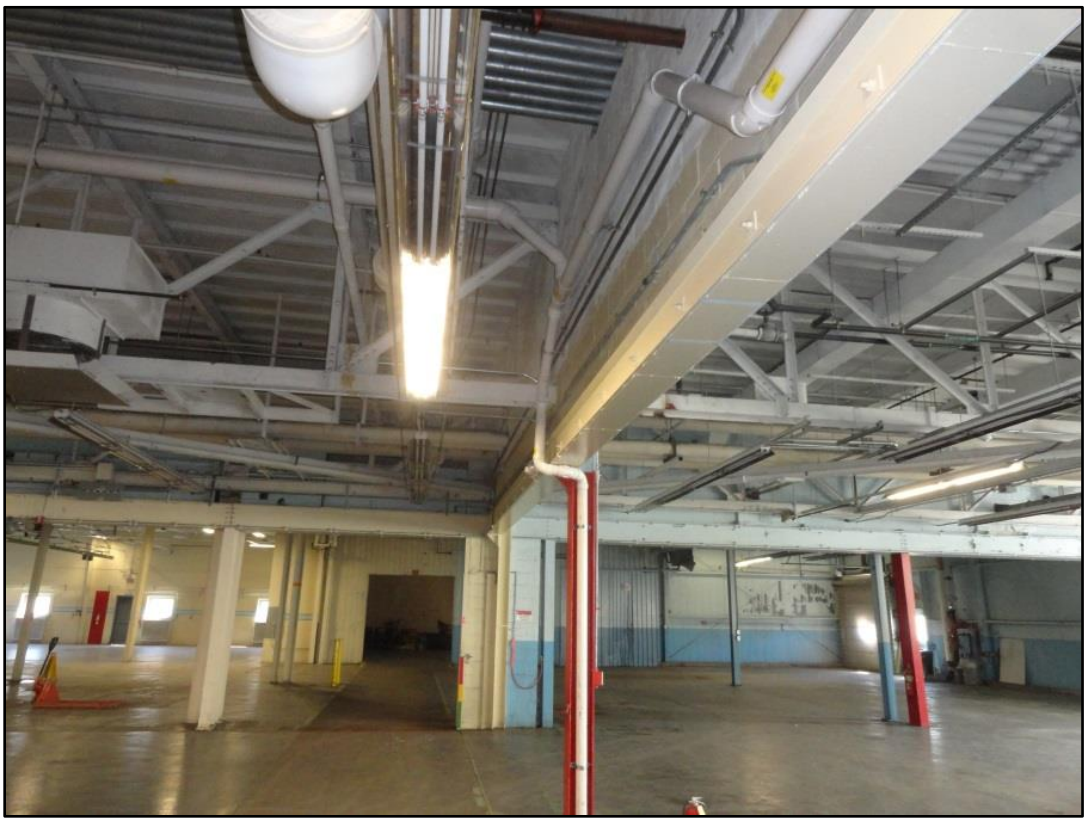
Approximate Location of Blower #2

7.2 Installation Examples

Sealed Suction Point



Vertical Riser



Vertical and Horizontal Pipe Runs

Roof GBR Series Blower

Roof Mounted Force Blower

Riser Pipe Before and After Sheetrock Enclosure

Appendix A – Equipment Cut Sheets

Installation & Wiring Instructions for FRT In Line Centrifugal Duct Fans

Model: FRT FORCE

IMPORTANT NOTE : DO NOT CONNECT THE POWER SUPPLY UNTIL THE FAN IS COMPLETELY INSTALLED.
MAKE SURE THE ELECTRICAL SERVICE TO THE FAN IS LOCKED IN "OFF" POSITION.

PLEASE READ AND SAVE THESE INSTRUCTIONS :

Warning – To reduce the risk of fire, electric shock or injury to persons, observe the following.

1. This unit is only for use in the manner intended by the manufacturer. If you have any questions contact the manufacturer Festa Radon Technologies Co.
2. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
3. Sufficient air is needed for proper combustion and exhausting of gases through the flue(chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.
4. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
5. Ducted fans must always be vented to the outdoors.
6. These units can be mounted indoors or outdoors.
7. Do not use these fans with solid state speed controllers.
8. The electric motor is protected by an internal overheat device to prevent/minimise motor damage. If the motor stops working, immediate inspection should be carried out by suitably qualified persons.
9. Before servicing or cleaning the unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
10. Do not use in a window.
11. If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application and be connected to a GFCI (Ground Fault Circuit Interrupter) – protected branch circuit.
12. Never place a switch where it can be reached from a tub or shower.
13. CAUTION: For General Ventilating Use Only. Do Not use to Exhaust Hazardous Or Explosive Materials and Vapours.
12. CAUTION: This unit has an unguarded impeller. Do Not Use in Locations Readily Accessible To People or Animals.

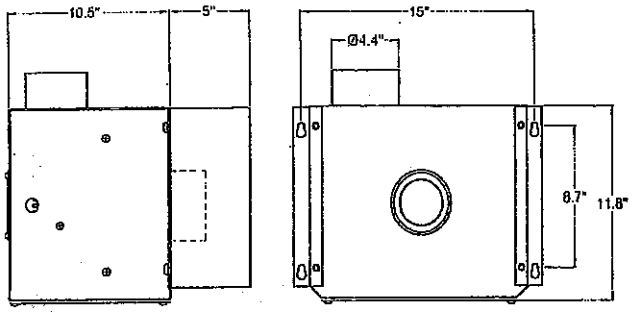
Installation of FRT Force Radon Fans.

The FRT Force Radon Fans can be mounted indoors or outdoors. We recommend that EPA recommendations be used in choosing the fan location. The FRT fans may be mounted directly onto the piping system or fastened to a supporting structure. When mounting directly onto a vertical piping system it is the installers responsibility to make provision to prevent the pipe system sliding into and onto the fan motor and impeller.

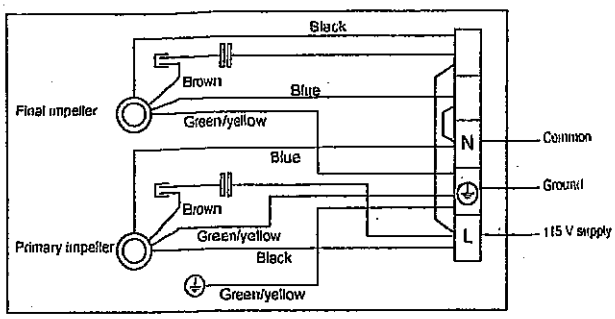
When installing a system with short duct runs terminating close to the fan i.e. within 60"(1.5m) suitable guards should be incorporated. It is the responsibility of the installer to ensure that all aspects of the system are taken into consideration.

Rigid ducting sections should be connected to fan spigots by flexible connectors and clips. The flexible connectors used should be suitable for routine servicing and vibration isolation.

Dimensions



Electrical Connections



Ensure that the mains supply voltage, frequency, number of phases and power rating comply with the details on the unit rating label (situated externally on the plastic casing terminal box cover). All wiring must be in accordance with local and / or national electrical codes as applicable, or the appropriate standard in your country. The fan must be supplied through a double pole isolating switch having a contact separation of not less than 1/8" (3mm). Wiring to the terminal box should be made in liquid tight flexible conduit to facilitate easy maintenance.

Operational Checks.

Check all connections are tight and leak free.

Check the system vacuum pressure with a manometer, ensure that the vacuum pressure is less than the maximum recommended operating pressure.

Check and verify Radon levels by testing to EPA protocol.

Cleaning and Maintenance.

We would recommend that the fan be periodically checked against the listed operational checks to ensure trouble free long lasting operation.

FIVE (5) YEAR WARRANTY

Conditions of Warranty

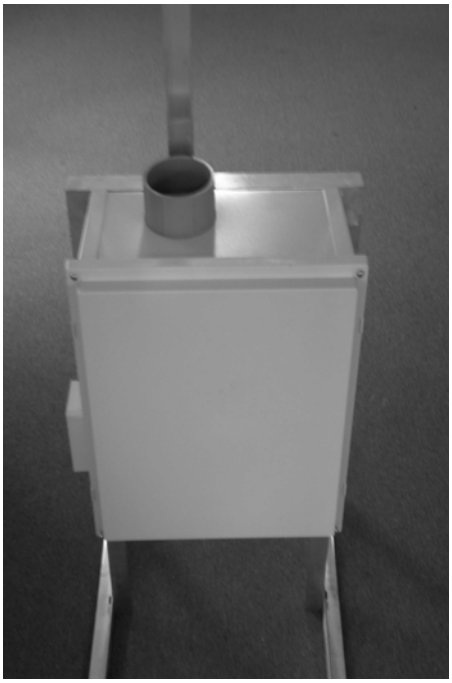
Festa Radon Technologies Co. ("FRT") warrants that the 'FRT FORCE', ("the Products") shall be free from defects in material and workmanship for a period of (5) years from the date of purchase by the customer. If within the applicable warranty period the Products prove to be defective by reason of faulty workmanship or materials, FRT will undertake to have the defective Product (or any part thereof) replaced at no cost to the customer subject to the following conditions:

1. The Product has been purchased and used solely in accordance with all Environmental Protection Agency ("EPA") standard practices and state and local codes of practice.
2. The Product is returned promptly on being found defective, together with this warranty and proof of date of installation at the customers risk and expense to Festa Radon Technologies Co. ("FRT") from whom the Product was purchased. All enquiry's must be through FRT.
3. This warranty shall not apply to any Product failure or defect due to any cause beyond the reasonable control of FRT including; damage caused through fire, flood, explosion, accident, misuse, wear and tear, neglect, incorrect adjustment or repair, damage caused through installation, adaptation, modification or use in an improper manner or inconsistent with the technical and/or safety standards required where the Product is used, or to damage occurring during transit to or from the customer.
4. If at any time during the Warranty Period any part or parts of the Product are replaced with a part or parts not supplied or approved by FRT, or the Product has been dismantled or repaired by any person not authorized by FRT, FRT shall have the right to terminate this warranty in whole or in part immediately without further notice.
5. FRT's decision on all matters relating to complaints and Products defects and failure (alleged or actual) shall be final. Any Product or defective part, which has been replaced, shall be FRT's.
6. AMG will offer to customers a Warranty of a full Five Years, from date of purchase, in accordance with the terms listed above.

Festa Radon Technologies Co. 47A Progress Avenue, Cranberry Twp., PA 16066
Tel. Toll Free 1(800) 806-7866 or (724) 772-9060 Fax 1(724) 772-9062

THE OBAR GBR89

COMPACT RADIAL BLOWER



GBR series with Roof Mount

Based on 25 years of experience and 2 years of research and development, the patent pending GBR series of compact radial blowers provide the perfect combination of performance and design.

PERFORMANCE

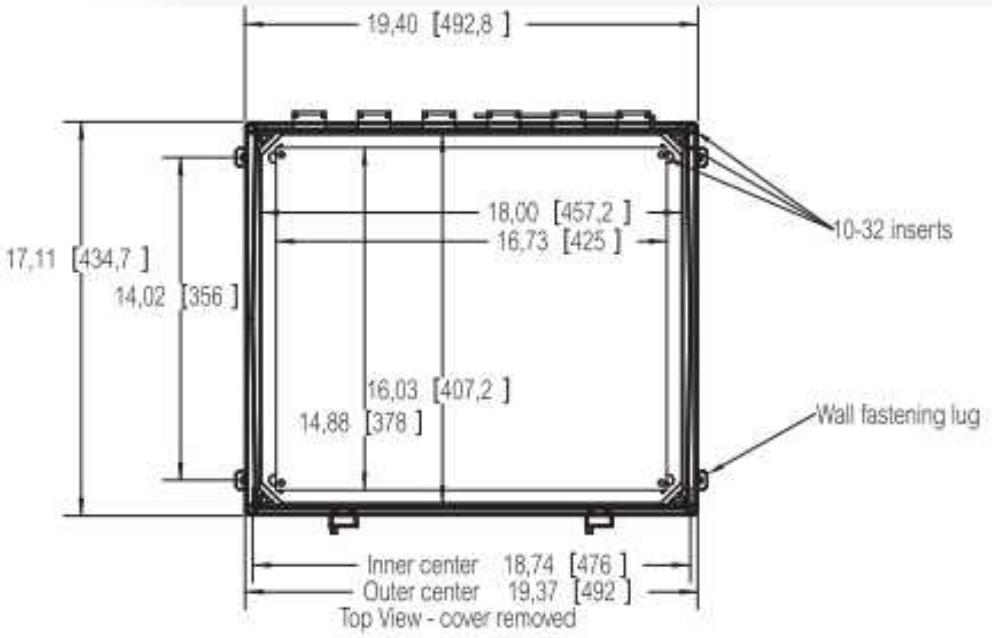
- GBR89 HA 14” WC at 100CFM max flow 500 CFM.
- Built in speed control to customize performance.
- Condensate bypass built in.
- 18 month warranty 40,000 hr sealed bearings.

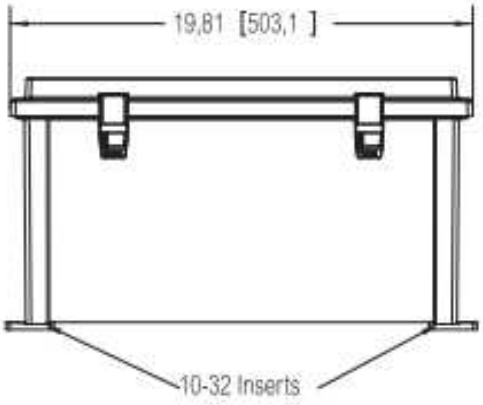
DESIGN

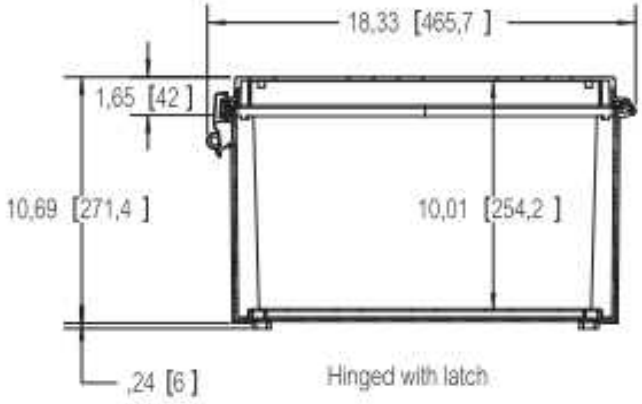
- Our modular design means the blower and manifold assembly can be removed and replaced as a unit. This makes repairs cost effective and easy and allows contractors to upgrade systems simply by swapping assemblies.
- The GBR series is based on a bypass blower designed to handle combustible materials.
- The housing is not required to be air tight so you can add gauges and alarms without compromising the system.
- Built in condensate bypass.
- Built in speed control.
- Quick disconnect electrical harness.
- All UL listed components including UL listed enclosure for outside use.
- Wall fastening lugs included.
- GBR series roof and wall mounts available to quickly configure the blowers for your installation while providing a custom built look.
- Compact design 18”x 16”x 10” weighing only 22 lbs.
- 4” schedule 40 inlet and 6” schedule 40 exhaust.

OBAR SYSTEMS INC 117 POCANTECS ROAD HIGHLAND LAKES NJ 07422 800 949 6227

Enclosure Specifications & Rating
Ingress Protection (EN 60529): 66/67 Electrical insulation: Totally insulated
Halogen free (DIN/VDE 0472, Part 815): yes
UV resistance: UL 508 Flammability Rating (UL 746 C 5): complies with UL 508 Glow Wire Test (IEC695-2-1) °C: 960 NEMA Class: UL Type 4, 4X, 6, 6P, 12 and 13
Certificates: Underwriters Laboratories







Appendix B – Drawings

ACTIVE SOIL DEPRESSURIZATION SYSTEM
US1 CLEANERS
10 MAIN STREET
WOODBRIDGE, NJ 07095

DECEMBER 30, 2015

DRAWING LIST

C Cover
1 Diagnostic Test Holes
2 Suction Points & Blowers
3 Mechanical Details

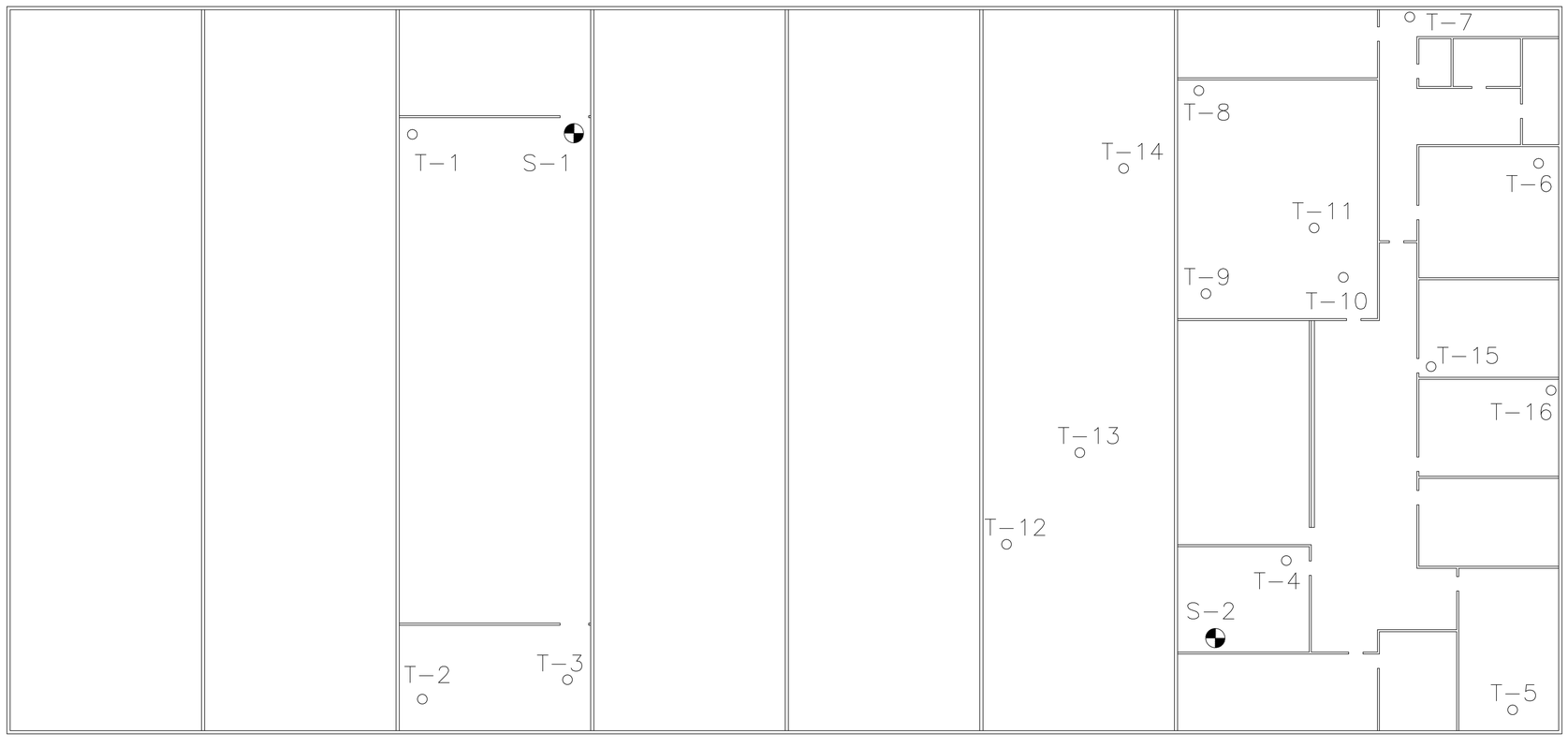
CLEAN VAPOR LLC

V.O.C. & RADON PLAN DESIGN AND REMEDIATION

CLEAN VAPOR LLC

P.O. BOX 688, BLAIRSTOWN, NEW JERSEY 07825

Ph 908 362-5616 Fax 908 362-5433 www.cleanvapor.com



0 6' 18'
3' 12' 24'
GRAPHIC SCALE

FLOOR PLAN

LEGEND

T-1	TESTHOLE
V-1	TEST HOLE
S-1	SUCTION POINT

CLEAN VAPOR LLC
P.O. BOX 688, BLAIRSTOWN, NJ 07825
Ph. 908 362- 5616 Fax. 908 362-5433
www.cleanvapor.com

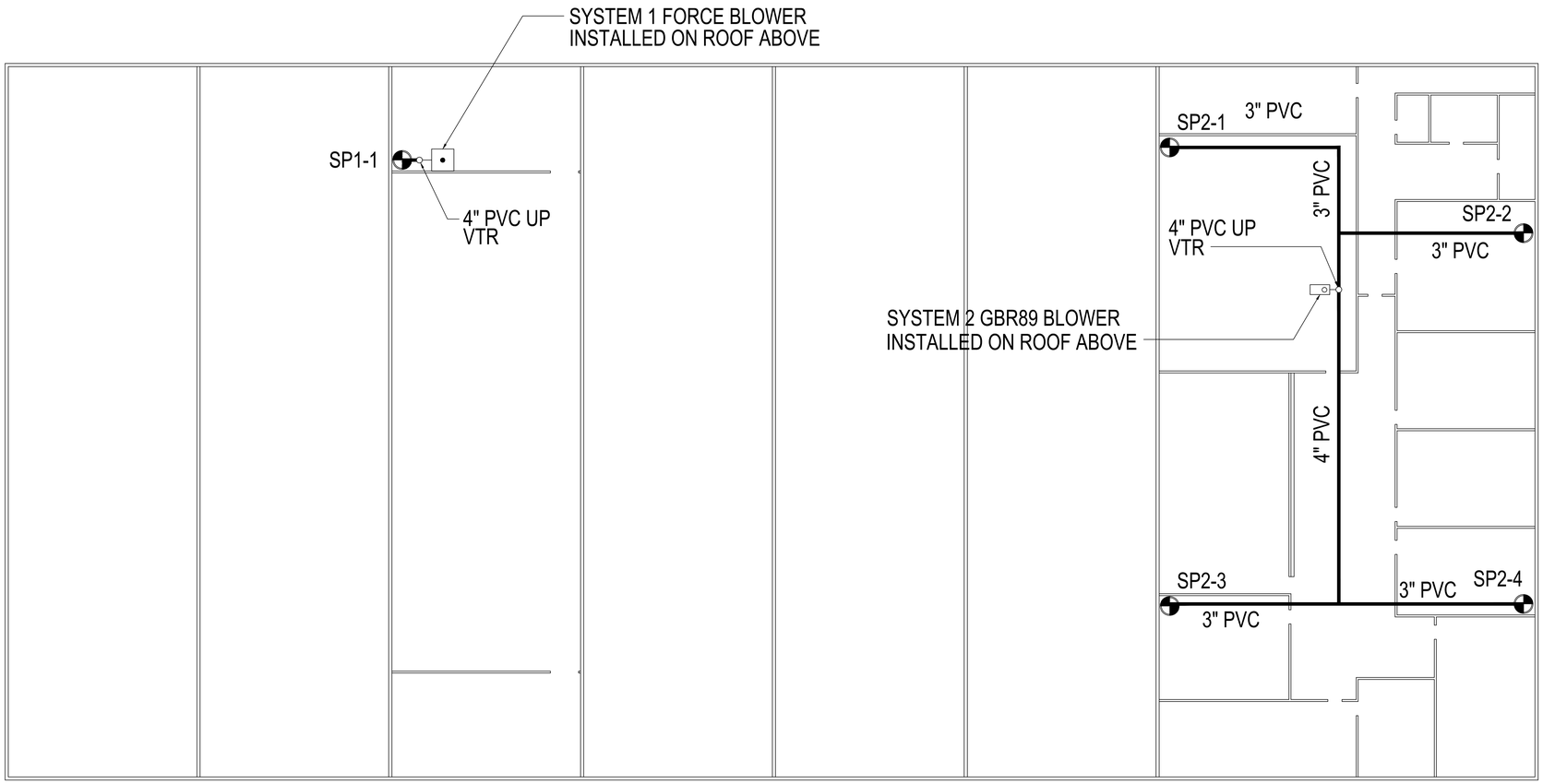
CLEAN VAPOR LLC
VOC & RADON PLAN DESIGN AND REMEDIATION

ACTIVE SOIL DEPRESSURIZATION
US1 CLEANERS
10 MAIN STREET
WOODRIDGE, NJ 07095

REVISION	DATE
	12/30/15
DRAWN BY	DAB
APPROVED	TEH
SCALE	3/32"=1'
CHECKED BY	TEH

SHEET TITLE
DIAGNOSTIC TEST HOLES

SHEET NO.
1



FLOOR PLAN

0 6' 18'
3' 12' 24'
GRAPHIC SCALE

LEGEND

SP#-# SUCTION POINT
MAGNEHELIC PANEL*
VAPOR GUARDIAN PANEL*
OBAR GBR89 BLOWER
AMG FORCE BLOWER
PB#1 PRESSURE PROBES
FIRE COLLAR (AS REQ'D.)

* LOCATION TO BE DETERMINED

CLEAN VAPOR LLC
P.O. BOX 688, BLAIRSTOWN, NJ 07825
Ph. 908 362- 5616 Fax. 908 362-5433
www.cleanvapor.com

CLEAN VAPOR LLC
VOC & RADON POR DESIGN AND REMEDIATION

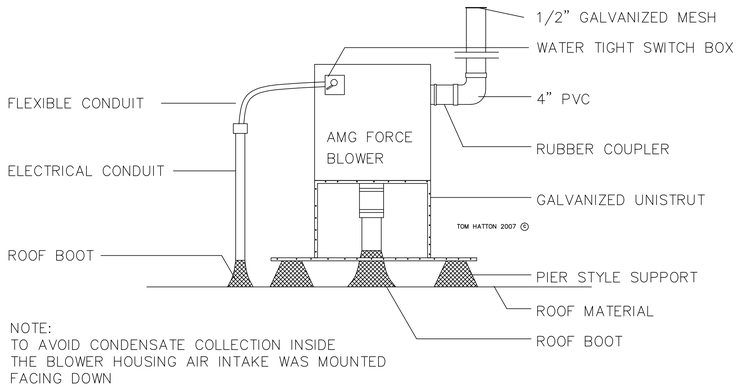
ACTIVE SOIL DEPRESSURIZATION
US1 CLEANERS
10 MAIN STREET
WOODBRIDGE, NJ 07095

REVISION	DATE
	12/30/15
DRAWN BY	DAB
APPROVED	TEH
SCALE	3/32"=1'
CHECKED BY	TEH

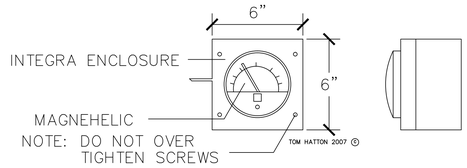
SHEET TITLE
SUCTION PT. & BLOWERS

SHEET NO.
2

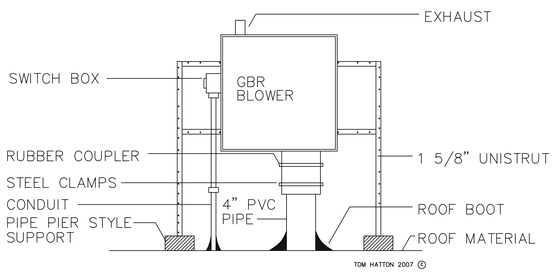
ROOF MOUNTED AMG FORCE BLOWER AND SUPPORT DETAIL



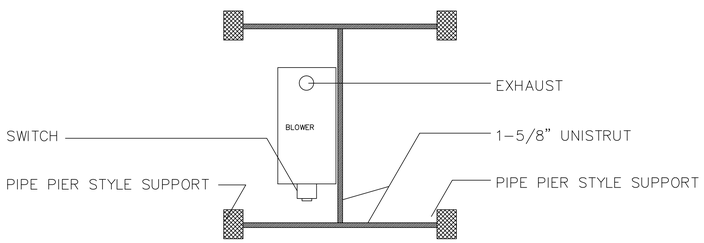
MAGNEHELIC AND PROTECTIVE BOX ENCLOSURE DETAIL



GBR SERIES BLOWERS

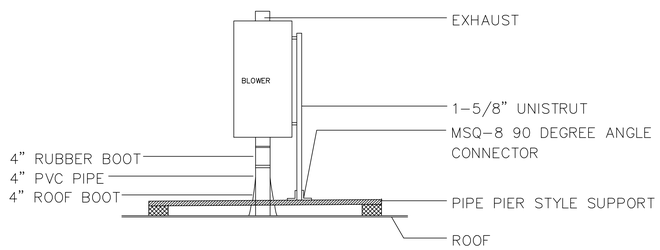


FRONT VIEW



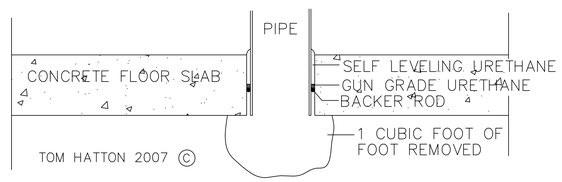
TOP VIEW

NTS

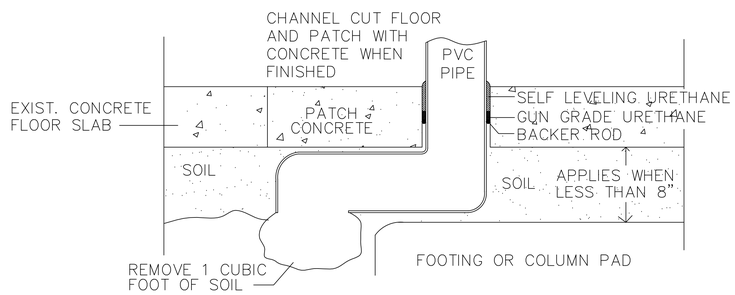


SIDE VIEW

SUCTION POINT DETAIL



SUCTION POINT DETAIL AT FOOTER



EQUIPMENT SCHEDULE

Vapor Vent Piping
- PVC schedule 40 pipe and fittings (ASTM D-2665)
  - Hollow Core PVC is not permissible
- PVC cement clear primer will comply with ASTM F-656
- PVC cement adhesive will comply with ASTM D-2564

Piping Supports and Hardware
- 3", 4" Hanging Pipe Supports
- Swivel ring or standard bolt type clevis
- Adjustable band hanger
- Double Expansion Anchors
- 3/8" threaded rod
- 1/2" threaded rod
- Assorted bolts, nuts & washers
- 3" Pipe Secured to Concrete Floor or Wall
- Slotted Conduit Channel
- Conduit Clamps
- Assorted bolts, nuts & washers

Vapor Blower
- (1) AMG FORCE BLOWER
- (1) GBR89
- 4" to 4" rubber boots with stainless steel hose clamps

Blower Support Frame
- 1 5/8" C- Profile Galvanized Unistrut
- MSQ-4 Hole 90 degree Angle Connector
- MSQ-8 Hole 90 degree Angle Connector
- MSQ Pushbutton fastening bolt
- Pipe Pier style supports for roof contact

Air Flow Regulator Valves
- 3" Gate Valves

Sealing Materials
- Urethane sealant will comply with Federal Specification TT-S-00230C, Subject to compliance with contract requirements; the following manufacturers of urethane caulking sealants may be used:
  - VULKEM 45 SSL
  - VULKEM 116

Fire Protection
- 3" & 4" Fire collars
- Fire stopping Caulk (Hilti)
- Low Voltage Signal Wire (22-4 / 22-2 Guage)
  - Hilti is a suggested manufacturer of fire stopping fastening products

CLEAN VAPOR LLC
P.O. BOX 688, BLAIRSTOWN, NJ 07825
Ph. 908 362-5616 Fax. 9708 362-5433
www.cleanvapor.com

CLEAN VAPOR LLC
VOC & RADON PLUME DESIGN AND REMEDIATION

ACTIVE SOIL DEPRESSURIZATION
US1 CLEANERS
10 MAIN STREET
WOODBRIDGE, NJ 07095

REVISION	DATE
	12/30/15
DRAWN BY	DAB
APPROVED	TEH
SCALE	NTS
CHECKED BY	TEH

SHEET TITLE
MECHANICAL DETAILS

SHEET NO.
3

APPENDIX D
Report of Vapor Intrusion Mitigation – Clean Vapor LLC

REPORT OF
VAPOR INTRUSION MITIGATION
For:
US1 Cleaners Site
10 Main Street, Woodbridge, NJ

Prepared for:

Mr. Clem Alcamo
88th Street Properties
50 East Loop Road
Staten Island, NY 10304

Prepared by:

Mr. Daniel Nuzzetti
Project Engineer
Clean Vapor, LLC
32 Lambert Rd. East
PO Box 688
Blairstown, NJ 07825

Radon Mitigation Business License

NJ DEP MIB 92520

February 3, 2016

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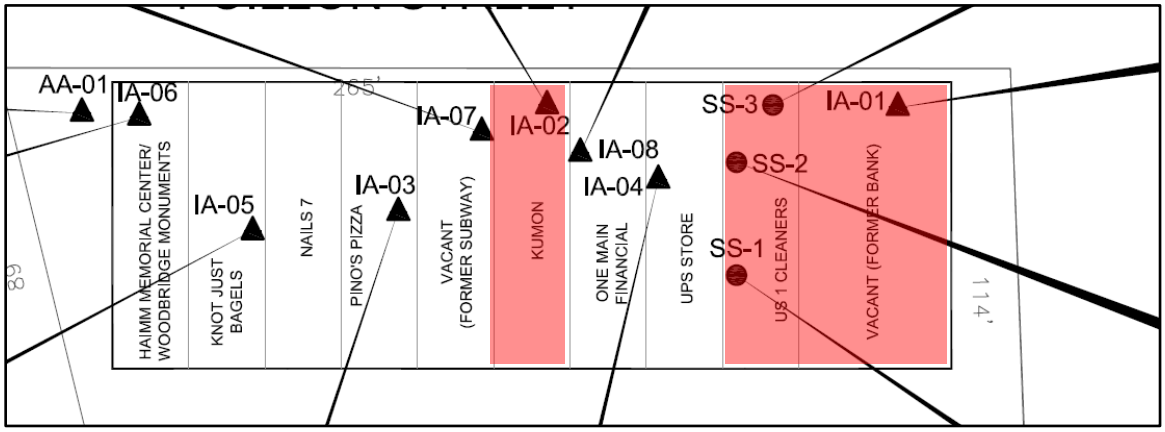
   2.1. Blower Measurements 4
   2.2. Riser Pipe Measurements 4
   2.3. Sub Slab Vacuum Measurements 4
3. Suction Point Installation 4
4. Vapor Conveyance Pipe Installation 5
5. Gate Valves 6
6. Blower Installation 6
7. Blower Wiring, Panels, and Breakers 7
8. Magnehelic and Alarms 7
9. System Labeling 8
10. Permanent Sub Slab Ports 9
11. Operations and Maintenance 9
12. Project Licenses and Certifications 11
13. Technical Specification and Warranties 12
14. As-Built Drawings 13

1. Introduction

This report summarizes the vapor intrusion mitigation activities at the Kumon Learning Center, The US 1 Dry Cleaners, and Former PNC Bank located at 10 Main Street in Woodbridge, New Jersey. The Sub Slab Depressurization System (SSDS) has been designed and installed to mitigate vapor intrusion in the units identified as having elevated concentrations of sub slab vapors. The targeted units for depressurization are outlined in the diagram shown below. This report and its appendices summarize the installation activities.

The vapor intrusion mitigation systems were installed in accordance with the specifications provided by the December 2015, Clean Vapor, Vapor Intrusion Mitigation Plan Design. Mitigation activities began with mobilization and mitigation of the Kumon Learning Center on Monday, January 18, 2016. The remainder of the targeted spaces were mitigated January 26, 2016 through January 29, 2016. The depressurization blower serving the Kumon Learning Center was activated on January 18, 2016 as summarized in the January 20, 2016 Commissioning Letter. The depressurization blower for the Former Bank and Dry Cleaner was activated on Friday, January 20, 2016. Permits were filed for in accordance with local municipal codes and final inspections are pending. The system is meeting all of the NJDEP defined requirements for a successful Sub Slab Depressurization System.



Picture 1.1
Targeted Area for Mitigation

2. System Commissioning Measurements

The design objective of the Vapor Intrusion Mitigation System was to create a negative sub slab pressure field with a minimum performance objective of -0.004 inches of water column ("w.c.).

Post mitigation commissioning exhaust airflow, vacuum, and sub slab vacuum distribution measurements occurred in the Kumon Learning Center on January 18, 2016 and in the other spaces on February 2, 2016. Sub slab vacuum measurements were made using a digital micro-

manometer capable of reading down to 0.0001 inches water column and airflow measurements made using a hot wire anemometer. Blower vacuum and airflow was measured on the roof at a test port installed before the blower inlet. All targeted areas of the sub slab are being depressurized to a vacuum level of -0.004 inches of water column or greater.

2.1. Blower Measurements

Blower # and Type	Vacuum ("wc)	Airflow (cfm)	Amps
Blower #1 (AMG Force)	1.7	200	2.5
Blower #2 (GBR89-HA)	6.0	420	4.3

2.2. Riser Pipe Measurements

Riser #	Vacuum ("wc)	Airflow (cfm)
1-1	1.7	200
2-1	2.1	88
2-2	1.8	170
2-3	2.0	99
2-4	1.6	118

2.3. Sub Slab Vacuum Measurements

The locations of the permanent sub slab test ports can be found on the As-built drawings.

Unit	Floor Test Port	Vacuum ("w.c.)
Kumon	PT-1	-0.2010
	PT-2	-0.0041
	PT-3	-0.0044
Former Bank	PT-4	-0.0075
	PT-5	-0.1504
	PT-6	-0.0211
	PT-7	-0.0134
Dry Cleaner	PT-8	-0.0324
	PT-9	-0.0412

3. Suction Point Installation

A total of five suction points were installed as shown in the As-built drawings. All suction point riser pipes are Schedule 40 PVC. All of the suction holes were created using a five inch diameter concrete coring bit and were sealed following the removal of one cubic foot of soil and riser pipe installation. Gun-grade urethane caulking and backer rod were used below the surface of the concrete as a preliminary seal followed by self-leveling urethane to seal the

suction point flush with the concrete floor. The riser pipes were secured above each suction hole with pipe clamps attached to the interior wall framing. All suction points were installed in corners to allow for sheetrock enclosure installations by the owner. Photo documentation of a completed suction point riser is shown below.

Picture 3.1
Suction Point Riser Pipe

4. Vapor Conveyance Pipe Installation

All horizontal pipe runs between the roof mounted fan and the suction points were installed with a 1 inch slope back to a suction point for every ten feet of horizontal pipe run. All vertical pipe runs were installed plumb. Piping was installed so that there are no possible water traps between the blowers and the suction points. Unless otherwise noted on the As-built drawings, all piping and fittings installed are Schedule 40 PVC and are clamped and supported according to the 2006 National Plumbing Code. Pipe is not supported by other building piping or ducts.

5. Gate Valves

Inline slide valves were installed for all suction points. All valves are currently in the 100% open position. Optimum sub slab vacuum extension was observed throughout the targeted areas and no balancing was necessary.

6. Blower Installation

There are two roof mounted blowers installed, as noted on the As-built drawings. The blowers are mounted on Uni-strut frames that are affixed to pipe pier foam blocks to minimize vibrations. The blower exhausts are shielded with a ½ inch stainless steel mesh wire varmint guard. The exhaust discharges extend a minimum of 2 feet above the roofline and terminate at least 20 feet from fresh air intake vents or other openings. The blowers were specified based on previous diagnostic vacuum and air flow measurements. The following pictures show the roof mounted blowers.

Picture 6.1
Roof Mounted AMG Force Blower (Blower #1)

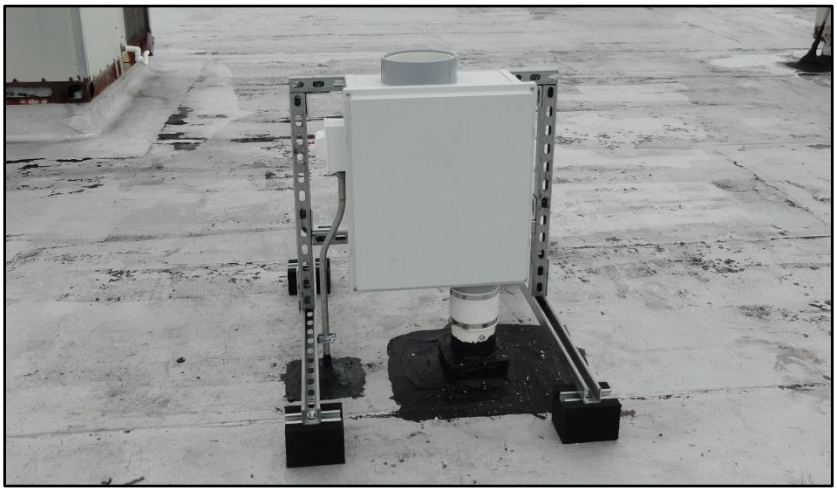


Photo 6.2
Roof Mounted GBR-89 Blower (Blower #2)

7. Blower Wiring, Panels, and Breakers

One dedicated 110V breaker was used to power the AMG Force blower. One 220V volt breaker was used to power the GBR89-HA blower. Separate dedicated breakers were used to power the systems' visual and audible alarms. All breakers have yellow labels with the text "ASD Blower Circuit, Do Not Power Off".

Photo 7.1
Labeled Circuit Breaker

8. Magnehelic and Alarms

Magnehelic vacuum gauges were installed to indicate the static vacuum generated by each of the blower systems. Audible and visual alarms were also installed. If the system malfunctions, the red light will illuminate and the audible alarm will sound. The Magnehelic and alarm were installed next to the suction point riser in the rear of the Kumon Learning Center and in the electrical room of the Former Bank.

Picture 8.1
System 1 Magnehelic in the Kumon Learning Center

Picture 8.2
System 2 Magnehelic in Former Bank

9. System Labeling

At least every 20 feet of exposed contaminant vent pipe length has a label that reads "Active Soil Depressurization System, Do Not Alter" attached to the pipe. All labels are readable from three feet away. Each riser pipe is also labeled with a riser number that corresponds to the As-built drawing.

Picture 9.1
System Labeling and Test Port on a Riser Pipe

10. Permanent Sub Slab Ports

Nine permanent sub slab test ports were installed for the purpose of verifying sub slab vacuum at Operations and Maintenance visits. The locations of these ports are shown in the As-built Drawings.

Picture 10.1
Permanent Sub Slab Test Port Under Carpeting

11. Operations and Maintenance

Vapor intrusion mitigation systems should be quarterly inspected and annual thereafter. All maintenance on the system should be performed by qualified maintenance personnel. The following items should be inspected and the checklist on the following page should be filled out.

- **Pipe:** Pipe should be checked to ensure no damage or leaks have occurred.
- **Permanent Sub Slab Test Ports:** The sub slab vacuum at each permanent test port should be measured and recorded to ensure that the sub slab vacuum has not dropped below 0.004 inches of water column
- **Risers:** The static vacuum and gate valve position should be recorded.
- **Blower:** The blower should be checked for any visual signs of damage. The static vacuum and airflow of the blower should be measured and recorded.

Operations and Maintenance Annual Checklist:

Component	Date	Condition/Reading	Date	Condition/Reading	Date	Condition/Reading
Sealing	2/2/2016	New				
Pipe	2/2/2016	New				
Blowers	2/2/2016	New				

Blower Number	Date	Static Vac "w.c.	Airflow cfm	Date	Static Vac "w.c.	Airflow cfm	Date	Static Vac "w.c.	Airflow cfm
Blower #1	1/18/2016	1.7	200						
Blower #2	2/2/2016	6.0	420						

Riser Number	Date	Static Vac "w.c.	Gate Valve (% open)	Date	Static Vac "w.c.	Gate Valve (% open)	Date	Static Vac "w.c.	Gate Valve (% open)
1-1	1/18/2016	1.7	100						
2-1	2/2/2016	2.1	100						
2-2	2/2/2016	1.8	100						
2-3	2/2/2016	2.0	100						
2-4	2/2/2016	1.6	100						

Permanent Port	Date	Vacuum "w.c.	Date	Vacuum "wc	Date	Vacuum "wc
PT-1	1/18/2016	-0.2010				
PT-2	1/18/2016	-0.0041				
PT-3	1/18/2016	-0.0044				
PT-4	2/2/2016	-0.0075				
PT-5	2/2/2016	-0.1504				
PT-6	2/2/2016	-0.0211				
PT-7	2/2/2016	-0.0134				
PT-8	2/2/2016	-0.0324				
PT-9	2/2/2016	-0.0412				

12.Project Licenses and Certifications

DOCUMENT CERTIFICATION

Vapor Intrusion Mitigation Report

10 Main Street, Woodbridge, New Jersey

February 3, 2016

I certify that the mitigation system described in this report and shown in the As-built drawings, at 10 Main Street, Woodbridge, New Jersey is effectively addressing the vapor intrusion pathways associated with the sub slab vapors. I certify that I have personally examined and am familiar with the information submitted herein and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete.

BY: Thomas E. Hatton

SIGNATURE: Thomas E. Hatton

TITLE: Project Director NJDEP MIS 10245

Radon Mitigation Business License # MIB92520

13.Technical Specification and Warranties

Installation & Wiring Instructions for FRT In Line Centrifugal Duct Fans

Model: FRT FORCE

IMPORTANT NOTE : DO NOT CONNECT THE POWER SUPPLY UNTIL THE FAN IS COMPLETELY INSTALLED.
MAKE SURE THE ELECTRICAL SERVICE TO THE FAN IS LOCKED IN "OFF" POSITION.

PLEASE READ AND SAVE THESE INSTRUCTIONS :

Warning – To reduce the risk of fire, electric shock or injury to persons, observe the following.

1. This unit is only for use in the manner intended by the manufacturer. If you have any questions contact the manufacturer Festa Radon Technologies Co.
2. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.
3. Sufficient air is needed for proper combustion and exhausting of gases through the flue(chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.
4. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
5. Ducted fans must always be vented to the outdoors.
6. These units can be mounted indoors or outdoors.
7. Do not use these fans with solid state speed controllers.
8. The electric motor is protected by an internal overheat device to prevent/minimise motor damage. If the motor stops working, immediate inspection should be carried out by suitably qualified persons.
9. Before servicing or cleaning the unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
10. Do not use in a window.
11. If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application and be connected to a GFCI (Ground Fault Circuit Interrupter) – protected branch circuit.
12. Never place a switch where it can be reached from a tub or shower.
13. CAUTION: For General Ventilating Use Only. Do Not use to Exhaust Hazardous Or Explosive Materials and Vapours.
12. CAUTION: This unit has an unguarded impeller. Do Not Use in Locations Readily Accessible To People or Animals.

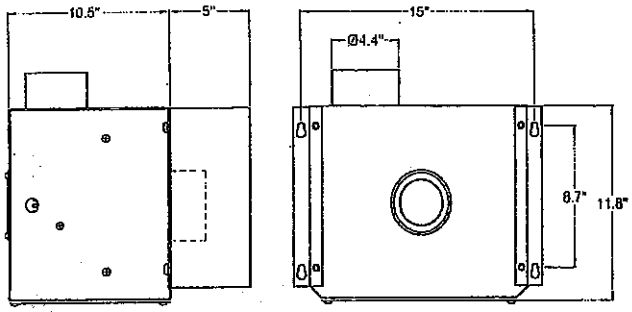
Installation of FRT Force Radon Fans.

The FRT Force Radon Fans can be mounted indoors or outdoors. We recommend that EPA recommendations be used in choosing the fan location. The FRT fans may be mounted directly onto the piping system or fastened to a supporting structure. When mounting directly onto a vertical piping system it is the installers responsibility to make provision to prevent the pipe system sliding into and onto the fan motor and impeller.

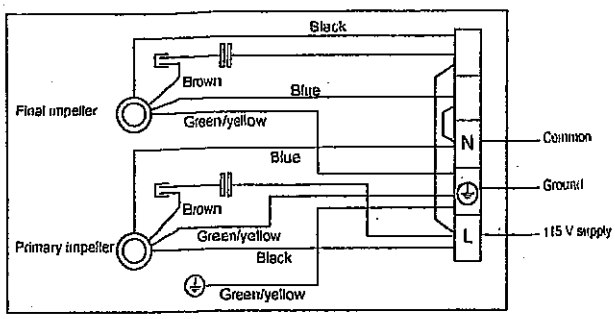
When installing a system with short duct runs terminating close to the fan i.e. within 60"(1.5m) suitable guards should be incorporated. It is the responsibility of the installer to ensure that all aspects of the system are taken into consideration.

Rigid ducting sections should be connected to fan spigots by flexible connectors and clips. The flexible connectors used should be suitable for routine servicing and vibration isolation.

Dimensions



Electrical Connections



Ensure that the mains supply voltage, frequency, number of phases and power rating comply with the details on the unit rating label (situated externally on the plastic casing terminal box cover). All wiring must be in accordance with local and / or national electrical codes as applicable, or the appropriate standard in your country. The fan must be supplied through a double pole isolating switch having a contact separation of not less than 1/8" (3mm). Wiring to the terminal box should be made in liquid tight flexible conduit to facilitate easy maintenance.

Operational Checks.

Check all connections are tight and leak free.

Check the system vacuum pressure with a manometer, ensure that the vacuum pressure is less than the maximum recommended operating pressure.

Check and verify Radon levels by testing to EPA protocol.

Cleaning and Maintenance.

We would recommend that the fan be periodically checked against the listed operational checks to ensure trouble free long lasting operation.

FIVE (5) YEAR WARRANTY

Conditions of Warranty

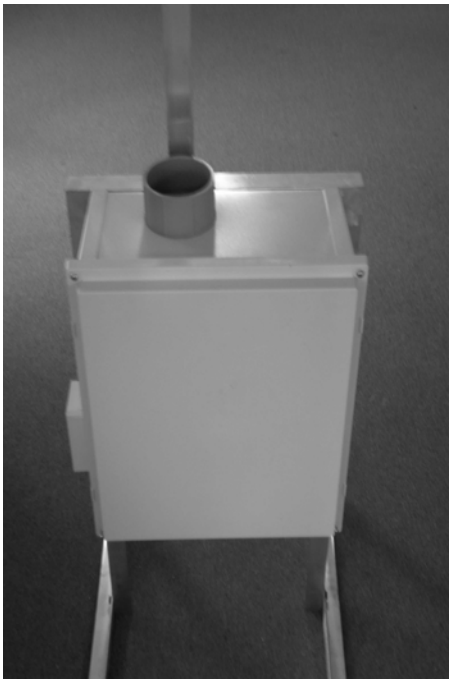
Festa Radon Technologies Co. ("FRT") warrants that the 'FRT FORCE', ("the Products") shall be free from defects in material and workmanship for a period of (5) years from the date of purchase by the customer. If within the applicable warranty period the Products prove to be defective by reason of faulty workmanship or materials, FRT will undertake to have the defective Product (or any part thereof) replaced at no cost to the customer subject to the following conditions:

1. The Product has been purchased and used solely in accordance with all Environmental Protection Agency ("EPA") standard practices and state and local codes of practice.
2. The Product is returned promptly on being found defective, together with this warranty and proof of date of installation at the customers risk and expense to Festa Radon Technologies Co. ("FRT") from whom the Product was purchased. All enquiry's must be through FRT.
3. This warranty shall not apply to any Product failure or defect due to any cause beyond the reasonable control of FRT including; damage caused through fire, flood, explosion, accident, misuse, wear and tear, neglect, incorrect adjustment or repair, damage caused through installation, adaptation, modification or use in an improper manner or inconsistent with the technical and/or safety standards required where the Product is used, or to damage occurring during transit to or from the customer.
4. If at any time during the Warranty Period any part or parts of the Product are replaced with a part or parts not supplied or approved by FRT, or the Product has been dismantled or repaired by any person not authorized by FRT, FRT shall have the right to terminate this warranty in whole or in part immediately without further notice.
5. FRT's decision on all matters relating to complaints and Products defects and failure (alleged or actual) shall be final. Any Product or defective part, which has been replaced, shall be FRT's.
6. AMG will offer to customers a Warranty of a full Five Years, from date of purchase, in accordance with the terms listed above.

Festa Radon Technologies Co. 47A Progress Avenue, Cranberry Twp., PA 16066
Tel. Toll Free 1(800) 806-7866 or (724) 772-9060 Fax 1(724) 772-9062

THE OBAR GBR89

COMPACT RADIAL BLOWER



GBR series with Roof Mount

Based on 25 years of experience and 2 years of research and development, the patent pending GBR series of compact radial blowers provide the perfect combination of performance and design.

PERFORMANCE

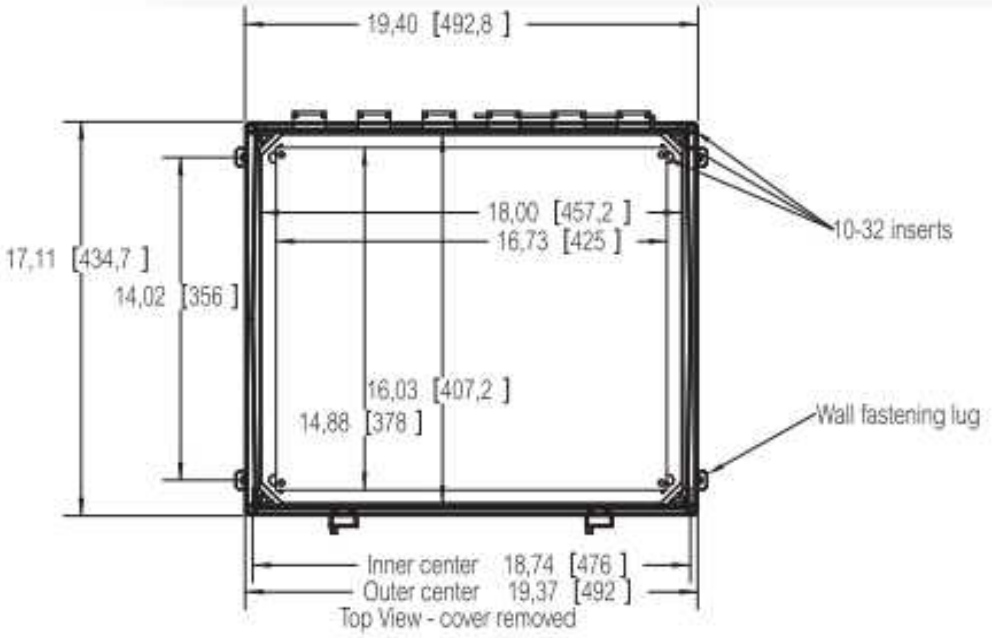
- GBR89 HA 14” WC at 100CFM max flow 500 CFM.
- Built in speed control to customize performance.
- Condensate bypass built in.
- 18 month warranty 40,000 hr sealed bearings.

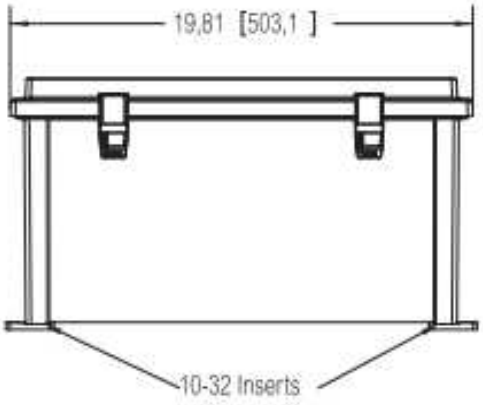
DESIGN

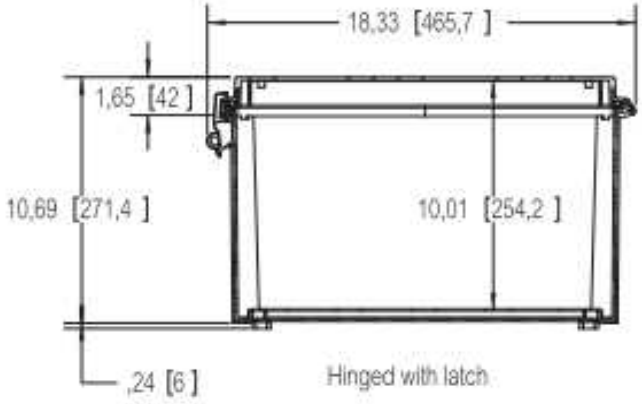
- Our modular design means the blower and manifold assembly can be removed and replaced as a unit. This makes repairs cost effective and easy and allows contractors to upgrade systems simply by swapping assemblies.
- The GBR series is based on a bypass blower designed to handle combustible materials.
- The housing is not required to be air tight so you can add gauges and alarms without compromising the system.
- Built in condensate bypass.
- Built in speed control.
- Quick disconnect electrical harness.
- All UL listed components including UL listed enclosure for outside use.
- Wall fastening lugs included.
- GBR series roof and wall mounts available to quickly configure the blowers for your installation while providing a custom built look.
- Compact design 18”x 16”x 10” weighing only 22 lbs.
- 4” schedule 40 inlet and 6” schedule 40 exhaust.

OBAR SYSTEMS INC 117 POCANTECS ROAD HIGHLAND LAKES NJ 07422 800 949 6227

Enclosure Specifications & Rating
Ingress Protection (EN 60529): 66/67 Electrical insulation: Totally insulated
Halogen free (DIN/VDE 0472, Part 815): yes
UV resistance: UL 508 Flammability Rating (UL 746 C 5): complies with UL 508 Glow Wire Test (IEC695-2-1) °C: 960 NEMA Class: UL Type 4, 4X, 6, 6P, 12 and 13
Certificates: Underwriters Laboratories







14. As-Built Drawings

ACTIVE SOIL DEPRESSURIZATION SYSTEM
US1 CLEANERS
10 MAIN STREET
WOODBRIDGE, NJ 07095

DECEMBER 30, 2015

AS-BUILTS 2-2-16

DRAWING LIST

C	Cover
1	Diagnostic Test Holes
1A	Permanent Test Holes
2	Suction Points & Blowers
3	Mechanical Details

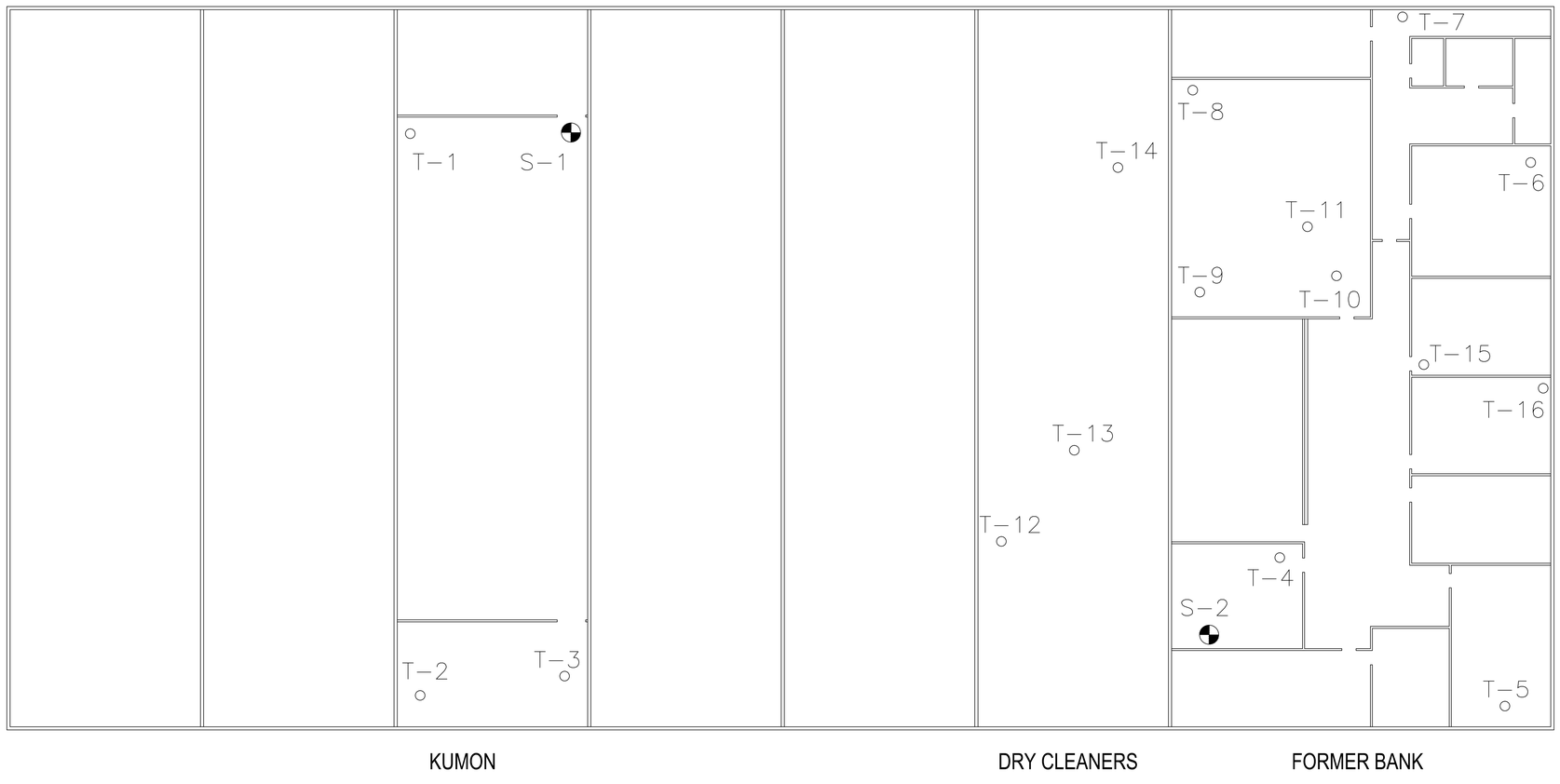
CLEAN VAPOR LLC

V.O.C. & RADON PLAN DESIGN AND REMEDIATION

CLEAN VAPOR LLC

P.O. BOX 688, BLAIRSTOWN, NEW JERSEY 07825

Ph 908 362-5616 Fax 908 362-5433 www.cleanvapor.com



0 6' 18'
3' 12' 24'
GRAPHIC SCALE

FLOOR PLAN

LEGEND

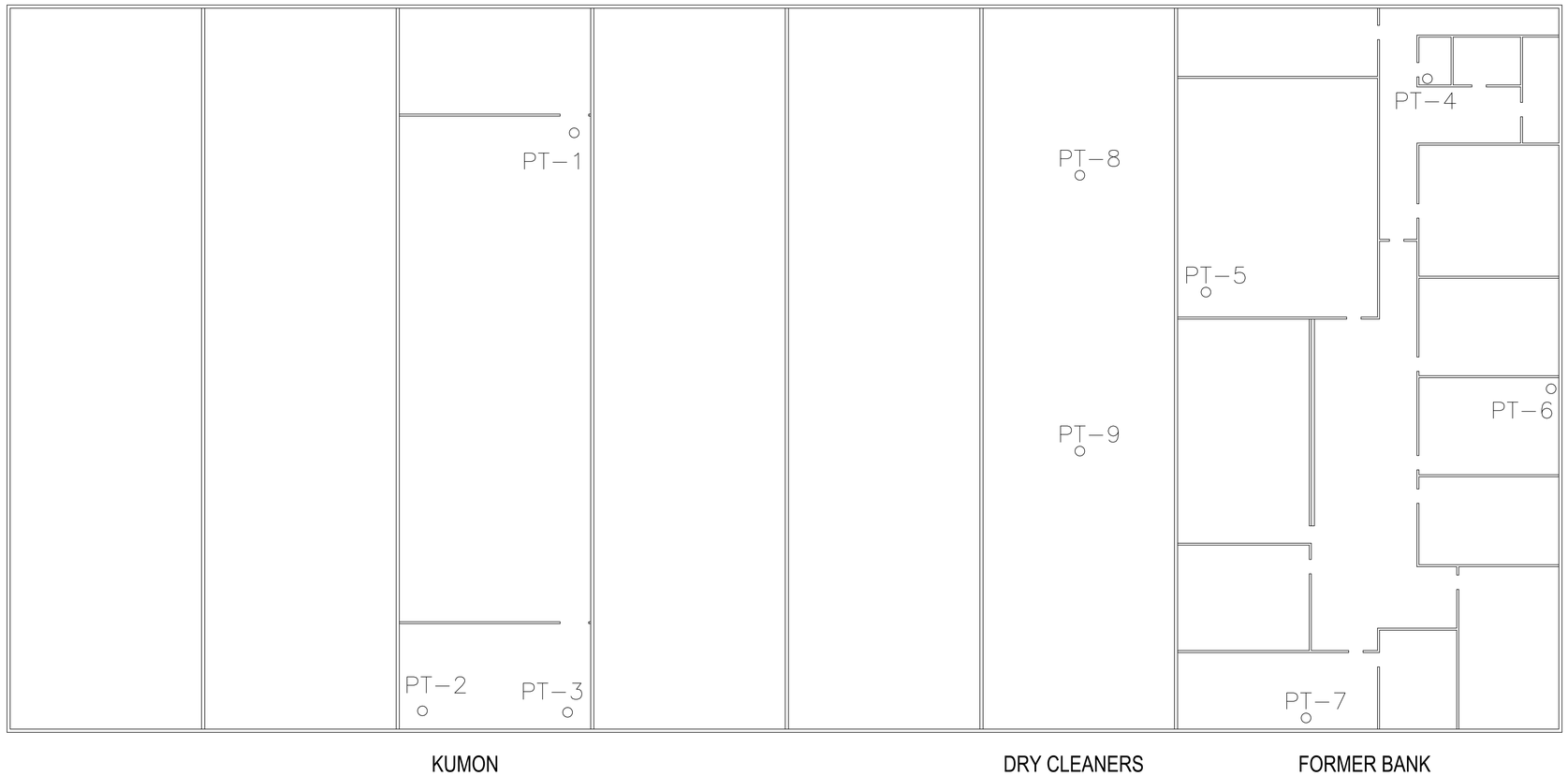
T-1	TESTHOLE
V-1	TEST HOLE
S-1	SUCTION POINT

CLEAN VAPOR LLC
P.O. BOX 688, BLAIRSTOWN, NJ 07825
Ph. 908 362- 5616 Fax. 908 362-5433
www.cleanvapor.com

CLEAN VAPOR LLC
VOC & RADON PLAN DESIGN AND REMEDIATION

ACTIVE SOIL DEPRESSURIZATION
US1 CLEANERS
10 MAIN STREET
WOODRIDGE, NJ 07095

REVISION AS-BUILTS	DATE 2-2-16
	12/30/15
DRAWN BY	DAB
APPROVED	TEH
SCALE	3/32"=1'
CHECKED BY	TEH
SHEET TITLE	DIAGNOSTIC TEST HOLES
SHEET NO.	1



FLOOR PLAN

0 6' 18'
3' 12' 24'
GRAPHIC SCALE

LEGEND

PT-1 TESTHOLE

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Ph. 908 362- 5616 Fax. 908 362-5433
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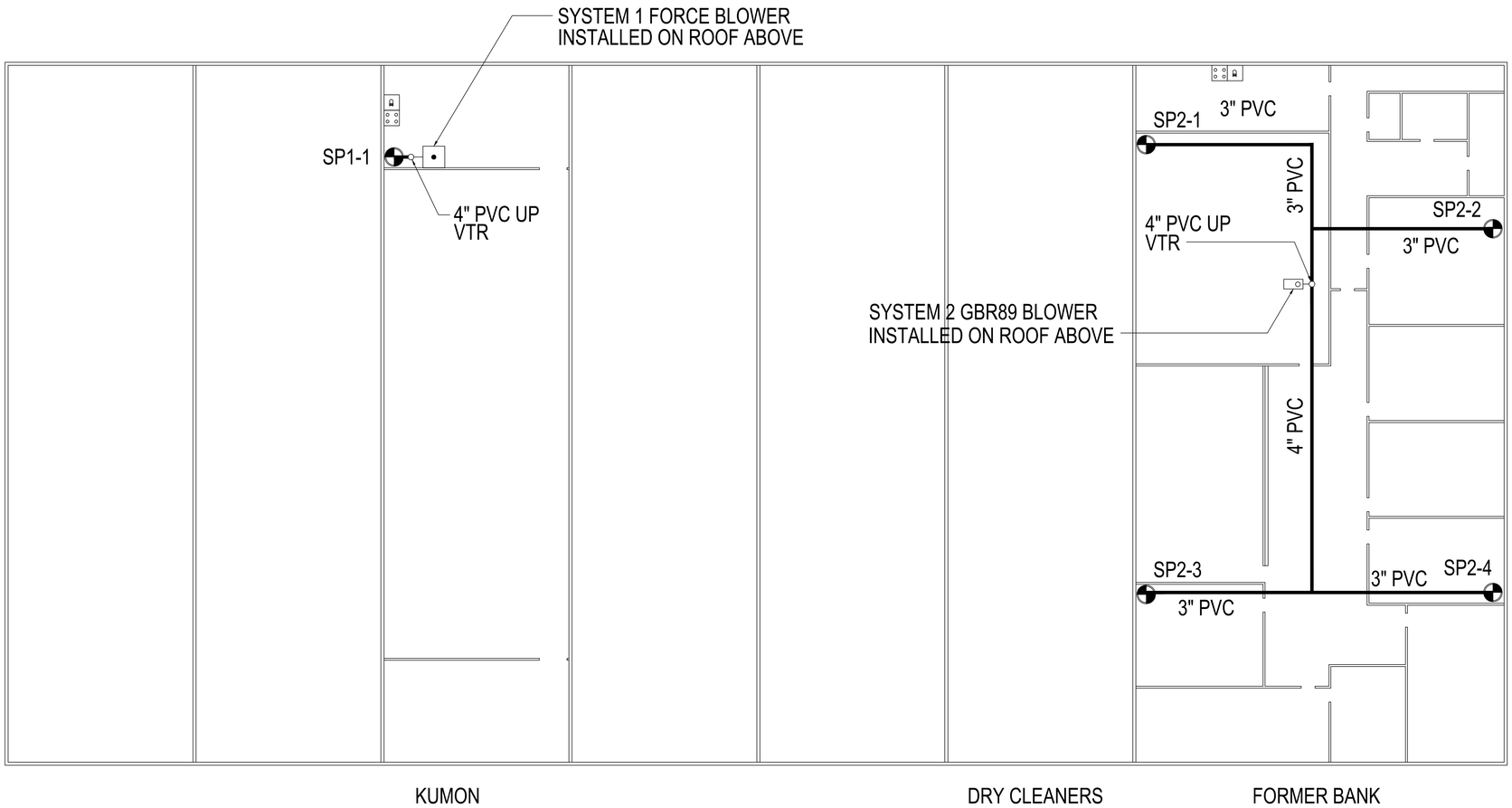
CLEAN VAPOR LLC
VOC & RADON PLUME DESIGN AND REMEDIATION

ACTIVE SOIL DEPRESSURIZATION
US1 CLEANERS
10 MAIN STREET
WOODRIDGE, NJ 07095

REVISION AS-BUILTS	DATE 2-2-16
	2/2/16
DRAWN BY	DAB
APPROVED	TEH
SCALE	3/32"=1'
CHECKED BY	TEH
SHEET TITLE	PERMANENT TEST HOLES
SHEET NO.	1A



FLOOR PLAN

0 6' 18'
3' 12' 24'
GRAPHIC SCALE

LEGEND

SP#-# SUCTION POINT
MAGNEHELIC PANEL
LIGHT ALARM
OBAR GBR89 BLOWER
AMG FORCE BLOWER

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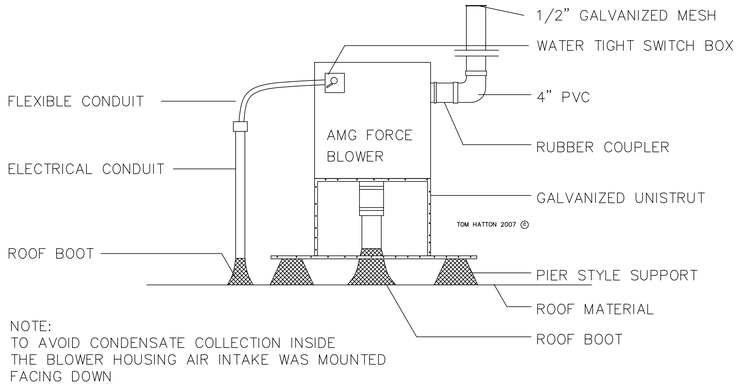
REVISION	DATE
AS-BUILTS	2-2-16
	12/30/15
DRAWN BY	DAB
APPROVED	TEH
SCALE	3/32"=1'
CHECKED BY	TEH

SHEET TITLE
SUCTION PT. & BLOWERS

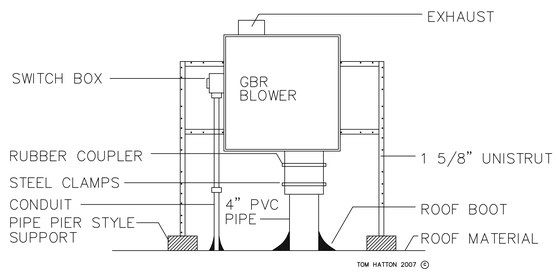
SHEET NO.
2

ROOF MOUNTED AMG FORCE BLOWER AND SUPPORT DETAIL

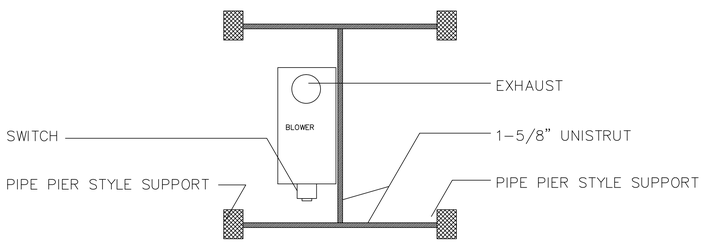


NOTE:
TO AVOID CONDENSATE COLLECTION INSIDE THE BLOWER HOUSING AIR INTAKE WAS MOUNTED FACING DOWN

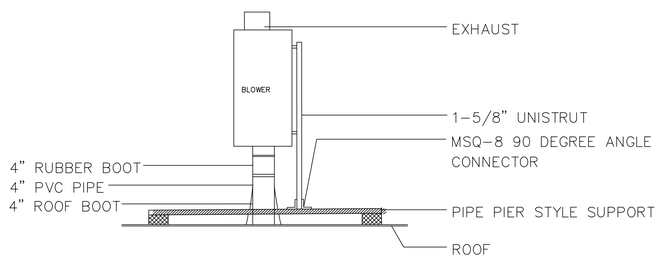
GBR SERIES BLOWERS



FRONT VIEW

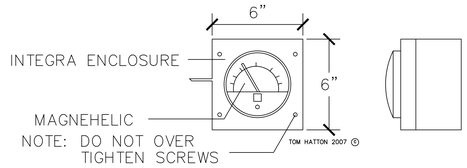


TOP VIEW
NTS

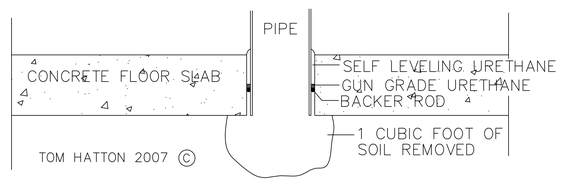


SIDE VIEW

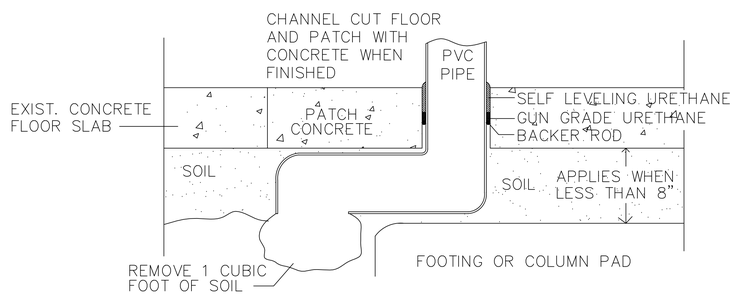
MAGNEHELIC AND PROTECTIVE BOX ENCLOSURE DETAIL



SUCTION POINT DETAIL



SUCTION POINT DETAIL AT FOOTER



EQUIPMENT SCHEDULE

Vapor Vent Piping
- PVC schedule 40 pipe and fittings (ASTM D-2665)
  - Hollow Core PVC is not permissible
- PVC cement clear primer will comply with ASTM F-656
- PVC cement adhesive will comply with ASTM D-2564

Piping Supports and Hardware
- 3", 4" Hanging Pipe Supports
- Swivel ring or standard bolt type clevis
- Adjustable band hanger
- Double Expansion Anchors
- 3/8" threaded rod
- 1/2" threaded rod
- Assorted bolts, nuts & washers
- 3" Pipe Secured to Concrete Floor or Wall
- Slotted Conduit Channel
- Conduit Clamps
- Assorted bolts, nuts & washers

Vapor Blower
- (1) AMG FORCE BLOWER
- (1) GBR89
- 4" to 4" rubber boots with stainless steel hose clamps

Blower Support Frame
- 1 5/8" C- Profile Galvanized Unistrut
- MSQ-4 Hole 90 degree Angle Connector
- MSQ-8 Hole 90 degree Angle Connector
- MSQ Pushbutton fastening bolt
- Pipe Pier style supports for roof contact

Air Flow Regulator Valves
- 3" Gate Valves

Sealing Materials
- Urethane sealant complies with Federal Specification TT-S-00230C, Subject to compliance with contract requirements; the following manufacturers of urethane caulking sealants may be used:
  - VULKEM 45 SSL
  - VULKEM 116

Hilti is manufacturer of all fastening products

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REVISION	DATE
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	12/30/15
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APPROVED	TEH
SCALE	NTS
CHECKED BY	TEH

SHEET TITLE
MECHANICAL DETAILS

SHEET NO.
3